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Nautical Almanac (Selected Stars)

2023

Star Maps

The Nautical Almanac 2023 (Selected Stars)

Polaris Tables 2023

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 Wed Oct 19 12:12:26 2022

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 : 69.2 s	Apr : 69.2 s	Jul : 69.1 s	Oct : 69.1 s
Feb : 69.2 s	May : 69.2 s	Aug : 69.1 s	Nov : 69.1 s
Mar : 69.2 s	Jun : 69.2 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/>"

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	mu_Dec	prllx	rad.vel.
	h	m	s	°	'	["/yr]	["/yr]	["]	[km/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
Acruz	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

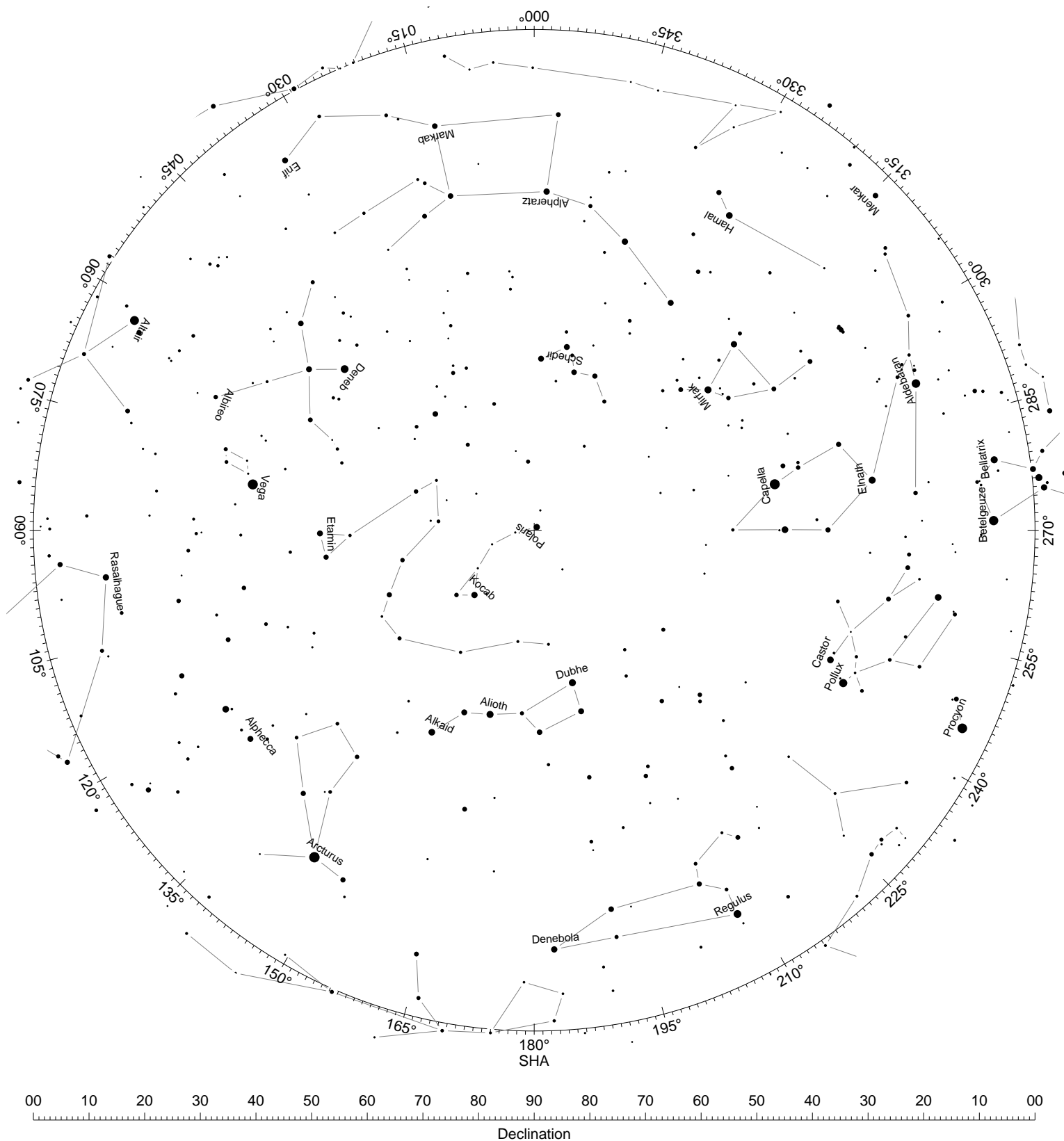
Position of the Stars on the local hemisphere

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.

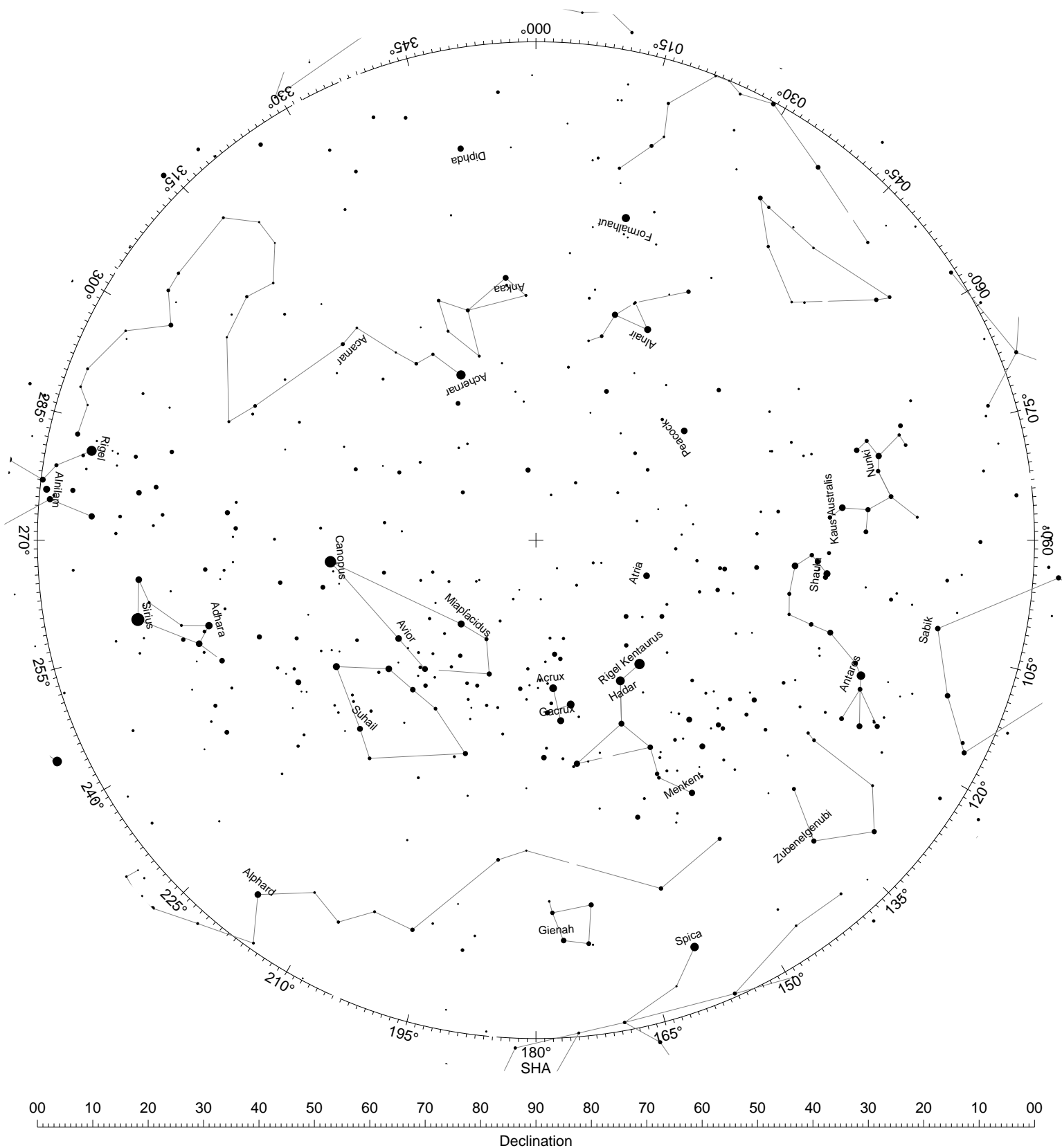
The following eight maps show the star constellations on the local hemisphere for locations on the Equator. These maps can be used for observations at locations in lower latitudes.

Map of bright Stars of the Northern Celestial Sphere



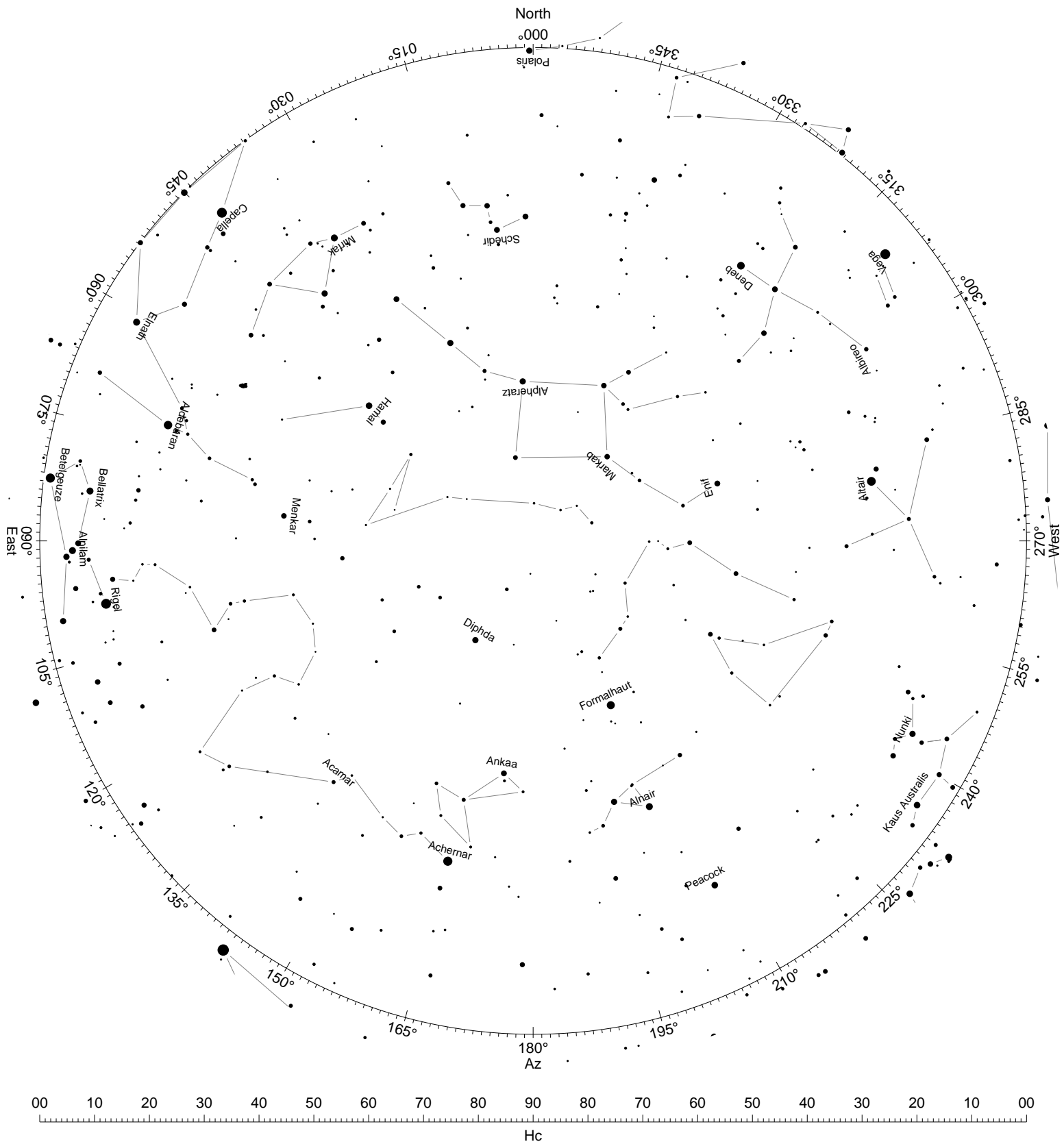
The map is centered on the celestial north pole and shows the brightest stars (up to magnitude 4.5) of the northern celestial hemisphere. The circle of constant declination is shown at 00° (Celestial Equator). The Sidereal Hour Angle of a specific star can be directly read from the SHA scale plotted 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.

Map of bright Stars of the Southern Celestial Sphere



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.

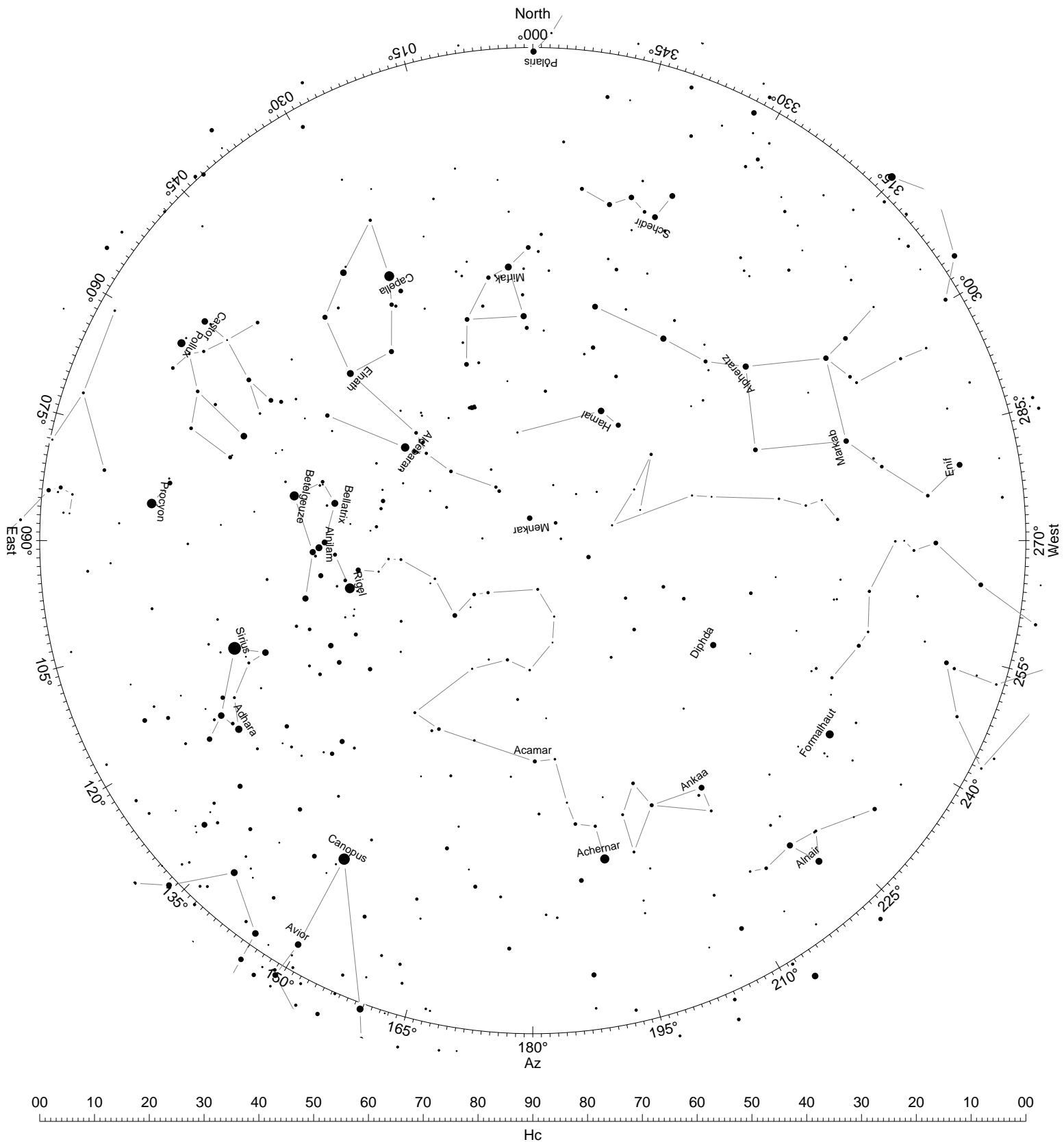
Horizontal-Coordinate-System Map of bright Stars - Part I



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.

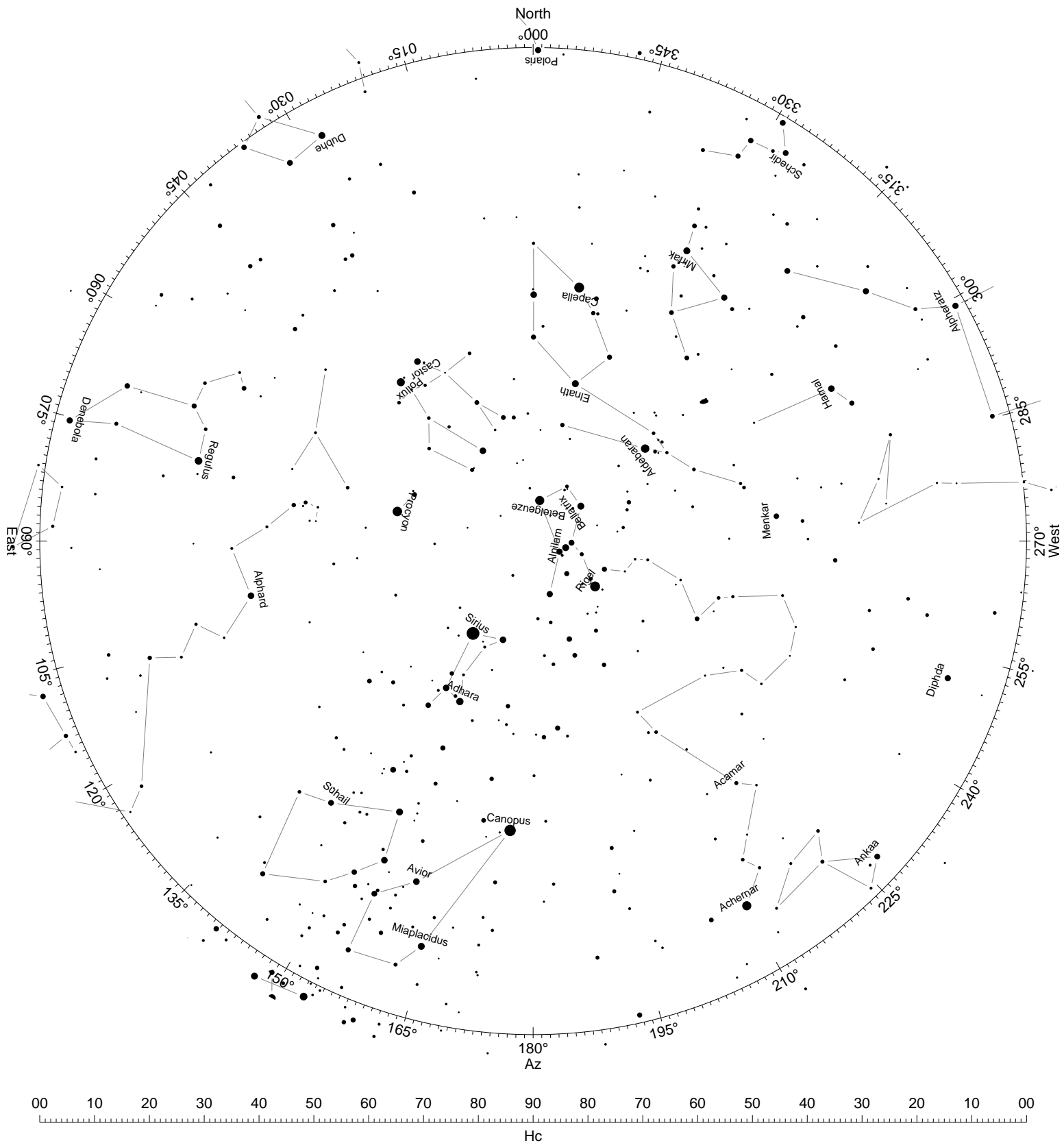
Each of these maps is valid for a location on the equator at a specific time of the day.

Horizontal-Coordinate-System Map of bright Stars - Part 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.

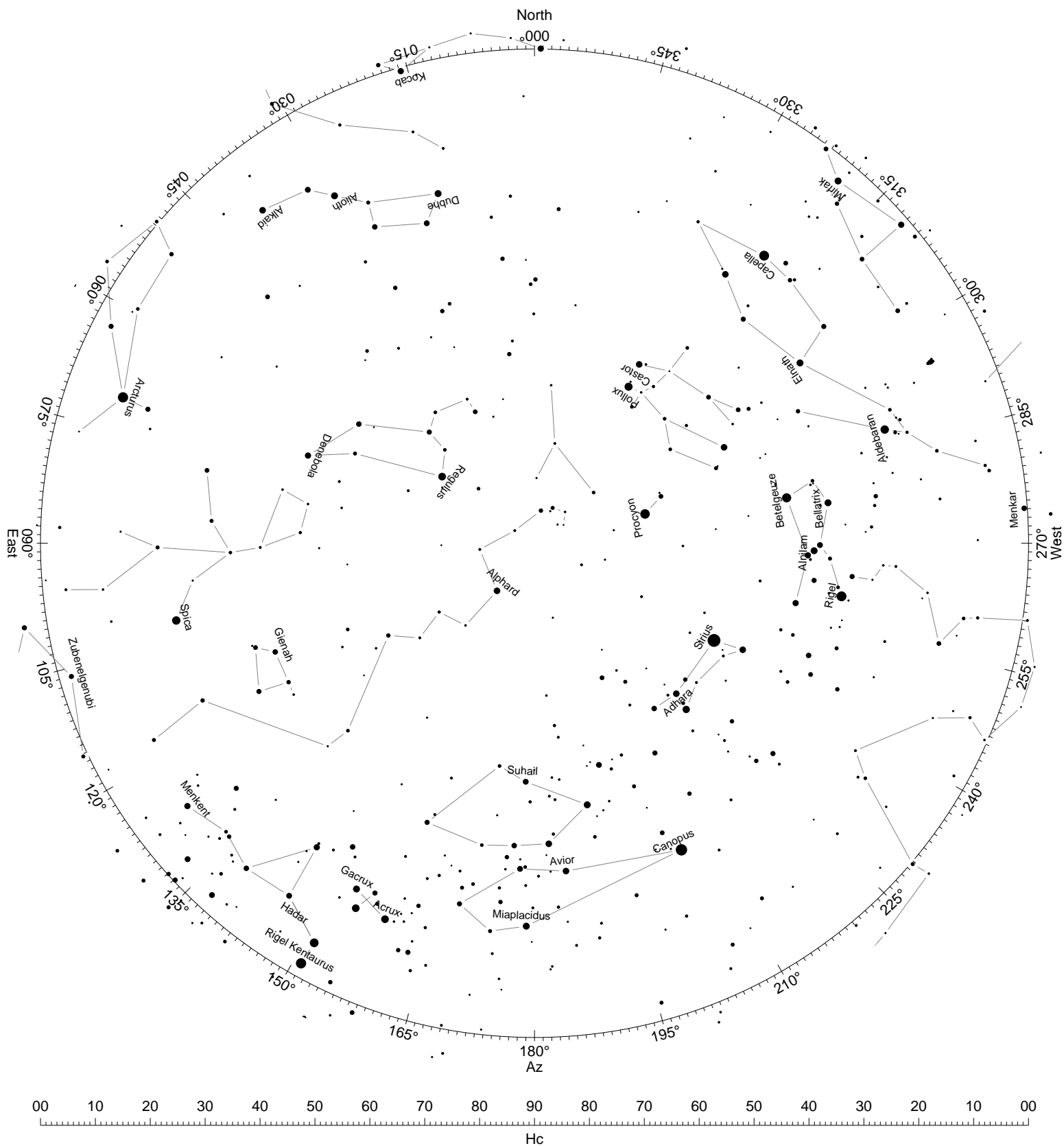
Horizontal-Coordinate-System Map of bright Stars - Part III



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.

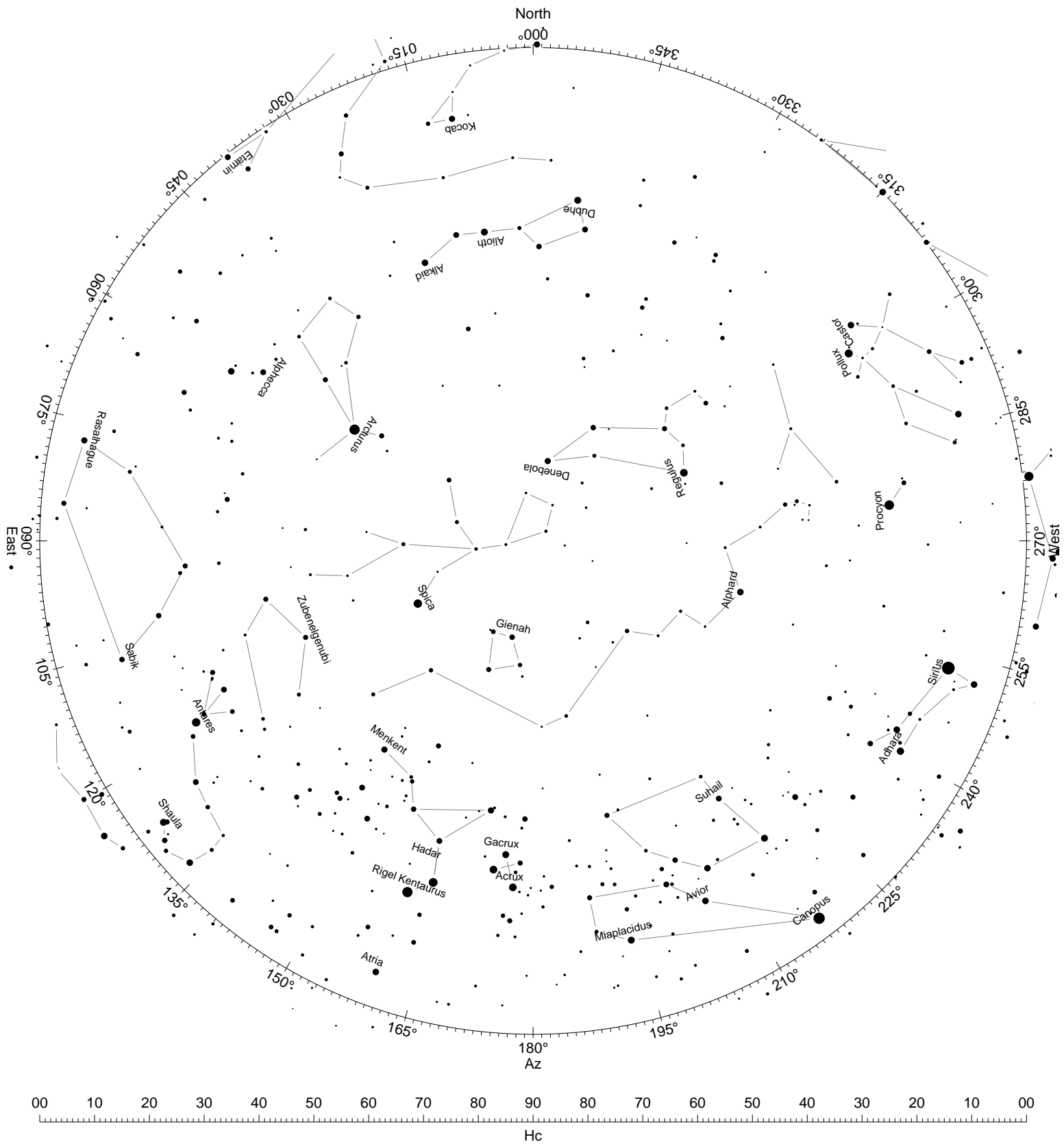
Each of these maps is valid for a location on the equator at a specific time of the day.

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



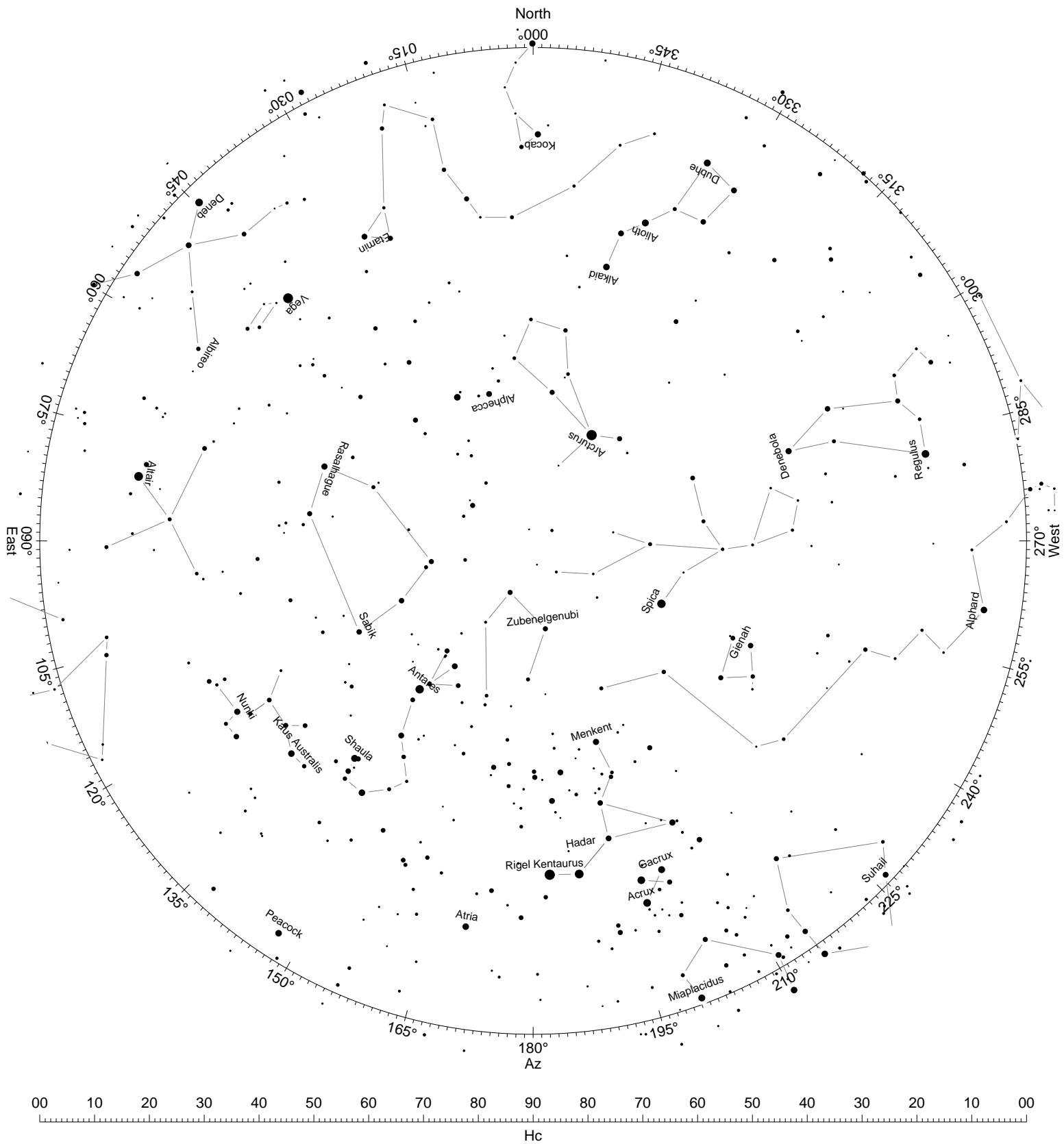
The Horizontal-Coordinate-System map shows the brightest stars (up to magnitude 4.5) of the local hemisphere for a location on the Equator. The stars are plotted with their Altitude (Hc) and Azimuth (Az) coordinates. The Azimuth scale is plotted on the circle of 0°-Altitude (local horizon). The Azimuth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

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



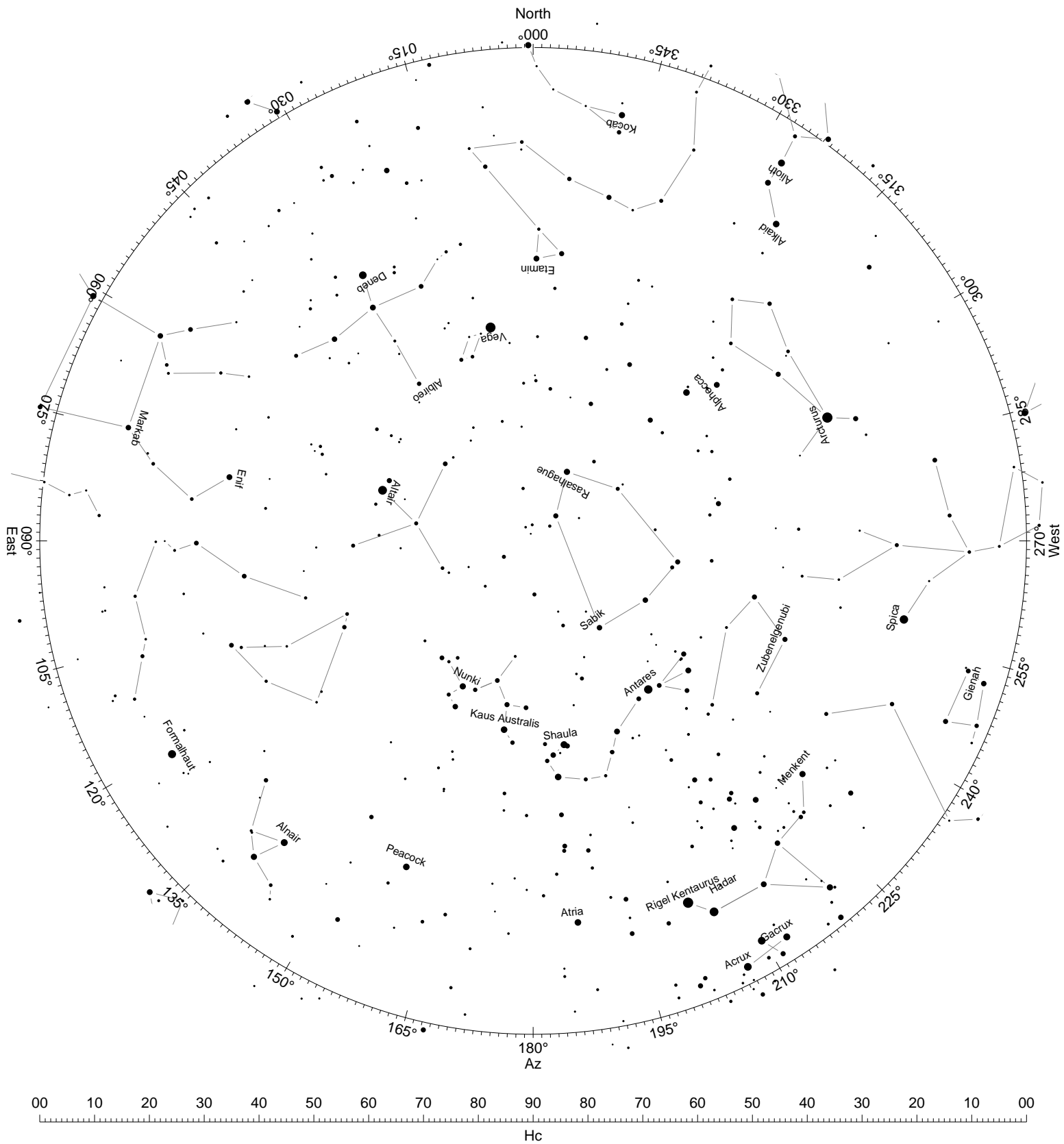
The Horizontal-Coordinate-System map shows the brightest stars (up to magnitude 4.5) of the local hemisphere for a location on the Equator. The stars are plotted with their Altitude (Hc) and Azimuth (Az) coordinates. The Azimuth scale is plotted on the circle of 0°-Altitude (local horizon). The Azimuth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



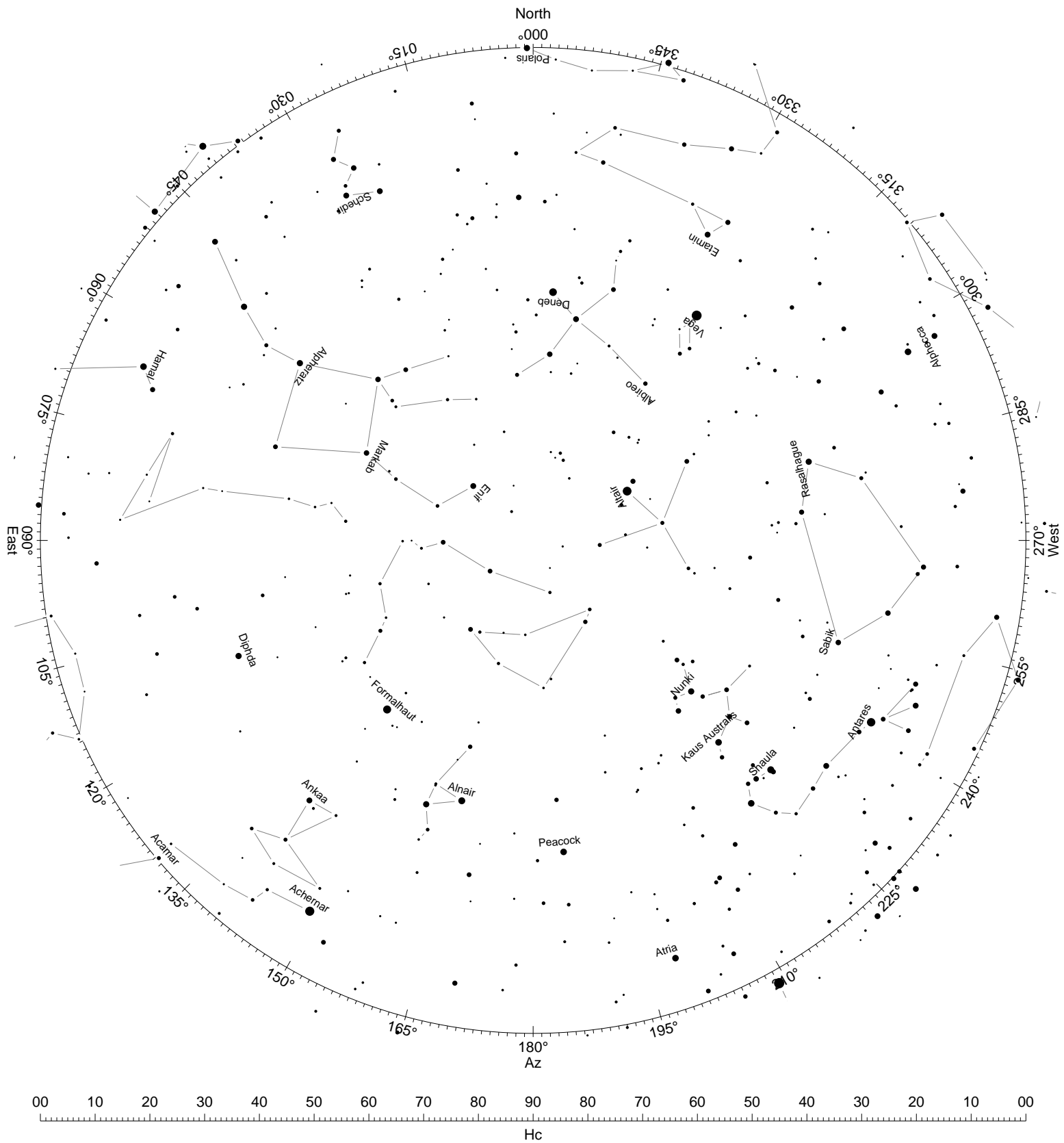
The Horizontal-Coordinate-System map shows the brightest stars (up to magnitude 4.5) of the local hemisphere for a location on the Equator. The stars are plotted with their Altitude (Hc) and Azimuth (Az) coordinates. The Azimuth scale is plotted on the circle of 0°-Altitude (local horizon). The Azimuth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



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 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.

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]

2023 - First Point of Aries / Selected Stars

UT	day 1 of 365		day 2 of 365		day 3 of 365		day 4 of 365		day 5 of 365		UT
	<i>January 1</i>		<i>January 2</i>		<i>January 3</i>		<i>January 4</i>		<i>January 5</i>		
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	100	23.3 +02.5	101	22.5 +02.4	102	21.6 +02.5	103	20.7 +02.5	104	19.9 +02.4	00
01	115	25.8 +02.4	116	24.9 +02.5	117	24.1 +02.4	118	23.2 +02.5	119	22.3 +02.5	01
02	130	28.2 +02.5	131	27.4 +02.5	132	26.5 +02.5	133	25.7 +02.4	134	24.8 +02.5	02
03	145	30.7 +02.5	146	29.9 +02.4	147	29.0 +02.5	148	28.1 +02.5	149	27.3 +02.4	03
04	160	33.2 +02.4	161	32.3 +02.5	162	31.5 +02.4	163	30.6 +02.5	164	29.7 +02.5	04
05	175	35.6 +02.5	176	34.8 +02.4	177	33.9 +02.5	178	33.1 +02.4	179	32.2 +02.5	05
06	190	38.1 +02.5	191	37.2 +02.5	192	36.4 +02.4	193	35.5 +02.5	194	34.7 +02.4	06
07	205	40.6 +02.4	206	39.7 +02.5	207	38.8 +02.5	208	38.0 +02.5	209	37.1 +02.5	07
08	220	43.0 +02.5	221	42.2 +02.4	222	41.3 +02.5	223	40.5 +02.4	224	39.6 +02.5	08
09	235	45.5 +02.5	236	44.6 +02.5	237	43.8 +02.4	238	42.9 +02.5	239	42.1 +02.4	09
10	250	48.0 +02.4	251	47.1 +02.5	252	46.2 +02.5	253	45.4 +02.4	254	44.5 +02.5	10
11	265	50.4 +02.5	266	49.6 +02.4	267	48.7 +02.5	268	47.8 +02.5	269	47.0 +02.4	11
12	280	52.9 +02.5	281	52.0 +02.5	282	51.2 +02.4	283	50.3 +02.5	284	49.4 +02.5	12
13	295	55.4 +02.4	296	54.5 +02.5	297	53.6 +02.5	298	52.8 +02.4	299	51.9 +02.5	13
14	310	57.8 +02.5	311	57.0 +02.4	312	56.1 +02.5	313	55.2 +02.5	314	54.4 +02.4	14
15	326	00.3 +02.4	326	59.4 +02.5	327	58.6 +02.4	328	57.7 +02.5	329	56.8 +02.5	15
16	341	02.7 +02.5	342	01.9 +02.4	343	01.0 +02.5	344	00.2 +02.4	344	59.3 +02.5	16
17	356	05.2 +02.5	357	04.3 +02.5	358	03.5 +02.5	359	02.6 +02.5	0	01.8 +02.4	17
18	11	07.7 +02.4	12	06.8 +02.5	13	06.0 +02.4	14	05.1 +02.5	15	04.2 +02.5	18
19	26	10.1 +02.5	27	09.3 +02.4	28	08.4 +02.5	29	07.6 +02.4	30	06.7 +02.5	19
20	41	12.6 +02.5	42	11.7 +02.5	43	10.9 +02.4	44	10.0 +02.5	45	09.2 +02.4	20
21	56	15.1 +02.4	57	14.2 +02.5	58	13.3 +02.5	59	12.5 +02.5	60	11.6 +02.5	21
22	71	17.5 +02.5	72	16.7 +02.4	73	15.8 +02.5	74	15.0 +02.4	75	14.1 +02.5	22
23	86	20.0 +02.5	87	19.1 +02.5	88	18.3 +02.4	89	17.4 +02.5	90	16.6 +02.4	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 36.6	N 29 13.2	Gienah	175 45.2	S 17 40.0
Ankaa	353 08.9	S 42 11.0	Acrux	173 01.9	S 63 13.2
Schedir	349 33.0	N 56 40.0	Gacrux	171 53.5	S 57 14.1
Diphda	348 49.1	S 17 51.8	Alioth	166 14.6	N 55 49.9
Achernar	335 21.3	S 57 07.5	Spica	158 24.1	S 11 16.8
Hamal	327 53.0	N 23 34.4	Alkaid	152 53.4	N 49 11.7
Polaris	314 32.9	N 89 21.9	Hadar	148 38.6	S 60 28.7
Acamar	315 12.8	S 40 13.0	Menkent	147 59.5	S 36 28.5
Menkar	314 07.7	N 04 10.8	Arcturus	145 49.2	N 19 04.4
Mirfak	308 30.3	N 49 56.7	Rigel Kentaurus	139 40.3	S 60 55.7
Aldebaran	290 41.3	N 16 33.4	Zubenelgenubi	136 58.0	S 16 08.1
Capella	280 23.9	N 46 01.5	Kocab	137 20.4	N 74 03.4
Rigel	281 05.2	S 08 10.6	Alphecca	126 05.5	N 26 38.2
Bellatrix	278 24.3	N 06 22.2	Antares	112 18.3	S 26 28.9
Elnath	278 03.6	N 28 37.7	Atria	107 14.5	S 69 03.9
Alnilam	275 39.1	S 01 11.3	Sabik	102 05.0	S 15 45.2
Betelgeuze	270 53.6	N 07 24.7	Shaula	96 13.1	S 37 07.2
Canopus	263 52.6	S 52 42.5	Rasalhague	96 00.5	N 12 32.6
Sirius	258 27.2	S 16 44.4	Etamin	90 43.5	N 51 29.1
Adhara	255 06.8	S 29 00.2	Kaus Australis	83 35.1	S 34 22.4
Castor	245 58.7	N 31 50.3	Vega	80 34.9	N 38 48.1
Procyon	244 52.0	N 05 10.3	Nunki	75 50.2	S 26 16.1
Pollux	243 18.6	N 27 58.2	Albireo	67 05.8	N 28 00.4
Avior	234 14.8	S 59 34.8	Altair	62 02.1	N 08 55.5
Suhail	222 47.1	S 43 31.3	Peacock	53 08.9	S 56 39.8
Miaplacidus	221 37.7	S 69 48.5	Deneb	49 27.4	N 45 21.8
Alphard	217 49.1	S 08 45.4	Enif	33 40.7	N 09 58.8
Regulus	207 35.9	N 11 51.3	Alnair	27 35.4	S 46 51.2
Dubhe	193 42.7	N 61 37.4	Formalhaut	15 16.7	S 29 30.2
Denebola	182 26.4	N 14 26.6	Markab	13 31.7	N 15 19.7

2023 - First Point of Aries / Selected Stars

UT	day 6 of 365		day 7 of 365		day 8 of 365		day 9 of 365		day 10 of 365		UT					
	<i>January 6</i>		<i>January 7</i>		<i>January 8</i>		<i>January 9</i>		<i>January 10</i>							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	105	19.0	+02.5	106	18.2	+02.4	107	17.3	+02.5	108	16.4	+02.5	109	15.6	+02.4	00
01	120	21.5	+02.4	121	20.6	+02.5	122	19.8	+02.4	123	18.9	+02.5	124	18.0	+02.5	01
02	135	23.9	+02.5	136	23.1	+02.5	137	22.2	+02.5	138	21.4	+02.4	139	20.5	+02.5	02
03	150	26.4	+02.5	151	25.6	+02.4	152	24.7	+02.5	153	23.8	+02.5	154	23.0	+02.4	03
04	165	28.9	+02.4	166	28.0	+02.5	167	27.2	+02.4	168	26.3	+02.5	169	25.4	+02.5	04
05	180	31.3	+02.5	181	30.5	+02.4	182	29.6	+02.5	183	28.8	+02.4	184	27.9	+02.5	05
06	195	33.8	+02.5	196	32.9	+02.5	197	32.1	+02.5	198	31.2	+02.5	199	30.4	+02.4	06
07	210	36.3	+02.4	211	35.4	+02.5	212	34.6	+02.4	213	33.7	+02.5	214	32.8	+02.5	07
08	225	38.7	+02.5	226	37.9	+02.4	227	37.0	+02.5	228	36.2	+02.4	229	35.3	+02.5	08
09	240	41.2	+02.5	241	40.3	+02.5	242	39.5	+02.4	243	38.6	+02.5	244	37.8	+02.4	09
10	255	43.7	+02.4	256	42.8	+02.5	257	41.9	+02.5	258	41.1	+02.4	259	40.2	+02.5	10
11	270	46.1	+02.5	271	45.3	+02.4	272	44.4	+02.5	273	43.5	+02.5	274	42.7	+02.5	11
12	285	48.6	+02.5	286	47.7	+02.5	287	46.9	+02.4	288	46.0	+02.5	289	45.2	+02.4	12
13	300	51.1	+02.4	301	50.2	+02.5	302	49.3	+02.5	303	48.5	+02.4	304	47.6	+02.5	13
14	315	53.5	+02.5	316	52.7	+02.4	317	51.8	+02.5	318	50.9	+02.5	319	50.1	+02.4	14
15	330	56.0	+02.4	331	55.1	+02.5	332	54.3	+02.4	333	53.4	+02.5	334	52.5	+02.5	15
16	345	58.4	+02.5	346	57.6	+02.5	347	56.7	+02.5	348	55.9	+02.4	349	55.0	+02.5	16
17	1	00.9	+02.5	2	00.1	+02.4	2	59.2	+02.5	3	58.3	+02.5	4	57.5	+02.4	17
18	16	03.4	+02.4	17	02.5	+02.5	18	01.7	+02.4	19	00.8	+02.5	19	59.9	+02.5	18
19	31	05.8	+02.5	32	05.0	+02.4	33	04.1	+02.5	34	03.3	+02.4	35	02.4	+02.5	19
20	46	08.3	+02.5	47	07.4	+02.5	48	06.6	+02.4	49	05.7	+02.5	50	04.9	+02.4	20
21	61	10.8	+02.4	62	09.9	+02.5	63	09.0	+02.5	64	08.2	+02.5	65	07.3	+02.5	21
22	76	13.2	+02.5	77	12.4	+02.4	78	11.5	+02.5	79	10.7	+02.4	80	09.8	+02.5	22
23	91	15.7	+02.5	92	14.8	+02.5	93	14.0	+02.4	94	13.1	+02.5	95	12.3	+02.4	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.6	N 29	13.2	Gienah	175	45.2	S 17	40.1
Ankaa	353	09.0	S 42	11.0	Acrux	173	01.8	S 63	13.2
Schedir	349	33.0	N 56	40.0	Gacrux	171	53.4	S 57	14.1
Diphda	348	49.1	S 17	51.8	Alioth	166	14.5	N 55	49.9
Achernar	335	21.4	S 57	07.5	Spica	158	24.1	S 11	16.8
Hamal	327	53.0	N 23	34.4	Alkaid	152	53.4	N 49	11.7
Polaris	314	34.4	N 89	21.9	Hadar	148	38.5	S 60	28.7
Acamar	315	12.8	S 40	13.0	Menkent	147	59.4	S 36	28.5
Menkar	314	07.7	N 04	10.8	Arcturus	145	49.2	N 19	04.4
Mirfak	308	30.3	N 49	56.7	Rigel Kentaurus	139	40.2	S 60	55.7
Aldebaran	290	41.3	N 16	33.4	Zubenelgenubi	136	58.0	S 16	08.1
Capella	280	23.9	N 46	01.5	Kocab	137	20.4	N 74	03.4
Rigel	281	05.2	S 08	10.6	Alphecca	126	05.4	N 26	38.1
Bellatrix	278	24.3	N 06	22.2	Antares	112	18.3	S 26	28.9
Elnath	278	03.6	N 28	37.7	Atria	107	14.4	S 69	03.9
Alnilam	275	39.1	S 01	11.3	Sabik	102	05.0	S 15	45.2
Betelgeuze	270	53.6	N 07	24.6	Shaula	96	13.0	S 37	07.1
Canopus	263	52.6	S 52	42.5	Rasalhague	96	00.4	N 12	32.6
Sirius	258	27.2	S 16	44.4	Etamin	90	43.5	N 51	29.0
Adhara	255	06.8	S 29	00.2	Kaus Australis	83	35.1	S 34	22.4
Castor	245	58.7	N 31	50.3	Vega	80	34.9	N 38	48.1
Procyon	244	52.0	N 05	10.3	Nunki	75	50.2	S 26	16.1
Pollux	243	18.6	N 27	58.2	Albireo	67	05.8	N 28	00.4
Avior	234	14.8	S 59	34.9	Altair	62	02.1	N 08	55.5
Suhail	222	47.1	S 43	31.4	Peacock	53	08.9	S 56	39.8
Miaplacidus	221	37.6	S 69	48.5	Deneb	49	27.4	N 45	21.8
Alphard	217	49.1	S 08	45.5	Enif	33	40.7	N 09	58.8
Regulus	207	35.9	N 11	51.3	Alnair	27	35.4	S 46	51.2
Dubhe	193	42.6	N 61	37.4	Formalhaut	15	16.7	S 29	30.2
Denebola	182	26.4	N 14	26.6	Markab	13	31.7	N 15	19.7

