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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Technical Memorandum 33-507

A Reduced Star Catalog Containing 537 Named Stars

Jack W. Rhoads

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JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA, CALIFORNIA

November 15, 1971

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PREFACE

The work described in this report was performed by the Guidance and Control Division of the Jet Propulsion Laboratory, under the cognizance of the Mariner Mars 1971 Project.

Inquiries or comments regarding the material presented in this report should be directed to Jack W. Rhoads.

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ABSTRACT

This document is the first in a series of publications presenting data, compiled by JPL, which is to be included in the JPL Astronautical Star Catalog. Positional and color magnitude data for the 537 named stars, which are to be included in the catalog, are given. A brief translation of the star names and their source language is also presented.

I. INTRODUCTION

The increasing use of celestial instruments aboard unmanned
spacecraft has created the need for a comprehensive collection of celestial data which is in concord with the special requirements of these instruments. These instruments may be concerned with spacecraft attitude control, such as star and planet sensors, or navigational oriented instruments, such as onboard TV cameras. Evaluation of measurements from scientific instruments, such as infra-red and ultra-violet spectrometers, also require knowledge of the stellar background.

In order to meet those specialized requirements of the scientist or engineer associated with or interested in celestial sensing devices, the Jet Propulsion Laboratory (JPL) is compiling celestial and allied data which is to form the JPL Astronautical Star Catalog (JASC). When completed, the JASC will contain in one source the most accurate positions (right ascension and declinations), proper motions, and color magnitudes (such as the Johnson-Morgan U, B, V magnitudes) available for stars down to the eighth magnitude, plus other useful information.

This document is the first in a series of publications presenting data, compiled by JPL, which is to be included in the JPL Astronautical Star Catalog (JASC). All of the named stars which will appear in the JASC comprises the 537 stars of this paper.

Sections II and III and Tables 1 and 2 form the explanation for Tables 3 through 6. The star data presented in Tables 3 and 7 have been stored on magnetic tape.

II. EXPLANATION OF THE REDUCED STAR CATALOG

The "Reduced Star Catalog Containing 537 Named Stars" consists of the data contained in Tables 3 and 7. The data presented in Table 3 has been listed alphabetically by star constellation.

Since it is often more convenient to locate desired stars by other criteria than star constellation, Table 3 has been re-ordered. These new lists are given in Tables 4 through 6. These new orderings, plus Table 3, are:

- (1) Data ordered by star constellation (Table 3).
- (2) Data ordered alphabetically by star name (Table 4).
- (3) Data ordered by increasing right ascension (Table 5).
- (4) Data ordered by decreasing visual magnitude (Table 6).

Tables 1 and 2 contain explanatory information needed in conjunction with the description of data contained in Table 3. Table 7 contains approximate translations of the 537 named stars.

III. DESCRIPTION OF THE REDUCED STAR CATALOG

Since the columns of Tables 3 through 6 are identical, it is only necessary to discuss the data in Tables 3 and 7, which constitutes the reduced star catalog presented by this paper. Each of the columns of Table 3 (identical to those of Tables 4 through 6) is presented and described below.

Column 1 - Number

The star number associated with the "Reduced Star Catalog Containing 537 Named Stars."

Column 2 - Star designation

The star designation consists of three parameters, for instance,

55 ZET-1 AQR

The first parameter, 55, is the Flamsteed number associated with this particular star.

The second parameter, ZET-1, is the Bayer designation of this particular star. The designation ZET-1 is a computer shorthand notation for the Greek letter and superscript ζ^1 . The star designation may also be letters of the alphabet which are Bayer or Lacaille designations for stars. Table 2 lists the computer shorthand notation used for the Greek alphabet and lower case letters.

The third parameter is the abbreviation of the star constellation Aquarius in which this particular star lies. The list of constellation abbreviations which will be used by the JPL Astronautical Star Catalog is given in Table 1. It should be noted that the conventional SERPENS (SER) does not appear in the list. Since the constellation Serpens consists of two disjoint areas (serpens cauda and serpens caput), it was decided to use the abbreviations SCA and SCP for the two disjoint areas, respectively, with SCA + SCP = SER. The star designations were determined from Refs. 1, 2, and 3.

Column 3 - Star proper name

The star names were based upon data gathered from Refs. 4, 5, and 1, with priority given in the order mentioned. That is, if a star name was not available in Ref. 4, then Ref. 5 was consulted, and etc. A great deal of license was taken with respect to star names taken from Ref. 5. Historically, many stars had common origins for their name, often deriving from the same word or phrase. This has resulted in having two or more stars sharing names which differ only slightly in spelling. Care has been taken to guarantee that each of the individually named stars have unique names.

Not all stars were individually named. Many shared a common name, usually the name being a figure formed by a group of stars. In this case, each of the stars were given the same name followed by a Roman numeral, the ordering being by increasing right ascension. Thus, if a star name is followed by a Roman numeral, then this star shares its name with at least one other star.

A third class of names appears in the list of stars. This class resembles the one above, except that letters enclosed in parentheses are used instead of Roman numerals. This class denotes a physical system (one which is gravitationally connected) of two or more stars, i. e., such as a binary system. The letters used are those designating the components of the multiple system (see Ref. 6).

Table 7 is presented as a quick source of the meaning of a star name, together with the source of the name and the language from which the name was derived. The following letters were used to denote language:

A ARABIC
C COPTIC
D HINDU
E EUPHRATEAN
G GREEK
H HEBREW
I ENGLISH
L LATIN
N NOT KNOWN
P PERSIAN
T TURKISH
Y EGYPTIAN

Column 4 – Right Ascension

The right ascension of the star, epoch 150.0.

Column 5 – Declination

The declination of the star, epoch 1950.0.

Column 6 – Position note (PN)

Four letters or a blank appear in this column, each denoting information concerning the right ascension and declination given. The JPL Astronautical Star Catalog will take as its fundamental source of star position and proper motion the Smithsonian Astrophysical Observatory Star Catalog (Ref. 7).

- BLANK Position is that given by Ref. 7, the Smithsonian Catalog. With the exception of one star (see B), this is true for all stars in the reduced catalog.
- B Position is that given by Ref. 3; no position is given by the Smithsonian Catalog.
- C Position given is that of the center of gravity of a multiple physical system of stars, as indicated by Ref. 3.
- L Position given is that of the center of integrated light of a multiple system of stars, as indicated by Ref. 3.
- N Position given is that of HD 37022C, as indicated by Refs. 2, 3, and 8.

Column 7 – Visual magnitude

Unless indicated otherwise (Column 8), this is the Johnson-Morgan V magnitude.

Column 8 – Visual magnitude note (VN)

Three characters and a blank denote information concerning the visual magnitude presented:

- BLANK Visual magnitude is from Ref. 9.
- C Visual magnitude is from Ref. 9 and is the combination of two or more stars whose magnitude appeared individually in Ref. 9.

S Visual magnitude is from Ref. 9 and was derived by separating a single visual magnitude into two or more components.

* Visual magnitude is from Ref. 2.

Column 9 – Spectral class

Spectral classification in the Morgan-Keenan system, unless indicated otherwise by Column 10.

Column 10 – Spectral classification note (SN)

Information concerning source of the spectral classification:

BLANK Reference 9.

* Reference 2.

Column 11 – Henry Draper (HD) catalog number

Henry Draper catalog number and the component (A, B, C, etc.) of multiple-star systems contributing to the visual magnitudes. The Henry Draper numbers are from Ref. 8 and the double-star information is from Ref. 6. Note that when Column 6 indicates an L or C, then the components indicated are those associated with the position also.

Column 12 – SAO catalog number

Smithsonian Astrophysical Observatory (SAO) Catalog number. See Ref. 7.

Column 13 – Star properties

Special star properties:

D Double- or multiple-star system

V Variable star

Special star properties were indicated by Refs. 1, 2, 3, 6, 7, and 8.

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Table 1. Constellations

1. AND	—	ANDROMEDA	46. LEO	—	LEO
2. ANT	—	ANTLIA	47. LMI	—	LEO MINOR
3. APS	—	APUS	48. LEP	—	LEPUS
4. AQR	—	AQUARIUS	49. LIB	—	LIBRA
5. AQL	—	AQUILA	50. LUP	—	LUPUS
6. ARA	—	ARA	51. LYN	—	LYNX
7. ARI	—	ARIES	52. Lyr	—	LYRA
8. AUR	—	AURIGA	53. MEN	—	MENSA
9. BOO	—	BOOTES	54. MIC	—	MICROSCOPIUM
10. CAE	—	CAELUM	55. MON	—	MONOCEROS
11. CAM	—	CAMELOPARDALIS	56. MUS	—	MUSCA
12. CNC	—	CANCER	57. NOR	—	NORMA
13. CVN	—	CANES VENATICI	58. OCT	—	OCTANS
14. CMA	—	CANIS MAJOR	59. OPH	—	OPHIUCHUS
15. CMI	—	CANIS MINOR	60. ORI	—	ORION
16. CAP	—	CAPRICORNUS	61. PAV	—	PAVO
17. CAR	—	CARINA	62. PEG	—	PEGASUS
18. CAS	—	CASSIOPEIA	63. PER	—	PERSEUS
19. CEN	—	CENTAURUS	64. PHE	—	PHOENIX
20. CEP	—	CEPHEUS	65. PIC	—	PICTOR
21. CET	—	CETUS	66. PSC	—	PISCES
22. CHA	—	CHAMAELEON	67. PSA	—	PISCIS AUSTRINUS
23. CIR	—	CIRCINUS	68. PUP	—	PUPPIS
24. COL	—	COLUMBA	69. PYX	—	PYXIS
25. COM	—	COMA BERENICES	70. RET	—	RETICULUM
26. CRA	—	CORONA AUSTRALIS	71. SGE	—	SAGITTA
27. CRB	—	CORONA BOREALIS	72. SGR	—	SAGITTARIUS
28. CRV	—	CORVUS	73. SCO	—	SCORPIUS
29. CRT	—	CRATER	74. SCL	—	SCULPTOR
30. CRU	—	CRUX	75. SCT	—	SCUTUM
31. CYG	—	CYGNUS	76. SCP	—	SERPENS CAPUT
32. DEL	—	DELPHINUS	77. SCA	—	SERPENS CAUDA
33. DOR	—	DORADO	78. SEX	—	SEXTANS
34. DRA	—	DRACO	79. TAU	—	TAURUS
35. EQU	—	EQUULEUS	80. TEL	—	TELESCOPIUM
36. ERI	—	ERIDANUS	81. TRI	—	TRIANGULUM
37. FOR	—	FORNAX	82. TRA	—	TRIANGULUM AUSTRALE
38. GEM	—	GEMINI	83. TUC	—	TUCANA
39. GRU	—	GRUS	84. UMA	—	URSA MAJOR
40. HER	—	HERCULES	85. UMI	—	URSA MINOR
41. HOR	—	HOROLOGIUM	86. VEL	—	VELA
42. HYA	—	HYDRA	87. VIR	—	VIRGO
43. HYI	—	HYDRUS	88. VOL	—	VOLANS
44. IND	—	INDUS	89. VUL	—	VULPECULA
45. LAC	—	LACERTA			

Table 2. Computer abbreviations of Greek alphabet and lower case letters^a

Greek		Lower case	
Abbreviation	Symbol	Abbreviation	Letter
ALP	α	-A	a
BET	β	-B	b
GAM	γ	-C	c
DEL	δ	-D	d
EPS	ϵ	-E	e
ZET	ζ	-F	f
ETA	η	-G	g
THE	θ	-H	h
IOT	ι	-I	i
KAP	κ	-J	j
LAM	λ	-K	k
MU	μ	-L	l
NU	ν	-M	m
XI	ξ	-N	n
OMI	\omicron	-O	o
PI	π	-P	p
RHO	ρ	-Q	q
SIG	σ	-R	r
TAU	τ	-S	s
UPS	υ	-T	t
PHI	ϕ	-U	u
CHI	χ	-V	v
PSI	ψ	-W	w
OME	ω	-X	x
		-Y	y
		-Z	z

^aSuperscripts are denoted as follows: ALP-1 implies α^1
-H-2 implies h^2

TABLE 3
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P MAG.	V MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	'SAO* CAT. NO.	STAR PROP.
1	51	AND	01 34 54.636	+8 22 32.666		+3.57C	K3 III		9927	37375	
2	49	A AND	01 27 05.505	+46 45 08.117		+5.260	KC III		9057	37275	
3	21	ALP AND	00 05 47.841	+28 48 52.112		+2.074	B8 III P		358	37365	D
4	43	BET AND	01 06 55.456	+35 21 21.744		+2.060	M0 III		6860	54471	D
5	57	GAM-1 AND	02 00 49.177	+42 05 27.011		+2.179	K3 III		125334	37734	D
6	46	XI AND	01 19 23.103	+45 16 02.977		+4.867	K0 III-IV		9207	37155	
7	34	ALP AGR	22 03 12.845	-00 33 48.599		+2.933	G2 I8		209750	145862	D
8	22	BET AGR	21 28 55.609	-05 47 31.668		+2.379	G0 I8		204967	145457	D
9	48	GAM AGR	22 19 04.420	-01 38 27.777		+3.845	A0 V		212061	146044	D
10	76	DEL AGR	22 51 59.901	-16 05 13.921		+3.266	A3 V		216627	165375	
11	2	EPS AGR	20 44 58.217	-09 40 48.211		+3.770	A1 V		199001	144810	D
12	55	ZET-1 AGR	22 26 15.261	-00 16 35.277		+4.493	F2 IV		213051A	146107	D
13	55	ZET-2 AGR	22 26 15.513	-00 16 36.008		+4.323	F2 IV		213052B	146108	D
14	43	THE AGR	22 14 11.766	-08 01 58.755		+5.025	K2 III		211391	145991	
15	63	KAP AGR	22 35 10.023	-04 29 11.339		+4.155	K8 III-IV		214376	146210	
16	6	MU AGR	20 49 57.474	-09 10 19.766		+4.723	A8 M		198743	144895	
17	13	NU AGR	21 06 52.307	-11 34 31.133		+4.507	G8 III		201391	164182	
18	31	OMI AGR	22 00 43.657	-02 23 51.133		+4.745	B8 V E		209409	145837	
19	52	PI AGR	22 22 43.381	+01 07 22.877		+4.660	B1 V PE		212571	127520	
20	53	ALP AGL	19 48 20.599	+08 44 05.711		+0.753	A7 IV-V		187642	125122	D
21	60	BET AGL	19 52 51.333	+06 16 45.884		+3.714	G8 IV		188512	125235	D
22	50	GAM AGL	19 43 52.907	+10 29 24.388		+2.717	K3 II		186791	105223	D
23	30	DEL AGL	19 22 58.597	+03 00 46.988		+3.356	F0 IV		182640	124603	
24	13	EPS AGL	18 57 21.118	+14 59 56.411		+4.020	K2 III		177724	104318	D
25	17	ZET AGL	19 03 06.647	+13 47 15.866		+2.989	B9 V		177724	104318	D
26	55	ETA AGL	19 49 55.525	+00 52 33.223		+3.500	F6 I8		187329	125159	V
27	65	THE AGL	20 08 43.493	-00 58 16.066		+3.245	B9.5 III	*	194930	144150	D
28	41	IOT AGL	19 34 08.066	-01 23 55.888		+4.360	B5 III		177756	143557	D
29	16	LAM AGL	19 03 35.698	-04 57 32.774		+3.433	B8 V		16628A	143021	D
30	33	ARI ARI	02 37 45.345	+26 50 50.755		+5.293	A3 V		16908	75510	D
31	35	ARI ARI	02 40 30.651	+27 29 44.229		+4.650	B3 V		17361	75532	
32	39	ARI ARI	02 44 55.469	+29 02 26.666		+4.513	K1 III		17573	75578	D
33	41	-C-1 ARI	02 47 02.036	+27 03 20.555		+3.610	B8 V		12929	75596	D
34	13	ALP ARI	02 04 20.917	+23 13 37.077		+2.009	K2 III		11636	75151	D
35	6	BET ARI	01 51 52.340	+20 33 52.009		+2.626	A5 V		115028	75012	D
36	5	GAM-1 ARI	01 50 46.955	+19 03 06.111		+4.673	A1 P		92680	92680	D
37	5	GAM-2 ARI	01 50 46.972	+19 02 57.877		+4.534	B9 V		11503A	92681	D
38	57	DEL ARI	03 08 45.995	+19 32 20.222		+4.350	K2 III		19787	93328	D
39	48	EPS ARI	02 56 20.825	+21 09 29.911		+4.638	A2 V		18519/0AB	75673	D
40	58	ZET ARI	03 12 01.326	+20 51 37.933		+4.897	AC IV-V		20150	75810	D
41	34	MU ARI	02 39 32.488	+19 47 58.668		+5.660	AC IV-V		16811	93062	D
42	42	PI ARI	02 46 29.805	+17 15 27.066		+5.340	B6 IV		17543A	93127	D
43	46	RHO ARI	02 53 36.479	+17 45 38.002		+5.500	DF5		18256	93195	D
44	13	ALP AUR	05 12 59.466	+45 56 58.004		+0.062	B8 III+P	*	34029AP	40186	D
45	34	BET AUR	05 55 51.579	+44 56 40.659		+1.900	A2 V		40183AP	40750	D
46	7	EPS AUR	04 59 22.530	+42 05 05.336		+2.379	F0 IA		31964	39955	D
47	46	THE AUR	04 58 58.680	+41 00 17.799		+3.800	K5 II+8	*	32068/5	39966	D
48	10	ETA AUR	05 03 00.214	+41 10 08.339		+3.171	B3 V		32630	40026	D
49	37	THE AUR	05 56 19.627	+37 12 40.005		+2.660	B9.5 V P		40312AB	58636	D
50	3	IOT AUR	04 53 43.982	+33 05 19.994		+2.692	K3 II		31398	57522	D

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
51	15 LAM	AUR	05 15 37.211	+40 03 24.51		+4.71C		G0 V		39411A	40233	C
52	11 MU	AUR	05 10 00.157	+38 25 38.27		+4.960		A M		33641	57755	D
53	21 SIG	AUR	05 21 15.050	+37 20 26.65		+4.597		K4 III		35186	57981	D
54	40 PSI-1	AUR	06 21 02.880	+49 19 56.91		+4.950	*	M0 IAB	*	44537	41076	
55	50 PSI-2	AUR	06 35 45.763	+42 32 06.13		+4.786		K3 III		47174	41239	
56	52 PSI-3	AUR	06 35 20.236	+39 56 51.00		+5.200		B8 III		47100	59319	D
57	55 PSI-4	AUR	06 39 26.746	+44 34 25.11		+5.027		K5 III		47914	41288	
58	56 PSI-5	AUR	06 43 08.206	+43 37 45.74		+5.240		G0 V		48692A	41330	
59	57 PSI-6	AUR	06 43 51.936	+48 50 42.75		+5.21C		K1 III		48781	41346	
60	58 PSI-7	AUR	06 47 13.920	+41 50 32.27		+5.005		K3 III		49520	41380	
61	61 PSI-8	AUR	06 50 31.472	+38 34 05.87		+6.24C	*	B9 P		50204	43589	
62	62 PSI-9	AUR	06 52 50.489	+46 20 23.28		+5.750	*	B8 IV		50658	44446	
63	38 -H	B00	14 47 31.671	+46 15 25.56		+5.71C	*	DF4	*	13094E	45226	
64	16 ALP	B00	14 13 22.750	+19 26 30.95		-0.050		K2 III P		124997	100944	
65	42 BET	B00	15 00 03.664	+40 35 17.80		+3.489		G8 III		133208	45337	
66	27 GAM	B00	14 30 03.837	+38 31 34.12		+3.036		A7 III		127762	64203	D
67	49 DEL	B00	15 13 29.117	+37 30 01.20		+3.478		G8 III		135722A	64589	C
68	36 EPS	B00	14 42 48.137	+27 17 02.66		+2.373		A2 V+K0II		129988/9A3	83500	O
69	8 ETA	B00	13 52 18.168	+18 38 51.35		+2.676		S0 IV		121370	100766	
70	23 THE	B00	14 24 29.610	+52 04 52.32		+4.046		F7 V		126660	29137	
71	21 IOT	B00	14 11 41.549	+46 01 23.55		+4.75C		A7 V		125161A	29071	C
72	17 KAP-1	B00	14 14 28.963	+52 19 01.34		+6.893		F2 V		124674B	29045	D
73	19 LAM	B00	14 11 41.549	+46 01 23.55		+4.53C		A7 IV		124675A	29046	D
74	51 MU -1	B00	15 22 35.935	+37 33 01.49		+4.179		AD P		125162	44955	D
75	54 PHI	B00	15 36 01.742	+40 30 55.00		+4.366		F0 V		137391A	64686	D
76	43 PSI	B00	15 02 18.024	+27 08 22.75		+4.521		G8 III-IV		139641	45643	D
77	65 ALP	CNC	08 55 45.247	+12 03 09.07		+4.228		K2 III		133582	83645	C
78	17 BET	CNC	08 13 48.282	+02 20 27.73		+3.523		K4 III		76756	96267	D
79	43 GAM	CNC	08 40 23.702	+21 38 59.92		+4.670		A1 V		65267	118569	D
80	47 DEL	CNC	08 41 50.747	+18 20 21.83		+3.935		K0 III		74198	80378	D
81	41 EPS	CNC	08 37 35.068	+19 43 23.07		+6.300		A6 III		74442	98087	D
82	16 ZET-1	CNC	08 09 21.213	+17 47 59.39		+5.05C		F8 V		73731	98024	D
83	48 IOT-1	CNC	08 09 20.753	+17 47 59.39	L	+6.200		DF2 V		68256/7A8	97645	D
84	48 IOT-2	CNC	08 43 38.695	+28 56 57.95		+6.57C		A3 V		68255C	97646	D
85	48 IOT-1	CNC	08 43 38.695	+28 56 57.95		+6.57C		A3 V		74738B	80415	D
86	19 LAM	CNC	09 43 40.514	+28 56 39.19		+4.030		G9 II		74739A	80416	D
87	77 XI	CNC	08 17 33.952	+24 10 52.39		+5.91C	*	B9 V		70011	80113	D
88	12 ALP-1	CVN	09 06 29.235	+22 14 55.95		+5.140		K0 III		79515	80666	D
89	12 ALP-2	CVN	13 03 40.203	+45 32 07.73		+5.610	*	K1 III	*	113847	44465	D
90	8 BET	CVN	12 53 41.478	+38 35 03.82		+5.610		FO V		1124128	63256	D
91	9 ALP	CVA	12 53 41.478	+38 35 16.82		+2.892		AD P		112413A	63257	D
92	2 BET	CVA	12 31 22.283	+41 37 44.10		+4.266		G0 V		109358	44230	D
93	8 ALP	CVA	06 42 56.713	-16 38 46.37	C	-1.457		A1 V+D A		48915A8	151881	C
94	2 BET	CVA	06 20 29.799	-17 55 47.23		+1.390		B1 II-III		44743	151428	D
95	23 GAM	CVA	07 01 29.713	-15 33 26.79		+4.105		B6 II		53244	152303	D
96	25 DEL	CVA	07 06 21.436	-26 19 45.36		+1.838		F8 IA		54605	173047	D
97	26 EPS	CVA	06 56 39.587	-28 54 16.24		+1.50C		B2 II		52089A8	172676	D
98	1 ZET	CVA	06 18 23.546	-30 02 23.86		+3.024		B2.5 V		44402	196698	D
99	31 ETA	CVA	07 22 06.992	-29 12 16.04		+2.44C		B5 IA		58350	173651	D
100	18 MU	CVA	06 53 49.103	-13 59 38.75		+4.990		G5 +A2		51250/1A8	152123	D

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
101	16 OMI-1 CMA	UDRA	06 52 03.362	-24 07 12.87		+3.86C	K3		50877	172542	
102	24 OMI-2 CMA	AL ZARA	07 00 56.142	-23 45 32.46		+1.03D	B3		53138	172839	D
103	10 ALP	PROCYON	07 36 41.117	+05 21 16.81	C	+1.357	F5		61421AB	115756	
104	3 BET	GOMEISA	07 24 26.357	+08 23 29.89		+2.394	B8		58715	115456	D
105	5 ALP-1 CAP	PRIMA GIEDI	20 14 52.647	-12 39 51.04		+4.24C	G3		192976A	163422	D
106	6 ALP-2 CAP	SECUNDA GIEDI	20 15 16.379	-12 42 04.49		+3.564	G9		192947AB	163427	D
107	BET-1 CAP	DABI-1 MINOR	20 17 58.071	-14 56 38.31		+6.10C	B9		193452AB	163471	D
108	9 BET-2 CAP	DABI-4 MAJOR	20 18 12.200	-14 56 26.57		+3.073	F8		193455/6	163481	D
109	40 GAM	NASHIRA	21 37 19.372	-16 53 21.05		+3.665	A8		206058	16456C	D
110	49 DEL	AL SHAT	21 44 16.992	-16 21 18.42		+2.83D	A		207098A	164644	D
111	8 NU	AL SHAT	20 17 53.485	-12 55 04.45		+4.753	B9		193432A	163468	D
112	ALP	CANOPUS	06 22 50.493	-52 40 03.45		-0.72D	FO		45348	234480	
113	BET	MIAPLACIDUS	09 12 39.662	-69 30 35.63		+1.678	AD		80007	234495	
114	EPS	AVIOR	08 21 29.383	-59 20 52.98		+1.88D	KD		71129/O	235932	
115	10T	ASPIDISKE	09 15 45.109	-53 03 53.70		+2.248	FO		80404	236808	
116	18 ALP	SC-EDAR	00 37 33.313	+56 15 48.60		+2.223	KD		3712AB		DV
117	11 BET	CAP-1	00 06 29.735	+58 15 26.77		+2.275	F2		472AB	21109	D
118	27 GAM	NAVI	00 53 40.324	+60 26 47.38		+2.57D	B0		5394AB	11482	D
119	37 DEL	RUC-BAH	01 22 31.498	+59 58 34.36		+2.677	A5		8538	22268	
120	45 EPS	SEGIN	01 50 46.378	+63 25 29.89		+3.37D	B3		11415	12031	
121	33 THE	MARFAK	01 08 02.554	+54 53 04.32		+4.332	A7		6961	22070	
122	30 MU	AL MARFAK	01 04 55.686	+54 40 32.96		+5.163	G5		6582		
123	ALP	RIGIL KENTAURUS	14 36 11.253	-60 37 46.84	C	+1.059	G2		128620/1AB	252838	D
124	BET	HADAR	14 00 16.510	-60 07 58.09		+0.61D	B1		122451	252582	
125	GAM	MU-LIFAIN	13 38 44.898	-48 41 07.32		+2.157	AD		110304AB	223603	D
126	ZET	BATEN KENTAURUS	13 52 24.510	-47 02 34.97		+2.54D	B2		121263	224538	
127	5 THE	MENKENT	14 03 43.877	-36 07 25.64		+2.075	KD		123139	215188	
128	5 ALP	ALDERAMIN	21 17 23.181	+62 22 23.74		+2.439	A7		203280A	19302	D
129	8 BET	ALFIRK	21 28 01.326	+70 20 27.85		+3.18C	B2		205021AB	10057	DV
130	35 GAM	ERRAI	23 37 16.533	+77 21 11.73		+3.22D	K1		222404	10818	D
131	3 ETA	KABALFIRD	20 44 16.498	+61 38 38.86		+3.422	KD		198149A	19019	D
132	2 THE	AL KIDR	20 28 44.678	+62 49 32.32		+4.207	A		195725	18897	D
133	1 KAP	AL AGHNAH I	20 10 36.574	+77 33 42.36		+4.37C	B9		1929C7AB	9665	D
134	MU	ERAKIS	21 41 58.501	+58 33 00.65		+1.99D	M2		205936AB	33693	DV
135	17 XI -1	KUR-DAH (B)	22 02 19.143	+64 23 03.30		+6.354	A		209750B	19826	D
136	17 XI -2	KUR-DAH (A)	22 02 20.440	+64 23 01.68		+4.454	A		209751A	19827	D
137	33 PI	AL AGHNAH II	23 06 18.007	+75 07 01.56		+4.4C7	A		218658AB	10629	D
138	29 RHO	KALBALRAI	22 29 27.436	+78 34 03.36		+5.52D	G2		213798	110920	D
139	9 ALP	MENKAR	02 59 39.744	+03 53 41.15		+2.517	M2		18884	147420	D
140	16 BET	DEMEB KAITOS	00 41 04.811	-18 15 38.78		+2.028	K1		4128	16970AB	D
141	86 GAM	KAFALGLEMA	02 40 42.397	+03 01 34.05		+3.458	A2		16582	110665	D
142	82 DEL	AL KAFF AL JID-MAH III	02 36 54.995	+00 06 50.00		+4.064	B2		16620AB	148528	D
143	83 EPS	SADR AL KAITOS III	02 37 08.592	-12 05 00.36		+4.831	F5		6805	147632	D
144	55 ZET	BATEN KAITOS	01 48 59.447	-10 24 52.90		+3.723	K2		8512A	129274	D
145	31 ETA	DEMEB ALGENUBI	01 06 03.420	-10 26 46.57		+3.437	K3		18604	110989	D
146	45 THE	AL NAYMAT I	01 21 31.363	-08 26 27.16		+1.603	KD		17054	110723	D
147	8 IOT	SC-HEMALI	02 57 01.871	+08 06 03.44		+3.54C	B2		18604	110989	D
148	91 LAM	MENKAB	02 57 01.871	+08 06 03.44		+4.697	K5		17054	110723	D
149	87 MU	AL KAFF AL JID-MAH IV	02 42 14.102	+69 54 15.02		+4.26C	FO		13611	110408	D
150	65 XI -1	AL KAFF AL JID-MAH I	02 10 20.747	+08 36 47.36		+4.36D	G8				

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NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V M	SPECTRAL CLASS	S M	HENRY DRAPER (70) CAT. NO.	SAO* CAT. NO.	STAR PROP.
151	73 XI -2 CET	AL KAFF AL JID-MAH II	02 25 29.791	+68 14 13.15		+4.271		B9 III	*	15318	110543	
152	68 OMI CET	MIRA	02 16 49.045	-03 12 13.39		+2.000		G6 E	*	14386AP	129825	OV
153	89 PI CET	SADR AL KAITOS IV	02 41 44.470	-14 04 10.11		+4.275		B7 V		17081	148575	
154	72 RHO CET	SADR AL KAITOS I	02 23 31.955	-12 30 54.30		+4.860		B9 V		15130	148385	
155	76 SIG CET	SADR AL KAITOS II	02 29 42.948	-15 27 41.46		+4.748		F5 IV-V		15798	148445	
156	52 TAU CET	AL NAYMAT II	01 41 44.660	-16 12 00.50		+3.496		G8 V P		10700	147986	
157	59 UPS CET	AL NAYMAT III	01 57 38.911	-21 19 05.71		+3.95C		M1 III		12274	167471	
158	17 PHI-1 CET	ALNITHAM I	00 41 40.021	-10 52 53.49		+4.750		K0 III		4188	147423	
159	19 PHI-2 CET	ALNITHAM II	00 53 31.022	-11 32 13.09		+5.300		K4 III		5437	147519	
160	22 PHI-3 CET	ALNITHAM III	00 56 13.593	-11 38 56.40		+5.75C		G57	*	5722	147546	
161	23 PHI-4 CET	ALNITHAM IV	05 37 50.211	-34 05 58.73		+2.630		B8 V E	*	37795	196059	
162	ALP COL	WAZN	05 49 11.727	-35 47 09.73		+3.11C		K2 III		39425	196240	
163	BET COL	KURUD I	06 05 49.671	-37 14 41.29		+5.010		B9		42167	196514	
164	THE KAP COL	KURUD II	06 14 46.278	-35 07 22.03		+4.35C		G8 III		43785	196543	
165	21 UU COM	KISSIN	12 28 30.830	+24 50 35.98	L	+5.455		A3 P		108945	82346	
166	42 ALP COM	DIADEN	13 07 33.321	+17 47 36.25		+4.318		F5 V		114378/SAB	1C0443	D
167	15 GAM COM	AL DAFIRAH	12 24 26.870	+28 32 46.07		+4.353		K1 III-IV		108381	82313	
168	ALP R	ALFESCA MERIDIANA	19 06 04.345	-37 59 03.49		+4.70C		A2 N		178253	210990	V
169	CRB	VARIABLI8 CORONAE	15 46 30.695	+28 18 32.24		+5.800		F		141527	84015	N
170	CRB	BLAZE STAR	15 57 29.505	+26 03 35.04		+2.00C		PEC	*	143454	84129	
171	5 ALP	ALP-TECCA	15 32 34.145	+26 52 54.75		+2.230		AD V	*	139006	83893	
172	3 BET	MUSAKAN	15 25 45.944	+29 16 37.26		+3.668		F0 III		137909	83631	
173	1 ALP	ALC-HIBA	12 05 49.746	-24 27 00.13		+4.030		F2 V		105452	180505	
174	9 BET	KRAZ	12 31 45.342	-23 07 13.60		+2.666		G5 III		109379	180915	
175	4 GAM	GIENAH	12 13 13.843	-17 15 51.94		+2.589		B8 III		106625	157176	
176	7 DEL	ALGORAB	12 27 16.380	-16 14 14.14		+2.549		B9 V		108761A	157323	D
177	2 EPS	HINKAR	12 07 32.919	-22 20 30.12		+2.993		K3 III		105707	180531	
178	7 ALP	AL KES	10 57 20.138	-18 01 55.62		+4.066		K0 III		95272	156375	
179	11 BET	AL SHARASIF II	11 09 11.730	-22 33 08.99		+4.467		A2 III-IV		97277	179624	
180	ALP-1 CRU	ACRUX (A)	12 23 48.664	-62 49 15.43		+1.312	S	B1 IV		108248A	251904	D
181	ALP-2 CRU	ACRUX (B)	12 23 48.695	-62 49 22.28	B	+1.923	S	B3 N	*	108249B		D
182	BET	MIMOSA	12 44 47.037	-59 24 56.53		+1.265		B0.5 IV		111123	240259	D
183	GAM P	REVENATE OF THE SWAN	20 15 56.500	+37 52 35.55		+1.660		M3 II		109903A	240019	D
184	50 ALP	DENEB	20 39 43.539	+45 06 03.12		+4.83C	*	B P	*	192337	69773	N
185	6 BET-1 CYG	ALBIREO (A)	19 28 44.302	+27 51 12.44		+3.08C		A2 IA		137345A	49941	D
186	6 BET-2 CYG	ALBIREO (B)	19 28 44.302	+27 51 32.69		+5.110		K5 II+8		183912/3A	87301	D
187	37 GAM	SADR	20 20 25.927	+40 05 44.58		+2.214		B8 V		183914B	87302	D
188	18 DEL	FAMARIS II	19 43 24.671	+45 00 28.23	C	+2.370		F8 IB		184093A	49528	D
189	53 EPS	AL JANAH	20 44 11.168	+33 46 55.15		+2.457		B9.5 III		186882AB	48796	D
190	64 ZET	FAMARIS III	21 10 49.357	+30 01 15.51		+3.192		K0 III		137949A	70474	D
191	1 KAP	FAMARIS I	19 15 56.786	+53 16 31.88		+3.713		K0 III		202109	71070	D
192	80 PI -1	AZELFAJE	21 40 19.952	+50 57 39.10		+4.665		B3 IV		181276	31537	D
193	45 OME-1	RUCBA	20 28 30.540	+48 46 57.97		+4.95C		B2 V		206672	33662	D
194	9 ALP	SVALOCIN	20 37 19.874	+15 44 04.30		+3.766		B9 V		196867A	106357	D
195	6 BET	ROTANEV	20 35 12.206	+14 25 12.31		+3.563		F5 IV		196524AB	1C6316	D
196	12 GAM-1	AL SALIB (B)	20 44 19.473	+15 56 34.71		+5.140		F7 V		197363B	106475	D
197	12 GAM-2	AL SALIB (A)	20 44 20.236	+15 56 34.82		+4.27C		K2 IV		197964A	1C6476	D
198	11 DEL	AL UKUD	20 41 07.413	+14 53 38.69		+4.420		A7 III P		197461	106425	D

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201	2 EPS	DENEB DULFIM	20 30 49.400	+11 07 55.83		+4.015	B6 III	*	195810	16223C	
202	ORA	ALRU8AH	17 42 56.440	+53 49 19.34		+5.730	A0		161593	30538	
203	27 -F	AD FAR ALDIB I	17 32 09.543	+68 10 01.20		+5.060	K0 III		159366	17526	
204	11 ALP	T-AUBAN	14 03 01.363	+64 36 51.57		+3.652	A0 III		123299	16273	
205	23 BET	RASTABAN	17 29 18.003	+52 20 15.65		+2.755	G2 II		155181A6	30429	C
206	33 GAM	ELTANIN	17 55 26.576	+51 29 38.53		+2.231	K5 III		164058A8	30153	D
207	57 DEL	ALTAIS	19 12 32.824	+67 34 25.03		+3.067	G9 III		180711	16222	
208	63 EPS	TYL	19 48 21.063	+70 09 26.55		+3.333	S8 III		188119A3	3540	D
209	22 ZET	D-HIS4	17 08 38.146	+85 46 33.95		+2.177	B6 III		155763	17365	
210	14 ETA	DHIBAIN	16 23 18.476	+61 37 37.10		+2.730	G9 III		148387A3	17074	D
211	12 IOT	EDASICH	15 23 49.741	+59 08 26.16		+3.256	K2 III		137759	2952C	
212	1 LAM	JIAUSAR	11 28 27.546	+63 36 26.09		+3.827	MC III		100029	15532	
213	1 LAM	ALRAKIS	17 04 17.357	+54 32 07.55	L	+4.32C	F5		154905/EAB	30239	D
214	24 NU -1	ALWAID (B)	17 31 11.293	+55 13 04.07		+4.990	A	M	159541A	30447	D
215	25 NU -2	ALWAID (A)	17 31 16.719	+55 12 22.82		+4.877	A	M	155562A	30450	D
216	32 XI	SRUMIUM	17 52 39.700	+56 52 47.69		+3.737	K2 III		163588	30631	
217	58 PI	TAIS I	19 20 24.856	+65 12 05.16		+4.582	A2 IV		182564	18299	
218	67 RHO	TAIS II	20 02 35.927	+67 43 51.21		+4.513	K3 III		190340	18676	
219	61 SIG	ALSAFI	19 32 27.595	+69 34 34.11		+4.656	K0 V		185144	18396	
220	60 TAU	AT-HAFI II	19 16 31.472	+73 15 47.87		+4.455	K3 III		181984	9366	
221	52 UPS	AT-HAFI I	18 55 00.917	+71 13 50.82		+4.81C	K0 III		176524	9283	
222	43 PHI	ALD-418A	18 21 28.505	+71 19 42.23	L	+4.210	A0 P		170000A8	9084	D
223	44 CHI	ALA-HAKAN	18 21 28.505	+72 42 42.15		+3.562	F7 V		170153	9087	D
224	31 PSI -1	DZIBAN I	17 42 49.282	+72 10 26.21		+4.594	F5 V		162003A	8990	D
225	31 PSI -2	DZIBAN II	17 42 50.929	+72 10 55.38		+4.300	F5 V		162004B	8891	D
226	28 OLP	AD FAR ALDIB II	17 37 14.348	+63 46 52.49		+4.300	F5 V		160922	17576	D
227	8 ALP	KI-ALPHA	21 13 19.440	+05 02 24.35		+2.814	G0 III+45		202447/E	126662	
228	53 -L	SCPTRUH	04 35 53.315	-14 24 01.60		+3.958	K2 III		29503A8	149181	D
229	ALP	AC-ERNAR	01 35 51.307	-57 23 24.53		+C.42C	B5 V		10144	232481	
230	67 BET	CURSA	05 05 23.365	-05 08 58.54		+2.775	A3 III		3311	131794	D
231	34 GAM	ZAUARAK	03 55 41.672	-33 38 58.17		+2.353	MO III		25025A	149283	D
232	23 DEL	RAMA	03 40 51.035	-09 55 53.05		+3.530	K0 IV		23249	130586	
233	13 ZET	ZIBAL	03 13 24.143	-03 00 15.50		+4.739	A7 M		20320	130387	
234	3 ETA	AZ-PA	02 53 59.952	-09 05 45.89		+3.387	K1 III-IV		19322	130197	D
235	THE -1	ACAMAR (A)	02 56 21.882	-00 30 15.15		+3.264	A3 V		16622A	216113	D
236	THE -2	ACAMAR (B)	02 56 22.578	-00 30 14.34	S	+4.263	A2		18623B	216114	D
237	69 LAM	KURSI AL JAUZAH II	05 06 45.052	-08 49 00.32	S	+4.27C	B2 IV		33328	131824	D
238	38 OMI -1	BEID	04 09 25.339	-06 57 59.74		+4.045	F2 II-III		26574	131019	D
239	40 OMI -2	KEID	04 12 58.161	-07 43 45.89		+4.433	K1 V		26966A	131063	D
240	9 RHO -1	ALUD-I I	02 58 42.365	-07 51 31.98		+5.745	D66		18784	130243	D
241	9 RHO -2	ALUD-I II	03 00 14.632	-07 52 51.43		+5.31C	GE6		18953A3	130254	D
242	10 RHO -3	ALUD-I III	03 01 49.952	-07 47 43.01		+5.257	A3		19107	130269	D
243	2 TAU -2	ANGEIENAR	02 48 46.150	-21 12 32.51		+4.763	K0 III		17624A	168094	D
244	50 UPS -1	SEEMIM III	04 31 32.819	-29 51 59.49		+4.500	G6 III		29085	169570	D
245	52 UPS -2	THEEKIN	04 33 36.315	-30 39 48.38		+3.81C	K0 III		25291	195148	D
246	43 UPS -3	SEEMIM II	04 22 03.409	-34 07 54.81		+3.950	M1 III		28028	194994	D
247	41 UPS -4	SEEMIM I	04 16 00.036	-33 55 05.65	L	+3.553	B8 +5V		27376A6	194902	D
248	65 PSI	KURSI AL JAUZAH I	04 59 00.759	-07 14 44.98		+4.795	B2 V		32249	131700	D
249	66 ALP	CASTOR	07 31 24.654	+21 59 55.07	C	+1.56C	A M+1 V		60170/EAB	60198	D
250	78 BET	POLLUX	07 42 15.517	+28 09 55.11		+1.146	K0 III		62509A	79666	D

