

SAO No	Right Ascension	Declination	Name
308	2 hr 31.81185 min	89 dg 15.84400 min	Polaris
7593	12 hr 33.48290 min	69 dg 47.29400 min	Kappa@Dra
8102	14 hr 50.70625 min	74 dg 09.32900 min	Kochab
8220	15 hr 20.72877 min	71 dg 50.04217 min	Pherkad
9087	18 hr 21.05652 min	72 dg 43.97367 min	Chi@Dra
10057	21 hr 28.66047 min	70 dg 33.64450 min	Alfirk
10818	23 hr 39.34773 min	77 dg 37.94267 min	Errai
11482	0 hr 56.70857 min	60 dg 43.00167 min	Gamma@Cas
12031	1 hr 54.39517 min	63 dg 40.20450 min	Epsilon@Cas
14573	8 hr 30.26472 min	60 dg 43.09117 min	Muscida
14908	9 hr 31.52868 min	63 dg 03.71233 min	23@UMa
15384	11 hr 03.72825 min	61 dg 45.05283 min	Dubhe
16273	14 hr 04.38915 min	64 dg 22.55033 min	Thuban
17074	16 hr 23.99147 min	61 dg 30.85417 min	Eta@Dra
17365	17 hr 08.78707 min	65 dg 42.87933 min	Zeta@Dra
18222	19 hr 2.55477 min	67 dg 39.69283 min	Altais
19019	20 hr 45.28992 min	61 dg 50.32917 min	Eta@Cep
19302	21 hr 18.57972 min	62 dg 35.13367 min	Alderamin
20268	22 hr 49.68043 min	66 dg 12.02483 min	Iota@Cep
21133	0 hr 09.17865 min	59 dg 08.98317 min	Caph
21566	0 hr 36.97162 min	53 dg 53.81433 min	Zeta@Cas
21609	0 hr 40.50775 min	56 dg 32.24050 min	Schedar
21732	0 hr 49.10067 min	57 dg 48.95350 min	Eta@Cas
22268	1 hr 25.81643min	60 dg 14.11517 min	Delta@Cas
23789	3 hr 04.79647 min	53 dg 30.38733 min	Gamma@Per
25502	5 hr 59.52717 min	54 dg 17.08133 min	Delta@Aur
27289	9 hr 32.85690 min	51 dg 40.63983 min	Theta@UMa
27401	9 hr 50.9960 min	59 dg 02.32483 min	Upsilon@UMa
27876	11 hr 01.84150 min	56 dg 22.94283 min	Merak
28179	11 hr 53.83058 min	53 dg 41.68583 min	Phecda
28315	12 hr 15.42617 min	57 dg 01.95583 min	Megrez
28553	12 hr 54.02928min	55 dg 57.59250 min	Alioth
28737	13 hr 23.92583 min	54 dg 55.52317 min	Mizar
29520	15 hr 24.92930 min	58 dg 57.96183 min	Edasich

30429	17 hr 30.43262 min	52 dg 18.08450 min	Rastaban
30631	17 hr 53.52855 min	56 dg 52.35850 min	Grumium
30653	17 hr 56.60625 min	51 dg 29.33767 min	Eltanin
31702	19 hr 29.70598 min	51 dg 43.78683 min	Iota@Cyg
34137	22 hr 10.85478 min	58 dg 12.07383 min	Zeta@Cep
34542	22 hr 31.29157 min	50 dg 16.95150 min	Alpha@Lac
37375	1 hr 37.99292 min	48 dg 37.69283 min	51@And
37734	2 hr 03.89962 min	42 dg 19.78267 min	Almach
38592	3 hr 08.16885 min	40 dg 57.34067 min	Algol
38787	3 hr 24.32285 min	49 dg 51.67183 min	Mirfak
39053	3 hr 42.92483 min	47 dg 47.25350 min	Delta@Per
39078	3 hr 45.19400 min	42 dg 34.71067 min	Nu@Per
39955	5 hr 01.96900 min	43 dg 49.39500 min	Epsilon@Aur
39966	5 hr 02.47803 min	41 dg 04.54833 min	Zeta@Aur
40026	5 hr 06.51467 min	41 dg 14.06933 min	Eta@Aur
40186	5 hr 16.68930 min	45 dg 59.88300 min	Capella
40750	5 hr 59.52888 min	44 dg 56.84533 min	Menkalinan
42630	8 hr 59.20753 min	48 dg 02.49600 min	Talitha
42661	9 hr 03.62548 min	47 dg 09.39517 min	Kappa@UMa
43268	10 hr 17.09665 min	42 dg 54.86300 min	TaniaBorealis