2023 - First Point of Aries / Selected Stars

UT	day 11 of 365			day 12 of 365			day 13 of 365			day 14 of 365			day 15 of 365			UT		
	<i>January 11</i>			<i>January 12</i>			<i>January 13</i>			<i>January 14</i>			<i>January 15</i>					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	110	14.7	+02.5	111	13.9	+02.4	112	13.0	+02.5	113	12.1	+02.5	114	11.3	+02.4	00		
01	125	17.2	+02.4	126	16.3	+02.5	127	15.5	+02.4	128	14.6	+02.5	129	13.7	+02.5	01		
02	140	19.6	+02.5	141	18.8	+02.5	142	17.9	+02.5	143	17.1	+02.4	144	16.2	+02.5	02		
03	155	22.1	+02.5	156	21.3	+02.4	157	20.4	+02.5	158	19.5	+02.5	159	18.7	+02.4	03		
04	170	24.6	+02.4	171	23.7	+02.5	172	22.9	+02.4	173	22.0	+02.5	174	21.1	+02.5	04		
05	185	27.0	+02.5	186	26.2	+02.4	187	25.3	+02.5	188	24.5	+02.4	189	23.6	+02.5	05		
06	200	29.5	+02.5	201	28.6	+02.5	202	27.8	+02.4	203	26.9	+02.5	204	26.1	+02.4	06		
07	215	32.0	+02.4	216	31.1	+02.5	217	30.2	+02.5	218	29.4	+02.4	219	28.5	+02.5	07		
08	230	34.4	+02.5	231	33.6	+02.4	232	32.7	+02.5	233	31.8	+02.5	234	31.0	+02.4	08		
09	245	36.9	+02.5	246	36.0	+02.5	247	35.2	+02.4	248	34.3	+02.5	249	33.4	+02.5	09		
10	260	39.4	+02.4	261	38.5	+02.5	262	37.6	+02.5	263	36.8	+02.4	264	35.9	+02.5	10		
11	275	41.8	+02.5	276	41.0	+02.4	277	40.1	+02.5	278	39.2	+02.5	279	38.4	+02.4	11		
12	290	44.3	+02.5	291	43.4	+02.5	292	42.6	+02.4	293	41.7	+02.5	294	40.8	+02.5	12		
13	305	46.8	+02.4	306	45.9	+02.5	307	45.0	+02.5	308	44.2	+02.4	309	43.3	+02.5	13		
14	320	49.2	+02.5	321	48.4	+02.4	322	47.5	+02.5	323	46.6	+02.5	324	45.8	+02.4	14		
15	335	51.7	+02.4	336	50.8	+02.5	337	50.0	+02.4	338	49.1	+02.5	339	48.2	+02.5	15		
16	350	54.1	+02.5	351	53.3	+02.4	352	52.4	+02.5	353	51.6	+02.4	354	50.7	+02.5	16		
17	5	56.6	+02.5	6	55.7	+02.5	7	54.9	+02.4	8	54.0	+02.5	9	53.2	+02.4	17		
18	20	59.1	+02.4	21	58.2	+02.5	22	57.3	+02.5	23	56.5	+02.5	24	55.6	+02.5	18		
19	36	01.5	+02.5	37	00.7	+02.4	37	59.8	+02.5	38	59.0	+02.4	39	58.1	+02.5	19		
20	51	04.0	+02.5	52	03.1	+02.5	53	02.3	+02.4	54	01.4	+02.5	55	00.6	+02.4	20		
21	66	06.5	+02.4	67	05.6	+02.5	68	04.7	+02.5	69	03.9	+02.4	70	03.0	+02.5	21		
22	81	08.9	+02.5	82	08.1	+02.4	83	07.2	+02.5	84	06.3	+02.5	85	05.5	+02.4	22		
23	96	11.4	+02.5	97	10.5	+02.5	98	09.7	+02.4	99	08.8	+02.5	100	07.9	+02.5	23		

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.6	N 29	13.2	Gienah	175	45.1	S 17	40.1
Ankaa	353	09.0	S 42	11.0	Acrux	173	01.7	S 63	13.3
Schedir	349	33.0	N 56	40.0	Gacrux	171	53.4	S 57	14.1
Diphda	348	49.1	S 17	51.8	Alioth	166	14.5	N 55	49.8
Achernar	335	21.4	S 57	07.5	Spica	158	24.0	S 11	16.8
Hamal	327	53.0	N 23	34.4	Alkaid	152	53.3	N 49	11.7
Polaris	314	36.5	N 89	21.9	Hadar	148	38.5	S 60	28.7
Acamar	315	12.8	S 40	13.0	Menkent	147	59.3	S 36	28.5
Menkar	314	07.7	N 04	10.8	Arcturus	145	49.1	N 19	04.4
Mirfak	308	30.3	N 49	56.7	Rigel Kentaurus	139	40.1	S 60	55.7
Aldebaran	290	41.3	N 16	33.4	Zubenelgenubi	136	57.9	S 16	08.1
Capella	280	23.9	N 46	01.5	Kocab	137	20.2	N 74	03.3
Rigel	281	05.2	S 08	10.6	Alphecca	126	05.4	N 26	38.1
Bellatrix	278	24.3	N 06	22.2	Antares	112	18.3	S 26	28.9
Elnath	278	03.6	N 28	37.7	Atria	107	14.3	S 69	03.9
Alnilam	275	39.1	S 01	11.3	Sabik	102	05.0	S 15	45.2
Betelgeuze	270	53.6	N 07	24.6	Shaula	96	13.0	S 37	07.1
Canopus	263	52.6	S 52	42.5	Rasalhague	96	00.4	N 12	32.6
Sirius	258	27.1	S 16	44.4	Etamin	90	43.5	N 51	29.0
Adhara	255	06.8	S 29	00.2	Kaus Australis	83	35.1	S 34	22.4
Castor	245	58.7	N 31	50.3	Vega	80	34.8	N 38	48.1
Procyon	244	52.0	N 05	10.3	Nunki	75	50.2	S 26	16.1
Pollux	243	18.6	N 27	58.2	Albireo	67	05.8	N 28	00.4
Avior	234	14.7	S 59	34.9	Altair	62	02.1	N 08	55.5
Suhail	222	47.1	S 43	31.4	Peacock	53	08.9	S 56	39.8
Miaplacidus	221	37.6	S 69	48.5	Deneb	49	27.4	N 45	21.7
Alphard	217	49.1	S 08	45.5	Enif	33	40.7	N 09	58.8
Regulus	207	35.8	N 11	51.2	Alnair	27	35.4	S 46	51.2
Dubhe	193	42.5	N 61	37.4	Formalhaut	15	16.7	S 29	30.2
Denebola	182	26.3	N 14	26.6	Markab	13	31.7	N 15	19.7

2023 - First Point of Aries / Selected Stars

UT	day 16 of 365 January 16		day 17 of 365 January 17		day 18 of 365 January 18		day 19 of 365 January 19		day 20 of 365 January 20		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	115 10.4	+02.5	116 09.5	+02.5	117 08.7	+02.5	118 07.8	+02.5	119 07.0	+02.4	00
01	130 12.9	+02.4	131 12.0	+02.5	132 11.2	+02.4	133 10.3	+02.5	134 09.4	+02.5	01
02	145 15.3	+02.5	146 14.5	+02.4	147 13.6	+02.5	148 12.8	+02.4	149 11.9	+02.5	02
03	160 17.8	+02.5	161 16.9	+02.5	162 16.1	+02.4	163 15.2	+02.5	164 14.4	+02.4	03
04	175 20.3	+02.4	176 19.4	+02.5	177 18.5	+02.5	178 17.7	+02.5	179 16.8	+02.5	04
05	190 22.7	+02.5	191 21.9	+02.4	192 21.0	+02.5	193 20.2	+02.4	194 19.3	+02.5	05
06	205 25.2	+02.5	206 24.3	+02.5	207 23.5	+02.4	208 22.6	+02.5	209 21.8	+02.4	06
07	220 27.7	+02.4	221 26.8	+02.5	222 25.9	+02.5	223 25.1	+02.4	224 24.2	+02.5	07
08	235 30.1	+02.5	236 29.3	+02.4	237 28.4	+02.5	238 27.5	+02.5	239 26.7	+02.5	08
09	250 32.6	+02.5	251 31.7	+02.5	252 30.9	+02.4	253 30.0	+02.5	254 29.2	+02.4	09
10	265 35.1	+02.4	266 34.2	+02.5	267 33.3	+02.5	268 32.5	+02.4	269 31.6	+02.5	10
11	280 37.5	+02.5	281 36.7	+02.4	282 35.8	+02.5	283 34.9	+02.5	284 34.1	+02.4	11
12	295 40.0	+02.4	296 39.1	+02.5	297 38.3	+02.4	298 37.4	+02.5	299 36.5	+02.5	12
13	310 42.4	+02.5	311 41.6	+02.4	312 40.7	+02.5	313 39.9	+02.4	314 39.0	+02.5	13
14	325 44.9	+02.5	326 44.0	+02.5	327 43.2	+02.5	328 42.3	+02.5	329 41.5	+02.4	14
15	340 47.4	+02.4	341 46.5	+02.5	342 45.7	+02.4	343 44.8	+02.5	344 43.9	+02.5	15
16	355 49.8	+02.5	356 49.0	+02.4	357 48.1	+02.5	358 47.3	+02.4	359 46.4	+02.5	16
17	10 52.3	+02.5	11 51.4	+02.5	12 50.6	+02.4	13 49.7	+02.5	14 48.9	+02.4	17
18	25 54.8	+02.4	26 53.9	+02.5	27 53.0	+02.5	28 52.2	+02.5	29 51.3	+02.5	18
19	40 57.2	+02.5	41 56.4	+02.4	42 55.5	+02.5	43 54.7	+02.4	44 53.8	+02.5	19
20	55 59.7	+02.5	56 58.8	+02.5	57 58.0	+02.4	58 57.1	+02.5	59 56.3	+02.4	20
21	71 02.2	+02.4	72 01.3	+02.5	73 00.4	+02.5	73 59.6	+02.4	74 58.7	+02.5	21
22	86 04.6	+02.5	87 03.8	+02.4	88 02.9	+02.5	89 02.0	+02.5	90 01.2	+02.5	22
23	101 07.1	+02.4	102 06.2	+02.5	103 05.4	+02.4	104 04.5	+02.5	105 03.7	+02.4	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 36.7	N 29 13.2	Gienah	175 45.1	S 17 40.1
Ankaa	353 09.0	S 42 11.0	Acrux	173 01.7	S 63 13.3
Schedir	349 33.1	N 56 40.0	Gacrux	171 53.3	S 57 14.1
Diphda	348 49.1	S 17 51.8	Alioth	166 14.4	N 55 49.8
Achernar	335 21.5	S 57 07.5	Spica	158 24.0	S 11 16.8
Hamal	327 53.1	N 23 34.4	Alkaid	152 53.3	N 49 11.7
Polaris	314 38.8	N 89 22.0	Hadar	148 38.4	S 60 28.7
Acamar	315 12.8	S 40 13.0	Menkent	147 59.3	S 36 28.5
Menkar	314 07.7	N 04 10.8	Arcturus	145 49.1	N 19 04.4
Mirfak	308 30.4	N 49 56.7	Rigel Kentaurus	139 40.0	S 60 55.7
Aldebaran	290 41.3	N 16 33.4	Zubenelgenubi	136 57.9	S 16 08.1
Capella	280 23.9	N 46 01.5	Kocab	137 20.1	N 74 03.3
Rigel	281 05.2	S 08 10.6	Alphecca	126 05.4	N 26 38.1
Bellatrix	278 24.3	N 06 22.2	Antares	112 18.2	S 26 28.9
Elnath	278 03.6	N 28 37.7	Atria	107 14.3	S 69 03.9
Alnilam	275 39.1	S 01 11.3	Sabik	102 05.0	S 15 45.2
Betelgeuze	270 53.6	N 07 24.6	Shaula	96 13.0	S 37 07.1
Canopus	263 52.6	S 52 42.5	Rasalhague	96 00.4	N 12 32.6
Sirius	258 27.1	S 16 44.5	Etamin	90 43.4	N 51 29.0
Adhara	255 06.8	S 29 00.2	Kaus Australis	83 35.1	S 34 22.4
Castor	245 58.7	N 31 50.3	Vega	80 34.8	N 38 48.0
Procyon	244 52.0	N 05 10.3	Nunki	75 50.2	S 26 16.1
Pollux	243 18.6	N 27 58.2	Albireo	67 05.8	N 28 00.4
Avior	234 14.7	S 59 34.9	Altair	62 02.1	N 08 55.5
Suhail	222 47.1	S 43 31.4	Peacock	53 08.9	S 56 39.7
Miaplacidus	221 37.5	S 69 48.5	Deneb	49 27.4	N 45 21.7
Alphard	217 49.1	S 08 45.5	Enif	33 40.7	N 09 58.8
Regulus	207 35.8	N 11 51.2	Alnair	27 35.4	S 46 51.2
Dubhe	193 42.5	N 61 37.4	Formalhaut	15 16.7	S 29 30.2
Denebola	182 26.3	N 14 26.6	Markab	13 31.8	N 15 19.7

2023 - First Point of Aries / Selected Stars

UT	day 21 of 365			day 22 of 365			day 23 of 365			day 24 of 365			day 25 of 365			UT		
	<i>January 21</i>			<i>January 22</i>			<i>January 23</i>			<i>January 24</i>			<i>January 25</i>					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	120	06.1	+02.5	121	05.3	+02.4	122	04.4	+02.5	123	03.5	+02.5	124	02.7	+02.4	00		
01	135	08.6	+02.4	136	07.7	+02.5	137	06.9	+02.4	138	06.0	+02.5	139	05.1	+02.5	01		
02	150	11.0	+02.5	151	10.2	+02.4	152	09.3	+02.5	153	08.5	+02.4	154	07.6	+02.5	02		
03	165	13.5	+02.5	166	12.6	+02.5	167	11.8	+02.5	168	10.9	+02.5	169	10.1	+02.4	03		
04	180	16.0	+02.4	181	15.1	+02.5	182	14.3	+02.4	183	13.4	+02.5	184	12.5	+02.5	04		
05	195	18.4	+02.5	196	17.6	+02.4	197	16.7	+02.5	198	15.9	+02.4	199	15.0	+02.5	05		
06	210	20.9	+02.5	211	20.0	+02.5	212	19.2	+02.4	213	18.3	+02.5	214	17.5	+02.4	06		
07	225	23.4	+02.4	226	22.5	+02.5	227	21.6	+02.5	228	20.8	+02.4	229	19.9	+02.5	07		
08	240	25.8	+02.5	241	25.0	+02.4	242	24.1	+02.5	243	23.2	+02.5	244	22.4	+02.5	08		
09	255	28.3	+02.5	256	27.4	+02.5	257	26.6	+02.4	258	25.7	+02.5	259	24.9	+02.4	09		
10	270	30.8	+02.4	271	29.9	+02.5	272	29.0	+02.5	273	28.2	+02.4	274	27.3	+02.5	10		
11	285	33.2	+02.5	286	32.4	+02.4	287	31.5	+02.5	288	30.6	+02.5	289	29.8	+02.4	11		
12	300	35.7	+02.4	301	34.8	+02.5	302	34.0	+02.4	303	33.1	+02.5	304	32.2	+02.5	12		
13	315	38.1	+02.5	316	37.3	+02.5	317	36.4	+02.5	318	35.6	+02.4	319	34.7	+02.5	13		
14	330	40.6	+02.5	331	39.8	+02.4	332	38.9	+02.5	333	38.0	+02.5	334	37.2	+02.4	14		
15	345	43.1	+02.4	346	42.2	+02.5	347	41.4	+02.4	348	40.5	+02.5	349	39.6	+02.5	15		
16	0	45.5	+02.5	1	44.7	+02.4	2	43.8	+02.5	3	43.0	+02.4	4	42.1	+02.5	16		
17	15	48.0	+02.5	16	47.1	+02.5	17	46.3	+02.5	18	45.4	+02.5	19	44.6	+02.4	17		
18	30	50.5	+02.4	31	49.6	+02.5	32	48.8	+02.4	33	47.9	+02.5	34	47.0	+02.5	18		
19	45	52.9	+02.5	46	52.1	+02.4	47	51.2	+02.5	48	50.4	+02.4	49	49.5	+02.5	19		
20	60	55.4	+02.5	61	54.5	+02.5	62	53.7	+02.4	63	52.8	+02.5	64	52.0	+02.4	20		
21	75	57.9	+02.4	76	57.0	+02.5	77	56.1	+02.5	78	55.3	+02.4	79	54.4	+02.5	21		
22	91	00.3	+02.5	91	59.5	+02.4	92	58.6	+02.5	93	57.7	+02.5	94	56.9	+02.4	22		
23	106	02.8	+02.5	107	01.9	+02.5	108	01.1	+02.4	109	00.2	+02.5	109	59.3	+02.5	23		

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.7	N 29	13.2	Gienah	175	45.1	S 17	40.1
Ankaa	353	09.0	S 42	11.0	Acrux	173	01.6	S 63	13.3
Schedir	349	33.1	N 56	40.0	Gacrux	171	53.3	S 57	14.2
Diphda	348	49.1	S 17	51.8	Alioth	166	14.4	N 55	49.8
Achernar	335	21.5	S 57	07.5	Spica	158	24.0	S 11	16.8
Hamal	327	53.1	N 23	34.4	Alkaid	152	53.2	N 49	11.6
Polaris	314	40.6	N 89	22.0	Hadar	148	38.3	S 60	28.7
Acamar	315	12.9	S 40	13.0	Menkent	147	59.2	S 36	28.5
Menkar	314	07.7	N 04	10.8	Arcturus	145	49.0	N 19	04.4
Mirfak	308	30.4	N 49	56.7	Rigel Kentaurus	139	39.9	S 60	55.7
Aldebaran	290	41.3	N 16	33.4	Zubenelgenubi	136	57.8	S 16	08.1
Capella	280	23.9	N 46	01.5	Kocab	137	20.0	N 74	03.3
Rigel	281	05.2	S 08	10.6	Alphecca	126	05.3	N 26	38.1
Bellatrix	278	24.3	N 06	22.2	Antares	112	18.2	S 26	28.9
Elnath	278	03.6	N 28	37.7	Atria	107	14.2	S 69	03.9
Alnilam	275	39.1	S 01	11.3	Sabik	102	04.9	S 15	45.2
Betelgeuze	270	53.5	N 07	24.6	Shaula	96	12.9	S 37	07.1
Canopus	263	52.6	S 52	42.6	Rasalhague	96	00.4	N 12	32.6
Sirius	258	27.1	S 16	44.5	Etamin	90	43.4	N 51	28.9
Adhara	255	06.7	S 29	00.3	Kaus Australis	83	35.0	S 34	22.3
Castor	245	58.7	N 31	50.3	Vega	80	34.8	N 38	48.0
Procyon	244	52.0	N 05	10.3	Nunki	75	50.1	S 26	16.1
Pollux	243	18.6	N 27	58.2	Albireo	67	05.7	N 28	00.4
Avior	234	14.7	S 59	34.9	Altair	62	02.0	N 08	55.5
Suhail	222	47.0	S 43	31.4	Peacock	53	08.9	S 56	39.7
Miaplacidus	221	37.5	S 69	48.6	Deneb	49	27.4	N 45	21.7
Alphard	217	49.0	S 08	45.5	Enif	33	40.7	N 09	58.7
Regulus	207	35.8	N 11	51.2	Alnair	27	35.4	S 46	51.1
Dubhe	193	42.4	N 61	37.4	Formalhaut	15	16.7	S 29	30.2
Denebola	182	26.3	N 14	26.6	Markab	13	31.8	N 15	19.7

2023 - First Point of Aries / Selected Stars

UT	day 26 of 365			day 27 of 365			day 28 of 365			day 29 of 365			day 30 of 365			UT		
	<i>January 26</i>			<i>January 27</i>			<i>January 28</i>			<i>January 29</i>			<i>January 30</i>					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	125	01.8	+02.5	126	00.9	+02.5	127	00.1	+02.5	127	59.2	+02.5	128	58.4	+02.4	00		
01	140	04.3	+02.4	141	03.4	+02.5	142	02.6	+02.4	143	01.7	+02.5	144	00.8	+02.5	01		
02	155	06.7	+02.5	156	05.9	+02.4	157	05.0	+02.5	158	04.2	+02.4	159	03.3	+02.5	02		
03	170	09.2	+02.5	171	08.3	+02.5	172	07.5	+02.4	173	06.6	+02.5	174	05.8	+02.4	03		
04	185	11.7	+02.4	186	10.8	+02.5	187	09.9	+02.5	188	09.1	+02.4	189	08.2	+02.5	04		
05	200	14.1	+02.5	201	13.3	+02.4	202	12.4	+02.5	203	11.5	+02.5	204	10.7	+02.4	05		
06	215	16.6	+02.5	216	15.7	+02.5	217	14.9	+02.4	218	14.0	+02.5	219	13.1	+02.5	06		
07	230	19.1	+02.4	231	18.2	+02.5	232	17.3	+02.5	233	16.5	+02.4	234	15.6	+02.5	07		
08	245	21.5	+02.5	246	20.7	+02.4	247	19.8	+02.5	248	18.9	+02.5	249	18.1	+02.4	08		
09	260	24.0	+02.5	261	23.1	+02.5	262	22.3	+02.4	263	21.4	+02.5	264	20.5	+02.5	09		
10	275	26.5	+02.4	276	25.6	+02.5	277	24.7	+02.5	278	23.9	+02.4	279	23.0	+02.5	10		
11	290	28.9	+02.5	291	28.1	+02.4	292	27.2	+02.5	293	26.3	+02.5	294	25.5	+02.4	11		
12	305	31.4	+02.4	306	30.5	+02.5	307	29.7	+02.4	308	28.8	+02.5	309	27.9	+02.5	12		
13	320	33.8	+02.5	321	33.0	+02.4	322	32.1	+02.5	323	31.3	+02.4	324	30.4	+02.5	13		
14	335	36.3	+02.5	336	35.4	+02.5	337	34.6	+02.4	338	33.7	+02.5	339	32.9	+02.4	14		
15	350	38.8	+02.4	351	37.9	+02.5	352	37.0	+02.5	353	36.2	+02.5	354	35.3	+02.5	15		
16	5	41.2	+02.5	6	40.4	+02.4	7	39.5	+02.5	8	38.7	+02.4	9	37.8	+02.5	16		
17	20	43.7	+02.5	21	42.8	+02.5	22	42.0	+02.4	23	41.1	+02.5	24	40.3	+02.4	17		
18	35	46.2	+02.4	36	45.3	+02.5	37	44.4	+02.5	38	43.6	+02.4	39	42.7	+02.5	18		
19	50	48.6	+02.5	51	47.8	+02.4	52	46.9	+02.5	53	46.0	+02.5	54	45.2	+02.4	19		
20	65	51.1	+02.5	66	50.2	+02.5	67	49.4	+02.4	68	48.5	+02.5	69	47.6	+02.5	20		
21	80	53.6	+02.4	81	52.7	+02.5	82	51.8	+02.5	83	51.0	+02.4	84	50.1	+02.5	21		
22	95	56.0	+02.5	96	55.2	+02.4	97	54.3	+02.5	98	53.4	+02.5	99	52.6	+02.4	22		
23	110	58.5	+02.4	111	57.6	+02.5	112	56.8	+02.4	113	55.9	+02.5	114	55.0	+02.5	23		

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.7	N 29	13.1	Gienah	175	45.0	S 17	40.1
Ankaa	353	09.0	S 42	11.0	Acrux	173	01.5	S 63	13.3
Schedir	349	33.1	N 56	40.0	Gacrux	171	53.2	S 57	14.2
Diphda	348	49.1	S 17	51.8	Alioth	166	14.3	N 55	49.8
Achernar	335	21.5	S 57	07.5	Spica	158	23.9	S 11	16.9
Hamal	327	53.1	N 23	34.4	Alkaid	152	53.2	N 49	11.6
Polaris	314	43.2	N 89	22.0	Hadar	148	38.2	S 60	28.7
Acamar	315	12.9	S 40	13.0	Menkent	147	59.2	S 36	28.5
Menkar	314	07.7	N 04	10.8	Arcturus	145	49.0	N 19	04.3
Mirfak	308	30.4	N 49	56.7	Rigel Kentaurus	139	39.9	S 60	55.7
Aldebaran	290	41.3	N 16	33.4	Zubenelgenubi	136	57.8	S 16	08.2
Capella	280	23.9	N 46	01.5	Kocab	137	19.9	N 74	03.3
Rigel	281	05.2	S 08	10.6	Alphecca	126	05.3	N 26	38.1
Bellatrix	278	24.3	N 06	22.2	Antares	112	18.1	S 26	28.9
Elnath	278	03.6	N 28	37.7	Atria	107	14.1	S 69	03.9
Alnilam	275	39.1	S 01	11.3	Sabik	102	04.9	S 15	45.2
Betelgeuze	270	53.6	N 07	24.6	Shaula	96	12.9	S 37	07.1
Canopus	263	52.6	S 52	42.6	Rasalhague	96	00.3	N 12	32.5
Sirius	258	27.1	S 16	44.5	Etamin	90	43.4	N 51	28.9
Adhara	255	06.8	S 29	00.3	Kaus Australis	83	35.0	S 34	22.3
Castor	245	58.6	N 31	50.3	Vega	80	34.8	N 38	48.0
Procyon	244	52.0	N 05	10.3	Nunki	75	50.1	S 26	16.1
Pollux	243	18.5	N 27	58.2	Albireo	67	05.7	N 28	00.3
Avior	234	14.7	S 59	35.0	Altair	62	02.0	N 08	55.5
Suhail	222	47.0	S 43	31.5	Peacock	53	08.9	S 56	39.7
Miaplacidus	221	37.5	S 69	48.6	Deneb	49	27.4	N 45	21.7
Alphard	217	49.0	S 08	45.5	Enif	33	40.7	N 09	58.7
Regulus	207	35.7	N 11	51.2	Alnair	27	35.4	S 46	51.1
Dubhe	193	42.3	N 61	37.4	Formalhaut	15	16.7	S 29	30.2
Denebola	182	26.2	N 14	26.5	Markab	13	31.8	N 15	19.7

2023 - First Point of Aries / Selected Stars

UT	day 31 of 365 January 31		day 32 of 365 February 1		day 33 of 365 February 2		day 34 of 365 February 3		day 35 of 365 February 4		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	129 57.5	+02.5	130 56.6	+02.5	131 55.8	+02.4	132 54.9	+02.5	133 54.1	+02.4	00
01	144 60.0	+02.4	145 59.1	+02.5	146 58.2	+02.5	147 57.4	+02.5	148 56.5	+02.5	01
02	160 02.4	+02.5	161 01.6	+02.4	162 00.7	+02.5	162 59.9	+02.4	163 59.0	+02.5	02
03	175 04.9	+02.5	176 04.0	+02.5	177 03.2	+02.4	178 02.3	+02.5	179 01.5	+02.4	03
04	190 07.4	+02.4	191 06.5	+02.5	192 05.6	+02.5	193 04.8	+02.4	194 03.9	+02.5	04
05	205 09.8	+02.5	206 09.0	+02.4	207 08.1	+02.5	208 07.2	+02.5	209 06.4	+02.5	05
06	220 12.3	+02.5	221 11.4	+02.5	222 10.6	+02.4	223 09.7	+02.5	224 08.9	+02.4	06
07	235 14.8	+02.4	236 13.9	+02.5	237 13.0	+02.5	238 12.2	+02.4	239 11.3	+02.5	07
08	250 17.2	+02.5	251 16.4	+02.4	252 15.5	+02.5	253 14.6	+02.5	254 13.8	+02.4	08
09	265 19.7	+02.4	266 18.8	+02.5	267 18.0	+02.4	268 17.1	+02.5	269 16.2	+02.5	09
10	280 22.1	+02.5	281 21.3	+02.5	282 20.4	+02.5	283 19.6	+02.4	284 18.7	+02.5	10
11	295 24.6	+02.5	296 23.8	+02.4	297 22.9	+02.5	298 22.0	+02.5	299 21.2	+02.4	11
12	310 27.1	+02.4	311 26.2	+02.5	312 25.4	+02.4	313 24.5	+02.5	314 23.6	+02.5	12
13	325 29.5	+02.5	326 28.7	+02.4	327 27.8	+02.5	328 27.0	+02.4	329 26.1	+02.5	13
14	340 32.0	+02.5	341 31.1	+02.5	342 30.3	+02.4	343 29.4	+02.5	344 28.6	+02.4	14
15	355 34.5	+02.4	356 33.6	+02.5	357 32.7	+02.5	358 31.9	+02.5	359 31.0	+02.5	15
16	10 36.9	+02.5	11 36.1	+02.4	12 35.2	+02.5	13 34.4	+02.4	14 33.5	+02.5	16
17	25 39.4	+02.5	26 38.5	+02.5	27 37.7	+02.4	28 36.8	+02.5	29 36.0	+02.4	17
18	40 41.9	+02.4	41 41.0	+02.5	42 40.1	+02.5	43 39.3	+02.4	44 38.4	+02.5	18
19	55 44.3	+02.5	56 43.5	+02.4	57 42.6	+02.5	58 41.7	+02.5	59 40.9	+02.4	19
20	70 46.8	+02.5	71 45.9	+02.5	72 45.1	+02.4	73 44.2	+02.5	74 43.3	+02.5	20
21	85 49.3	+02.4	86 48.4	+02.5	87 47.5	+02.5	88 46.7	+02.4	89 45.8	+02.5	21
22	100 51.7	+02.5	101 50.9	+02.4	102 50.0	+02.5	103 49.1	+02.5	104 48.3	+02.4	22
23	115 54.2	+02.4	116 53.3	+02.5	117 52.5	+02.4	118 51.6	+02.5	119 50.7	+02.5	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 36.7	N 29 13.1	Gienah	175 45.0	S 17 40.2
Ankaa	353 09.1	S 42 11.0	Acrux	173 01.5	S 63 13.3
Schedir	349 33.2	N 56 40.0	Gacrux	171 53.2	S 57 14.2
Diphda	348 49.1	S 17 51.8	Alioth	166 14.2	N 55 49.8
Achernar	335 21.6	S 57 07.5	Spica	158 23.9	S 11 16.9
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Polaris	314 45.5	N 89 22.0	Hadar	148 38.2	S 60 28.7
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Menkar	314 07.8	N 04 10.7	Arcturus	145 49.0	N 19 04.3
Mirfak	308 30.4	N 49 56.7	Rigel Kentaurus	139 39.8	S 60 55.7
Aldebaran	290 41.3	N 16 33.4	Zubenelgenubi	136 57.8	S 16 08.2
Capella	280 24.0	N 46 01.5	Kocab	137 19.8	N 74 03.3
Rigel	281 05.2	S 08 10.6	Alphecca	126 05.2	N 26 38.0
Bellatrix	278 24.3	N 06 22.2	Antares	112 18.1	S 26 28.9
Elnath	278 03.6	N 28 37.7	Atria	107 14.0	S 69 03.9
Alnilam	275 39.1	S 01 11.3	Sabik	102 04.8	S 15 45.2
Betelgeuze	270 53.6	N 07 24.6	Shaula	96 12.8	S 37 07.1
Canopus	263 52.7	S 52 42.6	Rasalhague	96 00.3	N 12 32.5
Sirius	258 27.1	S 16 44.5	Etamin	90 43.3	N 51 28.9
Adhara	255 06.8	S 29 00.3	Kaus Australis	83 35.0	S 34 22.3
Castor	245 58.6	N 31 50.3	Vega	80 34.8	N 38 48.0
Procyon	244 52.0	N 05 10.3	Nunki	75 50.1	S 26 16.1
Pollux	243 18.5	N 27 58.2	Albireo	67 05.7	N 28 00.3
Avior	234 14.7	S 59 35.0	Altair	62 02.0	N 08 55.5
Suhail	222 47.0	S 43 31.5	Peacock	53 08.8	S 56 39.7
Miaplacidus	221 37.5	S 69 48.6	Deneb	49 27.4	N 45 21.6
Alphard	217 49.0	S 08 45.6	Enif	33 40.7	N 09 58.7
Regulus	207 35.7	N 11 51.2	Alnair	27 35.4	S 46 51.1
Dubhe	193 42.3	N 61 37.4	Formalhaut	15 16.7	S 29 30.2
Denebola	182 26.2	N 14 26.5	Markab	13 31.8	N 15 19.7

2023 - First Point of Aries / Selected Stars

UT	day 36 of 365 February 5			day 37 of 365 February 6			day 38 of 365 February 7			day 39 of 365 February 8			day 40 of 365 February 9			UT
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		
00	134	53.2	+02.5	135	52.3	+02.5	136	51.5	+02.4	137	50.6	+02.5	138	49.8	+02.4	00
01	149	55.7	+02.4	150	54.8	+02.5	151	53.9	+02.5	152	53.1	+02.4	153	52.2	+02.5	01
02	164	58.1	+02.5	165	57.3	+02.4	166	56.4	+02.5	167	55.5	+02.5	168	54.7	+02.4	02
03	180	00.6	+02.5	180	59.7	+02.5	181	58.9	+02.4	182	58.0	+02.5	183	57.1	+02.5	03
04	195	03.1	+02.4	196	02.2	+02.5	197	01.3	+02.5	198	00.5	+02.4	198	59.6	+02.5	04
05	210	05.5	+02.5	211	04.7	+02.4	212	03.8	+02.5	213	02.9	+02.5	214	02.1	+02.4	05
06	225	08.0	+02.5	226	07.1	+02.5	227	06.3	+02.4	228	05.4	+02.5	229	04.5	+02.5	06
07	240	10.5	+02.4	241	09.6	+02.5	242	08.7	+02.5	243	07.9	+02.4	244	07.0	+02.5	07
08	255	12.9	+02.5	256	12.1	+02.4	257	11.2	+02.5	258	10.3	+02.5	259	09.5	+02.4	08
09	270	15.4	+02.4	271	14.5	+02.5	272	13.7	+02.4	273	12.8	+02.5	274	11.9	+02.5	09
10	285	17.8	+02.5	286	17.0	+02.4	287	16.1	+02.5	288	15.3	+02.4	289	14.4	+02.5	10
11	300	20.3	+02.5	301	19.4	+02.5	302	18.6	+02.5	303	17.7	+02.5	304	16.9	+02.4	11
12	315	22.8	+02.4	316	21.9	+02.5	317	21.1	+02.4	318	20.2	+02.5	319	19.3	+02.5	12
13	330	25.2	+02.5	331	24.4	+02.4	332	23.5	+02.5	333	22.7	+02.4	334	21.8	+02.5	13
14	345	27.7	+02.5	346	26.8	+02.5	347	26.0	+02.4	348	25.1	+02.5	349	24.3	+02.4	14
15	0	30.2	+02.4	1	29.3	+02.5	2	28.4	+02.5	3	27.6	+02.4	4	26.7	+02.5	15
16	15	32.6	+02.5	16	31.8	+02.4	17	30.9	+02.5	18	30.0	+02.5	19	29.2	+02.4	16
17	30	35.1	+02.5	31	34.2	+02.5	32	33.4	+02.4	33	32.5	+02.5	34	31.6	+02.5	17
18	45	37.6	+02.4	46	36.7	+02.5	47	35.8	+02.5	48	35.0	+02.4	49	34.1	+02.5	18
19	60	40.0	+02.5	61	39.2	+02.4	62	38.3	+02.5	63	37.4	+02.5	64	36.6	+02.4	19
20	75	42.5	+02.5	76	41.6	+02.5	77	40.8	+02.4	78	39.9	+02.5	79	39.0	+02.5	20
21	90	45.0	+02.4	91	44.1	+02.5	92	43.2	+02.5	93	42.4	+02.4	94	41.5	+02.5	21
22	105	47.4	+02.5	106	46.6	+02.4	107	45.7	+02.5	108	44.8	+02.5	109	44.0	+02.4	22
23	120	49.9	+02.4	121	49.0	+02.5	122	48.2	+02.4	123	47.3	+02.5	124	46.4	+02.5	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 36.7	N 29 13.1	Gienah	175 44.9	S 17 40.2
Ankaa	353 09.1	S 42 11.0	Acrux	173 01.4	S 63 13.4
Schedir	349 33.2	N 56 40.0	Gacrux	171 53.1	S 57 14.2
Diphda	348 49.1	S 17 51.8	Alioth	166 14.2	N 55 49.8
Achernar	335 21.6	S 57 07.5	Spica	158 23.8	S 11 16.9
Hamal	327 53.1	N 23 34.3	Alkaid	152 53.1	N 49 11.6
Polaris	314 47.7	N 89 22.0	Hadar	148 38.1	S 60 28.8
Acamar	315 12.9	S 40 13.0	Menkent	147 59.1	S 36 28.6
Menkar	314 07.8	N 04 10.7	Arcturus	145 48.9	N 19 04.3
Mirfak	308 30.4	N 49 56.7	Rigel Kentaurus	139 39.7	S 60 55.7
Aldebaran	290 41.3	N 16 33.4	Zubenelgenubi	136 57.7	S 16 08.2
Capella	280 24.0	N 46 01.5	Kocab	137 19.7	N 74 03.3
Rigel	281 05.2	S 08 10.6	Alphecca	126 05.2	N 26 38.0
Bellatrix	278 24.4	N 06 22.2	Antares	112 18.0	S 26 28.9
Elnath	278 03.6	N 28 37.7	Atria	107 13.9	S 69 03.9
Alnilam	275 39.1	S 01 11.3	Sabik	102 04.8	S 15 45.3
Betelgeuze	270 53.6	N 07 24.6	Shaula	96 12.8	S 37 07.1
Canopus	263 52.7	S 52 42.6	Rasalhague	96 00.3	N 12 32.5
Sirius	258 27.2	S 16 44.5	Etamin	90 43.3	N 51 28.9
Adhara	255 06.8	S 29 00.3	Kaus Australis	83 34.9	S 34 22.3
Castor	245 58.6	N 31 50.3	Vega	80 34.7	N 38 48.0
Procyon	244 51.9	N 05 10.3	Nunki	75 50.0	S 26 16.1
Pollux	243 18.5	N 27 58.2	Albireo	67 05.7	N 28 00.3
Avior	234 14.7	S 59 35.0	Altair	62 02.0	N 08 55.5
Suhail	222 47.0	S 43 31.5	Peacock	53 08.8	S 56 39.7
Miaplacidus	221 37.5	S 69 48.7	Deneb	49 27.3	N 45 21.6
Alphard	217 49.0	S 08 45.6	Enif	33 40.7	N 09 58.7
Regulus	207 35.7	N 11 51.2	Alnair	27 35.4	S 46 51.1
Dubhe	193 42.3	N 61 37.4	Formalhaut	15 16.7	S 29 30.2
Denebola	182 26.1	N 14 26.5	Markab	13 31.8	N 15 19.7

2023 - First Point of Aries / Selected Stars

UT	day 41 of 365 February 10		day 42 of 365 February 11		day 43 of 365 February 12		day 44 of 365 February 13		day 45 of 365 February 14		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	
00	139	48.9 +02.5	140	48.0 +02.5	141	47.2 +02.4	142	46.3 +02.5	143	45.4 +02.5	00
01	154	51.4 +02.4	155	50.5 +02.5	156	49.6 +02.5	157	48.8 +02.4	158	47.9 +02.5	01
02	169	53.8 +02.5	170	53.0 +02.4	171	52.1 +02.5	172	51.2 +02.5	173	50.4 +02.4	02
03	184	56.3 +02.5	185	55.4 +02.5	186	54.6 +02.4	187	53.7 +02.5	188	52.8 +02.5	03
04	199	58.8 +02.4	200	57.9 +02.5	201	57.0 +02.5	202	56.2 +02.4	203	55.3 +02.5	04
05	215	01.2 +02.5	216	00.4 +02.4	216	59.5 +02.5	217	58.6 +02.5	218	57.8 +02.4	05
06	230	03.7 +02.4	231	02.8 +02.5	232	02.0 +02.4	233	01.1 +02.5	234	00.2 +02.5	06
07	245	06.1 +02.5	246	05.3 +02.4	247	04.4 +02.5	248	03.6 +02.4	249	02.7 +02.5	07
08	260	08.6 +02.5	261	07.7 +02.5	262	06.9 +02.4	263	06.0 +02.5	264	05.2 +02.4	08
09	275	11.1 +02.4	276	10.2 +02.5	277	09.3 +02.5	278	08.5 +02.4	279	07.6 +02.5	09
10	290	13.5 +02.5	291	12.7 +02.4	292	11.8 +02.5	293	10.9 +02.5	294	10.1 +02.5	10
11	305	16.0 +02.5	306	15.1 +02.5	307	14.3 +02.4	308	13.4 +02.5	309	12.6 +02.4	11
12	320	18.5 +02.4	321	17.6 +02.5	322	16.7 +02.5	323	15.9 +02.4	324	15.0 +02.5	12
13	335	20.9 +02.5	336	20.1 +02.4	337	19.2 +02.5	338	18.3 +02.5	339	17.5 +02.4	13
14	350	23.4 +02.5	351	22.5 +02.5	352	21.7 +02.4	353	20.8 +02.5	354	19.9 +02.5	14
15	5	25.9 +02.4	6	25.0 +02.5	7	24.1 +02.5	8	23.3 +02.4	9	22.4 +02.5	15
16	20	28.3 +02.5	21	27.5 +02.4	22	26.6 +02.5	23	25.7 +02.5	24	24.9 +02.4	16
17	35	30.8 +02.4	36	29.9 +02.5	37	29.1 +02.4	38	28.2 +02.5	39	27.3 +02.5	17
18	50	33.2 +02.5	51	32.4 +02.4	52	31.5 +02.5	53	30.7 +02.4	54	29.8 +02.5	18
19	65	35.7 +02.5	66	34.8 +02.5	67	34.0 +02.5	68	33.1 +02.5	69	32.3 +02.4	19
20	80	38.2 +02.4	81	37.3 +02.5	82	36.5 +02.4	83	35.6 +02.5	84	34.7 +02.5	20
21	95	40.6 +02.5	96	39.8 +02.4	97	38.9 +02.5	98	38.1 +02.4	99	37.2 +02.5	21
22	110	43.1 +02.5	111	42.2 +02.5	112	41.4 +02.4	113	40.5 +02.5	114	39.7 +02.4	22
23	125	45.6 +02.4	126	44.7 +02.5	127	43.8 +02.5	128	43.0 +02.4	129	42.1 +02.5	23

	SHA	Dec		SHA	Dec
	° ' "	° ' "		° ' "	° ' "
Alpheratz	357 36.7	N 29 13.1	Gienah	175 44.9	S 17 40.2
Ankaa	353 09.1	S 42 11.0	Acrux	173 01.4	S 63 13.4
Schedir	349 33.2	N 56 40.0	Gacrux	171 53.1	S 57 14.2
Diphda	348 49.2	S 17 51.8	Alioth	166 14.1	N 55 49.8
Achernar	335 21.7	S 57 07.5	Spica	158 23.8	S 11 16.9
Hamal	327 53.1	N 23 34.3	Alkaid	152 53.0	N 49 11.6
Polaris	314 50.5	N 89 22.0	Hadar	148 38.0	S 60 28.8
Acamar	315 13.0	S 40 13.0	Menkent	147 59.1	S 36 28.6
Menkar	314 07.8	N 04 10.7	Arcturus	145 48.9	N 19 04.3
Mirfak	308 30.5	N 49 56.7	Rigel Kentaurus	139 39.7	S 60 55.7
Aldebaran	290 41.3	N 16 33.4	Zubenelgenubi	136 57.7	S 16 08.2
Capella	280 24.0	N 46 01.5	Kocab	137 19.6	N 74 03.3
Rigel	281 05.2	S 08 10.6	Alphecca	126 05.2	N 26 38.0
Bellatrix	278 24.4	N 06 22.2	Antares	112 18.0	S 26 28.9
Elnath	278 03.7	N 28 37.7	Atria	107 13.8	S 69 03.9
Alnilam	275 39.1	S 01 11.3	Sabik	102 04.8	S 15 45.3
Betelgeuze	270 53.6	N 07 24.6	Shaula	96 12.7	S 37 07.1
Canopus	263 52.7	S 52 42.7	Rasalhague	96 00.2	N 12 32.5
Sirius	258 27.2	S 16 44.5	Etamin	90 43.3	N 51 28.8
Adhara	255 06.8	S 29 00.3	Kaus Australis	83 34.9	S 34 22.3
Castor	245 58.6	N 31 50.3	Vega	80 34.7	N 38 47.9
Procyon	244 52.0	N 05 10.3	Nunki	75 50.0	S 26 16.1
Pollux	243 18.5	N 27 58.2	Albireo	67 05.7	N 28 00.3
Avior	234 14.7	S 59 35.1	Altair	62 02.0	N 08 55.4
Suhail	222 47.0	S 43 31.6	Peacock	53 08.8	S 56 39.6
Miaplacidus	221 37.5	S 69 48.7	Deneb	49 27.3	N 45 21.6
Alphard	217 49.0	S 08 45.6	Enif	33 40.7	N 09 58.7
Regulus	207 35.7	N 11 51.2	Alnair	27 35.4	S 46 51.1
Dubhe	193 42.2	N 61 37.5	Formalhaut	15 16.7	S 29 30.2
Denebola	182 26.1	N 14 26.5	Markab	13 31.8	N 15 19.7

2023 - First Point of Aries / Selected Stars

UT	day 46 of 365			day 47 of 365			day 48 of 365			day 49 of 365			day 50 of 365			UT		
	February 15			February 16			February 17			February 18			February 19					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	144	44.6	+02.5	145	43.7	+02.5	146	42.9	+02.4	147	42.0	+02.5	148	41.1	+02.5	00		
01	159	47.1	+02.4	160	46.2	+02.5	161	45.3	+02.5	162	44.5	+02.4	163	43.6	+02.5	01		
02	174	49.5	+02.5	175	48.7	+02.4	176	47.8	+02.5	177	46.9	+02.5	178	46.1	+02.4	02		
03	189	52.0	+02.4	190	51.1	+02.5	191	50.3	+02.4	192	49.4	+02.5	193	48.5	+02.5	03		
04	204	54.4	+02.5	205	53.6	+02.4	206	52.7	+02.5	207	51.9	+02.4	208	51.0	+02.5	04		
05	219	56.9	+02.5	220	56.0	+02.5	221	55.2	+02.5	222	54.3	+02.5	223	53.5	+02.4	05		
06	234	59.4	+02.4	235	58.5	+02.5	236	57.7	+02.4	237	56.8	+02.5	238	55.9	+02.5	06		
07	250	01.8	+02.5	251	01.0	+02.4	252	00.1	+02.5	252	59.3	+02.4	253	58.4	+02.5	07		
08	265	04.3	+02.5	266	03.4	+02.5	267	02.6	+02.4	268	01.7	+02.5	269	00.9	+02.4	08		
09	280	06.8	+02.4	281	05.9	+02.5	282	05.0	+02.5	283	04.2	+02.5	284	03.3	+02.5	09		
10	295	09.2	+02.5	296	08.4	+02.4	297	07.5	+02.5	298	06.7	+02.4	299	05.8	+02.5	10		
11	310	11.7	+02.5	311	10.8	+02.5	312	10.0	+02.4	313	09.1	+02.5	314	08.3	+02.4	11		
12	325	14.2	+02.4	326	13.3	+02.5	327	12.4	+02.5	328	11.6	+02.4	329	10.7	+02.5	12		
13	340	16.6	+02.5	341	15.8	+02.4	342	14.9	+02.5	343	14.0	+02.5	344	13.2	+02.4	13		
14	355	19.1	+02.4	356	18.2	+02.5	357	17.4	+02.4	358	16.5	+02.5	359	15.6	+02.5	14		
15	10	21.5	+02.5	11	20.7	+02.5	12	19.8	+02.5	13	19.0	+02.4	14	18.1	+02.5	15		
16	25	24.0	+02.5	26	23.2	+02.4	27	22.3	+02.5	28	21.4	+02.5	29	20.6	+02.4	16		
17	40	26.5	+02.4	41	25.6	+02.5	42	24.8	+02.4	43	23.9	+02.5	44	23.0	+02.5	17		
18	55	28.9	+02.5	56	28.1	+02.4	57	27.2	+02.5	58	26.4	+02.4	59	25.5	+02.5	18		
19	70	31.4	+02.5	71	30.5	+02.5	72	29.7	+02.5	73	28.8	+02.5	74	28.0	+02.4	19		
20	85	33.9	+02.4	86	33.0	+02.5	87	32.2	+02.4	88	31.3	+02.5	89	30.4	+02.5	20		
21	100	36.3	+02.5	101	35.5	+02.4	102	34.6	+02.5	103	33.8	+02.4	104	32.9	+02.5	21		
22	115	38.8	+02.5	116	37.9	+02.5	117	37.1	+02.4	118	36.2	+02.5	119	35.4	+02.4	22		
23	130	41.3	+02.4	131	40.4	+02.5	132	39.5	+02.5	133	38.7	+02.4	134	37.8	+02.5	23		

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.7	N 29	13.1	Gienah	175	44.9	S 17	40.2
Ankaa	353	09.1	S 42	11.0	Acrux	173	01.3	S 63	13.4
Schedir	349	33.3	N 56	39.9	Gacrux	171	53.0	S 57	14.3
Diphda	348	49.2	S 17	51.8	Alioth	166	14.1	N 55	49.8
Achernar	335	21.7	S 57	07.5	Spica	158	23.8	S 11	16.9
Hamal	327	53.2	N 23	34.3	Alkaid	152	53.0	N 49	11.6
Polaris	314	52.7	N 89	22.0	Hadar	148	38.0	S 60	28.8
Acamar	315	13.0	S 40	13.0	Menkent	147	59.0	S 36	28.6
Menkar	314	07.8	N 04	10.7	Arcturus	145	48.8	N 19	04.3
Mirfak	308	30.5	N 49	56.7	Rigel Kentaurus	139	39.6	S 60	55.8
Aldebaran	290	41.3	N 16	33.4	Zubenelgenubi	136	57.6	S 16	08.2
Capella	280	24.0	N 46	01.5	Kocab	137	19.5	N 74	03.3
Rigel	281	05.2	S 08	10.6	Alphecca	126	05.1	N 26	38.0
Bellatrix	278	24.4	N 06	22.2	Antares	112	18.0	S 26	28.9
Elnath	278	03.7	N 28	37.7	Atria	107	13.7	S 69	03.8
Alnilam	275	39.2	S 01	11.3	Sabik	102	04.7	S 15	45.3
Betelgeuze	270	53.6	N 07	24.6	Shaula	96	12.7	S 37	07.1
Canopus	263	52.7	S 52	42.7	Rasalhague	96	00.2	N 12	32.5
Sirius	258	27.2	S 16	44.5	Etamin	90	43.2	N 51	28.8
Adhara	255	06.8	S 29	00.3	Kaus Australis	83	34.8	S 34	22.3
Castor	245	58.7	N 31	50.3	Vega	80	34.7	N 38	47.9
Procyon	244	52.0	N 05	10.3	Nunki	75	50.0	S 26	16.1
Pollux	243	18.5	N 27	58.2	Albireo	67	05.6	N 28	00.3
Avior	234	14.8	S 59	35.1	Altair	62	02.0	N 08	55.4
Suhail	222	47.0	S 43	31.6	Peacock	53	08.7	S 56	39.6
Miaplacidus	221	37.5	S 69	48.7	Deneb	49	27.3	N 45	21.6
Alphard	217	49.0	S 08	45.6	Enif	33	40.7	N 09	58.7
Regulus	207	35.7	N 11	51.2	Alnair	27	35.4	S 46	51.1
Dubhe	193	42.2	N 61	37.5	Formalhaut	15	16.7	S 29	30.1
Denebola	182	26.1	N 14	26.5	Markab	13	31.8	N 15	19.7

2023 - First Point of Aries / Selected Stars

UT	day 51 of 365		day 52 of 365		day 53 of 365		day 54 of 365		day 55 of 365		UT					
	February 20		February 21		February 22		February 23		February 24							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "						
00	149	40.3	+02.5	150	39.4	+02.5	151	38.6	+02.4	152	37.7	+02.5	153	36.8	+02.5	00
01	164	42.8	+02.4	165	41.9	+02.5	166	41.0	+02.5	167	40.2	+02.4	168	39.3	+02.5	01
02	179	45.2	+02.5	180	44.4	+02.4	181	43.5	+02.5	182	42.6	+02.5	183	41.8	+02.4	02
03	194	47.7	+02.4	195	46.8	+02.5	196	46.0	+02.4	197	45.1	+02.5	198	44.2	+02.5	03
04	209	50.1	+02.5	210	49.3	+02.4	211	48.4	+02.5	212	47.6	+02.4	213	46.7	+02.5	04
05	224	52.6	+02.5	225	51.7	+02.5	226	50.9	+02.4	227	50.0	+02.5	228	49.2	+02.4	05
06	239	55.1	+02.4	240	54.2	+02.5	241	53.3	+02.5	242	52.5	+02.4	243	51.6	+02.5	06
07	254	57.5	+02.5	255	56.7	+02.4	256	55.8	+02.5	257	54.9	+02.5	258	54.1	+02.4	07
08	270	00.0	+02.5	270	59.1	+02.5	271	58.3	+02.4	272	57.4	+02.5	273	56.5	+02.5	08
09	285	02.5	+02.4	286	01.6	+02.5	287	00.7	+02.5	287	59.9	+02.4	288	59.0	+02.5	09
10	300	04.9	+02.5	301	04.1	+02.4	302	03.2	+02.5	303	02.3	+02.5	304	01.5	+02.4	10
11	315	07.4	+02.5	316	06.5	+02.5	317	05.7	+02.4	318	04.8	+02.5	319	03.9	+02.5	11
12	330	09.9	+02.4	331	09.0	+02.5	332	08.1	+02.5	333	07.3	+02.4	334	06.4	+02.5	12
13	345	12.3	+02.5	346	11.5	+02.4	347	10.6	+02.5	348	09.7	+02.5	349	08.9	+02.4	13
14	0	14.8	+02.4	1	13.9	+02.5	2	13.1	+02.4	3	12.2	+02.5	4	11.3	+02.5	14
15	15	17.2	+02.5	16	16.4	+02.5	17	15.5	+02.5	18	14.7	+02.4	19	13.8	+02.5	15
16	30	19.7	+02.5	31	18.9	+02.4	32	18.0	+02.5	33	17.1	+02.5	34	16.3	+02.4	16
17	45	22.2	+02.4	46	21.3	+02.5	47	20.5	+02.4	48	19.6	+02.5	49	18.7	+02.5	17
18	60	24.6	+02.5	61	23.8	+02.4	62	22.9	+02.5	63	22.1	+02.4	64	21.2	+02.5	18
19	75	27.1	+02.5	76	26.2	+02.5	77	25.4	+02.4	78	24.5	+02.5	79	23.7	+02.4	19
20	90	29.6	+02.4	91	28.7	+02.5	92	27.8	+02.5	93	27.0	+02.4	94	26.1	+02.5	20
21	105	32.0	+02.5	106	31.2	+02.4	107	30.3	+02.5	108	29.4	+02.5	109	28.6	+02.4	21
22	120	34.5	+02.5	121	33.6	+02.5	122	32.8	+02.4	123	31.9	+02.5	124	31.0	+02.5	22
23	135	37.0	+02.4	136	36.1	+02.5	137	35.2	+02.5	138	34.4	+02.4	139	33.5	+02.5	23

