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Nautical Almanac (Selected Stars)

**2025**

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**Star Maps**  
**The Nautical Almanac 2025 (Selected Stars)**  
**Polaris Tables 2025**

Revision V0.6 - Nov 2018

Warning and Terms of Usage:

The following pages have been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data in this Nautical Almanac is believed to be accurate but no warranty is given for its correctness.

Use this Nautical Almanac only for training and exercising!

Compiled by Erik De Man (mail2erik@siranah.de) on Tue Oct 1 12:26:03 2024

## Introduction

This Nautical Almanac contains the Ephemerides of the "First Point of Aries" and sixty selected stars. It is designed for determination of Position (geographical Latitude and Longitude) from astronomical observations (Altitude of Celestial Objects).

The data compiled in this Nautical Almanac is based on calculations done with the software package "NOVAS" from the U.S. Naval Observatory (<http://aa.usno.navy.mil/AA/software>). The fundamental star data was originally obtained from the "Bright Star Catalogue" (5th revised edition of 1991). However, this data has recently been updated from other star catalogues. The complete star data as used in this Almanac is shown on the next page.

### Values for "deltaT"

For the astrodynamical calculations, the following values for "delta T" (the difference between terrestrial time realized by atomic clocks and UT defined by the irregular rotation of the Earth) have been used:

Jan : 69.1 s	Apr : 69.1 s	Jul : 69.1 s	Oct : 69.1 s
Feb : 69.1 s	May : 69.1 s	Aug : 69.1 s	Nov : 69.1 s
Mar : 69.1 s	Jun : 69.1 s	Sep : 69.1 s	Dec : 69.1 s

### Interpolation of the integral-hour GHA values

This Nautical Almanac uses a slightly different approach for the interpolation of the integral-hour values of Greenwich Hour Angle, compared to the techniques used in most commercially available Almanacs.

For more information please refer to the following web site: "<http://www.siranah.de/>"

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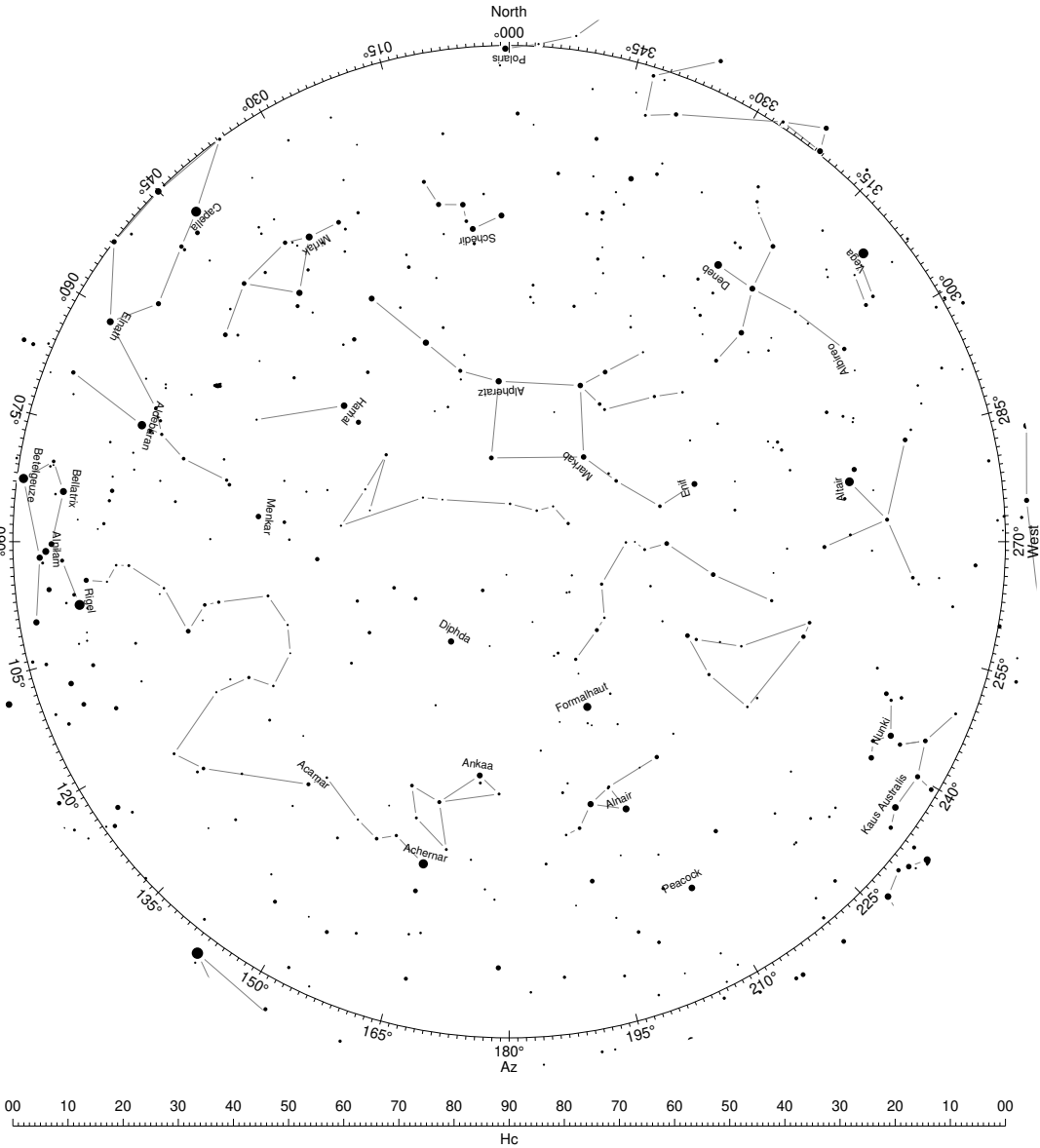
The following table shows the fundamental star data as used in this Almanac. The data refers to Equinox J2000 / Epoch J2000.0.

Star Name	RA			Dec ° ' "	mu_RA ["/yr]	mu_Dec ["/yr]	prllx ["]	rad.vel. [km/s]
	h	m	s					
Alpheratz	00	08	23.3	N 29 05.4	0.135680	-0.162950	0.034	-11
Ankaa	00	26	17.0	S 42 18.4	0.233050	-0.356300	0.039	75
Schedir	00	40	30.4	N 56 32.2	0.050360	-0.032170	0.014	-4
Diphda	00	43	35.4	S 17 59.2	0.232550	0.031990	0.034	13
Achernar	01	37	42.8	S 57 14.2	0.088020	-0.038240	0.023	16
Hamal	02	07	10.4	N 23 27.7	0.190730	-0.145770	0.049	-14
Polaris	02	31	49.1	N 89 15.8	0.044480	-0.011850	0.008	-17
Acamar	02	58	15.7	S 40 18.3	-0.044600	-0.019000	0.028	12
Menkar	03	02	16.8	N 04 05.4	-0.010410	-0.076850	0.013	-26
Mirfak	03	24	19.4	N 49 51.7	0.024110	-0.026010	0.005	-2
Aldebaran	04	35	55.2	N 16 30.6	0.063000	-0.190000	0.050	54
Capella	05	16	41.4	N 45 59.9	0.075520	-0.427110	0.077	29
Rigel	05	14	32.3	S 08 12.1	0.001870	-0.000560	0.004	21
Bellatrix	05	25	07.9	N 06 21.0	-0.008750	-0.013280	0.013	18
Elnath	05	26	17.5	N 28 36.5	0.023280	-0.174220	0.025	9
Alnilam	05	36	12.8	S 01 12.1	0.001490	-0.001060	0.002	26
Betelgeuze	05	55	10.3	N 07 24.4	0.024950	0.009560	0.005	22
Canopus	06	23	57.1	S 52 41.7	0.019990	0.023670	0.010	21
Sirius	06	45	08.9	S 16 43.0	-0.546050	-1.223140	0.379	-8
Adhara	06	58	37.6	S 28 58.3	0.002600	0.002290	0.008	27
Castor	07	34	36.0	N 31 53.3	-0.206330	-0.148180	0.066	5
Procyon	07	39	18.1	N 05 13.5	-0.716570	-1.034580	0.286	-3
Pollux	07	45	19.4	N 28 01.6	-0.625690	-0.045950	0.097	3
Avior	08	22	30.8	S 59 30.6	-0.025340	0.022720	0.005	2
Suhail	09	07	59.8	S 43 25.9	-0.023210	0.014280	0.006	18
Miaplacidus	09	13	12.0	S 69 43.0	-0.157660	0.108910	0.029	-5
Alphard	09	27	35.2	S 08 39.5	-0.014500	0.033250	0.018	-4
Regulus	10	08	22.3	N 11 58.0	0.249000	0.002000	0.042	6
Dubhe	11	03	43.7	N 61 45.0	-0.136460	-0.035250	0.026	-9
Denebola	11	49	03.6	N 14 34.3	-0.499020	-0.113780	0.090	0
Gienah	12	15	48.4	S 17 32.5	-0.161000	0.023000	0.020	-4
Acrux	12	26	35.9	S 63 05.9	-0.035370	-0.014730	0.010	-11
Gacrux	12	31	09.9	S 57 06.8	0.027940	-0.264330	0.037	21
Alioth	12	54	01.6	N 55 57.6	0.112000	-0.009000	0.040	-9
Spica	13	25	11.6	S 11 09.7	-0.042500	-0.031730	0.012	1
Alkaid	13	47	32.4	N 49 18.8	-0.122000	-0.015600	0.032	-11
Hadar	14	03	49.4	S 60 22.4	-0.033960	-0.025060	0.009	6
Menkent	14	06	41.3	S 36 22.1	-0.519290	-0.517870	0.053	1
Arcturus	14	15	39.7	N 19 10.9	-1.093450	-1.999400	0.089	5
Rigel Kentaurus	14	39	36.5	S 60 50.0	-3.678190	0.481840	0.747	-22
Zubenelgenubi	14	50	52.8	S 16 02.5	-0.106000	-0.067000	0.058	-10
Kocab	14	50	42.3	N 74 09.3	-0.032290	0.011910	0.026	17
Alphecca	15	34	41.3	N 26 42.9	0.120380	-0.089440	0.044	2
Antares	16	29	24.0	S 26 25.9	-0.010160	-0.023210	0.005	-3
Atria	16	48	39.9	S 69 01.7	0.017850	-0.032920	0.008	-3
Sabik	17	10	22.7	S 15 43.5	0.041160	0.097650	0.039	-2
Shaula	17	33	36.5	S 37 06.2	-0.008900	-0.029950	0.005	-3
Rasalhague	17	34	56.1	N 12 33.6	0.110080	-0.222610	0.070	13
Etamin	17	56	36.4	N 51 29.3	-0.008480	-0.022790	0.021	-28
Kaus Australis	18	24	10.3	S 34 23.1	-0.039420	-0.124200	0.023	-15
Vega	18	36	56.3	N 38 47.0	0.201030	0.287470	0.129	-14
Nunki	18	55	15.9	S 26 17.8	0.015140	-0.053430	0.014	-11
Albireo	19	30	43.3	N 27 57.6	0.005000	0.006000	0.009	-24
Altair	19	50	47.0	N 08 52.1	0.536870	0.385570	0.194	-26
Peacock	20	25	38.9	S 56 44.1	0.007710	-0.086150	0.018	2
Deneb	20	41	25.9	N 45 16.8	0.001990	0.001950	0.002	-5
Enif	21	44	11.2	N 09 52.5	0.030020	-0.001380	0.005	3
Alnair	22	08	14.0	S 46 57.7	0.128000	-0.148000	0.032	11
Formalhaut	22	57	39.0	S 29 37.3	0.329220	-0.164220	0.131	7
Markab	23	04	45.6	N 15 12.3	0.060400	-0.041300	0.024	-4

The following table lists the traditional star names as used in this Almanac with the corresponding scientific names (Bayer designation) as used in astronomical star constellation maps.