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251	24 GAM	AL'ENA	06 34 45.356	+16 26 37.40		+1.531		AU		47105	55912	
252	55 DEL	WASAT	07 17 08.265	+22 04 36.08		+3.525		FD		56386AB	79294	D
253	27 EPS	MEKUTA	06 40 51.353	+25 10 56.92		+2.599		G8 B		48325A	78682	D
254	43 ZET	MEKBUDA	07 01 09.627	+20 38 43.45		+3.700	*	F7 I8	*	52373A	79031	DV
255	7 ETA	PROFUS	06 11 51.568	+22 31 21.36		+3.200	*	M3 III	*	42996Ab	78135	DV
256	13 MU	CALX	06 19 56.036	+22 32 27.98		+2.390		M3 III		44478A	78297	D
257	18 NU	NUCATAI	06 25 59.637	+20 14 44.06		+4.153		B7 IV E		45542Ap*	78423	D
258	31 XI	AL ZIRR	06 42 29.956	+12 57 04.31		+3.353		F5 V		48737	96074	D
259	ALP	AL NA'IR	22 05 05.486	-47 12 14.54		+1.743		B5 V		205952a	230992	D
260	8ET	DENE3 ALNAHR	22 39 41.443	-47 08 48.20		+2.240	*	M3 II	*	214352	231258	D
261	GAM	DENE3 HUI	21 50 54.450	-37 36 03.59		+3.000		B8 III		207571	213374	D
262	64 ALP-1	RASALGETHI (A)	17 12 21.348	+14 26 45.34		+3.184	S	M5 II		156014A	102680	D
263	64 ALP-2	RASALGETHI (B)	17 12 22.274	+14 26 43.71		+5.477	S	G5 III+P2		156015B	102681	D
264	27 BET	KORNEPOROS	16 28 04.105	+21 35 50.16		+2.793		G8 III		149956	84411	D
265	20 GAM	NASAK SHAMIYA III	17 12 53.555	+24 53 49.78		+3.745		A3 III		147547A	102107	D
266	65 DEL	SARIN	16 19 42.737	+15 16 05.32		+3.140		A3 IV		156164A	84951	D
267	7 KAP-1	MARSIC	16 05 48.989	+17 10 43.81		+5.000		A3 III		145001A	101951	D
268	76 LAM	MASYM	17 28 42.397	+26 09 49.43		+4.400		K4 III		158399	85163	D
269	24 ONE	CUJAM	16 23 06.383	+14 08 45.24		+4.550		A0 P		148112A	102153	D
270	33 A	UKDA4 III	09 32 02.913	-05 41 26.92		+5.550		GK1		82870	136964	D
271	30 ALP	ALP-HARD	09 25 07.751	-08 26 27.47		+1.981		K3 III		81757	136871	D
272	4 DEL	MINAZAL I	09 35 00.534	+05 52 45.60		+4.143		A0		73262	116965	D
273	11 EPS	MINAZAL III	09 44 07.755	+06 36 12.41		+3.366		GO III+P2		74674AB	117112	D
274	16 ZET	MINAZAL V	09 52 45.092	+06 09 13.25		+3.108		G8 III		76294	117264	D
275	7 ETA	UKDA4 IV	08 40 36.656	+03 34 45.66		+4.289		B3 V		74280	117050	D
276	35 IOI	UKDA4 IV	09 37 18.152	-00 54 53.79		+3.983		K3 III		83618	137035	D
277	38 KAP	AL SHARISIF I	09 37 54.489	-14 06 16.63		+5.058		B5 V		83754	155386	D
278	13 RHO	MINAZAL IV	08 45 47.115	+06 01 25.07		+4.347		A0 V		75137AB	117146	D
279	5 SIG	MINKALS-HUJA	08 36 08.631	+03 31 05.48		+4.435		K2 III		71471	116988	D
280	31 TAU-1	UKDA4 I	09 26 36.618	-02 32 58.04		+4.387		F6 V		81997A	136895	D
281	32 TAU-2	UKDA4 II	09 29 25.997	-00 57 47.96		+4.559		A3 III		82446	136932	D
282	72 LEO	ZUBRA4	11 12 32.837	+23 22 05.99		+4.625		M3 III		97778	81736	D
283	32 ALP	REGULUS	10 05 42.847	+12 12 44.54		+1.351		B7 V		87501A	98967	D
284	34 BET	DENE3OLA	11 46 30.605	+14 51 05.80		+2.131		A3		102647A	99803	D
285	41 GAM-1	ALGIESA (A)	10 17 13.401	+20 05 39.63		+3.479	S	K0 III		85484A	81298	D
286	41 GAM-2	ALGIESA (B)	10 17 13.150	+20 05 42.86		+2.289	S	G7 III		89485B	81299	D
287	68 DEL	ZOSMA	11 11 27.095	+20 47 52.67		+2.563		A4		97603	81727	D
288	17 EPS	ALGENU3I	09 43 00.996	+24 00 19.62		+2.970		GO II		84441	81004	D
289	36 ZET	ADHAFERA	10 13 54.758	+23 40 01.94		+3.435		FO III		89025	81265	D
290	30 ETA	AL JAB-H4	10 04 36.533	+17 00 26.17		+3.530		A0 IB		87737	98955	D
291	7C THE	C-ERTAN	11 11 37.666	+15 42 11.38		+3.343		A2 V		97633	99512	D
292	1 KAP	MINKARASAD	09 21 44.777	+26 23 55.32		+4.460		K2 III		81146AB	80807	D
293	4 LAM	ALYERF	09 29 52.248	+23 11 22.21		+4.310		K5 III		82308	80885	D
294	24 MU	RASALAS	09 49 55.434	+26 17 36.08		+3.890		K2 III		85503	81064	D
295	14 OMI	SUBRA	09 38 29.008	+10 07 14.64		+3.480		A2 +F6 II		8380875A	98709	D
296	OMI	PRACIPUA	10 50 31.231	+34 29 05.62		+3.809		K0 III-IV		94264	62297	D
297	R	CRIMSON STAR	04 57 19.737	-14 52 47.48		+6.000	*	C7 4E	*	31296	150058	D
298	11 ALP	ARNE3	05 30 31.334	-17 51 24.19		+2.591		FO IB		36673A	150547	D
299	9 BET	NIHAL	05 26 06.030	-20 47 52.90		+2.835		G5 III		36072AB	170457	D
300	13 GAM	KURSI AL JABBAR	05 42 22.653	-22 27 49.30		+3.397		F6 V		38333A	170759	D

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P MAG.	V MAG.	SPECTRAL CLASS	S	HENRY DRAPER (4D) CAT. NO.	SAO CAT. NO.	STAR PROP.
301	15 DEL	LEP	05 49 10.193	-20 52 55.223	+3.780		S8 III		39364	170926	
302	8 ALP-1	L19	14 47 54.959	-15 47 25.90	+5.153		F5 IV-V		1308198	158836	D
303	9 ALP-2	L18	14 48 06.407	-15 50 06.59	+2.141		A3 V		130841A	158840	D
304	27 BET	L18	15 14 18.732	-09 11 58.93	+2.612		B8 V		135742	140430	
305	44 ETA	L18	15 41 15.348	-15 30 53.77	+5.400		F0 III		140417	159466	
306	21 NU	L18	15 03 49.923	-16 03 51.08	+5.280		K5 III	*	133774	159028	
307	20 SIG	L18	15 01 08.247	-25 05 12.27	+3.318		M4 III		133216	183139	
308	16 LYN	DOLONES X	06 53 58.335	+45 09 40.72	+4.995		A2 V		50973	41463	
309	31 LYN	SARUKA4	08 19 25.154	+43 21 00.83	+4.245		K5 III		70272	42319	
310	3 ALP	LYR	18 35 14.655	+38 44 09.68	+0.044		AD V		172167A	67174	D
311	10 BET-1	LYR	18 48 13.935	+33 18 12.51	+3.800		B PE	*	174638/5A	67451	DV
312	14 GAM	LYR	18 57 04.294	+32 37 11.26	+3.250		B9 III		176437A	67663	D
313	4 EPS-1	LYR	18 42 40.665	+39 37 03.40	+6.001	S	A4		173583A	67309	D
314	4 EPS-1	LYR	18 42 40.873	+39 37 00.09	+5.040	S	A2		173582B	67310	D
315	5 EPS-2	LYR	18 42 43.125	+39 33 31.99	+4.555	L	A3 +A5		173607/ECD	67315	D
316	6 ZET-1	LYR	19 43 02.939	+37 33 05.28	+4.347		A M		173648A	67321	D
317	7 ZET-2	LYR	18 43 04.779	+37 32 28.33	+5.310		F0 IV		173649C	67324	D
318	20 ETA	LYR	19 12 03.290	+39 03 32.09	+4.383		B2 IV		180163A	68010	D
319	2 MU	LYR	18 22 34.868	+39 28 43.85	+5.110		A3 III		169702	66943	
320	55 ALP	OP4	17 32 36.696	+12 35 41.92	+2.072		A5 III		159561	102932	
321	60 BET	OP4	17 41 00.441	+04 35 11.84	+2.771		K2 III		161056	122671	
322	62 GAM	OP4	17 45 23.019	+02 43 28.29	+3.738		AD V		161968	122754	
323	1 DEL	OP4	16 11 43.325	+02 34 01.41	+2.727		M1 III		146051	141052	
324	2 EPS	OP4	16 15 40.349	-04 34 19.57	+3.233		G9 III		146791	141086	
325	13 ZET	OP4	16 34 24.137	-10 28 01.81	+2.567		O9.5V		145757	160006	
326	35 ETA	OP4	17 07 30.461	-15 39 52.89	+2.430	L	A2.5V		155125AB	160332	D
327	42 THE	OP4	17 18 56.157	-24 57 05.20	+3.265		B2 IV		157056	185320	
328	10 LAM	OP4	16 28 23.341	+02 05 31.06	+3.910	C	A1 V		148857AB	121658	D
329	40 XI	OP4	17 18 00.251	-21 03 35.72	+4.397		F2 V		156857AB	185296	D
330	42 -C	ORI	05 32 55.055	-04 52 10.72	+4.590	L	B2 III		37018AB	132320	D
331	49 -D	ORI	05 36 27.836	-07 14 21.42	+4.757		A4 IV		37507	132411	D
332	6 -G	ORI	04 52 00.305	+11 20 45.39	+5.190		A3		31283	94197	
333	58 ALP	ORI	05 52 27.809	+07 23 51.92	+0.800		M2 IA3	*	35801A	113271	DV
334	19 BET	ORI	05 12 07.990	-08 15 28.65	+0.153		B8 IA		34085A	131907	D
335	24 GAM	ORI	05 22 26.838	+06 18 21.71	+1.635		B2 III		35468	112740	D
336	34 DEL-1	ORI	05 29 27.017	-00 20 00.41	+2.800	*	O9.5II	*	36486A	132220	D
337	46 EPS	ORI	05 33 40.476	+01 58 56.30	+1.694		B0 IA		37128	132346	D
338	50 ZET	ORI	05 38 14.093	-01 58 02.98	+1.749		O9.5I8+B3		37742/3AB	132444	D
339	28 ETA	ORI	05 21 57.676	-02 26 25.58	+3.351	L	B0.5V		35411AB	132071	D
340	41 THE-1	ORI	05 32 48.935	-05 25 16.22	+4.500	N	O6 +B0.5	*	37020-348CD	132314	D
341	43 THE-2	ORI	05 32 55.449	-05 26 50.72	+5.077		O9.5V P		37041A	132321	D
342	44 IOT	ORI	05 32 59.126	-05 56 28.26	+2.761		O9 III		37043AB	132323	D
343	53 KAP	ORI	05 45 23.113	-09 41 05.45	+2.064		B0.5IA		38771	132542	D
344	39 LAM	ORI	05 32 22.913	+09 54 08.35	+3.391		M3 S		36861/2AB	112921	D
345	4 ORI-1	ORI	04 49 42.658	+14 10 08.31	+4.720		O8 +B0.5V		30955	94176	D
346	9 ORI-2	ORI	04 53 33.423	+13 26 13.64	+4.073		K2 III		31421A	94218	D
347	7 PI -1	ORI	04 52 08.440	+10 04 21.53	+4.670		AD V		31295	112124	D
348	2 PI -2	ORI	04 47 53.047	+08 48 57.64	+4.355		AD V		30739	30652	D
349	1 PI -3	ORI	04 47 07.390	+06 52 32.26	+3.190		F6 V		30652	112106	D
350	3 PI -4	ORI	04 48 32.421	+05 31 16.34	+3.892		B2 III		30836	112142	D

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
351	B PI -5 ORI	AL TAJ III	04 51 39.661	+02 21 37.24		+3.72C	*	B2 III	*	31237	112197	
352	10 PI -6 ORI	AL TAJ V	04 55 57.260	+01 39 20.04		+4.459		K2 II		31767	112281	
353	36 UPS	THABIT	05 29 30.607	-07 20 12.87		+4.616		B0 V		36512	132222	
354	37 PHI-1 ORI	HEKA	05 32 04.419	+09 27 26.67		+4.410		B0 IV		36822	112914	
355	40 PHI-2 ORI	HKA	05 34 09.415	+09 15 54.81		+4.082		K0 III		37160	112958	
356	ALP	PEACOCK	20 21 42.289	-56 53 50.02		+1.920		B3 IV		19324	246574	
357	54 ALP	MARKAB	23 02 16.662	+14 56 09.11		+2.456		B9.5 III		21804E	108378	
358	53 BET	SCHEAT	23 01 20.770	+27 48 40.45		+2.560	*	M2 II-III	*	217906A	90981	DV
359	88 GAM	ALGENIB	00 10 39.447	+14 54 20.57		+2.827		B2 IV		886	91781	
360	8 EPS	ENIF	21 41 43.756	+09 39 41.69		+2.397		K2 IB		206778A	127029	O
361	42 ZET	HOMAN	22 38 57.996	+10 34 11.39		+3.35C		B8 V		218923A	108103	O
362	44 ETA	MATAR	22 40 39.264	+29 57 33.42		+2.949		G2 II-III		215192A	90734	O
363	26 THE	BI-HAM	22 07 40.600	+05 57 04.13		+3.515		A2 V		210419	12734C	
364	47 LAM	SADALNAZI	22 44 07.173	+23 18 07.41		+3.985		G8 II-III		215665	90775	
365	48 MU	SADALBARI	22 47 35.191	+24 20 13.72		+3.89C		G8 III		216131	90816	
366	22 NU	FUM AL FARAS	22 03 09.442	+04 48 49.17		+4.890		K4 III		209747	127285	
367	46 XI	SUADALNUJUM	22 44 11.592	+11 54 57.24		+4.2C3		F7 V		215648AE	108165	O
368	43 OMI	SUADALMAYAR	22 39 24.327	+29 27 52.22		+4.907		A1 V		214994	90717	
369	62 TAU	SALH	23 18 09.505	+23 07 52.22		+4.58C		A5 IV		220061	91186	
370	68 UPS	AL-KARAB	23 22 52.799	+23 07 43.20		+4.414		F8 IV		220657	91253	
371	-H	MISAM AL THURAYYA II	03 20 44.441	+49 41 06.04		+6.645		B2 IA		14143A	23182	O
372	33 ALP	MIRFAK	03 04 54.356	+40 45 52.46		+1.903	*	F5 IB	*	20902	38787	DV
373	26 BET	ALGOL	03 50 58.959	+31 44 12.55		+2.21C		B8 V		19356A	38591	
374	44 ZET	ATIK	02 47 01.935	+55 17 05.57		+2.850		B1 IB		24398AB	56799	O
375	15 ETA	MIRAM	02 06 06.756	+44 40 10.21		+3.767		K3 IB		17506A	23655	O
376	27 KAP	MISAM	03 06 06.756	+44 40 10.21		+3.793		K0 III		19476A	38609	O
377	46 XI	MENKIB	03 55 42.625	+35 36 5E.50		+4.077		B5 V		24912	56856	O
378	38 OMI	ALAIK	03 41 10.598	+32 07 53.47		+3.329		B1 III		23180AB	56673	O
379	22 PI	GORGONEA SECUNDA	02 55 33.275	+39 27 50.67		+4.637		A2 V		18411	56047	
380	25 RHO	GORGONEA TERTIA	03 01 57.795	+39 39 52.86		+3.200	*	M4 II-III	*	19059	56138	V
381	7 CHI	MISAM AL THURAYYA I	02 14 32.316	+57 17 05.57		+5.99C		G5 II		13994A	23149	C
382	28 OME	GORGONEA QUARTA	03 08 03.167	+39 25 23.79		+4.613		K0 III		19656	56224	
383	ALP	ANKAA	00 23 49.029	-42 34 36.55		+2.39C		K0 III		2261	215093	
384	BET	ALRIAL III	01 03 51.357	-46 59 09.78		+3.300		G8 III		6595AB	215365	O
385	GAM	ALRIAL V	01 26 11.776	-43 34 25.54		+3.400		K5 II		9053	215516	
386	KAP	ALRIAL I	00 23 44.306	-43 57 25.67		+3.329		A7 V N		2262	215092	
387	MU	ALRIAL II	00 38 58.031	-46 21 33.10		+4.583		G8 III		3915	215194	
388	NU	ALRIAL IV	01 12 55.906	-45 47 53.12		+4.953		F9 V		7570	215428	
389	4 BET	KAPTEYN'S STAR	05 09 41.462	-44 59 53.25		+8.85C		MU V		3793	217223	
390	113 ALP	ALRESC-IA	01 59 27.392	+02 31 23.04		+3.92C		A M+42 P		1244677AB	110291	O
391	4 BET	FUM AL SAMAKAH	23 01 19.667	+03 33 01.15		+4.518		B5 V E		217891	127934	
392	63 DEL	KUTON I	00 46 05.113	+07 18 47.93		+4.430		K5 III		4656	109474	
393	86 ZET-1	KUTON II	01 11 06.933	+07 18 41.54		+5.215		F0 IV-V		7344A	109739	O
394	86 ZET-2	KUTON III	01 11 08.346	+07 18 52.03		+6.270		F6 V		73458C	109740	O
395	110 OMI	TORCULAR	01 42 44.568	+08 54 24.64		+4.258		G8 III		10761	11011C	
396	24 ALP	FOMALHAUT	22 54 53.531	-29 53 15.79		+1.153		A3 V		216356	191524	
397	17 BET	FUM AL HUT I	22 28 40.070	-32 36 11.08		+4.325		AD V		213398A	213883	O
398	PSA	FUM AL HUT II	22 28 40.358	-32 36 41.57		+7.759	S	AD V		61555A	213884	O
399	-K-1 PUP	MERKEB (A)	07 36 46.323	-26 14 12.59		+4.509	S	B8		615568C	174198	O
400	-K-2 PUP	MERKEB (B)	07 36 46.820	-26 41 19.88		+4.623	S	B3			174199	O

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P MAG.	V MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (40) CAT. NO.	SAO CAT. NO.	STAR PROP.
401	ZET	NACS	08 01 43.552	-39 51 46.83		+2.255	D5		66911	158752	
402	7 XI	PUP	07 47 11.421	-24 43 59.22		+3.347	G3 I8		63700A8	174601	D
403	5 ALP	SGE	19 37 51.612	+17 53 51.21		+4.358	SC II		185758A	1C512C	D
404	60 A	SGR	19 55 54.576	-26 19 57.29		+4.830	GG5		189005	188778	
405	59 -B	SGR	19 53 52.875	-27 18 14.61		+4.57C	GK3		198603	188742	
406	62 -C	SGR	19 59 35.183	-27 51 01.64		+4.503	M4 III		193763	198844	
407	ALP	SGR	19 20 25.452	-40 42 41.10		+3.56C	B9 III		191965	229659	
408	BET-1	SGR	19 19 02.916	-44 33 17.72		+4.01C	B8 V N		181454A	223646	
409	BET-2	SGR	19 19 36.611	-44 53 44.93		+4.28C	FO III N		181523	229654	
410	10 GAM	SGR	18 02 35.678	-30 25 35.80		+2.990	KU III		165135	209696	
411	19 DEL	SGR	18 17 47.554	-29 51 04.68		+2.695	K2 III		168454A	186681	D
412	20 EPS	SGR	18 20 51.198	-34 24 36.94		+1.935	B9 IV		169022A	210091	D
413	38 ZET	SGR	18 59 25.832	-29 57 12.79	L	+2.60C	A2 III		176697A8	18760C	D
414	ETA	SGR	18 14 14.573	-36 46 43.43		+3.113	M3 II		167618A8	209957	D
415	22 LAM	SGR	18 24 53.059	-25 27 04.19		+2.87C	K2 III		165916	186841	D
416	13 MU	SGR	18 10 46.324	-21 04 25.46		+3.960	B8 IA P		166337A3	186437	D
417	32 NU -1	SGR	18 51 09.064	-22 48 25.54		+4.92C	CK2		174974A8	187426	D
418	35 NU -2	SGR	18 52 05.766	-22 44 08.19	L	+4.390	K3 III		175190	187445	D
419	41 PI	SGR	19 06 47.450	-21 06 17.49		+2.934	F2 II-III		178524A8C	187756	D
420	34 SIG	SGR	18 52 09.927	-26 21 38.23		+2.063	B2 V		175191	187448	D
421	40 TAU	SGR	19 03 49.160	-27 44 43.14		+3.315	K1 III		177716	187683	D
422	27 PHI	SGR	18 42 31.952	-27 02 38.48		+3.177	B8 III		173300	187239	D
423	47 CHI-1	SGR	19 22 14.012	-24 36 26.63		+5.02C	DA5		182369A8	188101	D
424	49 CHI-2	SGR	19 22 28.169	-24 03 43.16		+5.420	K4 III		182416	188105	D
425	42 PSI	SGR	19 12 28.542	-25 20 46.58	L	+4.95C	DF5		179500A8	187682	D
426	58 OME	SGR	19 52 46.744	-26 26 01.47		+4.700	DG5		189376	188722	D
427	21 ALP	SCO	16 26 20.266	-26 13 21.95	C	+1.08C	M1 I8		148472A8	184415	D
428	8 BET-1	SCO	16 02 31.507	-13 40 12.45		+2.628	80.5V		144217A8	159682	D
429	8 BET-2	SCO	16 02 31.857	-19 40 01.07		+4.52C	B2 V		144218C	159683	D
430	7 DEL	SCO	15 57 22.318	-22 28 51.37		+2.300	80 V		143275	184014	D
431	THE	SCO	17 33 43.371	-42 58 05.15		+1.86C	FO I8		155532	228201	D
432	101-1	SCO	17 44 05.100	-40 06 34.95		+3.028	F2 IA		161471A	228420	D
433	101-2	SCO	17 46 41.171	-40 04 35.03		+4.80C	CA3		161312A	228486	D
434	KAP	SCO	17 39 01.548	-39 00 28.76		+2.410	B2 IV		160578	209163	D
435	35 LAM	SCO	17 30 12.626	-37 04 09.63		+1.617	B1 V		158926	2C8954	D
436	MU -1	SCO	16 48 28.579	-37 57 48.92		+3.140	B1.5V		151890	208102	D
437	MU -2	SCO	16 48 56.599	-37 56 03.17		+3.56C	B2 IV		151985	2C8116	D
438	NU -1	SCO	16 09 03.943	-19 19 17.45	L	+6.263	AO IV		145501C0	159763	D
439	NU -2	SCO	16 09 05.031	-19 19 56.20	L	+4.012	B2 IV-V		145502A8	159764	D
440	XI -1	SCO	16 01 36.893	-11 14 12.28	L	+4.160	F5 IV		144069A8	159665	D
441	XI -2	SCO	16 01 37.342	-11 14 08.07	L	+7.30C	D67		143018A3C	159666	D
442	6 PI	SCO	15 55 49.301	-25 58 18.14		+2.937	B1 V		142665A	183987	D
443	5 RHO	SCO	15 53 47.567	-25 04 16.42		+3.883	B2 V		147165A	183957	D
444	20 SIG	SCO	16 18 08.667	-25 28 28.14		+2.982	B1 III		145438	184336	D
445	23 TAU	SCO	16 32 45.916	-28 06 50.56		+2.812	B0 V		158408	184481	D
446	34 UPS	SCO	17 27 21.662	-37 15 28.57		+2.700	B3 I8		144470	208896	D
447	9 OME-1	SCO	16 03 52.659	-20 32 07.11		+3.968	B1 V		144608	184123	D
448	10 OME-2	SCO	16 04 28.091	-20 44 06.53		+4.320	GG2		140573A	184135	D
449	24 ALP	SCP	15 41 48.151	+06 34 53.93		+2.646	K2 III		141C03A	121157	D
450	28 BET	SCP	15 43 52.670	+15 34 37.42		+3.672	A2 IV			101725	D

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P MAG.	VISUAL N MAG.	SPECTRAL CLASS	S	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
451	41 GAM	SCP	15 54 08.455	+15 49 24.77		+3.8M1	F6 V		142860	1C1826	
452	13 DEL-1	SCP	15 32 24.633	+10 42 12.66		+5.109	DF0	S	1399178	101623	D
453	13 DEL-2	SCP	15 32 24.681	+10 42 17.82		+4.179	FC IV	S	139918A	1C1624	D
454	37 EPS	SCP	15 48 19.243	+04 07 36.85		+3.709	A M		141795	121218	D
455	63 THE-1	SCA	18 53 43.976	+04 38 13.25		+4.622	A5 V		175638A	124066	D
456	63 THE-2	SCA	18 53 45.420	+04 08 07.70		+4.975	A5 N		175639B	124070	D
457	16 TAU	CALCINO	03 41 49.528	+24 08 01.54		+5.455	B7 IV		23286	76126	
458	17 TAU	ELECTRA	03 41 54.055	+23 57 27.82		+3.702	86 III		23302	76131	
459	20 TAU	MAIA	03 42 50.756	+24 12 47.01		+3.918	87 III		23408	76155	
460	21 TAU	STERPE I	03 42 55.370	+24 24 00.00		+5.757	89 V		23432	76159	
461	22 TAU	STERPE II	03 43 03.846	+24 22 24.38		+6.430	89.5V		23441	76164	
462	23 TAU	MEROPE	03 43 21.195	+23 47 38.39		+4.176	86 IV NM		23490	76172	
463	29 BU	TAU PLEICONE	03 46 12.391	+23 59 07.56		+5.047	88 P		23862	76229	
464	27 -F	TAU ATLAS	03 42 13.572	+24 18 42.51		+3.526	88 III		23850A3	76228	D
465	19 -0	TAU TAYGETA	03 46 11.030	+23 54 07.66		+4.259	86 V		23338	7614C	
466	97 ALP	TAU ALOEBARAN	04 33 02.836	+16 24 37.51		+0.953	K5 III		29139A8	94027	D
467	112 BET	TAU ELNATH	05 23 07.710	+28 34 01.74		+1.652	87 III		35491	77168	
469	54 GAM	TAU HYADUM I	04 16 56.651	+15 30 30.62		+3.635	KC III		27371	93868	
469	61 DEL	TAU HYADUM II	04 20 02.844	+17 25 36.81		+3.757	KC III		27657	93897	
470	74 EPS	TAU OCULUS SOREUS	04 25 41.585	+19 04 16.36		+3.534	KC III		29305	93954	D
471	25 ETA	TAU ALCYONE	03 44 30.424	+23 57 07.57		+2.870	87 III		23630A	76199	
472	77 THE-1	TAU HYADUM III	04 25 42.892	+15 51 10.15		+3.943	KC III		28307	93955	
473	78 THE-2	TAU HYADUM IV	04 25 49.220	+15 45 41.90		+3.419	KC III		28307	93955	
474	65 KAP-1	TAU ALKALBAIN III	04 22 23.093	+22 10 51.94		+4.220	A7 V		27934	76601	
475	67 KAP-2	TAU ALKALBAIN IV	04 22 26.132	+22 05 13.99		+5.260	A7 V		27946	76602	
476	52 UPS	TAU ALKALBAIN V	04 23 18.680	+22 42 06.75		+4.288	K1 III		27382A	76608	
477	69 PHI	TAU ALKALBAIN I	04 17 16.436	+27 13 58.39		+4.950	89.5V		27638A	76558	D
478	59 CHI	TAU ALKALBAIN II	04 19 32.079	+25 30 46.97		+5.390	F6 IV		11443	74996	D
479	2 ALP	TRI CAPUT TRIANGULI	01 50 13.440	+25 20 10.14		+3.413	A5 III		13161	55306	
480	4 BET	MIZAN	02 06 33.573	+34 45 06.52		+2.997	K4 III		150759	25370C	
481	ALP	TRIA	16 43 21.159	-58 56 19.89		+1.915	88 V P		103095	62733	
482	UMA	FLYING STAR	08 30 08.936	+65 19 03.83		+6.453	A M		72037	1459C	
483	2 A	UMA ALI-IBA I	11 50 06.169	+38 04 39.16		+5.465	G2 IV		82210	6897	
484	24 -D	UMA ALI-IBA VII	09 30 05.839	+70 03 06.47		+4.552	A5 V		75439	27191	
485	18 -E	UMA AL-FAUD III	09 12 36.226	+54 13 47.19		+4.818	A M		79209	27136	
486	15 -F	UMA AL-FAUD I	09 05 21.316	+51 48 28.27		+4.467	A5 V		116942	28751	
487	80 -G	UMA ALCCO	13 23 13.477	+55 14 52.99		+4.003	FD IV		81337A	14908	D
488	23 -H	UMA AL-FAUD IV	09 27 36.565	+63 16 55.11		+3.656	KC III		95689A2	15384	D
489	50 ALP	UMA DUBHE	11 00 39.570	+62 01 16.80		+1.193	A0 V		103267	21679	
490	48 BET	UMA MERAK	10 59 50.251	+56 39 03.12		+2.377	A0 V		108591	28315	
491	64 GAM	UMA P-ECCE	11 51 12.566	+53 58 21.98		+2.433	A0 P		112185	28553	
492	63 DEL	UMA MEGREZ	12 12 57.594	+57 13 36.95		+3.310	A2 V		116656A	28737	D
493	77 EPS	UMA ALIQT4	12 51 50.184	+56 13 51.14		+1.750	A2 M.		116657B	28738	D
494	79 ZET-1	UMA MIZAR (A)	13 21 54.316	+55 11 09.46		+2.270	83 V		120315	44752	D
495	79 ZET-2	UMA MIZAR (2)	13 21 55.268	+55 10 56.63		+3.950	F6 IV		120315	44752	D
496	85 ETA	UMA ALKAID	13 45 34.234	+49 33 44.13		+1.980	A7 V		75644A	42630	D
497	25 THE	UMA AL-FAUD V	09 29 31.489	+51 54 23.18		+3.177	A0		89021	43268	D
498	9 IOT	UMA TALITHA	08 55 47.626	+48 14 22.05		+3.146	A2 IV				
499	12 KAP	UMA KAFZATANIA	09 00 13.266	+47 21 20.73		+3.572	A0				
500	33 LAM	UMA TANIA SCREALIS	10 14 05.353	+43 09 53.54		+3.455	A2 IV				

TABLE 3 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR CONSTELLATION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (+D) CAT. NO.	SAO* CAT. NO.	STAR PROP.
501	34 MU	UMA	10 19 21.469	+41 45 06.25		+3.03C		M0 III		85756	4331C	D
502	54 NU	UMA	11 15 46.947	+33 22 02.56		+3.465		K3 III		992624B	62486	D
503	53 XI	UMA	11 15 31.162	+31 48 38.88	C	+3.8C3		G0 V		98230/1AB	62484	D
504	1 OMI	UMA	09 26 07.631	+60 53 14.56		+3.347		G5 III		71369A	14573	D
505	3 PI -1	UMA	08 34 46.703	+65 11 44.92		+5.625		G0 V		7290E	14609	D
506	4 PI -2	UMA	08 35 51.356	+64 30 16.92		+4.593		K2 III		73108	14616	D
507	8 RHO	UMA	08 58 01.573	+67 04 35.21		+4.757		M3 III		76827	14742	D
508	11 SIG-1	UMA	09 04 01.899	+67 04 33.26		+5.147		K5 III		77800	14769	D
509	13 SIG-2	UMA	09 06 01.131	+67 20 21.67	C	+4.79E		F7 IV-V		781544B	14788	D
510	14 TAU	UMA	09 06 49.121	+63 43 07.22		+4.668		A7 M		79362/3A	14796	D
511	29 UPS	UMA	09 47 27.102	+59 16 30.31		+3.754		F2 IV		84999AB	27401	D
512	30 PHI	UMA	09 48 43.042	+54 17 56.53	L	+4.573		A3 S		852354B	27408	D
513	63 CHI	UMA	11 43 25.130	+48 03 24.16		+3.7C3		K0 III		102224	43886	D
514	1 ALP	UMI	01 48 48.786	+89 01 43.74		+2.500	*	F8 I8		8850A	308	DV
515	7 BET	UMI	14 50 49.645	+74 21 35.58		+2.673		K4 III		131973	8102	D
516	11 GAM-1	UMI	15 17 07.110	+72 00 19.08		+5.020		K4 III		136726	8207	D
517	13 GAM-2	UMI	15 20 47.347	+72 00 42.57		+3.043		A3 II-III		137422	822C	D
518	23 DEL	UMI	17 49 18.339	+86 36 34.79		+4.347		A1 V		166205	2937	D
519	22 EPS	UMI	16 51 00.905	+82 07 21.54		+4.28C		G5 III		153751A	2770	D
520	16 ZET	UMI	15 45 47.812	+77 56 57.09		+4.303	*	A3 V		142105	8328	D
521	21 ETA	UMI	16 18 56.298	+75 52 16.64		+4.937		DAB		148048	8470	D
522	GAM-2	VEL	08 07 59.465	-47 11 18.31		+1.933		O7 +WC7		68273A	219504	D
523	KAP	VEL	09 20 33.853	-54 47 47.30		+2.453		B2 IV		81188	236891	D
524	LAM	VEL	09 06 09.310	-43 13 47.60		+2.240		K5 I8		78647AB	220878	D
525	67 ALP	VIR	13 22 33.101	-10 54 03.36		+C.968		B1 V		116658	157923	D
526	5 BET	VIR	11 48 05.387	+02 02 47.61		+3.608		F8 V		102970	119076	D
527	29 GAM	VIR	12 39 07.452	-01 10 31.58	C	+2.745		F0 V		110379/0A6	139917	D
528	43 DEL	VIR	12 53 04.985	+03 40 07.60		+3.369		M3 III		112300	119674	D
529	47 EPS	VIR	12 59 41.210	+11 12 38.90		+2.828		G9 III		113226	1C0384	D
530	79 ZET	VIR	13 32 09.554	-00 20 27.51		+3.363		A3 V N		118098	139420	D
531	15 ETA	VIR	12 17 20.761	-00 23 20.65		+3.88C		A2 V		107259	138721	D
532	99 IOT	VIR	14 13 23.345	-05 45 46.18		+4.077		F7 III-IV		124950	139824	D
533	98 KAP	VIR	14 10 13.451	-10 02 30.80		+4.183		K3 III		124294	158427	D
534	100 LAM	VIR	14 16 23.969	-13 08 30.89		+4.522		A8 M		125337	158489	D
535	107 MU	VIR	14 40 25.283	-05 26 30.92		+3.863		F3 IV		129502	14009C	D
536	105 PHI	VIR	14 25 37.362	-02 00 17.26		+4.799		G2 III		126969AB	139951	D
537	6 ALP	VUL	19 26 37.410	+24 33 44.90		+4.42C		M0 III		183439	87261	D