	SHA	Dec		SHA	Dec				
	° ' "	' "		° ' "	' "				
Alpheratz	357	36.7	N 29	13.1	Gienah	175	44.9	S 17	40.2
Ankaa	353	09.1	S 42	11.0	Acrux	173	01.3	S 63	13.4
Schedir	349	33.3	N 56	39.9	Gacrux	171	53.0	S 57	14.3
Diphda	348	49.2	S 17	51.8	Alioth	166	14.0	N 55	49.8
Achernar	335	21.7	S 57	07.5	Spica	158	23.7	S 11	16.9
Hamal	327	53.2	N 23	34.3	Alkaid	152	52.9	N 49	11.6
Polaris	314	55.0	N 89	22.0	Hadar	148	37.9	S 60	28.8
Acamar	315	13.0	S 40	13.0	Menkent	147	59.0	S 36	28.6
Menkar	314	07.8	N 04	10.7	Arcturus	145	48.8	N 19	04.3
Mirfak	308	30.5	N 49	56.7	Rigel Kentaurus	139	39.5	S 60	55.8
Aldebaran	290	41.4	N 16	33.4	Zubenelgenubi	136	57.6	S 16	08.2
Capella	280	24.0	N 46	01.6	Kocab	137	19.4	N 74	03.3
Rigel	281	05.2	S 08	10.6	Alphecca	126	05.1	N 26	38.0
Bellatrix	278	24.4	N 06	22.2	Antares	112	17.9	S 26	28.9
Elnath	278	03.7	N 28	37.7	Atria	107	13.6	S 69	03.8
Alnilam	275	39.2	S 01	11.3	Sabik	102	04.7	S 15	45.3
Betelgeuze	270	53.6	N 07	24.6	Shaula	96	12.6	S 37	07.1
Canopus	263	52.8	S 52	42.7	Rasalhague	96	00.2	N 12	32.5
Sirius	258	27.2	S 16	44.5	Etamin	90	43.2	N 51	28.8
Adhara	255	06.8	S 29	00.4	Kaus Australis	83	34.8	S 34	22.3
Castor	245	58.7	N 31	50.3	Vega	80	34.6	N 38	47.9
Procyon	244	52.0	N 05	10.3	Nunki	75	49.9	S 26	16.1
Pollux	243	18.5	N 27	58.2	Albireo	67	05.6	N 28	00.2
Avior	234	14.8	S 59	35.1	Altair	62	01.9	N 08	55.4
Suhail	222	47.0	S 43	31.6	Peacock	53	08.7	S 56	39.6
Miaplacidus	221	37.5	S 69	48.8	Deneb	49	27.3	N 45	21.5
Alphard	217	48.9	S 08	45.6	Enif	33	40.7	N 09	58.7
Regulus	207	35.7	N 11	51.2	Alnair	27	35.4	S 46	51.0
Dubhe	193	42.1	N 61	37.5	Formalhaut	15	16.7	S 29	30.1
Denebola	182	26.1	N 14	26.5	Markab	13	31.8	N 15	19.7

2023 - First Point of Aries / Selected Stars

UT	day 56 of 365 February 25		day 57 of 365 February 26		day 58 of 365 February 27		day 59 of 365 February 28		day 60 of 365 March 1		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	154	36.0 +02.4	155	35.1 +02.5	156	34.3 +02.4	157	33.4 +02.5	158	32.5 +02.5	00
01	169	38.4 +02.5	170	37.6 +02.4	171	36.7 +02.5	172	35.9 +02.4	173	35.0 +02.5	01
02	184	40.9 +02.5	185	40.0 +02.5	186	39.2 +02.4	187	38.3 +02.5	188	37.5 +02.4	02
03	199	43.4 +02.4	200	42.5 +02.5	201	41.6 +02.5	202	40.8 +02.4	203	39.9 +02.5	03
04	214	45.8 +02.5	215	45.0 +02.4	216	44.1 +02.5	217	43.2 +02.5	218	42.4 +02.5	04
05	229	48.3 +02.5	230	47.4 +02.5	231	46.6 +02.4	232	45.7 +02.5	233	44.9 +02.4	05
06	244	50.8 +02.4	245	49.9 +02.5	246	49.0 +02.5	247	48.2 +02.4	248	47.3 +02.5	06
07	259	53.2 +02.5	260	52.4 +02.4	261	51.5 +02.5	262	50.6 +02.5	263	49.8 +02.4	07
08	274	55.7 +02.5	275	54.8 +02.5	276	54.0 +02.4	277	53.1 +02.5	278	52.2 +02.5	08
09	289	58.2 +02.4	290	57.3 +02.5	291	56.4 +02.5	292	55.6 +02.4	293	54.7 +02.5	09
10	305	00.6 +02.5	305	59.8 +02.4	306	58.9 +02.5	307	58.0 +02.5	308	57.2 +02.4	10
11	320	03.1 +02.4	321	02.2 +02.5	322	01.4 +02.4	323	00.5 +02.5	323	59.6 +02.5	11
12	335	05.5 +02.5	336	04.7 +02.4	337	03.8 +02.5	338	03.0 +02.4	339	02.1 +02.5	12
13	350	08.0 +02.5	351	07.1 +02.5	352	06.3 +02.5	353	05.4 +02.5	354	04.6 +02.4	13
14	5	10.5 +02.4	6	09.6 +02.5	7	08.8 +02.4	8	07.9 +02.5	9	07.0 +02.5	14
15	20	12.9 +02.5	21	12.1 +02.4	22	11.2 +02.5	23	10.4 +02.4	24	09.5 +02.5	15
16	35	15.4 +02.5	36	14.5 +02.5	37	13.7 +02.4	38	12.8 +02.5	39	12.0 +02.4	16
17	50	17.9 +02.4	51	17.0 +02.5	52	16.1 +02.5	53	15.3 +02.4	54	14.4 +02.5	17
18	65	20.3 +02.5	66	19.5 +02.4	67	18.6 +02.5	68	17.7 +02.5	69	16.9 +02.5	18
19	80	22.8 +02.5	81	21.9 +02.5	82	21.1 +02.4	83	20.2 +02.5	84	19.4 +02.4	19
20	95	25.3 +02.4	96	24.4 +02.5	97	23.5 +02.5	98	22.7 +02.4	99	21.8 +02.5	20
21	110	27.7 +02.5	111	26.9 +02.4	112	26.0 +02.5	113	25.1 +02.5	114	24.3 +02.4	21
22	125	30.2 +02.4	126	29.3 +02.5	127	28.5 +02.4	128	27.6 +02.5	129	26.7 +02.5	22
23	140	32.6 +02.5	141	31.8 +02.5	142	30.9 +02.5	143	30.1 +02.4	144	29.2 +02.5	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 36.7	N 29 13.1	Gienah	175 44.8	S 17 40.2
Ankaa	353 09.1	S 42 10.9	Acrux	173 01.2	S 63 13.5
Schedir	349 33.3	N 56 39.9	Gacrux	171 52.9	S 57 14.3
Diphda	348 49.2	S 17 51.8	Alioth	166 14.0	N 55 49.9
Achernar	335 21.8	S 57 07.5	Spica	158 23.7	S 11 16.9
Hamal	327 53.2	N 23 34.3	Alkaid	152 52.9	N 49 11.6
Polaris	314 57.6	N 89 22.0	Hadar	148 37.8	S 60 28.8
Acamar	315 13.0	S 40 13.0	Menkent	147 58.9	S 36 28.6
Menkar	314 07.9	N 04 10.7	Arcturus	145 48.8	N 19 04.3
Mirfak	308 30.6	N 49 56.7	Rigel Kentaurus	139 39.5	S 60 55.8
Aldebaran	290 41.4	N 16 33.4	Zubenelgenubi	136 57.6	S 16 08.2
Capella	280 24.1	N 46 01.6	Kocab	137 19.3	N 74 03.3
Rigel	281 05.3	S 08 10.6	Alphecca	126 05.0	N 26 38.0
Bellatrix	278 24.4	N 06 22.2	Antares	112 17.9	S 26 28.9
Elnath	278 03.7	N 28 37.7	Atria	107 13.5	S 69 03.8
Alnilam	275 39.2	S 01 11.3	Sabik	102 04.6	S 15 45.3
Betelgeuze	270 53.6	N 07 24.6	Shaula	96 12.6	S 37 07.1
Canopus	263 52.8	S 52 42.7	Rasalhague	96 00.1	N 12 32.5
Sirius	258 27.2	S 16 44.6	Etamin	90 43.1	N 51 28.8
Adhara	255 06.8	S 29 00.4	Kaus Australis	83 34.8	S 34 22.3
Castor	245 58.7	N 31 50.3	Vega	80 34.6	N 38 47.9
Procyon	244 52.0	N 05 10.2	Nunki	75 49.9	S 26 16.1
Pollux	243 18.6	N 27 58.3	Albireo	67 05.6	N 28 00.2
Avior	234 14.8	S 59 35.1	Altair	62 01.9	N 08 55.4
Suhail	222 47.0	S 43 31.6	Peacock	53 08.7	S 56 39.6
Miaplacidus	221 37.6	S 69 48.8	Deneb	49 27.3	N 45 21.5
Alphard	217 49.0	S 08 45.6	Enif	33 40.6	N 09 58.7
Regulus	207 35.6	N 11 51.2	Alnair	27 35.4	S 46 51.0
Dubhe	193 42.1	N 61 37.5	Formalhaut	15 16.7	S 29 30.1
Denebola	182 26.1	N 14 26.5	Markab	13 31.8	N 15 19.6

2023 - First Point of Aries / Selected Stars

UT	day 61 of 365		day 62 of 365		day 63 of 365		day 64 of 365		day 65 of 365		UT		
	March 2		March 3		March 4		March 5		March 6				
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA			
	°	'	°	'	°	'	°	'	°	'			
00	159	31.7	+02.4	160	30.8	+02.5	161	30.0	+02.4	162	29.1	+02.5	00
01	174	34.1	+02.5	175	33.3	+02.4	176	32.4	+02.5	177	31.6	+02.4	01
02	189	36.6	+02.5	190	35.7	+02.5	191	34.9	+02.4	192	34.0	+02.5	02
03	204	39.1	+02.4	205	38.2	+02.5	206	37.3	+02.5	207	36.5	+02.4	03
04	219	41.5	+02.5	220	40.7	+02.4	221	39.8	+02.5	222	38.9	+02.5	04
05	234	44.0	+02.5	235	43.1	+02.5	236	42.3	+02.4	237	41.4	+02.5	05
06	249	46.5	+02.4	250	45.6	+02.5	251	44.7	+02.5	252	43.9	+02.4	06
07	264	48.9	+02.5	265	48.1	+02.4	266	47.2	+02.5	267	46.3	+02.5	07
08	279	51.4	+02.4	280	50.5	+02.5	281	49.7	+02.4	282	48.8	+02.5	08
09	294	53.8	+02.5	295	53.0	+02.5	296	52.1	+02.5	297	51.3	+02.4	09
10	309	56.3	+02.5	310	55.5	+02.4	311	54.6	+02.5	312	53.7	+02.5	10
11	324	58.8	+02.4	325	57.9	+02.5	326	57.1	+02.4	327	56.2	+02.5	11
12	340	01.2	+02.5	341	00.4	+02.4	341	59.5	+02.5	342	58.7	+02.4	12
13	355	03.7	+02.5	356	02.8	+02.5	357	02.0	+02.4	358	01.1	+02.5	13
14	10	06.2	+02.4	11	05.3	+02.5	12	04.4	+02.5	13	03.6	+02.5	14
15	25	08.6	+02.5	26	07.8	+02.4	27	06.9	+02.5	28	06.1	+02.4	15
16	40	11.1	+02.5	41	10.2	+02.5	42	09.4	+02.4	43	08.5	+02.5	16
17	55	13.6	+02.4	56	12.7	+02.5	57	11.8	+02.5	58	11.0	+02.4	17
18	70	16.0	+02.5	71	15.2	+02.4	72	14.3	+02.5	73	13.4	+02.5	18
19	85	18.5	+02.5	86	17.6	+02.5	87	16.8	+02.4	88	15.9	+02.5	19
20	100	21.0	+02.4	101	20.1	+02.5	102	19.2	+02.5	103	18.4	+02.4	20
21	115	23.4	+02.5	116	22.6	+02.4	117	21.7	+02.5	118	20.8	+02.5	21
22	130	25.9	+02.4	131	25.0	+02.5	132	24.2	+02.4	133	23.3	+02.5	22
23	145	28.3	+02.5	146	27.5	+02.5	147	26.6	+02.5	148	25.8	+02.4	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.7	N 29	13.1	Gienah	175	44.8	S 17	40.3
Ankaa	353	09.1	S 42	10.9	Acrux	173	01.2	S 63	13.5
Schedir	349	33.3	N 56	39.9	Gacrux	171	52.9	S 57	14.4
Diphda	348	49.2	S 17	51.8	Alioth	166	13.9	N 55	49.9
Achernar	335	21.8	S 57	07.4	Spica	158	23.7	S 11	17.0
Hamal	327	53.2	N 23	34.3	Alkaid	152	52.8	N 49	11.6
Polaris	314	59.6	N 89	22.0	Hadar	148	37.8	S 60	28.9
Acamar	315	13.1	S 40	13.0	Menkent	147	58.9	S 36	28.7
Menkar	314	07.9	N 04	10.7	Arcturus	145	48.7	N 19	04.3
Mirfak	308	30.6	N 49	56.7	Rigel Kentaurus	139	39.4	S 60	55.8
Aldebaran	290	41.4	N 16	33.4	Zubenelgenubi	136	57.5	S 16	08.3
Capella	280	24.1	N 46	01.6	Kocab	137	19.2	N 74	03.3
Rigel	281	05.3	S 08	10.7	Alphecca	126	05.0	N 26	38.0
Bellatrix	278	24.4	N 06	22.2	Antares	112	17.8	S 26	28.9
Elnath	278	03.7	N 28	37.7	Atria	107	13.4	S 69	03.8
Alnilam	275	39.2	S 01	11.3	Sabik	102	04.6	S 15	45.3
Betelgeuze	270	53.6	N 07	24.6	Shaula	96	12.5	S 37	07.1
Canopus	263	52.9	S 52	42.7	Rasalhague	96	00.1	N 12	32.5
Sirius	258	27.2	S 16	44.6	Etamin	90	43.1	N 51	28.8
Adhara	255	06.8	S 29	00.4	Kaus Australis	83	34.7	S 34	22.3
Castor	245	58.7	N 31	50.3	Vega	80	34.5	N 38	47.9
Procyon	244	52.0	N 05	10.2	Nunki	75	49.9	S 26	16.1
Pollux	243	18.6	N 27	58.3	Albireo	67	05.5	N 28	00.2
Avior	234	14.8	S 59	35.2	Altair	62	01.9	N 08	55.4
Suhail	222	47.0	S 43	31.7	Peacock	53	08.6	S 56	39.6
Miaplacidus	221	37.6	S 69	48.8	Deneb	49	27.2	N 45	21.5
Alphard	217	49.0	S 08	45.6	Enif	33	40.6	N 09	58.7
Regulus	207	35.6	N 11	51.2	Alnair	27	35.3	S 46	51.0
Dubhe	193	42.1	N 61	37.5	Formalhaut	15	16.7	S 29	30.1
Denebola	182	26.0	N 14	26.5	Markab	13	31.8	N 15	19.6

2023 - First Point of Aries / Selected Stars

UT	day 66 of 365		day 67 of 365		day 68 of 365		day 69 of 365		day 70 of 365		UT					
	March 7		March 8		March 9		March 10		March 11							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	164	27.4	+02.4	165	26.5	+02.5	166	25.6	+02.5	167	24.8	+02.4	168	23.9	+02.5	00
01	179	29.8	+02.5	180	29.0	+02.4	181	28.1	+02.5	182	27.2	+02.5	183	26.4	+02.4	01
02	194	32.3	+02.5	195	31.4	+02.5	196	30.6	+02.4	197	29.7	+02.5	198	28.8	+02.5	02
03	209	34.8	+02.4	210	33.9	+02.5	211	33.0	+02.5	212	32.2	+02.4	213	31.3	+02.5	03
04	224	37.2	+02.5	225	36.4	+02.4	226	35.5	+02.5	227	34.6	+02.5	228	33.8	+02.4	04
05	239	39.7	+02.4	240	38.8	+02.5	241	38.0	+02.4	242	37.1	+02.5	243	36.2	+02.5	05
06	254	42.1	+02.5	255	41.3	+02.4	256	40.4	+02.5	257	39.6	+02.4	258	38.7	+02.5	06
07	269	44.6	+02.5	270	43.7	+02.5	271	42.9	+02.4	272	42.0	+02.5	273	41.2	+02.4	07
08	284	47.1	+02.4	285	46.2	+02.5	286	45.3	+02.5	287	44.5	+02.5	288	43.6	+02.5	08
09	299	49.5	+02.5	300	48.7	+02.4	301	47.8	+02.5	302	47.0	+02.4	303	46.1	+02.5	09
10	314	52.0	+02.5	315	51.1	+02.5	316	50.3	+02.4	317	49.4	+02.5	318	48.6	+02.4	10
11	329	54.5	+02.4	330	53.6	+02.5	331	52.7	+02.5	332	51.9	+02.4	333	51.0	+02.5	11
12	344	56.9	+02.5	345	56.1	+02.4	346	55.2	+02.5	347	54.3	+02.5	348	53.5	+02.4	12
13	359	59.4	+02.5	0	58.5	+02.5	1	57.7	+02.4	2	56.8	+02.5	3	55.9	+02.5	13
14	15	01.9	+02.4	16	01.0	+02.5	17	00.1	+02.5	17	59.3	+02.4	18	58.4	+02.5	14
15	30	04.3	+02.5	31	03.5	+02.4	32	02.6	+02.5	33	01.7	+02.5	34	00.9	+02.4	15
16	45	06.8	+02.5	46	05.9	+02.5	47	05.1	+02.4	48	04.2	+02.5	49	03.3	+02.5	16
17	60	09.3	+02.4	61	08.4	+02.5	62	07.5	+02.5	63	06.7	+02.4	64	05.8	+02.5	17
18	75	11.7	+02.5	76	10.9	+02.4	77	10.0	+02.5	78	09.1	+02.5	79	08.3	+02.4	18
19	90	14.2	+02.4	91	13.3	+02.5	92	12.5	+02.4	93	11.6	+02.5	94	10.7	+02.5	19
20	105	16.6	+02.5	106	15.8	+02.4	107	14.9	+02.5	108	14.1	+02.4	109	13.2	+02.5	20
21	120	19.1	+02.5	121	18.2	+02.5	122	17.4	+02.4	123	16.5	+02.5	124	15.7	+02.4	21
22	135	21.6	+02.4	136	20.7	+02.5	137	19.8	+02.5	138	19.0	+02.4	139	18.1	+02.5	22
23	150	24.0	+02.5	151	23.2	+02.4	152	22.3	+02.5	153	21.4	+02.5	154	20.6	+02.4	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.8	N 29	13.0	Gienah	175	44.8	S 17	40.3
Ankaa	353	09.1	S 42	10.9	Acrux	173	01.2	S 63	13.5
Schedir	349	33.3	N 56	39.9	Gacrux	171	52.9	S 57	14.4
Diphda	348	49.2	S 17	51.8	Alioth	166	13.9	N 55	49.9
Achernar	335	21.8	S 57	07.4	Spica	158	23.6	S 11	17.0
Hamal	327	53.2	N 23	34.3	Alkaid	152	52.8	N 49	11.6
Polaris	315	01.9	N 89	22.0	Hadar	148	37.7	S 60	28.9
Acamar	315	13.1	S 40	13.0	Menkent	147	58.9	S 36	28.7
Menkar	314	07.9	N 04	10.7	Arcturus	145	48.7	N 19	04.3
Mirfak	308	30.6	N 49	56.7	Rigel Kentaurus	139	39.3	S 60	55.8
Aldebaran	290	41.4	N 16	33.4	Zubenelgenubi	136	57.5	S 16	08.3
Capella	280	24.1	N 46	01.6	Kocab	137	19.1	N 74	03.3
Rigel	281	05.3	S 08	10.6	Alphecca	126	05.0	N 26	38.0
Bellatrix	278	24.5	N 06	22.2	Antares	112	17.8	S 26	29.0
Elnath	278	03.8	N 28	37.7	Atria	107	13.3	S 69	03.9
Alnilam	275	39.2	S 01	11.3	Sabik	102	04.6	S 15	45.3
Betelgeuze	270	53.7	N 07	24.6	Shaula	96	12.5	S 37	07.1
Canopus	263	52.9	S 52	42.7	Rasalhague	96	00.0	N 12	32.4
Sirius	258	27.2	S 16	44.6	Etamin	90	43.0	N 51	28.8
Adhara	255	06.9	S 29	00.4	Kaus Australis	83	34.7	S 34	22.3
Castor	245	58.7	N 31	50.3	Vega	80	34.5	N 38	47.9
Procyon	244	52.0	N 05	10.2	Nunki	75	49.8	S 26	16.1
Pollux	243	18.6	N 27	58.3	Albireo	67	05.5	N 28	00.2
Avior	234	14.9	S 59	35.2	Altair	62	01.8	N 08	55.4
Suhail	222	47.0	S 43	31.7	Peacock	53	08.6	S 56	39.5
Miaplacidus	221	37.6	S 69	48.9	Deneb	49	27.2	N 45	21.5
Alphard	217	49.0	S 08	45.6	Enif	33	40.6	N 09	58.7
Regulus	207	35.6	N 11	51.2	Alnair	27	35.3	S 46	51.0
Dubhe	193	42.1	N 61	37.6	Formalhaut	15	16.7	S 29	30.1
Denebola	182	26.0	N 14	26.5	Markab	13	31.8	N 15	19.6

2023 - First Point of Aries / Selected Stars

UT	day 71 of 365		day 72 of 365		day 73 of 365		day 74 of 365		day 75 of 365		UT					
	March 12		March 13		March 14		March 15		March 16							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	169	23.0	+02.5	170	22.2	+02.5	171	21.3	+02.5	172	20.5	+02.4	173	19.6	+02.5	00
01	184	25.5	+02.5	185	24.7	+02.4	186	23.8	+02.5	187	22.9	+02.5	188	22.1	+02.4	01
02	199	28.0	+02.4	200	27.1	+02.5	201	26.3	+02.4	202	25.4	+02.5	203	24.5	+02.5	02
03	214	30.4	+02.5	215	29.6	+02.4	216	28.7	+02.5	217	27.9	+02.4	218	27.0	+02.5	03
04	229	32.9	+02.5	230	32.0	+02.5	231	31.2	+02.4	232	30.3	+02.5	233	29.5	+02.4	04
05	244	35.4	+02.4	245	34.5	+02.5	246	33.6	+02.5	247	32.8	+02.5	248	31.9	+02.5	05
06	259	37.8	+02.5	260	37.0	+02.4	261	36.1	+02.5	262	35.3	+02.4	263	34.4	+02.5	06
07	274	40.3	+02.5	275	39.4	+02.5	276	38.6	+02.4	277	37.7	+02.5	278	36.9	+02.4	07
08	289	42.8	+02.4	290	41.9	+02.5	291	41.0	+02.5	292	40.2	+02.4	293	39.3	+02.5	08
09	304	45.2	+02.5	305	44.4	+02.4	306	43.5	+02.5	307	42.6	+02.5	308	41.8	+02.4	09
10	319	47.7	+02.5	320	46.8	+02.5	321	46.0	+02.4	322	45.1	+02.5	323	44.2	+02.5	10
11	334	50.2	+02.4	335	49.3	+02.5	336	48.4	+02.5	337	47.6	+02.4	338	46.7	+02.5	11
12	349	52.6	+02.5	350	51.8	+02.4	351	50.9	+02.5	352	50.0	+02.5	353	49.2	+02.4	12
13	4	55.1	+02.4	5	54.2	+02.5	6	53.4	+02.4	7	52.5	+02.5	8	51.6	+02.5	13
14	19	57.5	+02.5	20	56.7	+02.4	21	55.8	+02.5	22	55.0	+02.4	23	54.1	+02.5	14
15	35	00.0	+02.5	35	59.1	+02.5	36	58.3	+02.5	37	57.4	+02.5	38	56.6	+02.4	15
16	50	02.5	+02.4	51	01.6	+02.5	52	00.8	+02.4	52	59.9	+02.5	53	59.0	+02.5	16
17	65	04.9	+02.5	66	04.1	+02.4	67	03.2	+02.5	68	02.4	+02.4	69	01.5	+02.5	17
18	80	07.4	+02.5	81	06.5	+02.5	82	05.7	+02.4	83	04.8	+02.5	84	04.0	+02.4	18
19	95	09.9	+02.4	96	09.0	+02.5	97	08.1	+02.5	98	07.3	+02.5	99	06.4	+02.5	19
20	110	12.3	+02.5	111	11.5	+02.4	112	10.6	+02.5	113	09.8	+02.4	114	08.9	+02.5	20
21	125	14.8	+02.5	126	13.9	+02.5	127	13.1	+02.4	128	12.2	+02.5	129	11.4	+02.4	21
22	140	17.3	+02.4	141	16.4	+02.5	142	15.5	+02.5	143	14.7	+02.4	144	13.8	+02.5	22
23	155	19.7	+02.5	156	18.9	+02.4	157	18.0	+02.5	158	17.1	+02.5	159	16.3	+02.4	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.8	N 29	13.0	Gienah	175	44.8	S 17	40.3
Ankaa	353	09.1	S 42	10.9	Acrux	173	01.1	S 63	13.6
Schedir	349	33.4	N 56	39.8	Gacrux	171	52.8	S 57	14.4
Diphda	348	49.2	S 17	51.8	Alioth	166	13.9	N 55	49.9
Achernar	335	21.8	S 57	07.4	Spica	158	23.6	S 11	17.0
Hamal	327	53.2	N 23	34.3	Alkaid	152	52.8	N 49	11.7
Polaris	315	04.1	N 89	22.0	Hadar	148	37.7	S 60	28.9
Acamar	315	13.1	S 40	13.0	Menkent	147	58.8	S 36	28.7
Menkar	314	07.9	N 04	10.7	Arcturus	145	48.7	N 19	04.3
Mirfak	308	30.7	N 49	56.7	Rigel Kentaurus	139	39.3	S 60	55.9
Aldebaran	290	41.4	N 16	33.4	Zubenelgenubi	136	57.5	S 16	08.3
Capella	280	24.2	N 46	01.6	Kocab	137	19.0	N 74	03.3
Rigel	281	05.3	S 08	10.7	Alphecca	126	04.9	N 26	38.0
Bellatrix	278	24.5	N 06	22.2	Antares	112	17.7	S 26	29.0
Elnath	278	03.8	N 28	37.7	Atria	107	13.2	S 69	03.9
Alnilam	275	39.3	S 01	11.3	Sabik	102	04.5	S 15	45.3
Betelgeuze	270	53.7	N 07	24.6	Shaula	96	12.5	S 37	07.1
Canopus	263	52.9	S 52	42.7	Rasalhague	96	00.0	N 12	32.4
Sirius	258	27.3	S 16	44.6	Etamin	90	43.0	N 51	28.8
Adhara	255	06.9	S 29	00.4	Kaus Australis	83	34.6	S 34	22.3
Castor	245	58.7	N 31	50.3	Vega	80	34.5	N 38	47.8
Procyon	244	52.0	N 05	10.2	Nunki	75	49.8	S 26	16.1
Pollux	243	18.6	N 27	58.3	Albireo	67	05.5	N 28	00.2
Avior	234	14.9	S 59	35.2	Altair	62	01.8	N 08	55.4
Suhail	222	47.1	S 43	31.7	Peacock	53	08.5	S 56	39.5
Miaplacidus	221	37.7	S 69	48.9	Deneb	49	27.2	N 45	21.5
Alphard	217	49.0	S 08	45.6	Enif	33	40.6	N 09	58.7
Regulus	207	35.6	N 11	51.2	Alnair	27	35.3	S 46	50.9
Dubhe	193	42.1	N 61	37.6	Formalhaut	15	16.7	S 29	30.1
Denebola	182	26.0	N 14	26.5	Markab	13	31.8	N 15	19.6

2023 - First Point of Aries / Selected Stars

UT	day 76 of 365			day 77 of 365			day 78 of 365			day 79 of 365			day 80 of 365			UT
	March 17			March 18			March 19			March 20			March 21			
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	
00	174	18.7	+02.5	175	17.9	+02.5	176	17.0	+02.5	177	16.2	+02.4	178	15.3	+02.5	00
01	189	21.2	+02.5	190	20.4	+02.4	191	19.5	+02.5	192	18.6	+02.5	193	17.8	+02.4	01
02	204	23.7	+02.4	205	22.8	+02.5	206	22.0	+02.4	207	21.1	+02.5	208	20.2	+02.5	02
03	219	26.1	+02.5	220	25.3	+02.4	221	24.4	+02.5	222	23.6	+02.4	223	22.7	+02.5	03
04	234	28.6	+02.5	235	27.7	+02.5	236	26.9	+02.4	237	26.0	+02.5	238	25.2	+02.4	04
05	249	31.1	+02.4	250	30.2	+02.5	251	29.3	+02.5	252	28.5	+02.4	253	27.6	+02.5	05
06	264	33.5	+02.5	265	32.7	+02.4	266	31.8	+02.5	267	30.9	+02.5	268	30.1	+02.4	06
07	279	36.0	+02.5	280	35.1	+02.5	281	34.3	+02.4	282	33.4	+02.5	283	32.5	+02.5	07
08	294	38.5	+02.4	295	37.6	+02.5	296	36.7	+02.5	297	35.9	+02.4	298	35.0	+02.5	08
09	309	40.9	+02.5	310	40.1	+02.4	311	39.2	+02.5	312	38.3	+02.5	313	37.5	+02.4	09
10	324	43.4	+02.5	325	42.5	+02.5	326	41.7	+02.4	327	40.8	+02.5	328	39.9	+02.5	10
11	339	45.9	+02.4	340	45.0	+02.5	341	44.1	+02.5	342	43.3	+02.4	343	42.4	+02.5	11
12	354	48.3	+02.5	355	47.5	+02.4	356	46.6	+02.5	357	45.7	+02.5	358	44.9	+02.4	12
13	9	50.8	+02.4	10	49.9	+02.5	11	49.1	+02.4	12	48.2	+02.5	13	47.3	+02.5	13
14	24	53.2	+02.5	25	52.4	+02.4	26	51.5	+02.5	27	50.7	+02.4	28	49.8	+02.5	14
15	39	55.7	+02.5	40	54.8	+02.5	41	54.0	+02.5	42	53.1	+02.5	43	52.3	+02.4	15
16	54	58.2	+02.4	55	57.3	+02.5	56	56.5	+02.4	57	55.6	+02.5	58	54.7	+02.5	16
17	70	00.6	+02.5	70	59.8	+02.4	71	58.9	+02.5	72	58.1	+02.4	73	57.2	+02.5	17
18	85	03.1	+02.5	86	02.2	+02.5	87	01.4	+02.4	88	00.5	+02.5	88	59.7	+02.4	18
19	100	05.6	+02.4	101	04.7	+02.5	102	03.8	+02.5	103	03.0	+02.4	104	02.1	+02.5	19
20	115	08.0	+02.5	116	07.2	+02.4	117	06.3	+02.5	118	05.4	+02.5	119	04.6	+02.4	20
21	130	10.5	+02.5	131	09.6	+02.5	132	08.8	+02.4	133	07.9	+02.5	134	07.0	+02.5	21
22	145	13.0	+02.4	146	12.1	+02.5	147	11.2	+02.5	148	10.4	+02.4	149	09.5	+02.5	22
23	160	15.4	+02.5	161	14.6	+02.4	162	13.7	+02.5	163	12.8	+02.5	164	12.0	+02.4	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.7	N 29	13.0	Gienah	175	44.8	S 17	40.3
Ankaa	353	09.1	S 42	10.9	Acrux	173	01.1	S 63	13.6
Schedir	349	33.4	N 56	39.8	Gacrux	171	52.8	S 57	14.4
Diphda	348	49.2	S 17	51.8	Alioth	166	13.9	N 55	49.9
Achernar	335	21.9	S 57	07.4	Spica	158	23.6	S 11	17.0
Hamal	327	53.2	N 23	34.3	Alkaid	152	52.7	N 49	11.7
Polaris	315	05.7	N 89	21.9	Hadar	148	37.6	S 60	28.9
Acamar	315	13.1	S 40	13.0	Menkent	147	58.8	S 36	28.7
Menkar	314	07.9	N 04	10.7	Arcturus	145	48.6	N 19	04.3
Mirfak	308	30.7	N 49	56.7	Rigel Kentaurus	139	39.2	S 60	55.9
Aldebaran	290	41.5	N 16	33.4	Zubenelgenubi	136	57.4	S 16	08.3
Capella	280	24.2	N 46	01.6	Kocab	137	18.9	N 74	03.3
Rigel	281	05.4	S 08	10.7	Alphecca	126	04.9	N 26	38.0
Bellatrix	278	24.5	N 06	22.2	Antares	112	17.7	S 26	29.0
Elnath	278	03.8	N 28	37.7	Atria	107	13.1	S 69	03.9
Alnilam	275	39.3	S 01	11.4	Sabik	102	04.5	S 15	45.3
Betelgeuze	270	53.7	N 07	24.6	Shaula	96	12.4	S 37	07.1
Canopus	263	53.0	S 52	42.7	Rasalhague	95	60.0	N 12	32.4
Sirius	258	27.3	S 16	44.6	Etamin	90	42.9	N 51	28.8
Adhara	255	06.9	S 29	00.4	Kaus Australis	83	34.6	S 34	22.3
Castor	245	58.7	N 31	50.3	Vega	80	34.4	N 38	47.8
Procyon	244	52.0	N 05	10.2	Nunki	75	49.7	S 26	16.1
Pollux	243	18.6	N 27	58.3	Albireo	67	05.4	N 28	00.2
Avior	234	15.0	S 59	35.2	Altair	62	01.8	N 08	55.4
Suhail	222	47.1	S 43	31.7	Peacock	53	08.5	S 56	39.5
Miaplacidus	221	37.7	S 69	48.9	Deneb	49	27.2	N 45	21.5
Alphard	217	49.0	S 08	45.7	Enif	33	40.6	N 09	58.7
Regulus	207	35.6	N 11	51.2	Alnair	27	35.3	S 46	50.9
Dubhe	193	42.1	N 61	37.6	Formalhaut	15	16.7	S 29	30.0
Denebola	182	26.0	N 14	26.5	Markab	13	31.7	N 15	19.6

2023 - First Point of Aries / Selected Stars

UT	day 81 of 365			day 82 of 365			day 83 of 365			day 84 of 365			day 85 of 365			UT		
	March 22			March 23			March 24			March 25			March 26					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	179	14.4	+02.5	180	13.6	+02.4	181	12.7	+02.5	182	11.9	+02.4	183	11.0	+02.5	00		
01	194	16.9	+02.5	195	16.0	+02.5	196	15.2	+02.4	197	14.3	+02.5	198	13.5	+02.4	01		
02	209	19.4	+02.4	210	18.5	+02.5	211	17.6	+02.5	212	16.8	+02.4	213	15.9	+02.5	02		
03	224	21.8	+02.5	225	21.0	+02.4	226	20.1	+02.5	227	19.2	+02.5	228	18.4	+02.4	03		
04	239	24.3	+02.5	240	23.4	+02.5	241	22.6	+02.4	242	21.7	+02.5	243	20.8	+02.5	04		
05	254	26.8	+02.4	255	25.9	+02.5	256	25.0	+02.5	257	24.2	+02.4	258	23.3	+02.5	05		
06	269	29.2	+02.5	270	28.4	+02.4	271	27.5	+02.5	272	26.6	+02.5	273	25.8	+02.4	06		
07	284	31.7	+02.5	285	30.8	+02.5	286	30.0	+02.4	287	29.1	+02.5	288	28.2	+02.5	07		
08	299	34.2	+02.4	300	33.3	+02.5	301	32.4	+02.5	302	31.6	+02.4	303	30.7	+02.5	08		
09	314	36.6	+02.5	315	35.8	+02.4	316	34.9	+02.5	317	34.0	+02.5	318	33.2	+02.4	09		
10	329	39.1	+02.4	330	38.2	+02.5	331	37.4	+02.4	332	36.5	+02.5	333	35.6	+02.5	10		
11	344	41.5	+02.5	345	40.7	+02.4	346	39.8	+02.5	347	39.0	+02.4	348	38.1	+02.5	11		
12	359	44.0	+02.5	0	43.1	+02.5	1	42.3	+02.4	2	41.4	+02.5	3	40.6	+02.4	12		
13	14	46.5	+02.4	15	45.6	+02.5	16	44.7	+02.5	17	43.9	+02.4	18	43.0	+02.5	13		
14	29	48.9	+02.5	30	48.1	+02.4	31	47.2	+02.5	32	46.3	+02.5	33	45.5	+02.5	14		
15	44	51.4	+02.5	45	50.5	+02.5	46	49.7	+02.4	47	48.8	+02.5	48	48.0	+02.4	15		
16	59	53.9	+02.4	60	53.0	+02.5	61	52.1	+02.5	62	51.3	+02.4	63	50.4	+02.5	16		
17	74	56.3	+02.5	75	55.5	+02.4	76	54.6	+02.5	77	53.7	+02.5	78	52.9	+02.4	17		
18	89	58.8	+02.5	90	57.9	+02.5	91	57.1	+02.4	92	56.2	+02.5	93	55.3	+02.5	18		
19	105	01.3	+02.4	106	00.4	+02.5	106	59.5	+02.5	107	58.7	+02.4	108	57.8	+02.5	19		
20	120	03.7	+02.5	121	02.9	+02.4	122	02.0	+02.5	123	01.1	+02.5	124	00.3	+02.4	20		
21	135	06.2	+02.4	136	05.3	+02.5	137	04.5	+02.4	138	03.6	+02.5	139	02.7	+02.5	21		
22	150	08.6	+02.5	151	07.8	+02.4	152	06.9	+02.5	153	06.1	+02.4	154	05.2	+02.5	22		
23	165	11.1	+02.5	166	10.2	+02.5	167	09.4	+02.5	168	08.5	+02.5	169	07.7	+02.4	23		

	SHA		Dec			SHA		Dec	
	°	'	°	'		°	'	°	'
Alpheratz	357	36.7	N 29	13.0	Gienah	175	44.8	S 17	40.3
Ankaa	353	09.1	S 42	10.8	Acrux	173	01.1	S 63	13.6
Schedir	349	33.4	N 56	39.8	Gacrux	171	52.8	S 57	14.5
Diphda	348	49.2	S 17	51.8	Alioth	166	13.8	N 55	49.9
Achernar	335	21.9	S 57	07.3	Spica	158	23.6	S 11	17.0
Hamal	327	53.3	N 23	34.3	Alkaid	152	52.7	N 49	11.7
Polaris	315	07.7	N 89	21.9	Hadar	148	37.6	S 60	29.0
Acamar	315	13.2	S 40	13.0	Menkent	147	58.8	S 36	28.7
Menkar	314	07.9	N 04	10.7	Arcturus	145	48.6	N 19	04.3
Mirfak	308	30.7	N 49	56.7	Rigel Kentaurus	139	39.2	S 60	55.9
Aldebaran	290	41.5	N 16	33.4	Zubenelgenubi	136	57.4	S 16	08.3
Capella	280	24.2	N 46	01.6	Kocab	137	18.8	N 74	03.3
Rigel	281	05.4	S 08	10.6	Alphecca	126	04.8	N 26	38.0
Bellatrix	278	24.5	N 06	22.2	Antares	112	17.7	S 26	29.0
Elnath	278	03.8	N 28	37.7	Atria	107	13.0	S 69	03.9
Alnilam	275	39.3	S 01	11.3	Sabik	102	04.4	S 15	45.3
Betelgeuze	270	53.7	N 07	24.6	Shaula	96	12.4	S 37	07.1
Canopus	263	53.0	S 52	42.7	Rasalhague	95	59.9	N 12	32.4
Sirius	258	27.3	S 16	44.6	Etamin	90	42.9	N 51	28.8
Adhara	255	06.9	S 29	00.4	Kaus Australis	83	34.5	S 34	22.3
Castor	245	58.8	N 31	50.4	Vega	80	34.4	N 38	47.8
Procyon	244	52.0	N 05	10.2	Nunki	75	49.7	S 26	16.1
Pollux	243	18.6	N 27	58.3	Albireo	67	05.4	N 28	00.2
Avior	234	15.0	S 59	35.3	Altair	62	01.7	N 08	55.4
Suhail	222	47.1	S 43	31.7	Peacock	53	08.4	S 56	39.5
Miaplacidus	221	37.8	S 69	48.9	Deneb	49	27.1	N 45	21.4
Alphard	217	49.0	S 08	45.7	Enif	33	40.5	N 09	58.7
Regulus	207	35.6	N 11	51.2	Alnair	27	35.2	S 46	50.9
Dubhe	193	42.1	N 61	37.6	Formalhaut	15	16.6	S 29	30.0
Denebola	182	26.0	N 14	26.5	Markab	13	31.7	N 15	19.6

2023 - First Point of Aries / Selected Stars

UT	day 86 of 365			day 87 of 365			day 88 of 365			day 89 of 365			day 90 of 365			UT
	March 27			March 28			March 29			March 30			March 31			
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		
00	184	10.1	+02.5	185	09.3	+02.4	186	08.4	+02.5	187	07.5	+02.5	188	06.7	+02.5	00
01	199	12.6	+02.5	200	11.7	+02.5	201	10.9	+02.4	202	10.0	+02.5	203	09.2	+02.4	01
02	214	15.1	+02.4	215	14.2	+02.5	216	13.3	+02.5	217	12.5	+02.4	218	11.6	+02.5	02
03	229	17.5	+02.5	230	16.7	+02.4	231	15.8	+02.5	232	14.9	+02.5	233	14.1	+02.4	03
04	244	20.0	+02.4	245	19.1	+02.5	246	18.3	+02.4	247	17.4	+02.5	248	16.5	+02.5	04
05	259	22.4	+02.5	260	21.6	+02.5	261	20.7	+02.5	262	19.9	+02.4	263	19.0	+02.5	05
06	274	24.9	+02.5	275	24.1	+02.4	276	23.2	+02.5	277	22.3	+02.5	278	21.5	+02.4	06
07	289	27.4	+02.4	290	26.5	+02.5	291	25.7	+02.4	292	24.8	+02.5	293	23.9	+02.5	07
08	304	29.8	+02.5	305	29.0	+02.4	306	28.1	+02.5	307	27.3	+02.4	308	26.4	+02.5	08
09	319	32.3	+02.5	320	31.4	+02.5	321	30.6	+02.4	322	29.7	+02.5	323	28.9	+02.4	09
10	334	34.8	+02.4	335	33.9	+02.5	336	33.0	+02.5	337	32.2	+02.5	338	31.3	+02.5	10
11	349	37.2	+02.5	350	36.4	+02.4	351	35.5	+02.5	352	34.7	+02.4	353	33.8	+02.5	11
12	4	39.7	+02.5	5	38.8	+02.5	6	38.0	+02.4	7	37.1	+02.5	8	36.3	+02.4	12
13	19	42.2	+02.4	20	41.3	+02.5	21	40.4	+02.5	22	39.6	+02.4	23	38.7	+02.5	13
14	34	44.6	+02.5	35	43.8	+02.4	36	42.9	+02.5	37	42.0	+02.5	38	41.2	+02.4	14
15	49	47.1	+02.5	50	46.2	+02.5	51	45.4	+02.4	52	44.5	+02.5	53	43.6	+02.5	15
16	64	49.6	+02.4	65	48.7	+02.5	66	47.8	+02.5	67	47.0	+02.4	68	46.1	+02.5	16
17	79	52.0	+02.5	80	51.2	+02.4	81	50.3	+02.5	82	49.4	+02.5	83	48.6	+02.4	17
18	94	54.5	+02.4	95	53.6	+02.5	96	52.8	+02.4	97	51.9	+02.5	98	51.0	+02.5	18
19	109	56.9	+02.5	110	56.1	+02.5	111	55.2	+02.5	112	54.4	+02.4	113	53.5	+02.5	19
20	124	59.4	+02.5	125	58.6	+02.4	126	57.7	+02.5	127	56.8	+02.5	128	56.0	+02.4	20
21	140	01.9	+02.4	141	01.0	+02.5	142	00.2	+02.4	142	59.3	+02.5	143	58.4	+02.5	21
22	155	04.3	+02.5	156	03.5	+02.4	157	02.6	+02.5	158	01.8	+02.4	159	00.9	+02.5	22
23	170	06.8	+02.5	171	05.9	+02.5	172	05.1	+02.4	173	04.2	+02.5	174	03.4	+02.4	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 36.7	N 29 13.0	Gienah	175 44.7	S 17 40.3
Ankaa	353 09.1	S 42 10.8	Acrux	173 01.1	S 63 13.7
Schedir	349 33.4	N 56 39.8	Gacrux	171 52.8	S 57 14.5
Diphda	348 49.2	S 17 51.8	Alioth	166 13.8	N 55 50.0
Achernar	335 21.9	S 57 07.3	Spica	158 23.6	S 11 17.0
Hamal	327 53.3	N 23 34.3	Alkaid	152 52.7	N 49 11.7
Polaris	315 09.1	N 89 21.9	Hadar	148 37.6	S 60 29.0
Acamar	315 13.2	S 40 13.0	Menkent	147 58.7	S 36 28.8
Menkar	314 08.0	N 04 10.7	Arcturus	145 48.6	N 19 04.3
Mirfak	308 30.8	N 49 56.7	Rigel Kentaurus	139 39.1	S 60 55.9
Aldebaran	290 41.5	N 16 33.4	Zubenelgenubi	136 57.4	S 16 08.3
Capella	280 24.3	N 46 01.5	Kocab	137 18.8	N 74 03.4
Rigel	281 05.4	S 08 10.6	Alphecca	126 04.8	N 26 38.0
Bellatrix	278 24.5	N 06 22.2	Antares	112 17.6	S 26 29.0
Elnath	278 03.9	N 28 37.7	Atria	107 12.9	S 69 03.9
Alnilam	275 39.3	S 01 11.3	Sabik	102 04.4	S 15 45.3
Betelgeuze	270 53.8	N 07 24.6	Shaula	96 12.3	S 37 07.1
Canopus	263 53.1	S 52 42.8	Rasalhague	95 59.9	N 12 32.4
Sirius	258 27.3	S 16 44.6	Etamin	90 42.8	N 51 28.8
Adhara	255 07.0	S 29 00.4	Kaus Australis	83 34.5	S 34 22.3
Castor	245 58.8	N 31 50.4	Vega	80 34.3	N 38 47.8
Procyon	244 52.1	N 05 10.2	Nunki	75 49.7	S 26 16.1
Pollux	243 18.7	N 27 58.3	Albireo	67 05.4	N 28 00.2
Avior	234 15.0	S 59 35.3	Altair	62 01.7	N 08 55.4
Suhail	222 47.1	S 43 31.8	Peacock	53 08.4	S 56 39.5
Miaplacidus	221 37.8	S 69 49.0	Deneb	49 27.1	N 45 21.4
Alphard	217 49.0	S 08 45.7	Enif	33 40.5	N 09 58.7
Regulus	207 35.7	N 11 51.2	Alnair	27 35.2	S 46 50.9
Dubhe	193 42.1	N 61 37.6	Formalhaut	15 16.6	S 29 30.0
Denebola	182 26.0	N 14 26.5	Markab	13 31.7	N 15 19.6

2023 - First Point of Aries / Selected Stars

UT	day 91 of 365		day 92 of 365		day 93 of 365		day 94 of 365		day 95 of 365		UT					
	<i>April 1</i>		<i>April 2</i>		<i>April 3</i>		<i>April 4</i>		<i>April 5</i>							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	189	05.8	+02.5	190	05.0	+02.4	191	04.1	+02.5	192	03.2	+02.5	193	02.4	+02.4	00
01	204	08.3	+02.5	205	07.4	+02.5	206	06.6	+02.4	207	05.7	+02.5	208	04.8	+02.5	01
02	219	10.8	+02.4	220	09.9	+02.5	221	09.0	+02.5	222	08.2	+02.4	223	07.3	+02.5	02
03	234	13.2	+02.5	235	12.4	+02.4	236	11.5	+02.5	237	10.6	+02.5	238	09.8	+02.4	03
04	249	15.7	+02.4	250	14.8	+02.5	251	14.0	+02.4	252	13.1	+02.5	253	12.2	+02.5	04
05	264	18.1	+02.5	265	17.3	+02.4	266	16.4	+02.5	267	15.6	+02.4	268	14.7	+02.5	05
06	279	20.6	+02.5	280	19.7	+02.5	281	18.9	+02.4	282	18.0	+02.5	283	17.2	+02.4	06
07	294	23.1	+02.4	295	22.2	+02.5	296	21.3	+02.5	297	20.5	+02.4	298	19.6	+02.5	07
08	309	25.5	+02.5	310	24.7	+02.4	311	23.8	+02.5	312	22.9	+02.5	313	22.1	+02.5	08
09	324	28.0	+02.5	325	27.1	+02.5	326	26.3	+02.4	327	25.4	+02.5	328	24.6	+02.4	09
10	339	30.5	+02.4	340	29.6	+02.5	341	28.7	+02.5	342	27.9	+02.4	343	27.0	+02.5	10
11	354	32.9	+02.5	355	32.1	+02.4	356	31.2	+02.5	357	30.3	+02.5	358	29.5	+02.4	11
12	9	35.4	+02.5	10	34.5	+02.5	11	33.7	+02.4	12	32.8	+02.5	13	31.9	+02.5	12
13	24	37.9	+02.4	25	37.0	+02.5	26	36.1	+02.5	27	35.3	+02.4	28	34.4	+02.5	13
14	39	40.3	+02.5	40	39.5	+02.4	41	38.6	+02.5	42	37.7	+02.5	43	36.9	+02.4	14
15	54	42.8	+02.5	55	41.9	+02.5	56	41.1	+02.4	57	40.2	+02.5	58	39.3	+02.5	15
16	69	45.3	+02.4	70	44.4	+02.5	71	43.5	+02.5	72	42.7	+02.4	73	41.8	+02.5	16
17	84	47.7	+02.5	85	46.9	+02.4	86	46.0	+02.5	87	45.1	+02.5	88	44.3	+02.4	17
18	99	50.2	+02.4	100	49.3	+02.5	101	48.5	+02.4	102	47.6	+02.5	103	46.7	+02.5	18
19	114	52.6	+02.5	115	51.8	+02.4	116	50.9	+02.5	117	50.1	+02.4	118	49.2	+02.5	19
20	129	55.1	+02.5	130	54.2	+02.5	131	53.4	+02.4	132	52.5	+02.5	133	51.7	+02.4	20
21	144	57.6	+02.4	145	56.7	+02.5	146	55.8	+02.5	147	55.0	+02.4	148	54.1	+02.5	21
22	160	00.0	+02.5	160	59.2	+02.4	161	58.3	+02.5	162	57.4	+02.5	163	56.6	+02.4	22
23	175	02.5	+02.5	176	01.6	+02.5	177	00.8	+02.4	177	59.9	+02.5	178	59.0	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.7	N 29	13.0	Gienah	175	44.7	S 17	40.3
Ankaa	353	09.1	S 42	10.8	Acrux	173	01.1	S 63	13.7
Schedir	349	33.4	N 56	39.8	Gacrux	171	52.8	S 57	14.5
Diphda	348	49.2	S 17	51.7	Alioth	166	13.8	N 55	50.0
Achernar	335	21.9	S 57	07.3	Spica	158	23.5	S 11	17.0
Hamal	327	53.3	N 23	34.3	Alkaid	152	52.6	N 49	11.7
Polaris	315	10.3	N 89	21.9	Hadar	148	37.5	S 60	29.0
Acamar	315	13.2	S 40	12.9	Menkent	147	58.7	S 36	28.8
Menkar	314	08.0	N 04	10.7	Arcturus	145	48.6	N 19	04.3
Mirfak	308	30.8	N 49	56.7	Rigel Kentaurus	139	39.1	S 60	55.9
Aldebaran	290	41.5	N 16	33.4	Zubenelgenubi	136	57.3	S 16	08.3
Capella	280	24.3	N 46	01.5	Kocab	137	18.7	N 74	03.4
Rigel	281	05.4	S 08	10.6	Alphecca	126	04.8	N 26	38.0
Bellatrix	278	24.6	N 06	22.2	Antares	112	17.6	S 26	29.0
Elnath	278	03.9	N 28	37.7	Atria	107	12.8	S 69	03.9
Alnilam	275	39.3	S 01	11.3	Sabik	102	04.4	S 15	45.3
Betelgeuze	270	53.8	N 07	24.6	Shaula	96	12.3	S 37	07.1
Canopus	263	53.1	S 52	42.7	Rasalhague	95	59.9	N 12	32.4
Sirius	258	27.4	S 16	44.6	Etamin	90	42.8	N 51	28.8
Adhara	255	07.0	S 29	00.4	Kaus Australis	83	34.4	S 34	22.3
Castor	245	58.8	N 31	50.4	Vega	80	34.3	N 38	47.8
Procyon	244	52.1	N 05	10.2	Nunki	75	49.6	S 26	16.1
Pollux	243	18.7	N 27	58.3	Albireo	67	05.3	N 28	00.2
Avior	234	15.1	S 59	35.3	Altair	62	01.7	N 08	55.4
Suhail	222	47.1	S 43	31.8	Peacock	53	08.3	S 56	39.5
Miaplacidus	221	37.9	S 69	49.0	Deneb	49	27.0	N 45	21.4
Alphard	217	49.0	S 08	45.7	Enif	33	40.5	N 09	58.7
Regulus	207	35.7	N 11	51.2	Alnair	27	35.2	S 46	50.9
Dubhe	193	42.1	N 61	37.7	Formalhaut	15	16.6	S 29	30.0
Denebola	182	26.0	N 14	26.5	Markab	13	31.7	N 15	19.6