43310	10 hr 22.32907 min	41 dg 29.97133 min	TaniaAustralis
43629	11 hr 09.66308 min	44 dg 29.91083 min	Psi@UMa
43886	11 hr 46.05048 min	47 dg 46.76383 min	Chi@UMa
44752	13 hr 47.54067 min	49 dg 18.80100 min	Alkaid
45337	15 hr 01.94583 min	40 dg 23.43333 min	Nekkar
46028	16 hr 19.74073 min	04 dg 18.80233 min	Tau@Her
46872	17 hr 39.46490 min	46 dg 00.38050 min	Iota@Her
48796	19 hr 44.97558 min	45 dg 07.84433 min	Delta@Cyg
49528	20 hr 22.22850 min	40 dg 15.40200 min	Sadr
49941	20 hr 41.43217 min	45 dg 06.82150 min	Deneb
50424	21 hr 04.93108 min	43 dg 55.67117 min	Xi@Cyg
52609	23 hr 01.92117 min	42 dg 19.56083 min	Omicron@And
54058	0 hr 39.32840 min	30 dg 51.66150 min	Delta@And
54281	0 hr 56.75372 min	38 dg 09.95950 min	Mu@And
54471	1 hr 09.73237 min	35 dg 37.23217 min	Mirach
55306	2 hr 09.54358 min	34 dg 59.23600 min	Beta@Tri

56138	3 hr 05.17653 min	38 dg 50.41700 min	Rho@Per
56673	3 hr 44.31895 min	32 dg 17.090 min	Omicron@Per
56799	3 hr 54.13208 min	31 dg 53.01567 min	Atik
56840	3 hr 57.85367 min	40 dg 00.61100 min	Epsilon@Per
57522	4 hr 56.99355 min	33 dg 09.96500 min	Iota@Aur
58636	5 hr 59.72167 min	37 dg 17.4433 min	Theta@Aur
59570	6 hr 52.78897 min	33 dg 57.67300 min	Theta@Gem
60198	7 hr 34.59990 min	31 dg 53.30900 min	Castor
61391	9 hr 18.84450 min	36 dg 48.15817 min	38@Lyn
61414	9 hr 21.05487 min	34 dg 23.567 min	Alpha@Lyn
62297	10 hr 53.31160 min	34 dg 12.89283 min	46@LMi
62484	11 hr 18.18230 min	31 dg 31.75400 min	AlulaAus
62486	11 hr 18.47892 min	33 dg 05.65667 min	AlulaBor
63257	12 hr 56.02783 min	38 dg 19.163 min	CorCaroli
64202	14 hr 31.82982 min	30 dg 22.28683 min	Rho@Boo
64203	14 hr 32.07798 min	38 dg 18.49500 min	Seginus
64589	15 hr 15.50285 min	33 dg 18.88800 min	Delta@Boo
65485	16 hr 41.28693 min	31 dg 36.166 min	Zeta@Her
65504	16 hr 42.89630 min	38 dg 55.34167 min	Eta@Her
65716	17 hr 00.28977 min	30 dg 55.58800 min	Epsilon@Her
65890	17 hr 15.04733 min	36 dg 48.55183 min	Pi@Her
67174	18 hr 36.93893 min	38 dg 47.069 min	Vega
67452	18 hr 50.08020 min	33 dg 21.76317 min	Sheliak
67663	18 hr 58.94357 min	32 dg 41.37200 min	Sulafat
70474	20 hr 46.21143 min	33 dg 58.21533 min	Epsilon@Cyg
71070	21 hr 12.93637 min	30 dg 13.61788 min	Zeta@Cyg
71121	21 hr 14.79120 min	38 dg 02.73217 min	Tau@Cyg
73765	0 hr 08.38782 min	29 dg 05.42583 min	Alpheratz
74996	1 hr 53.08165 min	29 dg 34.73233 min	Alpha@Tri
75012	1 hr 54.64003 min	20 dg 48.47888 min	Sheratan
75151	2 hr 07.17330 min	23 dg 27.74350 min	Hamal
75596	2 hr 49.98373 min	27 dg 15.63217 min	41@Ari
76131	3 hr 44.87540 min	24 dg 06.80250 min	Electra
76199	3 hr 47.48457 min	24 dg 06.30550 min	Alcyone
76228	3 hr 49.16225 min	24 dg 03.20567 min	Atlas
77168	5 hr 26.29193 min	28 dg 36.44383 min	Elnath

77336	5 hr 37.64468 min	21 dg 08.55050 min	Zeta@Tau
78135	6 hr 14.87748 min	22 dg 30.40567 min	Pru