TABLE 4

STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
235	THE-1 ERI	ACAMAR (A)	02 56 21.982	-40 30 15.15		+3.264	S	A3 V	*	18622A	216113	D
236	THE-2 ERI	ACAMAR (B)	02 56 22.578	-40 30 14.34		+4.263	S	A2	*	18623B	216114	D
229	ALP	ACHERNAR	01 35 51.307	-57 29 24.93		+0.490	S	B5 V	*	10144	232481	D
181	ALP-1 CRU	ACRUX (A)	12 23 48.164	-62 49 19.43		+1.212	S	B1 IV	*	108248A	251904	D
192	ALP-2 CRU	ACRUX (B)	12 23 48.695	-62 43 22.28	B	+1.923	S	B3 N	*	108249B		D
78	65 ALP	ACUBENS	08 55 45.247	+12 03 09.07		+4.829	A	M	*	76756	58267	D
203	27 -F	ADFAR ALDIB I	17 32 09.543	+68 10 01.20		+5.060	KO III			159966	17526	D
226	28 OME	ADFAR ALDIB II	17 37 14.348	+68 46 52.48		+4.810	F5 V			160922	17576	D
289	36 ZET	ADAFERA	10 13 54.758	+23 40 01.94		+3.935	FO III			89025	81265	D
97	26 EPS	ADHARA	06 56 39.597	-28 54 16.24		+1.510	B2 II			52089AB	172676	D
6	46 XI	ADHIL	01 19 23.103	+45 16 02.87		+4.967	KO III-IV			8207	37155	D
329	40 XI	AGGIA	17 18 00.251	-21 03 39.72		+4.337	F2 V			156897AB	185296	D
417	32 NU -1	AIN AL RAMI I	18 51 09.064	-22 49 29.54		+4.920	CK2			174974AB	187426	D
418	35 NU -2	AIN AL RAMI II	18 52 05.766	-22 44 06.15		+4.930	K3 III			175150	187445	D
520	16 ZET	AKFA FARKADAIN	15 45 47.812	+77 56 57.09		+4.303	A3 V			142105	8328	D
318	20 ETA	ALADFA	19 12 03.290	+39 03 32.09		+4.383	B2 IV			180153A	58010	D
133	1 KAP	AL AGNAM I	20 10 36.574	+77 33 42.36		+4.370	B9 III			192907AB	9665	D
137	33 PI	AL AGNAM II	23 06 18.167	+75 07 01.56		+3.563	G2 III			219658AB	10629	D
223	44 CHI	ALA-AKAN	04 58 22.530	+43 45 05.36		+2.578	F7 V			170153	9087	D
46	7 EPS	AUR	03 41 10.598	+32 07 53.47		+3.829	FO IA			31964	39955	DV
378	38 OMI	PER ALATIK	19 06 47.450	-21 06 11.49	L	+2.954	B1 III			23180AB	56673	D
419	41 PI	AL BALDAH	20 44 59.217	-09 40 48.21	L	+3.770	F2 V			178524ABC	187756	D
11	2 EPS	ALBALI	19 28 42.222	+27 51 12.44		+3.680	A1 II-III			198001	144810	D
187	6 BET-1	ALBIREO (A)	19 28 44.302	+27 51 32.63		+5.110	K5 II+B			183512/3A	87301	D
189	6 BET-2	ALBIREO (B)	20 49 57.474	-09 10 15.76		+4.723	B8 V			183914B	87302	D
16	6 MU	ALBULAN I	21 06 52.307	-11 34 31.13		+4.507	B6 IV			198743	144895	D
17	13 NU	ALBULAN II	02 46 29.805	+17 19 30.02		+5.340	DFS			201381	164182	D
42	42 PI	AL BUTAIN I	02 53 36.479	+17 49 21.06		+5.500	A2 V			18256	93195	D
43	46 RHO	AL BUTAIN II	02 56 20.825	+21 08 29.91		+4.638	A0 IV-V			18519/GAB	75673	C
39	48 EPS	AL BUTAIN III	03 12 01.326	+20 51 37.93	L	+4.897	A0 IV-V			20150	75810	C
40	58 ZET	AL BUTAIN IV	13 23 13.477	+55 14 52.39		+4.003	A5 V			105452	180505	C
174	1 ALP	ALC-HIBA	03 44 30.424	+23 57 01.57		+2.870	B7 III			116842	28751	C
487	80 -G	ALCOR	12 24 26.870	+28 32 46.07		+4.353	K1 III-IV			23630A	76199	C
471	25 ETA	ALCYCNE	04 33 02.896	+16 24 31.51		+0.858	K5 III			201381	82313	C
168	15 GAM	AL DAFIRAH	21 17 23.181	+62 22 23.74	L	+2.439	A7 IV-V			203280A	19302	D
466	87 ALP	ALDEBARAN	18 21 28.505	+71 18 42.23		+4.210	A0 P			170000AB	9084	D
128	5 ALP	ALDERAMIN	19 06 04.345	-37 59 03.49		+4.100	A2 N			178253	210990	D
222	43 PHI	ALD-HIBA	21 28 01.326	+76 20 07.85		+3.180	B2 III			2050214B	10057	DV
169	ALP	ALFECCA MERIDIANA	14 10 13.451	-10 02 30.80		+4.183	K3 III			124294	158427	D
129	8 BET	ALFIRK	14 25 37.362	-02 00 17.26		+4.198	G2 III			126868A2	139951	D
533	98 KAP	ALGAFAR I	09 10 39.447	+14 54 20.57		+2.927	B2 IV			896	91781	D
536	105 PHI	ALSAFAR II	09 43 00.996	+24 00 15.62		+2.970	G0 II			84441	81004	D
359	88 GAM	ALGENIB	10 17 13.120	+20 05 42.86		+2.289	S KO III			89484A	81298	D
288	17 EPS	ALGENUBI	03 04 54.356	+40 05 52.46		+3.479	S 57 III			85485B	81299	D
285	41 GAM-1	ALGIEBA (A)	12 27 16.380	-16 14 14.14		+2.200	B8 V			19356A	38591	DV
286	41 GAM-2	ALGIEBA (B)	09 05 21.316	+51 48 28.27		+4.467	A M			109761A	157323	D
373	26 BET	ALGOL	09 06 49.121	+63 43 07.22		+4.668	A7 M			78362/3A	14796	D
177	7 DEL	ALGRAB										
486	15 -F	ALHAUD I										
510	14 TAU	ALHAUD II										

TABLE 4 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DES MIN SEC	P K	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
485	18 -E UMA	AL-YAUD III	09 12 36.226	+54 13 47.19		+4.818		A5 V		79439	27191	D
488	23 -H UMA	AL-YAUD IV	09 27 36.565	+63 16 55.11		+3.656		F0 IV		81937A	14908	D
497	25 THE UMA	AL-YAUD V	09 29 31.489	+51 54 23.19		+3.177		F6 IV		8232848	27289	D
511	29 UPS UMA	AL-YAUD VI	09 47 27.162	+59 16 30.31		+3.754		F2 IV		84998A8	27401	D
512	30 PHI UMA	AL-YAUD VII	09 48 43.042	+54 17 56.59	L	+4.573		A3 S		8523548	27408	D
251	24 GAM GEM	AL-YENA I	C6 34 49.396	+16 26 37.40		+1.930		AC IV		47105	95912	D
52	11 MU AUR	AL-YIBA I	05 10 00.157	+39 25 39.27		+4.960		A M		33641	57755	C
51	15 LAM AUR	AL-YIBA II	G5 15 37.271	+40 03 24.57		+4.710		G0 V		34411A	40233	D
53	21 SIG AUR	AL-YIBA III	05 21 15.060	+37 20 26.65		+4.987		K4 III		35186	57981	D
493	77 EPS UMA	AL-YO4	12 51 50.084	+56 13 51.14		+1.790		AO P		11219E	28553	D
290	30 ETA LEO	AL-JA34A4	10 04 36.533	+17 00 26.17		+3.530		AO I8		87737	98955	D
191	53 EPS CVR	AL-JANA4	20 44 11.168	+33 48 55.15		+2.453		K0 III		131985A	70474	C
150	65 XI -1 CET	AL-KAFF AL JID-MAH I	02 10 20.747	+09 36 47.36		+4.350		G8 II III		13611	110408	D
151	73 XI -2 CET	AL-KAFF AL JID-MAH II	02 25 29.791	+08 14 13.15		+4.271		B9 III		15318	110543	D
142	82 DEL CET	AL-KAFF AL JID-MAH III	02 36 54.985	+00 06 50.00		+4.084		B2 IV		16592	110665	D
149	87 MU CET	AL-KAFF AL JID-MAH IV	02 42 14.102	+05 54 15.02		+4.262		F0 IV		17034	110723	D
513	63 CHI UMA	AL-KAFZA4	11 43 25.030	+48 03 44.16		+3.703		K0 III		102224	43986	D
486	85 ETA UMA	AL-KAID	13 45 34.294	+49 33 44.13		+1.860		B3 V		12031E	44752	D
477	52 PHI TAU	AL-KALBAIN I	04 17 16.436	+27 13 59.39		+4.950		K1 III		27382A	76558	D
478	59 CHI TAU	AL-KALBAIN II	G4 19 32.079	+25 30 46.87		+5.390		B9.5V		27638A	76573	D
474	65 KAP-1 TAU	AL-KALBAIN III	04 22 23.093	+22 10 51.94		+4.220		A7 V		27946	76601	D
475	67 KAP-2 TAU	AL-KALBAIN IV	G4 22 26.032	+22 05 13.99		+5.280		F0 V		27946	76602	D
476	69 UPS TAU	AL-KALBAIN V	G4 23 18.680	+22 42 06.75		+4.288		F0 III-IV		28024	76508	D
75	51 MU -1 BOO	AL-KALURGPS	15 22 55.295	+37 33 05.49		+4.306		F0 V		137391A	64686	C
370	68 UPS PEG	AL-KARAB	23 22 52.799	+23 07 43.20		+4.414		F9 IV		220657	91253	D
179	7 ALP CRY	AL-KES	10 57 26.138	-18 01 55.62		+4.066		K0 III		95272	156375	D
132	2 THE CEP	AL-KIOR	20 28 44.679	+62 49 32.32		+4.207		A M		195725	18897	D
425	42 PSI SGR	AL-KILADAH	19 12 28.542	-25 20 40.58	L	+4.950		DF5		1759504E	187882	D
345	4 OMI-1 ORI	AL-KUMM I	04 49 42.058	+14 10 08.31		+4.720		M3 S		30959	94176	D
346	9 OMI-2 ORI	AL-KUMM II	04 53 33.423	+13 26 13.64		+4.073		K2 III		31421A	94218	D
5	57 GAM-1 AND	AL-MAC4	02 00 49.177	+42 05 27.01		+2.179	S	K3 II		12533A	37734	D
82	41 EPS CNC	AL-MALAF	C8 37 35.068	+15 43 23.07		+6.300		A6 III		73131	98024	D
122	30 MU CAS	AL-MARFAK	01 04 55.686	+54 40 32.96		+5.163		G5 V P		6582	22024	D
23	30 DEL AGL	AL-MIZAN I	19 22 58.597	+03 00 48.98		+3.356		F0 IV		182640	124603	D
26	55 ETA AGL	AL-MIZAN II	19 49 55.525	+00 52 33.23		+3.509	*	F6 I3		187929	125359	D
27	65 THE AGL	AL-MIZAN III	20 09 43.493	+00 58 16.06		+3.245	*	B9.5III		191692	144150	D
416	13 MU SGR	AL-NAM	18 10 46.324	-21 04 25.46		+3.350	*	B8 IA P		1669374B	186497	D
140	10 GAM SGR	AL-NAMSL	19 02 35.678	+20 25 35.80		+2.390	*	K0 III		16513E	209696	D
146	45 THE CET	AL-NAYMAT I	01 21 31.363	-09 26 27.16		+3.603		K0 III		8512A	129274	D
156	52 TAU CET	AL-NAYMAT II	01 41 44.660	-16 12 00.50		+3.496		GP V P		10700	147986	D
157	59 UPS CET	AL-NAYMAT III	01 57 39.311	-21 19 09.71		+3.390		M1 III		12274	167471	D
259	ALP GRU	AL-NAYM4R	22 05 35.486	-47 12 14.54		+1.743		B5 V		205952A	230992	D
337	46 EPS ORI	AL-NILAM	05 33 40.475	-01 13 56.30		+1.594		80 IA		37128	132346	D
338	50 ZET ORI	AL-NITAK	C5 38 14.021	+01 58 02.98		+1.749		09.518+83		37742734B	132444	C
158	17 PHI-1 CET	AL-NITAM I	00 41 40.021	-10 52 53.49		+4.750		K0 III		4188	147423	D
159	19 PHI-2 CET	AL-NITAM II	00 47 37.288	-10 54 47.65		+5.188		F8 V		4913	147470	D
160	22 PHI-3 CET	AL-NITAM III	00 56 13.022	-11 32 13.03		+5.300		K4 III		5437	147519	D
161	23 PHI-4 CET	AL-NITAM IV	00 56 13.022	-11 32 13.03		+5.790	*	G57		5722	147546	D
444	20 SIG SCO	AL-NITAT I	16 18 08.667	-25 28 28.14		+2.882		B1 III		147165A	184336	D
445	23 TAU SCC	AL-NITAT II	16 32 45.806	-28 06 50.56		+2.932		B0 V		145438	184481	D

TABLE 4 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P MAG.	V MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HDI) CAT. NO.	SAO CAT. NO.	STAR PROP.
271	30 ALP	ALP-4RCD	09 25 07.791	-08 26 27.47		+1.981	K3 III		81797	136871	
172	5 ALP	ALP-4ECCA	15 32 34.145	+26 52 54.75		+2.23C	A0 V	*	139006	63893	D
3	21 ALP	ALP-4ERATZ	00 05 47.941	+28 49 52.12		+2.074	B8 III P		358	73765	D
213	21 MU	ALRAKIS	17 04 17.357	+54 32 07.95	L	+4.92C	F5		154905/EA8	30239	D
390	113 ALP	ALRESCHA	01 59 27.392	+02 31 23.04		+3.820	A M+A2 P		12446/7A8	110291	D
386	KAP	ALRIAL I	00 23 44.826	-43 57 25.67		+3.828	A7 V N		2262	215092	
397	MU	ALRIAL II	00 38 58.031	-46 21 33.10		+4.583	G8 III		3919	215194	D
384	BET	ALRIAL III	01 03 51.357	-46 59 05.78		+4.393	G8 III		6559AE	215365	
388	MU	ALRIAL IV	01 12 55.906	-45 47 53.12		+4.393	G8 III		7570	215428	
385	GAM	ALRIAL V	01 26 11.776	-43 34 25.94		+3.40C	K5 II		9053	215516	
202		ALRUB44	17 42 56.440	+53 49 19.34		+5.730	* AD	*	161633	30538	
13	55 ZET-2	ALSAD (A)	22 26 15.513	-00 16 36.08		+4.323	F2 IV		213052B	146108	D
12	55 ZET-1	ALSAD (B)	22 26 15.261	-00 16 35.27		+4.493	F2 IV		213051A	146107	D
219	61 SIG	ALSAFI	19 32 27.595	+69 34 34.11		+4.686	K0 V		185144	18396	D
198	12 GAM-2	AL SALIB (A)	20 44 20.236	+15 56 34.82		+4.270	K2 IV		197964A	105476	D
198	12 GAM-1	AL SALIB (B)	20 44 19.473	+15 56 34.71		+5.14C	F7 V		191963B	106475	D
21	60 BET	ALS-4AIN	19 52 51.383	+06 16 49.84		+3.714	G8 IV		188512	125235	D
277	38 KAP	AL SHARASIF I	09 37 54.469	-14 06 16.63		+5.058	B5 V		83754	155388	
180	11 BET	AL SHARASIF II	11 09 11.730	-22 33 08.99		+4.467	A2 III-IV		97277	179624	D
111	8 NU	AL SHAT	20 17 53.485	-12 55 04.49		+4.753	B9 V		193432A	163468	D
20	53 ALP	ALTAIR	19 48 20.589	+09 44 05.71		+0.753	A7 IV-V		180711	125122	D
207	57 DEL	ALTAIS	19 12 32.824	+67 34 25.03		+3.067	G9 III		30739	18222	
348	2 PI -2	AL TAJ I	04 47 53.047	+08 48 57.64		+4.355	A0 V		112124	112124	
350	3 PI -4	AL TAJ II	04 48 32.421	+05 31 16.34		+3.682	B2 III		30836	112142	
351	8 PI -5	AL TAJ III	04 51 39.661	+02 21 37.24		+3.720	B2 III		31237	112197	
347	7 PI -1	AL TAJ IV	04 52 06.440	+10 04 22.53		+4.67C	AU V	*	31295	94201	
352	10 PI -6	AL TAJ V	04 55 57.260	+01 38 20.04		+4.459	K2 II		31767	112281	D
79	17 BET	AL TAJ VI	08 13 49.282	+09 20 27.73		+3.523	K4 III		65267	116569	
293	4 LAM	AL TAJ VII	09 28 52.248	+23 11 22.21		+4.310	K5 III		82308	80885	
28	16 LAM	AL TAJ VIII	19 03 35.688	-04 51 32.74		+3.433	B8 V		17756	143021	D
493	2 A	AL TAJ IX	08 30 08.936	+65 19 03.83		+5.465	A M		184930	143597	D
505	3 PI -1	AL TAJ X	08 34 46.703	+65 11 44.92		+5.625	G0 V		72905	14609	
506	4 PI -2	AL TAJ XI	08 35 51.556	+64 30 16.82		+4.593	K2 III		73108	14616	
507	8 RHO	AL TAJ XII	09 59 03.973	+67 49 35.21		+4.757	M3 III B		76827	14742	
508	11 SIG-1	AL TAJ XIII	09 04 01.898	+67 04 33.26		+5.147	K5 III		77600	14769	
509	13 SIG-2	AL TAJ XIV	09 06 01.131	+67 20 21.67	C	+4.796	F7 IV-V		791544B	14788	D
484	24 -0	AL TAJ XV	09 30 05.838	+70 03 06.47		+4.552	G2 IV		82210	6897	
240	8 RHO-1	ALUD-I I	02 59 42.365	-07 51 31.98		+5.745	066		18784	130243	D
241	9 RHO-2	ALUD-I II	03 02 14.892	-07 52 51.43		+5.31C	566		189534B	130254	D
242	10 RHO-3	ALUD-I III	03 01 48.952	-07 47 43.03		+5.257	A3		19107	130269	D
99	31 ETA	ALUD-I IV	07 22 06.872	-29 12 16.04		+2.44C	B5 IA		58350	173651	D
200	11 DEL	AL UKUD	20 41 07.413	+14 53 38.69	C	+4.420	A7 III P		197461	105425	
503	53 XI	ALULA ALSTRALIS	11 15 31.162	+31 48 38.88		+3.8C3	60 V		98230/1AB	62484	D
502	54 NU	ALULA BOREALIS	11 15 46.947	+33 22 02.56		+3.465	K3 III		99262AB	62486	D
215	25 NU -2	ALWAD (A)	17 31 16.719	+55 12 22.82		+4.873	A M		15556CA	30450	D
214	24 NU -1	ALWAD (B)	17 31 11.293	+55 13 04.07		+4.980	A M		159541B	30447	D
455	63 THE-1	ALYA (A)	18 53 43.576	+04 08 13.25		+4.622	A5 V		175639A	124068	D
456	63 THE-2	ALYA (B)	18 53 45.420	+04 08 07.70		+4.975	A5 N		175639B	124070	D
102	24 ONI-2	AL ZARA	07 00 56.142	-23 45 32.46		+3.0C1C	B3 IA		53138	172839	

TABLE 4 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P M	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
258	31 XI	GEM	06 42 29.366	+12 57 04.31		+3.353		F5		49737	96074	
14	43 THE	AGR	22 14 11.766	-08 01 56.75		+4.155		G8		211391	145991	
243	2 TAU-2	ERI	02 48 46.150	-21 12 32.91		+4.763		K0 III		178244	168094	D
383	6 ALP	PHE	19 23 49.629	-42 34 36.55		+2.390		K0 III		2261	215093	
537	6 ALP	VUL	00 26 37.410	+24 33 44.90		+4.420		M0 III		183439	87261	
427	21 ALP	SCO	16 26 20.266	-26 19 21.95	C	+1.06C	*	M1 IB	*	148478/AB	184415	C
521	21 ETA	UMI	16 18 56.298	+75 52 16.64		+4.937		O4B		148048	8470	
64	16 ALP	800	14 13 22.750	+19 26 36.95		-C.65C		K2 III P		129897	1C0944	
409	BET-2	SGR	19 19 36.611	-44 53 44.93		+4.280		FD III N		181623	229654	
408	BET-1	SGR	19 19 02.816	-44 33 17.72		+4.010		B8 V N		181454A	229646	D
298	11 ALP	LEP	05 30 31.394	-17 51 24.18		+2.581		F0 IB		36673A	150547	D
301	15 DEL	LEP	05 49 16.193	-20 52 55.23		+3.78C		G8 III		176687AB	170926	D
413	38 ZET	SGR	18 59 25.892	-23 57 12.79	L	+2.500		A2 III		74442	187600	D
81	47 DEL	CNC	08 41 50.747	+18 20 21.83		+3.935		K0 III		80387	58087	C
80	43 GAM	CNC	08 40 23.702	+21 38 59.82		+4.670		A1 V		80404	80378	
115	10T	CAR	09 15 45.109	-59 03 53.70		+2.248		F0 IB		176524	236008	
221	52 UPS	DRA	18 55 00.917	+71 13 50.82		+4.910		K0 III		181984	9283	
220	60 TAU	DRA	19 16 31.472	+73 15 47.87		+4.455		K3 III		163702	9366	
319	2 MU	LYR	18 22 34.868	+39 28 43.85		+5.110		A3 III		24358AB	68943	D
374	44 ZET	PER	03 50 58.959	+31 44 12.55		+2.85C		B1 IB		76228	56799	D
464	27 -F	TAU	ATLAS	03 46 11.030	+23 54 07.66		+1.935	K4 III		150798	83645	D
481	ALP	TRA	ATRIA	15 02 18.039	+27 09 29.75		+4.523	K2 III		125162	44965	
77	43 PSI	800	AULAD	14 14 28.969	+46 19 01.94		+1.880	K0 II+8		71129/O	235932	
74	19 LAM	800	AULAD	14 14 28.969	+46 19 01.94		+4.665	B3 IV		206672	33665	
114	EPS	CAR	AVIOR	08 21 29.383	-59 20 52.98		+3.987	K1 III-IV		18322	130197	D
194	80 PI-1	CYG	AZELFAGE	21 40 18.952	+50 57 35.10		+3.347	G3 IB		63700AB	174601	D
234	3 ETA	ERI	AZ44	02 53 58.952	-03 05 45.89		+5.295	A3 V		16628A	75510	D
402	7 XI	PUP	ARI	07 47 11.421	-24 43 55.22		+4.65C	B3 V		17361	75532	D
30	31	ARI	BARANI I	02 37 45.345	+26 50 50.75		+4.513	K1 III		148059	75578	
31	35	ARI	BARANI II	02 40 30.651	+27 29 44.29		+4.65C	B3 V		121263	224538	
32	39	ARI	BARANI III	02 44 55.469	+29 02 26.66		+4.513	K1 III		194902	194984	D
144	55 ZET	CET	BATEN KAITOS	01 48 59.447	-10 34 52.90		+3.723	K2 III		28028	134984	D
246	41 UPS-4	ERI	BEEHIM I	04 16 00.136	-33 55 05.65	L	+3.553	B8.5V		210419	113271	D
246	43 UPS-3	ERI	BEEHIM II	04 22 09.409	-34 07 54.81		+3.950	M1 III		25085	16957C	D
246	43 UPS-3	ERI	BEEHIM III	04 31 32.818	-29 51 55.49		+4.5CC	G6 III		26574	131019	D
126	ZET	CEN	BATEN KENTAUROS	01 52 24.510	-47 02 34.87		+4.045	F2 II-III		35468	11274C	D
247	ZET	CEN	BATEN KENTAUROS	01 52 24.510	-47 02 34.87		+0.800	B2 III	*	39801A	113271	D
246	41 UPS-4	ERI	BEEHIM I	04 16 00.136	-33 55 05.65	L	+3.553	B8.5V	*	143454	12734C	D
246	43 UPS-3	ERI	BEEHIM II	04 22 09.409	-34 07 54.81		+3.950	M1 III	*	143454	84129	D
246	43 UPS-3	ERI	BEEHIM III	04 31 32.818	-29 51 55.49		+4.5CC	G6 III	*	13787	53328	D
246	43 UPS-3	ERI	BEEHIM III	04 31 32.818	-29 51 55.49		+4.5CC	G6 III	*	23288	76126	D
238	38 ONI-1	ERI	BEID	04 09 25.339	-06 57 59.74		+4.045	F2 II-III		44478A	78267	D
335	58 ALP	ORI	BELLATRIX	05 52 27.809	+07 23 57.92		+1.635	B2 III	*	45348	234480	D
363	26 THE	PEG	BIHAM	22 07 40.600	+55 57 04.13		+3.515	M2 IAB	*	34029AF	40186	D
171	57 DEL	CRB	BLAZE STAR	15 57 24.4505	+26 03 39.04		+2.000	PEC	*	432AB	21133	D
38	38	ARI	BOTEIN	03 08 45.985	+13 32 20.22		+4.350	K2 III		11443	74996	D
457	16	TAU	CALAUO	03 41 49.528	+24 08 01.54		+5.455	B7 IV		60178/9AB	60198	D
256	13 MU	GEM	CALX	06 19 56.6596	+22 32 27.98		+2.89C	M3 III		151096	122671	D
112	ALP	CAR	CANOPIUS	06 22 50.493	-52 40 03.45		-0.720	FD IA				
44	13 ALP	AUR	CAPELLA	05 12 59.866	+45 56 56.04		+6.062	G8 III+F				
117	11 BET	CAS	CAP4	00 06 29.735	+58 52 26.77		+2.275	F2 IV				
479	2 ALP	TRI	CAPUT TRIANGULI	00 50 13.440	+9 20 10.14		+3.413	F6 IV				
249	66 ALP	GEM	CASTOR	07 31 24.654	+31 59 59.07	C	+1.590	A M+AI V				
321	60 BET	OP4	CEBALRAI	17 41 00.541	+64 35 11.84		+2.771	KZ III				

TABLE 4 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P MAG.	V MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
76	54 PHI 800	CEGINUS	15 36 01.742	+40 30 55.00		+5.240	G8 III-IV		139641	45643	
92	8 BET CWN	CHARA	12 31 22.289	+41 37 44.10		+4.266	G0 V		109359	44230	
291	70 THE LEO	CHERTAN	11 11 37.066	+15 42 11.38		+3.343	A2 V		97633	99512	
519	22 EPS UH1	CIRCITORES	16 51 06.905	+82 07 21.54		+4.280	G5 IIII	*	153751A	2770	0
91	12 ALP-2 CWN	COR CAROLI (A)	12 53 41.478	+38 35 16.82		+2.982	AO P		112413A	63257	0
90	12 ALP-1 CWN	COR CAROLI (B)	12 53 40.203	+38 35 03.82		+5.610	FO V		112412B	63256	0
297	R LEP	CRIMSON STAR	04 57 19.727	-14 52 47.48		+6.000	C7 4E	*	31996	150058	V
269	24 OME HER	CUJAM	16 23 06.363	+14 08 45.24		+4.550	AO P		148112A	112153	0
230	67 BET ERI	CURSA	05 05 23.365	-05 08 58.54		+2.775	A3 IIII		33111	131794	
108	9 BET-2 CAP	DABI4 MAJOR	20 18 12.200	-14 56 26.57		+3.073	F8 V+AO		193495A	163481	0
107	BET-1 CAP	DABI4 MINOR	20 17 58.071	-14 56 38.31		+6.160	B9		193452A	163471	0
186	50 ALP CYS	DENEB	20 39 43.539	+45 06 03.12		+3.249	A2 IA		197345A	49941	0
110	49 DEL CAP	DENEB ALGENDI	21 44 16.992	-16 21 19.42		+2.930	A M	*	207098A	164644	0
145	31 ETA CET	DENEB ALGENUBI	01 06 04.420	-10 26 46.57		+3.437	K3 IIII		6805	147632	
260	1 BEY GRU	DENEB ALNA4R	22 39 41.443	-47 08 48.20		+2.240	M3 II	*	214952	231258	
201	2 EPS DEL	DENEB DULFIM	20 30 49.400	+11 07 55.83		+4.035	B6 IIII		195810	105230	
261	GAM GRU	DENEB 4UT	21 50 54.450	-37 36 03.99		+3.000	B8 IIII		207971	213374	
140	16 BET CET	DENEB KAITOS	00 41 04.911	-18 15 38.78		+2.028	K1 IIII		4128	147420	0
25	17 ZET AQL	DENEB OKAB	19 03 06.647	+13 47 15.86		+2.399	B9 V		177724	104461	0
284	94 BET LEO	DENEBOLA	11 46 30.605	+14 51 05.80		+2.131	A3 V		102647A	99809	0
24	13 EPS AQL	D4N8 AL OKAB	18 57 21.118	+14 59 56.41		+4.020	K2 IIII		176411	104318	
209	22 ZET DRA	D4TBA4	17 08 38.146	+65 46 33.99		+3.177	B6 IIII		155763	17365	
210	14 ETA DRA	D4TBAIN	16 23 19.476	+61 37 37.10		+2.730	G8 IIII		148397AB	17074	0
167	42 ALP COM	DIACEM	13 07 33.321	+17 47 36.25	L	+4.318	FS V		114378A2AB	110443	0
54	46 PSI-1 AUR	DOLONES I	06 21 02.990	+49 19 56.91		+4.950	M0 IAB	*	44537	44076	
56	52 PSI-3 AUR	DOLONES II	06 35 20.296	+39 56 51.00		+5.200	B8 IIII		47100	59319	
55	50 PSI-2 AUR	DOLONES III	06 35 45.703	+42 32 06.13		+4.796	K3 IIII		47174	41239	
57	55 PSI-4 AUR	DOLONES IV	06 39 26.746	+44 34 29.11		+5.027	K5 IIII		47914	41288	
58	56 PSI-5 AUR	DOLONES V	06 43 08.205	+43 37 45.74		+5.240	G0 V		48692A	41330	0
59	57 PSI-6 AUR	DOLONES VI	06 43 50.996	+48 50 40.75		+5.210	K1 IIII		48781	41346	
60	58 PSI-7 AUR	DOLONES VII	06 47 13.920	+41 50 32.27		+5.005	K3 IIII		49520	41380	
61	61 PSI-8 AUR	DOLONES VIII	06 50 31.472	+38 34 05.87		+6.240	B9 P		50204	59589	
62	61 PSI-9 AUR	DOLONES IX	06 52 50.493	+46 20 23.28		+5.750	B8 IV	*	50658	41446	
308	16 LYN	DOLONES X	06 53 58.335	+45 09 40.72		+4.895	A2 V		50973	41463	
315	5 EPS-2 LYN	DOUBLE DOUBLE II	18 42 43.325	+39 33 33.99	L	+4.595	A3 +A5		173607/8CD	67315	0
314	4 EPS-1 LYN	DOUBLE DOUBLE I (A)	18 42 40.873	+35 37 00.09		+5.040	S		173582B	67310	0
313	4 EPS-1 LYN	DOUBLE DOUBLE I (B)	18 42 40.865	+39 37 03.40		+6.001	S		173583A	67309	0
430	7 DEL SCO	D5C4UBBA	15 57 22.318	-22 29 51.37		+2.310	K0 V		143275	184014	
499	50 ALP UHA	D5B4E	11 00 39.570	+62 01 16.90		+1.793	K0 IIII		95689AB	15384	0
224	31 PSI-1 DRA	DZIBAN I	17 42 49.282	+72 10 26.21		+4.594	F5 IV-V		162003A	8690	0
225	31 PSI-2 DRA	DZIBAN II	17 42 50.929	+72 10 55.38		+5.305	F8 V		162004B	8691	0
211	12 IOT DRA	EDS4IC	15 23 48.741	+59 08 26.16		+3.256	K2 IIII		137755	23520	
458	17 TAU	ELECTRA	03 41 54.055	+23 57 27.82		+3.702	B6 IIII		23302	76131	
467	12 BET TAU	ELMATH	05 23 07.710	+28 34 01.74		+1.652	B7 IIII		35497	77168	
206	33 GAM DRA	ELTANIN	17 55 26.576	+51 29 38.53		+2.231	K5 IIII		164058AB	30653	0
360	8 EPS PEG	ENIF	21 41 43.756	+09 38 41.69		+2.387	K2 I8		206778A	127029	0
134	MU CEP	ERR4S	21 41 54.501	+53 33 00.65		+3.990	M2 IA	*	205936AB	33693	DV
130	35 GAM CEP	ERR4I	23 37 16.533	+77 21 11.73		+3.220	K1 IV		222404	10818	
193	1 KAP CYS	FAMARIS I	19 15 56.786	+53 16 31.88		+3.773	K0 IIII		181276	31537	
190	18 DEL CYS	FAMARIS II	19 43 24.671	+45 00 26.23	C	+2.870	B9.5 IIII		186882AB	48796	0

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STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN- HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO+ CAT. NO.	STAR PROP.
192	64 ZET	CYG	21 10 48.357	+30 01 15.51		+3.192		G8 II		202109	71070	
482	UMA	FLYING STAR	11 50 06.169	+38 04 39.16		+6.452		G8 V P		103095	62738	
366	24 ALP	PSA	22 54 53.531	-29 53 15.79		+1.153		A3 V		216956	131524	
397	17 BET	PSA	22 C3 C9.842	+C4 48 4E.17		+4.84C		K4 III		209147	127285	
398	4 BET	PSA	22 28 40.070	-32 36 41.57		+9.325 S		K4 V		213398A	213883	D
391	1 ZET	PSC	23 01 19.867	+03 33 01.75		+7.759 S					213884	D
184	42 THE	CRU	06 18 23.546	-30 02 23.86		+4.518		B5 V E		217991	127934	
327	1 LAM	OP4	12 28 22.727	-56 50 00.33		+3.024		B2.5V		44402	196698	
212	4 GAM	CRV	17 18 56.157	-24 57 05.20		+1.660		M3 II		108903A	240019	D
432	3 BET	CM1	07 24 26.357	+08 23 25.85		+3.285		B2 IV		157056	185320	
379	28 OME	PER	03 08 03.167	+39 25 23.39		+4.513		M0 III		100029	15532	
380	22 PI	PER	03 01 57.795	+38 38 52.86		+4.657		B8 III		106625	157176	
429	8 BET-1	SCC	16 C2 31.5C7	-19 40 12.45		+2.628		F2 IA		161471A	228420	D
440	XI -1	SCO	16 C1 36.8B9	-11 14 12.28		+4.16C		B8 V		159715	115456	
441	XI -2	SCO	16 01 37.342	-11 14 08.07		+7.300		KU III		19656	56224	
216	32 XI	DRA	17 52 39.710	+56 52 47.68		+3.737		A2 V		18411	56047	
124	BET	CEN	14 00 16.510	-60 07 58.09		+0.610		M4 II-III		19058	56138	V
47	8 ZET	AUR	04 58 58.680	+41 00 17.79		+3.81C		B0.5V		142217AB	159682	D
48	10 ETA	AUR	05 03 00.214	+41 10 08.38		+2.0C9		B2 V		144218C	159683	D
34	13 ALP	ARI	02 C4 20.317	+23 13 31.07		+2.761		F5 IV		144069/OAB	159666	D
342	44 IOT	ORI	05 32 59.126	-05 56 23.26		+2.761		DG7		163598	30631	D
354	37 PHI-1	ORI	13 32 04.419	+C5 27 26.67		+3.363		K2 III		122451	252582	
530	79 ZET	VIR	05 34 09.415	+C9 15 54.81		+4.32C		K5 II+8		32068/9	39966	
355	40 PHI-2	ORI	05 34 09.415	+C9 15 54.81		+3.363		B3 V		32630	40026	
361	42 ZET	PEG	22 38 57.996	+10 34 11.39		+3.390		K2 III		12229	75151	
469	54 GAM	TAU	04 16 56.651	+15 30 30.62		+3.635		B0 IV		37043A3	132323	D
469	61 DEL	TAU	04 20 02.844	+17 25 36.81		+3.757		B0 IV		36922	112914	
472	77 THE-1	TAU	04 25 42.882	+15 51 10.15		+3.848		A3 V N		118098	139420	
473	78 THE-2	TAU	04 25 48.220	+15 45 41.80		+3.409		K0 III		37160	108103	D
443	5 RHO	SCO	15 53 47.517	-29 04 10.42		+3.883		B8 V		214923A	93868	
100	18 MU	CMO	06 53 43.103	-13 58 38.75		+4.990		K0 III		27371	93897	
68	36 EPS	BOC	14 42 48.137	+27 17 02.66		+2.373		K0 III		27697	93897	
439	NU -2	SCO	16 09 05.091	-19 19 56.20		+8.012		K0 III		28307	93955	
438	NU -1	SCO	16 C9 03.549	-19 19 17.45		+6.263		K0 III		28319	93957	
447	9 OME-1	SCO	03 03 52.659	-20 32 07.11		+3.369		G5 +A2		142665A	183957	D
448	10 OME-2	SCO	16 C4 28.691	-20 44 06.53		+4.32C		A2 V+K0 II		51250/1A3	152123	D
131	3 ETA	CEP	20 44 16.488	+61 33 38.86		+3.422		B2 V		129588/9AB	8350C	D
50	3 IOT	AUR	04 53 43.982	+33 05 15.54		+2.652		B2 IV		145501C0	158763	D
141	86 GAM	CEI	02 40 42.397	+03 01 34.05		+3.459		B1 V		144470	184123	D
499	12 KAP	UMA	09 CC 13.266	+47 21 20.79		+4.32C		B2 IV		144608	184135	D
138	29 RHO	CEP	22 29 27.436	+79 34 03.36		+5.520		K0 IV		198149A	19019	D
534	100 LAM	VIR	05 03 41.452	-44 59 53.25		+4.522		K3 II		31398	19019	D
389	20 EPS	PIC	18 20 51.188	-34 24 36.94		+1.835		A2 V		16970AB	57522	D
412		SGR						AD		77327AB	42661	D
								A2		125337	10402	D
								A8 M		33793	158489	D
								M0 V		217223	217223	D
								B9 IV		165022A	210091	D

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STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
415	22 LAM	SGR	18 24 53.059	-25 27 04.18		+2.830		K2		163916	186841	
411	19 DEL	SGR	18 17 47.554	-29 51 04.68		+2.695		K2 III		168454A	186681	D
239	40 ORI-2	ERI	04 12 50.161	-07 43 45.89		+4.433		K1 V		26965A	131063	D
166	21 UU	COM	12 28 36.830	+24 50 35.98		+5.455		A3 P		108945	82346	
227	8 ALP	EQU	21 13 19.440	+05 02 24.35		+3.314		G0 III+45		202447/8	126662	
515	7 BET	UMI	14 50 49.645	+74 21 35.58		+2.673		K4 III		131873	8102	
41	34 MU	ARI	02 39 32.488	+19 47 49.68		+5.850		K4 IV-V		16811	93062	D
264	27 BET	HER	16 28 04.105	+21 35 50.16		+2.783		G8 III		148856	84411	
175	9 BET	CRV	12 31 45.342	-23 07 13.60		+2.866		G5 III		109379	180915	
136	17 XI -2	CEP	22 02 26.440	+64 23 01.68		+4.454		A M		205791A	19827	D
135	17 XI -1	CEP	22 02 19.143	+64 23 03.30		+6.354		A		209790B	19826	D
300	13 GAM	LEP	05 42 22.653	-22 27 48.30		+3.557		F6 V		38393A	170759	D
248	65 PSI	ERI	04 59 00.753	-07 14 44.98		+4.795		B2 V		32249	131700	
237	69 LAM	ERI	05 05 45.092	-08 49 00.32		+4.210		B2 IV		33328	131824	
164	THE	COL	06 05 48.671	-37 14 41.29		+5.010		B9		42167	196514	
165	KAP	COL	06 14 46.276	-35 07 22.03		+4.360		G8 III		43785	196642	
392	63 DEL	PSC	00 46 05.113	+07 18 47.93		+4.430		K5 III		4656	109474	
393	86 ZET-1	PSC	01 11 08.933	+07 18 41.34		+5.235		K5 III		7344A	169739	
394	86 ZET-2	PSC	01 11 08.346	+07 18 52.03		+6.270		F6 V		7345BC	109740	C
89	34 UPS	SCO	13 03 37.463	+45 32 07.73		+5.600		K1 III		113847	44465	D
446	37 THE	AUR	17 27 21.652	-37 15 28.57		+2.700		B3 IB		159408	208896	D
459	20	TAU	03 42 50.756	+24 12 40.05		+2.660		B9.5V P		403124B	58636	D
332	6	ORI	04 52 00.305	+11 20 45.39		+3.978		B7 III		23408	76155	
121	33 THE	CAS	01 08 23.554	+54 53 04.32		+4.332		A7 V		6961	22070	
328	10 LAM	OPH	16 28 23.341	+02 05 31.06		+3.810		A1 V		148857AB	121658	C
357	54 ALP	PEG	23 02 16.052	+14 56 09.11		+2.996		B9.5III		218045	108378	
523	KAP	VEL	09 20 33.853	-54 47 47.30		+2.493		B2 IV		81188	236891	
267	7 KAP-1	HER	16 05 48.989	+17 10 43.81		+5.000		G8 III		145001A	101951	D
268	76 LAM	HER	17 28 42.947	+26 08 49.49		+4.400		K4 III		158899	85163	
362	44 ETA	PEG	22 40 32.264	+29 57 33.42		+2.949		G2 II-III		215182A	90734	D
253	27 EPS	GEM	06 40 51.363	+25 10 56.92		+2.988		G8 IB		48325A	78682	D
492	69 DEL	UMA	12 12 57.584	+57 19 36.95		+3.310		A3 V		106591	28315	D
344	39 LAM	ORI	05 32 22.913	+09 54 08.35		+3.351		08 +80.5V		36861/2AB	112921	D
254	43 ZET	GEM	07 01 03.627	+20 39 43.45		+3.700		F7 IB		52373A	79031	DV
148	91 LAM	CEI	02 57 01.871	+08 42 33.54		+4.657		B5 IB		18604	110889	
45	34 BET	AUR	05 55 51.579	+44 56 40.69		+1.900		A2 V		401834P	40750	D
139	92 ALP	CEI	02 59 39.744	+02 53 41.15		+2.517		M2 III		18884	10920	
127	5 THE	CEN	14 03 43.877	-36 07 29.64		+2.075		K0 III		123139	205188	
377	46 XI	PER	03 55 42.825	+35 38 56.50		+4.037		B5 V		24912	56856	
490	48 BET	UMA	10 58 50.251	+56 33 03.12		+2.377		A1 V		95418	27876	
63	38	H	14 47 31.671	+46 13 25.56		+5.710		DF4		130945	45226	
399	-K-1	PUP	07 36 46.323	-26 41 12.59		+4.509		S 88		61555A	174198	D
400	-K-2	PUP	07 36 46.820	-26 41 15.88		+4.629		S 83		61556BC	174199	D
462	23	TAU	03 43 21.195	+23 47 38.99		+4.176		B6 IV NN		23480	76172	
37	5 GAM-2	ARI	01 50 46.872	+19 02 57.87		+4.554		B9 V		11503A	92681	D
36	5 GAM-1	ARI	01 50 46.855	+19 03 06.11		+4.673		A1 P		11502B	92680	D
113	BET	CAR	09 12 39.662	-69 30 35.63		+1.678		A1 III		80007	250495	D
183	BET	CRU	12 44 47.037	-59 24 56.53		+1.265		80.5IV		111123	240259	
272	4 DEL	HYA	08 35 00.594	+05 52 45.60		+4.143		A0 V		73262	116965	