2023 - First Point of Aries / Selected Stars

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		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	194	01.5 +02.5	195	00.6 +02.5	195	59.8 +02.4	196	58.9 +02.5	197	58.1 +02.4	00
01	209	04.0 +02.4	210	03.1 +02.5	211	02.2 +02.5	212	01.4 +02.5	213	00.5 +02.5	01
02	224	06.4 +02.5	225	05.6 +02.4	226	04.7 +02.5	227	03.9 +02.4	228	03.0 +02.5	02
03	239	08.9 +02.5	240	08.0 +02.5	241	07.2 +02.4	242	06.3 +02.5	243	05.5 +02.4	03
04	254	11.4 +02.4	255	10.5 +02.5	256	09.6 +02.5	257	08.8 +02.4	258	07.9 +02.5	04
05	269	13.8 +02.5	270	13.0 +02.4	271	12.1 +02.5	272	11.2 +02.5	273	10.4 +02.4	05
06	284	16.3 +02.5	285	15.4 +02.5	286	14.6 +02.4	287	13.7 +02.5	288	12.8 +02.5	06
07	299	18.8 +02.4	300	17.9 +02.5	301	17.0 +02.5	302	16.2 +02.4	303	15.3 +02.5	07
08	314	21.2 +02.5	315	20.4 +02.4	316	19.5 +02.5	317	18.6 +02.5	318	17.8 +02.4	08
09	329	23.7 +02.5	330	22.8 +02.5	331	22.0 +02.4	332	21.1 +02.5	333	20.2 +02.5	09
10	344	26.2 +02.4	345	25.3 +02.5	346	24.4 +02.5	347	23.6 +02.4	348	22.7 +02.5	10
11	359	28.6 +02.5	0	27.8 +02.4	1	26.9 +02.5	2	26.0 +02.5	3	25.2 +02.4	11
12	14	31.1 +02.4	15	30.2 +02.5	16	29.4 +02.4	17	28.5 +02.5	18	27.6 +02.5	12
13	29	33.5 +02.5	30	32.7 +02.4	31	31.8 +02.5	32	31.0 +02.4	33	30.1 +02.5	13
14	44	36.0 +02.5	45	35.1 +02.5	46	34.3 +02.4	47	33.4 +02.5	48	32.6 +02.4	14
15	59	38.5 +02.4	60	37.6 +02.5	61	36.7 +02.5	62	35.9 +02.5	63	35.0 +02.5	15
16	74	40.9 +02.5	75	40.1 +02.4	76	39.2 +02.5	77	38.4 +02.4	78	37.5 +02.5	16
17	89	43.4 +02.5	90	42.5 +02.5	91	41.7 +02.4	92	40.8 +02.5	93	40.0 +02.4	17
18	104	45.9 +02.4	105	45.0 +02.5	106	44.1 +02.5	107	43.3 +02.4	108	42.4 +02.5	18
19	119	48.3 +02.5	120	47.5 +02.4	121	46.6 +02.5	122	45.7 +02.5	123	44.9 +02.4	19
20	134	50.8 +02.5	135	49.9 +02.5	136	49.1 +02.4	137	48.2 +02.5	138	47.3 +02.5	20
21	149	53.3 +02.4	150	52.4 +02.5	151	51.5 +02.5	152	50.7 +02.4	153	49.8 +02.5	21
22	164	55.7 +02.5	165	54.9 +02.4	166	54.0 +02.5	167	53.1 +02.5	168	52.3 +02.4	22
23	179	58.2 +02.4	180	57.3 +02.5	181	56.5 +02.4	182	55.6 +02.5	183	54.7 +02.5	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 36.7	N 29 13.0	Gienah	175 44.7	S 17 40.4
Ankaa	353 09.1	S 42 10.8	Acrux	173 01.1	S 63 13.7
Schedir	349 33.4	N 56 39.7	Gacrux	171 52.8	S 57 14.6
Diphda	348 49.2	S 17 51.7	Alioth	166 13.8	N 55 50.0
Achernar	335 21.9	S 57 07.3	Spica	158 23.5	S 11 17.0
Hamal	327 53.3	N 23 34.3	Alkaid	152 52.6	N 49 11.7
Polaris	315 11.8	N 89 21.9	Hadar	148 37.5	S 60 29.0
Acamar	315 13.2	S 40 12.9	Menkent	147 58.7	S 36 28.8
Menkar	314 08.0	N 04 10.7	Arcturus	145 48.6	N 19 04.3
Mirfak	308 30.8	N 49 56.6	Rigel Kentaurus	139 39.0	S 60 56.0
Aldebaran	290 41.5	N 16 33.4	Zubenelgenubi	136 57.3	S 16 08.3
Capella	280 24.3	N 46 01.5	Kocab	137 18.7	N 74 03.4
Rigel	281 05.4	S 08 10.6	Alphecca	126 04.8	N 26 38.0
Bellatrix	278 24.6	N 06 22.2	Antares	112 17.5	S 26 29.0
Elnath	278 03.9	N 28 37.7	Atria	107 12.7	S 69 03.9
Alnilam	275 39.4	S 01 11.3	Sabik	102 04.3	S 15 45.3
Betelgeuze	270 53.8	N 07 24.6	Shaula	96 12.2	S 37 07.2
Canopus	263 53.2	S 52 42.7	Rasalhague	95 59.8	N 12 32.5
Sirius	258 27.4	S 16 44.6	Etamin	90 42.7	N 51 28.8
Adhara	255 07.0	S 29 00.4	Kaus Australis	83 34.4	S 34 22.3
Castor	245 58.8	N 31 50.4	Vega	80 34.3	N 38 47.8
Procyon	244 52.1	N 05 10.2	Nunki	75 49.6	S 26 16.1
Pollux	243 18.7	N 27 58.3	Albireo	67 05.3	N 28 00.2
Avior	234 15.1	S 59 35.3	Altair	62 01.6	N 08 55.4
Suhail	222 47.2	S 43 31.8	Peacock	53 08.2	S 56 39.4
Miaplacidus	221 38.0	S 69 49.0	Deneb	49 27.0	N 45 21.4
Alphard	217 49.0	S 08 45.7	Enif	33 40.5	N 09 58.7
Regulus	207 35.7	N 11 51.2	Alnair	27 35.1	S 46 50.8
Dubhe	193 42.1	N 61 37.7	Formalhaut	15 16.6	S 29 30.0
Denebola	182 26.0	N 14 26.5	Markab	13 31.7	N 15 19.6

2023 - First Point of Aries / Selected Stars

UT	day 101 of 365		day 102 of 365		day 103 of 365		day 104 of 365		day 105 of 365		UT					
	<i>April 11</i>		<i>April 12</i>		<i>April 13</i>		<i>April 14</i>		<i>April 15</i>							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	198	57.2	+02.5	199	56.3	+02.5	200	55.5	+02.4	201	54.6	+02.5	202	53.8	+02.4	00
01	213	59.7	+02.4	214	58.8	+02.5	215	57.9	+02.5	216	57.1	+02.5	217	56.2	+02.5	01
02	229	02.1	+02.5	230	01.3	+02.4	231	00.4	+02.5	231	59.6	+02.4	232	58.7	+02.5	02
03	244	04.6	+02.5	245	03.7	+02.5	246	02.9	+02.4	247	02.0	+02.5	248	01.2	+02.4	03
04	259	07.1	+02.4	260	06.2	+02.5	261	05.3	+02.5	262	04.5	+02.4	263	03.6	+02.5	04
05	274	09.5	+02.5	275	08.7	+02.4	276	07.8	+02.5	277	06.9	+02.5	278	06.1	+02.4	05
06	289	12.0	+02.5	290	11.1	+02.5	291	10.3	+02.4	292	09.4	+02.5	293	08.5	+02.5	06
07	304	14.5	+02.4	305	13.6	+02.5	306	12.7	+02.5	307	11.9	+02.4	308	11.0	+02.5	07
08	319	16.9	+02.5	320	16.1	+02.4	321	15.2	+02.5	322	14.3	+02.5	323	13.5	+02.4	08
09	334	19.4	+02.4	335	18.5	+02.5	336	17.7	+02.4	337	16.8	+02.5	338	15.9	+02.5	09
10	349	21.8	+02.5	350	21.0	+02.5	351	20.1	+02.5	352	19.3	+02.4	353	18.4	+02.5	10
11	4	24.3	+02.5	5	23.5	+02.4	6	22.6	+02.5	7	21.7	+02.5	8	20.9	+02.4	11
12	19	26.8	+02.4	20	25.9	+02.5	21	25.1	+02.4	22	24.2	+02.5	23	23.3	+02.5	12
13	34	29.2	+02.5	35	28.4	+02.4	36	27.5	+02.5	37	26.7	+02.4	38	25.8	+02.5	13
14	49	31.7	+02.5	50	30.8	+02.5	51	30.0	+02.4	52	29.1	+02.5	53	28.3	+02.4	14
15	64	34.2	+02.4	65	33.3	+02.5	66	32.4	+02.5	67	31.6	+02.5	68	30.7	+02.5	15
16	79	36.6	+02.5	80	35.8	+02.4	81	34.9	+02.5	82	34.1	+02.4	83	33.2	+02.5	16
17	94	39.1	+02.5	95	38.2	+02.5	96	37.4	+02.4	97	36.5	+02.5	98	35.7	+02.4	17
18	109	41.6	+02.4	110	40.7	+02.5	111	39.8	+02.5	112	39.0	+02.4	113	38.1	+02.5	18
19	124	44.0	+02.5	125	43.2	+02.4	126	42.3	+02.5	127	41.4	+02.5	128	40.6	+02.4	19
20	139	46.5	+02.5	140	45.6	+02.5	141	44.8	+02.4	142	43.9	+02.5	143	43.0	+02.5	20
21	154	49.0	+02.4	155	48.1	+02.5	156	47.2	+02.5	157	46.4	+02.4	158	45.5	+02.5	21
22	169	51.4	+02.5	170	50.6	+02.4	171	49.7	+02.5	172	48.8	+02.5	173	48.0	+02.4	22
23	184	53.9	+02.4	185	53.0	+02.5	186	52.2	+02.4	187	51.3	+02.5	188	50.4	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.7	N 29	13.0	Gienah	175	44.7	S 17	40.4
Ankaa	353	09.1	S 42	10.7	Acrux	173	01.1	S 63	13.7
Schedir	349	33.3	N 56	39.7	Gacrux	171	52.8	S 57	14.6
Diphda	348	49.2	S 17	51.7	Alioth	166	13.8	N 55	50.0
Achernar	335	21.9	S 57	07.2	Spica	158	23.5	S 11	17.0
Hamal	327	53.3	N 23	34.3	Alkaid	152	52.6	N 49	11.8
Polaris	315	12.5	N 89	21.8	Hadar	148	37.5	S 60	29.1
Acamar	315	13.2	S 40	12.9	Menkent	147	58.7	S 36	28.8
Menkar	314	08.0	N 04	10.7	Arcturus	145	48.5	N 19	04.3
Mirfak	308	30.8	N 49	56.6	Rigel Kentaurus	139	39.0	S 60	56.0
Aldebaran	290	41.6	N 16	33.4	Zubenelgenubi	136	57.3	S 16	08.3
Capella	280	24.3	N 46	01.5	Kocab	137	18.6	N 74	03.4
Rigel	281	05.5	S 08	10.6	Alphecca	126	04.7	N 26	38.0
Bellatrix	278	24.6	N 06	22.2	Antares	112	17.5	S 26	29.0
Elnath	278	03.9	N 28	37.7	Atria	107	12.7	S 69	03.9
Alnilam	275	39.4	S 01	11.3	Sabik	102	04.3	S 15	45.3
Betelgeuze	270	53.8	N 07	24.6	Shaula	96	12.2	S 37	07.2
Canopus	263	53.2	S 52	42.7	Rasalhague	95	59.8	N 12	32.5
Sirius	258	27.4	S 16	44.6	Etamin	90	42.7	N 51	28.8
Adhara	255	07.1	S 29	00.4	Kaus Australis	83	34.3	S 34	22.3
Castor	245	58.9	N 31	50.4	Vega	80	34.2	N 38	47.9
Procyon	244	52.1	N 05	10.2	Nunki	75	49.5	S 26	16.0
Pollux	243	18.7	N 27	58.3	Albireo	67	05.3	N 28	00.2
Avior	234	15.2	S 59	35.3	Altair	62	01.6	N 08	55.4
Suhail	222	47.2	S 43	31.8	Peacock	53	08.2	S 56	39.4
Miaplacidus	221	38.0	S 69	49.0	Deneb	49	27.0	N 45	21.4
Alphard	217	49.0	S 08	45.7	Enif	33	40.4	N 09	58.7
Regulus	207	35.7	N 11	51.2	Alnair	27	35.1	S 46	50.8
Dubhe	193	42.1	N 61	37.7	Formalhaut	15	16.5	S 29	30.0
Denebola	182	26.0	N 14	26.5	Markab	13	31.7	N 15	19.6

2023 - First Point of Aries / Selected Stars

UT	day 106 of 365		day 107 of 365		day 108 of 365		day 109 of 365		day 110 of 365		UT
	<i>April 16</i>		<i>April 17</i>		<i>April 18</i>		<i>April 19</i>		<i>April 20</i>		
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	203	52.9 +02.5	204	52.0 +02.5	205	51.2 +02.4	206	50.3 +02.5	207	49.5 +02.4	00
01	218	55.4 +02.4	219	54.5 +02.5	220	53.6 +02.5	221	52.8 +02.4	222	51.9 +02.5	01
02	233	57.8 +02.5	234	57.0 +02.4	235	56.1 +02.5	236	55.2 +02.5	237	54.4 +02.4	02
03	249	00.3 +02.5	249	59.4 +02.5	250	58.6 +02.4	251	57.7 +02.5	252	56.8 +02.5	03
04	264	02.8 +02.4	265	01.9 +02.5	266	01.0 +02.5	267	00.2 +02.4	267	59.3 +02.5	04
05	279	05.2 +02.5	280	04.4 +02.4	281	03.5 +02.5	282	02.6 +02.5	283	01.8 +02.4	05
06	294	07.7 +02.5	295	06.8 +02.5	296	06.0 +02.4	297	05.1 +02.5	298	04.2 +02.5	06
07	309	10.2 +02.4	310	09.3 +02.5	311	08.4 +02.5	312	07.6 +02.4	313	06.7 +02.5	07
08	324	12.6 +02.5	325	11.8 +02.4	326	10.9 +02.5	327	10.0 +02.5	328	09.2 +02.4	08
09	339	15.1 +02.4	340	14.2 +02.5	341	13.4 +02.4	342	12.5 +02.5	343	11.6 +02.5	09
10	354	17.5 +02.5	355	16.7 +02.4	356	15.8 +02.5	357	15.0 +02.4	358	14.1 +02.5	10
11	9	20.0 +02.5	10	19.1 +02.5	11	18.3 +02.4	12	17.4 +02.5	13	16.6 +02.4	11
12	24	22.5 +02.4	25	21.6 +02.5	26	20.7 +02.5	27	19.9 +02.4	28	19.0 +02.5	12
13	39	24.9 +02.5	40	24.1 +02.4	41	23.2 +02.5	42	22.3 +02.5	43	21.5 +02.4	13
14	54	27.4 +02.5	55	26.5 +02.5	56	25.7 +02.4	57	24.8 +02.5	58	23.9 +02.5	14
15	69	29.9 +02.4	70	29.0 +02.5	71	28.1 +02.5	72	27.3 +02.4	73	26.4 +02.5	15
16	84	32.3 +02.5	85	31.5 +02.4	86	30.6 +02.5	87	29.7 +02.5	88	28.9 +02.4	16
17	99	34.8 +02.5	100	33.9 +02.5	101	33.1 +02.4	102	32.2 +02.5	103	31.3 +02.5	17
18	114	37.3 +02.4	115	36.4 +02.5	116	35.5 +02.5	117	34.7 +02.4	118	33.8 +02.5	18
19	129	39.7 +02.5	130	38.9 +02.4	131	38.0 +02.5	132	37.1 +02.5	133	36.3 +02.4	19
20	144	42.2 +02.4	145	41.3 +02.5	146	40.5 +02.4	147	39.6 +02.5	148	38.7 +02.5	20
21	159	44.6 +02.5	160	43.8 +02.4	161	42.9 +02.5	162	42.1 +02.4	163	41.2 +02.5	21
22	174	47.1 +02.5	175	46.2 +02.5	176	45.4 +02.4	177	44.5 +02.5	178	43.7 +02.4	22
23	189	49.6 +02.4	190	48.7 +02.5	191	47.8 +02.5	192	47.0 +02.5	193	46.1 +02.5	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 36.7	N 29 13.0	Gienah	175 44.7	S 17 40.4
Ankaa	353 09.1	S 42 10.7	Acrux	173 01.1	S 63 13.8
Schedir	349 33.3	N 56 39.7	Gacrux	171 52.8	S 57 14.6
Diphda	348 49.2	S 17 51.7	Alioth	166 13.8	N 55 50.1
Achernar	335 21.9	S 57 07.2	Spica	158 23.5	S 11 17.0
Hamal	327 53.3	N 23 34.3	Alkaid	152 52.6	N 49 11.8
Polaris	315 13.2	N 89 21.8	Hadar	148 37.4	S 60 29.1
Acamar	315 13.2	S 40 12.9	Menkent	147 58.6	S 36 28.8
Menkar	314 08.0	N 04 10.7	Arcturus	145 48.5	N 19 04.3
Mirfak	308 30.8	N 49 56.6	Rigel Kentaurus	139 39.0	S 60 56.0
Aldebaran	290 41.6	N 16 33.4	Zubenelgenubi	136 57.3	S 16 08.3
Capella	280 24.4	N 46 01.5	Kocab	137 18.6	N 74 03.5
Rigel	281 05.5	S 08 10.6	Alphecca	126 04.7	N 26 38.0
Bellatrix	278 24.6	N 06 22.2	Antares	112 17.5	S 26 29.0
Elnath	278 03.9	N 28 37.7	Atria	107 12.6	S 69 03.9
Alnilam	275 39.4	S 01 11.3	Sabik	102 04.3	S 15 45.3
Betelgeuze	270 53.8	N 07 24.6	Shaula	96 12.1	S 37 07.2
Canopus	263 53.2	S 52 42.7	Rasalhague	95 59.7	N 12 32.5
Sirius	258 27.4	S 16 44.6	Etamin	90 42.6	N 51 28.8
Adhara	255 07.1	S 29 00.4	Kaus Australis	83 34.3	S 34 22.3
Castor	245 58.9	N 31 50.4	Vega	80 34.2	N 38 47.9
Procyon	244 52.1	N 05 10.3	Nunki	75 49.5	S 26 16.0
Pollux	243 18.7	N 27 58.3	Albireo	67 05.2	N 28 00.2
Avior	234 15.2	S 59 35.3	Altair	62 01.6	N 08 55.4
Suhail	222 47.2	S 43 31.8	Peacock	53 08.1	S 56 39.4
Miaplacidus	221 38.1	S 69 49.0	Deneb	49 26.9	N 45 21.4
Alphard	217 49.0	S 08 45.7	Enif	33 40.4	N 09 58.7
Regulus	207 35.7	N 11 51.2	Alnair	27 35.1	S 46 50.8
Dubhe	193 42.2	N 61 37.7	Formalhaut	15 16.5	S 29 29.9
Denebola	182 26.0	N 14 26.5	Markab	13 31.6	N 15 19.6

2023 - First Point of Aries / Selected Stars

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		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	208	48.6 +02.5	209	47.7 +02.5	210	46.9 +02.4	211	46.0 +02.5	212	45.1 +02.5	00
01	223	51.1 +02.4	224	50.2 +02.5	225	49.3 +02.5	226	48.5 +02.4	227	47.6 +02.5	01
02	238	53.5 +02.5	239	52.7 +02.4	240	51.8 +02.5	241	50.9 +02.5	242	50.1 +02.4	02
03	253	56.0 +02.4	254	55.1 +02.5	255	54.3 +02.4	256	53.4 +02.5	257	52.5 +02.5	03
04	268	58.4 +02.5	269	57.6 +02.4	270	56.7 +02.5	271	55.9 +02.4	272	55.0 +02.5	04
05	284	00.9 +02.5	285	00.0 +02.5	285	59.2 +02.5	286	58.3 +02.5	287	57.5 +02.4	05
06	299	03.4 +02.4	300	02.5 +02.5	301	01.7 +02.4	302	00.8 +02.5	302	59.9 +02.5	06
07	314	05.8 +02.5	315	05.0 +02.4	316	04.1 +02.5	317	03.3 +02.4	318	02.4 +02.5	07
08	329	08.3 +02.5	330	07.4 +02.5	331	06.6 +02.4	332	05.7 +02.5	333	04.9 +02.4	08
09	344	10.8 +02.4	345	09.9 +02.5	346	09.0 +02.5	347	08.2 +02.4	348	07.3 +02.5	09
10	359	13.2 +02.5	0	12.4 +02.4	1	11.5 +02.5	2	10.6 +02.5	3	09.8 +02.5	10
11	14	15.7 +02.5	15	14.8 +02.5	16	14.0 +02.4	17	13.1 +02.5	18	12.3 +02.4	11
12	29	18.2 +02.4	30	17.3 +02.5	31	16.4 +02.5	32	15.6 +02.4	33	14.7 +02.5	12
13	44	20.6 +02.5	45	19.8 +02.4	46	18.9 +02.5	47	18.0 +02.5	48	17.2 +02.4	13
14	59	23.1 +02.5	60	22.2 +02.5	61	21.4 +02.4	62	20.5 +02.5	63	19.6 +02.5	14
15	74	25.6 +02.4	75	24.7 +02.5	76	23.8 +02.5	77	23.0 +02.4	78	22.1 +02.5	15
16	89	28.0 +02.5	90	27.2 +02.4	91	26.3 +02.5	92	25.4 +02.5	93	24.6 +02.4	16
17	104	30.5 +02.4	105	29.6 +02.5	106	28.8 +02.4	107	27.9 +02.5	108	27.0 +02.5	17
18	119	32.9 +02.5	120	32.1 +02.4	121	31.2 +02.5	122	30.4 +02.4	123	29.5 +02.5	18
19	134	35.4 +02.5	135	34.5 +02.5	136	33.7 +02.5	137	32.8 +02.5	138	32.0 +02.4	19
20	149	37.9 +02.4	150	37.0 +02.5	151	36.2 +02.4	152	35.3 +02.5	153	34.4 +02.5	20
21	164	40.3 +02.5	165	39.5 +02.4	166	38.6 +02.5	167	37.8 +02.4	168	36.9 +02.5	21
22	179	42.8 +02.5	180	41.9 +02.5	181	41.1 +02.4	182	40.2 +02.5	183	39.4 +02.4	22
23	194	45.3 +02.4	195	44.4 +02.5	196	43.5 +02.5	197	42.7 +02.4	198	41.8 +02.5	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 36.7	N 29 13.0	Gienah	175 44.7	S 17 40.4
Ankaa	353 09.1	S 42 10.7	Acrux	173 01.1	S 63 13.8
Schedir	349 33.3	N 56 39.7	Gacrux	171 52.8	S 57 14.6
Diphda	348 49.1	S 17 51.7	Alioth	166 13.8	N 55 50.1
Achernar	335 21.9	S 57 07.2	Spica	158 23.5	S 11 17.0
Hamal	327 53.3	N 23 34.3	Alkaid	152 52.6	N 49 11.8
Polaris	315 13.9	N 89 21.8	Hadar	148 37.4	S 60 29.1
Acamar	315 13.2	S 40 12.8	Menkent	147 58.6	S 36 28.8
Menkar	314 08.0	N 04 10.8	Arcturus	145 48.5	N 19 04.3
Mirfak	308 30.8	N 49 56.6	Rigel Kentaurus	139 38.9	S 60 56.0
Aldebaran	290 41.6	N 16 33.4	Zubenelgenubi	136 57.2	S 16 08.3
Capella	280 24.4	N 46 01.5	Kocab	137 18.6	N 74 03.5
Rigel	281 05.5	S 08 10.6	Alphecca	126 04.7	N 26 38.1
Bellatrix	278 24.6	N 06 22.2	Antares	112 17.4	S 26 29.0
Elnath	278 04.0	N 28 37.7	Atria	107 12.5	S 69 04.0
Alnilam	275 39.4	S 01 11.3	Sabik	102 04.2	S 15 45.3
Betelgeuze	270 53.8	N 07 24.6	Shaula	96 12.1	S 37 07.2
Canopus	263 53.3	S 52 42.7	Rasalhague	95 59.7	N 12 32.5
Sirius	258 27.5	S 16 44.6	Etamin	90 42.6	N 51 28.8
Adhara	255 07.1	S 29 00.4	Kaus Australis	83 34.3	S 34 22.3
Castor	245 58.9	N 31 50.4	Vega	80 34.1	N 38 47.9
Procyon	244 52.2	N 05 10.3	Nunki	75 49.4	S 26 16.0
Pollux	243 18.8	N 27 58.3	Albireo	67 05.2	N 28 00.2
Avior	234 15.3	S 59 35.3	Altair	62 01.5	N 08 55.4
Suhail	222 47.3	S 43 31.8	Peacock	53 08.0	S 56 39.4
Miaplacidus	221 38.2	S 69 49.0	Deneb	49 26.9	N 45 21.4
Alphard	217 49.1	S 08 45.7	Enif	33 40.4	N 09 58.7
Regulus	207 35.7	N 11 51.2	Alnair	27 35.0	S 46 50.8
Dubhe	193 42.2	N 61 37.7	Formalhaut	15 16.5	S 29 29.9
Denebola	182 26.0	N 14 26.6	Markab	13 31.6	N 15 19.6

2023 - First Point of Aries / Selected Stars

UT	day 116 of 365 April 26		day 117 of 365 April 27		day 118 of 365 April 28		day 119 of 365 April 29		day 120 of 365 April 30		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	213	44.3 +02.5	214	43.4 +02.5	215	42.6 +02.4	216	41.7 +02.5	217	40.8 +02.5	00
01	228	46.8 +02.4	229	45.9 +02.5	230	45.0 +02.5	231	44.2 +02.4	232	43.3 +02.5	01
02	243	49.2 +02.5	244	48.4 +02.4	245	47.5 +02.5	246	46.6 +02.5	247	45.8 +02.4	02
03	258	51.7 +02.4	259	50.8 +02.5	260	50.0 +02.4	261	49.1 +02.5	262	48.2 +02.5	03
04	273	54.1 +02.5	274	53.3 +02.4	275	52.4 +02.5	276	51.6 +02.4	277	50.7 +02.5	04
05	288	56.6 +02.5	289	55.7 +02.5	290	54.9 +02.5	291	54.0 +02.5	292	53.2 +02.4	05
06	303	59.1 +02.4	304	58.2 +02.5	305	57.4 +02.4	306	56.5 +02.5	307	55.6 +02.5	06
07	319	01.5 +02.5	320	00.7 +02.4	320	59.8 +02.5	321	59.0 +02.4	322	58.1 +02.5	07
08	334	04.0 +02.5	335	03.1 +02.5	336	02.3 +02.4	337	01.4 +02.5	338	00.6 +02.4	08
09	349	06.5 +02.4	350	05.6 +02.5	351	04.7 +02.5	352	03.9 +02.4	353	03.0 +02.5	09
10	4	08.9 +02.5	5	08.1 +02.4	6	07.2 +02.5	7	06.3 +02.5	8	05.5 +02.4	10
11	19	11.4 +02.5	20	10.5 +02.5	21	09.7 +02.4	22	08.8 +02.5	23	07.9 +02.5	11
12	34	13.9 +02.4	35	13.0 +02.5	36	12.1 +02.5	37	11.3 +02.4	38	10.4 +02.5	12
13	49	16.3 +02.5	50	15.5 +02.4	51	14.6 +02.5	52	13.7 +02.5	53	12.9 +02.4	13
14	64	18.8 +02.5	65	17.9 +02.5	66	17.1 +02.4	67	16.2 +02.5	68	15.3 +02.5	14
15	79	21.3 +02.4	80	20.4 +02.5	81	19.5 +02.5	82	18.7 +02.4	83	17.8 +02.5	15
16	94	23.7 +02.5	95	22.9 +02.4	96	22.0 +02.5	97	21.1 +02.5	98	20.3 +02.4	16
17	109	26.2 +02.4	110	25.3 +02.5	111	24.5 +02.4	112	23.6 +02.5	113	22.7 +02.5	17
18	124	28.6 +02.5	125	27.8 +02.4	126	26.9 +02.5	127	26.1 +02.4	128	25.2 +02.5	18
19	139	31.1 +02.5	140	30.2 +02.5	141	29.4 +02.4	142	28.5 +02.5	143	27.7 +02.4	19
20	154	33.6 +02.4	155	32.7 +02.5	156	31.8 +02.5	157	31.0 +02.5	158	30.1 +02.5	20
21	169	36.0 +02.5	170	35.2 +02.4	171	34.3 +02.5	172	33.5 +02.4	173	32.6 +02.5	21
22	184	38.5 +02.5	185	37.6 +02.5	186	36.8 +02.4	187	35.9 +02.5	188	35.1 +02.4	22
23	199	41.0 +02.4	200	40.1 +02.5	201	39.2 +02.5	202	38.4 +02.4	203	37.5 +02.5	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 36.6	N 29 13.0	Gienah	175 44.7	S 17 40.4
Ankaa	353 09.0	S 42 10.7	Acrux	173 01.1	S 63 13.8
Schedir	349 33.2	N 56 39.7	Gacrux	171 52.8	S 57 14.7
Diphda	348 49.1	S 17 51.7	Alioth	166 13.8	N 55 50.1
Achernar	335 21.9	S 57 07.1	Spica	158 23.5	S 11 17.0
Hamal	327 53.2	N 23 34.2	Alkaid	152 52.6	N 49 11.8
Polaris	315 13.8	N 89 21.8	Hadar	148 37.4	S 60 29.1
Acamar	315 13.2	S 40 12.8	Menkent	147 58.6	S 36 28.9
Menkar	314 08.0	N 04 10.8	Arcturus	145 48.5	N 19 04.4
Mirfak	308 30.8	N 49 56.6	Rigel Kentaurus	139 38.9	S 60 56.1
Aldebaran	290 41.6	N 16 33.4	Zubenelgenubi	136 57.2	S 16 08.3
Capella	280 24.4	N 46 01.5	Kocab	137 18.5	N 74 03.5
Rigel	281 05.5	S 08 10.6	Alphecca	126 04.7	N 26 38.1
Bellatrix	278 24.6	N 06 22.2	Antares	112 17.4	S 26 29.0
Elnath	278 04.0	N 28 37.7	Atria	107 12.4	S 69 04.0
Alnilam	275 39.4	S 01 11.3	Sabik	102 04.2	S 15 45.3
Betelgeuze	270 53.9	N 07 24.6	Shaula	96 12.0	S 37 07.2
Canopus	263 53.3	S 52 42.7	Rasalhague	95 59.7	N 12 32.5
Sirius	258 27.5	S 16 44.6	Etamin	90 42.5	N 51 28.8
Adhara	255 07.1	S 29 00.4	Kaus Australis	83 34.2	S 34 22.3
Castor	245 58.9	N 31 50.4	Vega	80 34.1	N 38 47.9
Procyon	244 52.2	N 05 10.3	Nunki	75 49.4	S 26 16.0
Pollux	243 18.8	N 27 58.3	Albireo	67 05.1	N 28 00.2
Avior	234 15.3	S 59 35.3	Altair	62 01.5	N 08 55.4
Suhail	222 47.3	S 43 31.8	Peacock	53 08.0	S 56 39.4
Miaplacidus	221 38.2	S 69 49.0	Deneb	49 26.8	N 45 21.4
Alphard	217 49.1	S 08 45.7	Enif	33 40.3	N 09 58.7
Regulus	207 35.7	N 11 51.2	Alnair	27 35.0	S 46 50.8
Dubhe	193 42.2	N 61 37.8	Formalhaut	15 16.4	S 29 29.9
Denebola	182 26.0	N 14 26.6	Markab	13 31.6	N 15 19.6

2023 - First Point of Aries / Selected Stars

UT	day 121 of 365		day 122 of 365		day 123 of 365		day 124 of 365		day 125 of 365		UT					
	<i>May 1</i>		<i>May 2</i>		<i>May 3</i>		<i>May 4</i>		<i>May 5</i>							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	218	40.0	+02.4	219	39.1	+02.5	220	38.3	+02.4	221	37.4	+02.5	222	36.5	+02.5	00
01	233	42.4	+02.5	234	41.6	+02.4	235	40.7	+02.5	236	39.9	+02.4	237	39.0	+02.5	01
02	248	44.9	+02.5	249	44.0	+02.5	250	43.2	+02.4	251	42.3	+02.5	252	41.5	+02.4	02
03	263	47.4	+02.4	264	46.5	+02.5	265	45.6	+02.5	266	44.8	+02.4	267	43.9	+02.5	03
04	278	49.8	+02.5	279	49.0	+02.4	280	48.1	+02.5	281	47.2	+02.5	282	46.4	+02.5	04
05	293	52.3	+02.5	294	51.4	+02.5	295	50.6	+02.4	296	49.7	+02.5	297	48.9	+02.4	05
06	308	54.8	+02.4	309	53.9	+02.5	310	53.0	+02.5	311	52.2	+02.4	312	51.3	+02.5	06
07	323	57.2	+02.5	324	56.4	+02.4	325	55.5	+02.5	326	54.6	+02.5	327	53.8	+02.4	07
08	338	59.7	+02.5	339	58.8	+02.5	340	58.0	+02.4	341	57.1	+02.5	342	56.2	+02.5	08
09	354	02.2	+02.4	355	01.3	+02.5	356	00.4	+02.5	356	59.6	+02.4	357	58.7	+02.5	09
10	9	04.6	+02.5	10	03.8	+02.4	11	02.9	+02.5	12	02.0	+02.5	13	01.2	+02.4	10
11	24	07.1	+02.5	25	06.2	+02.5	26	05.4	+02.4	27	04.5	+02.5	28	03.6	+02.5	11
12	39	09.6	+02.4	40	08.7	+02.5	41	07.8	+02.5	42	07.0	+02.4	43	06.1	+02.5	12
13	54	12.0	+02.5	55	11.2	+02.4	56	10.3	+02.5	57	09.4	+02.5	58	08.6	+02.4	13
14	69	14.5	+02.4	70	13.6	+02.5	71	12.8	+02.4	72	11.9	+02.5	73	11.0	+02.5	14
15	84	16.9	+02.5	85	16.1	+02.4	86	15.2	+02.5	87	14.4	+02.4	88	13.5	+02.5	15
16	99	19.4	+02.5	100	18.5	+02.5	101	17.7	+02.4	102	16.8	+02.5	103	16.0	+02.4	16
17	114	21.9	+02.4	115	21.0	+02.5	116	20.1	+02.5	117	19.3	+02.4	118	18.4	+02.5	17
18	129	24.3	+02.5	130	23.5	+02.4	131	22.6	+02.5	132	21.7	+02.5	133	20.9	+02.4	18
19	144	26.8	+02.5	145	25.9	+02.5	146	25.1	+02.4	147	24.2	+02.5	148	23.3	+02.5	19
20	159	29.3	+02.4	160	28.4	+02.5	161	27.5	+02.5	162	26.7	+02.4	163	25.8	+02.5	20
21	174	31.7	+02.5	175	30.9	+02.4	176	30.0	+02.5	177	29.1	+02.5	178	28.3	+02.4	21
22	189	34.2	+02.5	190	33.3	+02.5	191	32.5	+02.4	192	31.6	+02.5	193	30.7	+02.5	22
23	204	36.7	+02.4	205	35.8	+02.5	206	34.9	+02.5	207	34.1	+02.4	208	33.2	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.6	N 29	13.0	Gienah	175	44.7	S 17	40.4
Ankaa	353	09.0	S 42	10.6	Acrux	173	01.1	S 63	13.8
Schedir	349	33.2	N 56	39.7	Gacrux	171	52.8	S 57	14.7
Diphda	348	49.1	S 17	51.6	Alioth	166	13.8	N 55	50.1
Achernar	335	21.9	S 57	07.1	Spica	158	23.5	S 11	17.0
Hamal	327	53.2	N 23	34.2	Alkaid	152	52.6	N 49	11.9
Polaris	315	14.1	N 89	21.7	Hadar	148	37.4	S 60	29.2
Acamar	315	13.2	S 40	12.8	Menkent	147	58.6	S 36	28.9
Menkar	314	08.0	N 04	10.8	Arcturus	145	48.5	N 19	04.4
Mirfak	308	30.8	N 49	56.6	Rigel Kentaurus	139	38.9	S 60	56.1
Aldebaran	290	41.6	N 16	33.4	Zubenelgenubi	136	57.2	S 16	08.3
Capella	280	24.4	N 46	01.5	Kocab	137	18.5	N 74	03.5
Rigel	281	05.5	S 08	10.6	Alphecca	126	04.6	N 26	38.1
Bellatrix	278	24.7	N 06	22.2	Antares	112	17.4	S 26	29.0
Elnath	278	04.0	N 28	37.7	Atria	107	12.3	S 69	04.0
Alnilam	275	39.4	S 01	11.3	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	53.9	N 07	24.6	Shaula	96	12.0	S 37	07.2
Canopus	263	53.4	S 52	42.7	Rasalhague	95	59.7	N 12	32.5
Sirius	258	27.5	S 16	44.6	Etamin	90	42.5	N 51	28.8
Adhara	255	07.1	S 29	00.4	Kaus Australis	83	34.2	S 34	22.3
Castor	245	58.9	N 31	50.4	Vega	80	34.0	N 38	47.9
Procyon	244	52.2	N 05	10.3	Nunki	75	49.4	S 26	16.0
Pollux	243	18.8	N 27	58.3	Albireo	67	05.1	N 28	00.2
Avior	234	15.4	S 59	35.3	Altair	62	01.4	N 08	55.4
Suhail	222	47.3	S 43	31.8	Peacock	53	07.9	S 56	39.4
Miaplacidus	221	38.3	S 69	49.1	Deneb	49	26.8	N 45	21.4
Alphard	217	49.1	S 08	45.7	Enif	33	40.3	N 09	58.7
Regulus	207	35.7	N 11	51.2	Alnair	27	34.9	S 46	50.7
Dubhe	193	42.3	N 61	37.8	Formalhaut	15	16.4	S 29	29.9
Denebola	182	26.0	N 14	26.6	Markab	13	31.5	N 15	19.6

2023 - First Point of Aries / Selected Stars

UT	day 126 of 365		day 127 of 365		day 128 of 365		day 129 of 365		day 130 of 365		UT					
	May 6		May 7		May 8		May 9		May 10							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "						
00	223	35.7	+02.4	224	34.8	+02.5	225	34.0	+02.4	226	33.1	+02.5	227	32.2	+02.5	00
01	238	38.1	+02.5	239	37.3	+02.4	240	36.4	+02.5	241	35.6	+02.4	242	34.7	+02.5	01
02	253	40.6	+02.5	254	39.7	+02.5	255	38.9	+02.4	256	38.0	+02.5	257	37.2	+02.4	02
03	268	43.1	+02.4	269	42.2	+02.5	270	41.3	+02.5	271	40.5	+02.4	272	39.6	+02.5	03
04	283	45.5	+02.5	284	44.7	+02.4	285	43.8	+02.5	286	42.9	+02.5	287	42.1	+02.5	04
05	298	48.0	+02.5	299	47.1	+02.5	300	46.3	+02.4	301	45.4	+02.5	302	44.6	+02.4	05
06	313	50.5	+02.4	314	49.6	+02.5	315	48.7	+02.5	316	47.9	+02.4	317	47.0	+02.5	06
07	328	52.9	+02.5	329	52.1	+02.4	330	51.2	+02.5	331	50.3	+02.5	332	49.5	+02.4	07
08	343	55.4	+02.4	344	54.5	+02.5	345	53.7	+02.4	346	52.8	+02.5	347	51.9	+02.5	08
09	358	57.8	+02.5	359	57.0	+02.5	0	56.1	+02.5	1	55.3	+02.4	2	54.4	+02.5	09
10	14	00.3	+02.5	14	59.5	+02.4	15	58.6	+02.5	16	57.7	+02.5	17	56.9	+02.4	10
11	29	02.8	+02.4	30	01.9	+02.5	31	01.1	+02.4	32	00.2	+02.5	32	59.3	+02.5	11
12	44	05.2	+02.5	45	04.4	+02.4	46	03.5	+02.5	47	02.7	+02.4	48	01.8	+02.5	12
13	59	07.7	+02.5	60	06.8	+02.5	61	06.0	+02.4	62	05.1	+02.5	63	04.3	+02.4	13
14	74	10.2	+02.4	75	09.3	+02.5	76	08.4	+02.5	77	07.6	+02.5	78	06.7	+02.5	14
15	89	12.6	+02.5	90	11.8	+02.4	91	10.9	+02.5	92	10.1	+02.4	93	09.2	+02.5	15
16	104	15.1	+02.5	105	14.2	+02.5	106	13.4	+02.4	107	12.5	+02.5	108	11.7	+02.4	16
17	119	17.6	+02.4	120	16.7	+02.5	121	15.8	+02.5	122	15.0	+02.4	123	14.1	+02.5	17
18	134	20.0	+02.5	135	19.2	+02.4	136	18.3	+02.5	137	17.4	+02.5	138	16.6	+02.5	18
19	149	22.5	+02.5	150	21.6	+02.5	151	20.8	+02.4	152	19.9	+02.5	153	19.1	+02.4	19
20	164	25.0	+02.4	165	24.1	+02.5	166	23.2	+02.5	167	22.4	+02.4	168	21.5	+02.5	20
21	179	27.4	+02.5	180	26.6	+02.4	181	25.7	+02.5	182	24.8	+02.5	183	24.0	+02.4	21
22	194	29.9	+02.4	195	29.0	+02.5	196	28.2	+02.4	197	27.3	+02.5	198	26.4	+02.5	22
23	209	32.3	+02.5	210	31.5	+02.5	211	30.6	+02.5	212	29.8	+02.4	213	28.9	+02.5	23

	SHA	Dec		SHA	Dec
	° ' "	° ' "		° ' "	° ' "
Alpheratz	357 36.6	N 29 13.0	Gienah	175 44.8	S 17 40.4
Ankaa	353 09.0	S 42 10.6	Acrux	173 01.1	S 63 13.9
Schedir	349 33.2	N 56 39.6	Gacrux	171 52.8	S 57 14.7
Diphda	348 49.1	S 17 51.6	Alioth	166 13.8	N 55 50.1
Achernar	335 21.9	S 57 07.1	Spica	158 23.5	S 11 17.0
Hamal	327 53.2	N 23 34.2	Alkaid	152 52.6	N 49 11.9
Polaris	315 13.9	N 89 21.7	Hadar	148 37.4	S 60 29.2
Acamar	315 13.2	S 40 12.8	Menkent	147 58.6	S 36 28.9
Menkar	314 08.0	N 04 10.8	Arcturus	145 48.5	N 19 04.4
Mirfak	308 30.8	N 49 56.6	Rigel Kentaurus	139 38.9	S 60 56.1
Aldebaran	290 41.6	N 16 33.4	Zubenelgenubi	136 57.2	S 16 08.3
Capella	280 24.4	N 46 01.5	Kocab	137 18.5	N 74 03.6
Rigel	281 05.5	S 08 10.6	Alphecca	126 04.6	N 26 38.1
Bellatrix	278 24.7	N 06 22.2	Antares	112 17.4	S 26 29.0
Elnath	278 04.0	N 28 37.7	Atria	107 12.3	S 69 04.0
Alnilam	275 39.4	S 01 11.3	Sabik	102 04.1	S 15 45.3
Betelgeuze	270 53.9	N 07 24.6	Shaula	96 12.0	S 37 07.2
Canopus	263 53.4	S 52 42.7	Rasalhague	95 59.6	N 12 32.5
Sirius	258 27.5	S 16 44.5	Etamin	90 42.4	N 51 28.9
Adhara	255 07.2	S 29 00.4	Kaus Australis	83 34.1	S 34 22.3
Castor	245 59.0	N 31 50.4	Vega	80 34.0	N 38 47.9
Procyon	244 52.2	N 05 10.3	Nunki	75 49.3	S 26 16.0
Pollux	243 18.8	N 27 58.3	Albireo	67 05.1	N 28 00.2
Avior	234 15.4	S 59 35.3	Altair	62 01.4	N 08 55.5
Suhail	222 47.3	S 43 31.8	Peacock	53 07.9	S 56 39.4
Miaplacidus	221 38.4	S 69 49.1	Deneb	49 26.7	N 45 21.4
Alphard	217 49.1	S 08 45.7	Enif	33 40.3	N 09 58.7
Regulus	207 35.8	N 11 51.2	Alnair	27 34.9	S 46 50.7
Dubhe	193 42.3	N 61 37.8	Formalhaut	15 16.4	S 29 29.9
Denebola	182 26.0	N 14 26.6	Markab	13 31.5	N 15 19.6

2023 - First Point of Aries / Selected Stars

UT	day 131 of 365		day 132 of 365		day 133 of 365		day 134 of 365		day 135 of 365		UT					
	May 11		May 12		May 13		May 14		May 15							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	228	31.4	+02.4	229	30.5	+02.5	230	29.7	+02.4	231	28.8	+02.5	232	27.9	+02.5	00
01	243	33.8	+02.5	244	33.0	+02.4	245	32.1	+02.5	246	31.3	+02.4	247	30.4	+02.5	01
02	258	36.3	+02.5	259	35.4	+02.5	260	34.6	+02.4	261	33.7	+02.5	262	32.9	+02.4	02
03	273	38.8	+02.4	274	37.9	+02.5	275	37.0	+02.5	276	36.2	+02.4	277	35.3	+02.5	03
04	288	41.2	+02.5	289	40.4	+02.4	290	39.5	+02.5	291	38.6	+02.5	292	37.8	+02.4	04
05	303	43.7	+02.5	304	42.8	+02.5	305	42.0	+02.4	306	41.1	+02.5	307	40.2	+02.5	05
06	318	46.2	+02.4	319	45.3	+02.5	320	44.4	+02.5	321	43.6	+02.4	322	42.7	+02.5	06
07	333	48.6	+02.5	334	47.8	+02.4	335	46.9	+02.5	336	46.0	+02.5	337	45.2	+02.4	07
08	348	51.1	+02.5	349	50.2	+02.5	350	49.4	+02.4	351	48.5	+02.5	352	47.6	+02.5	08
09	3	53.6	+02.4	4	52.7	+02.5	5	51.8	+02.5	6	51.0	+02.4	7	50.1	+02.5	09
10	18	56.0	+02.5	19	55.2	+02.4	20	54.3	+02.5	21	53.4	+02.5	22	52.6	+02.4	10
11	33	58.5	+02.4	34	57.6	+02.5	35	56.8	+02.4	36	55.9	+02.5	37	55.0	+02.5	11
12	49	00.9	+02.5	50	00.1	+02.4	50	59.2	+02.5	51	58.4	+02.4	52	57.5	+02.5	12
13	64	03.4	+02.5	65	02.5	+02.5	66	01.7	+02.5	67	00.8	+02.5	67	60.0	+02.4	13
14	79	05.9	+02.4	80	05.0	+02.5	81	04.2	+02.4	82	03.3	+02.5	83	02.4	+02.5	14
15	94	08.3	+02.5	95	07.5	+02.4	96	06.6	+02.5	97	05.8	+02.4	98	04.9	+02.5	15
16	109	10.8	+02.5	110	09.9	+02.5	111	09.1	+02.4	112	08.2	+02.5	113	07.4	+02.4	16
17	124	13.3	+02.4	125	12.4	+02.5	126	11.5	+02.5	127	10.7	+02.4	128	09.8	+02.5	17
18	139	15.7	+02.5	140	14.9	+02.4	141	14.0	+02.5	142	13.1	+02.5	143	12.3	+02.4	18
19	154	18.2	+02.5	155	17.3	+02.5	156	16.5	+02.4	157	15.6	+02.5	158	14.7	+02.5	19
20	169	20.7	+02.4	170	19.8	+02.5	171	18.9	+02.5	172	18.1	+02.4	173	17.2	+02.5	20
21	184	23.1	+02.5	185	22.3	+02.4	186	21.4	+02.5	187	20.5	+02.5	188	19.7	+02.4	21
22	199	25.6	+02.4	200	24.7	+02.5	201	23.9	+02.4	202	23.0	+02.5	203	22.1	+02.5	22
23	214	28.0	+02.5	215	27.2	+02.5	216	26.3	+02.5	217	25.5	+02.4	218	24.6	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.5	N 29	13.0	Gienah	175	44.8	S 17	40.4
Ankaa	353	08.9	S 42	10.6	Acrux	173	01.1	S 63	13.9
Schedir	349	33.1	N 56	39.6	Gacrux	171	52.8	S 57	14.7
Diphda	348	49.0	S 17	51.6	Alioth	166	13.8	N 55	50.2
Achernar	335	21.8	S 57	07.0	Spica	158	23.5	S 11	17.0
Hamal	327	53.2	N 23	34.2	Alkaid	152	52.6	N 49	11.9
Polaris	315	13.2	N 89	21.7	Hadar	148	37.4	S 60	29.2
Acamar	315	13.2	S 40	12.7	Menkent	147	58.6	S 36	28.9
Menkar	314	07.9	N 04	10.8	Arcturus	145	48.5	N 19	04.4
Mirfak	308	30.8	N 49	56.5	Rigel Kentaurus	139	38.9	S 60	56.1
Aldebaran	290	41.6	N 16	33.4	Zubenelgenubi	136	57.2	S 16	08.3
Capella	280	24.4	N 46	01.5	Kocab	137	18.5	N 74	03.6
Rigel	281	05.5	S 08	10.6	Alphecca	126	04.6	N 26	38.1
Bellatrix	278	24.7	N 06	22.2	Antares	112	17.3	S 26	29.0
Elnath	278	04.0	N 28	37.7	Atria	107	12.2	S 69	04.0
Alnilam	275	39.4	S 01	11.3	Sabik	102	04.1	S 15	45.3
Betelgeuze	270	53.9	N 07	24.6	Shaula	96	11.9	S 37	07.2
Canopus	263	53.4	S 52	42.7	Rasalhague	95	59.6	N 12	32.5
Sirius	258	27.5	S 16	44.5	Etamin	90	42.4	N 51	28.9
Adhara	255	07.2	S 29	00.4	Kaus Australis	83	34.1	S 34	22.3
Castor	245	59.0	N 31	50.4	Vega	80	34.0	N 38	47.9
Procyon	244	52.2	N 05	10.3	Nunki	75	49.3	S 26	16.0
Pollux	243	18.8	N 27	58.3	Albireo	67	05.0	N 28	00.2
Avior	234	15.5	S 59	35.3	Altair	62	01.4	N 08	55.5
Suhail	222	47.4	S 43	31.8	Peacock	53	07.8	S 56	39.4
Miaplacidus	221	38.5	S 69	49.1	Deneb	49	26.7	N 45	21.5
Alphard	217	49.1	S 08	45.7	Enif	33	40.2	N 09	58.7
Regulus	207	35.8	N 11	51.2	Alnair	27	34.8	S 46	50.7
Dubhe	193	42.3	N 61	37.8	Formalhaut	15	16.3	S 29	29.8
Denebola	182	26.0	N 14	26.6	Markab	13	31.5	N 15	19.6

2023 - First Point of Aries / Selected Stars

UT	day 136 of 365		day 137 of 365		day 138 of 365		day 139 of 365		day 140 of 365		UT
	May 16		May 17		May 18		May 19		May 20		
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	
00	233	27.1 +02.4	234	26.2 +02.5	235	25.3 +02.5	236	24.5 +02.4	237	23.6 +02.5	00
01	248	29.5 +02.5	249	28.7 +02.4	250	27.8 +02.5	251	26.9 +02.5	252	26.1 +02.4	01
02	263	32.0 +02.5	264	31.1 +02.5	265	30.3 +02.4	266	29.4 +02.5	267	28.5 +02.5	02
03	278	34.5 +02.4	279	33.6 +02.5	280	32.7 +02.5	281	31.9 +02.4	282	31.0 +02.5	03
04	293	36.9 +02.5	294	36.1 +02.4	295	35.2 +02.5	296	34.3 +02.5	297	33.5 +02.4	04
05	308	39.4 +02.5	309	38.5 +02.5	310	37.7 +02.4	311	36.8 +02.5	312	35.9 +02.5	05
06	323	41.9 +02.4	324	41.0 +02.5	325	40.1 +02.5	326	39.3 +02.4	327	38.4 +02.5	06
07	338	44.3 +02.5	339	43.5 +02.4	340	42.6 +02.5	341	41.7 +02.5	342	40.9 +02.4	07
08	353	46.8 +02.4	354	45.9 +02.5	355	45.1 +02.4	356	44.2 +02.5	357	43.3 +02.5	08
09	8	49.2 +02.5	9	48.4 +02.4	10	47.5 +02.5	11	46.7 +02.4	12	45.8 +02.5	09
10	23	51.7 +02.5	24	50.8 +02.5	25	50.0 +02.4	26	49.1 +02.5	27	48.3 +02.4	10
11	38	54.2 +02.4	39	53.3 +02.5	40	52.4 +02.5	41	51.6 +02.5	42	50.7 +02.5	11
12	53	56.6 +02.5	54	55.8 +02.4	55	54.9 +02.5	56	54.1 +02.4	57	53.2 +02.5	12
13	68	59.1 +02.5	69	58.2 +02.5	70	57.4 +02.4	71	56.5 +02.5	72	55.7 +02.4	13
14	84	01.6 +02.4	85	00.7 +02.5	85	59.8 +02.5	86	59.0 +02.4	87	58.1 +02.5	14
15	99	04.0 +02.5	100	03.2 +02.4	101	02.3 +02.5	102	01.4 +02.5	103	00.6 +02.4	15
16	114	06.5 +02.5	115	05.6 +02.5	116	04.8 +02.4	117	03.9 +02.5	118	03.0 +02.5	16
17	129	09.0 +02.4	130	08.1 +02.5	131	07.2 +02.5	132	06.4 +02.4	133	05.5 +02.5	17
18	144	11.4 +02.5	145	10.6 +02.4	146	09.7 +02.5	147	08.8 +02.5	148	08.0 +02.4	18
19	159	13.9 +02.4	160	13.0 +02.5	161	12.2 +02.4	162	11.3 +02.5	163	10.4 +02.5	19
20	174	16.3 +02.5	175	15.5 +02.4	176	14.6 +02.5	177	13.8 +02.4	178	12.9 +02.5	20
21	189	18.8 +02.5	190	17.9 +02.5	191	17.1 +02.5	192	16.2 +02.5	193	15.4 +02.4	21
22	204	21.3 +02.4	205	20.4 +02.5	206	19.6 +02.4	207	18.7 +02.5	208	17.8 +02.5	22
23	219	23.7 +02.5	220	22.9 +02.4	221	22.0 +02.5	222	21.2 +02.4	223	20.3 +02.5	23