Star Name	Bayer designation	Apparent Magnitude
Alpheratz	Alpha Andromedae	2.06
Ankaa	Alpha Phoenicis	2.39
Schedir	Alpha Cassiopeiae	2.23
Diphda	Beta Ceti	2.04
Achernar	Alpha Eridani	0.46
Hamal	Alpha Arietis	2.00
Polaris	Alpha Ursae Minoris	2.02
Acamar	Theta Eridani	3.24
Menkar	Alpha Ceti	2.53
Mirfak	Alpha Persei	1.79
Aldebaran	Alpha Tauri	0.85
Capella	Alpha Aurigae	0.08
Rigel	Beta Orionis	0.12
Bellatrix	Gamma Orionis	1.64
Elnath	Beta Tauri	1.65
Alnilam	Epsilon Orionis	1.70
Betelgeuze	Alpha Orionis	0.50
Canopus	Alpha Carinae	-0.72
Sirius	Alpha Canis Majoris	-1.46
Adhara	Epsilon Canis Majoris	1.50
Castor	Alpha Geminorum	2.88
Procyon	Alpha Canis Minoris	0.38
Pollux	Beta Geminorum	1.14
Avior	Epsilon Carinae	1.86
Suhail	Lambda Velorum	2.21
Miaplacidus	Beta Carinae	1.68
Alphard	Alpha Hydrae	1.98
Regulus	Alpha Leonis	1.35
Dubhe	Alpha Ursae Majoris	1.79
Denebola	Beta Leonis	2.14
Gienah	Gamma Corvi	2.59
Acrux	Alpha Crucis	1.33
Gacrux	Gamma Crucis	1.63
Alioth	Epsilon Ursae Majoris	1.77
Spica	Alpha Virginis	0.98
Alkaid	Eta Ursae Majoris	1.86
Hadar	Beta Centauri	0.61
Menkent	Theta Centauri	2.06
Arcturus	Alpha Bootis	-0.04
Rigel Kentaurus	Alpha Centauri	-0.01
Zubenelgenubi	Alpha-2 Librae	2.75
Kocab	Beta Ursae Minoris	2.08
Alphecca	Alpha Coronae Borealis	2.23
Antares	Alpha Scorpii	0.96
Atria	Alpha Trianguli Australis	1.92
Sabik	Eta Ophiuchi	2.43
Shaula	Lambda Scorpii	1.63
Rasalhague	Alpha Ophiuchi	2.08
Etamin	Gamma Draconis	2.23
Kaus Australis	Epsilon Sagittarii	1.85
Vega	Alpha Lyrae	0.03
Nunki	Sigma Sagittarii	2.02
Albireo	Beta Cygni	3.08
Altair	Alpha Aquilae	0.77
Peacock	Alpha Pavonis	1.94
Deneb	Alpha Cygni	1.25
Enif	Epsilon Pegasi	2.39
Alnair	Alpha Gruis	1.74
Formalhaut	Alpha Piscis Austrini	1.16
Markab	Alpha Pegasi	2.49

# Horizontal-Coordinate-System Map of bright Stars - Part I



## Position of the Stars on the local hemisphere

The following pages show different maps of the brightest stars on the night sky (down to magnitude 4.5) as well as some of the standard constellations. On each of the maps, the stars used in this Almanac are labeled with their traditional names.

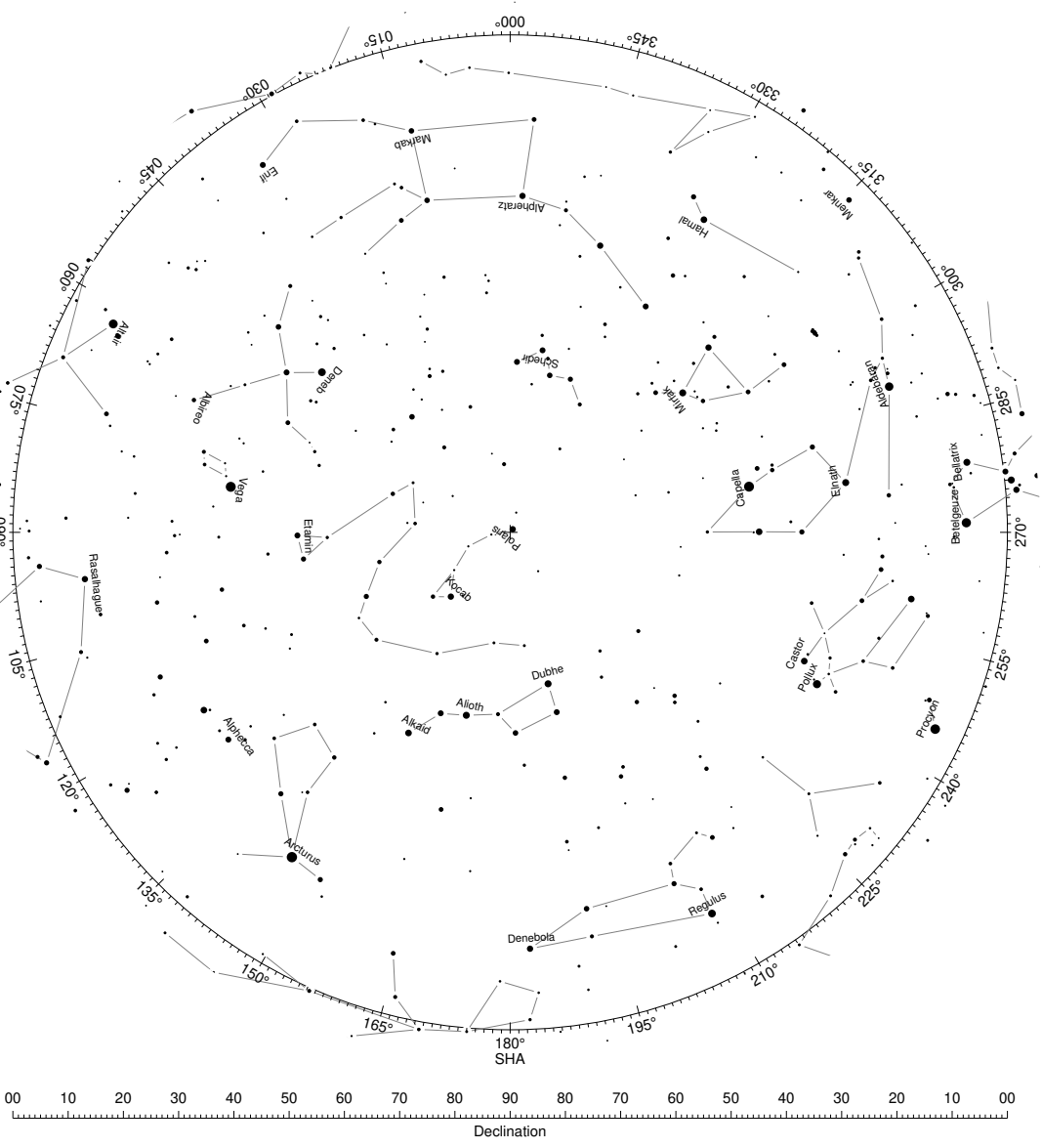
The first two maps are stereographic maps of the stars of the northern- and southern hemisphere, respectively. These maps are centered on the celestial poles and may be used for observations at locations in high northern- or southern latitudes.

The following eight maps show the star constellations on the local hemisphere for locations on the Equator. These maps can be used for observations at locations in lower latitudes.

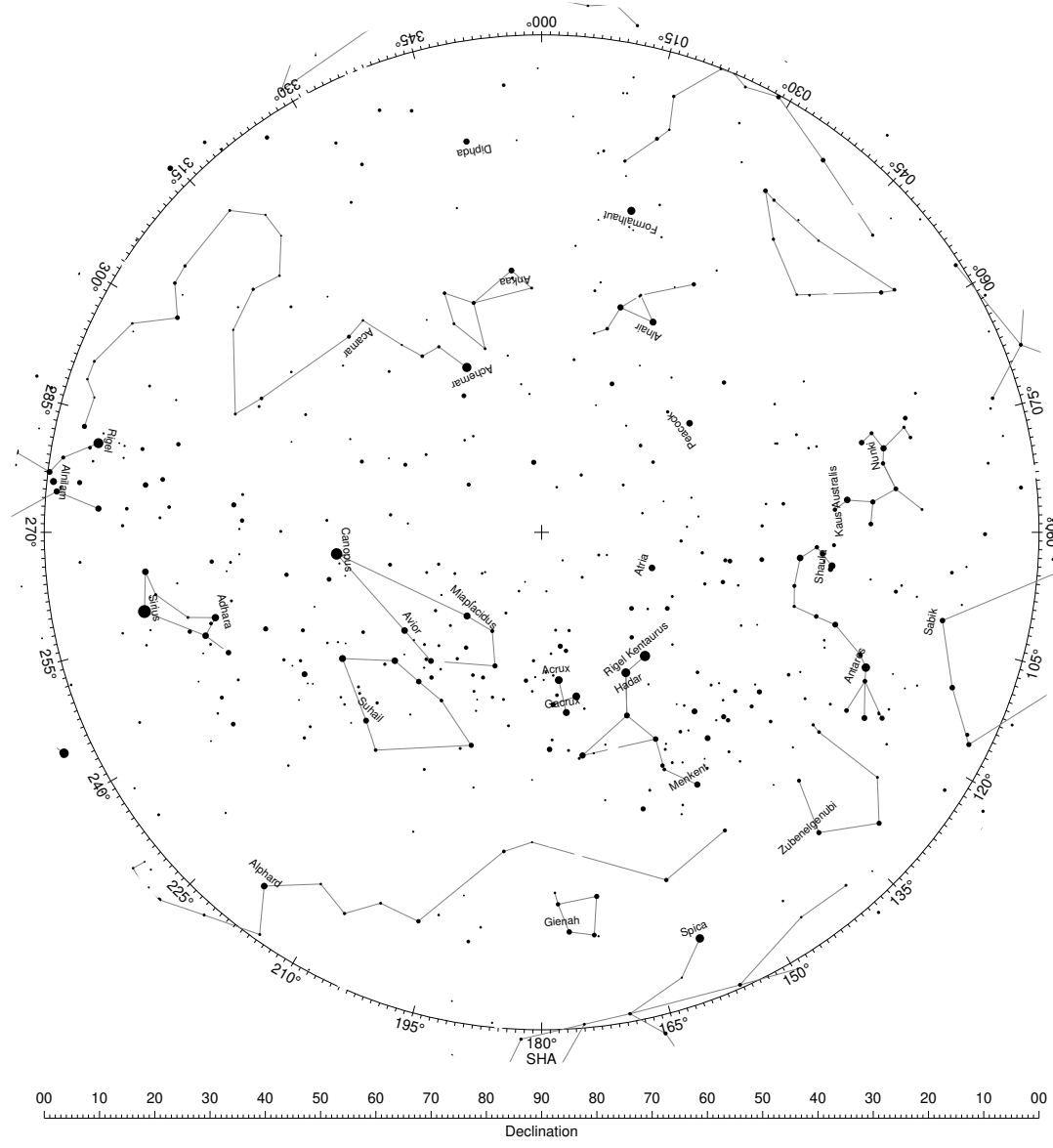
The Horizontal-Coordinate-System map shows the brightest stars (up to magnitude 4.5) of the local hemisphere for a location on the Equator. The stars are plotted with their Altitude (Hc) and Azimuth (Az) coordinates. The Azimuth scale is plotted on the circle of 0°-Altitude (local horizon). The Azimuth is the approximate compass direction in which the star is visible.

Each of these maps is valid for a location on the equator at a specific time of the day.