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STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P	VISUAL N MAG.	SPECTRAL CLASS	S	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
275	7 ETA	MINAZAL II	08 40 36.636	+03 34 45.66	L	+4.289	B3 V		74290	117050	D
273	11 EPS	MINAZAL III	08 44 07.755	+06 36 14.41		+3.366	G0 III+P7		74874ABC	117112	D
278	13 RHO	MINAZAL IV	08 45 47.115	+06 01 25.07		+4.347	A0 V		75137AB	117146	D
274	16 ZET	MINAZAL V	08 52 45.092	+06 08 13.25		+3.165	G8 III		76294	117264	
528	43 DEL	MINELAUVA	12 53 04.986	+03 00 07.60		+3.359	M3 III		112300	119674	
279	5 SIG	MINKALS-HUJA	08 36 08.671	+03 31 05.48		+4.435	K2 III		73471	116988	
178	2 EPS	MINKAR	12 07 32.919	-22 20 30.12		+2.993	K3 III		105707	180531	C
292	1 KAP	LEO MINKARASAD	09 21 44.777	+26 23 55.32		+4.46C	K2 III		81146AB	80807	D
336	34 DEL-1	MINTAKA	05 29 27.017	-00 20 08.41		+2.200	09.5II	*	36486A	132220	D
152	68 OMI	CET MIRA	02 16 49.045	-03 12 13.39		+2.000	GM6 E	*	14386AF	129825	DV
4	43 BET	AND MIRACH	01 06 55.456	+35 21 21.74		+2.060	M0 III		6860	54471	D
375	15 ETA	PER MIRAM	02 47 01.935	+55 41 22.43		+3.267	K3 IB		17506A	23655	D
372	33 ALP	PER MIRFAK	03 20 44.441	+49 41 06.04		+1.903	F5 IB		20902	38787	D
95	23 GAM	CMA MIRZA	07 01 29.713	-15 33 26.79		+4.105	B8 II		53244	252303	D
94	2 BET	CMA MIRZAM	06 20 29.789	-17 55 47.23		+1.980	B1 II-III		44743	151428	D
376	7 CHI	PER MISM	03 06 06.756	+44 40 16.21		+3.753	K0 III		19476A	38609	D
381	-H	MISAM AL THURAYYA I	02 14 32.316	+57 17 03.57		+5.390	G5 II		13954A	23149	D
371	4 BET	MISAM AL THURAYYA II	02 15 42.013	+56 56 22.44		+6.645	B2 IA		14143A	23182	D
480	4 BET	FRI MIZAN	02 06 33.579	+34 45 06.52		+2.397	A5 III		13161	55306	D
330	-C	ORI MIZAN BATIL I	05 32 55.055	-04 52 16.72	L	+4.59C	B2 III		37018AB	332320	D
341	43 THE-2	ORI MIZAN BATIL II	05 32 55.499	-05 26 50.72		+5.077	09.5V P		37041A	132321	D
331	49 -D	ORI MIZAN BATIL III	05 36 27.836	-07 14 21.42		+4.757	A4 IV		37507	132411	D
494	79 ZET-1	UMA MIZAR (A)	13 21 54.916	+55 11 09.46		+2.270	A2 V		116656A	28737	D
495	79 ZET-2	UMA MIZAR (B)	13 21 55.868	+55 11 09.46		+3.95C	A2 M		116657B	28738	D
125	GAM	CEN MU-LIFAIN	12 38 44.898	-48 41 07.32		+2.157	AD III		110304B	223603	D
434	KAP	SCO MULA	17 39 01.588	-38 00 22.76		+2.410	B2 IV		160578	269163	D
322	62 GAM	OP4 MULTIPLEN	17 45 23.019	+02 43 28.28		+3.739	AD V		161868	122754	D
69	8 ETA	B00 MUP-IRID	13 52 18.168	+18 38 51.35		+2.676	G0 IV		121370	100766	D
504	1 OMI	UMA MUSCIDA	08 26 07.631	+60 53 14.56		+3.347	G5 III		71369A	14573	D
88	77 XI	CNC NAIR	09 06 29.235	+22 14 55.95		+5.14C	K0 III		78515	80666	D
33	41 -C-1	ARI NAIR AL BUTAIN	02 47 02.036	+27 03 20.55		+3.610	B8 V		17573	75596	D
922	27 PHI	SGR NAMALSADIRAH I	18 42 31.963	-27 02 36.48		+3.177	B8 III		173300	187239	D
421	40 TAU	SGR NAMALSADIRAH II	19 03 49.160	-27 44 43.14		+3.315	K1 III		177716	187683	D
423	47 CHI-1	SGR NAMALSADIRAH III	19 22 14.012	-24 36 26.63		+5.02C	0A5		182359AE	188101	D
424	49 CHI-2	SGR NAMALSADIRAH IV	19 22 23.169	-24 03 43.16		+5.420	K4 III		182416	188105	D
414	ETA	SGR NAMALWARID	18 14 14.573	-36 46 43.49		+3.113	M3 II		167618AB	209957	D
401	ZET	PUP NAOS	08 01 49.552	-39 51 40.83		+3.113	M3 II		66811	198752	D
450	28 BET	SCP NASAK SHAMIYA I	15 43 52.670	+15 34 37.42		+2.255	05 F		141003A	187683	D
451	41 GAM	SCP NASAK SHAMIYA II	15 54 08.455	+15 43 24.77		+3.394	A2 IV		142860	101826	D
265	20 GAM	4ER NASAK SHAMIYA III	16 19 42.737	+19 16 09.32		+3.745	F6 V		147547A	182107	C
454	37 EPS	SCP NASAK YAMANI I	15 49 19.243	+04 37 36.85		+3.708	A M		141795	121218	D
453	13 DEL-2	SCP NASAK YAMANI (A)	15 32 24.681	+10 42 17.82		+4.173	A M		139918A	103624	D
452	13 DEL-1	SCP NASAK YAMANI (B)	15 32 24.533	+10 42 12.66		+5.103	DF0		138917B	101623	D
109	40 GAM	CAP NAS-IRA	21 37 19.372	-16 53 21.05	S	+3.665	A8 M		206088	164560	D
316	6 ZET-1	LYR NASR ALWAKI I	18 43 02.939	+37 33 06.28		+4.347	A M		173648A	67321	D
317	7 ZET-2	LYR NASR ALWAKI II	18 43 04.779	+37 32 28.33		+5.73C	F0 IV		1736480	67324	D
118	27 GAM	CAS NAVI	00 53 40.324	+60 26 47.38		+2.570	B0 III E		53944B	11482	D
65	42 BET	B00 NEKKAR	15 00 03.664	+40 35 12.80		+3.489	G8 III		133208	45337	D
1	51	AND NEMBUS	01 34 54.636	+48 22 32.66		+3.570	K3 III		9927	37375	D
299	9 BET	LEP NI-4AL	05 26 06.090	-20 47 52.90		+2.835	G5 III		36079AB	170457	D

TABLE 4 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P MAG.	V MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
257	18 NU	NUCATAI	06 25 59.627	+20 14 44.06	+4.153	+4.153	B7 IV E		45542AP*	78423	D
420	34 SIG	NUNKI	18 52 09.927	-26 21 36.29	+2.063	+2.063	B2 V		175191	187448	D
442	6 PI	NUR	15 55 49.301	-25 59 19.14	+2.997	+2.997	B1 V		143018ABC	183987	D
173	3 BET	NUSAKAN	15 25 45.344	+29 16 37.26	+3.668	+3.668	FO III		137905	83631	D
470	74 EPS	OCULUS BOREUS	04 25 41.585	+19 04 16.35	+3.534	+3.534	KO III		28305	93954	D
356	ALP	PEACOCK	20 21 42.289	-56 53 50.02	+1.920	+1.920	B3 IV		193924	246574	D
162	ALP	PYACT	05 37 50.211	-34 05 58.73	+2.630	+2.630	B8 V E		37795	196059	D
491	64 GAM-2	PHECDA	11 51 12.566	+53 58 21.98	+2.433	+2.433	AO V		103287	21879	D
517	13 GAM-1	PHERKAD MAJOR	15 20 47.347	+72 00 42.97	+3.043	+3.043	A3 II-III		137422	8220	D
516	11 GAM-1	PHERKAD MINOR	15 17 07.110	+72 00 19.08	+5.020	+5.020	K4 III		136726	8207	D
87	19 LAM	PIAUTOS	08 17 33.902	+24 10 52.39	+5.310	+5.310	B3 V		70011	80113	D
463	28 BU	PLETONE	03 46 12.351	+23 59 07.56	+5.047	+5.047	B8 P	*	23862	76229	D
514	1 ALP	POLARIS	01 48 48.786	+89 01 43.74	+2.500	+2.500	F8 II		8900A	308	D
250	78 BET	POLLUX	07 42 15.517	+28 08 55.11	+1.146	+1.146	KO III		62509A	79666	D
527	29 GAM	PORRIMA	12 39 07.452	-01 10 31.58	+3.808	+3.808	FG V		1103797DAB	138917	D
296	OMI	PRAECIPLA	10 50 31.231	+34 29 05.62	+4.240	+4.240	KG III-IV		94264	62297	D
105	5 ALP-1	PRIMA SIEDI	20 14 52.647	-12 39 51.04	+4.240	+4.240	S3 B		192876A	163422	D
70	23 THE	PRINUS ASELLUS	14 23 29.610	+52 04 52.32	+4.046	+4.046	F7 V		126660	29137	D
103	10 ALP	PROCYON	07 36 41.117	+05 21 16.81	+0.357	+0.357	F5 IV-V		51421AB	115756	D
255	7 ETA	PROPUS	06 11 51.508	+22 31 23.36	+3.200	+3.200	M3 III	*	42955AB	78135	D
294	23 DEL	RANA	03 40 51.035	-09 55 35.05	+3.530	+3.530	KO IV		23249	130586	D
282	24 MU	RASALAS	09 49 55.434	+26 14 36.08	+3.890	+3.890	K2 III		85503	81064	D
262	64 ALP-1	RASALGETHI (A)	17 12 21.948	+14 26 45.34	+3.194	+3.194	M5 II		156014A	102680	D
263	64 ALP-2	RASALGETHI (B)	17 12 22.274	+14 26 43.71	+5.477	+5.477	G5 III+F2		156015B	102681	D
320	55 ALP	RASALHAGUE	17 32 36.696	+12 35 41.92	+2.072	+2.072	A5 III		193561	102932	D
205	23 BET	RASTABAN	17 29 18.009	+52 20 15.65	+2.759	+2.759	G2 II		15191AB	30429	C
522	GAM-2	REGOR	08 07 59.455	-47 11 18.31	+1.933	+1.933	O7 +9C7		69273A	219504	D
283	32 ALP	REGENATE OF THE SWAN	10 05 42.647	+12 12 44.54	+1.351	+1.351	B7 V		87501A	98967	D
185	34 P	RIGEL	20 15 56.500	+37 52 35.55	+4.930	+4.930	B P	*	193237	69773	N
334	19 BET	RIGILAWWA	05 12 07.990	-08 15 28.65	+0.153	+0.153	B6 IA		34085A	131907	D
535	107 MU	RIGILAWWA	14 40 25.293	-05 26 30.92	+3.393	+3.393	F3 IV		129502	140090	D
197	6 BET	ROIANEV	14 36 11.253	-60 37 46.84	+0.059	+0.059	G2 V+DK1	*	1286207IAB	252838	D
195	45 OME-1	RUCBA	20 35 12.206	+14 25 12.31	+3.583	+3.583	F5 IV		196524AB	106316	D
119	37 DEL	RUCBAH	20 28 30.340	+48 46 57.97	+4.950	+4.950	B2 V		133556AB	49712	D
407	ALP	RUKBAT	01 22 31.498	+59 59 34.36	+2.577	+2.577	A5 V		9538	22258	D
326	35 ETA	SABIK	19 26 25.992	-40 42 43.10	+3.960	+3.960	B9 III		181969	228559	D
9	98 GAM	SADAC-8IA	17 07 30.461	-15 39 52.89	+2.430	+2.430	A2.5V		151125AB	160332	D
365	48 MU	SADALBARI	22 19 04.420	-01 38 23.77	+3.945	+3.945	AO V		212061	146044	D
368	43 OMI	SADALMATAR	22 47 35.191	+24 20 13.72	+3.490	+3.490	G8 III		216131	90816	D
7	34 ALP	SADALMELIK	22 39 24.327	+29 02 46.12	+4.807	+4.807	A1 V		214994	50717	D
18	31 OMI	SADALMULK	22 03 12.945	-00 33 48.59	+2.933	+2.933	G2 IB		209750	145862	D
364	47 LAM	SADALNAZI	22 00 43.657	-02 23 51.13	+4.745	+4.745	B8 V E		203409	145837	D
189	37 GAM	SADALSUUD	21 44 07.173	+23 18 07.41	+3.955	+3.955	G8 II-III		215665	90775	D
154	72 RHO	SADR AL KAITOS I	21 28 55.649	-05 47 31.68	+2.878	+2.878	GO IB		204867	145457	D
155	76 SIG	SADR AL KAITOS II	20 20 25.927	+40 05 44.59	+2.214	+2.214	F9 IB		194093A	49528	D
143	83 EPS	SADR AL KAITOS III	02 23 31.955	-12 30 54.30	+4.880	+4.880	B9 V		15130	148385	D
153	89 PI	SADR AL KAITOS IV	02 37 08.552	-12 05 00.36	+4.748	+4.748	F5 IV-V		15798	148445	D
339	28 ETA	SAIF AL JABBAR	02 41 44.470	-14 04 10.17	+4.235	+4.235	B7 V		16620AB	148575	D
			05 21 57.676	-02 26 25.58	+3.350	+3.350	B0.5V	*	35411AE	132071	D

TABLE 4 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	VISUAL MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
325	13 ZET	SAIK	16 34 24.137	-10 28 02.91	+2.567	O9.5V		1493757	160006	
343	53 KAP	SAIP-1	05 45 23.113	-09 41 09.45	+2.084	B0.5FA		38771	132542	
369	62 TAU	SALM	23 18 09.505	+23 27 59.22	+4.580	A5 IV		220061	91186	
431	31 THE	SARGAS	17 33 43.371	-42 58 05.15	+1.866	F0 I8		159532	228201	
266	65 DEL	SARIN	17 12 58.555	+24 53 49.78	+3.140	A3 IV		156164A	84951	D
228	53 -L	SCEPTRUM	04 35 53.315	-14 24 01.60	+3.858	K2 III		29503AB	149781	D
358	53 BET	SCHEAT	23 01 20.770	+27 49 40.45	+2.560	M2 II-III	*	217905A	90981	DV
116	18 ALP	SCHECAR	00 37 39.313	+56 15 46.60	+2.223	K0 II-III		37124B	21609	DV
147	8 IOT	SCHEMALI	00 16 52.794	-09 06 03.44	+3.540	K2 III		1522A	128694	D
19	52 PI	SEAT	22 22 43.381	+01 07 22.87	+4.66C	B1 V PE		212571	127520	
106	6 ALP-2	SECUNDA GIEDI	20 15 16.878	-12 42 04.49	+3.364	G9 III		192947AB	163427	D
71	21 IOT	SECUNDUS ASELLUS	14 14 23.673	+51 35 49.93	+4.75C	A7 V		125161A	28071	D
120	45 EPS	SEGIN	01 50 46.379	+63 25 29.89	+3.370	B3 IV P		11415	12031	D
66	27 GAM	SEGINUS	14 30 03.937	+39 31 34.12	+3.036	A7 III		127762	64203	D
403	5 ALP	SEHAM	19 37 51.612	+17 53 51.21	+4.358	G0 II		185750A	105120	D
309	31 LYN	SHAUKAH	08 19 25.154	+43 21 00.83	+4.245	K5 III		70272	42319	
435	35 LAM	SHAULA	17 30 12.626	-37 04 09.63	+1.617	B1 V		158926	208954	DV
311	10 BET-1	SHELIAK	18 48 13.535	+33 18 12.51	+3.44C	B AS	*	174638/5A	67451	
35	6 BET	SHERATAN	01 51 58.340	+20 33 52.09	+2.526	A5 V		11636	75012	
93	9 ALP	SIRIUS	06 42 56.713	-16 38 46.37	-1.447	A1 V+WD A		48318AB	151881	D
15	63 KAP	SITULA	22 35 10.023	-04 29 11.39	+5.025	K2 III		214376	146210	
10	76 DEL	SKAT	22 51 53.901	-16 05 13.92	+3.266	A3 V		216627	165375	
525	67 ALP	SPICA	13 22 33.301	-10 54 03.35	+0.968	B1 V		116658	157923	
460	21 TAU	STEROPE I	03 42 55.370	+24 24 00.00	+5.757	B8 V		23432	76159	
461	22 TAU	STEROPE II	03 43 03.946	+24 22 24.39	+6.430	B9.5V		23441	76164	
295	14 OMI	SUBRA	09 38 29.008	+10 07 14.64	+3.48C	A2 +F6 II		83808/5A	99709	D
524	LAM	SUHAII	09 06 09.310	-43 13 47.60	+2.240	K5 I8		78647AB	220878	D
312	14 GAM	SULAFAT	18 57 04.294	+32 37 11.26	+3.25C	B9 III		176437A	67663	D
367	46 XI	SUUDALNUJUM	22 44 11.592	+11 54 57.24	+4.203	F7 V		215648AB	108165	D
196	9 ALP	SWALCCIN	20 37 18.874	+15 44 04.30	+3.766	B5 V		198867A	116357	D
532	99 IOT	SYRMA	14 13 23.345	-05 45 46.18	+4.077	F7 III-IV		124850	139824	
349	1 PI -3	TABIT	04 47 07.390	+06 52 32.26	+3.19C	F6 V		30652	112106	
217	58 PI	TAIS I	19 20 28.896	+65 37 05.16	+4.593	A2 IV		182564	18299	
218	67 RHO	TAIS II	20 02 35.927	+67 43 51.21	+4.513	K3 III		190940	18676	
436	MU -1	TALI AL SHAULA-I	16 48 28.679	-37 57 48.92	+3.140	B1.5V	*	151890	208102	
437	MU -2	TALI AL SHAULA-II	16 48 56.599	-37 56 03.17	+3.56C	B2 IV		151965	216116	
498	9 IOT	TALITHA	09 55 47.626	+48 14 26.05	+3.146	A7 V		76644A	42630	D
501	34 MU	TANIA AUSTRALIS	10 19 21.469	+41 45 02.25	+3.03C	M0 III		85758	43310	
500	33 LAM	TANIA BOREALIS	10 14 09.353	+43 09 53.54	+3.455	A2 IV		89021	43268	
22	50 GAM	TARAZED	19 43 52.907	+10 29 24.38	+2.717	K3 II		186791	105223	
465	19 -0	TAYGETA	03 42 13.572	+24 18 42.91	+4.299	B6 V		23338	76140	
83	16 ZET-1	TEGHINE (AB)	08 09 20.753	+17 47 55.93	+5.05C	F8 V		68256/7AB	57645	C
84	16 ZET-2	TEGHINE (C)	08 09 21.213	+17 47 59.39	+6.200	DF2		68255C	97846	D
426	58 OME	TEREBELLUM I	19 52 46.744	-26 26 01.47	+4.300	DG5		188376	188722	
405	59 -9	TEREBELLUM II	19 53 52.375	-27 19 14.61	+4.520	GK3		189603	188742	
404	60 A	TEREBELLUM III	19 55 54.576	-26 19 51.29	+4.83C	G55		189005	188778	
406	62 -C	TEREBELLUM IV	19 59 35.193	-27 51 01.64	+4.503	M4 III		189763	188844	
73	17 KAP-2	TERTIUS ASELLUS (A)	14 11 41.518	+52 01 23.55	+4.51C	A7 IV		124675A	29046	D
72	17 KAP-1	TERTIUS ASELLUS (B)	14 11 40.271	+52 01 15.47	+6.698	F2 V		124674B	29045	D
353	36 UPS	THABIT	05 29 31.667	-07 20 12.87	+4.616	B0		36512	132222	

TABLE 4 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY STAR NAME

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
2	49 A AND	T-HAIL	01 27 05.505	+46 45 00.17		+5.260		K0 III		3057	37275	
245	52 UPS-2	THEEMIN	04 33 36.315	-30 39 48.98		+3.81C		K0 III		29291	195146	
.67	49 DEL	T-HISA	15 13 29.117	+33 30 01.20		+3.479		G8 III		135722A	64589	D
204	11 ALP	T-HUBAN	14 03 01.963	+64 36 51.57		+3.652		A0 III		123295	16273	
395	110 OMI	TORCULAR	01 42 44.368	+08 54 24.64		+4.258		S8 III		10761	110110	
340	41 THE-1	TRAPEZIUM	05 32 48.895	-05 25 16.22	N	+4.6LC		O6 +80.5		37020-348CD	132314	D
208	63 EPS	TYL	19 48 21.063	+70 08 26.55		+3.833		G8 III		188119A8	9540	D
101	16 OMI-1	UDRA	06 52 03.762	-24 07 12.87		+3.86C		K3 IAB		50877	172542	
280	31 TAU-1	UKDAH I	09 26 36.618	-02 32 59.04		+4.597		F6 V		81997A	136895	
281	32 TAU-2	UKDAH II	09 29 25.987	-00 57 47.98		+4.558		A3 III		82446	136932	
270	33 A	UKDAH III	09 32 02.913	-05 41 26.92		+5.550		SK1		82970	136984	
246	35 10T	UKDAH IV	09 37 18.152	-00 54 53.79		+3.861		K3 III		83618	137035	D
979	24 ALP	UNUKAL-HAI	15 41 48.151	+06 34 53.93		+2.586		K2 III		140573A	121157	D
433	101-2	VANANT	17 46 41.171	-40 04 35.09		+4.8CC		CA3		161312A	228466	D
170	R	VARIABLES CORONAE	15 46 30.695	+28 19 32.24		+5.300	*	F PEP	*	141527	84015	V
310	3 ALP	VEGA	18 35 14.655	+38 44 09.68		+C.044		A0 V		172167A	67174	D
529	47 EPS	VIR VINDEMIATRIX	12 59 41.210	+11 13 38.90		+2.929		G9 III		113226	100384	
252	55 DEL	WASAT	07 17 08.265	+22 04 34.08		+3.526		FU IV		5E986A3	79294	D
163	BET	WAZN	05 49 11.727	-35 47 09.73		+3.110		K2 III		33425	196240	
96	25 DEL	WEZEN	07 06 21.436	-26 18 45.36		+1.878		F8 IA		546C5	173047	
324	2 EPS	YED POSTERIOR	16 15 40.348	-04 34 13.57		+3.233		G9 III		146791	141086	
323	1 DEL	YED PRICR	16 11 43.325	-03 34 01.41		+2.721		M1 III		146051	141052	
518	23 DEL	YILDUN	17 48 18.338	+36 36 34.78		+4.347		A1 V		166205	2937	
531	15 ETA	ZANIAH	12 17 26.761	-00 23 20.65		+3.88C		A2 V		107259	138721	
231	34 GAM	ZAUARAK	03 55 41.672	-13 38 58.17		+2.953		M0 III		25025A	149283	D
526	5 BET	ZAVIJAVA	11 48 05.387	+02 02 47.61		+3.6C8		F8 V		102870	119076	
233	13 ZET	ZIBAL	03 13 24.143	-09 00 15.50		+4.798		A7 M		20320	130387	
287	68 DEL	ZOSMA	11 11 27.585	+20 47 52.67		+2.562		A4 V		97603	81727	D
96	48 101-2	ZUBANAH (A)	08 43 40.514	+28 56 39.19		+4.030		G8 II		74739A	80416	D
85	48 101-1	ZUBANAH (B)	08 43 38.685	+28 56 51.95		+6.57C		A3 V		74738B	80415	D
305	44 ETA	ZUSAN AL KRABI	15 41 15.348	-15 30 53.77		+5.400		F0 III		140417	159466	
307	20 SIG	ZUBEN AGRABI	15 01 08.247	-25 05 12.27		+3.318		M4 III		133216	183139	
302	8 ALP-1	ZUBENELGENUBI I	14 47 54.359	-15 47 25.90		+5.153		F5 IV-V		130819B	158836	D
303	9 ALP-2	ZUBENELGENUBI II	14 48 06.447	-15 50 06.59		+2.747		A3 V		130841A	15884C	D
304	27 BET	ZUBENESC-HAMALI	15 14 18.732	-03 11 58.93		+2.612		B8 V		135742	140330	D
306	21 NU	ZUBEN-HARRABI	15 03 49.829	-16 03 51.08		+5.28C	*	K5 III	*	133774	159028	D
232	72	ZUBRAH	11 12 32.837	+23 22 05.98		+4.625		M3 III		97778	81736	

TABLE 5

STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL V MAG.	SPECTRAL CLASS	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
3	21 ALP AND	ALPHERATZ	00 05 47.841	+28 49 52.12		+2.074	B8 III P	358	73765	D
117	11 BET CAS	CAP4	00 06 29.735	+58 52 26.77		+2.275	F2 IV	432AB	21133	D
359	88 GAM PEG	ALGENIB	00 10 39.447	+14 54 20.57		+2.827	B2 IV	886	91781	D
147	8 IOT CET	SCHEMALI	00 16 52.784	-09 06 03.44		+3.540	K2 III	1522A	128694	D
386	KAP P4E	ALRIAL I	00 23 44.906	-43 57 25.67		+3.929	A7 V N	2262	215092	D
383	ALP P4E	ANKAA	00 23 49.029	-42 34 38.55		+2.390	K0 III	2261	215093	D
116	38 ALP CAS	SCHEGAR	00 37 39.313	+56 15 49.60		+2.223	K0 II-III	3712AB	21609	DV
387	MU P4E	ALRIAL II	00 38 58.031	-46 21 33.10		+4.593	G8 III	3919	215194	D
140	16 BET CET	DENEB KAITOS	00 41 04.811	-18 15 38.78		+2.028	K1 III	4128	147420	D
158	17 PHI-1 CET	ALNITHAM I	00 41 40.021	-10 52 53.49		+4.750	K0 III	4128	147423	D
392	63 DEL PSC	KUTON I	00 46 05.113	+07 19 47.93		+4.430	K5 III	4656	109474	D
159	19 PHI-2 CET	ALNITHAM II	00 47 37.288	-10 54 47.65		+5.189	F8 V	4813	147470	D
160	22 PHI-3 CET	ALNITHAM III	00 53 31.022	-11 32 13.09		+5.300	K9 III	5477	147519	D
118	27 GAM CAS	NAVI	00 53 40.324	+60 26 47.39		+2.570	B0 IV E	5344AB	11482	D
161	23 PHI-4 CET	ALNITHAM IV	00 56 13.583	-11 38 58.40		+5.790	GG7	5722	147546	D
384	BET P4E	ALRIAL III	01 03 51.357	-46 59 09.78	L	+3.300	G8 III	6554B	215365	D
122	30 MU CAS	AL MARFAK	01 04 55.686	+54 40 32.96		+5.163	G5 V P	6362	22024	D
145	31 ETA CET	DENEB ALGENUBI	01 06 04.420	-10 26 49.57		+3.437	K3 III	6805	147632	D
4	43 BET AND	MIRACH	01 06 55.456	+35 21 21.74		+2.060	M0 III	6860	54471	D
121	33 THE CAS	MARFAK	01 08 02.554	+54 53 04.32		+4.332	A7 V	6961	22070	D
393	86 ZET-1 PSC	KUTON II	01 11 06.933	+07 19 41.34		+5.235	F0 IV-V	7344A	109739	D
394	86 ZET-2 PSC	KUTON III	01 11 08.346	+07 18 52.03		+6.270	F6 V	7345B	169740	D
388	MU P4E	ALRIAL IV	01 12 55.906	-45 47 53.12		+4.953	F8 V	7570	215428	D
6	46 XI AND	ADHIL	01 19 23.163	+45 16 02.87		+4.867	K0 III-IV	8207	37155	D
146	45 THE CET	AL NAYMAT I	01 21 31.363	-08 26 27.16		+3.603	K0 III	8512A	129274	D
119	37 DEL CAS	RUC-BAH	01 22 31.498	+59 58 31.36		+2.677	A5 V	8538	22268	D
385	6AM P4E	ALRIAL V	01 26 11.776	-43 34 25.94		+3.400	K5 II	9053	215516	D
2	49 A AND	THAIL	01 27 05.505	+46 45 00.17		+5.260	K0 III	9057	37275	D
1	51 AND	NEMBUS	01 34 54.636	+48 22 32.66		+3.570	K3 III	9927	37375	D
229	ALP ERI	ACHERMAR	01 35 51.307	-57 29 24.93		+0.490	B5 V P	10144	232481	D
156	52 TAU CET	AL NAYMAT II	01 41 44.660	-16 12 00.50		+3.496	G8 V P	10700	147986	D
395	110 OMI PSC	TORCULAR	01 42 44.968	+68 54 24.64		+4.258	G8 III	10761	110110	D
514	1 ALP UMI	POLARIS	01 48 48.786	+89 01 43.74		+2.500	F8 I8	8890A	308	DV
144	55 ZET CET	BATEN KAITOS	01 48 59.447	-10 34 52.90		+3.723	K2 III	11353	148059	D
479	2 ALP TRI	CAPUT TRIANGULI	01 50 13.440	+29 20 10.14		+3.413	F6 IV	11443	74996	D
120	45 EPS CAS	SEGIN	01 50 46.378	+63 25 29.89		+3.370	B3 IV P	11415	12031	D
36	5 GAM-1 ARI	MESARTIM (B)	01 50 46.855	+19 03 06.11		+4.673	A1 P	11502B	92680	D
37	5 GAM-2 ARI	MESARTIM (A)	01 50 46.872	+19 02 57.87		+4.594	B9 V	11503A	92681	D
35	6 BET ARI	SHERATAN	01 51 52.340	+20 33 52.09		+2.626	A5 V	11636	75012	D
157	59 UPS CET	AL NAYMAT III	01 57 27.392	+02 31 23.04		+3.590	M1 III	12274	167471	D
390	113 ALP PSC	ALRESCHA	02 00 49.177	+42 05 27.01		+2.170	A M+A2 P	12446/7AB	110291	D
5	57 GAM-1 AND	ALMACH	02 04 20.917	+23 13 37.07		+2.009	K3 II	12533A	37734	D
34	13 ALP ARI	TAMAL	02 06 33.579	+34 45 06.52		+2.997	K2 III	12929	75151	D
480	4 BET TRI	MIZAN	02 10 20.747	+08 36 47.36		+4.160	A5 III	13161	55306	D
150	65 XI-1 CET	AL KAFF AL JID-MAH I	02 14 32.316	+57 17 09.57		+5.990	G8 II	13611	110408	D
381	7 CHI PER	MISAM AL THURAYYA I	02 15 42.013	+56 56 22.44		+6.645	G5 II	13994A	23149	D
371	-H PER	MISAM AL THURAYYA II	02 16 49.045	-03 12 13.39		+2.000	B2 IA	14143A	23182	D
152	68 OMI CET	MIRA	02 23 31.955	-12 30 54.30		+4.980	GM6 E	14386AP	129825	DV
154	72 RHO CET	SADR AL KAITOS I	02 25 29.791	+08 14 13.15		+4.271	B9 V	15130	148385	D
151	73 XI -2 CET	AL KAFF AL JID-MAH II					B9 III	15318	110543	D

TABLE 5 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
155	76 SIG	CET	02 29 42.948	-15 27 47.46		+4.749		F5 IV-V		15798	148445	
142	82 DEL	CET	02 36 54.585	+00 06 50.00		+4.654		B2 IV		16582	110665	D
143	83 EPS	CET	02 37 08.592	-12 05 00.36		+4.937		F5 IV-V		1662048	148528	D
30	33 ARI	ARI	02 37 45.345	+26 50 50.75		+5.295		A3 V		166268A	75510	D
41	34 MU	ARI	02 39 32.488	+19 47 58.69		+5.660	*	A0 IV-V		16911	93062	D
31	35 MU	ARI	02 40 30.651	+27 29 44.29		+4.650		B3 V		16908	75532	D
141	86 GAM	CET	02 40 42.397	+03 01 34.05		+3.459		A2 V		1697048	110707	D
153	89 PI	CET	02 41 44.470	-14 04 10.17		+4.235		B7 V		17051	148575	D
149	87 MU	CET	02 42 14.102	+09 54 15.02		+4.660		F0 IV		17094	110723	D
32	39 ARI	ARI	02 44 55.469	+29 02 26.66		+4.513		K1 III		17361	75578	D
42	42 PI	ARI	02 46 29.805	+17 15 27.06		+5.340		B6 IV		17542A	93127	D
375	15 ETA	PER	02 47 01.935	+55 41 22.43		+3.167		K3 IB		17506A	23655	D
33	41 -C-1	ARI	02 47 02.036	+27 03 20.55		+3.610		B8 V		17573	75596	D
243	2 TAU-2	ERI	02 48 46.150	-21 12 32.91		+4.763		K0 III		17824A	168094	D
43	46 RHO	ARI	02 53 36.479	+17 49 30.02		+5.500	*	DF5		19256	93195	D
234	3 ETA	ERI	02 53 58.952	-09 05 45.89		+3.887		K1 III-IV		19322	130197	D
379	22 PI	PER	02 55 35.275	+39 27 50.67		+4.657		A2 V		18411	56047	D
39	48 EPS	ARI	02 56 20.825	+21 08 29.91	L	+4.638		A2 V		18515/048	75673	D
235	THE-1	ERI	02 56 21.882	-40 30 15.15		+3.264	S	A3 V		186224	216113	D
236	THE-2	ERI	02 56 22.578	-40 30 14.34		+4.263	S	A2		186238	216114	D
148	91 LAM	CET	02 57 01.871	+09 42 33.54		+4.637		B5 III		18604	110889	D
240	8 RHO-1	ERI	02 58 42.365	-07 51 31.98		+5.745		D66		18784	130243	D
139	9 ALP	CET	02 59 39.744	+03 53 41.15		+2.517		M2 III		18884	110920	D
241	10 RHO-2	ERI	03 00 14.892	-07 52 51.43		+5.310		566		1895348	130254	D
242	10 RHO-3	ERI	03 00 46.952	-07 47 43.01		+5.297		A3		19107	130269	D
380	25 RHO	PER	03 01 57.795	+38 38 52.86		+3.200	*	M4 II-III		19058	56138	V
373	26 BET	PER	03 04 50.356	+40 45 52.46		+2.200	*	B8 V		19356A	38591	DV
376	27 KAP	PER	03 06 06.756	+44 40 10.21		+3.353		K0 III		19476A	38609	D
382	28 ONE	PER	03 08 03.167	+39 25 23.39		+4.613		K0 III		19656	56224	D
38	57 DEL	ARI	03 08 45.885	+19 32 20.22		+4.350		K2 III		19767	93328	D
40	58 ZET	ARI	03 12 01.326	+20 51 37.93		+4.997		A0 IV-V		20150	75810	D
233	13 ZET	ERI	03 13 24.143	-09 00 15.50		+4.799		A7 M		20320	130387	D
372	33 ALP	PER	03 20 44.441	+49 41 06.04		+1.803		F5 IB		20902	38787	D
232	23 DEL	ERI	03 40 51.035	-09 55 53.05		+3.530		K0 IV		23249	130686	D
378	38 OMI	PER	03 41 10.598	+32 07 53.47		+3.929		B1 III		2318048	56673	D
457	16	TAU	03 41 48.528	+24 08 01.54		+5.455		B7 IV		23288	76126	D
458	17	TAU	03 41 54.055	+23 57 27.82		+3.702		B6 III		23302	76131	D
465	19 -G	TAU	03 42 13.572	+24 18 42.91		+4.298		B6 V		23338	76140	D
459	20	TAU	03 42 50.756	+24 12 47.01		+3.979		B7 III		23408	78155	D
460	21	TAU	03 42 55.370	+24 24 00.00		+5.757		B8 V		23432	76159	D
461	22	TAU	03 43 03.846	+24 22 24.39		+6.430		B9-V		23441	76164	D
462	23	TAU	03 43 21.195	+23 47 38.99		+4.116		B6 IV NN		23480	76172	D
471	25 ETA	TAU	03 44 30.424	+23 57 07.57		+2.970		B7 III		236304	76199	D
464	27 -F	TAU	03 46 11.030	+23 54 07.66		+3.626		B8 III		2385048	76228	D
463	28 BU	TAU	03 46 12.391	+23 59 07.56		+5.047		B9 P		23862	76229	D
374	44 ZET	PER	03 50 58.959	+31 44 12.55		+2.850		B1 IB		2439848	56799	D
231	34 GAM	ERI	03 55 41.672	-13 38 58.17		+2.953		M0 III		25025A	148283	D
377	46 XI	PER	03 55 42.825	+35 39 56.50		+4.037		B5 V		24912	56856	D
238	38 OMI-1	ERI	04 09 25.339	-06 57 59.74		+4.045		F2 II-III		26574	131019	D
239	40 OMI-2	ERI	04 12 58.161	-07 43 45.89		+4.433		K1 V		26965A	131063	D