	SHA	Dec		SHA	Dec
	° ' "	° ' "		° ' "	° ' "
Alpheratz	357 36.5	N 29 13.0	Gienah	175 44.8	S 17 40.4
Ankaa	353 08.9	S 42 10.6	Acrux	173 01.2	S 63 13.9
Schedir	349 33.1	N 56 39.6	Gacrux	171 52.8	S 57 14.7
Diphda	348 49.0	S 17 51.6	Alioth	166 13.9	N 55 50.2
Achernar	335 21.8	S 57 07.0	Spica	158 23.5	S 11 17.0
Hamal	327 53.2	N 23 34.3	Alkaid	152 52.6	N 49 11.9
Polaris	315 12.9	N 89 21.7	Hadar	148 37.4	S 60 29.2
Acamar	315 13.2	S 40 12.7	Menkent	147 58.6	S 36 28.9
Menkar	314 07.9	N 04 10.8	Arcturus	145 48.5	N 19 04.4
Mirfak	308 30.8	N 49 56.5	Rigel Kentaurus	139 38.9	S 60 56.2
Aldebaran	290 41.6	N 16 33.4	Zubenelgenubi	136 57.2	S 16 08.4
Capella	280 24.4	N 46 01.5	Kocab	137 18.6	N 74 03.6
Rigel	281 05.5	S 08 10.6	Alphecca	126 04.6	N 26 38.1
Bellatrix	278 24.7	N 06 22.2	Antares	112 17.3	S 26 29.0
Elnath	278 04.0	N 28 37.7	Atria	107 12.2	S 69 04.1
Alnilam	275 39.4	S 01 11.3	Sabik	102 04.1	S 15 45.3
Betelgeuze	270 53.9	N 07 24.6	Shaula	96 11.9	S 37 07.2
Canopus	263 53.5	S 52 42.6	Rasalhague	95 59.6	N 12 32.5
Sirius	258 27.5	S 16 44.5	Etamin	90 42.4	N 51 28.9
Adhara	255 07.2	S 29 00.4	Kaus Australis	83 34.0	S 34 22.3
Castor	245 59.0	N 31 50.4	Vega	80 33.9	N 38 48.0
Procyon	244 52.2	N 05 10.3	Nunki	75 49.2	S 26 16.0
Pollux	243 18.9	N 27 58.3	Albireo	67 05.0	N 28 00.3
Avior	234 15.5	S 59 35.3	Altair	62 01.3	N 08 55.5
Suhail	222 47.4	S 43 31.8	Peacock	53 07.7	S 56 39.4
Miaplacidus	221 38.5	S 69 49.1	Deneb	49 26.6	N 45 21.5
Alphard	217 49.2	S 08 45.7	Enif	33 40.2	N 09 58.7
Regulus	207 35.8	N 11 51.2	Alnair	27 34.8	S 46 50.7
Dubhe	193 42.4	N 61 37.8	Formalhaut	15 16.3	S 29 29.8
Denebola	182 26.0	N 14 26.6	Markab	13 31.4	N 15 19.6

2023 - First Point of Aries / Selected Stars

UT	day 141 of 365		day 142 of 365		day 143 of 365		day 144 of 365		day 145 of 365		UT					
	May 21		May 22		May 23		May 24		May 25							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	238	22.8	+02.4	239	21.9	+02.5	240	21.0	+02.5	241	20.2	+02.4	242	19.3	+02.5	00
01	253	25.2	+02.5	254	24.4	+02.4	255	23.5	+02.5	256	22.6	+02.5	257	21.8	+02.5	01
02	268	27.7	+02.5	269	26.8	+02.5	270	26.0	+02.4	271	25.1	+02.5	272	24.3	+02.4	02
03	283	30.2	+02.4	284	29.3	+02.5	285	28.4	+02.5	286	27.6	+02.4	287	26.7	+02.5	03
04	298	32.6	+02.5	299	31.8	+02.4	300	30.9	+02.5	301	30.0	+02.5	302	29.2	+02.4	04
05	313	35.1	+02.4	314	34.2	+02.5	315	33.4	+02.4	316	32.5	+02.5	317	31.6	+02.5	05
06	328	37.5	+02.5	329	36.7	+02.5	330	35.8	+02.5	331	35.0	+02.4	332	34.1	+02.5	06
07	343	40.0	+02.5	344	39.2	+02.4	345	38.3	+02.5	346	37.4	+02.5	347	36.6	+02.4	07
08	358	42.5	+02.4	359	41.6	+02.5	0	40.8	+02.4	1	39.9	+02.5	2	39.0	+02.5	08
09	13	44.9	+02.5	14	44.1	+02.4	15	43.2	+02.5	16	42.4	+02.4	17	41.5	+02.5	09
10	28	47.4	+02.5	29	46.5	+02.5	30	45.7	+02.4	31	44.8	+02.5	32	44.0	+02.4	10
11	43	49.9	+02.4	44	49.0	+02.5	45	48.1	+02.5	46	47.3	+02.5	47	46.4	+02.5	11
12	58	52.3	+02.5	59	51.5	+02.4	60	50.6	+02.5	61	49.8	+02.4	62	48.9	+02.5	12
13	73	54.8	+02.5	74	53.9	+02.5	75	53.1	+02.4	76	52.2	+02.5	77	51.4	+02.4	13
14	88	57.3	+02.4	89	56.4	+02.5	90	55.5	+02.5	91	54.7	+02.4	92	53.8	+02.5	14
15	103	59.7	+02.5	104	58.9	+02.4	105	58.0	+02.5	106	57.1	+02.5	107	56.3	+02.5	15
16	119	02.2	+02.5	120	01.3	+02.5	121	00.5	+02.4	121	59.6	+02.5	122	58.8	+02.4	16
17	134	04.7	+02.4	135	03.8	+02.5	136	02.9	+02.5	137	02.1	+02.4	138	01.2	+02.5	17
18	149	07.1	+02.5	150	06.3	+02.4	151	05.4	+02.5	152	04.5	+02.5	153	03.7	+02.4	18
19	164	09.6	+02.4	165	08.7	+02.5	166	07.9	+02.4	167	07.0	+02.5	168	06.1	+02.5	19
20	179	12.0	+02.5	180	11.2	+02.5	181	10.3	+02.5	182	09.5	+02.4	183	08.6	+02.5	20
21	194	14.5	+02.5	195	13.7	+02.4	196	12.8	+02.5	197	11.9	+02.5	198	11.1	+02.4	21
22	209	17.0	+02.4	210	16.1	+02.5	211	15.3	+02.4	212	14.4	+02.5	213	13.5	+02.5	22
23	224	19.4	+02.5	225	18.6	+02.4	226	17.7	+02.5	227	16.9	+02.4	228	16.0	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.5	N 29	13.0	Gienah	175	44.8	S 17	40.4
Ankaa	353	08.9	S 42	10.5	Acrux	173	01.2	S 63	13.9
Schedir	349	33.0	N 56	39.6	Gacrux	171	52.9	S 57	14.7
Diphda	348	49.0	S 17	51.6	Alioth	166	13.9	N 55	50.2
Achernar	335	21.8	S 57	07.0	Spica	158	23.5	S 11	17.0
Hamal	327	53.1	N 23	34.3	Alkaid	152	52.6	N 49	11.9
Polaris	315	11.8	N 89	21.6	Hadar	148	37.4	S 60	29.2
Acamar	315	13.2	S 40	12.7	Menkent	147	58.6	S 36	28.9
Menkar	314	07.9	N 04	10.8	Arcturus	145	48.5	N 19	04.4
Mirfak	308	30.8	N 49	56.5	Rigel Kentaurus	139	38.9	S 60	56.2
Aldebaran	290	41.6	N 16	33.4	Zubenelgenubi	136	57.2	S 16	08.3
Capella	280	24.4	N 46	01.5	Kocab	137	18.6	N 74	03.6
Rigel	281	05.5	S 08	10.6	Alphecca	126	04.6	N 26	38.2
Bellatrix	278	24.7	N 06	22.2	Antares	112	17.3	S 26	29.0
Elnath	278	04.0	N 28	37.7	Atria	107	12.1	S 69	04.1
Alnilam	275	39.4	S 01	11.3	Sabik	102	04.0	S 15	45.3
Betelgeuze	270	53.9	N 07	24.6	Shaula	96	11.9	S 37	07.2
Canopus	263	53.5	S 52	42.6	Rasalhague	95	59.5	N 12	32.6
Sirius	258	27.5	S 16	44.5	Etamin	90	42.3	N 51	28.9
Adhara	255	07.2	S 29	00.3	Kaus Australis	83	34.0	S 34	22.3
Castor	245	59.0	N 31	50.4	Vega	80	33.9	N 38	48.0
Procyon	244	52.3	N 05	10.3	Nunki	75	49.2	S 26	16.0
Pollux	243	18.9	N 27	58.3	Albireo	67	04.9	N 28	00.3
Avior	234	15.6	S 59	35.3	Altair	62	01.3	N 08	55.5
Suhail	222	47.4	S 43	31.8	Peacock	53	07.6	S 56	39.4
Miaplacidus	221	38.6	S 69	49.1	Deneb	49	26.6	N 45	21.5
Alphard	217	49.2	S 08	45.7	Enif	33	40.1	N 09	58.7
Regulus	207	35.8	N 11	51.2	Alnair	27	34.7	S 46	50.7
Dubhe	193	42.4	N 61	37.8	Formalhaut	15	16.3	S 29	29.8
Denebola	182	26.0	N 14	26.6	Markab	13	31.4	N 15	19.7

2023 - First Point of Aries / Selected Stars

UT	day 146 of 365		day 147 of 365		day 148 of 365		day 149 of 365		day 150 of 365		UT					
	May 26		May 27		May 28		May 29		May 30							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	243	18.5	+02.4	244	17.6	+02.5	245	16.7	+02.5	246	15.9	+02.4	247	15.0	+02.5	00
01	258	20.9	+02.5	259	20.1	+02.4	260	19.2	+02.5	261	18.3	+02.5	262	17.5	+02.4	01
02	273	23.4	+02.5	274	22.5	+02.5	275	21.7	+02.4	276	20.8	+02.5	277	19.9	+02.5	02
03	288	25.9	+02.4	289	25.0	+02.5	290	24.1	+02.5	291	23.3	+02.4	292	22.4	+02.5	03
04	303	28.3	+02.5	304	27.5	+02.4	305	26.6	+02.5	306	25.7	+02.5	307	24.9	+02.4	04
05	318	30.8	+02.4	319	29.9	+02.5	320	29.1	+02.4	321	28.2	+02.5	322	27.3	+02.5	05
06	333	33.2	+02.5	334	32.4	+02.5	335	31.5	+02.5	336	30.7	+02.4	337	29.8	+02.5	06
07	348	35.7	+02.5	349	34.9	+02.4	350	34.0	+02.5	351	33.1	+02.5	352	32.3	+02.4	07
08	3	38.2	+02.4	4	37.3	+02.5	5	36.5	+02.4	6	35.6	+02.5	7	34.7	+02.5	08
09	18	40.6	+02.5	19	39.8	+02.4	20	38.9	+02.5	21	38.1	+02.4	22	37.2	+02.5	09
10	33	43.1	+02.5	34	42.2	+02.5	35	41.4	+02.4	36	40.5	+02.5	37	39.7	+02.4	10
11	48	45.6	+02.4	49	44.7	+02.5	50	43.8	+02.5	51	43.0	+02.4	52	42.1	+02.5	11
12	63	48.0	+02.5	64	47.2	+02.4	65	46.3	+02.5	66	45.4	+02.5	67	44.6	+02.4	12
13	78	50.5	+02.5	79	49.6	+02.5	80	48.8	+02.4	81	47.9	+02.5	82	47.0	+02.5	13
14	93	53.0	+02.4	94	52.1	+02.5	95	51.2	+02.5	96	50.4	+02.4	97	49.5	+02.5	14
15	108	55.4	+02.5	109	54.6	+02.4	110	53.7	+02.5	111	52.8	+02.5	112	52.0	+02.4	15
16	123	57.9	+02.5	124	57.0	+02.5	125	56.2	+02.4	126	55.3	+02.5	127	54.4	+02.5	16
17	139	00.4	+02.4	139	59.5	+02.5	140	58.6	+02.5	141	57.8	+02.4	142	56.9	+02.5	17
18	154	02.8	+02.5	155	02.0	+02.4	156	01.1	+02.5	157	00.2	+02.5	157	59.4	+02.4	18
19	169	05.3	+02.4	170	04.4	+02.5	171	03.6	+02.4	172	02.7	+02.5	173	01.8	+02.5	19
20	184	07.7	+02.5	185	06.9	+02.4	186	06.0	+02.5	187	05.2	+02.4	188	04.3	+02.5	20
21	199	10.2	+02.5	200	09.3	+02.5	201	08.5	+02.5	202	07.6	+02.5	203	06.8	+02.4	21
22	214	12.7	+02.4	215	11.8	+02.5	216	11.0	+02.4	217	10.1	+02.5	218	09.2	+02.5	22
23	229	15.1	+02.5	230	14.3	+02.4	231	13.4	+02.5	232	12.6	+02.4	233	11.7	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.4	N 29	13.0	Gienah	175	44.8	S 17	40.4
Ankaa	353	08.8	S 42	10.5	Acrux	173	01.2	S 63	13.9
Schedir	349	33.0	N 56	39.6	Gacrux	171	52.9	S 57	14.8
Diphda	348	48.9	S 17	51.5	Alioth	166	13.9	N 55	50.2
Achernar	335	21.7	S 57	07.0	Spica	158	23.5	S 11	17.0
Hamal	327	53.1	N 23	34.3	Alkaid	152	52.6	N 49	12.0
Polaris	315	10.7	N 89	21.6	Hadar	148	37.4	S 60	29.3
Acamar	315	13.2	S 40	12.7	Menkent	147	58.6	S 36	28.9
Menkar	314	07.9	N 04	10.8	Arcturus	145	48.5	N 19	04.4
Mirfak	308	30.7	N 49	56.5	Rigel Kentaurus	139	38.8	S 60	56.2
Aldebaran	290	41.6	N 16	33.4	Zubenelgenubi	136	57.2	S 16	08.4
Capella	280	24.4	N 46	01.4	Kocab	137	18.6	N 74	03.7
Rigel	281	05.5	S 08	10.5	Alphecca	126	04.6	N 26	38.2
Bellatrix	278	24.7	N 06	22.2	Antares	112	17.3	S 26	29.0
Elnath	278	04.0	N 28	37.7	Atria	107	12.1	S 69	04.1
Alnilam	275	39.4	S 01	11.3	Sabik	102	04.0	S 15	45.3
Betelgeuze	270	53.9	N 07	24.6	Shaula	96	11.8	S 37	07.2
Canopus	263	53.5	S 52	42.6	Rasalhague	95	59.5	N 12	32.6
Sirius	258	27.5	S 16	44.5	Etamin	90	42.3	N 51	29.0
Adhara	255	07.2	S 29	00.3	Kaus Australis	83	34.0	S 34	22.3
Castor	245	59.0	N 31	50.4	Vega	80	33.9	N 38	48.0
Procyon	244	52.3	N 05	10.3	Nunki	75	49.2	S 26	16.0
Pollux	243	18.9	N 27	58.3	Albireo	67	04.9	N 28	00.3
Avior	234	15.6	S 59	35.3	Altair	62	01.3	N 08	55.5
Suhail	222	47.4	S 43	31.8	Peacock	53	07.6	S 56	39.4
Miaplacidus	221	38.7	S 69	49.1	Deneb	49	26.5	N 45	21.5
Alphard	217	49.2	S 08	45.7	Enif	33	40.1	N 09	58.8
Regulus	207	35.8	N 11	51.2	Alnair	27	34.7	S 46	50.7
Dubhe	193	42.4	N 61	37.8	Formalhaut	15	16.2	S 29	29.8
Denebola	182	26.0	N 14	26.6	Markab	13	31.3	N 15	19.7

2023 - First Point of Aries / Selected Stars

UT	day 151 of 365		day 152 of 365		day 153 of 365		day 154 of 365		day 155 of 365		UT					
	May 31		June 1		June 2		June 3		June 4							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "						
00	248	14.2	+02.4	249	13.3	+02.5	250	12.4	+02.5	251	11.6	+02.4	252	10.7	+02.5	00
01	263	16.6	+02.5	264	15.8	+02.4	265	14.9	+02.5	266	14.0	+02.5	267	13.2	+02.4	01
02	278	19.1	+02.4	279	18.2	+02.5	280	17.4	+02.4	281	16.5	+02.5	282	15.6	+02.5	02
03	293	21.5	+02.5	294	20.7	+02.4	295	19.8	+02.5	296	19.0	+02.4	297	18.1	+02.5	03
04	308	24.0	+02.5	309	23.1	+02.5	310	22.3	+02.5	311	21.4	+02.5	312	20.6	+02.4	04
05	323	26.5	+02.4	324	25.6	+02.5	325	24.8	+02.4	326	23.9	+02.5	327	23.0	+02.5	05
06	338	28.9	+02.5	339	28.1	+02.4	340	27.2	+02.5	341	26.4	+02.4	342	25.5	+02.5	06
07	353	31.4	+02.5	354	30.5	+02.5	355	29.7	+02.4	356	28.8	+02.5	357	28.0	+02.4	07
08	8	33.9	+02.4	9	33.0	+02.5	10	32.1	+02.5	11	31.3	+02.4	12	30.4	+02.5	08
09	23	36.3	+02.5	24	35.5	+02.4	25	34.6	+02.5	26	33.7	+02.5	27	32.9	+02.5	09
10	38	38.8	+02.5	39	37.9	+02.5	40	37.1	+02.4	41	36.2	+02.5	42	35.4	+02.4	10
11	53	41.3	+02.4	54	40.4	+02.5	55	39.5	+02.5	56	38.7	+02.4	57	37.8	+02.5	11
12	68	43.7	+02.5	69	42.9	+02.4	70	42.0	+02.5	71	41.1	+02.5	72	40.3	+02.4	12
13	83	46.2	+02.5	84	45.3	+02.5	85	44.5	+02.4	86	43.6	+02.5	87	42.7	+02.5	13
14	98	48.7	+02.4	99	47.8	+02.5	100	46.9	+02.5	101	46.1	+02.4	102	45.2	+02.5	14
15	113	51.1	+02.5	114	50.3	+02.4	115	49.4	+02.5	116	48.5	+02.5	117	47.7	+02.4	15
16	128	53.6	+02.4	129	52.7	+02.5	130	51.9	+02.4	131	51.0	+02.5	132	50.1	+02.5	16
17	143	56.0	+02.5	144	55.2	+02.4	145	54.3	+02.5	146	53.5	+02.4	147	52.6	+02.5	17
18	158	58.5	+02.5	159	57.6	+02.5	160	56.8	+02.5	161	55.9	+02.5	162	55.1	+02.4	18
19	174	01.0	+02.4	175	00.1	+02.5	175	59.3	+02.4	176	58.4	+02.5	177	57.5	+02.5	19
20	189	03.4	+02.5	190	02.6	+02.4	191	01.7	+02.5	192	00.9	+02.4	192	60.0	+02.5	20
21	204	05.9	+02.5	205	05.0	+02.5	206	04.2	+02.4	207	03.3	+02.5	208	02.5	+02.4	21
22	219	08.4	+02.4	220	07.5	+02.5	221	06.6	+02.5	222	05.8	+02.4	223	04.9	+02.5	22
23	234	10.8	+02.5	235	10.0	+02.4	236	09.1	+02.5	237	08.2	+02.5	238	07.4	+02.5	23

	SHA	Dec		SHA	Dec
	° ' "	° ' "		° ' "	° ' "
Alpheratz	357 36.4	N 29 13.0	Gienah	175 44.8	S 17 40.4
Ankaa	353 08.8	S 42 10.5	Acrux	173 01.3	S 63 13.9
Schedir	349 32.9	N 56 39.6	Gacrux	171 52.9	S 57 14.8
Diphda	348 48.9	S 17 51.5	Alioth	166 13.9	N 55 50.2
Achernar	335 21.7	S 57 06.9	Spica	158 23.5	S 11 17.0
Hamal	327 53.1	N 23 34.3	Alkaid	152 52.7	N 49 12.0
Polaris	315 09.7	N 89 21.6	Hadar	148 37.4	S 60 29.3
Acamar	315 13.2	S 40 12.6	Menkent	147 58.6	S 36 28.9
Menkar	314 07.9	N 04 10.8	Arcturus	145 48.5	N 19 04.5
Mirfak	308 30.7	N 49 56.5	Rigel Kentaurus	139 38.9	S 60 56.2
Aldebaran	290 41.6	N 16 33.4	Zubenelgenubi	136 57.2	S 16 08.4
Capella	280 24.4	N 46 01.4	Kocab	137 18.6	N 74 03.7
Rigel	281 05.5	S 08 10.5	Alphecca	126 04.6	N 26 38.2
Bellatrix	278 24.7	N 06 22.2	Antares	112 17.2	S 26 29.0
Elnath	278 04.0	N 28 37.7	Atria	107 12.0	S 69 04.1
Alnilam	275 39.4	S 01 11.3	Sabik	102 04.0	S 15 45.3
Betelgeuze	270 53.9	N 07 24.7	Shaula	96 11.8	S 37 07.2
Canopus	263 53.5	S 52 42.6	Rasalhague	95 59.5	N 12 32.6
Sirius	258 27.6	S 16 44.5	Etamin	90 42.3	N 51 29.0
Adhara	255 07.2	S 29 00.3	Kaus Australis	83 33.9	S 34 22.3
Castor	245 59.0	N 31 50.4	Vega	80 33.9	N 38 48.0
Procyon	244 52.3	N 05 10.3	Nunki	75 49.1	S 26 16.0
Pollux	243 18.9	N 27 58.3	Albireo	67 04.9	N 28 00.3
Avior	234 15.7	S 59 35.3	Altair	62 01.2	N 08 55.5
Suhail	222 47.5	S 43 31.8	Peacock	53 07.5	S 56 39.4
Miaplacidus	221 38.8	S 69 49.0	Deneb	49 26.5	N 45 21.5
Alphard	217 49.2	S 08 45.6	Enif	33 40.1	N 09 58.8
Regulus	207 35.8	N 11 51.2	Alnair	27 34.6	S 46 50.6
Dubhe	193 42.5	N 61 37.8	Formalhaut	15 16.2	S 29 29.8
Denebola	182 26.1	N 14 26.6	Markab	13 31.3	N 15 19.7

2023 - First Point of Aries / Selected Stars

UT	day 156 of 365		day 157 of 365		day 158 of 365		day 159 of 365		day 160 of 365		UT					
	June 5		June 6		June 7		June 8		June 9							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	253	09.9	+02.4	254	09.0	+02.5	255	08.1	+02.5	256	07.3	+02.4	257	06.4	+02.5	00
01	268	12.3	+02.5	269	11.5	+02.4	270	10.6	+02.5	271	09.7	+02.5	272	08.9	+02.4	01
02	283	14.8	+02.4	284	13.9	+02.5	285	13.1	+02.4	286	12.2	+02.5	287	11.3	+02.5	02
03	298	17.2	+02.5	299	16.4	+02.5	300	15.5	+02.5	301	14.7	+02.4	302	13.8	+02.5	03
04	313	19.7	+02.5	314	18.9	+02.4	315	18.0	+02.5	316	17.1	+02.5	317	16.3	+02.4	04
05	328	22.2	+02.4	329	21.3	+02.5	330	20.5	+02.4	331	19.6	+02.5	332	18.7	+02.5	05
06	343	24.6	+02.5	344	23.8	+02.4	345	22.9	+02.5	346	22.1	+02.4	347	21.2	+02.5	06
07	358	27.1	+02.5	359	26.2	+02.5	0	25.4	+02.5	1	24.5	+02.5	2	23.7	+02.4	07
08	13	29.6	+02.4	14	28.7	+02.5	15	27.9	+02.4	16	27.0	+02.5	17	26.1	+02.5	08
09	28	32.0	+02.5	29	31.2	+02.4	30	30.3	+02.5	31	29.5	+02.4	32	28.6	+02.5	09
10	43	34.5	+02.5	44	33.6	+02.5	45	32.8	+02.4	46	31.9	+02.5	47	31.1	+02.4	10
11	58	37.0	+02.4	59	36.1	+02.5	60	35.2	+02.5	61	34.4	+02.4	62	33.5	+02.5	11
12	73	39.4	+02.5	74	38.6	+02.4	75	37.7	+02.5	76	36.8	+02.5	77	36.0	+02.5	12
13	88	41.9	+02.5	89	41.0	+02.5	90	40.2	+02.4	91	39.3	+02.5	92	38.5	+02.4	13
14	103	44.4	+02.4	104	43.5	+02.5	105	42.6	+02.5	106	41.8	+02.4	107	40.9	+02.5	14
15	118	46.8	+02.5	119	46.0	+02.4	120	45.1	+02.5	121	44.2	+02.5	122	43.4	+02.4	15
16	133	49.3	+02.4	134	48.4	+02.5	135	47.6	+02.4	136	46.7	+02.5	137	45.8	+02.5	16
17	148	51.7	+02.5	149	50.9	+02.5	150	50.0	+02.5	151	49.2	+02.4	152	48.3	+02.5	17
18	163	54.2	+02.5	164	53.4	+02.4	165	52.5	+02.5	166	51.6	+02.5	167	50.8	+02.4	18
19	178	56.7	+02.4	179	55.8	+02.5	180	55.0	+02.4	181	54.1	+02.5	182	53.2	+02.5	19
20	193	59.1	+02.5	194	58.3	+02.4	195	57.4	+02.5	196	56.6	+02.4	197	55.7	+02.5	20
21	209	01.6	+02.5	210	00.7	+02.5	210	59.9	+02.4	211	59.0	+02.5	212	58.2	+02.4	21
22	224	04.1	+02.4	225	03.2	+02.5	226	02.3	+02.5	227	01.5	+02.5	228	00.6	+02.5	22
23	239	06.5	+02.5	240	05.7	+02.4	241	04.8	+02.5	242	04.0	+02.4	243	03.1	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.3	N 29	13.0	Gienah	175	44.8	S 17	40.4
Ankaa	353	08.7	S 42	10.5	Acrux	173	01.3	S 63	14.0
Schedir	349	32.9	N 56	39.6	Gacrux	171	52.9	S 57	14.8
Diphda	348	48.9	S 17	51.5	Alioth	166	14.0	N 55	50.2
Achernar	335	21.6	S 57	06.9	Spica	158	23.5	S 11	17.0
Hamal	327	53.1	N 23	34.3	Alkaid	152	52.7	N 49	12.0
Polaris	315	08.0	N 89	21.6	Hadar	148	37.4	S 60	29.3
Acamar	315	13.1	S 40	12.6	Menkent	147	58.6	S 36	28.9
Menkar	314	07.8	N 04	10.8	Arcturus	145	48.5	N 19	04.5
Mirfak	308	30.7	N 49	56.5	Rigel Kentaurus	139	38.9	S 60	56.2
Aldebaran	290	41.5	N 16	33.4	Zubenelgenubi	136	57.2	S 16	08.4
Capella	280	24.4	N 46	01.4	Kocab	137	18.7	N 74	03.7
Rigel	281	05.5	S 08	10.5	Alphecca	126	04.6	N 26	38.2
Bellatrix	278	24.6	N 06	22.2	Antares	112	17.2	S 26	29.0
Elnath	278	04.0	N 28	37.7	Atria	107	12.0	S 69	04.1
Alnilam	275	39.4	S 01	11.3	Sabik	102	04.0	S 15	45.3
Betelgeuze	270	53.9	N 07	24.7	Shaula	96	11.8	S 37	07.2
Canopus	263	53.5	S 52	42.6	Rasalhague	95	59.5	N 12	32.6
Sirius	258	27.6	S 16	44.5	Etamin	90	42.3	N 51	29.0
Adhara	255	07.2	S 29	00.3	Kaus Australis	83	33.9	S 34	22.3
Castor	245	59.0	N 31	50.4	Vega	80	33.8	N 38	48.0
Procyon	244	52.3	N 05	10.3	Nunki	75	49.1	S 26	16.0
Pollux	243	18.9	N 27	58.3	Albireo	67	04.8	N 28	00.3
Avior	234	15.7	S 59	35.3	Altair	62	01.2	N 08	55.5
Suhail	222	47.5	S 43	31.8	Peacock	53	07.5	S 56	39.4
Miaplacidus	221	38.8	S 69	49.0	Deneb	49	26.4	N 45	21.5
Alphard	217	49.2	S 08	45.6	Enif	33	40.0	N 09	58.8
Regulus	207	35.8	N 11	51.3	Alnair	27	34.5	S 46	50.6
Dubhe	193	42.5	N 61	37.8	Formalhaut	15	16.1	S 29	29.8
Denebola	182	26.1	N 14	26.6	Markab	13	31.3	N 15	19.7

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UT	day 161 of 365		day 162 of 365		day 163 of 365		day 164 of 365		day 165 of 365		UT
	<i>June 10</i>		<i>June 11</i>		<i>June 12</i>		<i>June 13</i>		<i>June 14</i>		
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	258	05.6 +02.4	259	04.7 +02.5	260	03.8 +02.5	261	03.0 +02.4	262	02.1 +02.5	00
01	273	08.0 +02.5	274	07.2 +02.4	275	06.3 +02.5	276	05.4 +02.5	277	04.6 +02.4	01
02	288	10.5 +02.4	289	09.6 +02.5	290	08.8 +02.4	291	07.9 +02.5	292	07.0 +02.5	02
03	303	12.9 +02.5	304	12.1 +02.5	305	11.2 +02.5	306	10.4 +02.4	307	09.5 +02.5	03
04	318	15.4 +02.5	319	14.6 +02.4	320	13.7 +02.5	321	12.8 +02.5	322	12.0 +02.4	04
05	333	17.9 +02.4	334	17.0 +02.5	335	16.2 +02.4	336	15.3 +02.5	337	14.4 +02.5	05
06	348	20.3 +02.5	349	19.5 +02.4	350	18.6 +02.5	351	17.8 +02.4	352	16.9 +02.5	06
07	3	22.8 +02.5	4	21.9 +02.5	5	21.1 +02.4	6	20.2 +02.5	7	19.4 +02.4	07
08	18	25.3 +02.4	19	24.4 +02.5	20	23.5 +02.5	21	22.7 +02.4	22	21.8 +02.5	08
09	33	27.7 +02.5	34	26.9 +02.4	35	26.0 +02.5	36	25.1 +02.5	37	24.3 +02.5	09
10	48	30.2 +02.5	49	29.3 +02.5	50	28.5 +02.4	51	27.6 +02.5	52	26.8 +02.4	10
11	63	32.7 +02.4	64	31.8 +02.5	65	30.9 +02.5	66	30.1 +02.4	67	29.2 +02.5	11
12	78	35.1 +02.5	79	34.3 +02.4	80	33.4 +02.5	81	32.5 +02.5	82	31.7 +02.4	12
13	93	37.6 +02.5	94	36.7 +02.5	95	35.9 +02.4	96	35.0 +02.5	97	34.1 +02.5	13
14	108	40.1 +02.4	109	39.2 +02.5	110	38.3 +02.5	111	37.5 +02.4	112	36.6 +02.5	14
15	123	42.5 +02.5	124	41.7 +02.4	125	40.8 +02.5	126	39.9 +02.5	127	39.1 +02.4	15
16	138	45.0 +02.4	139	44.1 +02.5	140	43.3 +02.4	141	42.4 +02.5	142	41.5 +02.5	16
17	153	47.4 +02.5	154	46.6 +02.4	155	45.7 +02.5	156	44.9 +02.4	157	44.0 +02.5	17
18	168	49.9 +02.5	169	49.0 +02.5	170	48.2 +02.5	171	47.3 +02.5	172	46.5 +02.4	18
19	183	52.4 +02.4	184	51.5 +02.5	185	50.7 +02.4	186	49.8 +02.5	187	48.9 +02.5	19
20	198	54.8 +02.5	199	54.0 +02.4	200	53.1 +02.5	201	52.3 +02.4	202	51.4 +02.5	20
21	213	57.3 +02.5	214	56.4 +02.5	215	55.6 +02.4	216	54.7 +02.5	217	53.9 +02.4	21
22	228	59.8 +02.4	229	58.9 +02.5	230	58.0 +02.5	231	57.2 +02.4	232	56.3 +02.5	22
23	244	02.2 +02.5	245	01.4 +02.4	246	00.5 +02.5	246	59.6 +02.5	247	58.8 +02.4	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 36.3	N 29 13.0	Gienah	175 44.8	S 17 40.4
Ankaa	353 08.7	S 42 10.4	Acrux	173 01.3	S 63 14.0
Schedir	349 32.8	N 56 39.6	Gacrux	171 53.0	S 57 14.8
Diphda	348 48.8	S 17 51.5	Alioth	166 14.0	N 55 50.2
Achernar	335 21.6	S 57 06.9	Spica	158 23.5	S 11 17.0
Hamal	327 53.0	N 23 34.3	Alkaid	152 52.7	N 49 12.0
Polaris	315 06.5	N 89 21.6	Hadar	148 37.4	S 60 29.3
Acamar	315 13.1	S 40 12.6	Menkent	147 58.6	S 36 29.0
Menkar	314 07.8	N 04 10.9	Arcturus	145 48.5	N 19 04.5
Mirfak	308 30.6	N 49 56.5	Rigel Kentaurus	139 38.9	S 60 56.3
Aldebaran	290 41.5	N 16 33.4	Zubenelgenubi	136 57.2	S 16 08.4
Capella	280 24.4	N 46 01.4	Kocab	137 18.7	N 74 03.7
Rigel	281 05.5	S 08 10.5	Alphecca	126 04.6	N 26 38.2
Bellatrix	278 24.6	N 06 22.2	Antares	112 17.2	S 26 29.1
Elnath	278 03.9	N 28 37.7	Atria	107 12.0	S 69 04.2
Alnilam	275 39.4	S 01 11.2	Sabik	102 04.0	S 15 45.3
Betelgeuze	270 53.9	N 07 24.7	Shaula	96 11.7	S 37 07.2
Canopus	263 53.5	S 52 42.5	Rasalhague	95 59.5	N 12 32.6
Sirius	258 27.5	S 16 44.4	Etamin	90 42.3	N 51 29.0
Adhara	255 07.2	S 29 00.3	Kaus Australis	83 33.9	S 34 22.3
Castor	245 59.0	N 31 50.3	Vega	80 33.8	N 38 48.1
Procyon	244 52.3	N 05 10.3	Nunki	75 49.1	S 26 16.0
Pollux	243 18.9	N 27 58.3	Albireo	67 04.8	N 28 00.4
Avior	234 15.7	S 59 35.2	Altair	62 01.2	N 08 55.6
Suhail	222 47.5	S 43 31.8	Peacock	53 07.4	S 56 39.4
Miaplacidus	221 38.9	S 69 49.0	Deneb	49 26.4	N 45 21.6
Alphard	217 49.2	S 08 45.6	Enif	33 40.0	N 09 58.8
Regulus	207 35.8	N 11 51.3	Alnair	27 34.5	S 46 50.6
Dubhe	193 42.6	N 61 37.8	Formalhaut	15 16.1	S 29 29.7
Denebola	182 26.1	N 14 26.6	Markab	13 31.2	N 15 19.7

2023 - First Point of Aries / Selected Stars

UT	day 166 of 365			day 167 of 365			day 168 of 365			day 169 of 365			day 170 of 365			UT		
	June 15			June 16			June 17			June 18			June 19					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	263	01.2	+02.5	264	00.4	+02.5	264	59.5	+02.5	265	58.7	+02.4	266	57.8	+02.5	00		
01	278	03.7	+02.5	279	02.9	+02.4	280	02.0	+02.5	281	01.1	+02.5	282	00.3	+02.4	01		
02	293	06.2	+02.4	294	05.3	+02.5	295	04.5	+02.4	296	03.6	+02.5	297	02.7	+02.5	02		
03	308	08.6	+02.5	309	07.8	+02.4	310	06.9	+02.5	311	06.1	+02.4	312	05.2	+02.5	03		
04	323	11.1	+02.5	324	10.2	+02.5	325	09.4	+02.4	326	08.5	+02.5	327	07.7	+02.4	04		
05	338	13.6	+02.4	339	12.7	+02.5	340	11.8	+02.5	341	11.0	+02.5	342	10.1	+02.5	05		
06	353	16.0	+02.5	354	15.2	+02.4	355	14.3	+02.5	356	13.5	+02.4	357	12.6	+02.5	06		
07	8	18.5	+02.5	9	17.6	+02.5	10	16.8	+02.4	11	15.9	+02.5	12	15.1	+02.4	07		
08	23	21.0	+02.4	24	20.1	+02.5	25	19.2	+02.5	26	18.4	+02.4	27	17.5	+02.5	08		
09	38	23.4	+02.5	39	22.6	+02.4	40	21.7	+02.5	41	20.8	+02.5	42	20.0	+02.5	09		
10	53	25.9	+02.5	54	25.0	+02.5	55	24.2	+02.4	56	23.3	+02.5	57	22.5	+02.4	10		
11	68	28.4	+02.4	69	27.5	+02.5	70	26.6	+02.5	71	25.8	+02.4	72	24.9	+02.5	11		
12	83	30.8	+02.5	84	30.0	+02.4	85	29.1	+02.5	86	28.2	+02.5	87	27.4	+02.4	12		
13	98	33.3	+02.4	99	32.4	+02.5	100	31.6	+02.4	101	30.7	+02.5	102	29.8	+02.5	13		
14	113	35.7	+02.5	114	34.9	+02.5	115	34.0	+02.5	116	33.2	+02.4	117	32.3	+02.5	14		
15	128	38.2	+02.5	129	37.4	+02.4	130	36.5	+02.5	131	35.6	+02.5	132	34.8	+02.4	15		
16	143	40.7	+02.4	144	39.8	+02.5	145	39.0	+02.4	146	38.1	+02.5	147	37.2	+02.5	16		
17	158	43.1	+02.5	159	42.3	+02.4	160	41.4	+02.5	161	40.6	+02.4	162	39.7	+02.5	17		
18	173	45.6	+02.5	174	44.7	+02.5	175	43.9	+02.4	176	43.0	+02.5	177	42.2	+02.4	18		
19	188	48.1	+02.4	189	47.2	+02.5	190	46.3	+02.5	191	45.5	+02.5	192	44.6	+02.5	19		
20	203	50.5	+02.5	204	49.7	+02.4	205	48.8	+02.5	206	48.0	+02.4	207	47.1	+02.5	20		
21	218	53.0	+02.5	219	52.1	+02.5	220	51.3	+02.4	221	50.4	+02.5	222	49.6	+02.4	21		
22	233	55.5	+02.4	234	54.6	+02.5	235	53.7	+02.5	236	52.9	+02.4	237	52.0	+02.5	22		
23	248	57.9	+02.5	249	57.1	+02.4	250	56.2	+02.5	251	55.3	+02.5	252	54.5	+02.5	23		

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.2	N 29	13.0	Gienah	175	44.8	S 17	40.4
Ankaa	353	08.7	S 42	10.4	Acrux	173	01.4	S 63	14.0
Schedir	349	32.7	N 56	39.6	Gacrux	171	53.0	S 57	14.8
Diphda	348	48.8	S 17	51.5	Alioth	166	14.0	N 55	50.3
Achernar	335	21.5	S 57	06.8	Spica	158	23.5	S 11	17.0
Hamal	327	53.0	N 23	34.3	Alkaid	152	52.7	N 49	12.0
Polaris	315	04.8	N 89	21.5	Hadar	148	37.4	S 60	29.3
Acamar	315	13.1	S 40	12.5	Menkent	147	58.6	S 36	29.0
Menkar	314	07.8	N 04	10.9	Arcturus	145	48.5	N 19	04.5
Mirfak	308	30.6	N 49	56.5	Rigel Kentaurus	139	38.9	S 60	56.3
Aldebaran	290	41.5	N 16	33.4	Zubenelgenubi	136	57.2	S 16	08.4
Capella	280	24.4	N 46	01.4	Kocab	137	18.8	N 74	03.7
Rigel	281	05.5	S 08	10.5	Alphecca	126	04.6	N 26	38.3
Bellatrix	278	24.6	N 06	22.2	Antares	112	17.2	S 26	29.1
Elnath	278	03.9	N 28	37.7	Atria	107	12.0	S 69	04.2
Alnilam	275	39.4	S 01	11.2	Sabik	102	04.0	S 15	45.3
Betelgeuze	270	53.9	N 07	24.7	Shaula	96	11.7	S 37	07.2
Canopus	263	53.5	S 52	42.5	Rasalhague	95	59.5	N 12	32.6
Sirius	258	27.5	S 16	44.4	Etamin	90	42.2	N 51	29.1
Adhara	255	07.3	S 29	00.3	Kaus Australis	83	33.8	S 34	22.3
Castor	245	59.0	N 31	50.3	Vega	80	33.8	N 38	48.1
Procyon	244	52.3	N 05	10.3	Nunki	75	49.0	S 26	16.0
Pollux	243	18.9	N 27	58.3	Albireo	67	04.8	N 28	00.4
Avior	234	15.8	S 59	35.2	Altair	62	01.1	N 08	55.6
Suhail	222	47.5	S 43	31.8	Peacock	53	07.3	S 56	39.4
Miaplacidus	221	39.0	S 69	49.0	Deneb	49	26.4	N 45	21.6
Alphard	217	49.2	S 08	45.6	Enif	33	39.9	N 09	58.8
Regulus	207	35.9	N 11	51.3	Alnair	27	34.4	S 46	50.6
Dubhe	193	42.6	N 61	37.8	Formalhaut	15	16.0	S 29	29.7
Denebola	182	26.1	N 14	26.6	Markab	13	31.2	N 15	19.7

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UT	day 171 of 365		day 172 of 365		day 173 of 365		day 174 of 365		day 175 of 365		UT		
	June 20		June 21		June 22		June 23		June 24				
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA			
	°	'	°	'	°	'	°	'	°	'			
00	267	57.0	+02.4	268	56.1	+02.5	269	55.2	+02.5	270	54.4	+02.4	00
01	282	59.4	+02.5	283	58.6	+02.4	284	57.7	+02.5	285	56.8	+02.5	01
02	298	01.9	+02.4	299	01.0	+02.5	300	00.2	+02.4	300	59.3	+02.5	02
03	313	04.3	+02.5	314	03.5	+02.4	315	02.6	+02.5	316	01.8	+02.4	03
04	328	06.8	+02.5	329	05.9	+02.5	330	05.1	+02.5	331	04.2	+02.5	04
05	343	09.3	+02.4	344	08.4	+02.5	345	07.6	+02.4	346	06.7	+02.5	05
06	358	11.7	+02.5	359	10.9	+02.4	0	10.0	+02.5	1	09.2	+02.4	06
07	13	14.2	+02.5	14	13.3	+02.5	15	12.5	+02.4	16	11.6	+02.5	07
08	28	16.7	+02.4	29	15.8	+02.5	30	14.9	+02.5	31	14.1	+02.4	08
09	43	19.1	+02.5	44	18.3	+02.4	45	17.4	+02.5	46	16.5	+02.5	09
10	58	21.6	+02.5	59	20.7	+02.5	60	19.9	+02.4	61	19.0	+02.5	10
11	73	24.1	+02.4	74	23.2	+02.5	75	22.3	+02.5	76	21.5	+02.4	11
12	88	26.5	+02.5	89	25.7	+02.4	90	24.8	+02.5	91	23.9	+02.5	12
13	103	29.0	+02.5	104	28.1	+02.5	105	27.3	+02.4	106	26.4	+02.5	13
14	118	31.5	+02.4	119	30.6	+02.5	120	29.7	+02.5	121	28.9	+02.4	14
15	133	33.9	+02.5	134	33.1	+02.4	135	32.2	+02.5	136	31.3	+02.5	15
16	148	36.4	+02.4	149	35.5	+02.5	150	34.7	+02.4	151	33.8	+02.5	16
17	163	38.8	+02.5	164	38.0	+02.4	165	37.1	+02.5	166	36.3	+02.4	17
18	178	41.3	+02.5	179	40.4	+02.5	180	39.6	+02.5	181	38.7	+02.5	18
19	193	43.8	+02.4	194	42.9	+02.5	195	42.1	+02.4	196	41.2	+02.5	19
20	208	46.2	+02.5	209	45.4	+02.4	210	44.5	+02.5	211	43.7	+02.4	20
21	223	48.7	+02.5	224	47.8	+02.5	225	47.0	+02.4	226	46.1	+02.5	21
22	238	51.2	+02.4	239	50.3	+02.5	240	49.4	+02.5	241	48.6	+02.4	22
23	253	53.6	+02.5	254	52.8	+02.4	255	51.9	+02.5	256	51.0	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.2	N 29	13.0	Gienah	175	44.8	S 17	40.4
Ankaa	353	08.6	S 42	10.4	Acrux	173	01.4	S 63	14.0
Schedir	349	32.7	N 56	39.6	Gacrux	171	53.0	S 57	14.8
Diphda	348	48.8	S 17	51.4	Alioth	166	14.1	N 55	50.3
Achernar	335	21.5	S 57	06.8	Spica	158	23.5	S 11	17.0
Hamal	327	52.9	N 23	34.3	Alkaid	152	52.7	N 49	12.0
Polaris	315	02.6	N 89	21.5	Hadar	148	37.5	S 60	29.4
Acamar	315	13.1	S 40	12.5	Menkent	147	58.6	S 36	29.0
Menkar	314	07.8	N 04	10.9	Arcturus	145	48.5	N 19	04.5
Mirfak	308	30.5	N 49	56.5	Rigel Kentaurus	139	38.9	S 60	56.3
Aldebaran	290	41.5	N 16	33.4	Zubenelgenubi	136	57.2	S 16	08.4
Capella	280	24.3	N 46	01.4	Kocab	137	18.9	N 74	03.8
Rigel	281	05.5	S 08	10.5	Alphecca	126	04.6	N 26	38.3
Bellatrix	278	24.6	N 06	22.3	Antares	112	17.2	S 26	29.1
Elnath	278	03.9	N 28	37.7	Atria	107	11.9	S 69	04.2
Alnilam	275	39.4	S 01	11.2	Sabik	102	03.9	S 15	45.3
Betelgeuze	270	53.8	N 07	24.7	Shaula	96	11.7	S 37	07.2
Canopus	263	53.5	S 52	42.5	Rasalhague	95	59.4	N 12	32.7
Sirius	258	27.5	S 16	44.4	Etamin	90	42.2	N 51	29.1
Adhara	255	07.2	S 29	00.2	Kaus Australis	83	33.8	S 34	22.3
Castor	245	59.0	N 31	50.3	Vega	80	33.8	N 38	48.1
Procyon	244	52.3	N 05	10.3	Nunki	75	49.0	S 26	16.0
Pollux	243	18.9	N 27	58.3	Albireo	67	04.8	N 28	00.4
Avior	234	15.8	S 59	35.2	Altair	62	01.1	N 08	55.6
Suhail	222	47.6	S 43	31.7	Peacock	53	07.3	S 56	39.4
Miaplacidus	221	39.0	S 69	49.0	Deneb	49	26.3	N 45	21.6
Alphard	217	49.2	S 08	45.6	Enif	33	39.9	N 09	58.8
Regulus	207	35.9	N 11	51.3	Alnair	27	34.4	S 46	50.6
Dubhe	193	42.6	N 61	37.8	Formalhaut	15	16.0	S 29	29.7
Denebola	182	26.1	N 14	26.6	Markab	13	31.1	N 15	19.8

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UT	day 176 of 365			day 177 of 365			day 178 of 365			day 179 of 365			day 180 of 365			UT
	<i>June 25</i>			<i>June 26</i>			<i>June 27</i>			<i>June 28</i>			<i>June 29</i>			
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		
00	272	52.6	+02.5	273	51.8	+02.5	274	50.9	+02.5	275	50.1	+02.4	276	49.2	+02.5	00
01	287	55.1	+02.5	288	54.3	+02.4	289	53.4	+02.5	290	52.5	+02.5	291	51.7	+02.4	01
02	302	57.6	+02.4	303	56.7	+02.5	304	55.9	+02.4	305	55.0	+02.5	306	54.1	+02.5	02
03	318	00.0	+02.5	318	59.2	+02.4	319	58.3	+02.5	320	57.5	+02.4	321	56.6	+02.5	03
04	333	02.5	+02.5	334	01.6	+02.5	335	00.8	+02.4	335	59.9	+02.5	336	59.1	+02.4	04
05	348	05.0	+02.4	349	04.1	+02.5	350	03.2	+02.5	351	02.4	+02.4	352	01.5	+02.5	05
06	3	07.4	+02.5	4	06.6	+02.4	5	05.7	+02.5	6	04.8	+02.5	7	04.0	+02.5	06
07	18	09.9	+02.5	19	09.0	+02.5	20	08.2	+02.4	21	07.3	+02.5	22	06.5	+02.4	07
08	33	12.4	+02.4	34	11.5	+02.5	35	10.6	+02.5	36	09.8	+02.4	37	08.9	+02.5	08
09	48	14.8	+02.5	49	14.0	+02.4	50	13.1	+02.5	51	12.2	+02.5	52	11.4	+02.4	09
10	63	17.3	+02.5	64	16.4	+02.5	65	15.6	+02.4	66	14.7	+02.5	67	13.8	+02.5	10
11	78	19.8	+02.4	79	18.9	+02.5	80	18.0	+02.5	81	17.2	+02.4	82	16.3	+02.5	11
12	93	22.2	+02.5	94	21.4	+02.4	95	20.5	+02.5	96	19.6	+02.5	97	18.8	+02.4	12
13	108	24.7	+02.4	109	23.8	+02.5	110	23.0	+02.4	111	22.1	+02.5	112	21.2	+02.5	13
14	123	27.1	+02.5	124	26.3	+02.4	125	25.4	+02.5	126	24.6	+02.4	127	23.7	+02.5	14
15	138	29.6	+02.5	139	28.7	+02.5	140	27.9	+02.4	141	27.0	+02.5	142	26.2	+02.4	15
16	153	32.1	+02.4	154	31.2	+02.5	155	30.3	+02.5	156	29.5	+02.5	157	28.6	+02.5	16
17	168	34.5	+02.5	169	33.7	+02.4	170	32.8	+02.5	171	32.0	+02.4	172	31.1	+02.5	17
18	183	37.0	+02.5	184	36.1	+02.5	185	35.3	+02.4	186	34.4	+02.5	187	33.6	+02.4	18
19	198	39.5	+02.4	199	38.6	+02.5	200	37.7	+02.5	201	36.9	+02.4	202	36.0	+02.5	19
20	213	41.9	+02.5	214	41.1	+02.4	215	40.2	+02.5	216	39.3	+02.5	217	38.5	+02.4	20
21	228	44.4	+02.5	229	43.5	+02.5	230	42.7	+02.4	231	41.8	+02.5	232	40.9	+02.5	21
22	243	46.9	+02.4	244	46.0	+02.5	245	45.1	+02.5	246	44.3	+02.4	247	43.4	+02.5	22
23	258	49.3	+02.5	259	48.5	+02.4	260	47.6	+02.5	261	46.7	+02.5	262	45.9	+02.4	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 36.2	N 29 13.1	Gienah	175 44.8	S 17 40.4
Ankaa	353 08.6	S 42 10.4	Acrux	173 01.5	S 63 14.0
Schedir	349 32.6	N 56 39.6	Gacrux	171 53.1	S 57 14.8
Diphda	348 48.7	S 17 51.4	Alioth	166 14.1	N 55 50.3
Achernar	335 21.4	S 57 06.8	Spica	158 23.5	S 11 17.0
Hamal	327 52.9	N 23 34.3	Alkaid	152 52.8	N 49 12.0
Polaris	315 00.8	N 89 21.5	Hadar	148 37.5	S 60 29.4
Acamar	315 13.0	S 40 12.5	Menkent	147 58.6	S 36 29.0
Menkar	314 07.7	N 04 10.9	Arcturus	145 48.5	N 19 04.5
Mirfak	308 30.5	N 49 56.5	Rigel Kentaurus	139 38.9	S 60 56.3
Aldebaran	290 41.4	N 16 33.4	Zubenelgenubi	136 57.2	S 16 08.4
Capella	280 24.3	N 46 01.4	Kocab	137 18.9	N 74 03.8
Rigel	281 05.4	S 08 10.4	Alphecca	126 04.6	N 26 38.3
Bellatrix	278 24.6	N 06 22.3	Antares	112 17.2	S 26 29.1
Elnath	278 03.9	N 28 37.7	Atria	107 11.9	S 69 04.2
Alnilam	275 39.4	S 01 11.2	Sabik	102 03.9	S 15 45.3
Betelgeuze	270 53.8	N 07 24.7	Shaula	96 11.7	S 37 07.2
Canopus	263 53.5	S 52 42.4	Rasalhague	95 59.4	N 12 32.7
Sirius	258 27.5	S 16 44.4	Etamin	90 42.2	N 51 29.1
Adhara	255 07.2	S 29 00.2	Kaus Australis	83 33.8	S 34 22.3
Castor	245 59.0	N 31 50.3	Vega	80 33.7	N 38 48.1
Procyon	244 52.3	N 05 10.3	Nunki	75 49.0	S 26 16.0
Pollux	243 18.9	N 27 58.3	Albireo	67 04.7	N 28 00.4
Avior	234 15.8	S 59 35.2	Altair	62 01.1	N 08 55.6
Suhail	222 47.6	S 43 31.7	Peacock	53 07.2	S 56 39.4
Miaplacidus	221 39.1	S 69 49.0	Deneb	49 26.3	N 45 21.6
Alphard	217 49.2	S 08 45.6	Enif	33 39.9	N 09 58.9
Regulus	207 35.9	N 11 51.3	Alnair	27 34.3	S 46 50.6
Dubhe	193 42.7	N 61 37.8	Formalhaut	15 15.9	S 29 29.7
Denebola	182 26.1	N 14 26.6	Markab	13 31.1	N 15 19.8