### Map of bright Stars of the Northern Celestial Sphere



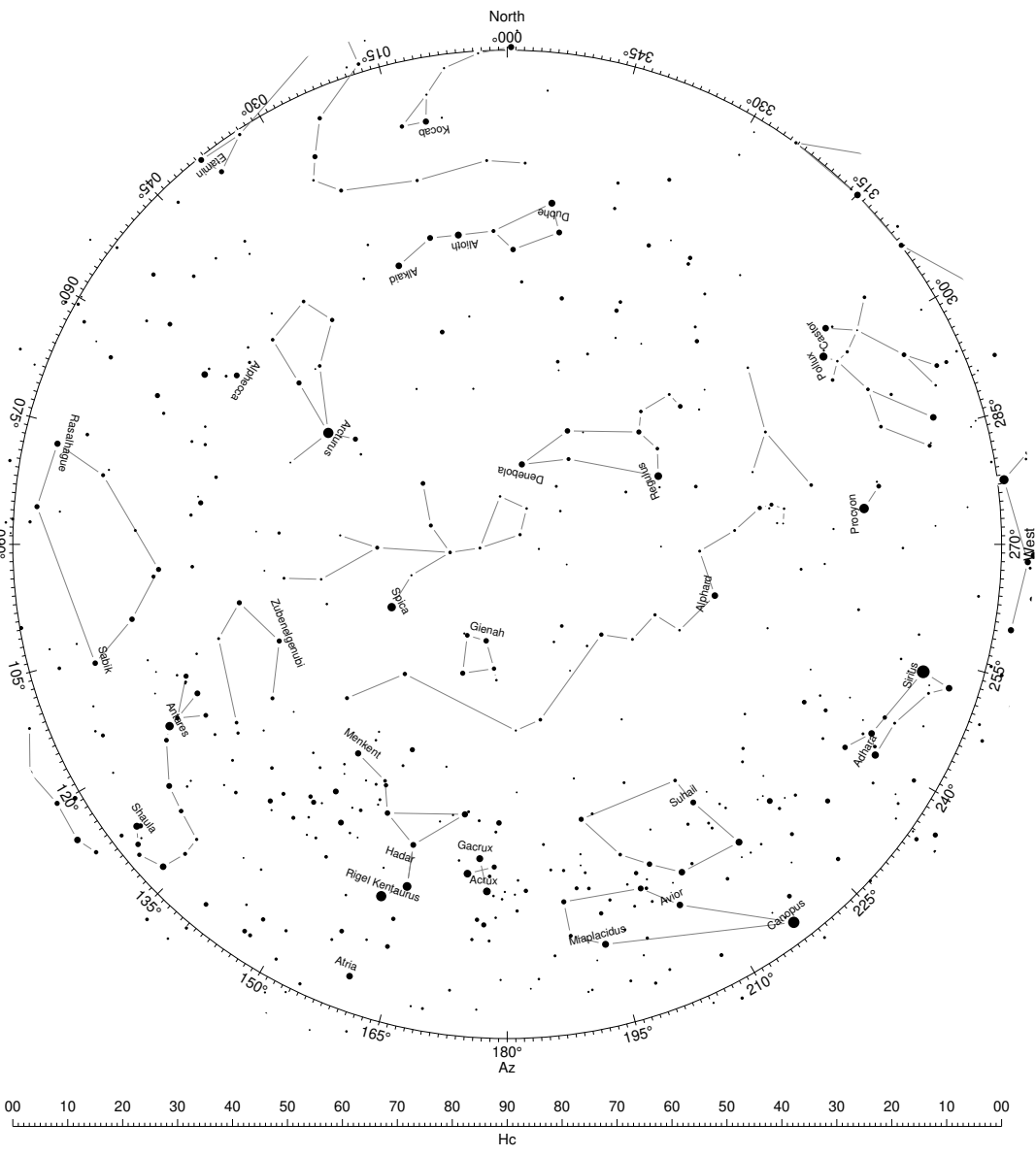
### Map of bright Stars of the Southern Celestial Sphere



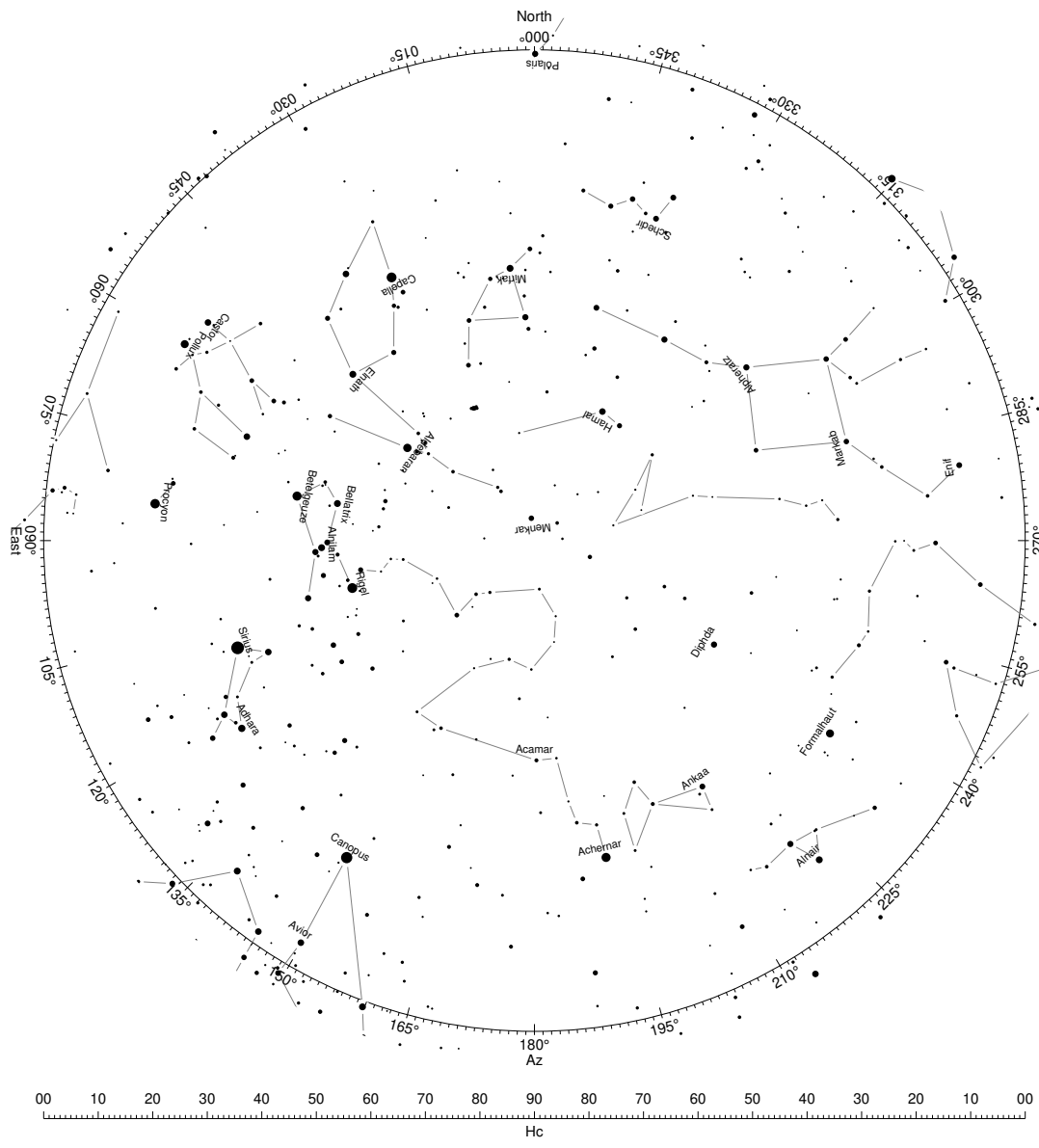
The map is centered on the celestial north pole and shows the brightest stars (up to magnitude 4.5) of the northern celestial hemisphere. The circle of constant declination is shown at 00° (Celestial Equator). The Sidereal Hour Angle of a specific star can be directly read from the SHA scale plotted on the Celestial Equator, while, the Declination can be determined by transferring the distance from the star to the center of the map onto the separate Declination scale. The Sidereal Hour Angle is zero for the "First-Point-of-Aries" and increases westward.

The map is centered on the celestial south pole and shows the brightest stars (up to magnitude 4.5) of the southern celestial hemisphere. The circle of constant declination is shown at 00° (Celestial Equator). The Sidereal Hour Angle of a specific star can be directly read from the SHA scale plotted on the Celestial Equator, while, the Declination can be determined by transferring the distance from the star to the center of the map onto the separate Declination scale. The Sidereal Hour Angle is zero for the "First-Point-of-Aries" and increases westward.

## Horizontal-Coordinate-System Map of bright Stars - Part V



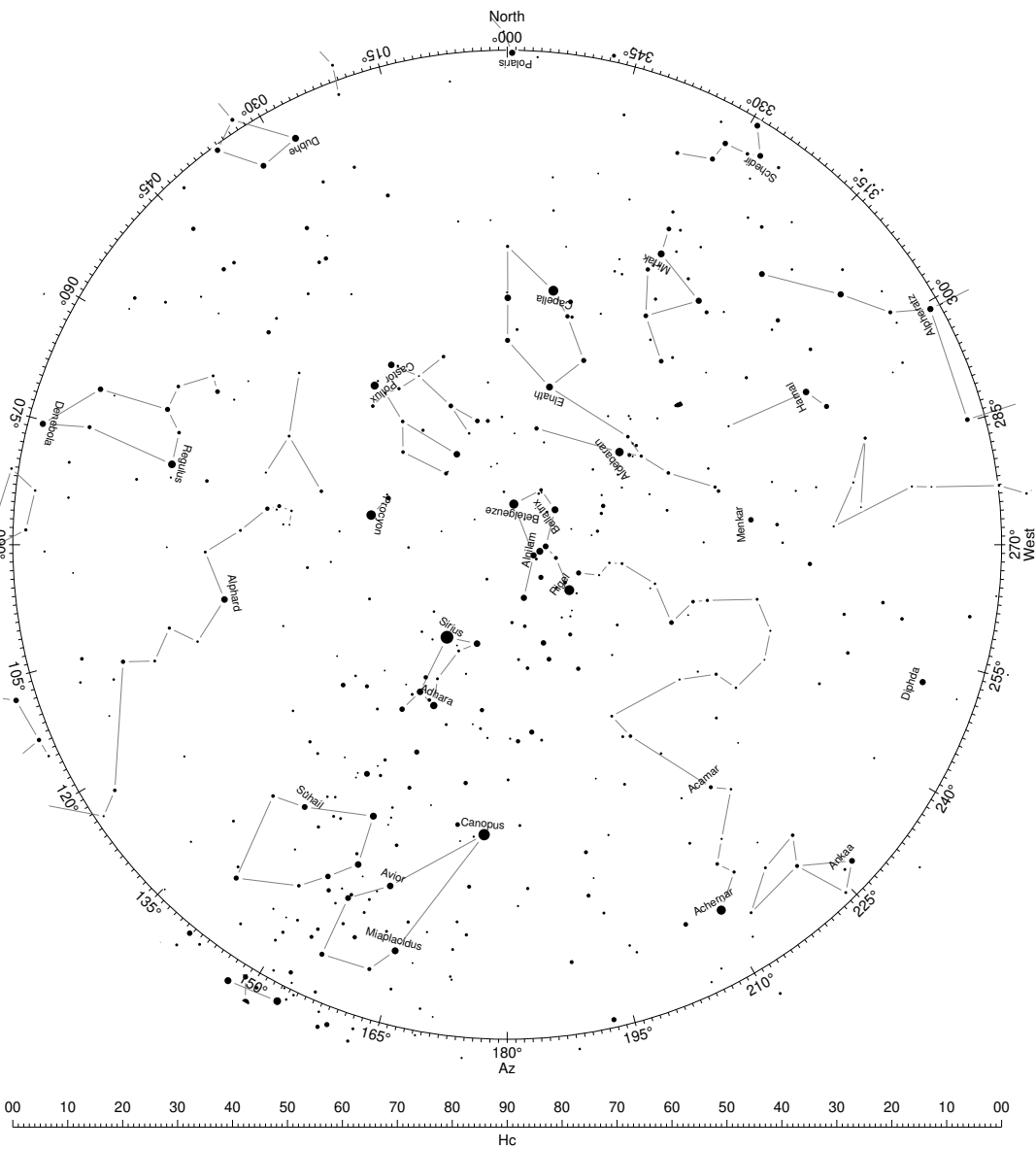
## Horizontal-Coordinate-System Map of bright Stars - Part II