TABLE 5 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
247	41 UPS-4 ERI	BEEMIM I	04 16 00.036	-33 55 09.65	L	+3.553	B8.5V		27376AB	194902	D
468	54 GAM TAU	HYADUM I	04 16 56.651	+15 30 30.62		+3.635	K0 III		27371	53868	D
477	52 PHI TAU	ALKALBAIN I	04 17 16.436	+27 13 58.39		+4.350	K1 III		27382A	76558	D
478	59 CHI TAU	ALKALBAIN II	04 19 32.079	+25 30 46.87		+5.35C	B9.5V		27638A	76573	D
469	61 DEL TAU	HYADUM II	04 20 02.844	+17 25 36.81		+3.757	K0 III		27697	93897	D
246	43 UPS-3 ERI	BEEMIM II	04 22 09.409	-34 07 54.81		+3.95C	M1 III		28028	184984	D
474	65 KAP-1 TAU	ALKALBAIN III	04 22 23.083	+22 10 51.94		+4.220	A7 V		27934	76601	D
475	67 KAP-2 TAU	ALKALBAIN IV	04 22 26.032	+22 05 13.99		+5.28C	A7 V		27946	76602	D
476	69 UPS TAU	ALKALBAIN V	04 23 18.680	+22 42 06.75		+4.289	FD III-IV		28024	76608	D
470	74 EPS TAU	OCULUS BOREUS	04 25 41.585	+19 04 16.36		+3.574	K0 III		28305	93954	D
472	77 THE-1 TAU	HYADUM III	04 25 42.982	+15 51 10.15		+3.949	K0 III		28307	93955	D
473	78 THE-2 TAU	HYADUM IV	04 25 48.220	+15 45 41.80		+3.409	A7 III		28319	93957	D
244	50 UPS-1 ERI	BEEMIM III	04 31 32.818	-29 51 55.49		+4.500	G6 III		28085	169570	D
466	87 ALP TAU	ALDEBARAN	04 33 02.896	+16 24 37.51		+C.858	K5 III		25135AB	94027	D
245	52 UPS-2 ERI	T-HEEMIN	04 33 36.315	-30 39 48.99		+3.910	K0 III		29291	195148	D
228	53 -L ERI	SCEPTRUP	04 35 53.315	-14 24 01.60		+3.858	K2 III		25503AB	149781	D
349	1 PI -3 ORI	YABIT	04 47 07.390	+06 52 32.26		+3.130	F6 V		30652	112106	D
348	2 PI -2 ORI	AL TAJ I	04 47 53.047	+08 48 57.64		+4.355	A0 V		30739	112124	D
350	3 PI -4 ORI	AL TAJ II	04 48 32.421	+05 31 16.34		+3.692	B2 III		30936	112142	D
345	4 OMI-1 ORI	AL KUMH I	04 49 42.058	+14 10 08.31		+4.72C	M3 S		30959	94176	D
351	8 PI -5 ORI	AL TAJ III	04 51 38.661	+02 21 37.24		+3.720	B2 III	*	31237	112197	D
332	6 -G ORI	MANICA	04 52 00.355	+11 20 45.39		+5.15C	A3		31283	94197	D
347	7 PI -1 ORI	AL TAJ IV	04 52 08.440	+10 04 22.53		+4.670	A0 V		31295	94201	D
346	9 OMI-2 ORI	AL KUMH II	04 53 33.423	+13 26 13.64		+4.672	K2 III		31421A	94218	D
50	3 IOT AUR	KABALINAN	04 53 43.982	+33 05 19.94		+2.692	K3 II		31398	57522	D
352	10 PI -6 ORI	AL TAJ V	04 55 57.260	+01 39 20.04		+4.458	K2 II		31767	112281	D
297	R LEP	CRIMSON STAR	04 57 19.727	-14 52 47.49		+6.000	C7 4E	*	31996	150058	V
46	7 EPS AUR	ALANZ	04 58 22.530	+43 45 05.36		+2.978	FG IA		31964	39955	OV
47	8 ZEI AUR	HAEDUS I	04 58 58.680	+41 00 17.79	L	+3.900	K5 II+8	*	32058/9	39966	D
248	65 PSI ERI	KURSI AL JAUZAY I	04 59 00.759	-07 14 44.98		+4.795	B2 V		32245	131700	D
48	10 ETA AUR	HAEDUS II	05 03 00.214	+41 10 08.38		+3.171	B3 V		32630	40026	D
230	67 BET ERI	CURSA	05 05 23.365	-05 08 58.54		+2.775	A3 III		33111	131794	D
237	69 LAH ERI	KURSI AL JAUZAY II	05 06 45.092	-08 43 00.32		+4.270	B2 IV		33328	131824	D
389	PIC	KAPTEYN'S STAR	05 09 41.462	-44 59 53.25		+8.85C	M0 V		33793	217223	D
52	11 MU AUR	AL-HIBA I	05 10 00.157	+38 25 38.27		+4.860	A M		33641	57755	D
334	19 BET ORI	RIGEL	05 12 07.990	-08 15 28.65		+C.153	B8 IA		34085A	131907	D
44	13 ALP AUR	CAPELLA	05 12 59.465	+45 56 59.04		+0.062	G8 III+F		34023AP	40186	D
51	15 LAH AUR	AL-HIBA II	05 15 37.211	+40 03 24.51		+4.710	G0 V		34411A	40233	D
53	21 SIG AUR	AL-HIBA III	05 21 15.060	+37 20 26.65		+4.987	K4 III		35196	57981	D
339	28 ETA ORI	SAIF AL JABBAR	05 21 57.676	-02 26 29.58	L	+3.35C	B0.5V	*	35411AB	132071	D
335	24 GAM ORI	BELLATRIX	05 22 26.828	+06 18 21.71		+1.635	B2 III		35463	112740	D
467	112 BET TAU	ELNATH	05 23 07.710	+28 34 01.74		+1.652	B7 III		35457	77168	D
299	9 BET LEP	NYAL	05 26 06.090	-20 47 52.90		+2.935	G5 III		36079AB	170457	D
336	34 DEL-1 ORI	MINTAKA	05 29 27.017	-00 20 04.41		+2.20C	09.5II	*	36466A	132220	D
353	36 UPS ORI	T-HABIT	05 29 30.607	-07 20 12.87		+4.616	B0 V		36512	132222	D
298	11 ALP LEP	ARNEB	05 30 31.394	-17 51 24.18		+2.591	F0 I8		36673A	150547	D
354	37 PHI-1 ORI	HEKA	05 32 04.419	+09 27 26.67		+4.410	B0 IV		36822	112914	D
344	39 LAH ORI	MEISSA	05 32 22.513	+09 54 08.35		+3.351	08 +B0.5V		36861/2AB	112921	D
340	41 THE-1 ORI	TRAPEZIUM	05 32 48.395	-05 25 16.22	N	+4.600	06 +B0.5		37020-3ABCD	132314	D
330	42 -C ORI	MIZAN BATIL I	05 32 55.055	-04 52 11.72	L	+4.55C	B2 III		37018AB	132320	D

TABLE 5 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY RIG-T ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RI. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P M	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
341	43 THE-2 ORI	MIZAN BATIL II	05 32 55.449	-05 26 50.72		+5.077		09.5V P		37041A	132321	D
342	44 10T ORI	HATYSA	05 32 59.126	-05 56 28.26		+2.761		09 III		37043AB	132323	D
347	46 EPS ORI	ALNILAM	05 33 40.476	-01 13 56.30		+1.694		80 IA		37128	132346	
355	40 PHI-2 ORI	HKA	05 34 09.415	+09 15 54.81		+4.082		K0 III		37160	112958	
331	49 -D ORI	MIZAN BATIL III	05 36 27.836	-07 14 21.42		+4.797		44 IV		37507	132411	
162	ALP COL	PHACI	05 37 50.211	-34 05 58.73		+2.630		88 V E		37795	196059	D
339	50 ZET ORI	ALNIYAK	05 38 14.043	-01 59 02.99		+1.749		09.5I8+83		37742/3AB	132444	D
300	13 GAM LEP	KURSI AL JABBAR	05 42 22.653	-22 27 48.30		+3.597		F6 V		38393A	170759	D
343	53 KAP ORI	SATPH	05 45 23.013	-09 41 09.45		+2.064		80.5IA		38771	132542	D
301	15 DEL LEP	ARSH AL JAUAZAH	05 49 10.193	-20 52 55.23		+3.780		G8 III		39364	170926	
163	BET COL	WAZN	05 49 11.727	-35 47 09.73		+3.110		K2 III		39425	196240	
333	58 ALP ORI	BETELGEUSE	05 52 27.809	+07 23 57.92		+0.800		M2 IAB		39801A	113271	DV
45	34 BET AUR	MENKALINAN	05 55 51.579	+44 56 40.69		+1.900		A2 V		40183AP	40750	D
49	37 THE AUR	MAHASIM	05 56 18.627	+37 12 40.05		+2.660		89.5V P		40312AB	58636	D
164	7 THE COL	KURUD I	06 05 48.671	-37 14 41.29		+5.010		M3 III		42167	196514	DV
255	ETA GEM	PROFUS	06 11 51.508	+22 31 23.36		+3.200		M3 III		42995AE	78135	
165	KAP COL	KURUD II	06 14 46.279	-35 07 22.03		+4.360		G8 III		43785	196643	
98	1 ZET CMA	FURUD	06 18 23.546	-30 02 23.86		+3.024		B2.5V		44402	196698	
256	13 MU GEM	CALX	06 19 56.096	+22 32 27.98		+2.890		M3 III		44478A	78297	D
54	2 BET CMA	MIRZAH	06 20 02.980	+19 55 47.23		+1.980		B1 II-III		44743	151428	
46	PSI-1 AUR	DOLONES I	06 21 02.980	+19 55 47.23		+4.950		M0 IAB		44537	41076	
112	ALP CAR	CANOPUS	06 22 50.931	-52 40 03.45		+0.720		FU IA		45348	234480C	D
257	18 MU GEM	NUCATAI	06 25 59.627	+20 16 44.06		+4.153		87 IV E		45542AP*	78423	
251	24 GAM GEM	AL'ENA	06 34 49.396	+16 26 37.40		+1.930		A0 IV		47105	95912	
56	52 PSI-3 AUR	DOLONES II	06 35 20.296	+39 56 51.00		+5.200		B8 III		47100	59319	
55	50 PSI-2 AUR	DOLONES III	06 35 45.703	+42 32 06.13		+4.786		K3 III		47174	41239	
57	55 PSI-4 AUR	DOLONES IV	06 39 26.746	+44 34 29.11		+5.027		K5 III		47914	41288	
253	27 EPS GEM	HEBSUTA	06 40 51.363	+25 10 56.92		+2.988		G8 IB		48329A	78582	D
258	31 XI GEM	AL'ZIRR	06 42 28.966	+12 57 04.31		+3.353		F5 IV		48737	96074	
93	9 ALP CMA	SIRIUS	06 42 56.713	-16 38 46.37		-1.457		A1 V+D A		48915AB	151881	D
58	56 PSI-5 AUR	DOLONES V	06 43 08.206	+13 37 45.74		+5.240		G0 V		48662A	41330	D
59	57 PSI-6 AUR	DOLONES VI	06 43 50.996	+18 50 40.75		+5.210		K1 III		49781	41346	
60	58 PSI-7 AUR	DOLONES VII	06 47 13.920	+41 50 32.27		+5.005		K3 III		49520	41380	
61	61 PSI-8 AUR	DOLONES VIII	06 50 31.472	+38 34 05.87		+6.240		B9 P		50204	59589	
101	16 OMI-1 CMA	UDRA	06 52 03.362	-24 07 12.87		+3.960		K3 IA3		50877	172542	
62	PSI-9 AUR	DOLONES IX	06 52 50.489	+46 20 23.28		+5.750		88 IV		50658	41446	
100	18 MU CMA	ISIS	06 53 49.103	-13 58 38.75		+4.390		G5 +2		51250/1AB	152123	D
308	16 LYN	DOLONES X	06 53 58.335	+59 09 40.72		+4.895		A2 V		50973	41463	
97	26 EPS CMA	AD'ARA	06 56 39.587	-28 54 10.24		+1.500		B2 II		52099AB	172676	D
102	24 OMI-2 CMA	AL ZARA	07 00 56.142	-23 45 32.46		+3.010		B3 IA		53136	172839	
254	43 ZET GEM	HEKSUDA	07 01 09.627	+20 39 43.45		+3.700		F7 IB		52373A	79031	DV
95	23 GAM CMA	MIRZA	07 01 29.713	+15 33 26.79		+4.105		B8 II		53244	152303	
96	25 DEL CMA	WEZEN	07 05 21.436	-26 18 45.36		+1.839		F8 IA		54605	173047	
252	55 DEL GEM	WASAT	07 17 08.265	+22 04 34.08		+3.526		F0 IV		56986AB	79294	D
99	31 ETA CMA	ALUDRA	07 22 06.972	-29 12 16.04		+2.440		85 IA		58350	173651	D
104	3 BET CMI	GOMEISA	07 24 26.357	+08 23 28.89		+2.894		B8 V		58715	115456	
249	66 ALP GEM	CATOR	07 31 24.654	+05 59 59.07		+1.590		M+AI V		60178/3AB	60198	D
103	10 ALP CMI	PROG'ON	07 36 41.117	+05 21 16.81		+0.357		F5 IV-V		61421AB	115756	D
399	-K-1 PUP	MERKEB (A)	07 36 46.323	-26 41 12.59		+4.509		B8		61555A	174198	D
400	-K-2 PUP	MERKEB (B)	07 36 46.620	-26 41 19.88		+4.629		B3		61556BC	174199	D

TABLE 5 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAD* CAT. NO.	STAR PROP.
250	78 BET SEM	POLLUX	07 42 15.517	+28 08 55.11		+1.146		K0 III		62509A	79666	D
402	7 XI PUP	AZMIDISNE	07 47 11.421	-24 43 55.22		+3.347		G3 IB		63700AB	174601	D
401	ZET PUP	NAOS	08 01 49.552	-39 51 40.83		+2.255		05 F		66811	198752	D
522	GAM-2 VEL	RESOR	08 07 59.465	-47 11 18.31		+1.833		07 +WC7		68273A	219504	D
83	16 ZET-1 CNC	TEGHINE (AB)	08 09 20.753	+17 47 59.93	L	+5.050		F8 V		69256/7AB	97845	D
84	16 ZET-2 CNC	TEGHINE (C)	08 09 21.213	+17 47 58.38		+6.2CC		DF2		68255C	97646	D
79	17 BET CNC	AL TAREF	08 13 48.282	+09 20 27.73		+3.523		K4 III		69267	116569	D
87	19 LAN CNC	PIAUTOS	08 17 33.902	+24 10 52.39		+5.91C		B9 V		70011	80113	D
309	31	LVN SMAUKAH	08 19 25.154	+43 21 00.83		+4.245		K5 III		70272	42319	D
114	EPS C AR	AVICR	08 21 29.383	-59 20 52.98		+1.88C		K0 II+B		71125/O	235932	D
504	1 OMI UMA	MUSCIDA	08 26 07.631	+60 53 14.56		+3.347		G5 III		71369A	14573	D
483	2 A UMA	AL-HIBA I	08 30 08.936	+65 19 03.83		+5.465		A M		72037	14590	D
505	3 PI -1 UMA	AL-HIBA II	08 34 46.703	+65 11 44.92		+5.625		G0 V		72905	14609	D
272	4 DEL HVA	MINAZAL I	08 35 00.594	+05 52 45.60		+4.143		A0 V		73262	116965	D
506	4 PI -2 UMA	AL-HIBA III	08 35 51.956	+64 30 16.82		+4.593		K2 III		73108	14616	D
279	5 SIG HVA	MINKALSHUJA	08 36 08.671	+03 31 05.48		+4.435		K2 III		73471	116988	D
82	41 EPS CNC	ALMALAF	08 37 35.068	+19 43 23.07		+6.300		A6 III		73731	98024	D
80	43 GAM CNC	ASCCELLUS BOREALIS	08 40 23.762	+21 38 58.82		+4.67C		A1 V		74198	80378	D
275	7 ETA HVA	MINAZAL II	08 40 36.696	+03 34 45.86		+4.289		B3 V		74280	117050	D
81	47 DEL CNC	ASCCELLUS AUSTRALIS	08 41 56.747	+18 20 21.83		+3.935		K0 III		74442	98087	D
85	48 IOT-1 CNC	ZUBANAH (B)	08 43 38.685	+28 56 57.95		+6.570		A3 V		74738B	80415	D
86	48 IOT-2 CNC	ZUBANAH (A)	08 43 40.514	+28 56 39.19		+4.03C		G8 II		74735A	80416	D
273	11 EPS HVA	MINAZAL III	08 44 07.755	+06 36 12.91	L	+3.365		G0 III+7		74974ABC	117112	D
278	13 RHO HVA	MINAZAL IV	08 45 47.115	+06 01 25.07		+4.347		A0 V		75137AB	117146	D
274	16 ZET HVA	MINAZAL V	08 52 45.092	+06 08 13.25		+3.109		G8 III		76294	117264	D
78	65 ALP CNC	ACUBENS	08 55 45.647	+12 03 05.07		+4.228		A M		76756	98267	D
498	9 IOT UMA	TALITHA	08 55 47.626	+48 14 22.05		+3.146		A7 V		76644A	42630	D
507	8 RHO UMA	AL-HIBA IV	08 58 03.573	+67 49 35.21		+4.757		M3 IIIB		76827	14742	D
499	12 KAP UMA	KAFZATANIA	09 00 13.266	+47 21 20.79	L	+3.572		A0		77327AB	42661	D
508	11 SIG-1 UMA	AL-HIBA V	09 04 01.898	+67 04 33.26		+5.147		K5 III		77800	14769	D
486	15 -F UMA	AL-HIBA I	09 05 21.316	+51 48 28.27		+4.467		A M		78209	27136	D
509	13 SIG-2 UMA	AL-HIBA VI	09 06 09.310	-43 13 47.60	C	+4.79E		F7 IV-V		78154AB	14788	D
524	LAM VEL	SU-TAIL	09 06 29.235	+22 14 55.95		+2.240		K5 IB		78647AB	220878	D
88	77 XI CNC	NAHN	09 06 49.121	+63 43 07.22		+5.14C		K0 III		7851E	80666	D
510	14 TAU UMA	AL-HAUD II	09 12 36.226	+54 13 47.19		+4.669		A7 M		78362/3A	14796	D
495	18 -E UMA	AL-HAUD III	09 12 39.662	-69 30 59.63		+4.818		A5 V		79439	27191	D
113	BET CAR	MIAPLACIOUS	09 15 45.1C9	-59 30 33.70		+1.679		A0 III		80007	250495	D
115	IOT CAR	ASPIDISKE	09 20 33.853	-54 47 47.30		+2.248		F0 IB		80404	236808	D
523	KAP VEL	MARKEB	09 20 33.853	-54 47 47.30		+2.493		B2 IV		81188	236891	D
292	I KAP LEO	MINKARASAD	09 21 44.777	+26 23 55.32		+4.46C		K3 III		81146AB	80807	D
271	30 ALP HVA	ALP-HARD	09 25 07.791	-08 26 27.47		+1.981		K2 III		81797	136871	D
200	31 TAU-1 HVA	UKDA-I	09 26 36.618	-02 32 58.04		+4.587		F6 V		81997A	136895	D
498	23 -H UMA	AL-HAUD IV	09 27 36.565	+63 16 55.11		+3.656		F0 IV		81937A	14908	D
293	4 LAM LEO	ALTERF	09 28 52.248	+23 11 22.21		+4.31C		K5 III		82309	80885	D
281	32 TAU-2 HVA	UKDA-I II	09 29 25.987	-00 57 47.99		+4.559		K5 III		92446	136932	D
497	25 THE UMA	AL-HAUD V	09 30 31.489	+51 54 23.18		+3.177		F6 IV		92328AB	27289	D
484	24 -D UMA	AL-HIBA VII	09 30 05.838	+70 03 06.47		+4.552		G2 IV		82210	6837	D
270	33 A HVA	UKDA-I III	09 32 02.913	-05 41 26.52		+5.55C		SK1		82870	136964	D
276	35 IOT HVA	UKDA-I IV	09 37 18.152	-00 54 53.79		+3.993		K3 III		83618	137035	D
277	38 KAP HVA	AL S-HARASIF I	09 37 54.469	-14 06 16.63		+5.055		B5 V		83754	155368	D

TABLE 5 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P MAG.	V MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
295	14 OMI	LEO SUBRA	09 38 29.008	+10 07 14.64	+3.480	+3.480	A2 +F6 II		83908/3A	98709	D
288	17 EPS	LEO ALGENUBI	09 43 00.996	+24 00 15.62	+2.97C	+2.97C	G0 II		84441	81004	D
511	29 UPS	UMA ALHAUD VI	09 47 27.102	+59 16 30.31	+3.794	+3.794	F2 IV		84999A3	27401	D
512	30 PHI	UMA ALHAUD VII	09 48 43.642	+54 17 56.59	+4.513	+4.513	A3 S	L	85235A8	27408	D
294	24 MU	LEO RASALAS	09 49 55.434	+26 14 36.09	+3.890	+3.890	K2 III		85503	81064	D
290	30 ETA	LEO AL JAB-4A-H	10 04 36.533	+17 00 26.17	+3.51C	+3.51C	A0 I8		87737	98955	D
283	32 ALP	LEO REGULUS	10 05 42.647	+12 12 44.54	+1.351	+1.351	B7 V		87901A	98967	D
289	36 ZET	LEO ADHAFA	10 13 54.758	+23 09 01.84	+3.435	+3.435	F0 III		8902E	81265	D
500	33 LAM	UMA TANIA BOREALIS	10 14 05.353	+43 09 51.54	+3.455	+3.455	A2 IV		89021	43768	D
285	41 GAM-1	LEO ALSTIEBA (A)	10 17 13.120	+20 05 42.86	+2.283	+2.283	K0 III		85484A	81298	D
286	41 GAM-2	LEO ALSTIEBA (B)	10 17 13.401	+20 05 39.69	+3.479	+3.479	G7 III		89485B	81299	D
501	34 MU	UMA TANIA AUSTRALIS	10 19 21.469	+41 45 06.25	+3.03C	+3.03C	M0 III		85758	43310	D
296	OMI	LMI PRAECIPUA	10 50 31.231	+34 29 05.62	+3.903	+3.903	K0 III-IV		94264	62297	D
179	7 ALP	CR1 ALMES	10 58 50.251	+56 39 03.12	+2.377	+2.377	A1 V		95272	156375	D
490	48 BET	UMA MERAH	11 00 39.570	+62 01 16.80	+1.753	+1.753	K0 III		95418	27876	D
489	50 ALP	UMA DUBHE	11 09 11.730	-22 33 08.99	+4.467	+4.467	A2 III-IV		95689A8	15384	D
287	68 DEL	LEO ZOSMA	11 11 27.685	+20 47 52.67	+2.563	+2.563	A4 V		97277	179624	D
291	70 THE	LEO CAERTAN	11 11 37.066	+15 42 11.38	+3.343	+3.343	A2 V		97603	81727	D
282	72	LEO ZUBRAH	11 12 32.837	+23 22 05.98	+4.625	+4.625	G0 V		97778	81736	D
503	53 XI	UMA ALULA AUSTRALIS	11 15 31.162	+31 48 38.89	+3.903	+3.903	M0 III		98230/1A3	62484	D
502	54 MU	UMA ALULA BOREALIS	11 15 46.547	+33 22 02.56	+3.465	+3.465	K3 III		99262A8	62486	D
212	1 LAM	ORA GIAURAS	11 28 27.546	+69 36 26.09	+3.927	+3.927	M0 III		100029	15532	D
513	63 CHI	UMA ALKAFZAH	11 43 25.630	+48 03 24.16	+3.703	+3.703	K0 III		102224	43886	D
284	94 BET	LEO DENEBOA	11 46 30.605	+14 51 05.80	+2.131	+2.131	A3 V		102647A	99809	D
526	5 BET	VIR ZAVIJAVA	11 48 05.387	+02 02 47.61	+3.608	+3.608	F8 V		102870	119076	D
482	64 GAM	UMA FLING STAR	11 50 06.169	+38 04 39.16	+6.453	+6.453	G8 V P		103095	62738	D
491	174	UMA PHECCA	11 51 12.566	+53 59 21.96	+2.413	+2.413	A0 V		103287	23879	D
178	2 EPS	CRV ALC-19A	12 05 49.746	-24 27 00.13	+4.030	+4.030	F2 V		105452	180505	D
492	69 DEL	UMA MINKAR	12 07 32.919	-22 20 30.12	+2.993	+2.993	K3 III		105707	180531	D
176	4 GAM	CRV MEGREZ	12 12 57.584	+57 18 36.95	+3.310	+3.310	A3 V		106591	28315	D
531	15 EIA	VIR GIENAH	12 13 13.843	-17 15 51.84	+2.585	+2.585	B8 III		10662E	15176	D
181	ALP-1	CRU ZANTAH	12 17 20.761	-00 23 20.65	+3.880	+3.880	A2 V		107259	138721	D
182	ALP-2	CRU ACRUX (A)	12 23 48.664	-62 49 15.45	+1.312	+1.312	S		109248A	251904	D
168	15 GAM	COM ACRUX (B)	12 23 48.695	-62 49 22.28	+1.923	+1.923	S	*	109249B		D
177	7 DEL	CRV AL DAFIRAH	12 24 26.870	+28 32 46.07	+4.353	+4.353	K1 III-IV		108381	82313	D
184	6AM	CRU ALGORAB	12 27 16.380	-16 14 14.14	+2.949	+2.949	B9 V		108767A	157323	D
166	21 UU	COM KISSIN	12 28 22.727	-56 50 00.33	+1.66C	+1.66C	M3 II		108903A	240019	D
192	8 BET	CVN CHARA	12 28 30.830	+24 50 35.98	+5.455	+5.455	A3 P		108945	82346	D
175	9 GAM	CRV KRAZ	12 31 22.289	+41 37 44.10	+4.266	+4.266	G0 V		109358	42330	D
125	6AM	CEN MULIFAIN	12 38 44.898	-48 41 07.32	+2.666	+2.666	G5 III		109379	180315	D
527	29 GAM	VIR PORRIMA	12 39 07.452	-01 10 31.58	+2.153	+2.153	A0 III		110304A8	223603	D
183	BET	CRU MIMOSA	12 44 47.637	-59 24 56.53	+1.265	+1.265	B0.5IV		110379/0A8	138917	D
493	77 EPS	UMA ALIOTH	12 51 50.084	+56 13 51.14	+1.790	+1.790	A0 P		111123	240259	D
528	43 DEL	VIR MIMELAUVA	12 53 04.586	+03 10 07.60	+3.790	+3.790	M3 III		112185	28553	D
90	12 ALP-1	CVN COR CAROLI (B)	12 53 40.203	+38 35 03.82	+5.610	+5.610	F0 V		112300	119674	D
91	12 ALP-2	CVN COR CAROLI (A)	12 53 41.478	+38 35 16.82	+2.882	+2.882	A0 P		1124128	63256	D
529	47 EPS	VIR VINDEMIATRIX	12 59 41.210	+11 13 38.90	+2.829	+2.829	G9 III		112413A	63257	D
89		UMA LA SUPERBA	13 03 37.463	+45 32 07.73	+5.60C	+5.60C	K1 III	*	113847	100384	D
										44465	D

TABLE 5 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL V MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
167	42 ALP	DIADEM	13 07 33.321	+17 47 36.25	L	+4.313	F5 V		114378/9AB	1004N3	D
494	79 ZET-1 UMA	MIZAR (A)	13 21 54.916	+55 11 09.46		+2.27C	A2 V		116656A	28737	C
495	79 ZET-2 UMA	MIZAR (B)	13 21 55.808	+55 10 56.63		+3.950	A2 M		116657B	28738	D
525	67 ALP	SPICA	13 22 33.301	-10 54 03.36		+0.968	B1 V		116658	157923	
487	80 -G UMA	ALCOR	13 23 13.477	+55 14 52.99		+4.003	A5 V		116842	28751	
530	79 ZET	HEZE	13 32 08.554	-00 20 27.51		+3.363	A3 V N		116098	139420	
496	85 ETA UMA	ALKAID	13 45 34.294	+49 33 44.13		+1.980	B3 V		120315	44752	
69	8 ETA	MUPRID	13 52 18.168	+18 38 51.35		+2.676	G0 IV		121370	1C0766	
126	ZET	BATEN KENTAURUS	13 52 24.510	-97 02 34.87		+2.540	B2 IV		121263	224538	
124	BET	HADAR	14 00 16.510	-60 07 56.09		+6.61C	B1 II		122451	252582	
204	11 ALP	T-HUBAN	14 03 01.363	+54 36 51.57		+3.652	A0 III		123299	16273	
127	5 THE	MENKENT I	14 03 43.877	-36 07 25.64		+2.075	K0 III		123135	2C5188	
533	98 KAP	ALGAFAR I	14 10 13.451	-10 02 30.80		+4.183	K3 III		124294	158427	D
72	17 KAP-1	TERTIUS ASELLUS (B)	14 11 40.271	+52 01 15.47		+5.658	F2 V		124674B	29095	D
73	17 KAP-2	TERTIUS ASELLUS (A)	14 11 41.519	+52 01 23.55		+4.530	A7 IV		124675A	29046	D
64	16 ALP	ARCTURUS	14 13 22.750	+19 26 30.95		-6.05C	K2 III P		124897	1C0944	D
532	99 IOT	SYRMA	14 13 23.345	-05 45 46.18		+4.077	F7 III-IV		124850	139824	D
71	21 IOT	SECUNDUS ASELLUS	14 14 23.673	+51 35 45.93		+4.75C	A7 V		125161A	29071	D
74	19 LAM	AULAD AL-HIBA	14 14 28.369	+46 19 01.94		+4.179	AU P		125162	44955	
534	100 LAM	KAMBALIA	14 16 23.969	-13 08 30.89		+4.522	A8 M		125337	158489	
70	23 THE	PRIMUS ASELLUS	14 23 29.610	+52 00 17.26		+4.045	F7 V		126660	29137	D
536	105 PHI	ALGAFAR II	14 25 37.362	-02 00 12.32		+4.756	G2 III		126868B	139951	D
66	27 GAM	SEGINUS	14 30 03.937	+38 31 34.12		+3.035	A7 III		127762	64203	D
123	ALP	RIGIL KENTAURUS	14 36 11.453	-60 37 48.8A		+6.055	G2 V40K1		128620/1AB	252638	D
535	107 MU	RIGILAWWA	14 40 25.283	-05 26 30.92	C	+3.893	F3 IV		129502	140090	D
68	36 EPS	IZAR	14 42 48.137	+27 17 02.66		+2.373	A2 V4K0II		129988/5AB	83500	D
63	8 -H	MERGA	14 47 31.671	+46 19 25.56		+5.710	0F4		130945	45226	D
302	8 ALP-1	ZUBENELGENUBI I	14 47 54.959	-15 47 25.90		+5.152	F5 IV-V		130819B	158836	D
303	9 ALP-2	ZUBENELGENUBI II	14 48 06.947	-15 50 06.59		+2.747	A3 V		130841A	158840	D
515	7 BET	KOCHAB	14 50 49.645	+74 21 35.58		+2.073	K4 III		131973	8102	
65	42 BET	NEKKAR	15 00 03.664	+40 35 12.80		+3.489	G8 III		133208	45337	
307	20 SIG	ZUBEN ACRABI	15 01 08.247	-25 05 12.27		+3.318	M4 III		133216	183139	
77	43 PSI	AULAD ALNAT-HAT	15 03 49.529	+27 08 29.75		+4.523	K2 III		133582	83645	
306	21 NU	ZUBEN YAKRABI	15 03 49.529	-16 03 51.08		+5.28C	K5 III		133774	159028	D
67	49 DEL	HIBA	15 13 29.117	+33 30 01.20		+3.479	G8 III		135722A	64589	D
304	27 BET	ZUBENESCHAMALI	15 14 18.732	-09 11 56.93		+2.612	B9 V		135742	140430	
516	11 GAM-1	P-HERKAD MINOR	15 17 07.110	+72 00 19.09		+5.020	K4 III		136726	82207	
517	13 GAM-2	P-HERKAD MAJOR	15 20 47.247	+00 42.97		+3.043	A3 II-III		137422	82207	
75	51 MU -1	ALKALUROPS	15 22 35.995	+37 33 05.49		+4.305	F0 V		137391A	64686	D
211	12 IOT	EDASIC4	15 23 48.741	+59 09 26.16		+3.256	K2 III		137759	2852C	D
173	3 BET	NUSAKAN	15 25 45.944	+29 16 37.26		+3.658	F0 III		137909	83831	
452	13 DEL-1	NASAK YAMANI I (B)	15 32 24.633	+10 42 12.66		+5.109	S DEF0		138917B	1C1623	D
453	13 DEL-2	NASAK YAMANI I (A)	15 32 24.681	+10 42 17.82		+4.179	F0 IV		138918A	101624	D
172	5 ALP	ALP-HECCA	15 32 34.145	+26 52 54.75		+2.22C	A0 V		135006	83893	
76	54 PHI	CEGINUS	15 36 01.742	+40 30 55.00		+5.240	G8 III-IV		138641	45643	
305	44 ETA	ZUBAN AL KRAVI	15 41 15.248	-15 30 53.77		+5.44C	F0 III		140417	159466	
449	24 ALP	UNUKAL-YAI	15 41 48.151	+06 34 53.93		+2.645	K2 III		140573A	121157	D
450	28 BET	NASAK SHAMIYA I	15 43 52.670	+15 34 37.42		+3.672	A2 IV		141003A	1C1725	D
520	16 ZET	AKFA FARKADAIN	15 45 47.812	+77 56 57.09		+4.303	A3 V		142105	8328	D
170	R	VARIABLIS CORONAE	15 46 30.695	+28 18 32.24		+5.80C	F PEP		141527	84015	V

TABLE 5 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
454	37 EPS	SCP	15 48 19.243	+04 37 36.95		+3.703		A		141795	121218	
443	5 RHO	SCC	15 53 47.567	-29 04 10.42		+3.883		B2 V		142689A	183957	C
451	41 GAM	SCP	15 54 08.455	+15 49 24.77		+3.941		F6 V		142960	101826	D
442	6 PI	SCO	15 55 49.311	-25 58 18.14		+2.857		B1 V		143018ABC	183987	
430	7 DEL	SCO	15 57 22.318	-22 28 51.37		+2.300		B0 V		143275	184014	N
171	T	CRB	15 57 24.505	+26 03 35.04		+2.000	*	PEC		143454	84129	D
440	XI -1	SCO	16 01 36.899	-11 14 12.29	L	+4.160		F5 IV		144069/OAB	159666	D
441	XI -2	SCO	16 01 37.342	-11 14 08.07		+7.300		DG7		C	159666	D
428	8 BET-1	SCO	16 02 31.957	-19 40 12.45		+2.629		B0.5V		144217AB	144218C	D
429	8 BET-2	SCO	16 02 31.957	-19 40 00.07		+4.900		B2 V		144218C	159683	D
447	9 ONE-1	SCO	16 03 52.659	-20 32 07.11		+3.963		B1 V		144470	184123	D
448	10 ONE-2	SCO	16 04 28.091	-20 44 08.53		+4.340		GG2		144608	184135	D
267	7 KAP-1	HER	16 05 48.989	+17 10 43.81		+5.000		G8 III		145001A	101951	D
438	NU -1	SCO	16 09 03.549	-19 19 17.45	L	+6.263		A0 IV		145501CC	153763	D
439	NU -2	SCO	16 09 05.091	-19 19 56.20	L	+4.012		A0 IV		145502AB	153764	D
323	1 DEL	OP4	16 11 43.325	-03 54 01.41		+2.727		M1 III		146051	141052	D
324	2 EPS	OP4	16 15 40.348	-04 34 19.57		+3.233		G9 III		146791	141086	D
521	21 ETA	UMI	16 18 08.667	-25 28 28.14		+2.882		B1 III		147165A	184336	D
265	20 GAM	HER	16 19 56.289	+75 52 16.64		+4.937		DAB		148048	8470	D
269	24 OME	HER	16 19 42.737	+19 16 09.32		+3.745		A9 III		147547A	102107	D
427	21 ALP	SCO	16 26 20.206	-26 19 21.95	C	+1.080		M1 IB		148112A	102153	D
264	27 BET	HER	16 28 04.105	+21 35 50.16	C	+2.730		G8 III		148397AB	17074	D
328	10 LAM	OP4	16 28 23.341	+02 05 31.06		+2.783		A1 V		148856	84411	D
445	23 TAU	SCO	16 32 45.506	-28 06 50.56		+2.832		B0 V		148857AB	121658	D
325	13 ZET	OP4	16 34 24.137	-10 28 02.81		+2.567		B0 V		149348	184481	D
481	ALP	TRA	16 43 21.059	-68 56 19.89		+1.935		K4 III		149757	160006	D
436	MU -1	SCO	16 48 28.679	-37 57 48.92		+3.140		B2 IV		150798	253700	D
437	MU -2	SCO	16 48 56.599	-37 56 03.17		+3.560		B2 IV		151990	208102	D
519	22 EPS	UMI	16 51 00.905	+82 07 21.54		+4.280		B2 IV		15198E	15198E	D
213	21 MU	DR	17 04 17.357	+54 32 07.35	L	+4.920		G5 III		153751A	2770	D
326	35 ETA	OP4	17 07 30.461	-15 39 52.89	L	+2.430		F5		154905/EAB	30239	D
209	22 ZET	ORA	17 08 38.146	+65 46 33.99		+3.177		A2.5V		155125AB	160332	D
262	64 ALP-1	HER	17 12 21.948	+14 26 45.34		+3.184	S	B6 III		155763	17365	D
263	64 ALP-2	HER	17 12 22.274	+14 26 43.71		+3.140	S	M5 II		156014A	102680	D
266	65 DEL	HER	17 12 58.555	+24 53 49.79		+5.477	S	G5 III+F2		15601EB	102681	D
329	40 XI	OP4	17 18 00.251	-21 03 35.72		+4.393		A3 IV		156164A	84951	D
327	42 THE	OP4	17 18 56.157	-24 57 05.20		+2.700		F2 V		156897AB	185296	D
446	34 UPS	SCO	17 27 21.662	-37 15 28.57		+2.700		B3 IB		157056	285320	D
268	76 LAM	HER	17 28 42.947	+26 08 49.49		+4.400		B3 IB		158408	102680	D
205	23 BET	DR	17 29 18.009	+52 04 09.63		+2.700		K4 III		158899	85163	D
435	35 LAM	SCO	17 30 12.626	-37 04 09.63		+2.700		G2 III		158926	208954	D
214	24 NU -1	DR	17 31 11.293	+55 13 04.07		+4.980		B1 V		159541B	30447	D
215	25 NU -2	DR	17 31 16.719	+55 12 22.82		+4.977		A M		159560A	30450	D
203	27 -F	DR	17 32 09.543	+68 10 01.20		+5.060		KU III		159966	17526	D
320	55 ALP	OP4	17 32 36.696	+12 35 41.92		+2.072		A5 III		159561	102932	D
431	THE	SCO	17 33 43.171	-42 46 02.15		+1.860		F0 IB		159532	228201	D
226	28 OME	DR	17 37 14.348	+68 46 52.48		+4.800		F5 V		160922	17576	D
434	KAP	SCO	17 39 01.548	-39 00 22.76		+2.410		B2 IV		160578	209163	D