2023 - First Point of Aries / Selected Stars

UT	day 181 of 365		day 182 of 365		day 183 of 365		day 184 of 365		day 185 of 365		UT					
	June 30		July 1		July 2		July 3		July 4							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	277	48.3	+02.5	278	47.5	+02.4	279	46.6	+02.5	280	45.8	+02.4	281	44.9	+02.5	00
01	292	50.8	+02.5	293	49.9	+02.5	294	49.1	+02.5	295	48.2	+02.5	296	47.4	+02.4	01
02	307	53.3	+02.4	308	52.4	+02.5	309	51.6	+02.4	310	50.7	+02.5	311	49.8	+02.5	02
03	322	55.7	+02.5	323	54.9	+02.4	324	54.0	+02.5	325	53.2	+02.4	326	52.3	+02.5	03
04	337	58.2	+02.5	338	57.3	+02.5	339	56.5	+02.4	340	55.6	+02.5	341	54.8	+02.4	04
05	353	00.7	+02.4	353	59.8	+02.5	354	58.9	+02.5	355	58.1	+02.5	356	57.2	+02.5	05
06	8	03.1	+02.5	9	02.3	+02.4	10	01.4	+02.5	11	00.6	+02.4	11	59.7	+02.5	06
07	23	05.6	+02.5	24	04.7	+02.5	25	03.9	+02.4	26	03.0	+02.5	27	02.2	+02.4	07
08	38	08.1	+02.4	39	07.2	+02.5	40	06.3	+02.5	41	05.5	+02.4	42	04.6	+02.5	08
09	53	10.5	+02.5	54	09.7	+02.4	55	08.8	+02.5	56	07.9	+02.5	57	07.1	+02.4	09
10	68	13.0	+02.4	69	12.1	+02.5	70	11.3	+02.4	71	10.4	+02.5	72	09.5	+02.5	10
11	83	15.4	+02.5	84	14.6	+02.5	85	13.7	+02.5	86	12.9	+02.4	87	12.0	+02.5	11
12	98	17.9	+02.5	99	17.1	+02.4	100	16.2	+02.5	101	15.3	+02.5	102	14.5	+02.4	12
13	113	20.4	+02.4	114	19.5	+02.5	115	18.7	+02.4	116	17.8	+02.5	117	16.9	+02.5	13
14	128	22.8	+02.5	129	22.0	+02.4	130	21.1	+02.5	131	20.3	+02.4	132	19.4	+02.5	14
15	143	25.3	+02.5	144	24.4	+02.5	145	23.6	+02.5	146	22.7	+02.5	147	21.9	+02.4	15
16	158	27.8	+02.4	159	26.9	+02.5	160	26.1	+02.4	161	25.2	+02.5	162	24.3	+02.5	16
17	173	30.2	+02.5	174	29.4	+02.4	175	28.5	+02.5	176	27.7	+02.4	177	26.8	+02.5	17
18	188	32.7	+02.5	189	31.8	+02.5	190	31.0	+02.4	191	30.1	+02.5	192	29.3	+02.4	18
19	203	35.2	+02.4	204	34.3	+02.5	205	33.4	+02.5	206	32.6	+02.4	207	31.7	+02.5	19
20	218	37.6	+02.5	219	36.8	+02.4	220	35.9	+02.5	221	35.0	+02.5	222	34.2	+02.5	20
21	233	40.1	+02.5	234	39.2	+02.5	235	38.4	+02.4	236	37.5	+02.5	237	36.7	+02.4	21
22	248	42.6	+02.4	249	41.7	+02.5	250	40.8	+02.5	251	40.0	+02.4	252	39.1	+02.5	22
23	263	45.0	+02.5	264	44.2	+02.4	265	43.3	+02.5	266	42.4	+02.5	267	41.6	+02.4	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.1	N 29	13.1	Gienah	175	44.9	S 17	40.4
Ankaa	353	08.5	S 42	10.4	Acrux	173	01.5	S 63	14.0
Schedir	349	32.6	N 56	39.7	Gacrux	171	53.1	S 57	14.8
Diphda	348	48.7	S 17	51.4	Alioth	166	14.1	N 55	50.3
Achernar	335	21.4	S 57	06.8	Spica	158	23.6	S 11	17.0
Hamal	327	52.9	N 23	34.3	Alkaid	152	52.8	N 49	12.1
Polaris	314	58.6	N 89	21.5	Hadar	148	37.5	S 60	29.4
Acamar	315	13.0	S 40	12.5	Menkent	147	58.6	S 36	29.0
Menkar	314	07.7	N 04	10.9	Arcturus	145	48.5	N 19	04.5
Mirfak	308	30.5	N 49	56.5	Rigel Kentaurus	139	39.0	S 60	56.3
Aldebaran	290	41.4	N 16	33.4	Zubenelgenubi	136	57.2	S 16	08.3
Capella	280	24.3	N 46	01.4	Kocab	137	19.0	N 74	03.8
Rigel	281	05.4	S 08	10.4	Alphecca	126	04.6	N 26	38.3
Bellatrix	278	24.6	N 06	22.3	Antares	112	17.2	S 26	29.1
Elnath	278	03.9	N 28	37.7	Atria	107	11.9	S 69	04.3
Alnilam	275	39.4	S 01	11.2	Sabik	102	03.9	S 15	45.3
Betelgeuze	270	53.8	N 07	24.7	Shaula	96	11.7	S 37	07.3
Canopus	263	53.5	S 52	42.4	Rasalhague	95	59.4	N 12	32.7
Sirius	258	27.5	S 16	44.4	Etamin	90	42.2	N 51	29.2
Adhara	255	07.2	S 29	00.2	Kaus Australis	83	33.8	S 34	22.3
Castor	245	59.0	N 31	50.3	Vega	80	33.7	N 38	48.2
Procyon	244	52.3	N 05	10.3	Nunki	75	49.0	S 26	16.0
Pollux	243	18.9	N 27	58.3	Albireo	67	04.7	N 28	00.5
Avior	234	15.8	S 59	35.2	Altair	62	01.1	N 08	55.6
Suhail	222	47.6	S 43	31.7	Peacock	53	07.2	S 56	39.4
Miaplacidus	221	39.1	S 69	49.0	Deneb	49	26.3	N 45	21.7
Alphard	217	49.2	S 08	45.6	Enif	33	39.8	N 09	58.9
Regulus	207	35.9	N 11	51.3	Alnair	27	34.3	S 46	50.6
Dubhe	193	42.7	N 61	37.8	Formalhaut	15	15.9	S 29	29.7
Denebola	182	26.1	N 14	26.6	Markab	13	31.1	N 15	19.8

2023 - First Point of Aries / Selected Stars

UT	day 186 of 365		day 187 of 365		day 188 of 365		day 189 of 365		day 190 of 365		UT					
	July 5		July 6		July 7		July 8		July 9							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "						
00	282	44.0	+02.5	283	43.2	+02.5	284	42.3	+02.5	285	41.5	+02.4	286	40.6	+02.5	00
01	297	46.5	+02.5	298	45.7	+02.4	299	44.8	+02.5	300	43.9	+02.5	301	43.1	+02.4	01
02	312	49.0	+02.4	313	48.1	+02.5	314	47.3	+02.4	315	46.4	+02.5	316	45.5	+02.5	02
03	327	51.4	+02.5	328	50.6	+02.4	329	49.7	+02.5	330	48.9	+02.4	331	48.0	+02.5	03
04	342	53.9	+02.5	343	53.0	+02.5	344	52.2	+02.4	345	51.3	+02.5	346	50.5	+02.4	04
05	357	56.4	+02.4	358	55.5	+02.5	359	54.6	+02.5	0	53.8	+02.5	1	52.9	+02.5	05
06	12	58.8	+02.5	13	58.0	+02.4	14	57.1	+02.5	15	56.3	+02.4	16	55.4	+02.5	06
07	28	01.3	+02.5	29	00.4	+02.5	29	59.6	+02.4	30	58.7	+02.5	31	57.9	+02.4	07
08	43	03.8	+02.4	44	02.9	+02.5	45	02.0	+02.5	46	01.2	+02.4	47	00.3	+02.5	08
09	58	06.2	+02.5	59	05.4	+02.4	60	04.5	+02.5	61	03.6	+02.5	62	02.8	+02.4	09
10	73	08.7	+02.5	74	07.8	+02.5	75	07.0	+02.4	76	06.1	+02.5	77	05.2	+02.5	10
11	88	11.2	+02.4	89	10.3	+02.5	90	09.4	+02.5	91	08.6	+02.4	92	07.7	+02.5	11
12	103	13.6	+02.5	104	12.8	+02.4	105	11.9	+02.5	106	11.0	+02.5	107	10.2	+02.4	12
13	118	16.1	+02.4	119	15.2	+02.5	120	14.4	+02.4	121	13.5	+02.5	122	12.6	+02.5	13
14	133	18.5	+02.5	134	17.7	+02.5	135	16.8	+02.5	136	16.0	+02.4	137	15.1	+02.5	14
15	148	21.0	+02.5	149	20.2	+02.4	150	19.3	+02.5	151	18.4	+02.5	152	17.6	+02.4	15
16	163	23.5	+02.4	164	22.6	+02.5	165	21.8	+02.4	166	20.9	+02.5	167	20.0	+02.5	16
17	178	25.9	+02.5	179	25.1	+02.4	180	24.2	+02.5	181	23.4	+02.4	182	22.5	+02.5	17
18	193	28.4	+02.5	194	27.5	+02.5	195	26.7	+02.4	196	25.8	+02.5	197	25.0	+02.4	18
19	208	30.9	+02.4	209	30.0	+02.5	210	29.1	+02.5	211	28.3	+02.4	212	27.4	+02.5	19
20	223	33.3	+02.5	224	32.5	+02.4	225	31.6	+02.5	226	30.7	+02.5	227	29.9	+02.4	20
21	238	35.8	+02.5	239	34.9	+02.5	240	34.1	+02.4	241	33.2	+02.5	242	32.3	+02.5	21
22	253	38.3	+02.4	254	37.4	+02.5	255	36.5	+02.5	256	35.7	+02.4	257	34.8	+02.5	22
23	268	40.7	+02.5	269	39.9	+02.4	270	39.0	+02.5	271	38.1	+02.5	272	37.3	+02.4	23

	SHA	Dec		SHA	Dec				
	° ' "	' "		° ' "	' "				
Alpheratz	357	36.1	N 29	13.1	Gienah	175	44.9	S 17	40.4
Ankaa	353	08.5	S 42	10.4	Acrux	173	01.5	S 63	14.0
Schedir	349	32.5	N 56	39.7	Gacrux	171	53.1	S 57	14.8
Diphda	348	48.6	S 17	51.4	Alioth	166	14.2	N 55	50.3
Achernar	335	21.3	S 57	06.8	Spica	158	23.6	S 11	17.0
Hamal	327	52.8	N 23	34.3	Alkaid	152	52.8	N 49	12.1
Polaris	314	56.0	N 89	21.5	Hadar	148	37.5	S 60	29.4
Acamar	315	12.9	S 40	12.4	Menkent	147	58.6	S 36	29.0
Menkar	314	07.6	N 04	10.9	Arcturus	145	48.5	N 19	04.5
Mirfak	308	30.4	N 49	56.5	Rigel Kentaurus	139	39.0	S 60	56.3
Aldebaran	290	41.4	N 16	33.4	Zubenelgenubi	136	57.2	S 16	08.3
Capella	280	24.2	N 46	01.4	Kocab	137	19.1	N 74	03.8
Rigel	281	05.4	S 08	10.4	Alphecca	126	04.6	N 26	38.3
Bellatrix	278	24.5	N 06	22.3	Antares	112	17.2	S 26	29.1
Elnath	278	03.8	N 28	37.7	Atria	107	11.9	S 69	04.3
Alnilam	275	39.3	S 01	11.2	Sabik	102	03.9	S 15	45.3
Betelgeuze	270	53.8	N 07	24.7	Shaula	96	11.7	S 37	07.3
Canopus	263	53.5	S 52	42.4	Rasalhague	95	59.4	N 12	32.7
Sirius	258	27.5	S 16	44.4	Etamin	90	42.2	N 51	29.2
Adhara	255	07.2	S 29	00.2	Kaus Australis	83	33.8	S 34	22.3
Castor	245	59.0	N 31	50.3	Vega	80	33.7	N 38	48.2
Procyon	244	52.2	N 05	10.3	Nunki	75	48.9	S 26	16.0
Pollux	243	18.9	N 27	58.3	Albireo	67	04.7	N 28	00.5
Avior	234	15.8	S 59	35.1	Altair	62	01.0	N 08	55.7
Suhail	222	47.6	S 43	31.7	Peacock	53	07.1	S 56	39.4
Miaplacidus	221	39.2	S 69	49.0	Deneb	49	26.2	N 45	21.7
Alphard	217	49.2	S 08	45.6	Enif	33	39.8	N 09	58.9
Regulus	207	35.9	N 11	51.3	Alnair	27	34.2	S 46	50.6
Dubhe	193	42.7	N 61	37.8	Formalhaut	15	15.8	S 29	29.7
Denebola	182	26.1	N 14	26.6	Markab	13	31.0	N 15	19.8

2023 - First Point of Aries / Selected Stars

UT	day 191 of 365		day 192 of 365		day 193 of 365		day 194 of 365		day 195 of 365		UT					
	<i>July 10</i>		<i>July 11</i>		<i>July 12</i>		<i>July 13</i>		<i>July 14</i>							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	287	39.7	+02.5	288	38.9	+02.4	289	38.0	+02.5	290	37.2	+02.4	291	36.3	+02.5	00
01	302	42.2	+02.5	303	41.3	+02.5	304	40.5	+02.4	305	39.6	+02.5	306	38.8	+02.4	01
02	317	44.7	+02.4	318	43.8	+02.5	319	42.9	+02.5	320	42.1	+02.5	321	41.2	+02.5	02
03	332	47.1	+02.5	333	46.3	+02.4	334	45.4	+02.5	335	44.6	+02.4	336	43.7	+02.5	03
04	347	49.6	+02.5	348	48.7	+02.5	349	47.9	+02.4	350	47.0	+02.5	351	46.2	+02.4	04
05	2	52.1	+02.4	3	51.2	+02.5	4	50.3	+02.5	5	49.5	+02.4	6	48.6	+02.5	05
06	17	54.5	+02.5	18	53.7	+02.4	19	52.8	+02.5	20	51.9	+02.5	21	51.1	+02.4	06
07	32	57.0	+02.5	33	56.1	+02.5	34	55.3	+02.4	35	54.4	+02.5	36	53.5	+02.5	07
08	47	59.5	+02.4	48	58.6	+02.5	49	57.7	+02.5	50	56.9	+02.4	51	56.0	+02.5	08
09	63	01.9	+02.5	64	01.1	+02.4	65	00.2	+02.5	65	59.3	+02.5	66	58.5	+02.4	09
10	78	04.4	+02.4	79	03.5	+02.5	80	02.7	+02.4	81	01.8	+02.5	82	00.9	+02.5	10
11	93	06.8	+02.5	94	06.0	+02.4	95	05.1	+02.5	96	04.3	+02.4	97	03.4	+02.5	11
12	108	09.3	+02.5	109	08.4	+02.5	110	07.6	+02.5	111	06.7	+02.5	112	05.9	+02.4	12
13	123	11.8	+02.4	124	10.9	+02.5	125	10.1	+02.4	126	09.2	+02.5	127	08.3	+02.5	13
14	138	14.2	+02.5	139	13.4	+02.4	140	12.5	+02.5	141	11.7	+02.4	142	10.8	+02.5	14
15	153	16.7	+02.5	154	15.8	+02.5	155	15.0	+02.4	156	14.1	+02.5	157	13.3	+02.4	15
16	168	19.2	+02.4	169	18.3	+02.5	170	17.4	+02.5	171	16.6	+02.4	172	15.7	+02.5	16
17	183	21.6	+02.5	184	20.8	+02.4	185	19.9	+02.5	186	19.0	+02.5	187	18.2	+02.5	17
18	198	24.1	+02.5	199	23.2	+02.5	200	22.4	+02.4	201	21.5	+02.5	202	20.7	+02.4	18
19	213	26.6	+02.4	214	25.7	+02.5	215	24.8	+02.5	216	24.0	+02.4	217	23.1	+02.5	19
20	228	29.0	+02.5	229	28.2	+02.4	230	27.3	+02.5	231	26.4	+02.5	232	25.6	+02.4	20
21	243	31.5	+02.5	244	30.6	+02.5	245	29.8	+02.4	246	28.9	+02.5	247	28.0	+02.5	21
22	258	34.0	+02.4	259	33.1	+02.5	260	32.2	+02.5	261	31.4	+02.4	262	30.5	+02.5	22
23	273	36.4	+02.5	274	35.6	+02.4	275	34.7	+02.5	276	33.8	+02.5	277	33.0	+02.4	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.0	N 29	13.1	Gienah	175	44.9	S 17	40.4
Ankaa	353	08.4	S 42	10.3	Acrux	173	01.6	S 63	14.0
Schedir	349	32.4	N 56	39.7	Gacrux	171	53.2	S 57	14.8
Diphda	348	48.6	S 17	51.4	Alioth	166	14.2	N 55	50.3
Achernar	335	21.3	S 57	06.8	Spica	158	23.6	S 11	17.0
Hamal	327	52.8	N 23	34.3	Alkaid	152	52.8	N 49	12.1
Polaris	314	54.0	N 89	21.5	Hadar	148	37.6	S 60	29.4
Acamar	315	12.9	S 40	12.4	Menkent	147	58.7	S 36	29.0
Menkar	314	07.6	N 04	10.9	Arcturus	145	48.5	N 19	04.5
Mirfak	308	30.3	N 49	56.5	Rigel Kentaurus	139	39.0	S 60	56.3
Aldebaran	290	41.3	N 16	33.4	Zubenelgenubi	136	57.2	S 16	08.3
Capella	280	24.2	N 46	01.4	Kocab	137	19.2	N 74	03.8
Rigel	281	05.4	S 08	10.4	Alphecca	126	04.6	N 26	38.3
Bellatrix	278	24.5	N 06	22.3	Antares	112	17.2	S 26	29.1
Elnath	278	03.8	N 28	37.7	Atria	107	11.9	S 69	04.3
Alnilam	275	39.3	S 01	11.2	Sabik	102	03.9	S 15	45.3
Betelgeuze	270	53.8	N 07	24.7	Shaula	96	11.7	S 37	07.3
Canopus	263	53.5	S 52	42.4	Rasalhague	95	59.4	N 12	32.7
Sirius	258	27.5	S 16	44.3	Etamin	90	42.2	N 51	29.2
Adhara	255	07.2	S 29	00.1	Kaus Australis	83	33.7	S 34	22.4
Castor	245	59.0	N 31	50.3	Vega	80	33.7	N 38	48.2
Procyon	244	52.2	N 05	10.3	Nunki	75	48.9	S 26	16.0
Pollux	243	18.9	N 27	58.3	Albireo	67	04.7	N 28	00.5
Avior	234	15.9	S 59	35.1	Altair	62	01.0	N 08	55.7
Suhail	222	47.6	S 43	31.7	Peacock	53	07.1	S 56	39.4
Miaplacidus	221	39.2	S 69	48.9	Deneb	49	26.2	N 45	21.7
Alphard	217	49.3	S 08	45.6	Enif	33	39.8	N 09	58.9
Regulus	207	35.9	N 11	51.3	Alnair	27	34.2	S 46	50.6
Dubhe	193	42.8	N 61	37.8	Formalhaut	15	15.8	S 29	29.7
Denebola	182	26.2	N 14	26.6	Markab	13	31.0	N 15	19.8

2023 - First Point of Aries / Selected Stars

UT	day 196 of 365			day 197 of 365			day 198 of 365			day 199 of 365			day 200 of 365			UT		
	July 15			July 16			July 17			July 18			July 19					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	292	35.4	+02.5	293	34.6	+02.4	294	33.7	+02.5	295	32.9	+02.4	296	32.0	+02.5	00		
01	307	37.9	+02.5	308	37.0	+02.5	309	36.2	+02.4	310	35.3	+02.5	311	34.5	+02.4	01		
02	322	40.4	+02.4	323	39.5	+02.5	324	38.6	+02.5	325	37.8	+02.5	326	36.9	+02.5	02		
03	337	42.8	+02.5	338	42.0	+02.4	339	41.1	+02.5	340	40.3	+02.4	341	39.4	+02.5	03		
04	352	45.3	+02.5	353	44.4	+02.5	354	43.6	+02.4	355	42.7	+02.5	356	41.9	+02.4	04		
05	7	47.8	+02.4	8	46.9	+02.5	9	46.0	+02.5	10	45.2	+02.4	11	44.3	+02.5	05		
06	22	50.2	+02.5	23	49.4	+02.4	24	48.5	+02.5	25	47.6	+02.5	26	46.8	+02.5	06		
07	37	52.7	+02.5	38	51.8	+02.5	39	51.0	+02.4	40	50.1	+02.5	41	49.3	+02.4	07		
08	52	55.2	+02.4	53	54.3	+02.5	54	53.4	+02.5	55	52.6	+02.4	56	51.7	+02.5	08		
09	67	57.6	+02.5	68	56.8	+02.4	69	55.9	+02.5	70	55.0	+02.5	71	54.2	+02.4	09		
10	83	00.1	+02.4	83	59.2	+02.5	84	58.4	+02.4	85	57.5	+02.5	86	56.6	+02.5	10		
11	98	02.5	+02.5	99	01.7	+02.5	100	00.8	+02.5	100	60.0	+02.4	101	59.1	+02.5	11		
12	113	05.0	+02.5	114	04.2	+02.4	115	03.3	+02.5	116	02.4	+02.5	117	01.6	+02.4	12		
13	128	07.5	+02.4	129	06.6	+02.5	130	05.8	+02.4	131	04.9	+02.5	132	04.0	+02.5	13		
14	143	09.9	+02.5	144	09.1	+02.4	145	08.2	+02.5	146	07.4	+02.4	147	06.5	+02.5	14		
15	158	12.4	+02.5	159	11.5	+02.5	160	10.7	+02.4	161	09.8	+02.5	162	09.0	+02.4	15		
16	173	14.9	+02.4	174	14.0	+02.5	175	13.1	+02.5	176	12.3	+02.5	177	11.4	+02.5	16		
17	188	17.3	+02.5	189	16.5	+02.4	190	15.6	+02.5	191	14.8	+02.4	192	13.9	+02.5	17		
18	203	19.8	+02.5	204	18.9	+02.5	205	18.1	+02.4	206	17.2	+02.5	207	16.4	+02.4	18		
19	218	22.3	+02.4	219	21.4	+02.5	220	20.5	+02.5	221	19.7	+02.4	222	18.8	+02.5	19		
20	233	24.7	+02.5	234	23.9	+02.4	235	23.0	+02.5	236	22.1	+02.5	237	21.3	+02.4	20		
21	248	27.2	+02.5	249	26.3	+02.5	250	25.5	+02.4	251	24.6	+02.5	252	23.7	+02.5	21		
22	263	29.7	+02.4	264	28.8	+02.5	265	27.9	+02.5	266	27.1	+02.4	267	26.2	+02.5	22		
23	278	32.1	+02.5	279	31.3	+02.4	280	30.4	+02.5	281	29.5	+02.5	282	28.7	+02.4	23		

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	36.0	N 29	13.1	Gienah	175	44.9	S 17	40.4
Ankaa	353	08.4	S 42	10.3	Acrux	173	01.6	S 63	14.0
Schedir	349	32.4	N 56	39.7	Gacrux	171	53.2	S 57	14.8
Diphda	348	48.6	S 17	51.4	Alioth	166	14.2	N 55	50.3
Achernar	335	21.2	S 57	06.7	Spica	158	23.6	S 11	17.0
Hamal	327	52.7	N 23	34.4	Alkaid	152	52.9	N 49	12.1
Polaris	314	51.3	N 89	21.5	Hadar	148	37.6	S 60	29.4
Acamar	315	12.9	S 40	12.4	Menkent	147	58.7	S 36	29.0
Menkar	314	07.6	N 04	11.0	Arcturus	145	48.6	N 19	04.5
Mirfak	308	30.3	N 49	56.5	Rigel Kentaurus	139	39.0	S 60	56.3
Aldebaran	290	41.3	N 16	33.4	Zubenelgenubi	136	57.2	S 16	08.3
Capella	280	24.2	N 46	01.3	Kocab	137	19.3	N 74	03.8
Rigel	281	05.3	S 08	10.4	Alphecca	126	04.6	N 26	38.3
Bellatrix	278	24.5	N 06	22.3	Antares	112	17.2	S 26	29.1
Elnath	278	03.8	N 28	37.7	Atria	107	12.0	S 69	04.3
Alnilam	275	39.3	S 01	11.1	Sabik	102	03.9	S 15	45.3
Betelgeuze	270	53.7	N 07	24.7	Shaula	96	11.7	S 37	07.3
Canopus	263	53.5	S 52	42.3	Rasalhague	95	59.4	N 12	32.7
Sirius	258	27.5	S 16	44.3	Etamin	90	42.2	N 51	29.2
Adhara	255	07.2	S 29	00.1	Kaus Australis	83	33.7	S 34	22.4
Castor	245	59.0	N 31	50.3	Vega	80	33.7	N 38	48.2
Procyon	244	52.2	N 05	10.3	Nunki	75	48.9	S 26	16.0
Pollux	243	18.8	N 27	58.3	Albireo	67	04.7	N 28	00.5
Avior	234	15.9	S 59	35.1	Altair	62	01.0	N 08	55.7
Suhail	222	47.6	S 43	31.7	Peacock	53	07.1	S 56	39.4
Miaplacidus	221	39.2	S 69	48.9	Deneb	49	26.2	N 45	21.7
Alphard	217	49.3	S 08	45.6	Enif	33	39.7	N 09	58.9
Regulus	207	35.9	N 11	51.3	Alnair	27	34.1	S 46	50.6
Dubhe	193	42.8	N 61	37.8	Formalhaut	15	15.8	S 29	29.7
Denebola	182	26.2	N 14	26.7	Markab	13	31.0	N 15	19.9

2023 - First Point of Aries / Selected Stars

UT	day 201 of 365			day 202 of 365			day 203 of 365			day 204 of 365			day 205 of 365			UT
	<i>July 20</i>			<i>July 21</i>			<i>July 22</i>			<i>July 23</i>			<i>July 24</i>			
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	
00	297	31.1	+02.5	298	30.3	+02.4	299	29.4	+02.5	300	28.6	+02.4	301	27.7	+02.5	00
01	312	33.6	+02.5	313	32.7	+02.5	314	31.9	+02.4	315	31.0	+02.5	316	30.2	+02.4	01
02	327	36.1	+02.4	328	35.2	+02.5	329	34.3	+02.5	330	33.5	+02.4	331	32.6	+02.5	02
03	342	38.5	+02.5	343	37.7	+02.4	344	36.8	+02.5	345	35.9	+02.5	346	35.1	+02.4	03
04	357	41.0	+02.5	358	40.1	+02.5	359	39.3	+02.4	0	38.4	+02.5	1	37.5	+02.5	04
05	12	43.5	+02.4	13	42.6	+02.5	14	41.7	+02.5	15	40.9	+02.4	16	40.0	+02.5	05
06	27	45.9	+02.5	28	45.1	+02.4	29	44.2	+02.5	30	43.3	+02.5	31	42.5	+02.4	06
07	42	48.4	+02.5	43	47.5	+02.5	44	46.7	+02.4	45	45.8	+02.5	46	44.9	+02.5	07
08	57	50.9	+02.4	58	50.0	+02.5	59	49.1	+02.5	60	48.3	+02.4	61	47.4	+02.5	08
09	72	53.3	+02.5	73	52.5	+02.4	74	51.6	+02.5	75	50.7	+02.5	76	49.9	+02.4	09
10	87	55.8	+02.4	88	54.9	+02.5	89	54.1	+02.4	90	53.2	+02.5	91	52.3	+02.5	10
11	102	58.2	+02.5	103	57.4	+02.4	104	56.5	+02.5	105	55.7	+02.4	106	54.8	+02.5	11
12	118	00.7	+02.5	118	59.8	+02.5	119	59.0	+02.4	120	58.1	+02.5	121	57.3	+02.4	12
13	133	03.2	+02.4	134	02.3	+02.5	135	01.4	+02.5	136	00.6	+02.5	136	59.7	+02.5	13
14	148	05.6	+02.5	149	04.8	+02.4	150	03.9	+02.5	151	03.1	+02.4	152	02.2	+02.5	14
15	163	08.1	+02.5	164	07.2	+02.5	165	06.4	+02.4	166	05.5	+02.5	167	04.7	+02.4	15
16	178	10.6	+02.4	179	09.7	+02.5	180	08.8	+02.5	181	08.0	+02.4	182	07.1	+02.5	16
17	193	13.0	+02.5	194	12.2	+02.4	195	11.3	+02.5	196	10.4	+02.5	197	09.6	+02.4	17
18	208	15.5	+02.5	209	14.6	+02.5	210	13.8	+02.4	211	12.9	+02.5	212	12.0	+02.5	18
19	223	18.0	+02.4	224	17.1	+02.5	225	16.2	+02.5	226	15.4	+02.4	227	14.5	+02.5	19
20	238	20.4	+02.5	239	19.6	+02.4	240	18.7	+02.5	241	17.8	+02.5	242	17.0	+02.4	20
21	253	22.9	+02.5	254	22.0	+02.5	255	21.2	+02.4	256	20.3	+02.5	257	19.4	+02.5	21
22	268	25.4	+02.4	269	24.5	+02.5	270	23.6	+02.5	271	22.8	+02.4	272	21.9	+02.5	22
23	283	27.8	+02.5	284	27.0	+02.4	285	26.1	+02.5	286	25.2	+02.5	287	24.4	+02.4	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.9	N 29	13.1	Gienah	175	44.9	S 17	40.4
Ankaa	353	08.3	S 42	10.3	Acrux	173	01.7	S 63	14.0
Schedir	349	32.3	N 56	39.7	Gacrux	171	53.2	S 57	14.8
Diphda	348	48.5	S 17	51.3	Alioth	166	14.3	N 55	50.3
Achernar	335	21.1	S 57	06.7	Spica	158	23.6	S 11	17.0
Hamal	327	52.7	N 23	34.4	Alkaid	152	52.9	N 49	12.1
Polaris	314	48.7	N 89	21.5	Hadar	148	37.6	S 60	29.4
Acamar	315	12.8	S 40	12.4	Menkent	147	58.7	S 36	29.0
Menkar	314	07.5	N 04	11.0	Arcturus	145	48.6	N 19	04.5
Mirfak	308	30.2	N 49	56.5	Rigel Kentaurus	139	39.1	S 60	56.3
Aldebaran	290	41.3	N 16	33.5	Zubenelgenubi	136	57.2	S 16	08.3
Capella	280	24.1	N 46	01.3	Kocab	137	19.4	N 74	03.8
Rigel	281	05.3	S 08	10.4	Alphecca	126	04.6	N 26	38.3
Bellatrix	278	24.4	N 06	22.3	Antares	112	17.2	S 26	29.1
Elnath	278	03.7	N 28	37.7	Atria	107	12.0	S 69	04.3
Alnilam	275	39.3	S 01	11.1	Sabik	102	03.9	S 15	45.3
Betelgeuze	270	53.7	N 07	24.7	Shaula	96	11.7	S 37	07.3
Canopus	263	53.5	S 52	42.3	Rasalhague	95	59.4	N 12	32.7
Sirius	258	27.5	S 16	44.3	Etamin	90	42.3	N 51	29.3
Adhara	255	07.2	S 29	00.1	Kaus Australis	83	33.7	S 34	22.4
Castor	245	58.9	N 31	50.3	Vega	80	33.7	N 38	48.3
Procyon	244	52.2	N 05	10.4	Nunki	75	48.9	S 26	16.0
Pollux	243	18.8	N 27	58.3	Albireo	67	04.7	N 28	00.5
Avior	234	15.9	S 59	35.1	Altair	62	01.0	N 08	55.7
Suhail	222	47.6	S 43	31.6	Peacock	53	07.0	S 56	39.5
Miaplacidus	221	39.3	S 69	48.9	Deneb	49	26.2	N 45	21.8
Alphard	217	49.2	S 08	45.6	Enif	33	39.7	N 09	59.0
Regulus	207	35.9	N 11	51.3	Alnair	27	34.1	S 46	50.6
Dubhe	193	42.8	N 61	37.7	Formalhaut	15	15.7	S 29	29.7
Denebola	182	26.2	N 14	26.7	Markab	13	30.9	N 15	19.9

2023 - First Point of Aries / Selected Stars

UT	day 206 of 365			day 207 of 365			day 208 of 365			day 209 of 365			day 210 of 365			UT
	<i>July 25</i>			<i>July 26</i>			<i>July 27</i>			<i>July 28</i>			<i>July 29</i>			
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	
00	302	26.8	+02.5	303	26.0	+02.4	304	25.1	+02.5	305	24.2	+02.5	306	23.4	+02.5	00
01	317	29.3	+02.5	318	28.4	+02.5	319	27.6	+02.4	320	26.7	+02.5	321	25.9	+02.4	01
02	332	31.8	+02.4	333	30.9	+02.5	334	30.0	+02.5	335	29.2	+02.4	336	28.3	+02.5	02
03	347	34.2	+02.5	348	33.4	+02.4	349	32.5	+02.5	350	31.6	+02.5	351	30.8	+02.4	03
04	2	36.7	+02.5	3	35.8	+02.5	4	35.0	+02.4	5	34.1	+02.5	6	33.2	+02.5	04
05	17	39.2	+02.4	18	38.3	+02.5	19	37.4	+02.5	20	36.6	+02.4	21	35.7	+02.5	05
06	32	41.6	+02.5	33	40.8	+02.4	34	39.9	+02.5	35	39.0	+02.5	36	38.2	+02.4	06
07	47	44.1	+02.4	48	43.2	+02.5	49	42.4	+02.4	50	41.5	+02.5	51	40.6	+02.5	07
08	62	46.5	+02.5	63	45.7	+02.4	64	44.8	+02.5	65	44.0	+02.4	66	43.1	+02.5	08
09	77	49.0	+02.5	78	48.1	+02.5	79	47.3	+02.4	80	46.4	+02.5	81	45.6	+02.4	09
10	92	51.5	+02.4	93	50.6	+02.5	94	49.7	+02.5	95	48.9	+02.5	96	48.0	+02.5	10
11	107	53.9	+02.5	108	53.1	+02.4	109	52.2	+02.5	110	51.4	+02.4	111	50.5	+02.5	11
12	122	56.4	+02.5	123	55.5	+02.5	124	54.7	+02.4	125	53.8	+02.5	126	53.0	+02.4	12
13	137	58.9	+02.4	138	58.0	+02.5	139	57.1	+02.5	140	56.3	+02.4	141	55.4	+02.5	13
14	153	01.3	+02.5	154	00.5	+02.4	154	59.6	+02.5	155	58.7	+02.5	156	57.9	+02.5	14
15	168	03.8	+02.5	169	02.9	+02.5	170	02.1	+02.4	171	01.2	+02.5	172	00.4	+02.4	15
16	183	06.3	+02.4	184	05.4	+02.5	185	04.5	+02.5	186	03.7	+02.4	187	02.8	+02.5	16
17	198	08.7	+02.5	199	07.9	+02.4	200	07.0	+02.5	201	06.1	+02.5	202	05.3	+02.4	17
18	213	11.2	+02.4	214	10.3	+02.5	215	09.5	+02.4	216	08.6	+02.5	217	07.7	+02.5	18
19	228	13.6	+02.5	229	12.8	+02.5	230	11.9	+02.5	231	11.1	+02.4	232	10.2	+02.5	19
20	243	16.1	+02.5	244	15.3	+02.4	245	14.4	+02.5	246	13.5	+02.5	247	12.7	+02.4	20
21	258	18.6	+02.4	259	17.7	+02.5	260	16.9	+02.4	261	16.0	+02.5	262	15.1	+02.5	21
22	273	21.0	+02.5	274	20.2	+02.4	275	19.3	+02.5	276	18.5	+02.4	277	17.6	+02.5	22
23	288	23.5	+02.5	289	22.6	+02.5	290	21.8	+02.4	291	20.9	+02.5	292	20.1	+02.4	23

	SHA	Dec		SHA	Dec
	°	'	"	°	'
Alpheratz	357	35.9	N 29 13.2	Gienah	175 44.9 S 17 40.3
Ankaa	353	08.3	S 42 10.3	Acrux	173 01.7 S 63 14.0
Schedir	349	32.3	N 56 39.7	Gacrux	171 53.3 S 57 14.8
Diphda	348	48.5	S 17 51.3	Alioth	166 14.3 N 55 50.3
Achernar	335	21.1	S 57 06.7	Spica	158 23.6 S 11 17.0
Hamal	327	52.6	N 23 34.4	Alkaid	152 52.9 N 49 12.1
Polaris	314	46.4	N 89 21.5	Hadar	148 37.7 S 60 29.4
Acamar	315	12.8	S 40 12.4	Menkent	147 58.7 S 36 29.0
Menkar	314	07.5	N 04 11.0	Arcturus	145 48.6 N 19 04.5
Mirfak	308	30.2	N 49 56.5	Rigel Kentaurus	139 39.1 S 60 56.3
Aldebaran	290	41.2	N 16 33.5	Zubenelgenubi	136 57.2 S 16 08.3
Capella	280	24.1	N 46 01.3	Kocab	137 19.4 N 74 03.8
Rigel	281	05.3	S 08 10.3	Alphecca	126 04.7 N 26 38.4
Bellatrix	278	24.4	N 06 22.3	Antares	112 17.2 S 26 29.1
Elnath	278	03.7	N 28 37.7	Atria	107 12.0 S 69 04.3
Alnilam	275	39.2	S 01 11.1	Sabik	102 03.9 S 15 45.3
Betelgeuze	270	53.7	N 07 24.7	Shaula	96 11.7 S 37 07.3
Canopus	263	53.4	S 52 42.3	Rasalhague	95 59.4 N 12 32.7
Sirius	258	27.4	S 16 44.3	Etamin	90 42.3 N 51 29.3
Adhara	255	07.2	S 29 00.1	Kaus Australis	83 33.7 S 34 22.4
Castor	245	58.9	N 31 50.3	Vega	80 33.7 N 38 48.3
Procyon	244	52.2	N 05 10.4	Nunki	75 48.9 S 26 16.0
Pollux	243	18.8	N 27 58.3	Albireo	67 04.7 N 28 00.6
Avior	234	15.9	S 59 35.0	Altair	62 01.0 N 08 55.7
Suhail	222	47.6	S 43 31.6	Peacock	53 07.0 S 56 39.5
Miaplacidus	221	39.3	S 69 48.9	Deneb	49 26.2 N 45 21.8
Alphard	217	49.3	S 08 45.6	Enif	33 39.7 N 09 59.0
Regulus	207	35.9	N 11 51.3	Alnair	27 34.1 S 46 50.6
Dubhe	193	42.8	N 61 37.7	Formalhaut	15 15.7 S 29 29.7
Denebola	182	26.2	N 14 26.7	Markab	13 30.9 N 15 19.9

2023 - First Point of Aries / Selected Stars

UT	day 211 of 365 July 30		day 212 of 365 July 31		day 213 of 365 August 1		day 214 of 365 August 2		day 215 of 365 August 3		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	307	22.5 +02.5	308	21.7 +02.4	309	20.8 +02.5	310	20.0 +02.4	311	19.1 +02.5	00
01	322	25.0 +02.5	323	24.1 +02.5	324	23.3 +02.4	325	22.4 +02.5	326	21.6 +02.4	01
02	337	27.5 +02.4	338	26.6 +02.5	339	25.7 +02.5	340	24.9 +02.4	341	24.0 +02.5	02
03	352	29.9 +02.5	353	29.1 +02.4	354	28.2 +02.5	355	27.3 +02.5	356	26.5 +02.4	03
04	7	32.4 +02.4	8	31.5 +02.5	9	30.7 +02.4	10	29.8 +02.5	11	28.9 +02.5	04
05	22	34.8 +02.5	23	34.0 +02.5	24	33.1 +02.5	25	32.3 +02.4	26	31.4 +02.5	05
06	37	37.3 +02.5	38	36.5 +02.4	39	35.6 +02.5	40	34.7 +02.5	41	33.9 +02.4	06
07	52	39.8 +02.4	53	38.9 +02.5	54	38.1 +02.4	55	37.2 +02.5	56	36.3 +02.5	07
08	67	42.2 +02.5	68	41.4 +02.4	69	40.5 +02.5	70	39.7 +02.4	71	38.8 +02.5	08
09	82	44.7 +02.5	83	43.8 +02.5	84	43.0 +02.5	85	42.1 +02.5	86	41.3 +02.4	09
10	97	47.2 +02.4	98	46.3 +02.5	99	45.5 +02.4	100	44.6 +02.5	101	43.7 +02.5	10
11	112	49.6 +02.5	113	48.8 +02.4	114	47.9 +02.5	115	47.1 +02.4	116	46.2 +02.5	11
12	127	52.1 +02.5	128	51.2 +02.5	129	50.4 +02.4	130	49.5 +02.5	131	48.7 +02.4	12
13	142	54.6 +02.4	143	53.7 +02.5	144	52.8 +02.5	145	52.0 +02.4	146	51.1 +02.5	13
14	157	57.0 +02.5	158	56.2 +02.4	159	55.3 +02.5	160	54.4 +02.5	161	53.6 +02.5	14
15	172	59.5 +02.5	173	58.6 +02.5	174	57.8 +02.4	175	56.9 +02.5	176	56.1 +02.4	15
16	188	02.0 +02.4	189	01.1 +02.5	190	00.2 +02.5	190	59.4 +02.4	191	58.5 +02.5	16
17	203	04.4 +02.5	204	03.6 +02.4	205	02.7 +02.5	206	01.8 +02.5	207	01.0 +02.4	17
18	218	06.9 +02.4	219	06.0 +02.5	220	05.2 +02.4	221	04.3 +02.5	222	03.4 +02.5	18
19	233	09.3 +02.5	234	08.5 +02.5	235	07.6 +02.5	236	06.8 +02.4	237	05.9 +02.5	19
20	248	11.8 +02.5	249	11.0 +02.4	250	10.1 +02.5	251	09.2 +02.5	252	08.4 +02.4	20
21	263	14.3 +02.4	264	13.4 +02.5	265	12.6 +02.4	266	11.7 +02.5	267	10.8 +02.5	21
22	278	16.7 +02.5	279	15.9 +02.4	280	15.0 +02.5	281	14.2 +02.4	282	13.3 +02.5	22
23	293	19.2 +02.5	294	18.3 +02.5	295	17.5 +02.5	296	16.6 +02.5	297	15.8 +02.4	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 35.9	N 29 13.2	Gienah	175 44.9	S 17 40.3
Ankaa	353 08.2	S 42 10.3	Acrux	173 01.8	S 63 14.0
Schedir	349 32.2	N 56 39.8	Gacrux	171 53.3	S 57 14.8
Diphda	348 48.4	S 17 51.3	Alioth	166 14.3	N 55 50.2
Achernar	335 21.0	S 57 06.7	Spica	158 23.6	S 11 17.0
Hamal	327 52.6	N 23 34.4	Alkaid	152 53.0	N 49 12.1
Polaris	314 43.5	N 89 21.5	Hadar	148 37.7	S 60 29.4
Acamar	315 12.7	S 40 12.4	Menkent	147 58.7	S 36 29.0
Menkar	314 07.5	N 04 11.0	Arcturus	145 48.6	N 19 04.6
Mirfak	308 30.1	N 49 56.5	Rigel Kentaurus	139 39.2	S 60 56.3
Aldebaran	290 41.2	N 16 33.5	Zubenelgenubi	136 57.2	S 16 08.3
Capella	280 24.0	N 46 01.3	Kocab	137 19.6	N 74 03.8
Rigel	281 05.2	S 08 10.3	Alphecca	126 04.7	N 26 38.4
Bellatrix	278 24.4	N 06 22.3	Antares	112 17.2	S 26 29.1
Elnath	278 03.7	N 28 37.7	Atria	107 12.1	S 69 04.4
Alnilam	275 39.2	S 01 11.1	Sabik	102 03.9	S 15 45.3
Betelgeuze	270 53.7	N 07 24.8	Shaula	96 11.7	S 37 07.3
Canopus	263 53.4	S 52 42.3	Rasalhague	95 59.4	N 12 32.8
Sirius	258 27.4	S 16 44.3	Etamin	90 42.3	N 51 29.3
Adhara	255 07.1	S 29 00.1	Kaus Australis	83 33.7	S 34 22.4
Castor	245 58.9	N 31 50.3	Vega	80 33.7	N 38 48.3
Procyon	244 52.2	N 05 10.4	Nunki	75 48.9	S 26 16.0
Pollux	243 18.8	N 27 58.3	Albireo	67 04.7	N 28 00.6
Avior	234 15.9	S 59 35.0	Altair	62 01.0	N 08 55.7
Suhail	222 47.6	S 43 31.6	Peacock	53 07.0	S 56 39.5
Miaplacidus	221 39.3	S 69 48.8	Deneb	49 26.2	N 45 21.8
Alphard	217 49.2	S 08 45.5	Enif	33 39.7	N 09 59.0
Regulus	207 35.9	N 11 51.3	Alnair	27 34.0	S 46 50.6
Dubhe	193 42.9	N 61 37.7	Formalhaut	15 15.7	S 29 29.6
Denebola	182 26.2	N 14 26.7	Markab	13 30.9	N 15 19.9

2023 - First Point of Aries / Selected Stars

UT	day 216 of 365			day 217 of 365			day 218 of 365			day 219 of 365			day 220 of 365			UT		
	August 4			August 5			August 6			August 7			August 8					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	312	18.2	+02.5	313	17.4	+02.4	314	16.5	+02.5	315	15.6	+02.5	316	14.8	+02.4	00		
01	327	20.7	+02.5	328	19.8	+02.5	329	19.0	+02.4	330	18.1	+02.5	331	17.2	+02.5	01		
02	342	23.2	+02.4	343	22.3	+02.5	344	21.4	+02.5	345	20.6	+02.4	346	19.7	+02.5	02		
03	357	25.6	+02.5	358	24.8	+02.4	359	23.9	+02.5	0	23.0	+02.5	1	22.2	+02.4	03		
04	12	28.1	+02.4	13	27.2	+02.5	14	26.4	+02.4	15	25.5	+02.5	16	24.6	+02.5	04		
05	27	30.5	+02.5	28	29.7	+02.5	29	28.8	+02.5	30	28.0	+02.4	31	27.1	+02.5	05		
06	42	33.0	+02.5	43	32.2	+02.4	44	31.3	+02.5	45	30.4	+02.5	46	29.6	+02.4	06		
07	57	35.5	+02.4	58	34.6	+02.5	59	33.8	+02.4	60	32.9	+02.5	61	32.0	+02.5	07		
08	72	37.9	+02.5	73	37.1	+02.4	74	36.2	+02.5	75	35.4	+02.4	76	34.5	+02.5	08		
09	87	40.4	+02.5	88	39.5	+02.5	89	38.7	+02.4	90	37.8	+02.5	91	37.0	+02.4	09		
10	102	42.9	+02.4	103	42.0	+02.5	104	41.1	+02.5	105	40.3	+02.4	106	39.4	+02.5	10		
11	117	45.3	+02.5	118	44.5	+02.4	119	43.6	+02.5	120	42.7	+02.5	121	41.9	+02.4	11		
12	132	47.8	+02.5	133	46.9	+02.5	134	46.1	+02.4	135	45.2	+02.5	136	44.3	+02.5	12		
13	147	50.3	+02.4	148	49.4	+02.5	149	48.5	+02.5	150	47.7	+02.4	151	46.8	+02.5	13		
14	162	52.7	+02.5	163	51.9	+02.4	164	51.0	+02.5	165	50.1	+02.5	166	49.3	+02.4	14		
15	177	55.2	+02.5	178	54.3	+02.5	179	53.5	+02.4	180	52.6	+02.5	181	51.7	+02.5	15		
16	192	57.7	+02.4	193	56.8	+02.5	194	55.9	+02.5	195	55.1	+02.4	196	54.2	+02.5	16		
17	208	00.1	+02.5	208	59.3	+02.4	209	58.4	+02.5	210	57.5	+02.5	211	56.7	+02.4	17		
18	223	02.6	+02.4	224	01.7	+02.5	225	00.9	+02.4	225	60.0	+02.5	226	59.1	+02.5	18		
19	238	05.0	+02.5	239	04.2	+02.4	240	03.3	+02.5	241	02.5	+02.4	242	01.6	+02.5	19		
20	253	07.5	+02.5	254	06.6	+02.5	255	05.8	+02.4	256	04.9	+02.5	257	04.1	+02.4	20		
21	268	10.0	+02.4	269	09.1	+02.5	270	08.2	+02.5	271	07.4	+02.5	272	06.5	+02.5	21		
22	283	12.4	+02.5	284	11.6	+02.4	285	10.7	+02.5	286	09.9	+02.4	287	09.0	+02.5	22		
23	298	14.9	+02.5	299	14.0	+02.5	300	13.2	+02.4	301	12.3	+02.5	302	11.5	+02.4	23		

	SHA		Dec			SHA		Dec	
	°	'	°	'		°	'	°	'
Alpheratz	357	35.8	N 29	13.2	Gienah	175	44.9	S 17	40.3
Ankaa	353	08.2	S 42	10.3	Acrux	173	01.8	S 63	13.9
Schedir	349	32.1	N 56	39.8	Gacrux	171	53.3	S 57	14.8
Diphda	348	48.4	S 17	51.3	Alioth	166	14.3	N 55	50.2
Achernar	335	21.0	S 57	06.7	Spica	158	23.6	S 11	17.0
Hamal	327	52.6	N 23	34.4	Alkaid	152	53.0	N 49	12.1
Polaris	314	41.0	N 89	21.5	Hadar	148	37.8	S 60	29.4
Acamar	315	12.7	S 40	12.3	Menkent	147	58.8	S 36	29.0
Menkar	314	07.4	N 04	11.0	Arcturus	145	48.6	N 19	04.5
Mirfak	308	30.1	N 49	56.5	Rigel Kentaurus	139	39.2	S 60	56.4
Aldebaran	290	41.2	N 16	33.5	Zubenelgenubi	136	57.2	S 16	08.3
Capella	280	24.0	N 46	01.3	Kocab	137	19.6	N 74	03.8
Rigel	281	05.2	S 08	10.3	Alphecca	126	04.7	N 26	38.4
Bellatrix	278	24.4	N 06	22.3	Antares	112	17.2	S 26	29.1
Elnath	278	03.6	N 28	37.7	Atria	107	12.1	S 69	04.4
Alnilam	275	39.2	S 01	11.1	Sabik	102	03.9	S 15	45.3
Betelgeuze	270	53.6	N 07	24.8	Shaula	96	11.7	S 37	07.3
Canopus	263	53.4	S 52	42.2	Rasalhague	95	59.4	N 12	32.8
Sirius	258	27.4	S 16	44.3	Etamin	90	42.3	N 51	29.3
Adhara	255	07.1	S 29	00.0	Kaus Australis	83	33.7	S 34	22.4
Castor	245	58.9	N 31	50.3	Vega	80	33.7	N 38	48.3
Procyon	244	52.1	N 05	10.4	Nunki	75	48.9	S 26	16.0
Pollux	243	18.8	N 27	58.3	Albireo	67	04.7	N 28	00.6
Avior	234	15.9	S 59	35.0	Altair	62	01.0	N 08	55.7
Suhail	222	47.6	S 43	31.6	Peacock	53	07.0	S 56	39.5
Miaplacidus	221	39.3	S 69	48.8	Deneb	49	26.1	N 45	21.9
Alphard	217	49.2	S 08	45.5	Enif	33	39.6	N 09	59.0
Regulus	207	35.9	N 11	51.3	Alnair	27	34.0	S 46	50.6
Dubhe	193	42.9	N 61	37.7	Formalhaut	15	15.6	S 29	29.6
Denebola	182	26.2	N 14	26.6	Markab	13	30.8	N 15	19.9