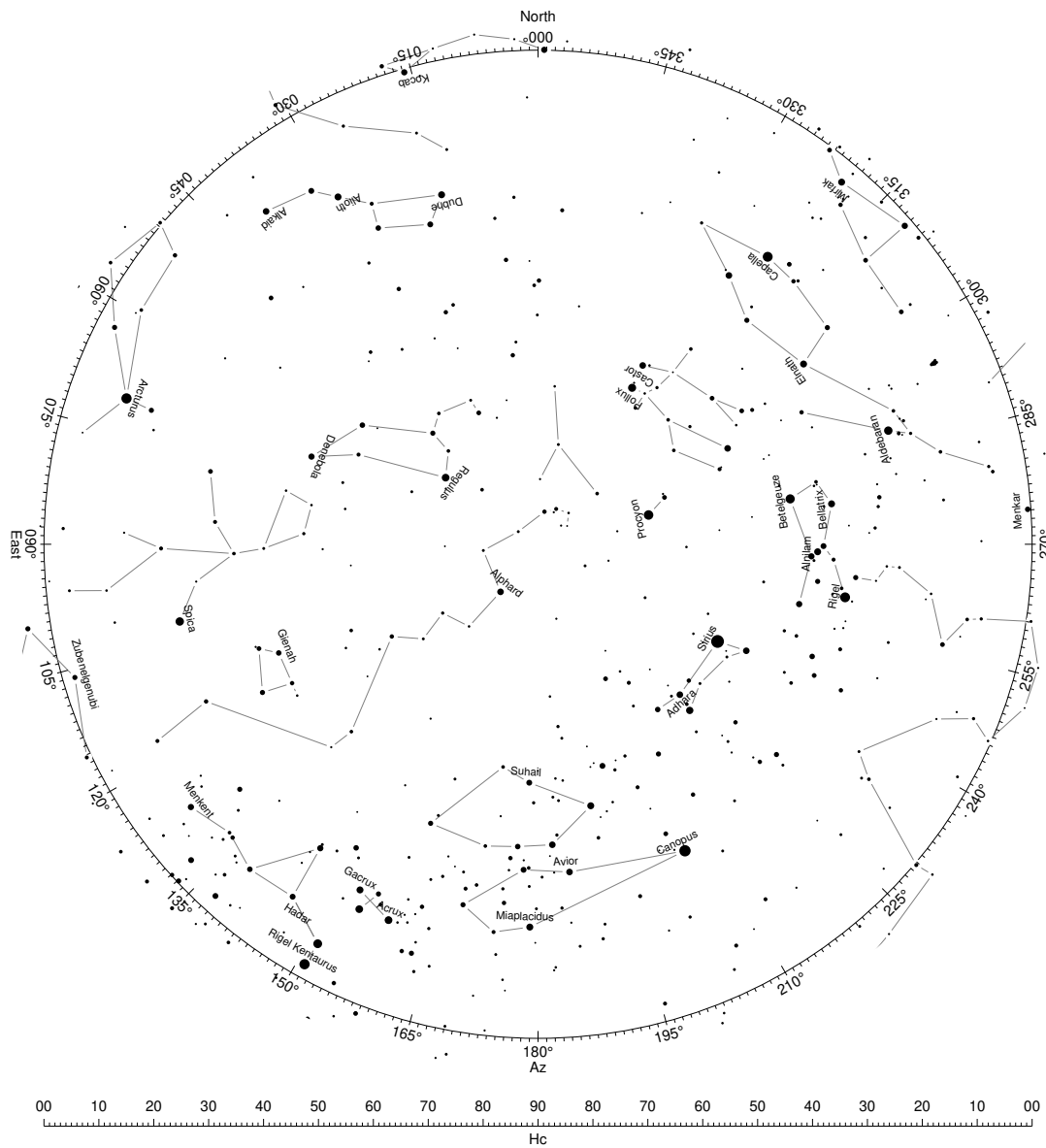
The Horizontal-Coordinate-System map shows the brightest stars (up to magnitude 4.5) of the local hemisphere for a location on the Equator. The stars are plotted with their Altitude (Hc) and Azimuth (Az) coordinates. The Azimuth scale is plotted on the circle of 0°-Altitude (local horizon). The Azimuth is the approximate compass direction in which the star is visible. Each of these maps is valid for a location on the equator at a specific time of the day.

The Horizontal-Coordinate-System map shows the brightest stars (up to magnitude 4.5) of the local hemisphere for a location on the Equator. The stars are plotted with their Altitude (Hc) and Azimuth (Az) coordinates. The Azimuth scale is plotted on the circle of 0°-Altitude (local horizon). The Azimuth is the approximate compass direction in which the star is visible. Each of these maps is valid for a location on the equator at a specific time of the day.

### Horizontal-Coordinate-System Map of bright Stars - Part III



### Horizontal-Coordinate-System Map of bright Stars - Part IV

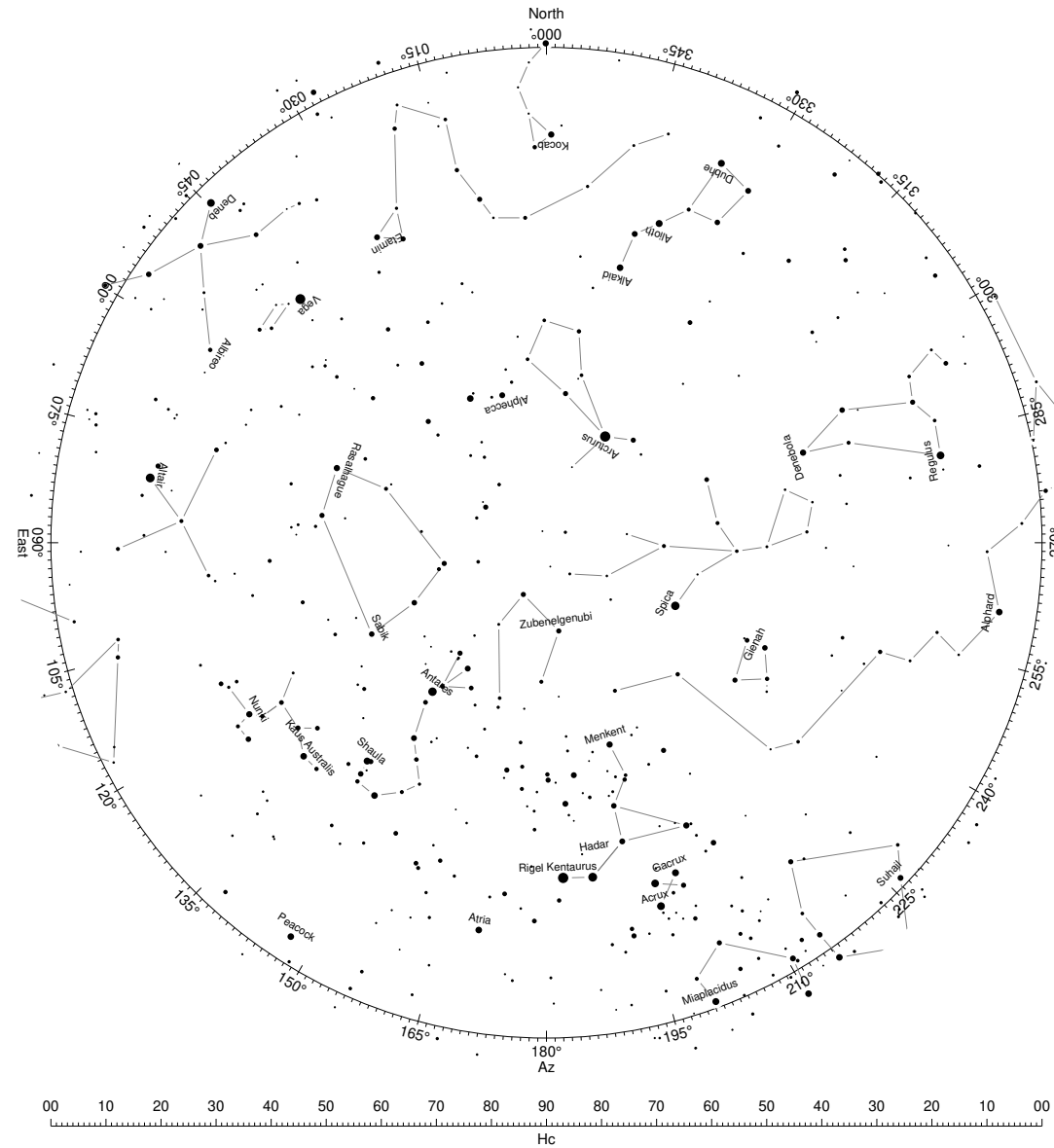


The Horizontal-Coordinate-System map shows the brightest stars (up to magnitude 4.5) of the local hemisphere for a location on the Equator. The stars are plotted with their Altitude (Hc) and Azimuth (Az) coordinates. The Azimuth scale is plotted on the circle of 0°-Altitude (local horizon). The Azimuth is the approximate compass direction in which the star is visible. Each of these maps is valid for a location on the equator at a specific time of the day.

The Horizontal-Coordinate-System map shows the brightest stars (up to magnitude 4.5) of the local hemisphere for a location on the Equator. The stars are plotted with their Altitude (Hc) and Azimuth (Az) coordinates. The Azimuth scale is plotted on the circle of 0°-Altitude (local horizon). The Azimuth is the approximate compass direction in which the star is visible. Each of these maps is valid for a location on the equator at a specific time of the day.



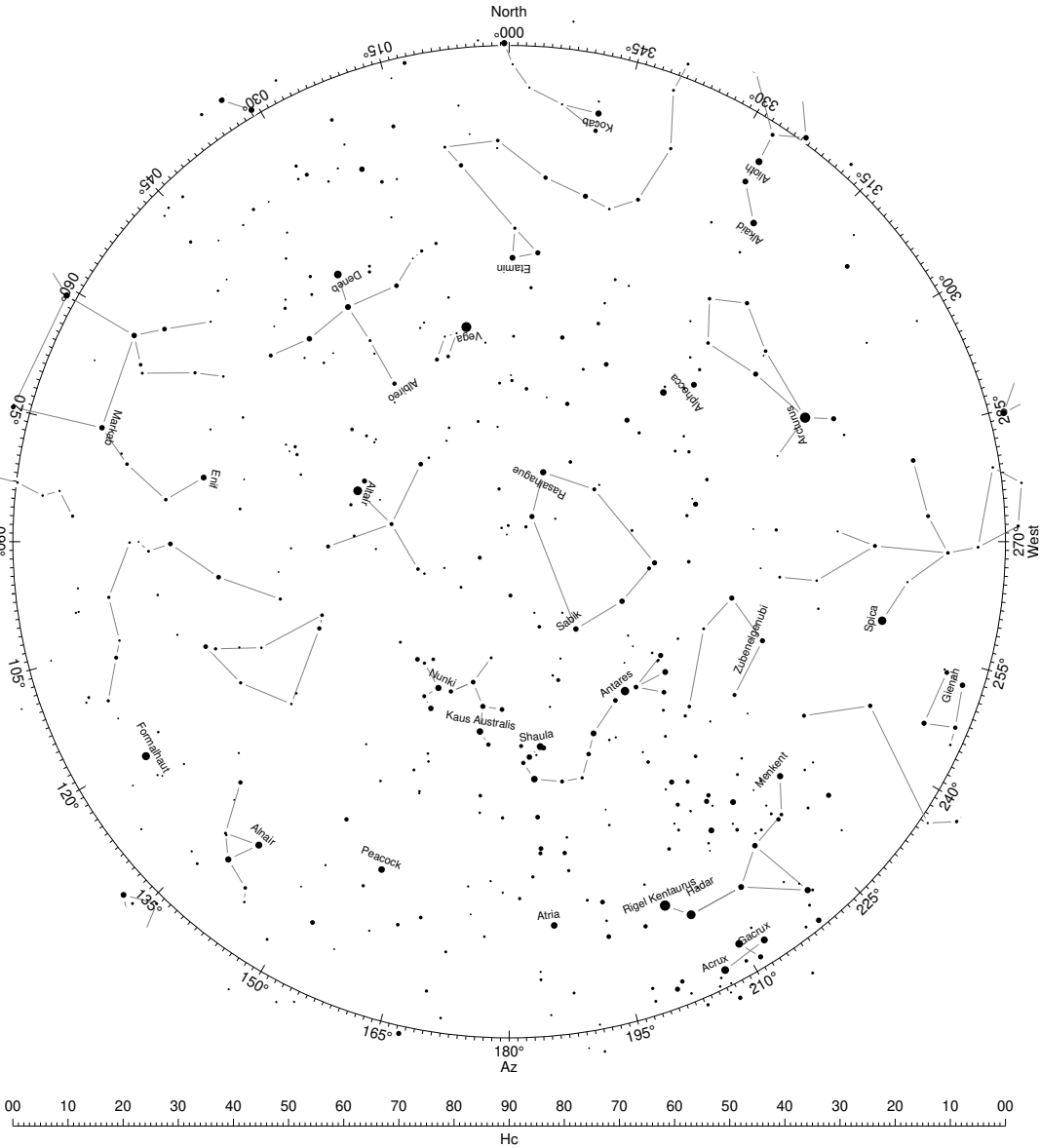
# Horizontal-Coordinate-System Map of bright Stars - Part VI