78297	6 hr 22.96030 min	22 dg 30.81283 min	Mu@Gem
78682	6 hr 43.93203 min	25 dg 07.86483 min	Mebсутa
79031	7 hr 04.10868 min	20 dg 34.21650 min	Mekbuda
79294	7 hr 20.12277 min	21 dg 58.93983 min	Wasat
79374	7 hr 25.72660 min	27 dg 47.88400 min	Iota@Gem
79653	7 hr 44.44758 min	24 dg 23.87833 min	Kappa@Gem
79666	7 hr 45.31572 min	28 dg 01.57133 min	Pollux
81004	9 hr 45.85122 min	23 dg 46.45350 min	Epsilon@Leo
81265	10 hr 16.69010 min	23 dg 25.03650 min	Adhafera
81298	10 hr 19.97243 min	19 dg 50.49883 min	Algieba
81727	11 hr 14.10830 min	20 dg 31.42100 min	Zosma
83500	14 hr 44.98715 min	27 dg 04.45233 min	Izar
83831	15 hr 27.82918 min	29 dg 06.34150 min	Nusakan
83893	15 hr 34.68800 min	26 dg 42.88300 min	Alphecca
83958	15 hr 42.74290 min	26 dg 17.73217 min	Gamma@CrB
84411	16 hr 30.22000 min	21 dg 29.37483 min	Kornephoros
84951	17 hr 15.03187 min	24 dg 50.35367 min	Delta@Her
85397	17 hr 46.45957 min	27 dg 43.24333 min	Mu@Her
85590	17 hr 57.76518 min	29 dg 14.87550 min	Xi@Her
85750	18 hr 07.54257 min	28 dg 45.75067 min	Omicron@Her
86003	18 hr 23.69815 min	21 dg 46.18367 min	109@Her
87301	19 hr 30.72182 min	27 dg 57.57650 min	Albireo
90734	22 hr 43.00232 min	30 dg 13.27483 min	Matar
90816	22 hr 50.00342 min	24 dg 36.09650 min	Sadalbari
90981	23 hr 03.77433 min	28 dg 04.96783 min	Scheat
91781	0 hr 13.23593 min	15 dg 11.01333 min	Algenib
92484	1 hr 31.48357 min	15 dg 20.74550 min	Eta@Psc
93868	4 hr 19.79347 min	15 dg 37.65583 min	Gamma@Tau
93897	4 hr 22.93488 min	17 dg 32.54967 min	Delta1@Tau
93954	4 hr 28.61665 min	19 dg 10.82483 min	Epsilon@Tau
93957	4 hr 28.66192 min	15 dg 52.25383 min	Theta2@Tau
94027	4 hr 35.92072 min	16 dg 30.55600 min	Aldebaran
95912	6 hr 37.71212 min	16 dg 23.95667 min	Alhena
96074	6 hr 45.28933 min	12 dg 53.73300 min	Xi@Gem

96746	7 hr 18.09268 min	16 dg 32.42283 min	Lambda@Gem
98709	9 hr 41.15067 min	9 dg 53.53817 min	Omicron@Leo
98955	10 hr 07.33252 min	16 dg 45.75833 min	Eta@Leo
98967	10 hr 08.37195 min	11 dg 58.03367 min	Regulus
99512	11 hr 14.24005 min	15 dg 25.77367 min	Chertan
99809	11 hr 49.05970 min	14 dg 34.32333 min	Denebola
100384	13 hr 02.17665 min	10 dg 57.54967 min	Vindemiatrix
100766	13 hr 54.68460 min	18 dg 23.86200 min	Muphrid
100944	14 hr 15.66145 min	19 dg 10.94617 min	Arcturus
101145	14 hr 41.14867 min	13 dg 43.69800 min	Zeta@Boo
101725	15 hr 46.18793 min	15 dg 25.30900 min	Beta@Ser
101826	15 hr 56.45315 min	15 dg 39.69967 min	Gamma@Ser
102107	16 hr 21.92028 min	19 dg 09.18883 min	Gamma@Her
102680	17 hr 14.64803 min	14 dg 23.42083 min	Rasalgethi
102932	17 hr 34.93458 min	12 dg 33.60350 min	Rasalhague
104461	19 hr 05.41018 min	13 dg 51.80733 min	Zeta@Aql
105223	19 hr 46.25983 min	10 dg 36.79850 min	Tarazed
105259	19 hr 47.38795 min	18 dg 32.05683 min	Delta@Sge
105500	19 hr 58.75715 min	19 dg 29.53033 min	Gamma@Sge