TABLE 5 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P MAG.	V MAG.	SPECTRAL CLASS	S	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
321	60 BEI	OPH	17 41 00.041	+04 35 11.84	+2.771	+2.771	K2 III		161036	122671	C
224	31 PSI-1	DRA	17 42 49.282	+72 10 26.21	+4.554	+4.554	F5 IV-V		162003A	8890	C
225	31 PSI-2	DRA	17 42 50.929	+72 10 55.39	+5.805	+5.805	F8 V		1620049	8891	D
202		DRA	17 42 56.440	+53 49 15.34	+5.713	+5.713	A0	*	161633	30538	D
432	IOT-1	SCO	17 44 05.100	-40 06 34.95	+3.029	+3.029	F2 IA		161471A	228420	D
322	62 GAM	OPH	17 45 23.119	+02 43 28.28	+3.738	+3.738	A0 V		161868	122754	D
433	IOT-2	SCO	17 46 41.171	-40 04 35.09	+4.800	+4.800	CA3 V		161912A	228466	D
518	23 DEL	UMI	17 48 18.338	+86 36 34.78	+4.347	+4.347	A1 V		166205	2937	D
216	32 XI	DRA	17 52 39.700	+56 52 47.68	+3.737	+3.737	K2 III		163588	30631	D
206	33 GAM	DRA	17 55 26.576	+51 29 38.53	+2.231	+2.231	K5 III		164058AB	30653	D
410	10 GAM	SGR	18 02 35.678	-30 25 35.80	+2.930	+2.930	K0 III		165135	209696	D
416	13 MU	SGR	18 10 46.324	-21 04 25.46	+3.866	+3.866	B8 IA P	*	166937AB	186497	D
414	ETA	SGR	18 14 19.573	-36 46 43.49	+3.113	+3.113	M3 II		167618AB	209957	D
911	19 DEL	SGR	18 17 47.559	-29 51 04.68	+2.695	+2.695	K2 III		168454A	185681	D
412	20 EPS	SGR	18 20 51.199	-34 24 36.94	+1.935	+1.935	B9 IV		169022A	210091	D
222	43 PHI	DRA	18 21 26.505	+71 18 42.23	+4.210	+4.210	A0 P		170004B	9084	D
223	44 CHI	DRA	18 21 57.480	+72 42 42.15	+3.563	+3.563	F7 V		170153	9087	D
319	2 MU	LYR	18 22 34.868	+39 28 43.85	+5.110	+5.110	A3 III		169702	66943	D
415	22 LAM	SGR	18 24 53.059	-25 44 09.19	+2.840	+2.840	K2 III		169916	186841	D
310	3 ALP	LYR	18 35 14.655	+38 44 09.68	+6.044	+6.044	A0 V		172167A	67174	D
422	27 PHI	SGR	19 42 31.962	-27 02 38.48	+3.177	+3.177	B8 III		173300	187239	D
313	4 EPS-1	LYR	18 42 46.865	+39 37 03.40	+6.001	+6.001	A4		173523A	67309	D
314	4 EPS-1	LYR	18 42 40.873	+39 37 00.09	+5.040	+5.040	A2		1735828	67310	D
315	5 EPS-2	LYR	18 42 43.325	+39 33 33.99	+4.535	+4.535	A3	+A5	173607AEC	67315	D
316	6 ZET-1	LYR	19 43 09.939	+37 33 06.28	+4.347	+4.347	A M		173648A	67321	D
317	7 ZET-2	LYR	18 43 09.779	+31 32 28.33	+5.710	+5.710	F0 IV		173649D	67324	D
311	10 BET-1	LYR	18 48 13.935	+33 19 12.51	+3.400	+3.400	B PE	*	17463879A	67451	DV
917	32 NU -1	SGR	18 51 09.064	-22 48 29.54	+4.820	+4.820	CK2		1749744B	187426	D
418	35 NU -2	SGR	18 52 05.766	-22 44 08.19	+4.990	+4.990	K3 III		175190	187445	D
420	34 SIG	SGR	18 52 09.927	-26 21 38.29	+2.063	+2.063	B2 V		175191	187448	D
455	63 THE-1	SCA	18 53 43.976	+04 08 13.25	+4.622	+4.622	A5 V		175638A	124068	D
456	63 THE-2	SCA	18 53 45.420	+04 08 07.70	+4.935	+4.935	A5 N		175639B	124070	D
221	52 UPS	DRA	18 55 00.917	+71 13 50.82	+4.810	+4.810	K0 III		176524	9283	D
312	14 GAM	LYR	18 57 04.294	+32 37 11.26	+3.250	+3.250	B9 III		176437A	67663	D
24	13 EPS	ABL	18 57 21.118	+14 59 56.91	+4.020	+4.020	K2 III		176411	104318	D
413	38 ZET	SGR	18 59 25.892	-29 57 12.79	+2.600	+2.600	A2 III		176687AB	187600	D
25	17 ZET	ABL	19 03 06.647	+13 47 15.86	+2.989	+2.989	B9 V		177124	104461	D
29	16 LAM	ABL	19 03 49.160	-27 44 43.14	+3.413	+3.413	B8 V		177756	143021	D
421	40 TAU	SGR	19 06 01.345	-37 59 03.89	+4.100	+4.100	K1 III		177716	187683	D
169	ALP	CRA	19 12 03.290	+39 03 32.09	+4.383	+4.383	F2 II-III		178253	210990	D
419	41 PI	SGR	19 12 28.542	-25 20 40.58	+4.950	+4.950	DF5		180163A	187756	D
318	20 ETA	LYR	19 12 32.624	+67 34 25.03	+3.067	+3.067	G9 III		179950AB	187882	D
425	42 PSI	SGR	19 15 56.786	+53 16 31.89	+3.773	+3.773	KU III		180711	18222	D
193	1 KAP	CVG	19 16 31.472	+73 15 47.87	+4.455	+4.455	K3 III		181276	31537	D
220	60 TAU	DRA	19 19 02.916	-44 53 17.72	+4.010	+4.010	B8 V N		181584	9366	D
408	BET-1	SGR	19 19 36.611	-44 53 44.93	+4.280	+4.280	F0 III N		181454A	229646	D
217	58 PI	DRA	19 20 24.896	+65 37 05.16	+4.583	+4.583	A2 IV		182564	18299	D
407	ALP	SGR	19 20 25.492	-40 42 43.10	+3.960	+3.960	B9 III		181869	229659	D

TABLE 5 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (-D) CAT. NO.	SAO* CAT. NO.	STAR PROP.
423	47 CHI-1 SGR	NAMAL SADRIRAH III	19 22 14.012	-24 36 26.63		+5.020		DA5		182369AB	188101	D
424	49 CHI-2 SGR	NAMAL SADRIRAH IV	19 22 28.169	-24 03 43.16		+5.42C		K4 III		182416	188105	
23	30 DEL AQL	ALMIZAN I	19 22 58.597	+03 00 48.98		+3.355		F0 IV		182640	124603	
537	6 ALP VUL	ANSER	19 26 37.410	+24 33 44.90		+4.42C		M0 III		183435	87261	
187	6 BET-1 CVG	ALBIREO (A)	19 28 44.222	+27 51 12.44		+3.080		K5 II+B		183912/3A	87301	D
188	6 BET-2 CVG	ALBIREO (B)	19 28 44.302	+27 51 32.69		+5.11C		B8 V		183914B	87302	D
219	61 SIG DRA	ALSAFI	19 32 27.585	+69 34 34.11		+4.686		K0 V		185144	18396	D
28	41 TOT AGL	AL THALIMAIN II	19 34 08.066	-01 23 55.88		+4.36C		B5 III		184930	143597	D
403	5 ALP SSE	S-HAM	19 37 51.612	+17 53 51.21		+4.359		GD II		185758A	105120	D
190	18 DEL CVG	FAMARIS II	19 43 24.671	+45 00 28.23	C	+2.87C		B9.5 III		186892AB	48796	D
22	50 GAM AQL	TARAZED	19 43 52.907	+10 29 24.38		+2.717		K3 II		186791	105223	D
20	53 ALP AQL	ALTAIR	19 48 20.589	+08 44 05.71		+C.753		A7 IV-V		187642	125122	D
208	63 EPS DRA	TYL	19 48 21.063	+70 09 26.55		+3.933		G8 III		189119AB	9540	D
26	55 ETA AQL	ALMIZAN II	19 49 55.525	+00 52 33.23		+3.50C		F6 IB		187929	125159	V
426	58 OME SGR	TEREBELLUM I	19 52 46.744	-26 26 01.47		+4.700		DG5		188376	188722	D
21	60 BET AGL	ALS-HAIN	19 52 51.383	+C6 16 45.84		+3.714		G8 IV		188512	125235	D
405	59 -B SGR	TEREBELLUM II	19 53 52.975	-27 18 14.61		+4.520		GK3		188603	188742	D
404	60 A SGR	TEREBELLUM III	19 53 54.576	-27 19 57.29		+4.83C		GS5		189005	188778	D
406	62 -C SGR	TEREBELLUM IV	19 59 35.183	-27 51 01.64		+4.503		M4 III		189763	188844	D
218	67 RHO DRA	TAIS II	20 02 35.527	+67 43 51.21		+4.513		K3 III		190940	18676	D
27	65 THE AQL	ALMIZAN III	20 08 43.493	-00 58 16.06		+3.245		B9.5 III		191692	144150	D
133	1 KAP CEP	AL ASHAN I	20 10 36.574	+77 33 42.36		+4.37C		B9 III		192907AB	9665	D
105	5 ALP-1 CAP	PRIMA GIEDI	20 14 52.647	-12 39 51.04		+4.240		G3 IB		192876A	163422	D
106	6 ALP-2 CAP	SECUNDA GIEDI	20 15 56.500	+37 52 08.49		+3.569		G9 III		192947AB	163427	D
185	34 P CVG	REVENATE OF THE SWAN	20 17 53.485	-12 55 04.49		+4.930		B P		193237	69773	N
111	6 NU CAP	AL SHAT	20 17 58.071	-14 56 38.31		+6.160		B9 V		193432A	163468	D
107	9 BET-1 CAP	DABIH MINOR	20 18 12.200	+40 05 44.58		+2.214		F8 IB		193452AB	163471	D
108	9 BET-2 CAP	DABIH MAJOR	20 20 25.927	+40 05 44.58		+2.214		F8 IB		194093A	49528	D
189	37 GAM CVG	SADR	20 21 42.289	-56 53 50.02		+1.92C		B3 IV		193924	246574	D
356	45 OME-1 CVG	PEACOCK	20 28 30.540	+48 46 57.97		+4.350		B2 V		195556AB	49712	D
132	2 THE CEP	AL KIDR	20 28 44.678	+62 49 32.32		+4.217		A M		195725	18897	D
201	2 EPS DEL	DENEBO DULFIM	20 30 49.400	+11 07 55.83		+4.035		B6 III		195810	106230	D
197	6 BET DEL	ROTANEV	20 35 12.206	+14 25 12.31	C	+3.563		F5 IV		196524AB	163316	D
196	9 ALP DEL	SWALOCIN	20 37 18.874	+15 44 04.30		+3.766		B9 V		196867A	106357	D
186	50 ALP CVG	DENEB	20 39 43.539	+45 06 03.12		+1.288		A2 IA		197345A	49941	D
200	11 DEL DEL	AL UKUD	20 41 07.413	+14 53 38.69		+4.920		A7 III P		197461	106425	D
191	53 EPS CVG	AL JANAH	20 44 11.168	+33 46 55.15		+2.457		K0 III		197989A	70474	D
131	3 ETA CEP	KABALFIRD	20 44 16.488	+61 38 38.86		+3.922		K0 IV		198149A	19019	D
198	12 GAM-1 DEL	AL SALIB (B)	20 44 19.473	+15 56 34.71		+5.14C		F7 V		197963B	166475	D
199	12 GAM-2 DEL	AL SALIB (A)	20 44 20.236	+15 56 34.82		+4.270		K2 IV		197964A	106476	D
11	2 EPS AOR	ALBALI	20 44 58.217	-09 40 48.21		+3.77C		A1 V		198001	14481C	D
16	6 NU AOR	ALBULAN I	20 49 57.474	-09 10 19.76		+4.723		A8 M		199743	144895	D
17	13 NU AOR	ALBULAN II	21 06 52.307	+11 34 31.13		+4.507		G8 III		201381	164182	D
192	64 ZET CVG	FAMARIS III	21 10 48.357	+30 01 15.51		+3.132		G8 III		202109	71070	D
227	8 ALP EGU	KITALP-4A	21 13 19.440	+05 02 24.35		+3.914		SO III+45		202447/6	126662	D
128	5 ALP CEP	ALDERAMIN	21 17 23.181	+62 22 23.74		+2.439		A7 IV-V		203280A	19302	D
129	8 BET CEP	ALFIRK	21 28 01.326	+70 20 27.85		+3.18C		B2 III		205021AB	10057	D
9	22 BET AOR	SADALSUUD	21 29 55.649	-05 47 31.68		+2.878		G0 IB		204867	145457	D
109	40 GAM CAP	NASHIRA	21 37 19.372	-16 53 21.05		+3.665		AB M		206088	1649560	D

TABLE 5 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY RIGHT ASCENSION

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
194	80 PI -1 CYG	AZELFAZE	21 40 18.952	+50 57 39.10		+4.665	B3 IV		206672	33665	
360	8 EPS	ERAF	21 41 43.756	+09 39 41.69		+2.357	K2 IB		206778A	127029	C
134	MU CEP	ERAKIS	21 41 58.501	+59 33 00.65		+3.390	M2 IA	*	206936AB	33693	DV
110	49 DEL	DENEALGEDI	21 44 16.932	-16 21 19.42		+2.810	A M	*	201058A	164644	D
261	6 AM	DENEALWUT	21 50 54.450	-37 36 03.59		+3.000	B8 III		207971	213374	
18	31 OMI	SADALMULK	22 00 43.657	-02 23 51.13		+4.745	B8 VE		209409	145837	D
135	17 XI -1 CEP	KUR-144 (B)	22 02 19.143	+84 23 03.30		+6.354	A M		209190B	19826	D
136	17 XI -2 CEP	KUR-144 (A)	22 02 20.440	+64 23 01.68		+4.454	A M		209191A	19827	D
366	22 MU	FUM AL FARAS	22 03 09.442	-04 49 48.17		+4.840	K4 III		209147	127285	
259	34 ALP	SADALMELIK	22 03 12.945	-00 33 48.59		+2.833	S2 IB		209150	145862	D
363	26 THE	BI-HAM	22 05 05.496	-47 12 14.54		+1.743	B5 V		209952A	230992	
14	43 THE	ANC-4A	22 07 40.600	+05 57 04.13		+3.515	A2 V		210418	127340	D
9	48 GAM	SADAC-18IA	22 14 11.766	-08 01 58.75		+4.155	G8 III-IV		211391	145991	D
19	52 PI	SEAT	22 19 04.420	-01 39 23.77		+3.845	AO V		212061	146044	D
12	55 ZET-1	ALSAD (B)	22 22 43.381	+01 07 22.97		+4.660	B1 V PE		212571	127520	D
13	55 ZET-2	ALSAD (A)	22 26 15.261	-00 16 35.27		+4.493	F2 IV	S	213051A	146107	D
397	17 BET	FUM AL -HUT I	22 26 15.513	-00 16 36.08		+4.323	F2 IV	S	213052B	146108	D
138	29 RHO	FUM AL -HUT II	22 28 40.070	-32 36 11.08		+4.325	AO V	S	213398A	213883	C
15	63 KAP	KALBALRAI	22 29 27.426	+78 34 03.36		+7.759	A2	S	213398	213884	D
361	42 ZET	SITULA	22 35 10.023	-04 29 11.39		+5.820	K2 III	*	214376	10402	
368	43 OMI	SADALMATAR	22 39 57.396	+10 34 11.39		+3.350	B8 V		214323A	146210	D
260	BET	DENEALNA-1R	22 39 24.327	+29 02 46.12		+4.307	A1 V		214394	90717	
362	44 ETA	MATAR	22 40 39.264	+29 57 33.42		+2.240	M3 II	*	214952	231258	D
364	47 LAM	SADALNAZI	22 44 07.173	+23 18 07.41		+2.349	G2 II-III		215182A	90734	D
367	48 MU	SUUDALNUJUM	22 44 11.582	+11 54 57.24		+3.955	G8 II-III		215665	90775	D
365	48 MU	SADALBARI	22 47 35.151	+24 20 13.72		+4.203	F7 V		215648AB	108165	D
10	76 DEL	SKAT	22 51 59.901	-16 05 13.92		+3.450	S8 III		216131	90816	
396	24 ALP	FOMAL-HALT	22 54 53.531	-29 53 15.79		+3.266	A3 V		216627	165375	
391	4 BET	FUM AL SAMAKA-1	23 01 19.867	+03 33 01.75		+1.152	A3 V		216956	191524	
358	53 BET	SC-HEAT	23 01 20.770	+21 48 40.45		+4.519	B5 VE		217091	127934	
357	54 ALP	MARKA3	23 02 16.062	+14 56 09.11		+2.856	M2 II-III	*	217906A	50981	DV
137	33 PI	AL AG-1NAM II	23 06 18.107	+75 07 01.56		+2.496	B9-S III		219045	108378	
369	62 TAU	SALM	23 18 09.505	+23 27 53.22		+4.401	S2 III		219588AB	10629	C
370	68 UPS	ALKARAB	23 22 52.759	+23 07 43.20		+4.580	A5 IV		220061	91186	
130	35 GAM	ERRAI	23 37 16.533	+77 21 11.73		+3.220	F8 IV		220557	91253	
							K1 IV		222404	10816	

TABLE 6

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P N	VISUAL MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
93	9 ALP CMA	SIRIUS	06 42 56.713	-16 38 46.37	C	-1.457	A1 V+D A		46915AB	151881	D
112	ALP CAR	CANOPUS	06 22 50.493	-52 40 03.45		-0.720	F0 IA		45348	234480	
64	16 ALP B00	ARCTURUS	+19 13 22.750	+19 26 30.95		-0.05C	K2 III P		124897	1G0944	D
310	3 ALP LVR	VEGA	18 35 14.655	+38 44 09.69		+0.044	A0 V		172167A	67174	C
123	ALP CEN	RIGIL KENTAURUS	14 36 11.253	-60 37 48.84	C	+0.059	G2 V+DK1	*	128620/1AB	252838	D
44	13 ALP AUR	CAPELLA	05 12 59.466	+45 56 59.04		+0.062	G8 III+P		34029AP	40186	D
334	19 BET ORI	RISSEL	05 12 07.590	-08 15 28.65		+0.153	B8 IA		34085A	131907	D
103	10 ALP CMI	PROCYON	07 36 41.117	+05 21 16.81	C	+0.357	F5 IV-V		61421AB	115756	D
229	ALP ARI	AC-HERNAR	01 35 51.107	-57 29 24.93		+0.49C	B5 V		10144	232481	D
124	BET CEN	TADAR	14 00 16.510	-60 07 58.09		+0.610	B1 II		122451	252582	D
20	53 ALP AQL	ALTAIR	19 48 20.589	+08 44 05.71		+0.753	B7 IV-V		181642	125122	D
333	58 ALP ORI	BETELGEUSE	05 52 27.809	+07 23 57.92		+0.800	M2 IAB	*	39801A	113271	JV
466	87 ALP TAU	ALDEBARAN	04 33 02.896	+16 24 37.51		+0.958	K5 III		25135AB	94027	D
525	67 ALP VIR	SPICA	13 22 33.301	-10 54 03.36		+0.969	B1 V		116658	157923	D
427	21 ALP SCO	ANTARES	16 26 20.206	-26 19 21.95	C	+1.08C	M1 IB	*	148478/5AB	184415	D
250	78 BET GEM	POLLUX	07 42 15.517	+28 08 55.11		+1.146	K0 III		62509A	79666	D
396	24 ALP PSA	FOMALHART	22 54 53.531	-29 53 15.79		+1.152	A3 V		216956	191524	D
186	50 ALP CYG	DENEB	20 39 43.539	+45 06 03.12		+1.248	A2 IA		197345A	49941	D
183	BET CRU	MIRUSA	12 44 47.577	-59 24 56.53		+1.265	80.5IV		111123	240259	D
181	ALP-1 CRU	ACRUX (A)	12 23 48.064	-62 49 19.43		+1.312	B1 IV		108248A	251904	D
283	32 ALP LEO	REGULUS	10 05 42.587	+12 12 44.54	S	+1.351	B7 V		81901A	98967	D
37	26 EPS CMA	ADARA	06 56 39.587	-28 54 10.27		+1.500	B2 II		52089AB	172676	D
249	66 ALP GEM	CASTOR	07 31 24.654	+31 59 55.07	C	+1.58C	A M+A1 V		158926	208954	D
435	35 LAM SCO	SAULA	17 30 12.526	-37 04 09.63		+1.617	B1 V		35468	11274C	D
335	24 BET ORI	BELLATRIX	05 22 26.828	+06 18 21.71		+1.635	B2 III		35497	77168	D
467	112 BET TAU	ELNATH	05 23 07.710	+28 34 01.74		+1.652	B7 III		108903A	240019	D
184	6AM CRU	GACRUX	12 28 22.727	-56 50 00.33		+1.66C	M3 II		80007	250495	D
113	BET CAR	MIAPLACIDUS	09 12 39.662	-69 10 39.63		+1.678	AD III		37128	132346	D
337	46 EPS ORI	ALNITAK	05 33 40.476	-01 13 56.30		+1.694	80 IA		209952A	230992	D
259	ALP GRU	AL NA'IR	22 05 05.486	-47 12 14.54		+1.743	B5 V		37742/3AB	132444	D
338	50 ZET ORI	ALNITAK	05 38 14.643	-01 58 02.98		+1.749	09.5IB+83		112185	28553	D
493	77 EPS UMA	ALITOT	12 51 50.084	+56 13 51.14		+1.790	AD P		93689AB	15384	D
489	50 ALP UMA	DUBHE	11 00 39.570	+62 03 16.80		+1.793	K0 III		108249B	38787	D
372	33 ALP PER	MIRFAK	03 20 44.441	+49 41 06.04	B	+1.803	F5 IB		20902	219504	D
522	ALP-2 CRU	ACRUX (B)	12 23 48.595	-62 49 22.28		+1.823	S		69273A	210091	D
412	20 EPS SGR	KAUS AUSTRALIS	08 07 59.465	-47 11 18.31		+1.833	07 +HC7	*	165022A	173047	D
96	25 DEL CMA	WEZEN	07 06 21.436	-26 18 45.36		+1.838	F8 IA		54605	228201	D
431	THE SCO	SARGAS	17 33 43.371	-42 58 05.15		+1.86C	F0 IB		159532	235932	D
114	EPS CAR	AVIOR	08 21 29.383	-59 20 42.93		+1.880	K0 II+8		71129/0	44752	D
496	85 ETA UMA	ALKAID	13 45 34.294	+49 33 44.13		+1.88C	B3 V		120315	40750	D
45	34 BET AUR	MENKALINAN	05 55 51.579	+44 56 40.69		+1.900	A2 V	*	40183AP	246574	D
356	ALP PAV	PEACOCK	20 21 42.289	-56 53 50.02		+1.92C	B3 IV		193924	95912	D
251	24 GAM GEM	ALGENA	06 34 49.396	+16 26 37.40		+1.930	AD IV		47105	253700	D
481	ALP TRA	ATRIA	16 43 21.559	-68 56 19.89		+1.935	K4 III		150758	151428	D
94	2 BET CMA	MIRZAM	06 20 29.789	-17 55 47.23		+1.980	B1 II-III		44743	136871	D
171	30 ALP HYA	ALP+HARD	09 25 07.351	-08 26 27.47		+1.981	K3 III		81757	129825	JV
252	68 OMI CET	MIRA	02 16 49.045	-02 12 13.39		+2.000	GM6 E	*	14386AP	84129	N
171	T CRB	BLAZE STAR	15 57 24.505	+26 03 35.04		+2.00C	PEC	*	143454	75151	
34	13 ALP ARI	TAMAL	02 04 20.317	+23 13 37.07		+2.009	K2 III	*	15929		

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN. SEC.	DECLINATION DEG MIN SEC	P N	VISUAL V MAG.	SPECTRAL CLASS	S N	HEARY DRAPER (+D) CAT. NO.	SAO* CAT. NO.	STAR PROP.
140	16 BET	CET	00 41 04.811	-18 15 36.78		+2.028	K3 III		4128	147420	
9	43 BET	AND	01 06 55.456	+35 21 21.74		+2.060	M0 III		6860	54471	D
420	34 SIG	SGR	18 52 09.927	-26 21 39.29		+2.063	B2 V		175191	167448	
343	53 KAP	ORI	05 45 23.013	-09 41 09.45		+2.064	B0.5 IA		38771	132542	
320	55 ALP	OPH	17 32 36.696	+12 35 41.92		+2.072	A5 III		159561	102932	
585	7 BET	UMI	14 50 49.645	+74 21 35.58		+2.073	K4 III		131873	8102	D
3	23 ALP	AND	00 65 47.891	+28 48 52.12		+2.074	B8 III P		358	73765	D
127	5 THE	CEN	14 03 43.377	-36 07 29.64		+2.075	K0 III		123133	205188	D
284	94 BET	LEO	11 46 30.665	+14 51 05.80		+2.131	A3 V		102647A	99809	D
125	GAM	CEN	12 38 44.998	-48 41 07.32		+2.157	AD III		110304AB	223603	D
5	57 GAM-1	AND	02 00 49.177	+42 05 27.01		+2.179 S	K3 II		12533A	37734	D
373	26 BET	PER	03 04 54.356	+80 45 52.46		+2.200 *	B8 V	*	19356A	38591	DV
336	34 DEL-1	ORV	05 29 27.017	-00 20 04.41		+2.200 *	09.5 II	*	36486A	132220	D
189	37 GAM	CYG	20 20 25.327	+40 05 44.58		+2.214	F8 IB		194093A	49528	D
116	18 ALP	CAS	00 37 39.313	+56 15 48.60		+2.223	K0 II-III	*	3712AB	21609	DV
172	5 ALP	CRB	15 32 34.145	+26 52 54.75		+2.230	AD V	*	139006	83893	D
206	33 GAM	DRA	17 55 26.576	+51 29 36.53		+2.231	K5 III		164058AB	30653	D
524	LAM	VEL	09 06 09.310	-43 13 47.60		+2.240 *	K5 IB	*	78647AB	220878	D
115	BET	GRU	22 39 41.443	-47 08 48.20		+2.240 *	M3 II	*	214952	231258	D
401	ZET	PUP	08 15 45.109	-59 03 53.70		+2.248	F0 IB		80404	236808	D
494	79 ZET-1	UMA	08 01 49.552	-33 51 40.83		+2.255	05 F		66811	198752	D
117	11 BET	CAS	13 21 54.916	+55 11 09.46		+2.270	A2 V		118656A	28737	D
285	41 GAM-1	LEO	10 17 13.120	+20 05 42.85		+2.275	F2 IV		432AB	21133	D
430	7 DEL	SCO	15 57 22.318	-22 28 51.37		+2.289 S	K0 III	S	89484A	81298	D
68	36 EPS	BOO	14 42 48.137	+27 17 02.66		+2.300	B0 V		143215	184014	D
383	ALP	PHE	00 23 49.029	+22 34 39.55		+2.373	A2 V+K0II		129388/9AB	83500	D
360	8 EPS	PEG	21 41 43.756	-42 34 41.69		+2.377	A1 V		95418	27876	D
434	KAP	SCO	17 39 01.548	-39 00 22.76		+2.390	K0 III		2261	215093	D
326	35 ETA	OPH	17 07 30.461	-15 39 52.89	L	+2.410	K2 IB		206778A	127029	D
491	64 GAM	UMA	11 51 12.566	+53 59 21.98		+2.430	A2.5 V		160578	209163	D
128	5 ALP	CEP	21 17 23.181	+62 22 23.74		+2.433	AD V		155125AB	160332	D
99	31 ETA	CMA	07 22 06.972	-29 12 16.04		+2.439	A7 IV-V		103287	21879	D
191	53 EPS	CYG	20 44 11.168	+33 46 55.15		+2.440	B5 IA		203290A	19302	D
523	KAP	VEL	09 20 33.853	-54 47 47.30		+2.457	K0 III		59350	173651	D
357	54 ALP	PEG	23 02 16.062	+14 56 09.11		+2.457	B2 IV		197995A	70474	D
514	1 ALP	UMI	01 48 48.786	+89 01 43.74		+2.456	B9.5 III		81198A	236891	D
139	92 ALP	CET	02 59 39.244	+03 53 41.15		+2.500 *	F9 IB	*	218045	108378	DV
126	ZET	CEN	13 52 24.510	-47 02 34.87		+2.517	M2 III		9990A	308	D
358	53 BET	PEG	23 01 20.770	+27 48 40.45		+2.540	B2 IV		121263	224538	DV
287	68 DEL	LEO	11 11 27.085	+20 47 52.67	*	+2.563	M2 II-III	*	21906A	90981	DV
325	13 ZET	OPH	16 34 24.137	-10 28 02.81		+2.567	A4 V		97603	81727	D
118	27 GAM	CAS	00 53 40.324	+60 26 47.39		+2.570	B0 IV E		149757	160006	D
298	11 ALP	LEP	05 30 31.594	-17 51 24.18		+2.581	F0 IB		53944B	11482	D
176	4 GAM	CRV	12 13 13.843	-17 15 51.84		+2.589	B8 III		36673A	150547	D
413	38 ZET	SGR	18 59 25.892	-29 57 12.79	L	+2.600	A2 III		108625	157176	D
304	6 BET	ARI	15 14 18.732	-09 11 58.93		+2.612	B8 V		176687AB	140430	D
428	8 BET-1	SCO	01 51 52.740	+20 33 52.09		+2.626	A5 V		11636	75012	D
			16 02 31.507	-19 40 12.45		+2.629	B0.5 V		144217AB	159682	D

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P VISUAL V MAG.	SPECTRAL CLASS	S HENRY DRAPER (40) CAT. NO.	SAO* CAT. NO.	STAR PROP.
162	ALP COL	P-HACT	05 37 50.211	-34 05 56.73	+2.630	B8 V E	37225	196059	D
449	24 ALP SCP	UNUKALYAI	15 41 49.151	+06 34 53.93	+2.646	K2 III	190573A	121157	D
49	37 THE AUR	MA-HASIM	05 56 18.627	+37 12 40.05	+2.660	B9.5V P	40312AB	58536	D
175	9 BET CRV	KRAZ	12 31 45.342	-23 07 13.60	+2.666	G5 III	109379	180915	
69	8 ETA BOO	MUP-ARID	13 52 18.168	+18 38 51.35	+2.676	G0 IV	121370	100766	
119	37 DEL CAS	RUC-HBAH	01 22 31.498	+59 59 34.36	+2.677	A5 V	8538	22268	
50	3 IOT AUR	KABALINAN	04 53 43.582	+33 05 15.94	+2.692	K3 II	31398	57522	
411	19 DEL SGR	KAUS MEDIA	18 17 47.554	-29 51 04.68	+2.695	K2 II III	169454A	186681	D
446	34 UPS SCO	LESATH	17 27 21.662	-37 15 28.57	+2.700	B3 IB	158408	200896	
22	50 GAM ABL	TARZED	19 43 52.807	+10 29 24.39	+2.717	K3 II	186791	105223	
323	1 DEL OPH	VED PRIGR	16 11 43.325	-03 34 01.41	+2.727	M1 III	146051	141052	D
210	14 ETA DRA	DHIRAIN	16 23 18.976	+61 37 37.10	+2.730	G8 III	148387AB	17074	D
527	29 GAM VIR	PORRIMA	12 39 07.952	-01 10 31.59	+2.745	F0 V	110375/0AB	138917	D
303	9 ALP-2 LIB	ZUBENELGENUBI II	14 48 06.947	-15 50 06.59	+2.747	A3 V	130841A	158840	D
362	44 IOT ORI	HATYSA	05 32 59.126	-05 56 28.26	+2.761	O9 III	37043AB	132323	D
321	60 BET OPH	CEBALRAI	17 41 00.041	+04 35 11.84	+2.771	K2 III	161096	122671	D
230	67 BET ERI	CURSA	05 05 23.365	-05 08 56.54	+2.775	A3 III	33111	131794	
264	27 BET HER	KORNEP-KOROS	16 28 04.105	+21 35 50.16	+2.783	G8 III	149856	84411	
205	23 BET DRA	RASTABAN	17 29 18.609	+52 20 15.65	+2.795	G2 II	155181AB	30429	D
359	88 GAM PEG	ALGENIB	00 10 39.447	+14 54 20.57	+2.827	B2 IV	886	91781	
529	47 EPS VIR	VINDEMIATRIX	12 59 41.210	+11 13 38.90	+2.828	G9 III	169916	166841	
415	22 LAM SGR	KAUS BOREALIS	18 24 53.059	-25 27 04.19	+2.830	K2 III	207058A	164644	D
110	49 DEL CAP	DENEBO ALGEDI	21 44 16.992	-16 21 18.42	+2.830	A M	149438	184481	D
445	23 TAU SCO	ALNIYAT II	16 32 45.906	-28 06 50.56	+2.832	B0 V	36079AB	170577	D
299	9 BET LEP	NIAL	05 26 06.190	-20 47 52.90	+2.835	G5 III	24398AB	84796	D
374	44 ZET PER	ATIK	03 50 58.959	+31 44 12.55	+2.850	B1 IB	23630A	76399	D
471	25 ETA TAU	ALCYONE II	03 44 30.424	+23 57 07.57	+2.870	B7 III	166882AB	48796	D
190	18 DEL CYG	FAWARIS II	19 43 24.671	+45 00 28.23	+2.870	B9.5 III	204967	145457	C
8	22 BET AGR	SADALSUD	21 28 55.649	-05 47 31.68	+2.878	G0 IB	112413A	63257	D
91	12 ALP-2 CVN	COR CAROLI (A)	12 53 41.478	+38 35 16.92	+2.882	AD P	147165A	184336	C
444	20 SIG SCO	ALNIYAT I	16 18 08.667	-25 28 26.14	+2.882	B1 III	44478A	78297	D
256	13 MU GEM	CALX	06 19 56.096	+22 32 27.99	+2.890	M3 III	5871E	115456	D
104	3 BET CMI	GOMEISA	07 24 26.357	+08 23 25.89	+2.894	B8 V	178524ABC	187756	D
419	41 PI SGR	AL BALDAH	19 06 47.950	-21 06 17.49	+2.894	F2 II-III	143018ABC	183987	D
442	6 PI SCO	NUR	15 55 49.371	-25 58 18.14	+2.897	B1 V	209750	145862	D
7	34 ALP AGR	SADALMELIK	22 03 12.945	-00 33 48.59	+2.933	G2 IB	103767A	157323	D
177	7 DEL CRV	ALSCRAB	12 27 16.300	-16 14 14.14	+2.949	B9 V	215182A	90734	D
362	44 ETA PEG	MATAR	22 40 39.264	+29 57 33.42	+2.949	G2 II-III	25025A	149283	D
231	34 GAM ERI	ZAUARAK	03 55 41.672	-13 38 58.17	+2.953	MO III	84441	81004	D
288	17 EPS LEO	ALGENUBI	09 43 00.956	+24 00 19.62	+2.970	G0 II	31564	39955	DV
46	7 EPS AUR	ALANZ	04 58 22.550	+43 45 05.36	+2.978	F0 IA	48329A	78682	D
253	27 EPS GEM	MESSUTIA	06 40 51.363	+25 10 56.92	+2.989	B8 IB	177724	164651	D
25	17 ZET AQL	DENEBO OKAB	19 03 06.647	+13 47 15.86	+2.989	B9 V	163135	209636	D
410	10 GAM SGR	ALNASL	19 02 35.679	-30 25 35.80	+2.990	K0 III	105707	180531	D
178	2 EPS CRV	MINKAR	12 07 32.519	-22 20 30.12	+2.993	K3 III	13161	55306	D
480	4 BET TRI	MIZAN	02 06 33.579	+34 45 06.52	+2.997	A5 III	201971	213374	D
261	6 GAM GRU	DENEBO-HUT	21 50 54.450	-37 36 01.59	+3.000	B8 III	44402	196698	D
98	1 ZET CMA	FURUD	06 18 23.596	-30 02 23.86	+3.024	B2.5V	161471A	228420	D
432	101-1 SCO	GIRIAB	17 44 05.100	-40 06 34.95	+3.028	F2 IA	53138	172839	D
102	24 OMI-2 CMA	AL ZARA	07 00 56.142	-23 45 32.46	+3.030	B3 IA			

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DES MIN SEC	F MAG.	VISUAL V MAG.	SPECTRAL CLASS	S M	HENRY DRAPER (+D) CAT. NO.	SAO* CAT. NO.	STAR PROP.
501	34 MU	UMA	10 19 21.469	+41 45 06.25	+3.03C		M0 III		85758	4331C	
66	27 GAM	800	14 30 03.837	+38 31 34.12	+3.036		A7 III		127162	64203	D
517	13 GAM-2	UMI	15 20 47.347	+72 00 42.97	+3.043		A3 II-III		137422	822C	
207	57 DEL	DRA	19 12 32.824	+67 34 25.03	+3.067		G9 III		180711	18222	
108	9 BET-2	CAP	20 18 12.200	-14 56 25.57	+3.073		F8 V+D		193495/1		
187	6 BET-1	CVG	19 28 42.222	+27 51 12.44	+3.090		K5 II+B		183912/3A	87301	D
274	16 ZET	HVA	08 52 45.092	+06 08 13.25	+3.102		G8 III		76294	117264	
163	BET	COL	05 49 11.727	-35 47 09.73	+3.110		K2 III		39425	196240	
414	ETA	SGR	18 14 14.573	-36 46 43.49	+3.113		M3 II		167618A8	269957	D
436	MU-1	SCO	16 48 28.673	-37 57 48.92	+3.140		B1.5V	*	151950	208102	D
266	65 DEL	LER	17 12 58.555	+24 53 48.78	+3.14C		A3 IV		156164A	84951	D
498	9 IOT	UMA	08 55 47.626	+48 14 22.05	+3.145		A7 V		76644A	42630	D
48	10 ETA	AUR	05 03 00.214	+41 10 08.38	+3.171		B3 V		32630	40026	D
497	25 THE	UMA	09 29 31.489	+51 54 23.18	+3.177		F6 IV		82328A3	27289	D
209	22 ZET	DRA	17 09 38.146	+65 46 33.59	+3.177		B6 III		155763	17365	
422	27 PHI	SGR	18 42 31.962	-27 02 38.49	+3.177		B8 III		173300	187239	
129	8 BET	CEP	21 28 01.326	+70 20 21.85	+3.18C		B2 III	*	205021A8	10057	CV
262	64 ALP-1	VER	17 12 21.948	+14 26 45.34	+3.184	S	M5 II		156014A	10268C	D
349	1 PI-3	ORI	04 47 07.390	+06 52 34.26	+3.19C		F6 V		30652	112106	
192	64 ZET	CYG	21 10 49.357	+30 01 15.51	+3.19Z		G8 II		202109	71070	
380	25 RHO	PER	03 01 57.795	+38 38 52.86	+3.20C		M4 II-III	*	15058	56138	V
255	77 ETA	GEM	06 11 51.508	+22 31 23.36	+3.200	*	M3 III		42995A8	78135	DV
130	35 GAM	CEP	23 37 16.533	+77 21 11.73	+3.22C		K1 I		222404	10816	
324	2 EPS	OP4	16 15 40.349	-04 34 19.57	+3.233		S9 III		146791	141086	
27	65 THE	AGL	20 08 43.453	-00 58 16.06	+3.245		B9.5III		191692	144150	
312	14 GAM	LYR	19 57 04.294	+32 37 11.25	+3.250		B9 III		176437A	67663	D
235	THE-1	ERI	02 56 21.882	-40 30 15.15	+3.264	S	A3 V		196224	246113	D
10	76 DEL	AGR	22 51 59.901	-16 05 13.92	+3.266		A3 V		216627	165375	D
327	42 THE	OP4	17 19 56.157	-24 57 05.20	+3.285		B2 IV		157056	29520	
211	12 IOT	DRA	15 23 48.741	+59 09 26.16	+3.296		K2 III		137759	185320	
384	BET	PHE	01 03 51.257	-46 59 05.78	+3.30C	L	S8 III		65948	215365	C
492	69 DEL	UMA	12 12 57.589	+57 18 36.95	+3.310		A3 V		106591	28315	
421	40 TAU	SGR	19 03 45.160	-27 44 43.14	+3.315		K1 III		177716	187683	
307	20 SIG	L19	15 01 08.247	-25 05 12.27	+3.319		M4 III		133216	183139	
291	70 THE	LEO	11 11 37.066	+15 42 11.38	+3.343		A2 V		97633	59512	
402	7 XI	PUP	07 47 11.421	-24 43 59.22	+3.347		G3 IB		63700A3	174601	D
504	1 OMI	UMA	08 26 07.631	+60 53 14.56	+3.347		G5 III		71369A	14573	D
339	28 ETA	ORI	05 21 57.676	-02 26 29.59	+3.350	*	B0.5V		35411A3	132071	D
298	31 XI	SEM	06 42 28.566	+12 57 04.31	+3.353		F5 IV		48737	96074	D
23	30 DEL	AGL	13 22 58.597	+03 00 49.99	+3.356		F0 IV		182640	124603	D
530	79 ZET	VIR	13 32 09.554	-00 20 21.51	+3.363		A3 V N		118058	139420	
273	11 EPS	HVA	08 44 07.755	+06 36 17.41	+3.368		G0 III+7		74974A8C	117112	D
528	43 DEL	VIR	12 53 04.996	+03 40 07.60	+3.368	L	M3 III		112300	119674	
120	45 EPS	CAS	01 50 46.378	+63 25 23.89	+3.370		B3 IV P		11415	12031	D
361	42 ZET	PEG	22 38 27.996	+10 34 11.39	+3.391		B8 V		214923A	168103	D
344	39 LAM	ORI	05 32 22.913	+09 54 03.35	+3.391		O9 +80.5V		36951/2A8	112921	D
385	GAM	PHE	01 26 11.716	-43 34 25.94	+3.40C		K5 II		9053	215516	D
311	10 BET-1	LYR	18 49 13.935	+33 19 12.51	+3.40C	*	B PE		174638/9A	67451	DV
473	78 THE-2	TAU	C4 25 48.220	+15 45 41.80	+3.40C		A7 III		28315	93957	
479	2 ALP	TRI	01 50 13.440	+29 20 10.14	+3.413		FE IV		11443	74996	