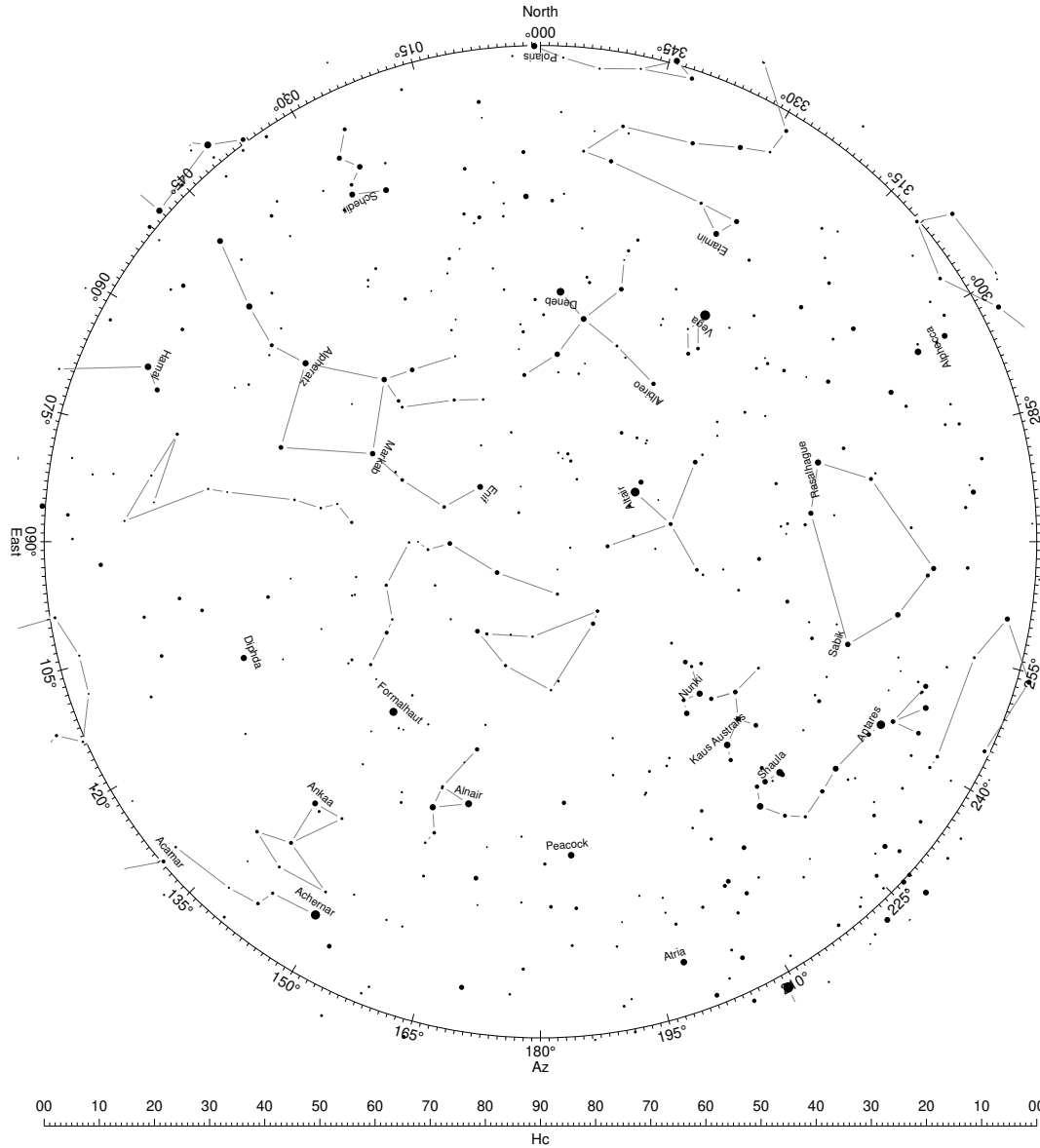
The Horizontal-Coordinate-System map shows the brightest stars (up to magnitude 4.5) of the local hemisphere for a location on the Equator. The stars are plotted with their Altitude (Hc) and Azimuth (Az) coordinates. The Azimuth scale is plotted on the circle of 0°-Altitude (local horizon). The Azimuth is the approximate compass direction in which the star is visible.

Each of these maps is valid for a location on the equator at a specific time of the day.

### Horizontal-Coordinate-System Map of bright Stars - Part VII



### Horizontal-Coordinate-System Map of bright Stars - Part VIII



The Horizontal-Coordinate-System map shows the brightest stars (up to magnitude 4.5) of the local hemisphere for a location on the Equator. The stars are plotted with their Altitude (Hc) and Azimuth (Az) coordinates. The Azimuth scale is plotted on the circle of 0°-Altitude (local horizon). The Azimuth is the approximate compass direction in which the star is visible. Each of these maps is valid for a location on the equator at a specific time of the day.

The Horizontal-Coordinate-System map shows the brightest stars (up to magnitude 4.5) of the local hemisphere for a location on the Equator. The stars are plotted with their Altitude (Hc) and Azimuth (Az) coordinates. The Azimuth scale is plotted on the circle of 0°-Altitude (local horizon). The Azimuth is the approximate compass direction in which the star is visible. Each of these maps is valid for a location on the equator at a specific time of the day.

2025 - First Point of Aries / Selected Stars

UT	day 11 of 365 <i>January 11</i>			day 12 of 365 <i>January 12</i>			day 13 of 365 <i>January 13</i>			day 14 of 365 <i>January 14</i>			day 15 of 365 <i>January 15</i>			UT
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		
00	110	45.4	+02.4	111	44.5	+02.5	112	43.7	+02.4	113	42.8	+02.5	114	41.9	+02.5	00
01	125	47.8	+02.5	126	47.0	+02.4	127	46.1	+02.5	128	45.3	+02.4	129	44.4	+02.5	01
02	140	50.3	+02.5	141	49.4	+02.5	142	48.6	+02.4	143	47.7	+02.5	144	46.9	+02.4	02
03	155	52.8	+02.4	156	51.9	+02.5	157	51.0	+02.5	158	50.2	+02.5	159	49.3	+02.5	03
04	170	55.2	+02.5	171	54.4	+02.4	172	53.5	+02.5	173	52.7	+02.4	174	51.8	+02.5	04
05	185	57.7	+02.5	186	56.8	+02.5	187	56.0	+02.4	188	55.1	+02.5	189	54.3	+02.4	05
06	201	00.2	+02.4	201	59.3	+02.5	202	58.4	+02.5	203	57.6	+02.4	204	56.7	+02.5	06
07	216	02.6	+02.5	217	01.8	+02.4	218	00.9	+02.5	219	00.0	+02.5	219	59.2	+02.4	07
08	231	05.1	+02.4	232	04.2	+02.5	233	03.4	+02.4	234	02.5	+02.5	235	01.6	+02.5	08
09	246	07.5	+02.5	247	06.7	+02.5	248	05.8	+02.5	249	05.0	+02.4	250	04.1	+02.5	09
10	261	10.0	+02.5	262	09.2	+02.4	263	08.3	+02.5	264	07.4	+02.5	265	06.6	+02.4	10
11	276	12.5	+02.4	277	11.6	+02.5	278	10.8	+02.4	279	09.9	+02.5	280	09.0	+02.5	11
12	291	14.9	+02.5	292	14.1	+02.4	293	13.2	+02.5	294	12.4	+02.4	295	11.5	+02.5	12
13	306	17.4	+02.5	307	16.5	+02.5	308	15.7	+02.5	309	14.8	+02.5	310	14.0	+02.4	13
14	321	19.9	+02.4	322	19.0	+02.5	323	18.2	+02.4	324	17.3	+02.5	325	16.4	+02.5	14
15	336	22.3	+02.5	337	21.5	+02.4	338	20.6	+02.5	339	19.8	+02.4	340	18.9	+02.5	15
16	351	24.8	+02.5	352	23.9	+02.5	353	23.1	+02.4	354	22.2	+02.5	355	21.4	+02.4	16
17	6	27.3	+02.4	7	26.4	+02.5	8	25.5	+02.5	9	24.7	+02.5	10	23.8	+02.5	17
18	21	29.7	+02.5	22	28.9	+02.4	23	28.0	+02.5	24	27.2	+02.4	25	26.3	+02.5	18
19	36	32.2	+02.5	37	31.3	+02.5	38	30.5	+02.4	39	29.6	+02.5	40	28.8	+02.4	19
20	51	34.7	+02.4	52	33.8	+02.5	53	32.9	+02.5	54	32.1	+02.4	55	31.2	+02.5	20
21	66	37.1	+02.5	67	36.3	+02.4	68	35.4	+02.5	69	34.5	+02.5	70	33.7	+02.4	21
22	81	39.6	+02.4	82	38.7	+02.5	83	37.9	+02.4	84	37.0	+02.5	85	36.1	+02.5	22
23	96	42.0	+02.5	97	41.2	+02.5	98	40.3	+02.5	99	39.5	+02.4	100	38.6	+02.5	23

## Nautical Almanac for selected Stars

The following pages contain the celestial coordinates of the "First Point of Aries" and a set of selected stars. Each page compiles the almanac data for five successive days of the year. For this time span, the recorded star data consisting of Siderial Hour Angle (SHA) and Declination (Dec) is valid. The time used in this Almanac is Universal Time (UT).

The GHA of a specific star is obtained from the GHA of the "First Point of Aries" and the star's SHA by the following relationship:  $GHA_{star} = GHA_{Aries} + SHA_{star}$

### NOTICE:

This Nautical Almanac uses a slightly different approach for the interpolation of the integral-hour values of Greenwich Hour Angle and Declination, compared to the techniques used in most commercially available Almanacs.

For more information please refer to the following web site: "<http://www.siranah.de/>"

### Abbreviations used in the Almanac tables:

UT	Universal Time	
GHA	Greenwich Hour Angle	° [degrees]
ddGHA	the increment of the GHA value for the next hour of time, additional to the "linear" increment of 15°/h	' [minutes of arc]
SHA	Siderial Hour Angle	° [degrees]
Dec	Declination	° [degrees]

	SHA		Dec			SHA		Dec	
	°	'	°	'		°	'	°	'
Alpheratz	357	34.9	N	29 13.9	Gienah	175	43.4	S	17 40.8
Ankaa	353	07.3	S	42 10.3	Acrux	172	59.9	S	63 14.0
Schedir	349	31.2	N	56 40.8	Gacrux	171	51.6	S	57 14.8
Diphda	348	47.4	S	17 51.1	Alioth	166	13.0	N	55 49.1
Achernar	335	20.2	S	57 06.9	Spica	158	22.3	S	11 17.5
Hamal	327	51.2	N	23 35.0	Alkaid	152	52.0	N	49 11.0
Polaris	313	49.0	N	89 22.5	Hadar	148	36.1	S	60 29.3
Acamar	315	11.5	S	40 12.5	Menkent	147	57.4	S	36 29.1
Menkar	314	06.0	N	04 11.3	Arcturus	145	47.6	N	19 03.8
Mirfak	308	28.0	N	49 57.2	Rigel Kentaurus	139	37.6	S	60 56.3
Aldebaran	290	39.4	N	16 33.7	Zubengelgenubi	136	56.1	S	16 08.7
Capella	280	21.5	N	46 01.6	Kocab	137	20.2	N	74 02.8
Rigel	281	03.6	S	08 10.4	Alphecca	126	04.0	N	26 37.7
Bellatrix	278	22.6	N	06 22.3	Antares	112	16.2	S	26 29.2
Elnath	278	01.5	N	28 37.8	Atria	107	10.8	S	69 04.1
Alnilam	275	37.4	S	01 11.2	Sabik	102	03.1	S	15 45.4
Betelgeuze	270	51.8	N	07 24.7	Shaula	96	10.7	S	37 07.3
Canopus	263	51.9	S	52 42.6	Rasalhague	95	58.9	N	12 32.5
Sirius	258	25.7	S	16 44.6	Etamin	90	42.7	N	51 29.0
Adhara	255	05.5	S	29 00.4	Kaus Australis	83	32.9	S	34 22.3
Castor	245	56.6	N	31 50.0	Vega	80	33.7	N	38 48.2
Procyon	244	50.2	N	05 10.0	Nunki	75	48.1	S	26 15.9
Pollux	243	16.5	N	27 57.9	Albireo	67	04.4	N	28 00.7
Avior	234	14.1	S	59 35.3	Altair	62	00.5	N	08 55.8
Suhail	222	45.9	S	43 31.9	Peacock	53	06.3	S	56 39.3
Miaplacidus	221	37.3	S	69 49.0	Deneb	49	26.3	N	45 22.2
Alphard	217	47.5	S	08 46.0	Enif	33	39.1	N	09 59.4
Regulus	207	34.1	N	11 50.6	Alnair	27	33.3	S	46 50.5
Dubhe	193	40.5	N	61 36.7	Formalhaut	15	14.9	S	29 29.5
Denebola	182	24.6	N	14 25.8	Markab	13	30.1	N	15 20.4