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UT	day 221 of 365			day 222 of 365			day 223 of 365			day 224 of 365			day 225 of 365			UT		
	August 9			August 10			August 11			August 12			August 13					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	317	13.9	+02.5	318	13.1	+02.4	319	12.2	+02.5	320	11.3	+02.5	321	10.5	+02.4	00		
01	332	16.4	+02.4	333	15.5	+02.5	334	14.7	+02.4	335	13.8	+02.5	336	12.9	+02.5	01		
02	347	18.8	+02.5	348	18.0	+02.5	349	17.1	+02.5	350	16.3	+02.4	351	15.4	+02.5	02		
03	2	21.3	+02.5	3	20.5	+02.4	4	19.6	+02.5	5	18.7	+02.5	6	17.9	+02.4	03		
04	17	23.8	+02.4	18	22.9	+02.5	19	22.1	+02.4	20	21.2	+02.5	21	20.3	+02.5	04		
05	32	26.2	+02.5	33	25.4	+02.4	34	24.5	+02.5	35	23.7	+02.4	36	22.8	+02.5	05		
06	47	28.7	+02.5	48	27.8	+02.5	49	27.0	+02.4	50	26.1	+02.5	51	25.3	+02.4	06		
07	62	31.2	+02.4	63	30.3	+02.5	64	29.4	+02.5	65	28.6	+02.5	66	27.7	+02.5	07		
08	77	33.6	+02.5	78	32.8	+02.4	79	31.9	+02.5	80	31.1	+02.4	81	30.2	+02.5	08		
09	92	36.1	+02.5	93	35.2	+02.5	94	34.4	+02.4	95	33.5	+02.5	96	32.7	+02.4	09		
10	107	38.6	+02.4	108	37.7	+02.5	109	36.8	+02.5	110	36.0	+02.4	111	35.1	+02.5	10		
11	122	41.0	+02.5	123	40.2	+02.4	124	39.3	+02.5	125	38.4	+02.5	126	37.6	+02.4	11		
12	137	43.5	+02.5	138	42.6	+02.5	139	41.8	+02.4	140	40.9	+02.5	141	40.0	+02.5	12		
13	152	46.0	+02.4	153	45.1	+02.5	154	44.2	+02.5	155	43.4	+02.4	156	42.5	+02.5	13		
14	167	48.4	+02.5	168	47.6	+02.4	169	46.7	+02.5	170	45.8	+02.5	171	45.0	+02.4	14		
15	182	50.9	+02.4	183	50.0	+02.5	184	49.2	+02.4	185	48.3	+02.5	186	47.4	+02.5	15		
16	197	53.3	+02.5	198	52.5	+02.4	199	51.6	+02.5	200	50.8	+02.4	201	49.9	+02.5	16		
17	212	55.8	+02.5	213	54.9	+02.5	214	54.1	+02.5	215	53.2	+02.5	216	52.4	+02.4	17		
18	227	58.3	+02.4	228	57.4	+02.5	229	56.6	+02.4	230	55.7	+02.5	231	54.8	+02.5	18		
19	243	00.7	+02.5	243	59.9	+02.4	244	59.0	+02.5	245	58.2	+02.4	246	57.3	+02.5	19		
20	258	03.2	+02.5	259	02.3	+02.5	260	01.5	+02.4	261	00.6	+02.5	261	59.8	+02.4	20		
21	273	05.7	+02.4	274	04.8	+02.5	275	03.9	+02.5	276	03.1	+02.5	277	02.2	+02.5	21		
22	288	08.1	+02.5	289	07.3	+02.4	290	06.4	+02.5	291	05.6	+02.4	292	04.7	+02.5	22		
23	303	10.6	+02.5	304	09.7	+02.5	305	08.9	+02.4	306	08.0	+02.5	307	07.2	+02.4	23		

	SHA		Dec			SHA		Dec	
	°	'	°	'		°	'	°	'
Alpheratz	357	35.8	N 29	13.2	Gienah	175	45.0	S 17	40.3
Ankaa	353	08.1	S 42	10.3	Acrux	173	01.8	S 63	13.9
Schedir	349	32.1	N 56	39.8	Gacrux	171	53.4	S 57	14.7
Diphda	348	48.4	S 17	51.3	Alioth	166	14.4	N 55	50.2
Achernar	335	20.9	S 57	06.7	Spica	158	23.7	S 11	17.0
Hamal	327	52.5	N 23	34.4	Alkaid	152	53.0	N 49	12.1
Polaris	314	38.4	N 89	21.5	Hadar	148	37.8	S 60	29.4
Acamar	315	12.6	S 40	12.3	Menkent	147	58.8	S 36	29.0
Menkar	314	07.4	N 04	11.0	Arcturus	145	48.6	N 19	04.6
Mirfak	308	30.0	N 49	56.5	Rigel Kentaurus	139	39.2	S 60	56.3
Aldebaran	290	41.1	N 16	33.5	Zubenelgenubi	136	57.3	S 16	08.3
Capella	280	23.9	N 46	01.3	Kocab	137	19.7	N 74	03.8
Rigel	281	05.2	S 08	10.3	Alphecca	126	04.7	N 26	38.4
Bellatrix	278	24.3	N 06	22.4	Antares	112	17.2	S 26	29.1
Elnath	278	03.6	N 28	37.7	Atria	107	12.1	S 69	04.4
Alnilam	275	39.1	S 01	11.1	Sabik	102	03.9	S 15	45.3
Betelgeuze	270	53.6	N 07	24.8	Shaula	96	11.7	S 37	07.3
Canopus	263	53.4	S 52	42.2	Rasalhague	95	59.5	N 12	32.8
Sirius	258	27.4	S 16	44.2	Etamin	90	42.3	N 51	29.3
Adhara	255	07.1	S 29	00.0	Kaus Australis	83	33.7	S 34	22.4
Castor	245	58.8	N 31	50.3	Vega	80	33.8	N 38	48.4
Procyon	244	52.1	N 05	10.4	Nunki	75	48.9	S 26	16.0
Pollux	243	18.7	N 27	58.2	Albireo	67	04.7	N 28	00.6
Avior	234	15.9	S 59	35.0	Altair	62	01.0	N 08	55.8
Suhail	222	47.6	S 43	31.5	Peacock	53	07.0	S 56	39.5
Miaplacidus	221	39.3	S 69	48.8	Deneb	49	26.1	N 45	21.9
Alphard	217	49.2	S 08	45.5	Enif	33	39.6	N 09	59.0
Regulus	207	35.9	N 11	51.3	Alnair	27	34.0	S 46	50.6
Dubhe	193	42.9	N 61	37.7	Formalhaut	15	15.6	S 29	29.7
Denebola	182	26.2	N 14	26.6	Markab	13	30.8	N 15	19.9

2023 - First Point of Aries / Selected Stars

UT	day 226 of 365		day 227 of 365		day 228 of 365		day 229 of 365		day 230 of 365		UT		
	August 14		August 15		August 16		August 17		August 18				
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA			
	°	'	°	'	°	'	°	'	°	'			
00	322	09.6	+02.5	323	08.8	+02.4	324	07.9	+02.5	325	07.0	+02.5	00
01	337	12.1	+02.4	338	11.2	+02.5	339	10.4	+02.4	340	09.5	+02.5	01
02	352	14.5	+02.5	353	13.7	+02.5	354	12.8	+02.5	355	12.0	+02.4	02
03	7	17.0	+02.5	8	16.2	+02.4	9	15.3	+02.5	10	14.4	+02.5	03
04	22	19.5	+02.4	23	18.6	+02.5	24	17.8	+02.4	25	16.9	+02.5	04
05	37	21.9	+02.5	38	21.1	+02.4	39	20.2	+02.5	40	19.4	+02.4	05
06	52	24.4	+02.5	53	23.5	+02.5	54	22.7	+02.4	55	21.8	+02.5	06
07	67	26.9	+02.4	68	26.0	+02.5	69	25.1	+02.5	70	24.3	+02.4	07
08	82	29.3	+02.5	83	28.5	+02.4	84	27.6	+02.5	85	26.7	+02.5	08
09	97	31.8	+02.5	98	30.9	+02.5	99	30.1	+02.4	100	29.2	+02.5	09
10	112	34.3	+02.4	113	33.4	+02.5	114	32.5	+02.5	115	31.7	+02.4	10
11	127	36.7	+02.5	128	35.9	+02.4	129	35.0	+02.5	130	34.1	+02.5	11
12	142	39.2	+02.5	143	38.3	+02.5	144	37.5	+02.4	145	36.6	+02.5	12
13	157	41.7	+02.4	158	40.8	+02.5	159	39.9	+02.5	160	39.1	+02.4	13
14	172	44.1	+02.5	173	43.3	+02.4	174	42.4	+02.5	175	41.5	+02.5	14
15	187	46.6	+02.4	188	45.7	+02.5	189	44.9	+02.4	190	44.0	+02.5	15
16	202	49.0	+02.5	203	48.2	+02.4	204	47.3	+02.5	205	46.5	+02.4	16
17	217	51.5	+02.5	218	50.6	+02.5	219	49.8	+02.5	220	48.9	+02.5	17
18	232	54.0	+02.4	233	53.1	+02.5	234	52.3	+02.4	235	51.4	+02.5	18
19	247	56.4	+02.5	248	55.6	+02.4	249	54.7	+02.5	250	53.9	+02.4	19
20	262	58.9	+02.5	263	58.0	+02.5	264	57.2	+02.4	265	56.3	+02.5	20
21	278	01.4	+02.4	279	00.5	+02.5	279	59.6	+02.5	280	58.8	+02.4	21
22	293	03.8	+02.5	294	03.0	+02.4	295	02.1	+02.5	296	01.2	+02.5	22
23	308	06.3	+02.5	309	05.4	+02.5	310	04.6	+02.4	311	03.7	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.8	N 29	13.3	Gienah	175	45.0	S 17	40.3
Ankaa	353	08.1	S 42	10.3	Acrux	173	01.9	S 63	13.9
Schedir	349	32.0	N 56	39.8	Gacrux	171	53.4	S 57	14.7
Diphda	348	48.3	S 17	51.3	Alioth	166	14.4	N 55	50.2
Achernar	335	20.8	S 57	06.7	Spica	158	23.7	S 11	17.0
Hamal	327	52.5	N 23	34.4	Alkaid	152	53.0	N 49	12.0
Polaris	314	35.5	N 89	21.5	Hadar	148	37.8	S 60	29.4
Acamar	315	12.6	S 40	12.3	Menkent	147	58.8	S 36	29.0
Menkar	314	07.3	N 04	11.0	Arcturus	145	48.7	N 19	04.6
Mirfak	308	29.9	N 49	56.5	Rigel Kentaurus	139	39.3	S 60	56.3
Aldebaran	290	41.1	N 16	33.5	Zubenelgenubi	136	57.3	S 16	08.3
Capella	280	23.9	N 46	01.3	Kocab	137	19.8	N 74	03.8
Rigel	281	05.1	S 08	10.3	Alphecca	126	04.7	N 26	38.4
Bellatrix	278	24.3	N 06	22.4	Antares	112	17.3	S 26	29.1
Elnath	278	03.5	N 28	37.7	Atria	107	12.2	S 69	04.4
Alnilam	275	39.1	S 01	11.1	Sabik	102	04.0	S 15	45.3
Betelgeuze	270	53.6	N 07	24.8	Shaula	96	11.7	S 37	07.3
Canopus	263	53.3	S 52	42.2	Rasalhague	95	59.5	N 12	32.8
Sirius	258	27.3	S 16	44.2	Etamin	90	42.4	N 51	29.3
Adhara	255	07.1	S 29	00.0	Kaus Australis	83	33.7	S 34	22.4
Castor	245	58.8	N 31	50.3	Vega	80	33.8	N 38	48.4
Procyon	244	52.1	N 05	10.4	Nunki	75	48.9	S 26	16.0
Pollux	243	18.7	N 27	58.2	Albireo	67	04.7	N 28	00.7
Avior	234	15.8	S 59	34.9	Altair	62	01.0	N 08	55.8
Suhail	222	47.6	S 43	31.5	Peacock	53	07.0	S 56	39.5
Miaplacidus	221	39.3	S 69	48.8	Deneb	49	26.1	N 45	21.9
Alphard	217	49.2	S 08	45.5	Enif	33	39.6	N 09	59.0
Regulus	207	35.9	N 11	51.3	Alnair	27	33.9	S 46	50.7
Dubhe	193	42.9	N 61	37.6	Formalhaut	15	15.6	S 29	29.6
Denebola	182	26.2	N 14	26.6	Markab	13	30.8	N 15	20.0

2023 - First Point of Aries / Selected Stars

UT	day 231 of 365			day 232 of 365			day 233 of 365			day 234 of 365			day 235 of 365			UT		
	August 19			August 20			August 21			August 22			August 23					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	327	05.3	+02.5	328	04.4	+02.5	329	03.6	+02.4	330	02.7	+02.5	331	01.9	+02.4	00		
01	342	07.8	+02.4	343	06.9	+02.5	344	06.0	+02.5	345	05.2	+02.4	346	04.3	+02.5	01		
02	357	10.2	+02.5	358	09.4	+02.4	359	08.5	+02.5	0	07.6	+02.5	1	06.8	+02.5	02		
03	12	12.7	+02.5	13	11.8	+02.5	14	11.0	+02.4	15	10.1	+02.5	16	09.3	+02.4	03		
04	27	15.2	+02.4	28	14.3	+02.5	29	13.4	+02.5	30	12.6	+02.4	31	11.7	+02.5	04		
05	42	17.6	+02.5	43	16.8	+02.4	44	15.9	+02.5	45	15.0	+02.5	46	14.2	+02.4	05		
06	57	20.1	+02.5	58	19.2	+02.5	59	18.4	+02.4	60	17.5	+02.5	61	16.6	+02.5	06		
07	72	22.6	+02.4	73	21.7	+02.5	74	20.8	+02.5	75	20.0	+02.4	76	19.1	+02.5	07		
08	87	25.0	+02.5	88	24.2	+02.4	89	23.3	+02.5	90	22.4	+02.5	91	21.6	+02.4	08		
09	102	27.5	+02.5	103	26.6	+02.5	104	25.8	+02.4	105	24.9	+02.5	106	24.0	+02.5	09		
10	117	30.0	+02.4	118	29.1	+02.5	119	28.2	+02.5	120	27.4	+02.4	121	26.5	+02.5	10		
11	132	32.4	+02.5	133	31.6	+02.4	134	30.7	+02.5	135	29.8	+02.5	136	29.0	+02.4	11		
12	147	34.9	+02.4	148	34.0	+02.5	149	33.2	+02.4	150	32.3	+02.5	151	31.4	+02.5	12		
13	162	37.3	+02.5	163	36.5	+02.4	164	35.6	+02.5	165	34.8	+02.4	166	33.9	+02.5	13		
14	177	39.8	+02.5	178	38.9	+02.5	179	38.1	+02.4	180	37.2	+02.5	181	36.4	+02.4	14		
15	192	42.3	+02.4	193	41.4	+02.5	194	40.5	+02.5	195	39.7	+02.4	196	38.8	+02.5	15		
16	207	44.7	+02.5	208	43.9	+02.4	209	43.0	+02.5	210	42.1	+02.5	211	41.3	+02.4	16		
17	222	47.2	+02.5	223	46.3	+02.5	224	45.5	+02.4	225	44.6	+02.5	226	43.7	+02.5	17		
18	237	49.7	+02.4	238	48.8	+02.5	239	47.9	+02.5	240	47.1	+02.4	241	46.2	+02.5	18		
19	252	52.1	+02.5	253	51.3	+02.4	254	50.4	+02.5	255	49.5	+02.5	256	48.7	+02.4	19		
20	267	54.6	+02.5	268	53.7	+02.5	269	52.9	+02.4	270	52.0	+02.5	271	51.1	+02.5	20		
21	282	57.1	+02.4	283	56.2	+02.5	284	55.3	+02.5	285	54.5	+02.4	286	53.6	+02.5	21		
22	297	59.5	+02.5	298	58.7	+02.4	299	57.8	+02.5	300	56.9	+02.5	301	56.1	+02.4	22		
23	313	02.0	+02.4	314	01.1	+02.5	315	00.3	+02.4	315	59.4	+02.5	316	58.5	+02.5	23		

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.7	N 29	13.3	Gienah	175	45.0	S 17	40.3
Ankaa	353	08.1	S 42	10.3	Acrux	173	01.9	S 63	13.9
Schedir	349	32.0	N 56	39.9	Gacrux	171	53.4	S 57	14.7
Diphda	348	48.3	S 17	51.3	Alioth	166	14.4	N 55	50.2
Achernar	335	20.8	S 57	06.7	Spica	158	23.7	S 11	17.0
Hamal	327	52.4	N 23	34.5	Alkaid	152	53.1	N 49	12.0
Polaris	314	33.1	N 89	21.5	Hadar	148	37.9	S 60	29.4
Acamar	315	12.5	S 40	12.3	Menkent	147	58.8	S 36	28.9
Menkar	314	07.3	N 04	11.1	Arcturus	145	48.7	N 19	04.5
Mirfak	308	29.9	N 49	56.5	Rigel Kentaurus	139	39.3	S 60	56.3
Aldebaran	290	41.0	N 16	33.5	Zubenelgenubi	136	57.3	S 16	08.3
Capella	280	23.8	N 46	01.3	Kocab	137	19.9	N 74	03.8
Rigel	281	05.1	S 08	10.3	Alphecca	126	04.8	N 26	38.4
Bellatrix	278	24.2	N 06	22.4	Antares	112	17.3	S 26	29.1
Elnath	278	03.5	N 28	37.7	Atria	107	12.2	S 69	04.4
Alnilam	275	39.1	S 01	11.1	Sabik	102	04.0	S 15	45.3
Betelgeuze	270	53.5	N 07	24.8	Shaula	96	11.7	S 37	07.3
Canopus	263	53.3	S 52	42.2	Rasalhague	95	59.5	N 12	32.8
Sirius	258	27.3	S 16	44.2	Etamin	90	42.4	N 51	29.4
Adhara	255	07.0	S 28	60.0	Kaus Australis	83	33.8	S 34	22.4
Castor	245	58.8	N 31	50.3	Vega	80	33.8	N 38	48.4
Procyon	244	52.1	N 05	10.4	Nunki	75	48.9	S 26	16.0
Pollux	243	18.7	N 27	58.2	Albireo	67	04.7	N 28	00.7
Avior	234	15.8	S 59	34.9	Altair	62	01.0	N 08	55.8
Suhail	222	47.6	S 43	31.5	Peacock	53	07.0	S 56	39.6
Miaplacidus	221	39.3	S 69	48.7	Deneb	49	26.2	N 45	21.9
Alphard	217	49.2	S 08	45.5	Enif	33	39.6	N 09	59.1
Regulus	207	35.9	N 11	51.3	Alnair	27	33.9	S 46	50.7
Dubhe	193	42.9	N 61	37.6	Formalhaut	15	15.6	S 29	29.7
Denebola	182	26.2	N 14	26.6	Markab	13	30.8	N 15	20.0

2023 - First Point of Aries / Selected Stars

UT	day 236 of 365		day 237 of 365		day 238 of 365		day 239 of 365		day 240 of 365		UT					
	August 24		August 25		August 26		August 27		August 28							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	332	01.0	+02.5	333	00.1	+02.5	333	59.3	+02.4	334	58.4	+02.5	335	57.6	+02.4	00
01	347	03.5	+02.4	348	02.6	+02.5	349	01.7	+02.5	350	00.9	+02.4	351	00.0	+02.5	01
02	2	05.9	+02.5	3	05.1	+02.4	4	04.2	+02.5	5	03.3	+02.5	6	02.5	+02.5	02
03	17	08.4	+02.5	18	07.5	+02.5	19	06.7	+02.4	20	05.8	+02.5	21	05.0	+02.4	03
04	32	10.9	+02.4	33	10.0	+02.5	34	09.1	+02.5	35	08.3	+02.4	36	07.4	+02.5	04
05	47	13.3	+02.5	48	12.5	+02.4	49	11.6	+02.5	50	10.7	+02.5	51	09.9	+02.4	05
06	62	15.8	+02.4	63	14.9	+02.5	64	14.1	+02.4	65	13.2	+02.5	66	12.3	+02.5	06
07	77	18.2	+02.5	78	17.4	+02.5	79	16.5	+02.5	80	15.7	+02.4	81	14.8	+02.5	07
08	92	20.7	+02.5	93	19.9	+02.4	94	19.0	+02.5	95	18.1	+02.5	96	17.3	+02.4	08
09	107	23.2	+02.4	108	22.3	+02.5	109	21.5	+02.4	110	20.6	+02.5	111	19.7	+02.5	09
10	122	25.6	+02.5	123	24.8	+02.4	124	23.9	+02.5	125	23.1	+02.4	126	22.2	+02.5	10
11	137	28.1	+02.5	138	27.2	+02.5	139	26.4	+02.4	140	25.5	+02.5	141	24.7	+02.4	11
12	152	30.6	+02.4	153	29.7	+02.5	154	28.8	+02.5	155	28.0	+02.5	156	27.1	+02.5	12
13	167	33.0	+02.5	168	32.2	+02.4	169	31.3	+02.5	170	30.5	+02.4	171	29.6	+02.5	13
14	182	35.5	+02.5	183	34.6	+02.5	184	33.8	+02.4	185	32.9	+02.5	186	32.1	+02.4	14
15	197	38.0	+02.4	198	37.1	+02.5	199	36.2	+02.5	200	35.4	+02.4	201	34.5	+02.5	15
16	212	40.4	+02.5	213	39.6	+02.4	214	38.7	+02.5	215	37.8	+02.5	216	37.0	+02.5	16
17	227	42.9	+02.5	228	42.0	+02.5	229	41.2	+02.4	230	40.3	+02.5	231	39.5	+02.4	17
18	242	45.4	+02.4	243	44.5	+02.5	244	43.6	+02.5	245	42.8	+02.4	246	41.9	+02.5	18
19	257	47.8	+02.5	258	47.0	+02.4	259	46.1	+02.5	260	45.2	+02.5	261	44.4	+02.4	19
20	272	50.3	+02.4	273	49.4	+02.5	274	48.6	+02.4	275	47.7	+02.5	276	46.8	+02.5	20
21	287	52.7	+02.5	288	51.9	+02.4	289	51.0	+02.5	290	50.2	+02.4	291	49.3	+02.5	21
22	302	55.2	+02.5	303	54.3	+02.5	304	53.5	+02.5	305	52.6	+02.5	306	51.8	+02.4	22
23	317	57.7	+02.4	318	56.8	+02.5	319	56.0	+02.4	320	55.1	+02.5	321	54.2	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.7	N 29	13.3	Gienah	175	45.0	S 17	40.3
Ankaa	353	08.0	S 42	10.3	Acrux	173	01.9	S 63	13.9
Schedir	349	32.0	N 56	39.9	Gacrux	171	53.4	S 57	14.7
Diphda	348	48.3	S 17	51.3	Alioth	166	14.5	N 55	50.2
Achernar	335	20.7	S 57	06.7	Spica	158	23.7	S 11	17.0
Hamal	327	52.4	N 23	34.5	Alkaid	152	53.1	N 49	12.0
Polaris	314	30.6	N 89	21.5	Hadar	148	37.9	S 60	29.4
Acamar	315	12.5	S 40	12.3	Menkent	147	58.9	S 36	28.9
Menkar	314	07.3	N 04	11.1	Arcturus	145	48.7	N 19	04.5
Mirfak	308	29.8	N 49	56.5	Rigel Kentaurus	139	39.4	S 60	56.3
Aldebaran	290	41.0	N 16	33.5	Zubenelgenubi	136	57.3	S 16	08.3
Capella	280	23.8	N 46	01.3	Kocab	137	20.0	N 74	03.8
Rigel	281	05.1	S 08	10.3	Alphecca	126	04.8	N 26	38.4
Bellatrix	278	24.2	N 06	22.4	Antares	112	17.3	S 26	29.1
Elnath	278	03.5	N 28	37.7	Atria	107	12.3	S 69	04.4
Alnilam	275	39.0	S 01	11.1	Sabik	102	04.0	S 15	45.3
Betelgeuze	270	53.5	N 07	24.8	Shaula	96	11.7	S 37	07.3
Canopus	263	53.2	S 52	42.2	Rasalhague	95	59.5	N 12	32.8
Sirius	258	27.3	S 16	44.2	Etamin	90	42.4	N 51	29.4
Adhara	255	07.0	S 28	60.0	Kaus Australis	83	33.8	S 34	22.4
Castor	245	58.8	N 31	50.3	Vega	80	33.8	N 38	48.4
Procyon	244	52.1	N 05	10.4	Nunki	75	48.9	S 26	16.0
Pollux	243	18.7	N 27	58.2	Albireo	67	04.7	N 28	00.7
Avior	234	15.8	S 59	34.9	Altair	62	01.0	N 08	55.8
Suhail	222	47.6	S 43	31.5	Peacock	53	07.0	S 56	39.6
Miaplacidus	221	39.3	S 69	48.7	Deneb	49	26.2	N 45	22.0
Alphard	217	49.2	S 08	45.5	Enif	33	39.6	N 09	59.1
Regulus	207	35.9	N 11	51.3	Alnair	27	33.9	S 46	50.7
Dubhe	193	42.9	N 61	37.6	Formalhaut	15	15.5	S 29	29.7
Denebola	182	26.2	N 14	26.6	Markab	13	30.7	N 15	20.0

2023 - First Point of Aries / Selected Stars

UT	day 241 of 365 August 29		day 242 of 365 August 30		day 243 of 365 August 31		day 244 of 365 September 1		day 245 of 365 September 2		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	336	56.7 +02.5	337	55.8 +02.5	338	55.0 +02.4	339	54.1 +02.5	340	53.3 +02.4	00
01	351	59.2 +02.4	352	58.3 +02.5	353	57.4 +02.5	354	56.6 +02.4	355	55.7 +02.5	01
02	7	01.6 +02.5	8	00.8 +02.4	8	59.9 +02.5	9	59.0 +02.5	10	58.2 +02.4	02
03	22	04.1 +02.5	23	03.2 +02.5	24	02.4 +02.4	25	01.5 +02.5	26	00.6 +02.5	03
04	37	06.6 +02.4	38	05.7 +02.5	39	04.8 +02.5	40	04.0 +02.4	41	03.1 +02.5	04
05	52	09.0 +02.5	53	08.2 +02.4	54	07.3 +02.5	55	06.4 +02.5	56	05.6 +02.4	05
06	67	11.5 +02.4	68	10.6 +02.5	69	09.8 +02.4	70	08.9 +02.5	71	08.0 +02.5	06
07	82	13.9 +02.5	83	13.1 +02.5	84	12.2 +02.5	85	11.4 +02.4	86	10.5 +02.5	07
08	97	16.4 +02.5	98	15.6 +02.4	99	14.7 +02.5	100	13.8 +02.5	101	13.0 +02.4	08
09	112	18.9 +02.4	113	18.0 +02.5	114	17.2 +02.4	115	16.3 +02.5	116	15.4 +02.5	09
10	127	21.3 +02.5	128	20.5 +02.4	129	19.6 +02.5	130	18.8 +02.4	131	17.9 +02.5	10
11	142	23.8 +02.5	143	22.9 +02.5	144	22.1 +02.4	145	21.2 +02.5	146	20.4 +02.4	11
12	157	26.3 +02.4	158	25.4 +02.5	159	24.5 +02.5	160	23.7 +02.4	161	22.8 +02.5	12
13	172	28.7 +02.5	173	27.9 +02.4	174	27.0 +02.5	175	26.1 +02.5	176	25.3 +02.4	13
14	187	31.2 +02.5	188	30.3 +02.5	189	29.5 +02.4	190	28.6 +02.5	191	27.7 +02.5	14
15	202	33.7 +02.4	203	32.8 +02.5	204	31.9 +02.5	205	31.1 +02.4	206	30.2 +02.5	15
16	217	36.1 +02.5	218	35.3 +02.4	219	34.4 +02.5	220	33.5 +02.5	221	32.7 +02.4	16
17	232	38.6 +02.5	233	37.7 +02.5	234	36.9 +02.4	235	36.0 +02.5	236	35.1 +02.5	17
18	247	41.1 +02.4	248	40.2 +02.5	249	39.3 +02.5	250	38.5 +02.4	251	37.6 +02.5	18
19	262	43.5 +02.5	263	42.7 +02.4	264	41.8 +02.5	265	40.9 +02.5	266	40.1 +02.4	19
20	277	46.0 +02.4	278	45.1 +02.5	279	44.3 +02.4	280	43.4 +02.5	281	42.5 +02.5	20
21	292	48.4 +02.5	293	47.6 +02.4	294	46.7 +02.5	295	45.9 +02.4	296	45.0 +02.5	21
22	307	50.9 +02.5	308	50.0 +02.5	309	49.2 +02.5	310	48.3 +02.5	311	47.5 +02.4	22
23	322	53.4 +02.4	323	52.5 +02.5	324	51.7 +02.4	325	50.8 +02.5	326	49.9 +02.5	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 35.7	N 29 13.3	Gienah	175 45.0	S 17 40.3
Ankaa	353 08.0	S 42 10.3	Acrux	173 02.0	S 63 13.9
Schedir	349 31.9	N 56 39.9	Gacrux	171 53.5	S 57 14.7
Diphda	348 48.2	S 17 51.3	Alioth	166 14.5	N 55 50.2
Achernar	335 20.7	S 57 06.7	Spica	158 23.7	S 11 17.0
Hamal	327 52.4	N 23 34.5	Alkaid	152 53.1	N 49 12.0
Polaris	314 27.7	N 89 21.5	Hadar	148 38.0	S 60 29.3
Acamar	315 12.4	S 40 12.3	Menkent	147 58.9	S 36 28.9
Menkar	314 07.2	N 04 11.1	Arcturus	145 48.7	N 19 04.5
Mirfak	308 29.8	N 49 56.5	Rigel Kentaurus	139 39.4	S 60 56.3
Aldebaran	290 41.0	N 16 33.5	Zubenelgenubi	136 57.3	S 16 08.3
Capella	280 23.7	N 46 01.3	Kocab	137 20.1	N 74 03.8
Rigel	281 05.0	S 08 10.3	Alphecca	126 04.8	N 26 38.4
Bellatrix	278 24.2	N 06 22.4	Antares	112 17.3	S 26 29.1
Elnath	278 03.4	N 28 37.7	Atria	107 12.3	S 69 04.4
Alnilam	275 39.0	S 01 11.1	Sabik	102 04.0	S 15 45.3
Betelgeuze	270 53.4	N 07 24.8	Shaula	96 11.8	S 37 07.3
Canopus	263 53.2	S 52 42.1	Rasalhague	95 59.5	N 12 32.8
Sirius	258 27.2	S 16 44.2	Etamin	90 42.5	N 51 29.4
Adhara	255 07.0	S 28 60.0	Kaus Australis	83 33.8	S 34 22.4
Castor	245 58.7	N 31 50.2	Vega	80 33.8	N 38 48.4
Procyon	244 52.0	N 05 10.4	Nunki	75 48.9	S 26 16.0
Pollux	243 18.6	N 27 58.2	Albireo	67 04.7	N 28 00.7
Avior	234 15.8	S 59 34.9	Altair	62 01.0	N 08 55.8
Suhail	222 47.6	S 43 31.5	Peacock	53 07.0	S 56 39.6
Miaplacidus	221 39.3	S 69 48.7	Deneb	49 26.2	N 45 22.0
Alphard	217 49.2	S 08 45.5	Enif	33 39.6	N 09 59.1
Regulus	207 35.9	N 11 51.3	Alnair	27 33.9	S 46 50.7
Dubhe	193 42.9	N 61 37.6	Formalhaut	15 15.5	S 29 29.7
Denebola	182 26.2	N 14 26.6	Markab	13 30.7	N 15 20.0

2023 - First Point of Aries / Selected Stars

UT	day 246 of 365			day 247 of 365			day 248 of 365			day 249 of 365			day 250 of 365			UT		
	September 3			September 4			September 5			September 6			September 7					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	341	52.4	+02.5	342	51.5	+02.5	343	50.7	+02.4	344	49.8	+02.5	345	48.9	+02.5	00		
01	356	54.9	+02.4	357	54.0	+02.5	358	53.1	+02.5	359	52.3	+02.4	0	51.4	+02.5	01		
02	11	57.3	+02.5	12	56.5	+02.4	13	55.6	+02.5	14	54.7	+02.5	15	53.9	+02.4	02		
03	26	59.8	+02.4	27	58.9	+02.5	28	58.1	+02.4	29	57.2	+02.5	30	56.3	+02.5	03		
04	42	02.2	+02.5	43	01.4	+02.4	44	00.5	+02.5	44	59.7	+02.4	45	58.8	+02.5	04		
05	57	04.7	+02.5	58	03.8	+02.5	59	03.0	+02.4	60	02.1	+02.5	61	01.3	+02.4	05		
06	72	07.2	+02.4	73	06.3	+02.5	74	05.4	+02.5	75	04.6	+02.5	76	03.7	+02.5	06		
07	87	09.6	+02.5	88	08.8	+02.4	89	07.9	+02.5	90	07.1	+02.4	91	06.2	+02.5	07		
08	102	12.1	+02.5	103	11.2	+02.5	104	10.4	+02.4	105	09.5	+02.5	106	08.7	+02.4	08		
09	117	14.6	+02.4	118	13.7	+02.5	119	12.8	+02.5	120	12.0	+02.4	121	11.1	+02.5	09		
10	132	17.0	+02.5	133	16.2	+02.4	134	15.3	+02.5	135	14.4	+02.5	136	13.6	+02.4	10		
11	147	19.5	+02.5	148	18.6	+02.5	149	17.8	+02.4	150	16.9	+02.5	151	16.0	+02.5	11		
12	162	22.0	+02.4	163	21.1	+02.5	164	20.2	+02.5	165	19.4	+02.4	166	18.5	+02.5	12		
13	177	24.4	+02.5	178	23.6	+02.4	179	22.7	+02.5	180	21.8	+02.5	181	21.0	+02.4	13		
14	192	26.9	+02.4	193	26.0	+02.5	194	25.2	+02.4	195	24.3	+02.5	196	23.4	+02.5	14		
15	207	29.3	+02.5	208	28.5	+02.5	209	27.6	+02.5	210	26.8	+02.4	211	25.9	+02.5	15		
16	222	31.8	+02.5	223	31.0	+02.4	224	30.1	+02.5	225	29.2	+02.5	226	28.4	+02.4	16		
17	237	34.3	+02.4	238	33.4	+02.5	239	32.6	+02.4	240	31.7	+02.5	241	30.8	+02.5	17		
18	252	36.7	+02.5	253	35.9	+02.4	254	35.0	+02.5	255	34.2	+02.4	256	33.3	+02.5	18		
19	267	39.2	+02.5	268	38.3	+02.5	269	37.5	+02.4	270	36.6	+02.5	271	35.8	+02.4	19		
20	282	41.7	+02.4	283	40.8	+02.5	284	39.9	+02.5	285	39.1	+02.5	286	38.2	+02.5	20		
21	297	44.1	+02.5	298	43.3	+02.4	299	42.4	+02.5	300	41.6	+02.4	301	40.7	+02.5	21		
22	312	46.6	+02.5	313	45.7	+02.5	314	44.9	+02.4	315	44.0	+02.5	316	43.2	+02.4	22		
23	327	49.1	+02.4	328	48.2	+02.5	329	47.3	+02.5	330	46.5	+02.4	331	45.6	+02.5	23		

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.7	N 29	13.3	Gienah	175	45.0	S 17	40.3
Ankaa	353	08.0	S 42	10.3	Acrux	173	02.0	S 63	13.8
Schedir	349	31.9	N 56	39.9	Gacrux	171	53.5	S 57	14.7
Diphda	348	48.2	S 17	51.3	Alioth	166	14.5	N 55	50.1
Achernar	335	20.6	S 57	06.7	Spica	158	23.7	S 11	17.0
Hamal	327	52.3	N 23	34.5	Alkaid	152	53.1	N 49	12.0
Polaris	314	25.6	N 89	21.5	Hadar	148	38.0	S 60	29.3
Acamar	315	12.4	S 40	12.3	Menkent	147	58.9	S 36	28.9
Menkar	314	07.2	N 04	11.1	Arcturus	145	48.7	N 19	04.5
Mirfak	308	29.7	N 49	56.5	Rigel Kentaurus	139	39.4	S 60	56.3
Aldebaran	290	40.9	N 16	33.5	Zubenelgenubi	136	57.4	S 16	08.3
Capella	280	23.7	N 46	01.3	Kocab	137	20.2	N 74	03.8
Rigel	281	05.0	S 08	10.3	Alphecca	126	04.8	N 26	38.4
Bellatrix	278	24.1	N 06	22.4	Antares	112	17.3	S 26	29.1
Elnath	278	03.4	N 28	37.7	Atria	107	12.4	S 69	04.4
Alnilam	275	39.0	S 01	11.0	Sabik	102	04.0	S 15	45.3
Betelgeuze	270	53.4	N 07	24.8	Shaula	96	11.8	S 37	07.3
Canopus	263	53.1	S 52	42.1	Rasalhague	95	59.5	N 12	32.8
Sirius	258	27.2	S 16	44.2	Etamin	90	42.5	N 51	29.4
Adhara	255	06.9	S 28	59.9	Kaus Australis	83	33.8	S 34	22.4
Castor	245	58.7	N 31	50.2	Vega	80	33.9	N 38	48.4
Procyon	244	52.0	N 05	10.4	Nunki	75	48.9	S 26	16.0
Pollux	243	18.6	N 27	58.2	Albireo	67	04.7	N 28	00.7
Avior	234	15.7	S 59	34.8	Altair	62	01.0	N 08	55.8
Suhail	222	47.5	S 43	31.4	Peacock	53	07.0	S 56	39.6
Miaplacidus	221	39.2	S 69	48.7	Deneb	49	26.2	N 45	22.0
Alphard	217	49.2	S 08	45.5	Enif	33	39.6	N 09	59.1
Regulus	207	35.8	N 11	51.3	Alnair	27	33.9	S 46	50.7
Dubhe	193	42.9	N 61	37.5	Formalhaut	15	15.5	S 29	29.7
Denebola	182	26.2	N 14	26.6	Markab	13	30.7	N 15	20.0

2023 - First Point of Aries / Selected Stars

UT	day 251 of 365 September 8		day 252 of 365 September 9		day 253 of 365 September 10		day 254 of 365 September 11		day 255 of 365 September 12		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	346 48.1	+02.4	347 47.2	+02.5	348 46.4	+02.4	349 45.5	+02.5	350 44.6	+02.5	00
01	1 50.5	+02.5	2 49.7	+02.5	3 48.8	+02.5	4 48.0	+02.4	5 47.1	+02.5	01
02	16 53.0	+02.5	17 52.2	+02.4	18 51.3	+02.5	19 50.4	+02.5	20 49.6	+02.4	02
03	31 55.5	+02.4	32 54.6	+02.5	33 53.8	+02.4	34 52.9	+02.5	35 52.0	+02.5	03
04	46 57.9	+02.5	47 57.1	+02.4	48 56.2	+02.5	49 55.4	+02.4	50 54.5	+02.5	04
05	62 00.4	+02.5	62 59.5	+02.5	63 58.7	+02.4	64 57.8	+02.5	65 57.0	+02.4	05
06	77 02.9	+02.4	78 02.0	+02.5	79 01.1	+02.5	80 00.3	+02.5	80 59.4	+02.5	06
07	92 05.3	+02.5	93 04.5	+02.4	94 03.6	+02.5	95 02.8	+02.4	96 01.9	+02.5	07
08	107 07.8	+02.5	108 06.9	+02.5	109 06.1	+02.4	110 05.2	+02.5	111 04.4	+02.4	08
09	122 10.3	+02.4	123 09.4	+02.5	124 08.5	+02.5	125 07.7	+02.4	126 06.8	+02.5	09
10	137 12.7	+02.5	138 11.9	+02.4	139 11.0	+02.5	140 10.1	+02.5	141 09.3	+02.4	10
11	152 15.2	+02.5	153 14.3	+02.5	154 13.5	+02.4	155 12.6	+02.5	156 11.7	+02.5	11
12	167 17.7	+02.4	168 16.8	+02.5	169 15.9	+02.5	170 15.1	+02.4	171 14.2	+02.5	12
13	182 20.1	+02.5	183 19.3	+02.4	184 18.4	+02.5	185 17.5	+02.5	186 16.7	+02.4	13
14	197 22.6	+02.4	198 21.7	+02.5	199 20.9	+02.4	200 20.0	+02.5	201 19.1	+02.5	14
15	212 25.0	+02.5	213 24.2	+02.4	214 23.3	+02.5	215 22.5	+02.4	216 21.6	+02.5	15
16	227 27.5	+02.5	228 26.6	+02.5	229 25.8	+02.5	230 24.9	+02.5	231 24.1	+02.4	16
17	242 30.0	+02.4	243 29.1	+02.5	244 28.3	+02.4	245 27.4	+02.5	246 26.5	+02.5	17
18	257 32.4	+02.5	258 31.6	+02.4	259 30.7	+02.5	260 29.9	+02.4	261 29.0	+02.5	18
19	272 34.9	+02.5	273 34.0	+02.5	274 33.2	+02.4	275 32.3	+02.5	276 31.5	+02.4	19
20	287 37.4	+02.4	288 36.5	+02.5	289 35.6	+02.5	290 34.8	+02.4	291 33.9	+02.5	20
21	302 39.8	+02.5	303 39.0	+02.4	304 38.1	+02.5	305 37.2	+02.5	306 36.4	+02.4	21
22	317 42.3	+02.5	318 41.4	+02.5	319 40.6	+02.4	320 39.7	+02.5	321 38.8	+02.5	22
23	332 44.8	+02.4	333 43.9	+02.5	334 43.0	+02.5	335 42.2	+02.4	336 41.3	+02.5	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 35.6	N 29 13.4	Gienah	175 45.0	S 17 40.3
Ankaa	353 07.9	S 42 10.4	Acrux	173 02.0	S 63 13.8
Schedir	349 31.9	N 56 40.0	Gacrux	171 53.5	S 57 14.6
Diphda	348 48.2	S 17 51.3	Alioth	166 14.5	N 55 50.1
Achernar	335 20.6	S 57 06.8	Spica	158 23.7	S 11 17.0
Hamal	327 52.3	N 23 34.5	Alkaid	152 53.2	N 49 12.0
Polaris	314 22.8	N 89 21.6	Hadar	148 38.0	S 60 29.3
Acamar	315 12.4	S 40 12.3	Menkent	147 58.9	S 36 28.9
Menkar	314 07.2	N 04 11.1	Arcturus	145 48.7	N 19 04.5
Mirfak	308 29.7	N 49 56.6	Rigel Kentaurus	139 39.5	S 60 56.3
Aldebaran	290 40.9	N 16 33.5	Zubenelgenubi	136 57.4	S 16 08.3
Capella	280 23.6	N 46 01.3	Kocab	137 20.3	N 74 03.7
Rigel	281 05.0	S 08 10.3	Alphecca	126 04.8	N 26 38.4
Bellatrix	278 24.1	N 06 22.4	Antares	112 17.4	S 26 29.1
Elnath	278 03.3	N 28 37.7	Atria	107 12.5	S 69 04.4
Alnilam	275 38.9	S 01 11.0	Sabik	102 04.0	S 15 45.3
Betelgeuze	270 53.4	N 07 24.8	Shaula	96 11.8	S 37 07.3
Canopus	263 53.1	S 52 42.1	Rasalhague	95 59.6	N 12 32.8
Sirius	258 27.2	S 16 44.2	Etamin	90 42.6	N 51 29.4
Adhara	255 06.9	S 28 59.9	Kaus Australis	83 33.8	S 34 22.4
Castor	245 58.6	N 31 50.2	Vega	80 33.9	N 38 48.4
Procyon	244 52.0	N 05 10.4	Nunki	75 49.0	S 26 16.0
Pollux	243 18.5	N 27 58.2	Albireo	67 04.7	N 28 00.7
Avior	234 15.7	S 59 34.8	Altair	62 01.0	N 08 55.8
Suhail	222 47.5	S 43 31.4	Peacock	53 07.0	S 56 39.6
Miaplacidus	221 39.2	S 69 48.6	Deneb	49 26.2	N 45 22.0
Alphard	217 49.1	S 08 45.5	Enif	33 39.6	N 09 59.1
Regulus	207 35.8	N 11 51.3	Alnair	27 33.9	S 46 50.7
Dubhe	193 42.9	N 61 37.5	Formalhaut	15 15.5	S 29 29.7
Denebola	182 26.2	N 14 26.6	Markab	13 30.7	N 15 20.0

2023 - First Point of Aries / Selected Stars

UT	day 256 of 365 September 13			day 257 of 365 September 14			day 258 of 365 September 15			day 259 of 365 September 16			day 260 of 365 September 17			UT
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		
	° ' "	' "	' "	° ' "	' "	' "	° ' "	' "	' "	° ' "	' "	' "	° ' "	' "	' "	
00	351	43.8	+02.4	352	42.9	+02.5	353	42.1	+02.4	354	41.2	+02.5	355	40.3	+02.5	00
01	6	46.2	+02.5	7	45.4	+02.4	8	44.5	+02.5	9	43.7	+02.4	10	42.8	+02.5	01
02	21	48.7	+02.5	22	47.8	+02.5	23	47.0	+02.4	24	46.1	+02.5	25	45.3	+02.4	02
03	36	51.2	+02.4	37	50.3	+02.5	38	49.4	+02.5	39	48.6	+02.4	40	47.7	+02.5	03
04	51	53.6	+02.5	52	52.8	+02.4	53	51.9	+02.5	54	51.0	+02.5	55	50.2	+02.4	04
05	66	56.1	+02.5	67	55.2	+02.5	68	54.4	+02.4	69	53.5	+02.5	70	52.6	+02.5	05
06	81	58.6	+02.4	82	57.7	+02.5	83	56.8	+02.5	84	56.0	+02.4	85	55.1	+02.5	06
07	97	01.0	+02.5	98	00.2	+02.4	98	59.3	+02.5	99	58.4	+02.5	100	57.6	+02.4	07
08	112	03.5	+02.5	113	02.6	+02.5	114	01.8	+02.4	115	00.9	+02.5	116	00.0	+02.5	08
09	127	06.0	+02.4	128	05.1	+02.5	129	04.2	+02.5	130	03.4	+02.4	131	02.5	+02.5	09
10	142	08.4	+02.5	143	07.6	+02.4	144	06.7	+02.5	145	05.8	+02.5	146	05.0	+02.4	10
11	157	10.9	+02.4	158	10.0	+02.5	159	09.2	+02.4	160	08.3	+02.5	161	07.4	+02.5	11
12	172	13.3	+02.5	173	12.5	+02.4	174	11.6	+02.5	175	10.8	+02.4	176	09.9	+02.5	12
13	187	15.8	+02.5	188	14.9	+02.5	189	14.1	+02.4	190	13.2	+02.5	191	12.4	+02.4	13
14	202	18.3	+02.4	203	17.4	+02.5	204	16.5	+02.5	205	15.7	+02.4	206	14.8	+02.5	14
15	217	20.7	+02.5	218	19.9	+02.4	219	19.0	+02.5	220	18.1	+02.5	221	17.3	+02.4	15
16	232	23.2	+02.5	233	22.3	+02.5	234	21.5	+02.4	235	20.6	+02.5	236	19.7	+02.5	16
17	247	25.7	+02.4	248	24.8	+02.5	249	23.9	+02.5	250	23.1	+02.4	251	22.2	+02.5	17
18	262	28.1	+02.5	263	27.3	+02.4	264	26.4	+02.5	265	25.5	+02.5	266	24.7	+02.4	18
19	277	30.6	+02.5	278	29.7	+02.5	279	28.9	+02.4	280	28.0	+02.5	281	27.1	+02.5	19
20	292	33.1	+02.4	293	32.2	+02.5	294	31.3	+02.5	295	30.5	+02.4	296	29.6	+02.5	20
21	307	35.5	+02.5	308	34.7	+02.4	309	33.8	+02.5	310	32.9	+02.5	311	32.1	+02.4	21
22	322	38.0	+02.5	323	37.1	+02.5	324	36.3	+02.4	325	35.4	+02.5	326	34.5	+02.5	22
23	337	40.5	+02.4	338	39.6	+02.5	339	38.7	+02.5	340	37.9	+02.4	341	37.0	+02.5	23

	SHA	Dec		SHA	Dec
	° ' "	° ' "		° ' "	° ' "
Alpheratz	357 35.6	N 29 13.4	Gienah	175 45.0	S 17 40.3
Ankaa	353 07.9	S 42 10.4	Acrux	173 02.0	S 63 13.8
Schedir	349 31.8	N 56 40.0	Gacrux	171 53.5	S 57 14.6
Diphda	348 48.2	S 17 51.3	Alioth	166 14.5	N 55 50.1
Achernar	335 20.6	S 57 06.8	Spica	158 23.7	S 11 17.0
Hamal	327 52.3	N 23 34.5	Alkaid	152 53.2	N 49 12.0
Polaris	314 20.6	N 89 21.6	Hadar	148 38.1	S 60 29.3
Acamar	315 12.3	S 40 12.3	Menkent	147 58.9	S 36 28.9
Menkar	314 07.1	N 04 11.1	Arcturus	145 48.8	N 19 04.5
Mirfak	308 29.6	N 49 56.6	Rigel Kentaurus	139 39.5	S 60 56.3
Aldebaran	290 40.8	N 16 33.5	Zubenelgenubi	136 57.4	S 16 08.3
Capella	280 23.6	N 46 01.3	Kocab	137 20.4	N 74 03.7
Rigel	281 04.9	S 08 10.2	Alphecca	126 04.9	N 26 38.4
Bellatrix	278 24.1	N 06 22.4	Antares	112 17.4	S 26 29.1
Elnath	278 03.3	N 28 37.7	Atria	107 12.5	S 69 04.4
Alnilam	275 38.9	S 01 11.0	Sabik	102 04.1	S 15 45.3
Betelgeuze	270 53.3	N 07 24.8	Shaula	96 11.8	S 37 07.3
Canopus	263 53.0	S 52 42.1	Rasalhague	95 59.6	N 12 32.8
Sirius	258 27.1	S 16 44.2	Etamin	90 42.6	N 51 29.4
Adhara	255 06.9	S 28 59.9	Kaus Australis	83 33.8	S 34 22.4
Castor	245 58.6	N 31 50.2	Vega	80 33.9	N 38 48.4
Procyon	244 51.9	N 05 10.4	Nunki	75 49.0	S 26 16.0
Pollux	243 18.5	N 27 58.2	Albireo	67 04.8	N 28 00.7
Avior	234 15.6	S 59 34.8	Altair	62 01.0	N 08 55.8
Suhail	222 47.5	S 43 31.4	Peacock	53 07.0	S 56 39.6
Miaplacidus	221 39.2	S 69 48.6	Deneb	49 26.2	N 45 22.0
Alphard	217 49.1	S 08 45.5	Enif	33 39.6	N 09 59.1
Regulus	207 35.8	N 11 51.2	Alnair	27 33.9	S 46 50.7
Dubhe	193 42.9	N 61 37.5	Formalhaut	15 15.5	S 29 29.7
Denebola	182 26.2	N 14 26.6	Markab	13 30.7	N 15 20.1

2023 - First Point of Aries / Selected Stars

UT	day 261 of 365 September 18			day 262 of 365 September 19			day 263 of 365 September 20			day 264 of 365 September 21			day 265 of 365 September 22			UT
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		
	° ' "	' "	"	° ' "	' "	"	° ' "	' "	"	° ' "	' "	"	° ' "	' "	"	
00	356	39.5	+02.4	357	38.6	+02.5	358	37.7	+02.5	359	36.9	+02.4	0	36.0	+02.5	00
01	11	41.9	+02.5	12	41.1	+02.4	13	40.2	+02.5	14	39.3	+02.5	15	38.5	+02.4	01
02	26	44.4	+02.5	27	43.5	+02.5	28	42.7	+02.4	29	41.8	+02.5	30	40.9	+02.5	02
03	41	46.9	+02.4	42	46.0	+02.5	43	45.1	+02.5	44	44.3	+02.4	45	43.4	+02.5	03
04	56	49.3	+02.5	57	48.5	+02.4	58	47.6	+02.5	59	46.7	+02.5	60	45.9	+02.4	04
05	71	51.8	+02.4	72	50.9	+02.5	73	50.1	+02.4	74	49.2	+02.5	75	48.3	+02.5	05
06	86	54.2	+02.5	87	53.4	+02.4	88	52.5	+02.5	89	51.7	+02.4	90	50.8	+02.5	06
07	101	56.7	+02.5	102	55.8	+02.5	103	55.0	+02.5	104	54.1	+02.5	105	53.3	+02.4	07
08	116	59.2	+02.4	117	58.3	+02.5	118	57.5	+02.4	119	56.6	+02.5	120	55.7	+02.5	08
09	132	01.6	+02.5	133	00.8	+02.4	133	59.9	+02.5	134	59.1	+02.4	135	58.2	+02.5	09
10	147	04.1	+02.5	148	03.2	+02.5	149	02.4	+02.4	150	01.5	+02.5	151	00.7	+02.4	10
11	162	06.6	+02.4	163	05.7	+02.5	164	04.8	+02.5	165	04.0	+02.4	166	03.1	+02.5	11
12	177	09.0	+02.5	178	08.2	+02.4	179	07.3	+02.5	180	06.4	+02.5	181	05.6	+02.5	12
13	192	11.5	+02.5	193	10.6	+02.5	194	09.8	+02.4	195	08.9	+02.5	196	08.1	+02.4	13
14	207	14.0	+02.4	208	13.1	+02.5	209	12.2	+02.5	210	11.4	+02.4	211	10.5	+02.5	14
15	222	16.4	+02.5	223	15.6	+02.4	224	14.7	+02.5	225	13.8	+02.5	226	13.0	+02.4	15
16	237	18.9	+02.5	238	18.0	+02.5	239	17.2	+02.4	240	16.3	+02.5	241	15.4	+02.5	16
17	252	21.4	+02.4	253	20.5	+02.5	254	19.6	+02.5	255	18.8	+02.4	256	17.9	+02.5	17
18	267	23.8	+02.5	268	23.0	+02.4	269	22.1	+02.5	270	21.2	+02.5	271	20.4	+02.4	18
19	282	26.3	+02.4	283	25.4	+02.5	284	24.6	+02.4	285	23.7	+02.5	286	22.8	+02.5	19
20	297	28.7	+02.5	298	27.9	+02.4	299	27.0	+02.5	300	26.2	+02.4	301	25.3	+02.5	20
21	312	31.2	+02.5	313	30.3	+02.5	314	29.5	+02.4	315	28.6	+02.5	316	27.8	+02.4	21
22	327	33.7	+02.4	328	32.8	+02.5	329	31.9	+02.5	330	31.1	+02.5	331	30.2	+02.5	22
23	342	36.1	+02.5	343	35.3	+02.4	344	34.4	+02.5	345	33.6	+02.4	346	32.7	+02.5	23