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	F N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
131	3 ETA CEP	KABALFIRO	20 44 16.488	+51 38 38.86		+3.422		K0 IV		198148A	19019	D
29	16 LAM AGL	AL T-HALIMAIN I	19 03 35.698	-04 57 32.74		+3.433		98 V		177756	143021	
289	36 ZET LEO	AD-HAFERA	10 13 54.759	+23 40 01.54		+3.435		F0 III		8502E	81265	
145	31 ETA CET	DENES ALGENUBI	01 06 04.420	-10 26 48.57		+3.437		K3 III		6805	147632	
500	33 LAM UMA	TANIA BCREALIS	10 14 05.353	+43 09 53.54		+3.455		A2 IV		89021	43268	
141	86 GAM CET	KAFALGIDMA	02 40 42.397	+03 01 34.05		+3.458		A2 V		16970AB	110707	D
502	54 NU UMA	ALULA BOREALIS	11 15 46.947	+33 22 02.56		+3.465		K3 III		98262AB	62486	D
67	49 DEL 800	T-HIBA	15 13 29.117	+33 30 01.20		+3.478		G8 III		135722A	64589	D
286	41 GAM-2 LEO	ALGIEBA (B)	10 17 13.461	+20 05 35.69	S	+3.480		G7 III		89495B	81299	D
295	14 OMI LEO	SUBRA	09 38 29.008	+10 07 14.64		+3.489		A2 +F6 II		83908/3A	89709	D
165	42 BET BCO	NEKKAR	15 00 03.654	+40 35 12.80		+3.489		G8 III	II	133208	45337	D
365	48 NU PEG	SADALBARI	22 47 35.191	+24 20 13.72		+3.490		G8 III		216131	90816	
156	52 TAU CET	AL NAYMAT II	01 41 44.660	-16 12 00.50		+3.496		G8 V P		10700	147986	
26	55 ETA AGL	ALMIZAN II	19 49 55.525	+00 52 33.23		+3.500		F5 IB		187929	125159	V
363	26 THE PEG	BIHAM	22 07 40.600	+05 57 04.13	*	+3.515		A2 V	*	210418	127340	D
252	55 DEL GEM	WASAT	07 17 08.285	+22 04 34.06		+3.523		K4 III		69267	116569	D
232	23 DEL ERI	RANA	08 13 48.282	+09 20 27.73		+3.526		F0 IV		56386AB	79294	D
290	30 ETA LEO	AL JAB444	10 04 36.533	+17 00 26.17		+3.530		K0 IV		23249	130686	D
470	74 EPS TAU	OCULUS BOREUS	04 25 41.585	+19 04 16.36		+3.531		A0 IB		87137	98955	
147	8 IOT CET	SCHEMALI	00 16 52.784	-09 05 53.05		+3.534		K0 III		29305	93954	
247	41 UPS-4 ERI	BEEMIN I	04 16 00.036	-33 55 09.65	L	+3.540		K2 III		1522A	128694	D
437	NU -2 SCO	TALI AL SHAULA4 II	16 46 02.599	-37 56 03.17		+3.553		88.5V		27376AB	194902	D
223	44 CHI DRA	ALAYAKAN	18 21 57.480	+72 42 42.15		+3.558		B2 IV		15198E	208116	
106	6 ALP-2 CAP	SECUNDA GIEDI	20 15 16.898	-12 42 04.49		+3.563		F7 V		170153	9087	D
1	51 AND	NEMBUS	01 34 54.636	+48 22 32.66		+3.564		G9 III		192947AB	163427	D
499	12 KAP UMA	KAFZATANIA	09 00 13.266	+47 21 20.79	L	+3.570		K3 III		77327AB	42661	D
197	6 BET DEL	ROTANEV	20 35 12.206	+14 25 12.31	C	+3.583		F5 IV		136524AB	106316	D
300	13 GAM LEP	KURSI AL JABBAR	05 42 22.653	-22 27 48.30		+3.597		F6 V		38393A	170759	D
146	45 THE CET	AL NAYMAT I	01 21 31.363	-08 26 27.16		+3.603		K0 III		9512A	129274	D
526	5 BET VIR	ZAVIJAVA	11 48 05.387	+02 02 47.61		+3.608		F8 V		102870	119076	D
33	41 -C-1 ARI	NAIR AL BUYAIN	02 47 02.036	+27 03 20.55		+3.610		B8 V		17573	75596	D
464	27 -F TAU	ATLAS	03 46 11.030	+23 54 07.66		+3.626		B8 III		23500AB	76228	D
468	54 GAM TAU	YADUD I	04 16 56.651	+15 30 30.62		+3.635		K0 III		27371	93868	D
204	11 ALP DRA	T-HUBAN	14 03 01.983	+64 36 51.57		+3.652		AD III		123259	16273	
489	23 -H UMA	AL-HAUD IV	09 27 36.565	+63 16 55.11		+3.656		F0 IV		81937A	14908	D
109	40 GAM CAP	NAS-HRA	21 37 19.372	-16 53 21.05		+3.666		AB M		206088	164560	D
173	3 BET CRB	NUSAKAN	15 25 45.944	+29 16 37.26		+3.669		F0 III		137909	83831	D
450	28 BET SCP	NASAK S-HAMIYA I	15 43 52.670	+15 34 37.42		+3.672		A2 IV		141003A	101725	D
350	3 PI -4 ORI	AL TAJ II	07 48 32.421	+05 31 16.34		+3.682		B2 III		30836	112142	D
254	43 ZET GEM	MEKBUDA	04 01 08.627	+20 38 43.45	*	+3.700		F7 IB	*	52973A	79031	DV
458	17 TAU	ELECIRA	03 41 54.055	+23 57 27.82		+3.702		B6 III		23302	76131	D
513	63 CHI UMA	ALKAFZA4	11 43 25.030	+03 43 24.16		+3.703		K0 III		102224	43886	D
454	37 EPS SCP	NASAK YAMANI II	15 48 19.243	+04 37 36.85		+3.709		A M		141795	121218	D
121	60 BET AGL	ALS-HAIN	19 52 51.383	+06 16 45.84		+3.714		S8 IV		188512	125235	D
351	8 PI -5 ORI	AL TAJ III	04 51 39.661	+02 21 37.24	*	+3.722		B2 III	*	31237	112197	D
144	55 ZET CET	BATEN KAILOS	01 46 59.447	-10 34 52.90		+3.737		K2 III		11353	148059	D
216	32 XI DRA	GRUMIUM	17 52 39.700	+56 52 47.68		+3.737		K2 III		163588	30631	D
322	62 GAM OP4	MULIPHEN	17 45 23.019	+02 43 28.28		+3.738		AD V		161868	122754	D
265	20 GAM HER	NASAK S-HAMIYA III	16 19 42.737	+19 16 09.32		+3.745		A9 III		147547A	102107	D

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	F N	VISUAL MAG.	SPECTRAL CLASS	HENRY DRAPER (HD) CAT. NO.	SAD. CAT. NO.	STAR PROP.
469	61 DEL	TAU	04 20 02.844	+17 25 36.81		+3.757	K0 III	21697	93897	D
196	9 ALP	DEL	20 37 18.874	+15 44 04.30		+3.766	B9 V	196867A	106357	D
375	15 ETA	PER	02 47 01.935	+55 41 22.43		+3.767	K3 IB	17506A	23655	D
11	2 EPS	AQR	20 44 58.217	-09 40 48.21		+3.770	A1 V	199001	144810	D
193	1 KAP	CYG	19 15 56.786	+53 16 31.88		+3.773	K0 III	181276	31537	D
301	15 DEL	LEP	05 49 10.193	-20 52 55.23		+3.780	G8 III	39364	170926	D
376	27 KAP	PER	03 06 06.756	+44 40 10.21		+3.783	K0 III	19476A	38609	D
511	29 UPS	UMA	09 47 27.102	+59 16 30.31		+3.794	F2 IV	84999AB	27401	D
47	8 ZET	AUR	04 58 58.680	+41 00 17.79	L	+3.800	K5 II+8	3206875	39966	D
503	53 XI	UMA	11 15 31.162	+31 48 38.88	C	+3.803	G0 V	98230/1AB	62484	D
296	0 MI	LMI	10 50 31.231	+34 29 05.62		+3.808	K0 III-IV	54264	62297	D
245	52 UPS-2	ERI	04 33 36.315	-30 39 48.99		+3.810	K0 III	29291	195148	D
328	10 LAM	OPH	16 28 23.341	+42 05 31.06	C	+3.810	A1 V	148857AB	121658	D
390	113 ALP	PSC	01 59 27.392	+02 31 23.04		+3.820	A M+2 P	1244677AB	110291	D
212	1 LAM	ORA	11 28 27.596	+69 36 26.09		+3.827	MD III	100029	15532	D
378	38 OMI	PER	03 41 10.598	+32 07 53.47	L	+3.829	B1 III	23800AB	56673	D
208	63 EPS	DRA	19 48 21.663	+70 08 26.55		+3.833	G8 III	188115AB	9540	D
451	41 GAM	SCP	15 54 08.455	+15 49 24.77		+3.841	F6 V	142860	101826	D
9	48 GAM	AGR	22 19 04.420	-01 38 23.71		+3.845	AD V	212061	146044	D
472	77 THE-1	TAU	04 25 42.982	+15 51 10.15		+3.849	K0 III	29307	93955	D
228	53 -L	ERI	04 35 53.315	-14 24 01.60		+3.858	K2 III	29503AB	149781	D
101	16 OMI-1	CHA	06 52 03.362	-24 07 12.97		+3.860	K3 IAB	50377	172542	D
416	13 MU	SGR	18 10 46.324	-21 04 25.46		+3.866	B8 IA P	166937AB	186497	D
459	20 TAU	MAIA	03 42 50.756	+26 12 47.01		+3.879	B7 III	23408	76155	D
531	15 ETA	VIR	12 17 20.761	-00 23 20.65		+3.880	A2 V	10725E	138721	D
276	35 TOT	HYA	09 37 18.152	-00 54 53.79		+3.883	K3 III	83618	137035	D
535	107 MU	VIR	14 40 25.283	-05 26 30.92		+3.883	F3 IV	129502	140090	D
443	5 RHO	SCO	15 53 47.507	-29 04 10.42		+3.883	B2 V	142669A	183957	D
234	3 ETA	ERI	02 53 58.952	-09 05 45.89		+3.887	K1 III-IV	18322	130197	D
294	24 MU	LEO	09 49 55.434	+26 14 36.08		+3.890	K2 III	85503	81064	D
227	8 ALP	EGU	21 13 19.440	+05 02 24.35		+3.914	G0 III+45	202441/e	126662	D
386	KAP	P4E	00 23 44.906	-43 57 25.67		+3.929	A7 V N	2262	215092	D
81	47 DEL	CNC	08 41 50.747	+18 20 21.83		+3.935	K0 III	74442	98087	D
246	43 UPS-3	ERI	04 22 09.409	-34 07 54.81		+3.935	M1 III	29028	194984	D
495	79 ZET-2	UMA	13 21 55.908	+55 10 56.63		+3.950	A2 M	116657B	28738	D
364	47 LAM	PEG	22 44 07.173	+23 19 07.41		+3.955	G8 II-III	215665	90775	D
407	ALP	SGR	19 20 25.492	-40 42 43.10		+3.966	B9 III	181869	228659	D
447	9 OME-1	SCO	16 03 52.659	-20 32 07.11		+3.968	B1 V	144470	184123	D
157	59 UPS	CET	01 57 38.911	-21 19 05.71		+3.990	M1 III	12214	167471	D
134	MU	CEP	21 41 58.501	+58 33 00.65		+3.990	M2 IA	206936AB	33693	DV
487	80 -G	UMA	13 23 13.477	+55 14 52.99		+4.003	A5 V	116942	28751	D
408	BET-1	SGR	19 19 02.816	-44 33 17.72		+4.010	B8 V N	181454A	225964	D
439	MU -2	SCO	16 09 05.091	-19 19 56.20	L	+4.012	B2 IV-V	145502AB	159764	D
24	13 EPS	AOL	18 57 21.118	+14 53 58.41		+4.020	K2 III	176411	104318	D
86	48 TOT-2	CNC	12 05 49.514	-28 56 35.19		+4.030	G8 II	74735A	80416	D
174	1 ALP	CRV	08 05 49.746	+24 27 00.13		+4.030	F2 V	105452	180505	D
201	2 EPS	DEL	20 30 49.400	+11 07 55.83		+4.035	B6 III	195810	166230	D
377	46 XI	PER	03 55 42.825	+35 38 56.50		+4.037	B5 V	24912	56856	D
238	38 OMI-1	ERI	04 09 25.339	-06 57 55.74		+4.045	F2 II-III	26514	131019	D
70	23 THE	800	14 23 29.610	+52 04 52.32		+4.046	F7 V	126660	29137	D

TABLE 6 CONTINUED
STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLIN. DEG MIN SEC	P	VISUAL MAG.	SPECTRAL CLASS	S	HENRY DRAPER (HD) CAT. NO.	SAD* CAT. NO.	STAR PROP.
142	82 DEL	CET	02 36 54.985	+00 06 50.00		+4.064	B2 IV		16542	110665	
179	7 ALP	CRT	10 57 20.138	-18 01 55.62		+4.066	K0 III		95272	156375	
346	9 OMI-2	ORI	04 53 33.423	+13 26 12.64		+4.071	K2 III		31421A	54218	0
532	99 IOT	VIR	14 13 23.345	-05 45 46.18		+4.077	F7 III-IV		124850	139824	
355	40 PHI-2	ORI	05 34 09.415	+09 15 54.81		+4.082	K0 III		3716C	112958	
169	ALP	CRA	19 06 04.345	-37 59 03.49		+4.100	A2 N		178253	210990	
272	23 GAM	CMA	07 01 29.713	-15 33 28.79		+4.105	B8 II		513244	352303	
257	18 NU	GEM	08 35 00.594	+05 52 45.60		+4.143	A0 V		713262	116965	0
14	43 THE	AGR	06 25 59.627	+20 14 44.06		+4.153	B7 IV E		45542AF*	78423	0
440	XI-1	SCO	22 14 11.766	-08 01 58.75		+4.155	G8 III-IV		211391	145991	0
462	23	TAU	16 01 36.889	-11 14 12.28	L	+4.166	F5 IV MN		144069/GAB	159665	0
74	19 LAM	BOC	03 43 21.195	+23 47 38.99		+4.176	B6 IV MN		23480	76172	0
13	13 DEL-2	SCP	14 14 28.969	+46 19 01.94		+4.178	A0 P		125162	44965	0
533	58 KAP	VIR	15 32 24.681	+10 42 17.82		+4.179	F0 IV	S	13918A	101624	0
367	46 XI	PEG	22 44 11.592	+11 54 57.24		+4.193	K3 III		124254	158427	0
132	2 THE	CEP	20 28 44.678	+62 49 32.32		+4.203	F7 V		215648AB	109165	0
222	43 PHI	ORA	20 28 44.678	+62 49 32.32		+4.207	A M		195725	18897	0
474	65 KAP-1	TAU	18 21 28.505	+71 18 42.23	L	+4.210	A0 P		170000AB	9084	0
79	65 ALP	CNC	04 22 23.083	+22 10 51.94		+4.220	A7 V		27934	76601	0
153	89 PI	CET	08 55 45.247	+12 03 09.07		+4.228	A M		76756	98267	0
105	5 ALP-1	CAP	02 41 44.470	-14 04 16.17		+4.235	B7 V		17081	148575	0
309	110 OMI	PSC	20 14 52.647	-12 39 51.04		+4.240	G3 I8		192376A	163422	0
149	87 MU	CET	08 19 25.154	+43 21 00.63		+4.245	K5 III		10761	42319	0
236	8 BET	CVN	01 42 44.968	+08 54 24.64		+4.259	G8 III		17054	110110	0
237	69 LAM	ERI	02 42 14.102	+09 54 15.02		+4.260	F0 IV		186238	110723	0
199	12 GAM-2	DEL	02 56 22.578	-40 30 14.34		+4.263	A2 V		109359	216114	0
151	73 XI-2	CET	12 31 22.289	+41 37 44.10		+4.266	G0 V		33328	44230	0
409	22 EPS	UMI	05 06 45.092	-08 49 00.32		+4.270	B2 IV		131824	116476	0
476	69 UPS	TAU	20 44 20.236	+15 56 34.82		+4.270	K2 IV		177964A	277C	0
275	7 ETA	HYA	02 25 29.791	+08 14 13.15		+4.271	B9 III		15318	110543	0
520	16 ZET	UMI	16 51 00.505	+82 07 21.54		+4.280	F0 III N		153751A	229654	0
75	51 MU-1	BOO	19 19 36.611	-44 53 44.93		+4.280	F0 III-IV		28024	76608	0
293	4 LAM	LEO	04 23 18.680	+22 42 06.75		+4.288	B3 V		74280	117050	0
167	42 ALP	COM	08 40 36.696	+03 34 45.66		+4.288	B6 V		23338	76140	0
449	10 OME-2	SCO	15 45 47.812	+77 56 57.09		+4.303	A3 V		142105	8328	0
13	55 ZET-2	AGR	15 22 35.995	+37 33 05.49		+4.306	F0 V		137391A	54686	0
121	33 THE	CAS	09 28 52.249	+23 11 22.21		+4.310	K5 III		82308	80885	0
278	13 RHO	HYA	13 07 33.321	+17 47 36.25	L	+4.318	F5 V		114378/EAB	10443	0
518	23 DEL	UMI	16 04 28.091	-20 44 06.53		+4.320	GG2 IV		144608	184135	0
316	6 ZET-1	LYR	22 26 15.513	-00 16 36.08		+4.323	F2 IV		2130528	146108	0
171	13 THE	CAS	01 08 02.554	+54 51 04.32		+4.325	A0 V		213398A	213683	0
278	13 RHO	HYA	08 45 47.115	+06 01 25.07		+4.332	A7 V		6961	22070	0
518	23 DEL	UMI	17 48 18.339	+86 36 34.78		+4.347	A0 V		75137AB	117146	0
316	6 ZET-1	LYR	18 43 02.939	+17 33 06.28		+4.347	A M		16620E	2937	0
38	57 DEL	ARI	03 08 45.885	+19 32 20.22		+4.347	A M		173648A	57321	0
168	15 GAM	COM	12 24 26.870	+28 32 46.07		+4.350	K2 III		15187	93328	0
348	2 PI-2	ORI	04 47 53.047	+08 48 51.64		+4.353	K1 III-IV		109381	82313	0
403	5 ALP	SGE	19 37 51.612	+17 53 51.21		+4.355	A0 V		30739	112124	0
						+4.359	G0 II		185758A	105120	0

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	P VISUAL V MAG.	SPECTRAL CLASS	S	HEARY DRAPER (HD) CAT. NO.	SAO* CAT. NO.	STAR PROP.
150	65 XI -1 CET	AL KAFF AL JID-HAH I	02 10 20.747	+08 36 47.36	+4.36C	S8 II		13611	110408	
165	KAP/ COL	KURUD II	06 14 46.278	-35 07 22.03	+4.360	G8 III		43785	196643	
28	41 IOT AQL	AL THALIMAIN II	19 34 08.056	-01 23 55.88	+4.36C	B5 III		184930	143597	C
133	1 KAP CEP	AL AGANAM I	20 10 36.574	+77 33 42.36	+4.370	B9 III		192907AB	9665	D
319	20 ETA LVR	AL AGANAM I	19 12 03.290	+39 03 32.09	+4.370	B2 IV		180163A	68010	D
329	40 XI OP4	AGGIA	17 18 00.251	-21 03 39.72	+4.397	F2 V		156897AB	185296	D
268	76 LAM HER	MASYM	17 28 42.947	+26 08 43.49	+4.400	K4 III		158855	85163	D
137	33 PI CEP	AL AGNAM II	23 06 18.007	+75 07 03.55	+4.407	S2 III		218658AB	10629	D
354	37 PHI-1 ORI	HEKA	05 32 04.419	+09 27 26.67	+4.41C	B0 IV		36822	112914	
370	68 UPS PEG	ALKARAB	23 22 52.793	+23 07 43.20	+4.414	F9 IV		220657	91253	
537	6 ALP VUL	ANSER	19 26 37.410	+24 33 44.90	+4.42C	M0 III		183439	87261	
200	11 DEL DEL	AL UKUD	20 41 07.413	+14 53 36.69	+4.420	A7 III P		197461	106425	
392	63 DEL PSC	KUTCN I	00 46 05.113	+07 18 47.93	+4.43C	K5 III		4636	109474	
239	40 OMI-2 ERI	KEID	04 12 58.161	-07 43 45.89	+4.433	K1 V		26965A	131063	
279	5 SIG -YA	MINKALS-UJA	08 36 08.671	+02 31 05.48	+4.435	K2 III		73471	116988	
136	17 XI -2 CEP	KUR-YAH (A)	22 02 20.440	+64 23 01.69	+4.454	A M		209791A	19827	D
220	60 TAU DRA	AT-HAFI II	19 16 31.472	+73 15 47.87	+4.455	K3 III		181584	9366	
352	10 PI -6 ORI	AL TAJ V	04 55 57.260	+01 39 20.04	+4.458	K2 II		31767	112281	
292	1 KAP LEO	MINKARASAD	09 21 44.777	+26 23 55.32	+4.46C	K2 III		81146AR	80807	C
486	15 -F UMA	AL-HAUD I	09 05 21.316	+51 48 29.27	+4.467	A M		78209	17136	
180	11 BET CRT	AL SHARASIF II	11 09 11.730	-22 33 08.99	+4.467	A2 III-IV		97277	279624	
12	55 ZET-1 AQR	ALSAD (B)	22 26 15.261	-00 15 35.27	+4.493	F2 IV	S	213051A	146107	D
244	50 UPS-1 ERI	BEEPIM III	04 31 32.818	-29 51 55.49	+4.51C	G6 III		29095	169570	
406	62 -C SGR	TEREBELLUM IV	19 59 35.193	-27 51 01.64	+4.503	M4 III		189763	188844	
17	13 NU AQR	ALBULAN II	21 06 52.303	-11 34 31.13	+4.507	S8 III		201381	164182	
399	-K-1 PUP	MARKEB (A)	07 36 46.323	-26 41 12.59	+4.509	B9	S	61555A	174198	D
32	39 RHO DRA	BARANI III	02 44 55.468	+25 02 26.66	+4.513	K1 III		17361	75576	
218	67 RHO DRA	TAIS II	20 02 35.227	+67 43 51.21	+4.513	K3 III		190940	18676	
391	4 BET PSC	FUM AL SAMAKAH	23 01 19.867	+03 33 01.75	+4.518	B5 V E		217891	127934	
405	59 -8 SGR	TEREBELLUM II	19 53 52.975	-27 19 14.61	+4.520	GK3		189603	188742	
534	100 LAM VIR	KAMBALIA	14 16 23.989	-13 08 36.89	+4.522	AB M		125337	158489	
73	17 KAP-2 BCO	AULAC ALNAT-HAT	15 02 19.094	+27 09 29.75	+4.523	K2 III		133682	83645	
484	24 -D UMA	TERTIUS ASELLUS (A)	09 30 05.839	+70 03 06.47	+4.552	S2 IV		124675A	29046	D
281	32 TAU-2 -YA	UKOAH II	09 29 25.987	+00 57 47.99	+4.558	A3 III		82210	8897	
369	62 TAU PEG	SALM	23 18 09.565	+23 27 55.22	+4.580	A5 IV		82446	136932	D
317	58 PI DRA	TAIS I	09 48 43.042	+04 17 56.59	+4.573	A3 S		85235AB	27408	
280	31 TAU-1 -YA	UKOAH I	00 38 58.031	-46 21 33.10	+4.580	A5 IV	L	22006A	91186	
330	42 -C ORI	MIZAN BATIL I	19 20 24.696	+65 37 05.16	+4.583	A2 IV		3919	215194	
269	24 OME HER	CUJAM	05 32 55.055	+04 52 16.72	+4.590	AD P		182564	18299	
506	4 PI -2 UMA	AL-HIBA III	08 35 51.556	+64 30 16.82	+4.593	K2 III		73108	14616	D
37	5 GAM-2 ARI	MESARTIM (A)	01 50 46.872	+19 02 57.87	+4.594	B9 V	S	11503A	92691	D
224	31 PSI-1 DRA	DZIBAN I	17 42 49.282	+19 02 57.87	+4.594	F5 IV-V		162003A	889C	D
315	5 EPS-2 LVR	DOUBLE DOUBLE II	18 42 43.395	+39 33 33.99	+4.595	A3 +45		173607/8CD	67315	D
340	41 THE-1 ORI	TRAPEZIUM	05 32 48.995	-05 26 16.22	+4.60C	O6 +80.5		37020-3ABCD	132314	D
382	28 OME PER	GORGONEA QUARTA	03 08 03.167	+39 25 23.39	+4.613	K0 III		19556	56224	
352	36 UPS ORI	THABIT	05 29 30.667	-07 20 12.87	+4.616	B0 V		36512	132222	
455	63 THE-1 SCA	ALYA (A)	18 53 43.976	+04 09 13.25	+4.622	A5 V		175638A	124068	D

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. HR MIN SEC	DECLINATION DEG MIN SEC	P MAG.	V MAG.	SPECTRAL CLASS	S N	HENRY DRAPER (40) CAT. NO.	SAO* CAT. NO.	STAR PROP.
282	72	ZUBRAH	11 12 32.837	+23 22 05.98	+4.625	+4.625	M3 IIII		97778	81736	
400	-K-2 PUP	MERKEB (3)	07 36 46.820	-26 41 19.88	+4.629	+4.629	R3		615568C	174199	D
39	48 EPS	AL BUTAIN III	02 56 20.825	+21 29 23.91	+4.638	+4.638	A2 V		1851970AB	75673	D
31	35	ARI	02 40 30.651	+27 09 44.29	+4.650	+4.650	R3 V		16308	75532	
19	52 PI	AGR	22 22 43.381	+01 07 22.87	+4.66C	+4.66C	B1 V PE		212571	127520	
194	80 PI -1	AGR	21 40 18.352	+50 57 39.10	+4.665	+4.665	R3 IV		206672	33665	
510	14 TAU	UMA	09 06 49.121	+63 43 07.22	+4.666	+4.666	B7 M		7836273A	14796	D
347	7 PI -1	ORI	04 52 08.440	+10 04 22.53	+4.670	+4.670	AD V		31295	94201	
80	43 GAM	ASCSELLUM BOREALIS	08 40 23.7C2	+21 38 58.82	+4.67C	+4.67C	A1 V		74198	80378	D
36	5 GAM-1	ASCSELLUM (B)	01 50 46.955	+13 03 06.11	+4.673	+4.673	A1 P		115028	92680	
219	61 SIG	ALSAFI	19 32 27.585	+59 34 34.11	+4.686	+4.686	K0 V		185144	18396	
379	22 PI	GORGONEA SECUNDA	02 55 33.275	+39 27 50.67	+4.697	+4.697	A2 V		18411	56047	
148	91 LAM	CEY	02 57 01.871	+08 42 33.54	+4.697	+4.697	R5 IIII		18604	110889	
426	58 OME	SGR	19 52 46.744	-26 26 01.47	+4.700	+4.700	D65		188376	188722	
51	15 LAM	AUR	05 15 37.211	+40 03 24.51	+4.71C	+4.71C	M3 S		34411A	40233	D
345	4 OMI-1	ORI	04 49 42.058	+14 10 08.31	+4.720	+4.720	M3 S		30959	94176	
16	6 MU	AGR	20 49 57.874	-09 10 15.76	+4.723	+4.723	A8 M		193743	144895	
19	31 OMI	AGR	22 00 42.548	-15 27 47.46	+4.745	+4.745	R8 V E		209409	145837	
155	76 SIG	CEY	02 29 43.657	-02 23 51.13	+4.748	+4.748	F5 IV-V		15798	148445	
159	17 PHI-1	CEY	00 41 40.021	-10 52 53.49	+4.75C	+4.75C	K0 IIII		4188	147423	D
71	21 IOT	B00	20 17 53.485	-12 55 04.43	+4.753	+4.753	M3 IIII		125161A	29071	D
111	8 NU	CAP	08 58 03.373	+67 49 35.21	+4.757	+4.757	M3 IIII		193432A	163468	D
507	8 RHO	UMA	02 48 46.150	-21 12 32.91	+4.763	+4.763	K0 IIII		76827	14742	D
243	2 TAU-2	ERI	06 35 45.7C3	+82 32 06.13	+4.786	+4.786	M3 IIII		17824A	168094	D
55	50 PSI-2	AUR	04 59 00.759	-07 14 44.98	+4.795	+4.795	R2 V		47174	41239	
249	65 PSI	ERI	09 06 01.131	+67 20 21.67	+4.796	+4.796	F7 IV-V		791544E	14788	D
509	13 SIG-2	UMA	05 36 27.836	-07 14 21.42	+4.797	+4.797	A4 IV		37507	132411	D
331	43 -0	ORI	C3 13 24.143	-09 00 15.50	+4.798	+4.798	A7 M		20320	130387	D
233	13 ZET	ERI	14 25 37.362	-02 00 17.26	+4.798	+4.798	G2 IIII		126868AB	139951	D
536	105 PHI	VIR	17 37 14.348	+68 46 52.48	+4.800	+4.800	F5 V		160922	17576	D
226	28 OME	DRA	17 46 41.171	-40 04 35.09	+4.800	+4.800	CA3		161912A	228466	D
433	IOT-2	SCO	22 39 24.327	+29 02 46.12	+4.803	+4.803	A1 V		214934	90717	
368	43 OMI	PEG	19 55 00.917	+71 13 50.82	+4.810	+4.810	K0 IIII		176524	9283	
221	52 UPS	DRA	09 12 36.226	+54 13 47.19	+4.818	+4.818	A5 V		79439	27191	
485	18 -E	UMA	18 51 09.064	-22 48 29.54	+4.820	+4.820	CK2		174974AB	187426	D
417	32 NU -1	SGR	19 55 54.576	-26 19 51.29	+4.83C	+4.83C	G65		185005	188778	D
404	60 A	SGR	20 15 56.500	+37 52 35.55	+4.830	+4.830	B		193237	69773	N
185	34 P	CYG	02 37 08.592	-12 05 00.36	+4.837	+4.837	F5 IV-V	*	16620AB	148528	D
133	83 EPS	CEY	22 03 09.442	+04 48 48.17	+4.840	+4.840	K4 IIII		209747	127285	D
366	22 NU	PEG	19 12 28.542	-25 20 40.58	+4.85C	+4.85C	DF5		175950AB	187682	D
425	42 PSI	SGR	05 10 00.157	+38 25 38.27	+4.860	+4.860	A		33641	57355	D
52	11 MU	AUR	01 19 23.1C3	+45 16 02.87	+4.867	+4.867	K0 IIII-IV		8207	37155	D
6	46 XI	AND	17 31 16.719	+55 12 22.82	+4.872	+4.872	A M		159560A	30450	D
6	46 XI	AND	02 23 31.955	-12 30 54.30	+4.88C	+4.88C	B9 V		15130	148385	D
215	25 NU -2	DRA	17 31 11.293	+55 13 04.07	+4.880	+4.880	A M		1595418	30497	D
154	72 RHO	CET	06 53 58.335	+45 09 46.72	+4.885	+4.885	A2 V		50973	41463	D
214	24 NU -1	DRA	03 12 01.326	+20 51 37.93	+4.897	+4.897	AD IV-V		20150	75810	D
308	16	LYN	16 02 31.857	-13 40 00.07	+4.92C	+4.92C	B2 V		144218C	158683	D
40	58 ZET	ARI	17 04 17.357	+54 32 07.95	+4.920	+4.920	F5		154905/6AB	30239	D
429	8 BET-2	SCO									D
213	21 MU	DRA									D

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RT. ASCEN. -R MIN SEC	DECLINATION DES MIN SEC	P N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HENRY DRAPER (-D) CAT. NO.	SAD. CAT. NO.	STAR PROP.
521	21 ETA UMI	ANWA FARKADAIN	16 18 56.288	+75 52 16.64		+4.937		DAB		148048	8470	
477	52 PHI TAU	ALKALBAIN I	04 17 16.436	+27 13 59.39		+4.950		K1 III		27382A	76558	D
54	46 PSI-1 AUR	DOLONES I	06 21 02.880	+49 18 56.91		+4.95E	*	M0 IAB		44537	41076	D
195	45 ONE-1 CYG	RUCBA	20 28 30.590	+48 46 57.97		+4.950		B2 V		195356AB	49712	D
388	NU PHE	ALRIAL IV	01 12 55.966	-45 47 57.12		+4.953		F8 V		7570	215428	D
456	63 THE-2 SCA	ALYA (B)	18 53 45.420	+04 08 07.70		+4.975		A5 N		1756398	124070	D
53	21 SIG AUR	AL-YIBA III	05 21 15.660	+37 20 26.65		+4.987		K4 III		35186	57981	D
100	18 MU CMA	ISIS	06 53 49.103	-13 58 38.75		+4.990		G5 +A2		51250/1AB	152123	D
418	35 NU -2 SGR	AIN AL RAHI II	18 52 05.766	-22 44 08.19		+4.99C		K3 III		175150	187445	D
267	7 KAP-1 HER	MARSIC	16 05 49.989	+17 10 43.81		+5.000		G8 III		145001A	101951	D
60	58 PSI-7 AUR	DOLONES VII	06 47 13.820	+41 50 32.27		+5.005		K3 III		49520	41380	D
164	THE COL	KURUD I	06 05 48.671	-37 14 41.29		+5.010		B9		42167	196514	D
516	11 GAM-1 UMI	PHERRAD MINOR	15 17 07.110	+72 00 15.08		+5.020		K4 III		136726	8207	D
423	47 CHI-1 SGR	NAMALSADIRA4 III	19 22 14.012	-24 36 26.63		+5.020		DA5		182369AB	188101	D
15	63 KAP -ABR	SITULA	22 35 10.023	-04 29 11.39		+5.025		K2 III		214376	146210	D
374	55 PSI-4 AUR	DOLONES IV	06 39 26.746	+44 34 29.11		+5.027		K5 III		47914	41288	D
463	4 EPS-1 LVR	DOUBLE DOUBLE I (A)	18 42 40.873	+39 37 08.09		+5.040	S	A2		173582B	67310	D
28	BU TAU	PLEIONE	03 46 12.391	+23 59 07.56		+5.047		B8 P		23862	76229	D
83	16 ZET-1 CNC	TEGMINE (AB)	08 09 20.753	+17 47 55.93	L	+5.050		F8 V		68256/1AB	97645	D
277	38 KAP 4YA	AL SHARASIF I	09 37 54.469	-14 06 16.63		+5.058		B5 V		83754	155388	D
203	27 -F DRA	ADFA ALDIB I	17 32 09.543	+68 10 01.20		+5.060		K0 III		159966	17526	D
341	43 THE-2 ORI	MIZAN BATIL II	05 32 55.449	-05 26 50.72		+5.077		09.5V P		37041A	132321	D
452	13 DEL-1 SCP	NASAK YAMANI I (B)	15 32 24.633	+10 42 18.66		+5.109	S	DF0		138917B	101623	D
319	2 MU LVR	AT-YAFAR	18 22 34.868	+39 28 43.85		+5.110		A3 III		183914B	169702	D
188	6 BET-2 CYG	ALBIREO 4B)	19 28 44.302	+27 51 32.69		+5.110		B8 V		183914B	87302	D
88	77 XI CNC	NA-MN	20 06 29.235	+22 14 55.95		+5.140		K0 III		79515	80666	D
198	12 GAM-1 DEL	AL SALIB (B)	04 40 19.473	+15 56 34.71		+5.140		F7 V		197963B	166475	D
508	11 SIG-1 UMA	ALT-YIBA V	09 04 01.998	+67 04 33.26		+5.147		K5 III		77800	14769	D
302	8 ALP-1 LIB	ZUBENELGENUBI I	14 47 54.555	-15 47 23.90		+5.153		F5 IV-V		130815B	158836	D
122	30 MU CAS	AL MARFAK	01 04 55.686	+54 40 32.96		+5.163		G5 V P		6592	22024	D
159	19 PHI-2 CET	ALNIT-HAM II	00 47 37.288	-10 54 47.65		+5.188		F8 V		4813	147470	D
332	6 -G ORI	MANICA	04 52 00.305	+11 20 49.39		+5.190		A3		31283	94197	D
56	52 PSI-3 AUR	DOLONES II	06 35 20.286	+39 56 51.00		+5.200		B8 III		47100	59319	D
59	57 PSI-6 AUR	DOLONES VI	06 43 50.996	+48 50 40.75		+5.210		K1 III		48781	41346	D
393	86 ZET-1 PSC	KUTON II	01 11 06.973	+07 18 41.34		+5.215		F0 IV-V		7344A	169739	D
58	56 PSI-5 AUR	DOLONES V	06 43 08.206	+43 37 48.74		+5.240		G0 V		48882A	41330	D
76	54 PHI 800	CEGIANUS	15 36 01.742	+40 30 55.00		+5.240		S8 III-IV		135641	45643	D
242	10 RHO-3 ERI	ALUDHI III	03 01 48.952	-07 47 43.01		+5.257		A3		19107	130269	D
2	49 A AND	T-HAIL	01 27 05.505	+46 45 06.17		+5.260		K0 III		5057	37275	D
475	67 KAP-2 TAU	ALKALBAIN IV	04 22 26.032	+22 05 13.99		+5.280		A7 V		21946	76602	D
306	21 NU LIB	ZUBEN-HAKRABI	15 03 43.929	-16 03 51.08		+5.280		K5 III		133774	159028	D
30	33 PHI-3 CET	BARANI I	02 37 45.345	+26 50 50.75		+5.295	*	A3 V		16628A	75510	D
160	22 PHI-3 CET	ALNIT-HAM III	00 53 31.022	-11 32 13.05		+5.300		K4 III		5437	147519	D
241	9 RHO-2 ERI	ALUDHI II	03 00 14.892	-07 52 51.43		+5.310		GG6		18953AB	130254	D
42	42 PI ARI	AL BUTAIN I	02 46 29.805	+17 15 27.66		+5.340		B6 IV		17543A	93127	D
478	59 CHI TAU	ALKALBAIN II	04 19 32.079	+25 30 46.87		+5.390		B9.5V		27638A	76573	D
305	44 ETA LIB	ZUBAN AL KRAVI	15 41 15.348	-15 30 53.77		+5.400		F0 III		140417	159466	D
424	49 CHI-2 SGR	NAMALSADIRA4 IV	19 22 28.169	-24 03 43.16		+5.420		K4 III		182416	188105	D
457	16 UU COM	CALAENO	03 41 49.528	+24 08 01.54		+5.455		B7 IV		23288	76126	D
166	21 UU COM	KISSIN	12 28 30.930	+24 50 35.99		+5.455		A3 P		109945	82346	D