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### 2025 - First Point of Aries / Selected Stars

### 2025 - First Point of Aries / Selected Stars

UT	day 1 of 365 <i>January 1</i>		day 2 of 365 <i>January 2</i>		day 3 of 365 <i>January 3</i>		day 4 of 365 <i>January 4</i>		day 5 of 365 <i>January 5</i>		UT		
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA			
00	100	54.0	+02.4	101	53.1	+02.5	102	52.3	+02.4	103	51.4	+02.5	00
01	115	56.4	+02.5	116	55.6	+02.4	117	54.7	+02.5	118	53.9	+02.4	01
02	130	58.9	+02.5	131	58.0	+02.5	132	57.2	+02.5	133	56.3	+02.5	02
03	146	01.4	+02.4	147	00.5	+02.5	147	59.7	+02.4	148	58.8	+02.5	03
04	161	03.8	+02.5	162	03.0	+02.4	163	02.1	+02.5	164	01.3	+02.4	04
05	176	06.3	+02.5	177	05.4	+02.5	178	04.6	+02.4	179	03.7	+02.5	05
06	191	08.8	+02.4	192	07.9	+02.5	193	07.0	+02.5	194	06.2	+02.4	06
07	206	11.2	+02.5	207	10.4	+02.4	208	09.5	+02.5	209	08.6	+02.5	07
08	221	13.7	+02.5	222	12.8	+02.5	223	12.0	+02.4	224	11.1	+02.5	08
09	236	16.2	+02.4	237	15.3	+02.5	238	14.4	+02.5	239	13.6	+02.4	09
10	251	18.6	+02.5	252	17.8	+02.4	253	16.9	+02.5	254	16.0	+02.5	10
11	266	21.1	+02.4	267	20.2	+02.4	268	19.4	+02.4	269	18.5	+02.5	11
12	281	23.5	+02.5	282	22.7	+02.5	283	21.8	+02.5	284	21.0	+02.4	12
13	296	26.0	+02.5	297	25.2	+02.4	298	24.3	+02.5	299	23.4	+02.5	13
14	311	28.5	+02.4	312	27.6	+02.5	313	26.8	+02.4	314	25.9	+02.5	14
15	326	30.9	+02.5	327	30.1	+02.4	328	29.2	+02.5	329	28.4	+02.4	15
16	341	33.4	+02.5	342	32.5	+02.5	343	31.7	+02.4	344	30.8	+02.5	16
17	356	35.9	+02.4	357	35.0	+02.5	358	34.1	+02.5	359	33.3	+02.5	17
18	11	38.3	+02.5	12	37.5	+02.4	13	36.6	+02.5	14	35.8	+02.4	18
19	26	40.8	+02.5	27	39.9	+02.5	28	39.1	+02.4	29	38.2	+02.5	19
20	41	43.3	+02.4	42	42.4	+02.5	43	41.5	+02.5	44	40.7	+02.4	20
21	56	45.7	+02.5	57	44.9	+02.4	58	44.0	+02.5	59	43.1	+02.5	21
22	71	48.2	+02.5	72	47.3	+02.5	73	46.5	+02.4	74	45.6	+02.5	22
23	86	50.7	+02.4	87	49.8	+02.5	88	48.9	+02.5	89	48.1	+02.4	23

UT	day 6 of 365 <i>January 6</i>		day 7 of 365 <i>January 7</i>		day 8 of 365 <i>January 8</i>		day 9 of 365 <i>January 9</i>		day 10 of 365 <i>January 10</i>		UT		
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA			
00	105	49.7	+02.4	106	48.8	+02.5	107	47.9	+02.5	108	47.1	+02.5	00
01	120	52.1	+02.5	121	51.3	+02.4	122	50.4	+02.5	123	49.6	+02.4	01
02	135	54.6	+02.5	136	53.7	+02.5	137	52.9	+02.4	138	52.0	+02.5	02
03	150	57.1	+02.4	151	56.2	+02.5	152	55.3	+02.5	153	54.5	+02.4	03
04	165	59.5	+02.5	166	58.7	+02.4	167	57.8	+02.5	168	56.9	+02.5	04
05	181	02.0	+02.5	182	01.1	+02.5	183	00.3	+02.4	184	59.4	+02.5	05
06	196	04.5	+02.4	197	03.6	+02.5	198	02.7	+02.5	199	01.9	+02.4	06
07	211	06.9	+02.5	212	06.1	+02.4	213	05.2	+02.5	214	04.3	+02.5	07
08	226	09.4	+02.4	227	08.5	+02.5	228	07.7	+02.4	229	06.8	+02.5	08
09	241	11.8	+02.5	242	11.0	+02.5	243	10.1	+02.5	244	09.3	+02.4	09
10	256	14.3	+02.5	257	13.5	+02.4	258	12.6	+02.5	259	11.7	+02.5	10
11	271	16.8	+02.5	272	15.9	+02.5	273	15.1	+02.4	274	14.2	+02.5	11
12	286	19.2	+02.5	287	18.4	+02.4	288	17.5	+02.5	289	16.7	+02.4	12
13	301	21.7	+02.5	302	20.8	+02.4	303	20.0	+02.4	304	19.1	+02.5	13
14	316	24.2	+02.4	317	23.3	+02.5	318	22.4	+02.5	319	21.6	+02.5	14
15	331	26.6	+02.5	332	25.8	+02.4	333	24.9	+02.5	334	24.1	+02.4	15
16	346	29.1	+02.5	347	28.2	+02.5	348	27.4	+02.4	349	26.5	+02.5	16
17	1	31.6	+02.4	2	30.7	+02.5	3	29.8	+02.5	4	29.0	+02.4	17
18	16	34.0	+02.5	17	33.2	+02.4	18	32.3	+02.5	19	31.4	+02.5	18
19	31	36.5	+02.5	32	35.6	+02.5	33	34.8	+02.4	34	33.9	+02.5	19
20	46	39.0	+02.4	47	38.1	+02.5	48	37.2	+02.5	49	36.4	+02.4	20
21	61	41.4	+02.5	62	40.6	+02.4	63	39.7	+02.5	64	38.8	+02.5	21
22	76	43.9	+02.4	77	43.0	+02.5	78	42.2	+02.4	79	41.3	+02.5	22
23	91	46.3	+02.5	92	45.5	+02.4	93	44.6	+02.5	94	43.8	+02.4	23

	SHA	Dec		SHA	Dec
Alpheratz	357 34.9	N 29 13.9	Gienah	175 43.5	S 17 40.8
Ankaa	353 07.3	S 42 10.3	Acruz	173 00.1	S 63 14.0
Schedir	349 31.1	N 56 40.8	Gacrux	171 51.7	S 57 14.8
Diphda	348 47.4	S 17 51.1	Alioth	166 13.1	N 55 49.1
Achernar	335 20.1	S 57 06.8	Spica	158 22.4	S 11 17.5
Hamal	327 51.1	N 23 35.0	Alkaid	152 52.1	N 49 11.0
Polaris	313 45.2	N 89 22.4	Hadar	148 36.3	S 60 29.3
Acamar	315 11.5	S 40 12.4	Menkent	147 57.5	S 36 29.1
Menkar	314 06.0	N 04 11.3	Arcturus	145 47.7	N 19 03.8
Mirfak	308 27.9	N 49 57.2	Rigel Kentaurus	139 37.7	S 60 56.3
Aldebaran	290 39.3	N 16 33.7	Zubenelgenubi	136 56.2	S 16 08.7
Capella	280 21.5	N 46 01.6	Kocab	137 20.4	N 74 02.8
Rigel	281 03.6	S 08 10.4	Alphecca	126 04.1	N 26 37.7
Bellatrix	278 22.6	N 06 22.4	Antares	112 16.3	S 26 29.2
Elnath	278 01.5	N 28 37.8	Atria	107 11.0	S 69 04.2
Alnilam	275 37.4	S 01 11.2	Sabik	102 03.1	S 15 45.4
Betelgeuze	270 51.8	N 07 24.7	Shaula	96 10.8	S 37 07.3
Canopus	263 51.9	S 52 42.5	Rasalhague	95 58.9	N 12 32.5
Sirius	258 25.7	S 16 44.5	Etamin	90 42.7	N 51 29.0
Adhara	255 05.5	S 29 00.3	Kaus Australis	83 32.9	S 34 22.3
Castor	245 56.6	N 31 50.0	Vega	80 33.8	N 38 48.2
Procyon	244 50.3	N 05 10.0	Nunki	75 48.2	S 26 16.0
Pollux	243 16.6	N 27 57.9	Albireo	67 04.5	N 28 00.7
Avior	234 14.1	S 59 35.2	Altair	62 00.5	N 08 55.9
Suhail	222 45.9	S 43 31.8	Peacock	53 06.3	S 56 39.4
Miaplacidus	221 37.4	S 69 49.0	Deneb	49 26.2	N 45 22.2
Alphard	217 47.5	S 08 46.0	Enif	33 39.1	N 09 59.4
Regulus	207 34.1	N 11 50.6	Alnair	27 33.3	S 46 50.6
Dubhe	193 40.6	N 61 36.7	Formalhaut	15 14.8	S 29 29.5
Denebola	182 24.7	N 14 25.9	Markab	13 30.1	N 15 20.5

	SHA	Dec		SHA	Dec
Alpheratz	357 34.9	N 29 13.9	Gienah	175 43.5	S 17 40.8
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Schedir	349 31.1	N 56 40.8	Gacrux	171 51.6	S 57 14.8
Diphda	348 47.4	S 17 51.1	Alioth	166 13.0	N 55 49.1
Achernar	335 20.1	S 57 06.8	Spica	158 22.3	S 11 17.5
Hamal	327 51.2	N 23 35.0	Alkaid	152 52.0	N 49 11.0
Polaris	313 47.3	N 89 22.5	Hadar	148 36.2	S 60 29.3
Acamar	315 11.5	S 40 12.5	Menkent	147 57.4	S 36 29.1
Menkar	314 06.0	N 04 11.3	Arcturus	145 47.6	N 19 03.8
Mirfak	308 28.0	N 49 57.2	Rigel Kentaurus	139 37.7	S 60 56.3
Aldebaran	290 39.4	N 16 33.7	Zubenelgenubi	136 56.1	S 16 08.7
Capella	280 21.5	N 46 01.6	Kocab	137 20.3	N 74 02.8
Rigel	281 03.6	S 08 10.4	Alphecca	126 04.0	N 26 37.7
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Elnath	278 01.5	N 28 37.8	Atria	107 10.9	S 69 04.2
Alnilam	275 37.4	S 01 11.2	Sabik	102 03.1	S 15 45.4
Betelgeuze	270 51.8	N 07 24.7	Shaula	96 10.8	S 37 07.3
Canopus	263 51.9	S 52 42.5	Rasalhague	95 58.9	N 12 32.5
Sirius	258 25.7	S 16 44.5	Etamin	90 42.7	N 51 29.0
Adhara	255 05.5	S 29 00.3	Kaus Australis	83 32.9	S 34 22.3
Castor	245 56.6	N 31 50.0	Vega	80 33.8	N 38 48.2
Procyon	244 50.2	N 05 10.0	Nunki	75 48.1	S 26 16.0
Pollux	243 16.6	N 27 57.9	Albireo	67 04.5	N 28 00.7
Avior	234 14.1	S 59 35.3	Altair	62 00.5	N 08 55.8
Suhail	222 45.9	S 43 31.9	Peacock	53 06.3	S 56 39.4
Miaplacidus	221 37.3	S 69 49.0	Deneb	49 26.3	N 45 22.2
Alphard	217 47.5	S 08 46.0	Enif	33 39.1	N 09 59.4
Regulus	207 34.1	N 11 50.6	Alnair	27 33.3	S 46 50.5
Dubhe	193 40.5	N 61 36.7	Formalhaut	15 14.8	S 29 29.5
Denebola	182 24.7	N 14 25.9	Markab	13 30.1	N 15 20.4













2025 - First Point of Aries / Selected Stars

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Table with columns for UT, day of the year (March 2-6), GHA, ddGHA, and UT. It lists astronomical data for stars from March 2 to March 22.