106316	20 hr 37.54927 min	14 dg 35.71050 min	Beta@Del
106357	20 hr 39.63825 min	15 dg 54.72150 min	Alpha@Del
108103	22 hr 41.46220 min	10 dg 49.87983 min	Homam
108378	23 hr 04.76093 min	15 dg 12.31483 min	Markab
110707	2 hr 43.30080 min	3 dg 14.14250 min	Gamma@Cet
110920	3 hr 02.27962 min	4 dg 05.38217 min	Menkar
111172	3 hr 24.81333 min	9 dg 01.73067 min	Omicron@Tau
111195	3 hr 27.16933 min	9 dg 43.96267 min	Xi@Tau
111579	4 hr 03.15620 min	5 dg 59.35850 min	Nu@Tau
112106	4 hr 49.84022 min	6 dg 57.67767 min	Pi3@Ori
112142	4 hr 51.20608 min	5 dg 36.30350 min	Pi2@Ori
112197	4 hr 54.25140 min	2 dg 26.43717 min	Pi5@Ori
112740	5 hr 25.13092 min	6 dg 20.97767 min	Bellatrix
112921	5 hr 35.13767 min	9 dg 56.04267 min	Meissa
113271	5 hr 55.17202 min	7 dg 24.42383 min	Betelgeuse
115456	7 hr 27.15063 min	8 dg 17.35833 min	Gomeisa
115756	7 hr 39.30205 min	5 dg 13.49917 min	Procyon

116569	8 hr 16.51555 min	9 dg 11.13150 min	Beta@Cnc
117112	8 hr 46.77645 min	6 dg 25.12550 min	Epsilon@Hya
117264	8 hr 55.39382 min	5 dg 56.73000 min	Zeta@Hya
117527	9 hr 14.36467 min	2 dg 18.85383 min	Theta@Hya
118355	10 hr 32.81110 min	9 dg 18.39533 min	Rho@Leo
119076	11 hr 50.69543 min	1 dg 45.88167 min	Zavijava
119674	12 hr 55.60363 min	3 dg 23.84517 min	Delta@Vir
120648	14 hr 46.24913 min	1 dg 53.56650 min	109@Vir
121157	15 hr 44.26820 min	6 dg 25.53900 min	Unukalhai
121218	15 hr 50.81608 min	4 dg 28.66567 min	Epsilon@Ser
121658	16 hr 30.91388 min	1 dg 59.04067 min	Marfik
121962	16 hr 57.66827 min	9 dg 22.50200 min	Kappa@Oph
122671	17 hr 43.47262 min	4 dg 34.03667 min	Cebalrai
122754	17 hr 47.89280 min	2 dg 42.43650 min	Gamma@Oph
123142	18 hr 07.34977 min	9 dg 33.83217 min	72@Oph
124603	19 hr 25.49828 min	3 dg 06.88683 min	Delta@Aql
125122	19 hr 50.78335 min	8 dg 52.10117 min	Altair
125235	19 hr 55.31328 min	6 dg 24.40517 min	Alshain
127029	21 hr 44.18610 min	9 dg 52.50000 min	Enif
127340	22 hr 10.19980 min	6 dg 11.87183 min	Biham
128085	23 hr 17.16565 min	3 dg 16.93650 min	Gamma@Psc
128694	0 hr 19.42775 min	-8 dg 49.43300 min	Iota@Cet
129274	1 hr 24.02348 min	-8 dg 11.00933 min	Theta@Cet
129825	2 hr 19.34548 min	-2 dg 58.65700 min	Mira
130564	3 hr 32.93090 min	-9 dg 27.49417 min	Epsilon@Eri
130686	3 hr 43.24860 min	-9 dg 45.80333 min	Delta@Eri
131794	5 hr 07.84948 min	-5 dg 05.18617 min	Cursa
131907	5 hr 14.53802 min	-8 dg 12.10000 min	Rigel
131952	5 hr 17.60650 min	-6 dg 50.66383 min	Tau@Ori
132071	5 hr 24.47730 min	-2 dg 23.82300 min	Eta@Ori
132220	5 hr 32.00662 min	-0 dg 17.94683 min	Mintaka
132323	5 hr 35.43303 min	-5 dg 54.59333 min	Iota@Ori
132346	5 hr 36.21353 min	-1 dg 12.11750 min	Alnilam
132406	5 hr 38.74600 min	-2 dg 36.00250 min	Sigma@Ori
132444	5 hr 40.75873 min	-1 dg 56.55883 min	Alnitak
132542	5 hr 47.75657 min	-9 dg 40.18100 min	Saiph

136871	9 hr 27.58757 min	-8 dg 39.51950 min	Alphard