TABLE 6 CONTINUED

STAR NAMES AND STAR DATA ORDERED BY VISUAL MAGNITUDE

NUMBER	STAR DESIGNATION	STAR PROPER NAME	RI. ASCEN. -R MIN SEC	DECLINATION DEG MIN SEC	F N	VISUAL MAG.	V N	SPECTRAL CLASS	S N	HERRY DRAPER (-HD) CAT. NO.	SAO CAT. NO.	STAR PROP.
483	2 A	ALTHIBA I	08 30 09.926	+65 19 03.83		+5.465		A		72037	1459C	
263	64 ALP-2	RASALGETHI (B)	17 12 22.274	+14 26 43.71		+5.477	S	G5 III+P2		1550158	102681	D
43	46 RHO	AL BUTAIN II	02 53 36.479	+17 49 30.02		+5.500	*	DF5		18256	93195	
138	29 RHO	KALBALRAI	22 23 27.936	+78 34 03.36		+5.520	*	A2		213798	10402	
270	33 A	UKDAH III	C9 32 C2.913	-05 41 26.52		+5.55C		GK1 III		82870	136964	D
89	12 ALP-1	LA SUPERBA	13 03 37.963	+85 32 07.73		+5.600	*	K1 III		113947	64356	D
90	3 PI -1	COR CARCLI (B)	12 53 40.203	+36 35 03.82		+5.61C		F0 V		1124128	43256	D
505	3 PI -1	ALITHIBA II	09 34 46.703	+65 11 44.92		+5.625	*	G0 V		72905	14609	D
41	34 MU	KOLEON	02 39 32.888	+83 47 58.68		+5.66C	*	AC IV-V		16811	93022	D
63	38 -H	MEGA	14 47 31.671	+46 19 25.56		+5.710	*	+5.710		130345	45226	D
202	DRA	ALRUBAH	17 42 56.440	+53 49 15.34		+5.73C	*	A0		161693	30538	D
317	7 ZET-2	NASR ALMAKI II	18 43 04.779	+37 32 23.33		+5.730	*	FU IV		173649D	67324	D
240	6 RHO-1	ALUDAI I	02 58 42.365	-07 51 31.98		+5.745		DG6		18794	130243	D
62	PSI-9	DOLONES IX	06 52 50.489	+46 20 21.29		+5.750	*	B8 IV		50658	41446	D
460	21	STEROPE I	03 42 55.370	+24 24 00.00		+5.757	*	B8 V		23432	76159	D
161	23 PHI-4	ALMITHAM IV	00 56 13.583	-11 38 58.40		+5.790	*	GG7		5722	147546	V
170	R CR8	VARIABLES CORONAE	15 46 30.695	+28 18 32.24		+5.8CC	*	F		141527	84015	D
225	31 PSI-2	DZISAN II	17 42 50.929	+72 10 55.38		+5.905	*	F9 V		1620048	8891	D
87	19 LAM	PIAUTOS	08 17 33.962	+24 10 52.39		+5.91C	*	B9 V		70011	80113	D
391	7 CHI	MISAM AL THURAYYA I	02 14 32.316	+57 17 09.57		+5.990	*	G5 II		13994A	23149	D
297	R	CRIMSON STAR	C4 57 19.787	-14 52 47.48		+6.0CC	*	C7 4E		13936	150058	D
313	4 EPS-1	DOUBLE DOUBLE I (B)	18 42 40.865	+39 37 03.40		+6.001	S	A4		173593A	67309	D
107	BET-1	DABIY MINOR	20 17 58.071	-14 56 38.31		+6.16C	*	B9		193452AB	163471	D
84	16 ZET-2	TEGHINE (C)	08 09 21.213	+17 47 59.39		+6.200	*	DF2		68255C	97646	D
61	61 PSI-8	DOLONES VII	06 50 31.472	+38 34 05.87		+6.24C	*	B9 P		50204	59589	D
438	61 NU-1	JABBAH (B)	16 09 03.949	-19 19 17.45	L	+6.263	*	AD IV		145501CD	159763	D
394	86 ZET-2	KUTON III	01 11 08.246	+07 18 52.03		+6.27C	*	F6 V		73458C	10974C	D
82	41 EPS	ALMALAF	08 37 35.068	+19 43 23.07		+6.300	*	A6 III		73731	98024	D
135	17 XI -1	KURH4H (B)	22 02 19.143	+64 23 03.30		+6.354	*	A M		2097908	19826	D
461	22	STEROPE II	03 43 03.846	+24 22 24.39		+6.430	*	B9.5V		23441	76164	D
482	48 IOT-1	FLYING STAR	11 50 06.169	+38 04 39.16		+6.453	*	G8 V P		10308E	62738	D
85	-H	ZUBANA4 (B)	08 43 38.695	+28 56 57.95		+6.570	*	A3 V		747398	80415	D
371	17 KAP-1	MISAM AL THURAYYA II	C2 15 42.613	+56 56 22.44		+6.645	*	B2 IA		14143A	23182	D
72	XI -2	TERTIUS ASELLUS (B)	14 11 40.271	+52 01 15.47		+6.698	*	F2 V		1246748	23045	D
441	PSA	GRASSIAS (B)	16 C1 37.342	-11 14 08.07		+7.3CC		D57		C	159666	D
398	PIC	FUM AL HUT II	22 29 40.358	-32 36 41.57		+7.759	S	MO V		B	213884	D
389		KAPTEYN'S STAR	05 09 41.462	-44 59 53.25		+8.85C				33793	217223	D

TABLE 7
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
1	NEMBUS	2	(L)	CLOUD?
2	THAIL	2	(A)	TRAIN OF A GARMENT
3	ALPHERATZ	1	(A)	THE HORSE'S NAVEL
4	MIRACH	1	(A)	GIRDLE OR WAIST-COAT
5	ALMACH	1	(A)	AN ARABIAN BADGER
6	ADHIL	2	(A)	TRAIN OF A GARMENT
7	SADALMELIK	1	(A)	LUCKY ONE OF THE KING
8	SADALSUUD	1	(A)	LUCKIEST OF THE LUCKY
9	SADACHBIA	1	(A)	FELICITY OF TENTS
10	SKAT	2	(A)	A WISH
11	ALBALI	1	(A)	THE BRIG-TTEST ONE
12	ALSAD (B)	2	(A)	THE LUCKY ONE
13	ALSAD (A)	2	(A)	THE LUCKY ONE
14	ANCHA	1	(L)	THE HIP
15	SITJULA	2	(L)	WATER-JAR
16	ALBULAN I	2	(A)	THE SWALLOWERS
17	ALBULAN II	2	(A)	THE SWALLOWERS
18	SADALMULK	2	(A)	LUCKY ONE OF THE KINGDOM
19	SEAT	2	(N)	(A TENT OF THE LUCKY ONE)
20	ALFAIR	1	(A)	THE EAGLE
21	ALSHAIN	1	(P)	FALCON
22	TARAZED	1	(P)	STAR-STRIKING
23	ALMIZAN I	2	(A)	SCALE-BEAM
24	DHAB AL OKAB	2	(A)	EAGLE'S TAIL
25	DENEK OKAB	2	(A)	EAGLE'S TAIL
26	ALMIZAN II	2	(A)	SCALE-BEAM
27	ALMIZAN III	2	(A)	SCALE-BEAM
28	AL THALIMAIN II	2	(A)	TWO OSTRICHES
29	AL THALIMAIN I	2	(A)	TWO OSTRICHES
30	BARANI I	2	(P)	BEARER
31	BARANI II	2	(P)	BEARER
32	BARANI III	2	(P)	BEARER
33	NAIR AL BUTAIN	2	(A)	BRIGHT ONE OF THE LITTLE BELLY
34	HAMAL	1	(A)	SHEEP
35	SHERATAN	1	(A)	A SIGN
36	MESARTIM (B)	1	(H)	MINISTERS
37	MESARTIM (A)	1	(H)	MINISTERS
38	SOFEIN	2	(A)	BELLIES
39	AL BUTAIN III	2	(A)	BELLIES
40	AL BUTAIN IV	2	(A)	BELLIES
41	KOLEON	2	(C)	SCABBARD
42	AL BUTAIN I	2	(A)	BELLIES
43	AL BUTAIN II	2	(A)	BELLIES
44	CAPELLA	1	(L)	LITTLE SHE-GOAT
45	MEMKALINAN	1	(A)	SHOULDER OF THE REIN-HOLDER
46	ALANZ	2	(A)	THE GOAT
47	HAEDUS I	2	(L)	THE KIDS
48	HAEDUS II	2	(L)	THE KIDS
49	MAHASIM	2	(A)	WRIST
50	KABALINAN	2	(A)	THE HEEL OF THE REIN-HOLDER

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DEF.	TRANSLATION
51	AL-HIBA II	2	(A)	THE TENT
52	AL-HIBA I	2	(A)	THE TENT
53	AL-HIBA III	2	(A)	THE TENT
54	DOLONES I	2	(L)	GOADS
55	DOLONES III	2	(L)	GOADS
56	DOLONES II	2	(L)	GOADS
57	DOLONES IV	2	(L)	GOADS
58	DOLONES V	2	(L)	GOADS
59	DOLONES VI	2	(L)	GOADS
60	DOLONES VII	2	(L)	GOADS
61	DOLONES VIII	2	(L)	GOADS
62	DOLONES IX	2	(L)	GOADS
63	MERSA	2	(L)	HOE
64	ARCTURUS	1	(G)	BEAR-WATCHER
65	NEKKAR	1	(A)	THE DIGGER
66	SEGINUS	1	(L)	CYGNUS, SON OF MARS
67	T-HIBA	2	(A)	FEMALE WOLVES
68	IZAR	1	(A)	THE GIRL
69	MUPHRID	1	(A)	SOLITARY STAR
70	PRIMUS ASELLUS	2	(L)	FIRST ASS COLT
71	SECUNDUS ASELLUS	2	(L)	SECOND ASS COLT
72	TERTIUS ASELLUS (B)	2	(L)	THIRD ASS COLT
73	TERTIUS ASELLUS (A)	2	(L)	THIRD ASS COLT
74	AULAD ALHIBA	2	(A)	WHELPS OF THE WOLVES
75	ALKALUROPS	1	(A)	HERDSMAN'S CLUB
76	CEGINUS	3	(L)	CYGNUS, SON OF MARS
77	AULAD ALNAT-ALAT	2	(A)	LOW LITTLE ONES
78	ACUBENS	1	(A)	THE CLAWS
79	AL IARF	2	(A)	THE END
80	ASCELLUS BOREALIS	1	(L)	NORTHERN ASS COLT
81	ASCELLUS AUSTRALIS	1	(L)	SOUTHERN ASS COLT
82	ALMALAF	2	(A)	THE STALL
83	TEGMINE (AB)	2	(L)	IN THE COVERING
84	TEGMINE (C)	2	(L)	IN THE COVERING
85	ZUBANAH (B)	2	(A)	THE CLAWS
86	ZUBANAH (A)	2	(A)	THE CLAWS
87	PIAUTOS	2	(C)	THE EYE
88	NA-N	2	(P)	THE NOSE
89	LA SUPERBA	2	(L)	SUPERB ONE
90	COR CAROLI (B)	1	(L)	KING CHARLES
91	COR CAROLI (A)	1	(L)	KING CHARLES
92	CHARA	1	(L)	DEAR TO THE HEART OF HER MASTER
93	STIRIUS	1	(G)	DOG-STAR
94	MIRZAM	1	(A)	THE ANNOUNCER
95	MIRZA	2	(A)	THE ANNOUNCER
96	WEZEN	1	(A)	WEIGHT
97	AD-HARA	1	(A)	THE VIRGINS
98	FURUD	1	(A)	THE APES
99	ALUDRA	1	(A)	THE VIRGIN
100	ISIS	2	(Y)	EGYPTIAN GODDESS

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
101	UDRA	2	(A)	VIRGINS
102	AL ZARA	2	(A)	THE VIRGINS
103	PROCYON	1	(G)	ARISING BEFORE HIS COMPANION
104	GOMEISA	1	(A)	THE WEeping ONE
105	PRIMA SIEDI	2	(A)	FIRST GOAT
106	SECUNDA SIEDI	2	(A)	SECOND GOAT
107	DABIH MINOR	2	(A)	SLAUGHTERS
109	DABIH MAJOR	2	(A)	SLAUGHTERS
109	NASHIRA	1	(A)	FORTUNATE ONE
110	DENEB ALSEDI	1	(A)	TAIL OF THE GOAT
111	AL SHAT	2	(A)	THE SHEEP
112	CANOPUS	1	(G)	A GREEK NAVIGATOR
113	MIAPLACIDUS	1	(N)	WATER?
114	AVIOR	1	(N)	?
115	ASPIDISKE	1	(G)	ORNAMENTAL APLUSTRE
116	SCHEDAR	1	(A)	THE BREAST
117	CAPH	1	(A)	HAND
118	NAVI	1	(N)	?
119	RUCHBAH	1	(A)	THE KNEE
120	SEGIN	3	(A)	CYGNUS* SON OF MARS
121	MARFAK	2	(A)	ELBOW
122	AL MARFAK	2	(A)	THE ELBOW
123	RIGIL KENTAURUS	1	(A)	CENTAUR'S FOOT
124	HADAR	1	(A)	GROUND
125	MULIFAIN	1	(A)	THE GATHS
126	BATEN KENTAUROS	2	(A)	CENTAUR'S BELLY
127	MENKENT	1	(A)	CENTAUR'S NOSE
128	ALDERAMIN	1	(A)	THE RIGHT ARM
129	ALFIRK	1	(A)	A FLOCK
130	ERRAI	1	(A)	THE SHEPARD
131	KABALFIRD	2	(A)	STARS OF THE FLOCK
132	AL KIOR	2	(A)	THE POT
133	AL AGNAM I	2	(A)	THE SHEEP
134	ERAKIS	3	(A)	?
135	KURHAH (B)	1	(A)	BLAZE IN THE FACE OF A HORSE
136	KURHAH (A)	1	(A)	BLAZE IN THE FACE OF A HORSE
137	AL AGNAM II	2	(A)	THE SHEEP
138	KALBALRAI	2	(A)	SHEPARD'S DOG
139	MENKAR	1	(A)	THE NOSE
140	DENEB KAITOS	1	(A)	TAIL OF THE WHALE
141	KAFALSIDMA	2	(A)	PART OF A HAND
142	AL KAFF AL JIDHMAH III	2	(A)	PART OF A HAND
143	SADR AL KAITOS III	2	(A)	WHALE'S BREAST
144	BATEN KAITOS	1	(A)	WHALE'S BELLY
145	DENEB ALGENUBI	2	(A)	SOUTHERN TAIL
146	AL NAYMAT I	2	(A)	TEN OSTRICHES
147	SCHEMALI	2	(A)	NORTHERN
148	MENKAB	2	(A)	THE NOSE
149	AL KAFF AL JIDHMAH IV	2	(A)	PART OF A HAND
150	AL KAFF AL JIDHMAH I	2	(A)	PART OF A HAND

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPEP NAME	REF.	DER.	TRANSLATION
151	AL KAFF AL JIDMAH II	2	(A)	PART OF A HAND
152	MIRA	1	(L)	VARIABLE
153	SADR AL KAITOS IV	2	(A)	WHALE'S BREAST
154	SADR AL KAITOS I	2	(A)	WHALE'S BREAST
155	SADR AL KAITOS II	2	(A)	WHALE'S BREAST
156	AL NAYMAT II	2	(A)	HEN GSTRICHES
157	AL NAYMAT III	2	(A)	HEN GSTRICHES
158	ALNIHAM I	2	(A)	THE NECKLACE
159	ALNIHAM II	2	(A)	THE NECKLACE
160	ALNIHAM III	2	(A)	THE NECKLACE
161	ALNIHAM IV	2	(A)	THE NECKLACE
162	PHACT	1	(N)	GROUND?
163	WAZN	1	(A)	WEIGHT
164	KURUD I	2	(A)	APES
165	KURUD II	2	(A)	APES
166	KISSIN	2	(L)	A SPECIES OF IVY
167	DIADEM	3	(I)	CROWN
168	AL DAFIRAH	2	(A)	COURSE HAIR IN THE TAIL OF THE LION
169	ALFECCA MERIDIANA	2	(L)	MIDDLE OF THE DISH
170	VARIABLES CORONAE	2	(L)	VARIABLE ONE OF THE CROWN
171	BLAZE STAR	2	(I)	
172	ALPHECCA	1	(A)	THE DISH
173	NUSAKAN	1	(A)	BOWL
174	ALCHIBA	1	(A)	THE TENT
175	KRAZ	3	(N)	CRAB?
176	SIENAH	1	(A)	WING
177	ALGHRAB	1	(A)	THE RAVEN
178	MINKAR	3	(A)	BEAK
179	ALKES	1	(A)	A SHALLOW BASIN
180	AL SHARASIF II	2	(A)	THE RIBS
181	ACRUX (A)	1		COINED FROM ALPHA CRUX
182	ACRUX (B)	1		COINED FROM ALPHA CRUX
183	MIMOSA	1	(L)	GENUS OF LEGUMINOUS TREES OR SHRUBS
184	SACRUX	1	(L)	COINED FROM GAMMA CRUX
185	REVENATE OF THE SWAN	2	(I)	
186	DENEK	1	(A)	TAIL
187	ALBIREO (A)	1	(L)	?
188	ALBIREO (B)	1	(L)	?
189	SADR	1	(A)	BREAST
190	FAWARIS II	2	(A)	RIDERS
191	AL JANAH	2	(A)	THE WING
192	FAWARIS III	2	(A)	RIDERS
193	FAWARIS I	2	(A)	RIDERS
194	AZELFAE	2	(A)	TAIL OF THE HEN
195	RUQBA	2	(A)	HEN'S KNEE
196	SVALCCIN	2	(L)	NICOLAUS BACKWARDS
197	ROTANEV	2	(L)	VENATOR BACKWARDS
198	AL SALIB (E)	2	(A)	THE CROSS
199	AL SALIB (A)	2	(A)	THE CROSS
200	AL UKUD	2	(A)	THE PEARLS

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
201	DENEB DULFIM	2	(A)	TAIL OF THE DOLPHIN
202	ALRUBAH	2	(A)	THE KNEE
203	ADFAR ALDIB I	2	(A)	HYAENA'S CLAWS
204	THUBAN	1	(A)	DRAGON
205	RASTABAN	1	(A)	DRAGON'S HEAD
206	ELTANIN	1	(A)	DRAGON'S HEAD
207	ALTAIS	1	(A)	THE GOAT
208	TYL	3	(N)	?
209	DHIBAH	2	(A)	HYAENAS
210	DHIBAIN	2	(A)	TWO HYAENAS
211	EDASICH	1	(A)	MALE HYAENA
212	GAUSAR	1	(P)	POISON PLACE
213	ALRAKIS	1	(A)	TROTTING CAMEL
214	ALWALD (B)	2	(A)	THE MOTHER CAMELS
215	ALWALD (A)	2	(A)	THE MOTHER CAMELS
216	GRUMIUM	1	(L)	DRAGON'S UNDER JAW
217	TAIS I	2	(A)	GOAT
218	TAIS II	2	(A)	GOAT
219	ALSAFI	2	(A)	TRIPPODS OF AN OPEN AIR KITCHEN
220	ATHAFI II	2	(A)	TRIPPODS OF AN OPEN AIR KITCHEN
221	ATHAFI I	2	(A)	TRIPPODS OF AN OPEN AIR KITCHEN
222	ALDHIBA	2	(A)	HYAENA
223	ALAKAKAN	2	(A)	TWO BLACK BULLS
224	DZIBAN I	2	(A)	TWO HYAENAS
225	DZIBAN II	2	(A)	TWO HYAENAS
226	ADFAR ALDIB II	2	(A)	HYAENA'S CLAWS
227	KITALPHA	1	(A)	PART OF A HORSE
228	SCEPTRUM	3	(L)	SCEPTER
229	ACHERNAR	1	(A)	END OF THE RIVER
230	CURSA	1	(A)	CHAIR
231	ZAURAK	1	(A)	BRIGHT ONE OF THE BOAT
232	RANA	3	(L)	FROG
233	ZIBAL	3	(A)	YOUNG OSTRICHES
234	AZHA	1	(A)	OSTRICH'S NEST
235	ACAMAR (A)	1	(A)	END OF THE RIVER
236	ACAMAR (B)	1	(A)	END OF THE RIVER
237	KURSI AL JAUZAH II	2	(A)	CHAIR OF THE CENTRAL ONE
238	BEID	1	(A)	EGG
239	KEID	1	(A)	EGG-SHELLS
240	ALUDHI I	2	(A)	OSTRICH'S NEST
241	ALUDHI II	2	(A)	OSTRICH'S NEST
242	ALUDHI III	2	(A)	OSTRICH'S NEST
243	ANGEIENAR	2	(A)	BEND IN THE RIVER
244	BEEMIM III	2	(H)	IN THE WATER
245	THEEMIN	3	(H)	IN THE WATER
246	BEEMIM II	2	(H)	IN THE WATER
247	BEEMIM I	2	(H)	IN THE WATER
248	KURSI AL JAUZAH I	2	(A)	CHAIR OF THE CENTRAL ONE
249	CASTOR	1	(L)	THE MORTAL ONE OF THE TWINS
250	POLLUX	1	(L)	THE IMMORTAL ONE OF THE TWINS

TABLE 1 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
251	AL-HENA	1	(A)	MARK ON THE CAMEL'S NECK
252	MASAT	1	(A)	THE MIDDLE
253	MESUYA	1	(A)	OUTSTRETCHED
254	MEKBUDA	1	(A)	CONTRACTED
255	PROPUS	1	(G)	POSITION IN FRONT OF CASTOR'S LEFT FOOT
256	CALX	2	(L)	THE HEEL
257	NUCATAI	2	(A)	CAMEL'S JUMP
258	AL ZIRR	2	(A)	THE BUTTON
259	AL NA'IR	1	(A)	THE BRIGHT ONE
260	DENEB ALNA'IR	2	(A)	END OF THE TAIL
261	DENEZ HUF	2	(A)	THE TAIL OF THE FISH
262	RASALGETHI (A)	1	(A)	KNEELER'S HEAD
263	RASALGETHI (B)	1	(A)	KNEELER'S HEAD
264	KORNEP-TOROS	1	(G)	CLUB BEARER
265	NASAK SHAMIYA III	2	(A)	NORTHERN BOUNDARY
266	SARIN	3	(N)	?
267	MARSIC	2	(A)	ELBOW
268	MASYM	2	(A)	WRIST
269	CUJAM	2	(L)	CLUB OF HERCULES
270	UKDAH III	2	(A)	KNOT
271	ALPHARD	1	(A)	THE SOLITARY ONE
272	MINAZAL I	2	(A)	UNINHABITED SPOT
273	MINAZAL III	2	(A)	UNINHABITED SPOT
274	MINAZAL V	2	(A)	UNINHABITED SPOT
275	MINAZAL II	2	(A)	UNINHABITED SPOT
276	UKDAH IV	2	(A)	KNOT
277	AL SHARASIF I	2	(A)	THE RIBS
278	MINAZAL IV	2	(A)	UNINHABITED SPOT
279	MINKAL-SUJA	2	(A)	THE SNAKE'S NOSE
280	UKDAH I	2	(A)	KNOT
281	UKDAH II	2	(A)	KNOT
282	ZUBRAH	2	(A)	MANE OF THE LION
283	RESULUS	1	(L)	RULER OF THE HEAVENS
284	DENEBOLA	1	(A)	THE LION'S TAIL
285	ALGIEBA (A)	1	(L)	THE LION'S MANE
286	ALGIEBA (B)	1	(L)	THE LION'S MANE
287	ZOSMA	1	(P)	THE GIRLE
288	ALGENUBI	2	(A)	THE SOUTHERN
289	AD-4AFERA	1	(A)	THE EYEBROWS
290	AL JAB'AH	2	(A)	THE FORE-HEAD
291	CHERTAN	1	(A)	TWO RIBS
292	PINKARASAD	2	(A)	LION'S NOSE
293	ALTERF	1	(A)	THE END
294	RASALAS	1	(A)	THE LION'S HEAD TOWARD THE SOUTH
295	SUBRA	3	(N)	?
296	PRAECIPUA	2	(L)	CHIEF
297	CRIMSON STAR	2	(I)	
298	ARNEB	1	(A)	HARE
299	NI-HAL	1	(A)	THIRST-SLAKING CAMELS
300	KURSI AL JABBAR	2	(A)	CHAIR OF THE GIANT

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
301	ARSY AL JAUZAH	2	(A)	T-RONE OF THE CENTRAL ONE
302	ZUBENELSEMUBI I	1	(A)	SOUTHERN CLAWS
303	ZUBENELSEMUBI II	1	(A)	SOUTHERN CLAWS
304	ZUBENESCHAMALI	1	(A)	NORTHERN CLAWS
305	ZURAN AL KRABI	2	(A)	SOUTHERN CLAWS
306	ZUBEN AKRABI	3	(A)	SOUTHERN CLAWS
307	ZUBEN AKRABI	2	(A)	SCORPION'S CLAWS
308	DOLONES X	2	(L)	GOADS
309	STAUKAH	2	(A)	T-HORN
310	VEGA	1	(A)	DESERT
311	SHELIAK	1	(A)	TORTOISE
312	SULAFAT	1	(A)	TORTOISE
313	DOUBLE DOUBLE I (B)	2	(I)	
314	DOUBLE DOUBLE I (A)	2	(I)	
315	DOUBLE DOUBLE II	2	(I)	
316	NASR ALWAKI I	2	(A)	EAGLE OF THE DESERT
317	NASR ALWAKI II	2	(A)	EAGLE OF THE DESERT
318	ALADFAH	2	(A)	THE TALONS
319	ATHEAR	2	(A)	TALONS
320	RASAL-HAGUE	1	(A)	HEAD OF THE SERPENT-CHARMER
321	CEBALRAI	1	(A)	HEART OF THE SHEPARD
322	MULIP-YEH	2	(A)	OATH
323	YED PRIOR	1	(A)	FIRST IN THE HAND
324	YED POSTERIOR	1	(A)	BEHIND IN THE HAND
325	SAIK	2	(A)	DRIVER
326	SABIK	1	(A)	PRECEDING ONE
327	GARAFSA	2	(P)	SERPENT-TAMER
328	MARFIK	1	(A)	ELBOW
329	AGGIA	2	(C)	MAGICIAN
330	MIZAN BATIL I	2	(A)	FALSE SCALE-BEAM
331	MIZAN BATIL III	2	(A)	FALSE SCALE-BEAM
332	MANICA	2	(L)	PROTECTING GAUNTLET
333	BETELSEUSE	1	(A)	ARMPIIT OF THE CENTRAL ONE
334	RIGEL	1	(A)	LEFT LEG OF THE CENTRAL ONE
335	BELLATRIX	1	(L)	FEMALE WARRIOR
336	MINTAKA	1	(A)	THE BELT
337	ALNILAM	1	(A)	STRING OF PEARLS
338	ALNITAK	1	(A)	THE GIRLCE
339	SAIF AL JARBAR	2	(A)	SWORD OF THE GIANT
340	TRAPEZIUM	2	(A)	FALSE SCALE-BEAM
341	MIZAN BATIL II	2	(A)	FALSE SCALE-BEAM
342	TATYSA	3	(N)	?
343	SAIPH	1	(A)	THE SWORD
344	HEISSA	1	(A)	THE PROUDLY MARCHING ONE
345	AL KUMM I	2	(A)	THE SLEEVE OF THE GARMENT
346	AL KUMM II	2	(A)	THE SLEEVE OF THE GARMENT
347	AL TAJ IV	2	(P)	THE CROWN
348	AL TAJ I	2	(P)	THE CROWN
349	TABIT	3	(A)	THE ENDLER
350	AL TAJ II	2	(P)	THE CROWN

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
351	AL TAJ III	2	(P)	THE CROWN
352	AL TAJ V	2	(P)	THE CROWN
353	THABIT	2	(A)	THE ENDURER
354	HEKA	2	(A)	WHITE SPOT
355	HKA	2	(A)	WHITE SPOT
356	PEACOCK	1	(I)	SADDLE
357	MARKAB	1	(A)	UPPER PART OF THE ARM
358	SHEAT	1	(A)	THE SIDE
359	ALGENIB	1	(A)	THE NOSE
360	ENIF	1	(A)	THE LUCKY STAR OF THE HERO
361	OMAM	1	(A)	FORTUNATE RAIN
362	MATAR	1	(A)	TWO BEASTS
363	BIHAM	1	(A)	GOOD LUCK OF THE CAMEL
364	SADALNAZI	2	(A)	GOOD LUCK OF THE EXCELLENT ONE
365	SADALBARI	1	(A)	HORSE'S MOUTH
366	FUM AL FARAS	2	(A)	THE FORTUNATE STARS
367	SUUDALNUJUM	2	(A)	FORTUNATE RAIN
368	SADALMATAR	2	(A)	LEATHERN BUCKET
369	SALM	2	(A)	THE BUCKET-ROPE
370	ALKARAB	2	(A)	THE ELBOW
371	MISAM AL T-HURAYVA II	2	(A)	THE DEMON
372	MIRFAK	1	(A)	SPACE BETWEEN THE SHOULDERS
373	ALGOL	1	(A)	WRIST
374	ATIK	1	(A)	WRIST
375	MIRAM	3	(A)	WRIST
376	MISAM	3	(A)	WRIST
377	MENKIS	1	(A)	SHOULDER OF THE PLEIADES
378	ALAIK	2	(A)	SPACE BETWEEN THE SHOULDERS
379	GORGONEA SECUNDA	2	(L)	SECOND STAR IN THE GORGON'S HEAD
380	GORGONEA TERTIA	2	(L)	THIRD STAR IN THE GORGON'S HEAD
381	MISAM AL T-HURAYVA I	2	(A)	WRIST OF THE PLEIADES
382	GORGONEA QUARTA	2	(L)	FOURTH STAR IN THE GORGON'S HEAD
383	ANKAA	1	(N)	?
384	ALRIAL III	2	(A)	THE YOUNG OSTRICHES
385	ALRIAL V	2	(A)	THE YOUNG OSTRICHES
386	ALRIAL I	2	(A)	THE YOUNG OSTRICHES
387	ALRIAL II	2	(A)	THE YOUNG OSTRICHES
388	ALRIAL IV	2	(A)	THE YOUNG OSTRICHES
389	KAPIEY'S STAR	2	(I)	THE CORD
390	ALRESCHA	1	(A)	FISH'S MOUTH
391	FUM AL SAMAKA-H	2	(A)	CORD
392	KUTON I	2	(P)	CORD
393	KUTON II	2	(P)	CORD
394	KUTON III	2	(P)	CORD
395	TORCULAR	2	(L)	THREAD
396	FCMALHAUT	1	(A)	FISH'S MOUTH
397	FUM AL HUT I	2	(A)	FISH'S MOUTH
398	FUM AL HUT II	2	(A)	FISH'S MOUTH
399	MERKEB (A)	3	(A)	SADDLE
400	MERKEB (B)	3	(A)	SADDLE

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
401	NAOS	2	(A)	SHIP
402	AZMIDISKE	3	(G)	ORNAMENTAL APLUSTRE
403	SHAM	3	(N)	?
404	TEREBELLUM III	2	(L)	?
405	TEREBELLUM II	2	(L)	?
406	TEREBELLUM IV	2	(L)	?
407	RUKBAT	1	(A)	ARCHER'S KNEE
408	ARKAB PRIOR	1	(A)	TENDON OF A FOOT
409	ARKAB POSTERIOR	1	(A)	TENDON OF A FOOT
410	ALNASL	1	(A)	THE POINT
411	KAUS MEDIA	1	(L)	THE MIDDLE OF THE BOW
412	KAUS AUSTRALIS	1	(L)	THE AMPIT
413	ASCELLA	1	(L)	SOUTHERN PART OF THE BOW
414	NAMALWARID	2	(A)	THE LEAVING OSTRICHES
415	KAUS BOREALIS	1	(L)	NORTHERN PART OF THE BOW
416	ALNAM	2	(A)	THE OSTRICHES
417	AIN AL RAMI I	2	(A)	THE ARCHER'S EYE
418	AIN AL RAMI II	2	(A)	THE ARCHER'S EYE
419	AL BALDAH	2	(A)	THE CITY
420	NUNKI	1	(E)	STAR OF THE PROCLAMATION OF THE SEA
421	NAMALSADIRAH II	2	(A)	THE RETURNING OSTRICHES
422	NAMALSADIRAH I	2	(A)	THE RETURNING OSTRICHES
423	NAMALSADIRAH III	2	(A)	THE RETURNING OSTRICHES
424	NAMALSADIRAH IV	2	(A)	THE RETURNING OSTRICHES
425	AL KILADAH	2	(A)	THE NECKLACE
426	TEREBELLUM I	2	(L)	?
427	ANTARES	1	(G)	SIMILAR TO MARS
428	GRAFFIAS (AB)	1	(G)	CRAB
429	GRAFFIAS (C)	1	(G)	CRAB
430	USCUBBA	1	(A)	THE FOREHEAD
431	SARGAS	2	(E)	SMITTER?
432	GIRTAB	2	(E)	STINGER
433	VANANT	2	(P)	STINGER
434	MULA	2	(D)	THE ROOT
435	SHAULA	1	(A)	THE STING
436	TALI AL SHAULA I	2	(A)	THAT WHICH FOLLOWS THE STING
437	TALI AL SHAULA II	2	(A)	THAT WHICH FOLLOWS THE STING
438	JABBAY (B)	2	(A)	THE FOREHEAD
439	JABBAY (A)	2	(A)	THE FOREHEAD
440	GRASSIAS (A)	2	(G)	CRAB
441	GRASSIAS (B)	2	(G)	CRAB
442	NUR	2	(P)	BRIGHT
443	ICLIL	2	(A)	CROWN OF THE FOREHEAD
444	ALNIYAT I	2	(A)	OUTWORKS OF THE HEART
445	ALNIYAT II	2	(A)	OUTWORKS OF THE HEART
446	LESAT	1	(A)	THE STING
447	JABHAT ACRABI I	2	(A)	THE FOREHEAD OF THE SCORPION
448	JABHAT ACRABI II	2	(A)	THE FOREHEAD OF THE SCORPION
449	UNUKAL-HAI	1	(A)	THE NECK OF THE SNAKE
450	NASAK SHAMIYA I	2	(A)	NORTHERN BOUNDARY

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
451	NASAK S-HAMIYA II	2	(A)	NORTHERN BOUNDARY
452	NASAK YAMANI I (B)	2	(A)	SOUTHERN BOUNDARY
453	NASAK YAMANI I (A)	2	(A)	SOUTHERN BOUNDARY
454	NASAK YAMANI II	2	(A)	SOUTHERN BOUNDARY
455	ALYA (A)	1	(A)	THE SNAKE
456	ALYA (B)	1	(A)	THE SNAKE
457	CALAENO	1	(L)	ONE OF THE SISTERS (PLEIADES)
458	ELECTRA	1	(L)	ONE OF THE SISTERS (PLEIADES)
459	MAIA	1	(L)	ONE OF THE SISTERS (PLEIADES)
460	STEROPE I	1	(L)	ONE OF THE SISTERS (PLEIADES)
461	STEROPE II	2	(L)	ONE OF THE SISTERS (PLEIADES)
462	MEROPE	1	(L)	ONE OF THE SISTERS (PLEIADES)
463	PLEIONE	1	(L)	MOTHER OF THE SISTERS (PLEIADES)
464	ATLAS	1	(L)	FATHER OF THE SISTERS (PLEIADES)
465	TAYGETA	1	(L)	ONE OF THE SISTERS (PLEIADES)
466	ALDEBARAN	1	(A)	THE FOLLWER
467	ELNATH	1	(A)	THE BUTTING ONE
468	HYADUM I	1	(L)	BROTHER OF THE SISTERS (PLEIADES)
469	HYADUM II	2	(L)	BROTHER OF THE SISTERS (PLEIADES)
470	OCULUS BOREUS	2	(L)	NORTHERN EYE
471	ALCYONE	1	(L)	ONE OF THE SISTERS (PLEIADES)
472	HYADUM III	2	(L)	BROTHER OF THE SISTERS (PLEIADES)
473	HYADUM IV	2	(L)	BROTHER OF THE SISTERS (PLEIADES)
474	ALKALBAIN III	2	(A)	TWO DOGS
475	ALKALBAIN IV	2	(A)	TWO DOGS
476	ALKALBAIN V	2	(A)	TWO DOGS
477	ALKALBAIN I	2	(A)	TWO DOGS
478	ALKALBAIN II	2	(A)	TWO DOGS
479	CAPUT TRIANGULI	2	(L)	END OF THE TRIANGLE
480	MIZAN	2	(A)	SCALE-BEAM
481	ATRIA	2	(D)	A SAGE
482	FLYING STAR	2	(I)	
483	ALT-HIBA I	2	(A)	THE GAZELLE
484	ALT-HIBA VII	2	(A)	THE GAZELLE
485	ALHAUD III	2	(A)	THE POND
486	ALHAUD I	2	(A)	THE POND
487	ALCOR	1	(A)	FAINT ONE
488	ALHAUD IV	2	(A)	THE POND
489	DUBHE	1	(A)	THE BEAR
490	MERAK	1	(A)	THE LOIN
491	PHENIX	1	(A)	THE T-HIGH
492	MEGREG	1	(A)	THE ROOT OF THE TAIL
493	ALIOTH	1	(A)	FAT TAIL OF THE EASTERN SHEEP
494	MIZAR (A)	1	(A)	GIRDLE
495	MIZAR (B)	1	(A)	GIRDLE
496	ALKAID	1	(A)	CHIEF OF THE MOURNERS
497	ALHAUD V	1	(A)	THE POND
498	TALITHA	1	(A)	THIRD LEAP
499	KAFZATANIA	2	(A)	THIRD LEAP
500	TANIA BOREALIS	1	(A)	NORTHERN SECOND (LEAP)

TABLE 7 CONTINUED
APPROXIMATE TRANSLATION OF STAR NAME

NUMBER	PROPER NAME	REF.	DER.	TRANSLATION
501	TANIA AUSTRALIS	1	(A)	SOUTHERN SECOND (LEAP)
502	ALULA BOREALIS	1	(A)	NORTHERN FIRST (LEAP)
503	ALULA AUSTRALIS	1	(A)	SOUTHERN FIRST (LEAP)
504	MUSCIDA	1	(N)	MUZZLE OF AN ANIMAL
505	ALTHIBA II	2	(A)	THE GAZELLE
506	ALTHIBA III	2	(A)	THE GAZELLE
507	ALTHIBA IV	2	(A)	THE GAZELLE
508	ALTHIBA V	2	(A)	THE GAZELLE
509	ALTHIBA VI	2	(A)	THE GAZELLE
510	ALHAUD II	2	(A)	THE POND
511	ALHAUD VI	2	(A)	THE POND
512	ALHAUD VII	2	(A)	THE POND
513	ALKAFZA I	2	(A)	THE LEAF
514	POLARIS	1	(L)	POLE (STAR)
515	KOCHAB	1	(A)	STAR
516	PERKAD MINOR	1	(A)	TWO CALVES
517	PERKAD MAJOR	1	(A)	TWO CALVES
518	VILDUN	2	(T)	STAR PAR EXCELLENCE
519	CIRCITORES	2	(L)	CIRCLES
520	AKFA FARKADAIN	2	(A)	DIM ONE OF THE TWO CALVES
521	ANWA FARKADAIN	2	(A)	BRIGHT ONE OF THE TWO CALVES
522	REGOR	1	(N)	?
523	MARKAB	2	(A)	SADDLE
524	SU-HAIL	1	(A)	THE PLAIN
525	SPICA	1	(L)	EAR OF WHEAT
526	ZAVIJAVA	1	(A)	ANGLE OR CORNER
527	PORRIMA	1	(L)	ANCIENT GODDESS OF PROPHECY
528	MINELAUVA	1	(A)	THE BARKER
529	VINDEMIATRIX	2	(L)	GRAPE-SATHERER
530	HEZE	3	(N)	?
531	ZANIA I	1	(A)	ANGLE OR CORNER
532	SYRMA	1	(S)	TRAIN OF THE VIRGIN'S ROBE
533	ALGAFAR I	2	(A)	THE TUFT IN THE LION'S MANE
534	KAMBALIA	2	(C)	CROOKED CLAW
535	RIGILAWWA	2	(A)	FOOT OF THE BARKER
536	ALGAFAR II	2	(A)	THE TUFT IN THE LION'S MANE
537	ANSER	2	(N)	?