Table with columns for UT, day of the year (March 7-11), GHA, ddGHA, and UT. It lists astronomical data for stars from March 7 to March 22.

Table with columns for star names and their SHA and Dec coordinates. Lists stars like Alpheratz, Ankaa, Schedir, etc.

Table with columns for star names and their SHA and Dec coordinates. Lists stars like Alpheratz, Ankaa, Schedir, etc.

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2025 - First Point of Aries / Selected Stars

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Table with columns for UT, day 111 of 365 (April 21), day 112 of 365 (April 22), day 113 of 365 (April 23), day 114 of 365 (April 24), day 115 of 365 (April 25), and UT. Rows list star names like Alpheratz, Ankaa, Schedir, etc., with GHA, ddGHA, and UT values.

Table with columns for UT, day 96 of 365 (April 6), day 97 of 365 (April 7), day 98 of 365 (April 8), day 99 of 365 (April 9), day 100 of 365 (April 10), and UT. Rows list star names like Alpheratz, Ankaa, Schedir, etc., with GHA, ddGHA, and UT values.

Table with columns for star name, SHA (right ascension), and Dec (declination). Rows include Alpheratz, Ankaa, Schedir, Diphda, Achernar, Hamal, Polaris, Acamar, Menkar, Mirfak, Aldebaran, Capella, Rigel, Bellatrix, Elnath, Alnilam, Betelgeuze, Canopus, Sirius, Adhara, Castor, Procyon, Pollux, Avior, Suhail, Miaplacidus, Alphard, Regulus, Dubhe, and Denebola.

Table with columns for star name, SHA (right ascension), and Dec (declination). Rows include Alpheratz, Ankaa, Schedir, Diphda, Achernar, Hamal, Polaris, Acamar, Menkar, Mirfak, Aldebaran, Capella, Rigel, Bellatrix, Elnath, Alnilam, Betelgeuze, Canopus, Sirius, Adhara, Castor, Procyon, Pollux, Avior, Suhail, Miaplacidus, Alphard, Regulus, Dubhe, and Denebola.















2025 - First Point of Aries / Selected Stars

2025 - First Point of Aries / Selected Stars

Table with columns for day (161-165), UT, GHA, ddGHA, and star names. Rows include stars like Alpheratz, Ankaa, Schedir, etc.

Table with columns for day (166-170), UT, GHA, ddGHA, and star names. Rows include stars like Alpheratz, Ankaa, Schedir, etc.

Table with columns for SHA, Dec, and star names. Rows include stars like Alpheratz, Ankaa, Schedir, etc.

Table with columns for SHA, Dec, and star names. Rows include stars like Alpheratz, Ankaa, Schedir, etc.

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2025 - First Point of Aries / Selected Stars

2025 - First Point of Aries / Selected Stars

Table with columns for UT, date (October 18-22), GHA, ddGHA, and UT. Contains magnitude change data for stars like Alpheratz, Ankaa, Schedir, Diphda, Achernar, Hamal, etc.

Table with columns for star name, SHA, and Dec. Lists stars such as Alpheratz, Ankaa, Schedir, Diphda, Achernar, Hamal, Polaris, Acamar, Menkar, etc.

Table with columns for UT, date (October 3-7), GHA, ddGHA, and UT. Contains magnitude change data for stars like Alpheratz, Ankaa, Schedir, Diphda, Achernar, Hamal, etc.

Table with columns for star name, SHA, and Dec. Lists stars such as Alpheratz, Ankaa, Schedir, Diphda, Achernar, Hamal, Polaris, Acamar, Menkar, etc.

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2025 - First Point of Aries / Selected Stars

2025 - First Point of Aries / Selected Stars

Table with columns for UT, day of the year, date (November 17-21), GHA, ddGHA, and UT for days 321 through 325 of 365.

Table with columns for UT, day of the year, date (November 22-26), GHA, ddGHA, and UT for days 326 through 330 of 365.

Table with columns for star name, SHA, Dec, SHA, and Dec, listing various stars and their coordinates.

Table with columns for star name, SHA, Dec, SHA, and Dec, listing various stars and their coordinates.

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2025 - First Point of Aries / Selected Stars

	day 356 of 365 <b>December 22</b>	day 357 of 365 <b>December 23</b>	day 358 of 365 <b>December 24</b>	day 359 of 365 <b>December 25</b>	day 360 of 365 <b>December 26</b>	
UT	GHA    ddGHA °    /    '	GHA    ddGHA °    /    '	GHA    ddGHA °    /    '	GHA    ddGHA °    /    '	GHA    ddGHA °    /    '	UT
<b>00</b>	90 48.3 +02.5	91 47.5 +02.4	92 46.6 +02.5	93 45.8 +02.4	94 44.9 +02.5	<b>00</b>
<b>01</b>	105 50.8 +02.5	106 49.9 +02.5	107 49.1 +02.5	108 48.2 +02.5	109 47.4 +02.4	<b>01</b>
<b>02</b>	120 53.3 +02.4	121 52.4 +02.5	122 51.6 +02.4	123 50.7 +02.5	124 49.8 +02.5	<b>02</b>
<b>03</b>	135 55.7 +02.5	136 54.9 +02.4	137 54.0 +02.5	138 53.2 +02.4	139 52.3 +02.5	<b>03</b>
<b>04</b>	150 58.2 +02.5	151 57.3 +02.5	152 56.5 +02.4	153 55.6 +02.5	154 54.8 +02.4	<b>04</b>
<b>05</b>	166 00.7 +02.4	166 59.8 +02.5	167 58.9 +02.5	168 58.1 +02.4	169 57.2 +02.5	<b>05</b>
<b>06</b>	181 03.1 +02.5	182 02.3 +02.4	183 01.4 +02.5	184 00.5 +02.5	184 59.7 +02.4	<b>06</b>
<b>07</b>	196 05.6 +02.5	197 04.7 +02.5	198 03.9 +02.4	199 03.0 +02.5	200 02.1 +02.5	<b>07</b>
<b>08</b>	211 08.1 +02.4	212 07.2 +02.5	213 06.3 +02.5	214 05.5 +02.4	215 04.6 +02.5	<b>08</b>
<b>09</b>	226 10.5 +02.5	227 09.7 +02.4	228 08.8 +02.5	229 07.9 +02.5	230 07.1 +02.4	<b>09</b>
<b>10</b>	241 13.0 +02.4	242 12.1 +02.5	243 11.3 +02.4	244 10.4 +02.5	245 09.5 +02.5	<b>10</b>
<b>11</b>	256 15.4 +02.5	257 14.6 +02.5	258 13.7 +02.5	259 12.9 +02.4	260 12.0 +02.5	<b>11</b>
<b>12</b>	271 17.9 +02.5	272 17.1 +02.4	273 16.2 +02.5	274 15.3 +02.5	275 14.5 +02.4	<b>12</b>
<b>13</b>	286 20.4 +02.4	287 19.5 +02.5	288 18.7 +02.4	289 17.8 +02.5	290 16.9 +02.5	<b>13</b>
<b>14</b>	301 22.8 +02.5	302 22.0 +02.4	303 21.1 +02.5	304 20.3 +02.4	305 19.4 +02.5	<b>14</b>
<b>15</b>	316 25.3 +02.5	317 24.4 +02.5	318 23.6 +02.4	319 22.7 +02.5	320 21.9 +02.4	<b>15</b>
<b>16</b>	331 27.8 +02.4	332 26.9 +02.5	333 26.0 +02.5	334 25.2 +02.5	335 24.3 +02.5	<b>16</b>
<b>17</b>	346 30.2 +02.5	347 29.4 +02.4	348 28.5 +02.5	349 27.7 +02.4	350 26.8 +02.5	<b>17</b>
<b>18</b>	1 32.7 +02.5	2 31.8 +02.5	3 31.0 +02.4	4 30.1 +02.5	5 29.3 +02.4	<b>18</b>
<b>19</b>	16 35.2 +02.4	17 34.3 +02.5	18 33.4 +02.5	19 32.6 +02.4	20 31.7 +02.5	<b>19</b>
<b>20</b>	31 37.6 +02.5	32 36.8 +02.4	33 35.9 +02.5	34 35.0 +02.5	35 34.2 +02.4	<b>20</b>
<b>21</b>	46 40.1 +02.5	47 39.2 +02.5	48 38.4 +02.4	49 37.5 +02.5	50 36.6 +02.5	<b>21</b>
<b>22</b>	61 42.6 +02.4	62 41.7 +02.5	63 40.8 +02.5	64 40.0 +02.4	65 39.1 +02.5	<b>22</b>
<b>23</b>	76 45.0 +02.5	77 44.2 +02.4	78 43.3 +02.5	79 42.4 +02.5	80 41.6 +02.4	<b>23</b>

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	SHA °    /    '	Dec °    /    '		SHA °    /    '	Dec °    /    '
Alpheratz	357 34.0	N 29 14.3	Gienah	175 42.7	S 17 41.1
Ankaa	353 06.4	S 42 09.9	Acruz	172 59.3	S 63 14.3
Schedir	349 30.1	N 56 41.1	Gacrux	171 50.9	S 57 15.2
Diphda	348 46.5	S 17 50.7	Alioth	166 12.5	N 55 48.8
Achernar	335 19.4	S 57 06.5	Spica	158 21.6	S 11 17.8
Hamal	327 50.2	N 23 35.3	Alkaid	152 51.6	N 49 10.7
Polaris	313 16.1	N 89 22.7	Hadar	148 35.2	S 60 29.6
Acamar	315 10.8	S 40 12.2	Menkent	147 56.6	S 36 29.4
Menkar	314 05.1	N 04 11.6	Arcturus	145 47.0	N 19 03.5
Mirfak	308 26.7	N 49 57.4	Rigel Kentaurus	139 36.6	S 60 56.5
Aldebaran	290 38.4	N 16 33.8	Zubenelgenubi	136 55.3	S 16 08.9
Capella	280 20.3	N 46 01.7	Kocab	137 20.6	N 74 02.6
Rigel	281 02.8	S 08 10.3	Alphecca	126 03.4	N 26 37.5
Bellatrix	278 21.7	N 06 22.4	Antares	112 15.3	S 26 29.3
Elnath	278 00.5	N 28 37.9	Atria	107 09.3	S 69 04.3
Alnilam	275 36.6	S 01 11.1	Sabik	102 02.2	S 15 45.5
Betelgeuze	270 50.9	N 07 24.7	Shaula	96 09.7	S 37 07.3
Canopus	263 51.5	S 52 42.5	Rasalhague	95 58.2	N 12 32.5
Sirius	258 25.0	S 16 44.6	Etamin	90 42.4	N 51 29.1
Adhara	255 04.9	S 29 00.4	Kaus Australis	83 31.9	S 34 22.3
Castor	245 55.6	N 31 49.8	Vega	80 33.2	N 38 48.3
Procyon	244 49.4	N 05 09.9	Nunki	75 47.2	S 26 15.9
Pollux	243 15.6	N 27 57.7	Albireo	67 03.8	N 28 00.9
Avior	234 13.9	S 59 35.4	Altair	61 59.7	N 08 56.1
Suhail	222 45.4	S 43 32.1	Peacock	53 05.0	S 56 39.2
Miaplacidus	221 37.3	S 69 49.2	Deneb	49 25.6	N 45 22.5
Alphard	217 46.8	S 08 46.3	Enif	33 38.2	N 09 59.7
Regulus	207 33.3	N 11 50.3	Alnair	27 32.2	S 46 50.2
Dubhe	193 39.7	N 61 36.3	Formalhaut	15 13.9	S 29 29.1
Denebola	182 23.9	N 14 25.5	Markab	13 29.2	N 15 20.8