138917	12 hr 41.65997 min	-1 dg 26.96183 min	Porrima
139420	13 hr 34.69322min	-0 dg 35.76117 min	Zeta@Vir
140430	15 hr 17.00717 min	-9 dg 22.97550 min	Zubeneschamali
140787	15 hr 49.62033 min	-3 dg 25.81567 min	Mu@Ser
141052	16 hr 14.34567 min	-3 dg 41.65883 min	YedPrior
141086	16 hr 18.3238 min	-4 dg 41.54867 min	YedPosterior
142004	17 hr 59.02680 min	-9 dg 46.42000 min	Nu@Oph
142241	18 hr 21.30992 min	-2 dg 53.92800 min	Eta@Ser
143021	19 hr 06.24897 min	-4 dg 52.95017 min	Lambda@Aql
144150	20 hr 11.30480 min	-0 dg 49.28783 min	Theta@Aql
144810	20 hr 47.67610 min	-9 dg 29.74433 min	Albali
145457	21 hr 31.55908 min	-5 dg 34.27117 min	Sadalsuud
145862	22 hr 05.78388 min	-0 dg 19.18967 min	Sadalmelik
146362	22 hr 52.61427 min	-7 dg 34.77933 min	Lambda@Aqr
147420	0 hr 43.58972 min	-17 dg 59.19750 min	Diphda
147632	1 hr 08.59002 min	-10 dg 10.93300 min	Eta@Cet
147986	1 hr 44.06863 min	-15 dg 56.24367 min	Tau@Cet
148059	1 hr 51.46063 min	-10 dg 20.10317 min	BatenKaitos
149283	3 hr 58.02955 min	-13 dg 30.51067 min	Zaurak
150237	5 hr 12.93112 min	-16 dg 12.33317 min	Mu@Lep
150547	5 hr 32.72998 min	-17 dg 49.33733 min	Arneb
150801	5 hr 46.9542 min	-14 dg 49.32033 min	Zeta@Lep
150957	5 hr 56.40472 min	-14 dg 10.06667 min	Eta@Lep
151428	6 hr 22.69943 min	-17 dg 57.35983 min	Mirzam
151881	6 hr 45.14862 min	-16 dg 42.96850 min	Sirius
155785	10 hr 10.58808 min	-12 dg 21.24583 min	Lambda@Hya
156256	10 hr 49.62495 min	-16 dg 11.61933 min	Nu@Hya
156605	11 hr 19.34083 min	-14 dg 46.71500 min	Delta@Crt
157176	12 hr 15.80618 min	-17 dg 32.51650 min	Gienah
157323	12 hr 29.86428 min	-16 dg 30.92600 min	Algorab
157923	13 hr 25.19335 min	-11 dg 09.67733 min	Spica
158840	14 hr 50.87865 min	-16 dg 02.50650 min	Zuben'ubi
159682	16 hr 05.43730 min	-19 dg 48.32283 min	Graffias
160006	16 hr 37.15913 min	-10 dg 34.02583 min	Zeta@Oph
160332	17 hr 10.37825 min	-15 dg 43.49050 min	Sabik

160700	17 hr 37.58667 min	-15 dg 23.91383 min	Xi@Ser
163427	20 hr 18.05443 min	-12 dg 32.68883 min	Algedi
163481	20 hr 21.01120 min	-14 dg 46.88217 min	Dabih
164560	21 hr 40.09100 min	-16 dg 39.74067 min	Nishira
164644	21 hr 47.04097 min	-16 dg 07.63650 min	DenebAlgedi
165375	22 hr 54.65032 min	-15 dg 49.24917 min	Skat
170051	5 hr 05.46075 min	-22 dg 22.5933 min	Epsilon@Lep
170457	5 hr 28.24542 min	-20 dg 45.57133 min	Nihal
170759	5 hr 44.46335 min	-22 dg 26.90600 min	Gamma@Lep
170926	5 hr 51.32133 min	-20 dg 52.75000 min	Delta@Lep
172676	6 hr 58.62602 min	-28 dg 58.32350 min	Adhara
172797	7 hr 01.71932 min	-27 dg 56.09200 min	Sigma@CMA
172839	7 hr 03.02458 min	-23 dg 50.00217 min	Omicron2@CMA
173047	7 hr 08.39127 min	-26 dg 23.59133 min	Wezen
173282	7 hr 14.81128 min	-26 dg 46.36400 min	Omega@CMA
173651	7 hr 24.09500 min	-29 dg 18.18833 min	Aludra
174601	7 hr 49.29428 min	-24 dg 51.58733 min	Xi@Pup
175217	8 hr 07.54407 min	-24 dg 18.25350 min	Rho@Pup
180531	12 hr 10.12480 min	-22 dg 37.18350 min	Epsilon@Crv
180915	12 hr 34.38735 min	-23 dg 23.80367 min	Beta@Crv
181543	13 hr 18.92177 min	-23 dg 10.29383 min	Gamma@Hya
181695	13 hr 29.71313 min	-23 dg 16.87617 min	R@Hya
182244	14 hr 06.37157 min	-26 dg 40.94000 min	Pi@Hya
183139	15 hr 04.07025 min	-25 dg 16.91900 min	Sigma@Lib
183619	15 hr 37.02443 min	-28 dg 08.10467 min	Upsilon@Lib
183649	15 hr 38.65643 min	-29 dg 46.67133 min	Tau@Lib
183987	15 hr 58.85207 min	-26 dg 06.84350 min	Pi@Sco
184014	16 hr 00.33368 min	-22 dg 37.30017 min	Delta@Sco
184336	16 hr 21.18858 min	-25 dg 35.56867 min	Sigma@Sco
184415	16 hr 29.40748 min	-26 dg 25.91950 min	Antares
184481	16 hr 35.88255 min	-28 dg 12.90267 min	Tau@Sco
185320	17 hr 22.00975 min	-24 dg 59.97033 min	Theta@Oph
186681	18 hr 20.99455 min	-29 dg 49.68983 min	KausMedia
186841	18 hr 27.97082 min	-25 dg 25.30183 min	KausBorealis
187239	18 hr 45.65638 min	-26 dg 59.44617 min	Phi@Sgr
187448	18 hr 55.26530 min	-26 dg 17.80350 min	Nunki

187504	18 hr 57.72993 min	-21 dg 06.39950 min	Xi2@Sgr
187600	19 hr 02.61183 min	-29 dg 52.81850 min	Ascella
187643	19 hr 04.68342 min	-21 dg 44.49450 min	Omicron@Sgr
187683	19 hr 06.94023 min	-27 dg 40.22550 min	Tau@Sgr
187756	19 hr 09.76398 min	-21 dg 01.41733 min	Pi@Sgr
190341	21 hr 26.66732 min	-22 dg 24.67900 min	Zeta@Cap
191524	22 hr 57.65118 min	-29 dg 37.33483 min	Fomalhaut
191683	23 hr 09.44655 min	-21 dg 10.34250 min	88@Aqr
194902	4 hr 17.89450 min	-33 dg 47.90367 min	41@Eri
195148	4 hr 35.55107 min	-30 dg 33.74150 min	Nu2@Eri
195924	5 hr 31.21308 min	-35 dg 28.23800 min	Epsilon@Col
196059	5 hr 39.64922 min	-34 dg 04.45183 min	Phact
196240	5 hr 50.95993 min	-35 dg 46.10183 min	Wazn
196698	6 hr 20.31328 min	-30 dg 03.80167 min	Furud
197258	6 hr 49.84105 min	-32 dg 30.51100 min	Kappa@CMa
197795	7 hr 17.14308 min	-37 dg 05.84983 min	Pi@Pup
198752	8 hr 03.58465 min	-40 dg 00.19183 min	Zeta@Pup
199546	8 hr 43.59215 min	-33 dg 11.18233 min	Alpha@Pyx
202558	11 hr 33.00228 min	-31 dg 51.45550 min	K@Hya
204371	13 hr 20.59737 min	-36 dg 42.73817 min	Iota@Cen
205188	14 hr 06.68270 min	-36 dg 22.20233 min	Menkent
206552	15 hr 21.80618 min	-36 dg 15.68367 min	Phi2@Lup
207208	16 hr 00.12133 min	-38 dg 23.81000 min	Eta@Up
208078	16 hr 50.16377 min	-34 dg 17.59700 min	Epsilon@Sco
208102	16 hr 51.87047 min	-38 dg 02.85033 min	Mu1@Sco
208116	16 hr 52.33552 min	-38 dg 01.05217 min	Mu2@Sco
208896	17 hr 30.76405 min	-37 dg 17.75083 min	Lestah
208954	17 hr 33.60918 min	-37 dg 06.22683 min	Shaula
209163	17 hr 42.48773 min	-39 dg 01.80467 min	Kappa@Sco
209318	17 hr 49.85893 min	-37 dg 02.59467 min	G@Sco
209696	18 hr 05.80813 min	-30 dg 25.44433 min	Alnasl
209957	18 hr 17.62737 min	-36 dg 45.70300 min	Eta@Sgr
210091	18 hr 24.17285 min	-34 dg 23.08167 min	KausAust