2025 - First Point of Aries / Selected Stars

UT	day 361 of 365 <i>December 27</i>		day 362 of 365 <i>December 28</i>		day 363 of 365 <i>December 29</i>		day 364 of 365 <i>December 30</i>		day 365 of 365 <i>December 31</i>		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	95 44.0	+02.5	96 43.2	+02.4	97 42.3	+02.5	98 41.5	+02.4	99 40.6	+02.5	00
01	110 46.5	+02.5	111 45.6	+02.5	112 44.8	+02.4	113 43.9	+02.5	114 43.1	+02.4	01
02	125 49.0	+02.4	126 48.1	+02.5	127 47.2	+02.5	128 46.4	+02.4	129 45.5	+02.5	02
03	140 51.4	+02.5	141 50.6	+02.4	142 49.7	+02.5	143 48.8	+02.5	144 48.0	+02.4	03
04	155 53.9	+02.5	156 53.0	+02.5	157 52.2	+02.4	158 51.3	+02.5	159 50.4	+02.5	04
05	170 56.4	+02.4	171 55.5	+02.5	172 54.6	+02.5	173 53.8	+02.4	174 52.9	+02.5	05
06	185 58.8	+02.5	186 58.0	+02.4	187 57.1	+02.5	188 56.2	+02.5	189 55.4	+02.4	06
07	201 01.3	+02.5	202 00.4	+02.5	202 59.6	+02.4	203 58.7	+02.5	204 57.8	+02.5	07
08	216 03.8	+02.4	217 02.9	+02.5	218 02.0	+02.5	219 01.2	+02.4	220 00.3	+02.5	08
09	231 06.2	+02.5	232 05.4	+02.4	233 04.5	+02.5	234 03.6	+02.5	235 02.8	+02.4	09
10	246 08.7	+02.4	247 07.8	+02.5	248 07.0	+02.4	249 06.1	+02.5	250 05.2	+02.5	10
11	261 11.1	+02.5	262 10.3	+02.4	263 09.4	+02.5	264 08.6	+02.4	265 07.7	+02.5	11
12	276 13.6	+02.5	277 12.7	+02.5	278 11.9	+02.4	279 11.0	+02.5	280 10.2	+02.4	12
13	291 16.1	+02.4	292 15.2	+02.5	293 14.3	+02.5	294 13.5	+02.5	295 12.6	+02.5	13
14	306 18.5	+02.5	307 17.7	+02.4	308 16.8	+02.5	309 16.0	+02.4	310 15.1	+02.5	14
15	321 21.0	+02.5	322 20.1	+02.5	323 19.3	+02.4	324 18.4	+02.5	325 17.6	+02.4	15
16	336 23.5	+02.4	337 22.6	+02.5	338 21.7	+02.5	339 20.9	+02.4	340 20.0	+02.5	16
17	351 25.9	+02.5	352 25.1	+02.4	353 24.2	+02.5	354 23.3	+02.5	355 22.5	+02.4	17
18	6 28.4	+02.5	7 27.5	+02.5	8 26.7	+02.4	9 25.8	+02.5	10 24.9	+02.5	18
19	21 30.9	+02.4	22 30.0	+02.5	23 29.1	+02.5	24 28.3	+02.4	25 27.4	+02.5	19
20	36 33.3	+02.5	37 32.5	+02.4	38 31.6	+02.5	39 30.7	+02.5	40 29.9	+02.4	20
21	51 35.8	+02.4	52 34.9	+02.5	53 34.1	+02.4	54 33.2	+02.5	55 32.3	+02.5	21
22	66 38.2	+02.5	67 37.4	+02.4	68 36.5	+02.5	69 35.7	+02.4	70 34.8	+02.5	22
23	81 40.7	+02.5	82 39.8	+02.5	83 39.0	+02.5	84 38.1	+02.5	85 37.3	+02.4	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 34.0	N 29 14.3	Gienah	175 42.7	S 17 41.1
Ankaa	353 06.5	S 42 09.9	Acrux	172 59.2	S 63 14.3
Schedir	349 30.1	N 56 41.1	Gacrux	171 50.8	S 57 15.2
Diphda	348 46.5	S 17 50.7	Alioth	166 12.5	N 55 48.8
Achernar	335 19.4	S 57 06.5	Spica	158 21.5	S 11 17.8
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Rigel	281 02.8	S 08 10.3	Alphecca	126 03.4	N 26 37.5
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Elnath	278 00.5	N 28 37.9	Atria	107 09.3	S 69 04.3
Alnilam	275 36.6	S 01 11.1	Sabik	102 02.2	S 15 45.5
Betelgeuze	270 50.9	N 07 24.7	Shaula	96 09.7	S 37 07.3
Canopus	263 51.5	S 52 42.5	Rasalhague	95 58.2	N 12 32.5
Sirius	258 25.0	S 16 44.6	Etamin	90 42.4	N 51 29.0
Adhara	255 04.8	S 29 00.4	Kaus Australis	83 31.8	S 34 22.3
Castor	245 55.6	N 31 49.8	Vega	80 33.2	N 38 48.3
Procyon	244 49.4	N 05 09.9	Nunki	75 47.1	S 26 15.9
Pollux	243 15.6	N 27 57.7	Albireo	67 03.8	N 28 00.9
Avior	234 13.8	S 59 35.4	Altair	61 59.7	N 08 56.1
Suhail	222 45.4	S 43 32.1	Peacock	53 05.0	S 56 39.2
Miaplacidus	221 37.2	S 69 49.2	Deneb	49 25.7	N 45 22.5
Alphard	217 46.7	S 08 46.3	Enif	33 38.2	N 09 59.7
Regulus	207 33.3	N 11 50.3	Alnair	27 32.2	S 46 50.2
Dubhe	193 39.7	N 61 36.3	Formalhaut	15 13.9	S 29 29.1
Denebola	182 23.9	N 14 25.5	Markab	13 29.2	N 15 20.8

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**Polaris (Pole Star) Tables, 2025**  
For determining Latitude from Sextant Altitude and for Azimuth

LHA ARIES	000° - 009°	010° - 019°	020° - 029°	030° - 039°	040° - 049°	050° - 059°	060° - 069°	070° - 079°	080° - 089°	090° - 099°	100° - 109°	110° - 119°
	a0	a0	a0	a0	a0	a0	a0	a0	a0	a0	a0	a0
<b>0</b>	0 32.9	0 28.6	0 25.2	0 22.8	0 21.5	0 21.4	0 22.4	0 24.5	0 27.7	0 31.8	0 36.8	0 42.4
<b>1</b>	0 32.4	0 28.2	0 24.9	0 22.6	0 21.4	0 21.4	0 22.6	0 24.8	0 28.1	0 32.3	0 37.3	0 43.0
<b>2</b>	0 31.9	0 27.8	0 24.6	0 22.4	0 21.4	0 21.5	0 22.7	0 25.1	0 28.4	0 32.7	0 37.8	0 43.6
<b>3</b>	0 31.5	0 27.4	0 24.3	0 22.3	0 21.4	0 21.6	0 22.9	0 25.4	0 28.8	0 33.2	0 38.4	0 44.2
<b>4</b>	0 31.0	0 27.1	0 24.1	0 22.1	0 21.3	0 21.7	0 23.1	0 25.7	0 29.2	0 33.7	0 38.9	0 44.8
<b>5</b>	0 30.6	0 26.7	0 23.8	0 22.0	0 21.3	0 21.7	0 23.3	0 26.0	0 29.6	0 34.2	0 39.5	0 45.4
<b>6</b>	0 30.2	0 26.4	0 23.6	0 21.9	0 21.3	0 21.9	0 23.5	0 26.3	0 30.1	0 34.7	0 40.1	0 46.0
<b>7</b>	0 29.8	0 26.1	0 23.4	0 21.8	0 21.3	0 22.0	0 23.8	0 26.6	0 30.5	0 35.2	0 40.6	0 46.6
<b>8</b>	0 29.3	0 25.8	0 23.2	0 21.7	0 21.3	0 22.1	0 24.0	0 27.0	0 30.9	0 35.7	0 41.2	0 47.3
<b>9</b>	0 28.9	0 25.4	0 23.0	0 21.6	0 21.3	0 22.2	0 24.3	0 27.3	0 31.4	0 36.2	0 41.8	0 47.9
<b>Lat.</b>	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1
<b>10</b>	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8
<b>20</b>	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9
<b>30</b>	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9
<b>40</b>	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.9	0.9
<b>45</b>	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.8	0.9	1.0
<b>50</b>	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.9	0.9	1.0
<b>55</b>	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.0
<b>60</b>	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1
<b>62</b>	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1
<b>64</b>	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.2
<b>66</b>	0.5	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.2
<b>68</b>	0.5	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.2
<b>70</b>	0.5	0.4	0.4	0.4	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3
<b>Month</b>	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2
<b>Jan</b>	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.3
<b>Feb</b>	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.5
<b>Mar</b>	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.6
<b>Apr</b>	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
<b>May</b>	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8
<b>Jun</b>	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8
<b>Jul</b>	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6
<b>Aug</b>	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.5
<b>Sep</b>	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
<b>Oct</b>	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
<b>Nov</b>	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
<b>Dec</b>	0.8	0.8	0.8	0.7	0.6	0.6	0.5	0.4	0.3	0.2	0.1	0.1
<b>Lat.</b>	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo
<b>10</b>	0.4	0.3	0.2	0.1	0.0	359.9	359.8	359.7	359.6	359.5	359.5	359.4
<b>20</b>	0.4	0.3	0.2	0.1	0.0	359.9	359.8	359.7	359.6	359.5	359.4	359.4
<b>30</b>	0.5	0.4	0.3	0.1	0.0	359.9	359.8	359.6	359.5	359.5	359.4	359.3
<b>40</b>	0.5	0.4	0.3	0.2	0.0	359.9	359.7	359.6	359.5	359.4	359.3	359.2
<b>45</b>	0.6	0.5	0.3	0.2	0.0	359.9	359.7	359.6	359.4	359.3	359.2	359.2
<b>50</b>	0.6	0.5	0.4	0.2	0.0	359.8	359.7	359.5	359.4	359.3	359.2	359.1
<b>55</b>	0.7	0.6	0.4	0.2	0.0	359.8	359.6	359.5	359.3	359.2	359.1	359.0
<b>60</b>	0.8	0.7	0.5	0.2	0.0	359.8	359.6	359.4	359.2	359.0	358.9	358.8
<b>62</b>	0.9	0.7	0.5	0.3	0.0	359.8	359.6	359.3	359.1	359.0	358.8	358.7
<b>64</b>	1.0	0.8	0.5	0.3	0.0	359.8	359.5	359.3	359.1	358.9	358.8	358.7
<b>66</b>	1.0	0.8	0.6	0.3	0.0	359.8	359.5	359.2	359.0	358.8	358.7	358.5
<b>68</b>	1.1	0.9	0.6	0.3	0.0	359.7	359.4	359.2	358.9	358.7	358.5	358.4
<b>70</b>	1.2	1.0	0.7	0.4	0.0	359.7	359.4	359.1	358.8	358.6	358.4	358.3

Latitude = Apparent Altitude (corrected for refraction and dip) - 1° + a0 + a1 + a2

To determine Latitude, the table is entered with LHA Aries, which is obtained by addition of the observer's Longitude and the GHA Aries from the daily pages of this Almanac. The value of LHA Aries determines which column of the Polaris Tables to be used. Each column refers to a range of 10° of LHA. The value a0 is taken with mental interpolation (taking into account the fractional part of LHA Aries), from the upper table with the units of LHA Aries in degrees as argument. The values of a1 and a2 are taken, without interpolation, from the second and third table with arguments Latitude and Month respectively. The correction terms a0, a1 and a2 are always positive. The final table gives the Azimuth of Polaris.