213374	21 hr 53.92907 min	-37 dg 21.89133 min	Gamma@Gru
214983	0 hr 09.41197 min	-45 dg 44.84917 min	Epsilon@Phe
215092	0 hr 26.20333 min	-43 dg 40.79350 min	Kappa@Phe

215093	0 hr 26.28460 min	-42 dg 18.36267 min	Ankaa
215365	1 hr 06.08407 min	-46 dg 43.12167 min	Beta@Phe
215516	1 hr 28.36588 min	-43 dg 19.09383 min	Gamma@Phe
216113	2 hr 58.26152 min	-40 dg 18.28300 min	Acamar
216710	4 hr 14.00203 min	-42 dg 17.66967 min	Alpha@Hor
218071	6 hr 37.76098 min	-43 dg 11.75517 min	Nu@Pup
218549	7 hr 13.53918 min	-44 dg 38.37933 min	L2@Pup
218755	7 hr 29.23128 min	-43 dg 18.08767 min	Sigma@Pup
219504	8 hr 09.53317 min	-47 dg 20.20067 min	Gamma@Vel
220878	9 hr 07.99667 min	-43 dg 25.95367 min	Suhail
221234	9 hr 30.70023 min	-40 dg 28.00267 min	Psi@Vel
222321	10 hr 46.76990 min	-49 dg 25.20483 min	Mu@Vel
223603	12 hr 41.51677 min	-48 dg 57.57850 min	Gamma@Cen
224469	13 hr 49.50522 min	-41 dg 41.26367 min	Nu@Cen
224471	13 hr 49.61692 min	-42 dg 28.42850 min	Mu@Cen
224538	13 hr 55.53972 min	-47 dg 17.29933 min	Zeta@Cen
225044	14 hr 35.50715 min	-42 dg 09.46833 min	Eta@Cen
225128	14 hr 41.92997 min	-47 dg 23.29000 min	Alpha@Lup
225335	14 hr 58.53183 min	-43 dg 08.04100 min	Beta@Lup
225344	14 hr 59.16163 min	-42 dg 06.25500 min	Kappa@Cen
225691	15 hr 21.37217 min	-40 dg 38.86083 min	Delta@Lup
225712	15 hr 22.68105 min	-44 dg 41.36533 min	Epsilon@Lup
225938	15 hr 35.14093 min	-41 dg 10.00883 min	Gamma@Lup
227402	16 hr 54.58367 min	-42 dg 21.68833 min	Zeta@Sco
227707	17 hr 12.15353 min	-43 dg 14.34633 min	Eta@Sco
228069	17 hr 31.84263 min	-49 dg 52.57533 min	Alpha@Ara
228201	17 hr 37.31928 min	-42 dg 59.86717 min	Theta@Sco
228420	17 hr 47.58492 min	-40 dg 07.61967 min	Iota@Sco
229023	18 hr 26.97387 min	-45 dg 58.09800 min	Alpha@Tel
230300	20 hr 37.56763 min	-47 dg 17.48917 min	Alpha@Ind
230992	22 hr 08.23353 min	-46 dg 57.66333 min	AlNair
231258	22 hr 42.66778 min	-46 dg 53.08200 min	Beta@Gru
232481	1 hr 37.71542 min	-57 dg 14.20217 min	Achernar
232573	1 hr 55.95827 min	-51 dg 36.53567 min	Chi@Eri
232696	2 hr 16.51018 min	-51 dg 30.73633 min	Phi@Eri
233564	4 hr 33.99702 min	-55 dg 02.70233 min	Alpha@Dor

234134	5 hr 47.28525 min	-51 dg 03.98617 min	Beta@Pic
234480	6 hr 23.95305 min	-52 dg 41.74067 min	Canopus
234735	6 hr 49.93613 min	-50 dg 36.88600 min	Tau@Pup
235635	7 hr 56.77817 min	-52 dg 58.93250 min	Chi@Car
235932	8 hr 22.51397 min	-59 dg 30.57117 min	Avior
236164	8 hr 40.29407 min	-52 dg 55.31717 min	Omicron@Vel
236232	8 hr 44.70398 min	-54 dg 42.49767 min	Delta@Vel
236693	9 hr 10.96593 min	-58 dg 58.02233 min	a@Car
236808	9 hr 17.09005 min	-59 dg 16.51900 min	Aspidiske
236891	9 hr 22.11413 min	-55 dg 00.64200 min	Kappa@Vel
237067	9 hr 31.22158 min	-57 dg 02.06850 min	N@Vel
237522	9 hr 56.86255 min	-54 dg 34.06300 min	Phi@Vel
238574	10 hr 53.49360 min	-58 dg 51.20117 min	u@Car
239689	12 hr 08.35890 min	-50 dg 43.34650 min	Delta@Cen
239791	12 hr 15.14458 min	-58 dg 44.93017 min	Delta@Cru
240019	12 hr 31.16588 min	-57 dg 06.79267 min	Gacrux
240259	12 hr 47.72155 min	-59 dg 41.32233 min	Becrux
241047	13 hr 39.88803 min	-53 dg 27.97867 min	Epsilon@Cen
242304	15 hr 12.28547 min	-52 dg 05.94933 min	Zeta@Lup
244168	16 hr 49.78528 min	-59 dg 02.48883 min	Eta@Ara
244315	16 hr 58.62038 min	-55 dg 59.40800 min	Zeta@Ara
244725	17 hr 25.30040 min	-55 dg 31.79367 min	Beta@Ara
244726	17 hr 25.39375 min	-56 dg 22.65683 min	Gamma@Ara
245242	18 hr 06.63060 min	-50 dg 05.50067 min	Theta@Ara
246574	20 hr 25.64825 min	-56 dg 44.10533 min	Peacock
246784	20 hr 54.81017 min	-58 dg 27.24967 min	Beta@Ind
247593	22 hr 48.55493 min	-51 dg 19.00867 min	Epsilon@Gru
248474	1 hr 58.77048 min	-61 dg 34.19017 min	Alpha@Hyi
248877	3 hr 44.19968 min	-64 dg 48.42200 min	Beta@Ret
248969	4 hr 14.42515 min	-62 dg 28.42667 min	Alpha@Ret
249311	5 hr 33.62522 min	-62 dg 29.39417 min	Beta@Dor
249647	6 hr 48.19067 min	-61 dg 56.48367 min	Alpha@Pic
250228	8 hr 25.73658 min	-66 dg 08.22083 min	Beta@Vol
250495	9 hr 13.20133 min	-69 dg 43.03267 min	Miaplacidus
250695	9 hr 47.10138 min	-65 dg 04.31317 min	Upsilon@Car
250885	10 hr 13.73705 min	-70 dg 02.27400 min	Omega@Car

250905	10 hr 17.08195 min	-61 dg 19.93867 min	q@Car
251006	10 hr 32.02338 min	-61 dg 41.12183 min	p@Car
251083	10 hr 42.95557 min	-64 dg 23.66433 min	Theta@Car
251472	11 hr 35.78028 min	-63 dg 01.18600 min	Lambda@Cen
251575	11 hr 45.60653 min	-66 dg 43.72183 min	Lambda@Mus
251862	12 hr 21.35917 min	-60 dg 24.07433 min	Epsilon@Cru
251904	12 hr 26.59913 min	-63 dg 05.94167 min	Acrux
251974	12 hr 37.18260 min	-69 dg 08.12750 min	Alpha@Mus
252019	12 hr 46.28162 min	-68 dg 06.49117 min	Beta@Mus
252582	14 hr 03.82437 min	-60 dg 22.37883 min	Hadar
252838	14 hr 39.60278 min	-60 dg 50.12250 min	RigilKentaursu
252853	14 hr 42.50662 min	-64 dg 58.51167 min	Alpha@Cir
253097	15 hr 18.90967 min	-68 dg 40.76633 min	Gamma@TrA
253346	15 hr 55.14222 min	-63 dg 25.83550 min	Beta@TrA
253700	16 hr 48.66560 min	-69 dg 01.65933 min	Atria
253945	17 hr 31.09927 min	-60 dg 41.02667 min	Delta@Ara
254020	17 hr 45.73333 min	-64 dg 43.42667 min	Eta@Pav
254733	20 hr 08.72487 min	-66 dg 10.92133 min	Delta@Pav
254862	20 hr 44.95780 min	-66 dg 12.18500 min	Beta@Pa
255193	22 hr 18.50320 min	-60 dg 15.57550 min	Alpha@Tuc
255670	0 hr 25.75362 min	-77 dg 15.26050 min	Beta@Hyi
256029	3 hr 47.23968 min	-74 dg 14.33767 min	Gamma@Hyi
256374	7 hr 08.74830 min	-70 dg 29.94100 min	Gamma@Vol
256438	7 hr 41.81955 min	-72 dg 36.36250 min	Zeta@Vol
257000	13 hr 02.27180 min	-71 dg 32.93533 min	Delta@Mus
257193	14 hr 47.86072 min	-79 dg 02.68600 min	Alpha@Aps
257407	16 hr 33.45347 min	-78 dg 53.82350 min	Gamma@Aps
257948	21 hr 41.47812 min	-77 dg 23.40500 min	Nu@Oct