	SHA		Dec			SHA		Dec	
	° ' "	' "	° ' "	' "		° ' "	' "	° ' "	' "
Alpheratz	357	35.6	N 29	13.4	Gienah	175	45.0	S 17	40.3
Ankaa	353	07.9	S 42	10.4	Acrux	173	02.0	S 63	13.8
Schedir	349	31.8	N 56	40.0	Gacrux	171	53.5	S 57	14.6
Diphda	348	48.2	S 17	51.3	Alioth	166	14.5	N 55	50.1
Achernar	335	20.5	S 57	06.8	Spica	158	23.7	S 11	17.0
Hamal	327	52.2	N 23	34.5	Alkaid	152	53.2	N 49	11.9
Polaris	314	18.5	N 89	21.6	Hadar	148	38.1	S 60	29.3
Acamar	315	12.3	S 40	12.3	Menkent	147	58.9	S 36	28.9
Menkar	314	07.1	N 04	11.1	Arcturus	145	48.8	N 19	04.5
Mirfak	308	29.6	N 49	56.6	Rigel Kentaurus	139	39.6	S 60	56.3
Aldebaran	290	40.8	N 16	33.5	Zubenelgenubi	136	57.4	S 16	08.3
Capella	280	23.5	N 46	01.3	Kocab	137	20.4	N 74	03.7
Rigel	281	04.9	S 08	10.2	Alphecca	126	04.9	N 26	38.4
Bellatrix	278	24.0	N 06	22.4	Antares	112	17.4	S 26	29.1
Elnath	278	03.3	N 28	37.7	Atria	107	12.6	S 69	04.4
Alnilam	275	38.8	S 01	11.0	Sabik	102	04.1	S 15	45.3
Betelgeuze	270	53.3	N 07	24.8	Shaula	96	11.9	S 37	07.3
Canopus	263	53.0	S 52	42.1	Rasalhague	95	59.6	N 12	32.8
Sirius	258	27.1	S 16	44.2	Etamin	90	42.6	N 51	29.4
Adhara	255	06.8	S 28	59.9	Kaus Australis	83	33.9	S 34	22.4
Castor	245	58.6	N 31	50.2	Vega	80	34.0	N 38	48.4
Procyon	244	51.9	N 05	10.4	Nunki	75	49.0	S 26	16.1
Pollux	243	18.5	N 27	58.2	Albireo	67	04.8	N 28	00.7
Avior	234	15.6	S 59	34.8	Altair	62	01.0	N 08	55.8
Suhail	222	47.5	S 43	31.4	Peacock	53	07.1	S 56	39.6
Miaplacidus	221	39.1	S 69	48.6	Deneb	49	26.3	N 45	22.1
Alphard	217	49.1	S 08	45.5	Enif	33	39.6	N 09	59.1
Regulus	207	35.8	N 11	51.2	Alnair	27	33.9	S 46	50.8
Dubhe	193	42.8	N 61	37.5	Formalhaut	15	15.5	S 29	29.7
Denebola	182	26.2	N 14	26.6	Markab	13	30.7	N 15	20.1

2023 - First Point of Aries / Selected Stars

UT	day 266 of 365		day 267 of 365		day 268 of 365		day 269 of 365		day 270 of 365		UT
	September 23		September 24		September 25		September 26		September 27		
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	
00	1	35.2 +02.4	2	34.3 +02.5	3	33.4 +02.5	4	32.6 +02.4	5	31.7 +02.5	00
01	16	37.6 +02.5	17	36.8 +02.4	18	35.9 +02.5	19	35.0 +02.5	20	34.2 +02.4	01
02	31	40.1 +02.4	32	39.2 +02.5	33	38.4 +02.4	34	37.5 +02.5	35	36.6 +02.5	02
03	46	42.5 +02.5	47	41.7 +02.5	48	40.8 +02.5	49	40.0 +02.4	50	39.1 +02.5	03
04	61	45.0 +02.5	62	44.2 +02.4	63	43.3 +02.5	64	42.4 +02.5	65	41.6 +02.4	04
05	76	47.5 +02.4	77	46.6 +02.5	78	45.8 +02.4	79	44.9 +02.5	80	44.0 +02.5	05
06	91	49.9 +02.5	92	49.1 +02.4	93	48.2 +02.5	94	47.4 +02.4	95	46.5 +02.5	06
07	106	52.4 +02.5	107	51.5 +02.5	108	50.7 +02.5	109	49.8 +02.5	110	49.0 +02.4	07
08	121	54.9 +02.4	122	54.0 +02.5	123	53.2 +02.4	124	52.3 +02.5	125	51.4 +02.5	08
09	136	57.3 +02.5	137	56.5 +02.4	138	55.6 +02.5	139	54.8 +02.4	140	53.9 +02.5	09
10	151	59.8 +02.5	152	58.9 +02.5	153	58.1 +02.4	154	57.2 +02.5	155	56.4 +02.4	10
11	167	02.3 +02.4	168	01.4 +02.5	169	00.5 +02.5	169	59.7 +02.4	170	58.8 +02.5	11
12	182	04.7 +02.5	183	03.9 +02.4	184	03.0 +02.5	185	02.1 +02.5	186	01.3 +02.4	12
13	197	07.2 +02.5	198	06.3 +02.5	199	05.5 +02.4	200	04.6 +02.5	201	03.7 +02.5	13
14	212	09.7 +02.4	213	08.8 +02.5	214	07.9 +02.5	215	07.1 +02.4	216	06.2 +02.5	14
15	227	12.1 +02.5	228	11.3 +02.4	229	10.4 +02.5	230	09.5 +02.5	231	08.7 +02.4	15
16	242	14.6 +02.4	243	13.7 +02.5	244	12.9 +02.4	245	12.0 +02.5	246	11.1 +02.5	16
17	257	17.0 +02.5	258	16.2 +02.5	259	15.3 +02.5	260	14.5 +02.4	261	13.6 +02.5	17
18	272	19.5 +02.5	273	18.7 +02.4	274	17.8 +02.5	275	16.9 +02.5	276	16.1 +02.4	18
19	287	22.0 +02.4	288	21.1 +02.5	289	20.3 +02.4	290	19.4 +02.5	291	18.5 +02.5	19
20	302	24.4 +02.5	303	23.6 +02.4	304	22.7 +02.5	305	21.9 +02.4	306	21.0 +02.5	20
21	317	26.9 +02.5	318	26.0 +02.5	319	25.2 +02.4	320	24.3 +02.5	321	23.5 +02.4	21
22	332	29.4 +02.4	333	28.5 +02.5	334	27.6 +02.5	335	26.8 +02.5	336	25.9 +02.5	22
23	347	31.8 +02.5	348	31.0 +02.4	349	30.1 +02.5	350	29.3 +02.4	351	28.4 +02.5	23

	SHA	Dec		SHA	Dec
	° ' "	° ' "		° ' "	° ' "
Alpheratz	357 35.6	N 29 13.4	Gienah	175 45.0	S 17 40.3
Ankaa	353 07.9	S 42 10.4	Acrux	173 02.0	S 63 13.8
Schedir	349 31.8	N 56 40.0	Gacrux	171 53.5	S 57 14.6
Diphda	348 48.1	S 17 51.3	Alioth	166 14.5	N 55 50.0
Achernar	335 20.5	S 57 06.8	Spica	158 23.7	S 11 17.0
Hamal	327 52.2	N 23 34.6	Alkaid	152 53.2	N 49 11.9
Polaris	314 16.1	N 89 21.6	Hadar	148 38.1	S 60 29.3
Acamar	315 12.3	S 40 12.3	Menkent	147 58.9	S 36 28.9
Menkar	314 07.1	N 04 11.1	Arcturus	145 48.8	N 19 04.5
Mirfak	308 29.5	N 49 56.6	Rigel Kentaurus	139 39.6	S 60 56.3
Aldebaran	290 40.8	N 16 33.5	Zubenelgenubi	136 57.4	S 16 08.3
Capella	280 23.5	N 46 01.3	Kocab	137 20.5	N 74 03.7
Rigel	281 04.9	S 08 10.2	Alphecca	126 04.9	N 26 38.3
Bellatrix	278 24.0	N 06 22.4	Antares	112 17.4	S 26 29.1
Elnath	278 03.2	N 28 37.7	Atria	107 12.7	S 69 04.4
Alnilam	275 38.8	S 01 11.0	Sabik	102 04.1	S 15 45.3
Betelgeuze	270 53.3	N 07 24.8	Shaula	96 11.9	S 37 07.3
Canopus	263 52.9	S 52 42.1	Rasalhague	95 59.6	N 12 32.8
Sirius	258 27.1	S 16 44.2	Etamin	90 42.7	N 51 29.4
Adhara	255 06.8	S 28 59.9	Kaus Australis	83 33.9	S 34 22.4
Castor	245 58.5	N 31 50.2	Vega	80 34.0	N 38 48.5
Procyon	244 51.9	N 05 10.4	Nunki	75 49.0	S 26 16.1
Pollux	243 18.4	N 27 58.2	Albireo	67 04.8	N 28 00.8
Avior	234 15.6	S 59 34.8	Altair	62 01.1	N 08 55.8
Suhail	222 47.4	S 43 31.4	Peacock	53 07.1	S 56 39.7
Miaplacidus	221 39.0	S 69 48.6	Deneb	49 26.3	N 45 22.1
Alphard	217 49.1	S 08 45.5	Enif	33 39.6	N 09 59.1
Regulus	207 35.8	N 11 51.2	Alnair	27 33.9	S 46 50.8
Dubhe	193 42.8	N 61 37.4	Formalhaut	15 15.5	S 29 29.7
Denebola	182 26.2	N 14 26.6	Markab	13 30.7	N 15 20.1

2023 - First Point of Aries / Selected Stars

UT	day 271 of 365 September 28		day 272 of 365 September 29		day 273 of 365 September 30		day 274 of 365 October 1		day 275 of 365 October 2		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
00	6	30.9 +02.4	7	30.0 +02.5	8	29.1 +02.5	9	28.3 +02.4	10	27.4 +02.5	00
01	21	33.3 +02.5	22	32.5 +02.4	23	31.6 +02.5	24	30.7 +02.5	25	29.9 +02.4	01
02	36	35.8 +02.4	37	34.9 +02.5	38	34.1 +02.4	39	33.2 +02.5	40	32.3 +02.5	02
03	51	38.2 +02.5	52	37.4 +02.4	53	36.5 +02.5	54	35.7 +02.4	55	34.8 +02.5	03
04	66	40.7 +02.5	67	39.8 +02.5	68	39.0 +02.4	69	38.1 +02.5	70	37.3 +02.4	04
05	81	43.2 +02.4	82	42.3 +02.5	83	41.4 +02.5	84	40.6 +02.4	85	39.7 +02.5	05
06	96	45.6 +02.5	97	44.8 +02.4	98	43.9 +02.5	99	43.0 +02.5	100	42.2 +02.4	06
07	111	48.1 +02.5	112	47.2 +02.5	113	46.4 +02.4	114	45.5 +02.5	115	44.6 +02.5	07
08	126	50.6 +02.4	127	49.7 +02.5	128	48.8 +02.5	129	48.0 +02.4	130	47.1 +02.5	08
09	141	53.0 +02.5	142	52.2 +02.4	143	51.3 +02.5	144	50.4 +02.5	145	49.6 +02.4	09
10	156	55.5 +02.5	157	54.6 +02.5	158	53.8 +02.4	159	52.9 +02.5	160	52.0 +02.5	10
11	171	58.0 +02.4	172	57.1 +02.5	173	56.2 +02.5	174	55.4 +02.4	175	54.5 +02.5	11
12	187	00.4 +02.5	187	59.6 +02.4	188	58.7 +02.5	189	57.8 +02.5	190	57.0 +02.4	12
13	202	02.9 +02.4	203	02.0 +02.5	204	01.2 +02.4	205	00.3 +02.5	205	59.4 +02.5	13
14	217	05.3 +02.5	218	04.5 +02.4	219	03.6 +02.5	220	02.8 +02.4	221	01.9 +02.5	14
15	232	07.8 +02.5	233	06.9 +02.5	234	06.1 +02.5	235	05.2 +02.5	236	04.4 +02.4	15
16	247	10.3 +02.4	248	09.4 +02.5	249	08.6 +02.4	250	07.7 +02.5	251	06.8 +02.5	16
17	262	12.7 +02.5	263	11.9 +02.4	264	11.0 +02.5	265	10.2 +02.4	266	09.3 +02.5	17
18	277	15.2 +02.5	278	14.3 +02.5	279	13.5 +02.4	280	12.6 +02.5	281	11.8 +02.4	18
19	292	17.7 +02.4	293	16.8 +02.5	294	15.9 +02.5	295	15.1 +02.4	296	14.2 +02.5	19
20	307	20.1 +02.5	308	19.3 +02.4	309	18.4 +02.5	310	17.5 +02.5	311	16.7 +02.4	20
21	322	22.6 +02.5	323	21.7 +02.5	324	20.9 +02.4	325	20.0 +02.5	326	19.1 +02.5	21
22	337	25.1 +02.4	338	24.2 +02.5	339	23.3 +02.5	340	22.5 +02.4	341	21.6 +02.5	22
23	352	27.5 +02.5	353	26.7 +02.4	354	25.8 +02.5	355	24.9 +02.5	356	24.1 +02.4	23

	SHA	Dec		SHA	Dec
	° ,	° ,		° ,	° ,
Alpheratz	357 35.6	N 29 13.4	Gienah	175 45.0	S 17 40.3
Ankaa	353 07.9	S 42 10.4	Acrux	173 02.0	S 63 13.7
Schedir	349 31.8	N 56 40.1	Gacrux	171 53.5	S 57 14.6
Diphda	348 48.1	S 17 51.3	Alioth	166 14.5	N 55 50.0
Achernar	335 20.5	S 57 06.8	Spica	158 23.7	S 11 17.0
Hamal	327 52.2	N 23 34.6	Alkaid	152 53.2	N 49 11.9
Polaris	314 14.2	N 89 21.6	Hadar	148 38.1	S 60 29.3
Acamar	315 12.2	S 40 12.3	Menkent	147 58.9	S 36 28.9
Menkar	314 07.0	N 04 11.1	Arcturus	145 48.8	N 19 04.5
Mirfak	308 29.5	N 49 56.6	Rigel Kentaurus	139 39.6	S 60 56.2
Aldebaran	290 40.7	N 16 33.6	Zubenelgenubi	136 57.4	S 16 08.3
Capella	280 23.4	N 46 01.4	Kocab	137 20.6	N 74 03.7
Rigel	281 04.8	S 08 10.2	Alphecca	126 04.9	N 26 38.3
Bellatrix	278 23.9	N 06 22.4	Antares	112 17.4	S 26 29.1
Elnath	278 03.2	N 28 37.7	Atria	107 12.7	S 69 04.4
Alnilam	275 38.8	S 01 11.0	Sabik	102 04.1	S 15 45.3
Betelgeuze	270 53.2	N 07 24.8	Shaula	96 11.9	S 37 07.3
Canopus	263 52.9	S 52 42.1	Rasalhague	95 59.6	N 12 32.8
Sirius	258 27.0	S 16 44.2	Etamin	90 42.7	N 51 29.4
Adhara	255 06.8	S 28 59.9	Kaus Australis	83 33.9	S 34 22.4
Castor	245 58.5	N 31 50.2	Vega	80 34.0	N 38 48.5
Procyon	244 51.8	N 05 10.4	Nunki	75 49.0	S 26 16.1
Pollux	243 18.4	N 27 58.2	Albireo	67 04.8	N 28 00.8
Avior	234 15.5	S 59 34.8	Altair	62 01.1	N 08 55.8
Suhail	222 47.4	S 43 31.4	Peacock	53 07.1	S 56 39.7
Miaplacidus	221 39.0	S 69 48.6	Deneb	49 26.3	N 45 22.1
Alphard	217 49.0	S 08 45.5	Enif	33 39.6	N 09 59.1
Regulus	207 35.7	N 11 51.2	Alnair	27 33.9	S 46 50.8
Dubhe	193 42.8	N 61 37.4	Formalhaut	15 15.5	S 29 29.7
Denebola	182 26.2	N 14 26.6	Markab	13 30.7	N 15 20.1

2023 - First Point of Aries / Selected Stars

UT	day 276 of 365		day 277 of 365		day 278 of 365		day 279 of 365		day 280 of 365		UT					
	October 3		October 4		October 5		October 6		October 7							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	11	26.5	+02.5	12	25.7	+02.4	13	24.8	+02.5	14	24.0	+02.4	15	23.1	+02.5	00
01	26	29.0	+02.5	27	28.1	+02.5	28	27.3	+02.4	29	26.4	+02.5	30	25.6	+02.4	01
02	41	31.5	+02.4	42	30.6	+02.5	43	29.7	+02.5	44	28.9	+02.5	45	28.0	+02.5	02
03	56	33.9	+02.5	57	33.1	+02.4	58	32.2	+02.5	59	31.4	+02.4	60	30.5	+02.5	03
04	71	36.4	+02.5	72	35.5	+02.5	73	34.7	+02.4	74	33.8	+02.5	75	33.0	+02.4	04
05	86	38.9	+02.4	87	38.0	+02.5	88	37.1	+02.5	89	36.3	+02.4	90	35.4	+02.5	05
06	101	41.3	+02.5	102	40.5	+02.4	103	39.6	+02.5	104	38.7	+02.5	105	37.9	+02.4	06
07	116	43.8	+02.5	117	42.9	+02.5	118	42.1	+02.4	119	41.2	+02.5	120	40.3	+02.5	07
08	131	46.3	+02.4	132	45.4	+02.5	133	44.5	+02.5	134	43.7	+02.4	135	42.8	+02.5	08
09	146	48.7	+02.5	147	47.9	+02.4	148	47.0	+02.5	149	46.1	+02.5	150	45.3	+02.4	09
10	161	51.2	+02.4	162	50.3	+02.5	163	49.5	+02.4	164	48.6	+02.5	165	47.7	+02.5	10
11	176	53.6	+02.5	177	52.8	+02.4	178	51.9	+02.5	179	51.1	+02.4	180	50.2	+02.5	11
12	191	56.1	+02.5	192	55.2	+02.5	193	54.4	+02.5	194	53.5	+02.5	195	52.7	+02.4	12
13	206	58.6	+02.4	207	57.7	+02.5	208	56.9	+02.4	209	56.0	+02.5	210	55.1	+02.5	13
14	222	01.0	+02.5	223	00.2	+02.4	223	59.3	+02.5	224	58.5	+02.4	225	57.6	+02.5	14
15	237	03.5	+02.5	238	02.6	+02.5	239	01.8	+02.4	240	00.9	+02.5	241	00.1	+02.4	15
16	252	06.0	+02.4	253	05.1	+02.5	254	04.2	+02.5	255	03.4	+02.4	256	02.5	+02.5	16
17	267	08.4	+02.5	268	07.6	+02.4	269	06.7	+02.5	270	05.8	+02.5	271	05.0	+02.5	17
18	282	10.9	+02.5	283	10.0	+02.5	284	09.2	+02.4	285	08.3	+02.5	286	07.5	+02.4	18
19	297	13.4	+02.4	298	12.5	+02.5	299	11.6	+02.5	300	10.8	+02.4	301	09.9	+02.5	19
20	312	15.8	+02.5	313	15.0	+02.4	314	14.1	+02.5	315	13.2	+02.5	316	12.4	+02.4	20
21	327	18.3	+02.5	328	17.4	+02.5	329	16.6	+02.4	330	15.7	+02.5	331	14.8	+02.5	21
22	342	20.8	+02.4	343	19.9	+02.5	344	19.0	+02.5	345	18.2	+02.4	346	17.3	+02.5	22
23	357	23.2	+02.5	358	22.4	+02.4	359	21.5	+02.5	0	20.6	+02.5	1	19.8	+02.4	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.6	N 29	13.4	Gienah	175	45.0	S 17	40.2
Ankaa	353	07.9	S 42	10.4	Acrux	173	02.0	S 63	13.7
Schedir	349	31.8	N 56	40.1	Gacrux	171	53.5	S 57	14.5
Diphda	348	48.1	S 17	51.3	Alioth	166	14.5	N 55	50.0
Achernar	335	20.5	S 57	06.8	Spica	158	23.7	S 11	16.9
Hamal	327	52.2	N 23	34.6	Alkaid	152	53.2	N 49	11.9
Polaris	314	12.3	N 89	21.7	Hadar	148	38.1	S 60	29.2
Acamar	315	12.2	S 40	12.4	Menkent	147	59.0	S 36	28.9
Menkar	314	07.0	N 04	11.1	Arcturus	145	48.8	N 19	04.5
Mirfak	308	29.4	N 49	56.6	Rigel Kentaurus	139	39.6	S 60	56.2
Aldebaran	290	40.7	N 16	33.6	Zubenelgenubi	136	57.4	S 16	08.3
Capella	280	23.4	N 46	01.4	Kocab	137	20.7	N 74	03.6
Rigel	281	04.8	S 08	10.2	Alphecca	126	04.9	N 26	38.3
Bellatrix	278	23.9	N 06	22.4	Antares	112	17.5	S 26	29.1
Elnath	278	03.1	N 28	37.7	Atria	107	12.8	S 69	04.4
Alnilam	275	38.7	S 01	11.0	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	53.2	N 07	24.8	Shaula	96	11.9	S 37	07.3
Canopus	263	52.8	S 52	42.1	Rasalhague	95	59.7	N 12	32.8
Sirius	258	27.0	S 16	44.2	Etamin	90	42.8	N 51	29.4
Adhara	255	06.7	S 28	59.9	Kaus Australis	83	33.9	S 34	22.4
Castor	245	58.4	N 31	50.2	Vega	80	34.1	N 38	48.5
Procyon	244	51.8	N 05	10.4	Nunki	75	49.1	S 26	16.1
Pollux	243	18.4	N 27	58.2	Albireo	67	04.9	N 28	00.8
Avior	234	15.5	S 59	34.7	Altair	62	01.1	N 08	55.8
Suhail	222	47.4	S 43	31.4	Peacock	53	07.1	S 56	39.7
Miaplacidus	221	38.9	S 69	48.5	Deneb	49	26.3	N 45	22.1
Alphard	217	49.0	S 08	45.5	Enif	33	39.6	N 09	59.1
Regulus	207	35.7	N 11	51.2	Alnair	27	33.9	S 46	50.8
Dubhe	193	42.8	N 61	37.4	Formalhaut	15	15.5	S 29	29.7
Denebola	182	26.2	N 14	26.6	Markab	13	30.7	N 15	20.1

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UT	day 281 of 365		day 282 of 365		day 283 of 365		day 284 of 365		day 285 of 365		UT					
	October 8		October 9		October 10		October 11		October 12							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	16	22.2	+02.5	17	21.4	+02.4	18	20.5	+02.5	19	19.7	+02.4	20	18.8	+02.5	00
01	31	24.7	+02.5	32	23.8	+02.5	33	23.0	+02.4	34	22.1	+02.5	35	21.3	+02.4	01
02	46	27.2	+02.4	47	26.3	+02.5	48	25.4	+02.5	49	24.6	+02.4	50	23.7	+02.5	02
03	61	29.6	+02.5	62	28.8	+02.4	63	27.9	+02.5	64	27.0	+02.5	65	26.2	+02.4	03
04	76	32.1	+02.5	77	31.2	+02.5	78	30.4	+02.4	79	29.5	+02.5	80	28.6	+02.5	04
05	91	34.6	+02.4	92	33.7	+02.5	93	32.8	+02.5	94	32.0	+02.4	95	31.1	+02.5	05
06	106	37.0	+02.5	107	36.2	+02.4	108	35.3	+02.5	109	34.4	+02.5	110	33.6	+02.4	06
07	121	39.5	+02.5	122	38.6	+02.5	123	37.8	+02.4	124	36.9	+02.5	125	36.0	+02.5	07
08	136	42.0	+02.4	137	41.1	+02.5	138	40.2	+02.5	139	39.4	+02.4	140	38.5	+02.5	08
09	151	44.4	+02.5	152	43.6	+02.4	153	42.7	+02.5	154	41.8	+02.5	155	41.0	+02.4	09
10	166	46.9	+02.4	167	46.0	+02.5	168	45.2	+02.4	169	44.3	+02.5	170	43.4	+02.5	10
11	181	49.3	+02.5	182	48.5	+02.4	183	47.6	+02.5	184	46.8	+02.4	185	45.9	+02.5	11
12	196	51.8	+02.5	197	50.9	+02.5	198	50.1	+02.4	199	49.2	+02.5	200	48.4	+02.4	12
13	211	54.3	+02.4	212	53.4	+02.5	213	52.5	+02.5	214	51.7	+02.4	215	50.8	+02.5	13
14	226	56.7	+02.5	227	55.9	+02.4	228	55.0	+02.5	229	54.1	+02.5	230	53.3	+02.4	14
15	241	59.2	+02.5	242	58.3	+02.5	243	57.5	+02.4	244	56.6	+02.5	245	55.7	+02.5	15
16	257	01.7	+02.4	258	00.8	+02.5	258	59.9	+02.5	259	59.1	+02.4	260	58.2	+02.5	16
17	272	04.1	+02.5	273	03.3	+02.4	274	02.4	+02.5	275	01.5	+02.5	276	00.7	+02.4	17
18	287	06.6	+02.5	288	05.7	+02.5	289	04.9	+02.4	290	04.0	+02.5	291	03.1	+02.5	18
19	302	09.1	+02.4	303	08.2	+02.5	304	07.3	+02.5	305	06.5	+02.4	306	05.6	+02.5	19
20	317	11.5	+02.5	318	10.7	+02.4	319	09.8	+02.5	320	08.9	+02.5	321	08.1	+02.4	20
21	332	14.0	+02.4	333	13.1	+02.5	334	12.3	+02.4	335	11.4	+02.5	336	10.5	+02.5	21
22	347	16.4	+02.5	348	15.6	+02.5	349	14.7	+02.5	350	13.9	+02.4	351	13.0	+02.5	22
23	2	18.9	+02.5	3	18.1	+02.4	4	17.2	+02.5	5	16.3	+02.5	6	15.5	+02.4	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.6	N 29	13.5	Gienah	175	45.0	S 17	40.2
Ankaa	353	07.9	S 42	10.5	Acrux	173	02.0	S 63	13.7
Schedir	349	31.7	N 56	40.1	Gacrux	171	53.5	S 57	14.5
Diphda	348	48.1	S 17	51.3	Alioth	166	14.5	N 55	50.0
Achernar	335	20.4	S 57	06.9	Spica	158	23.7	S 11	17.0
Hamal	327	52.1	N 23	34.6	Alkaid	152	53.2	N 49	11.8
Polaris	314	10.3	N 89	21.7	Hadar	148	38.1	S 60	29.2
Acamar	315	12.2	S 40	12.4	Menkent	147	59.0	S 36	28.8
Menkar	314	07.0	N 04	11.1	Arcturus	145	48.8	N 19	04.5
Mirfak	308	29.4	N 49	56.7	Rigel Kentaurus	139	39.6	S 60	56.2
Aldebaran	290	40.7	N 16	33.6	Zubenelgenubi	136	57.4	S 16	08.3
Capella	280	23.3	N 46	01.4	Kocab	137	20.7	N 74	03.6
Rigel	281	04.7	S 08	10.3	Alphecca	126	05.0	N 26	38.3
Bellatrix	278	23.9	N 06	22.4	Antares	112	17.5	S 26	29.1
Elnath	278	03.1	N 28	37.7	Atria	107	12.8	S 69	04.4
Alnilam	275	38.7	S 01	11.0	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	53.1	N 07	24.8	Shaula	96	12.0	S 37	07.3
Canopus	263	52.8	S 52	42.1	Rasalhague	95	59.7	N 12	32.8
Sirius	258	26.9	S 16	44.2	Etamin	90	42.8	N 51	29.4
Adhara	255	06.7	S 28	59.9	Kaus Australis	83	34.0	S 34	22.4
Castor	245	58.4	N 31	50.2	Vega	80	34.1	N 38	48.5
Procyon	244	51.8	N 05	10.4	Nunki	75	49.1	S 26	16.1
Pollux	243	18.3	N 27	58.2	Albireo	67	04.9	N 28	00.8
Avior	234	15.4	S 59	34.7	Altair	62	01.1	N 08	55.8
Suhail	222	47.3	S 43	31.3	Peacock	53	07.2	S 56	39.7
Miaplacidus	221	38.9	S 69	48.5	Deneb	49	26.4	N 45	22.1
Alphard	217	49.0	S 08	45.5	Enif	33	39.6	N 09	59.1
Regulus	207	35.7	N 11	51.2	Alnair	27	33.9	S 46	50.8
Dubhe	193	42.7	N 61	37.3	Formalhaut	15	15.5	S 29	29.7
Denebola	182	26.2	N 14	26.6	Markab	13	30.7	N 15	20.1

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UT	day 286 of 365		day 287 of 365		day 288 of 365		day 289 of 365		day 290 of 365		UT					
	October 13		October 14		October 15		October 16		October 17							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	21	17.9	+02.5	22	17.1	+02.4	23	16.2	+02.5	24	15.3	+02.5	25	14.5	+02.4	00
01	36	20.4	+02.5	37	19.5	+02.5	38	18.7	+02.4	39	17.8	+02.5	40	16.9	+02.5	01
02	51	22.9	+02.4	52	22.0	+02.5	53	21.1	+02.5	54	20.3	+02.4	55	19.4	+02.5	02
03	66	25.3	+02.5	67	24.5	+02.4	68	23.6	+02.5	69	22.7	+02.5	70	21.9	+02.4	03
04	81	27.8	+02.4	82	26.9	+02.5	83	26.1	+02.4	84	25.2	+02.5	85	24.3	+02.5	04
05	96	30.2	+02.5	97	29.4	+02.4	98	28.5	+02.5	99	27.7	+02.4	100	26.8	+02.5	05
06	111	32.7	+02.5	112	31.8	+02.5	113	31.0	+02.4	114	30.1	+02.5	115	29.3	+02.4	06
07	126	35.2	+02.4	127	34.3	+02.5	128	33.4	+02.5	129	32.6	+02.4	130	31.7	+02.5	07
08	141	37.6	+02.5	142	36.8	+02.4	143	35.9	+02.5	144	35.0	+02.5	145	34.2	+02.5	08
09	156	40.1	+02.5	157	39.2	+02.5	158	38.4	+02.4	159	37.5	+02.5	160	36.7	+02.4	09
10	171	42.6	+02.4	172	41.7	+02.5	173	40.8	+02.5	174	40.0	+02.4	175	39.1	+02.5	10
11	186	45.0	+02.5	187	44.2	+02.4	188	43.3	+02.5	189	42.4	+02.5	190	41.6	+02.4	11
12	201	47.5	+02.5	202	46.6	+02.5	203	45.8	+02.4	204	44.9	+02.5	205	44.0	+02.5	12
13	216	50.0	+02.4	217	49.1	+02.5	218	48.2	+02.5	219	47.4	+02.4	220	46.5	+02.5	13
14	231	52.4	+02.5	232	51.6	+02.4	233	50.7	+02.5	234	49.8	+02.5	235	49.0	+02.4	14
15	246	54.9	+02.5	247	54.0	+02.5	248	53.2	+02.4	249	52.3	+02.5	250	51.4	+02.5	15
16	261	57.4	+02.4	262	56.5	+02.5	263	55.6	+02.5	264	54.8	+02.4	265	53.9	+02.5	16
17	276	59.8	+02.5	277	59.0	+02.4	278	58.1	+02.5	279	57.2	+02.5	280	56.4	+02.4	17
18	292	02.3	+02.4	293	01.4	+02.5	294	00.6	+02.4	294	59.7	+02.5	295	58.8	+02.5	18
19	307	04.7	+02.5	308	03.9	+02.4	309	03.0	+02.5	310	02.2	+02.4	311	01.3	+02.5	19
20	322	07.2	+02.5	323	06.3	+02.5	324	05.5	+02.4	325	04.6	+02.5	326	03.8	+02.4	20
21	337	09.7	+02.4	338	08.8	+02.5	339	07.9	+02.5	340	07.1	+02.4	341	06.2	+02.5	21
22	352	12.1	+02.5	353	11.3	+02.4	354	10.4	+02.5	355	09.5	+02.5	356	08.7	+02.5	22
23	7	14.6	+02.5	8	13.7	+02.5	9	12.9	+02.4	10	12.0	+02.5	11	11.2	+02.4	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.6	N 29	13.5	Gienah	175	44.9	S 17	40.2
Ankaa	353	07.9	S 42	10.5	Acrux	173	02.0	S 63	13.7
Schedir	349	31.7	N 56	40.2	Gacrux	171	53.5	S 57	14.5
Diphda	348	48.1	S 17	51.3	Alioth	166	14.5	N 55	49.9
Achernar	335	20.4	S 57	06.9	Spica	158	23.7	S 11	17.0
Hamal	327	52.1	N 23	34.6	Alkaid	152	53.2	N 49	11.8
Polaris	314	09.0	N 89	21.7	Hadar	148	38.2	S 60	29.2
Acamar	315	12.1	S 40	12.4	Menkent	147	59.0	S 36	28.8
Menkar	314	07.0	N 04	11.1	Arcturus	145	48.8	N 19	04.4
Mirfak	308	29.4	N 49	56.7	Rigel Kentaurus	139	39.6	S 60	56.2
Aldebaran	290	40.6	N 16	33.6	Zubenelgenubi	136	57.4	S 16	08.3
Capella	280	23.2	N 46	01.4	Kocab	137	20.8	N 74	03.6
Rigel	281	04.7	S 08	10.3	Alphecca	126	05.0	N 26	38.3
Bellatrix	278	23.8	N 06	22.4	Antares	112	17.5	S 26	29.1
Elnath	278	03.0	N 28	37.7	Atria	107	12.9	S 69	04.4
Alnilam	275	38.7	S 01	11.0	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	53.1	N 07	24.8	Shaula	96	12.0	S 37	07.3
Canopus	263	52.7	S 52	42.1	Rasalhague	95	59.7	N 12	32.8
Sirius	258	26.9	S 16	44.2	Etamin	90	42.9	N 51	29.4
Adhara	255	06.6	S 28	59.9	Kaus Australis	83	34.0	S 34	22.4
Castor	245	58.3	N 31	50.2	Vega	80	34.1	N 38	48.5
Procyon	244	51.7	N 05	10.4	Nunki	75	49.1	S 26	16.1
Pollux	243	18.3	N 27	58.2	Albireo	67	04.9	N 28	00.8
Avior	234	15.3	S 59	34.7	Altair	62	01.1	N 08	55.8
Suhail	222	47.3	S 43	31.3	Peacock	53	07.2	S 56	39.7
Miaplacidus	221	38.8	S 69	48.5	Deneb	49	26.4	N 45	22.1
Alphard	217	49.0	S 08	45.5	Enif	33	39.7	N 09	59.1
Regulus	207	35.7	N 11	51.2	Alnair	27	34.0	S 46	50.8
Dubhe	193	42.7	N 61	37.3	Formalhaut	15	15.5	S 29	29.8
Denebola	182	26.1	N 14	26.5	Markab	13	30.7	N 15	20.1

2023 - First Point of Aries / Selected Stars

UT	day 291 of 365		day 292 of 365		day 293 of 365		day 294 of 365		day 295 of 365		UT					
	October 18		October 19		October 20		October 21		October 22							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	26	13.6	+02.5	27	12.8	+02.4	28	11.9	+02.5	29	11.0	+02.5	30	10.2	+02.4	00
01	41	16.1	+02.4	42	15.2	+02.5	43	14.4	+02.4	44	13.5	+02.5	45	12.6	+02.5	01
02	56	18.5	+02.5	57	17.7	+02.4	58	16.8	+02.5	59	16.0	+02.4	60	15.1	+02.5	02
03	71	21.0	+02.5	72	20.1	+02.5	73	19.3	+02.5	74	18.4	+02.5	75	17.6	+02.4	03
04	86	23.5	+02.4	87	22.6	+02.5	88	21.8	+02.4	89	20.9	+02.5	90	20.0	+02.5	04
05	101	25.9	+02.5	102	25.1	+02.4	103	24.2	+02.5	104	23.4	+02.4	105	22.5	+02.5	05
06	116	28.4	+02.5	117	27.5	+02.5	118	26.7	+02.4	119	25.8	+02.5	120	25.0	+02.4	06
07	131	30.9	+02.4	132	30.0	+02.5	133	29.1	+02.5	134	28.3	+02.4	135	27.4	+02.5	07
08	146	33.3	+02.5	147	32.5	+02.4	148	31.6	+02.5	149	30.7	+02.5	150	29.9	+02.5	08
09	161	35.8	+02.5	162	34.9	+02.5	163	34.1	+02.4	164	33.2	+02.5	165	32.4	+02.4	09
10	176	38.3	+02.4	177	37.4	+02.5	178	36.5	+02.5	179	35.7	+02.4	180	34.8	+02.5	10
11	191	40.7	+02.5	192	39.9	+02.4	193	39.0	+02.5	194	38.1	+02.5	195	37.3	+02.4	11
12	206	43.2	+02.4	207	42.3	+02.5	208	41.5	+02.4	209	40.6	+02.5	210	39.7	+02.5	12
13	221	45.6	+02.5	222	44.8	+02.5	223	43.9	+02.5	224	43.1	+02.4	225	42.2	+02.5	13
14	236	48.1	+02.5	237	47.3	+02.4	238	46.4	+02.5	239	45.5	+02.5	240	44.7	+02.4	14
15	251	50.6	+02.4	252	49.7	+02.5	253	48.9	+02.4	254	48.0	+02.5	255	47.1	+02.5	15
16	266	53.0	+02.5	267	52.2	+02.4	268	51.3	+02.5	269	50.5	+02.4	270	49.6	+02.5	16
17	281	55.5	+02.5	282	54.6	+02.5	283	53.8	+02.5	284	52.9	+02.5	285	52.1	+02.4	17
18	296	58.0	+02.4	297	57.1	+02.5	298	56.3	+02.4	299	55.4	+02.5	300	54.5	+02.5	18
19	312	00.4	+02.5	312	59.6	+02.4	313	58.7	+02.5	314	57.9	+02.4	315	57.0	+02.5	19
20	327	02.9	+02.5	328	02.0	+02.5	329	01.2	+02.4	330	00.3	+02.5	330	59.5	+02.4	20
21	342	05.4	+02.4	343	04.5	+02.5	344	03.6	+02.5	345	02.8	+02.4	346	01.9	+02.5	21
22	357	07.8	+02.5	358	07.0	+02.4	359	06.1	+02.5	0	05.2	+02.5	1	04.4	+02.5	22
23	12	10.3	+02.5	13	09.4	+02.5	14	08.6	+02.4	15	07.7	+02.5	16	06.9	+02.4	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.6	N 29	13.5	Gienah	175	44.9	S 17	40.2
Ankaa	353	07.9	S 42	10.5	Acrux	173	02.0	S 63	13.6
Schedir	349	31.7	N 56	40.2	Gacrux	171	53.4	S 57	14.5
Diphda	348	48.1	S 17	51.3	Alioth	166	14.5	N 55	49.9
Achernar	335	20.4	S 57	06.9	Spica	158	23.7	S 11	17.0
Hamal	327	52.1	N 23	34.6	Alkaid	152	53.2	N 49	11.8
Polaris	314	07.5	N 89	21.7	Hadar	148	38.2	S 60	29.2
Acamar	315	12.1	S 40	12.4	Menkent	147	59.0	S 36	28.8
Menkar	314	06.9	N 04	11.1	Arcturus	145	48.8	N 19	04.4
Mirfak	308	29.3	N 49	56.7	Rigel Kentaurus	139	39.6	S 60	56.2
Aldebaran	290	40.6	N 16	33.6	Zubenelgenubi	136	57.5	S 16	08.3
Capella	280	23.2	N 46	01.4	Kocab	137	20.8	N 74	03.5
Rigel	281	04.7	S 08	10.3	Alphecca	126	05.0	N 26	38.3
Bellatrix	278	23.8	N 06	22.4	Antares	112	17.5	S 26	29.0
Elnath	278	03.0	N 28	37.7	Atria	107	12.9	S 69	04.3
Alnilam	275	38.6	S 01	11.0	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	53.1	N 07	24.8	Shaula	96	12.0	S 37	07.3
Canopus	263	52.7	S 52	42.1	Rasalhague	95	59.7	N 12	32.8
Sirius	258	26.9	S 16	44.2	Etamin	90	42.9	N 51	29.4
Adhara	255	06.6	S 28	59.9	Kaus Australis	83	34.0	S 34	22.4
Castor	245	58.3	N 31	50.2	Vega	80	34.1	N 38	48.4
Procyon	244	51.7	N 05	10.4	Nunki	75	49.1	S 26	16.1
Pollux	243	18.2	N 27	58.1	Albireo	67	04.9	N 28	00.8
Avior	234	15.3	S 59	34.7	Altair	62	01.2	N 08	55.8
Suhail	222	47.2	S 43	31.3	Peacock	53	07.3	S 56	39.7
Miaplacidus	221	38.7	S 69	48.5	Deneb	49	26.4	N 45	22.1
Alphard	217	48.9	S 08	45.5	Enif	33	39.7	N 09	59.1
Regulus	207	35.6	N 11	51.2	Alnair	27	34.0	S 46	50.8
Dubhe	193	42.7	N 61	37.3	Formalhaut	15	15.5	S 29	29.8
Denebola	182	26.1	N 14	26.5	Markab	13	30.7	N 15	20.1

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UT	day 296 of 365		day 297 of 365		day 298 of 365		day 299 of 365		day 300 of 365		UT					
	October 23		October 24		October 25		October 26		October 27							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "						
00	31	09.3	+02.5	32	08.5	+02.4	33	07.6	+02.5	34	06.7	+02.5	35	05.9	+02.4	00
01	46	11.8	+02.4	47	10.9	+02.5	48	10.1	+02.4	49	09.2	+02.5	50	08.3	+02.5	01
02	61	14.2	+02.5	62	13.4	+02.4	63	12.5	+02.5	64	11.7	+02.4	65	10.8	+02.5	02
03	76	16.7	+02.5	77	15.8	+02.5	78	15.0	+02.4	79	14.1	+02.5	80	13.3	+02.4	03
04	91	19.2	+02.4	92	18.3	+02.5	93	17.4	+02.5	94	16.6	+02.5	95	15.7	+02.5	04
05	106	21.6	+02.5	107	20.8	+02.4	108	19.9	+02.5	109	19.1	+02.4	110	18.2	+02.5	05
06	121	24.1	+02.5	122	23.2	+02.5	123	22.4	+02.4	124	21.5	+02.5	125	20.7	+02.4	06
07	136	26.6	+02.4	137	25.7	+02.5	138	24.8	+02.5	139	24.0	+02.4	140	23.1	+02.5	07
08	151	29.0	+02.5	152	28.2	+02.4	153	27.3	+02.5	154	26.4	+02.5	155	25.6	+02.4	08
09	166	31.5	+02.5	167	30.6	+02.5	168	29.8	+02.4	169	28.9	+02.5	170	28.0	+02.5	09
10	181	34.0	+02.4	182	33.1	+02.5	183	32.2	+02.5	184	31.4	+02.4	185	30.5	+02.5	10
11	196	36.4	+02.5	197	35.6	+02.4	198	34.7	+02.5	199	33.8	+02.5	200	33.0	+02.4	11
12	211	38.9	+02.4	212	38.0	+02.5	213	37.2	+02.4	214	36.3	+02.5	215	35.4	+02.5	12
13	226	41.3	+02.5	227	40.5	+02.5	228	39.6	+02.5	229	38.8	+02.4	230	37.9	+02.5	13
14	241	43.8	+02.5	242	43.0	+02.4	243	42.1	+02.5	244	41.2	+02.5	245	40.4	+02.4	14
15	256	46.3	+02.4	257	45.4	+02.5	258	44.6	+02.4	259	43.7	+02.5	260	42.8	+02.5	15
16	271	48.7	+02.5	272	47.9	+02.4	273	47.0	+02.5	274	46.2	+02.4	275	45.3	+02.5	16
17	286	51.2	+02.5	287	50.3	+02.5	288	49.5	+02.4	289	48.6	+02.5	290	47.8	+02.4	17
18	301	53.7	+02.4	302	52.8	+02.5	303	51.9	+02.5	304	51.1	+02.4	305	50.2	+02.5	18
19	316	56.1	+02.5	317	55.3	+02.4	318	54.4	+02.5	319	53.5	+02.5	320	52.7	+02.4	19
20	331	58.6	+02.5	332	57.7	+02.5	333	56.9	+02.4	334	56.0	+02.5	335	55.1	+02.5	20
21	347	01.1	+02.4	348	00.2	+02.5	348	59.3	+02.5	349	58.5	+02.4	350	57.6	+02.5	21
22	2	03.5	+02.5	3	02.7	+02.4	4	01.8	+02.5	5	00.9	+02.5	6	00.1	+02.4	22
23	17	06.0	+02.5	18	05.1	+02.5	19	04.3	+02.4	20	03.4	+02.5	21	02.5	+02.5	23

	SHA	Dec		SHA	Dec
	° ' "	° ' "		° ' "	° ' "
Alpheratz	357 35.6	N 29 13.5	Gienah	175 44.9	S 17 40.2
Ankaa	353 07.9	S 42 10.5	Acrux	173 01.9	S 63 13.6
Schedir	349 31.7	N 56 40.2	Gacrux	171 53.4	S 57 14.5
Diphda	348 48.1	S 17 51.3	Alioth	166 14.5	N 55 49.9
Achernar	335 20.4	S 57 06.9	Spica	158 23.7	S 11 17.0
Hamal	327 52.1	N 23 34.6	Alkaid	152 53.2	N 49 11.8
Polaris	314 06.0	N 89 21.8	Hadar	148 38.1	S 60 29.2
Acamar	315 12.1	S 40 12.4	Menkent	147 58.9	S 36 28.8
Menkar	314 06.9	N 04 11.1	Arcturus	145 48.8	N 19 04.4
Mirfak	308 29.3	N 49 56.7	Rigel Kentaurus	139 39.6	S 60 56.1
Aldebaran	290 40.6	N 16 33.6	Zubenelgenubi	136 57.4	S 16 08.3
Capella	280 23.1	N 46 01.4	Kocab	137 20.8	N 74 03.5
Rigel	281 04.6	S 08 10.3	Alphecca	126 05.0	N 26 38.3
Bellatrix	278 23.8	N 06 22.4	Antares	112 17.5	S 26 29.0
Elnath	278 02.9	N 28 37.7	Atria	107 13.0	S 69 04.3
Alnilam	275 38.6	S 01 11.1	Sabik	102 04.2	S 15 45.3
Betelgeuze	270 53.0	N 07 24.8	Shaula	96 12.0	S 37 07.3
Canopus	263 52.6	S 52 42.1	Rasalhague	95 59.7	N 12 32.8
Sirius	258 26.8	S 16 44.2	Etamin	90 42.9	N 51 29.4
Adhara	255 06.6	S 28 59.9	Kaus Australis	83 34.0	S 34 22.4
Castor	245 58.2	N 31 50.2	Vega	80 34.2	N 38 48.4
Procyon	244 51.6	N 05 10.4	Nunki	75 49.1	S 26 16.1
Pollux	243 18.2	N 27 58.1	Albireo	67 05.0	N 28 00.8
Avior	234 15.2	S 59 34.7	Altair	62 01.2	N 08 55.8
Suhail	222 47.2	S 43 31.3	Peacock	53 07.3	S 56 39.7
Miaplacidus	221 38.6	S 69 48.5	Deneb	49 26.5	N 45 22.1
Alphard	217 48.9	S 08 45.5	Enif	33 39.7	N 09 59.2
Regulus	207 35.6	N 11 51.2	Alnair	27 34.0	S 46 50.9
Dubhe	193 42.6	N 61 37.3	Formalhaut	15 15.5	S 29 29.8
Denebola	182 26.1	N 14 26.5	Markab	13 30.7	N 15 20.1

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UT	day 301 of 365		day 302 of 365		day 303 of 365		day 304 of 365		day 305 of 365		UT					
	October 28		October 29		October 30		October 31		November 1							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	36	05.0	+02.5	37	04.1	+02.5	38	03.3	+02.4	39	02.4	+02.5	40	01.6	+02.4	00
01	51	07.5	+02.4	52	06.6	+02.5	53	05.7	+02.5	54	04.9	+02.4	55	04.0	+02.5	01
02	66	09.9	+02.5	67	09.1	+02.4	68	08.2	+02.5	69	07.3	+02.5	70	06.5	+02.5	02
03	81	12.4	+02.5	82	11.5	+02.5	83	10.7	+02.4	84	09.8	+02.5	85	09.0	+02.4	03
04	96	14.9	+02.4	97	14.0	+02.5	98	13.1	+02.5	99	12.3	+02.4	100	11.4	+02.5	04
05	111	17.3	+02.5	112	16.5	+02.4	113	15.6	+02.5	114	14.7	+02.5	115	13.9	+02.4	05
06	126	19.8	+02.5	127	18.9	+02.5	128	18.1	+02.4	129	17.2	+02.5	130	16.3	+02.5	06
07	141	22.3	+02.4	142	21.4	+02.5	143	20.5	+02.5	144	19.7	+02.4	145	18.8	+02.5	07
08	156	24.7	+02.5	157	23.9	+02.4	158	23.0	+02.5	159	22.1	+02.5	160	21.3	+02.4	08
09	171	27.2	+02.4	172	26.3	+02.5	173	25.5	+02.4	174	24.6	+02.5	175	23.7	+02.5	09
10	186	29.6	+02.5	187	28.8	+02.4	188	27.9	+02.5	189	27.1	+02.4	190	26.2	+02.5	10
11	201	32.1	+02.5	202	31.2	+02.5	203	30.4	+02.5	204	29.5	+02.5	205	28.7	+02.4	11
12	216	34.6	+02.4	217	33.7	+02.5	218	32.9	+02.4	219	32.0	+02.5	220	31.1	+02.5	12
13	231	37.0	+02.5	232	36.2	+02.4	233	35.3	+02.5	234	34.5	+02.4	235	33.6	+02.5	13
14	246	39.5	+02.5	247	38.6	+02.5	248	37.8	+02.4	249	36.9	+02.5	250	36.1	+02.4	14
15	261	42.0	+02.4	262	41.1	+02.5	263	40.2	+02.5	264	39.4	+02.4	265	38.5	+02.5	15
16	276	44.4	+02.5	277	43.6	+02.4	278	42.7	+02.5	279	41.8	+02.5	280	41.0	+02.5	16
17	291	46.9	+02.5	292	46.0	+02.5	293	45.2	+02.4	294	44.3	+02.5	295	43.5	+02.4	17
18	306	49.4	+02.4	307	48.5	+02.5	308	47.6	+02.5	309	46.8	+02.4	310	45.9	+02.5	18
19	321	51.8	+02.5	322	51.0	+02.4	323	50.1	+02.5	324	49.2	+02.5	325	48.4	+02.4	19
20	336	54.3	+02.4	337	53.4	+02.5	338	52.6	+02.4	339	51.7	+02.5	340	50.8	+02.5	20
21	351	56.7	+02.5	352	55.9	+02.5	353	55.0	+02.5	354	54.2	+02.4	355	53.3	+02.5	21
22	6	59.2	+02.5	7	58.4	+02.4	8	57.5	+02.5	9	56.6	+02.5	10	55.8	+02.4	22
23	22	01.7	+02.4	23	00.8	+02.5	23	60.0	+02.4	24	59.1	+02.5	25	58.2	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.6	N 29	13.5	Gienah	175	44.9	S 17	40.2
Ankaa	353	07.9	S 42	10.5	Acrux	173	01.9	S 63	13.6
Schedir	349	31.8	N 56	40.2	Gacrux	171	53.4	S 57	14.5
Diphda	348	48.1	S 17	51.4	Alioth	166	14.5	N 55	49.8
Achernar	335	20.4	S 57	07.0	Spica	158	23.7	S 11	17.0
Hamal	327	52.1	N 23	34.6	Alkaid	152	53.2	N 49	11.7
Polaris	314	05.2	N 89	21.8	Hadar	148	38.1	S 60	29.1
Acamar	315	12.1	S 40	12.5	Menkent	147	58.9	S 36	28.8
Menkar	314	06.9	N 04	11.1	Arcturus	145	48.8	N 19	04.4
Mirfak	308	29.3	N 49	56.7	Rigel Kentaurus	139	39.6	S 60	56.1
Aldebaran	290	40.5	N 16	33.6	Zubenelgenubi	136	57.4	S 16	08.3
Capella	280	23.1	N 46	01.4	Kocab	137	20.9	N 74	03.5
Rigel	281	04.6	S 08	10.3	Alphecca	126	05.0	N 26	38.2
Bellatrix	278	23.7	N 06	22.4	Antares	112	17.5	S 26	29.0
Elnath	278	02.9	N 28	37.7	Atria	107	13.0	S 69	04.3
Alnilam	275	38.6	S 01	11.1	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	53.0	N 07	24.8	Shaula	96	12.0	S 37	07.3
Canopus	263	52.6	S 52	42.1	Rasalhague	95	59.8	N 12	32.8
Sirius	258	26.8	S 16	44.2	Etamin	90	43.0	N 51	29.4
Adhara	255	06.5	S 28	59.9	Kaus Australis	83	34.1	S 34	22.4
Castor	245	58.2	N 31	50.2	Vega	80	34.2	N 38	48.4
Procyon	244	51.6	N 05	10.4	Nunki	75	49.2	S 26	16.1
Pollux	243	18.1	N 27	58.1	Albireo	67	05.0	N 28	00.8
Avior	234	15.2	S 59	34.7	Altair	62	01.2	N 08	55.8
Suhail	222	47.1	S 43	31.3	Peacock	53	07.3	S 56	39.7
Miaplacidus	221	38.5	S 69	48.5	Deneb	49	26.5	N 45	22.1
Alphard	217	48.9	S 08	45.5	Enif	33	39.7	N 09	59.1
Regulus	207	35.6	N 11	51.2	Alnair	27	34.0	S 46	50.9
Dubhe	193	42.5	N 61	37.2	Formalhaut	15	15.5	S 29	29.8
Denebola	182	26.1	N 14	26.5	Markab	13	30.7	N 15	20.1

2023 - First Point of Aries / Selected Stars

UT	day 306 of 365		day 307 of 365		day 308 of 365		day 309 of 365		day 310 of 365		UT					
	November 2		November 3		November 4		November 5		November 6							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "						
00	41	00.7	+02.5	41	59.8	+02.5	42	59.0	+02.4	43	58.1	+02.5	44	57.3	+02.4	00
01	56	03.2	+02.4	57	02.3	+02.5	58	01.4	+02.5	59	00.6	+02.5	59	59.7	+02.5	01
02	71	05.6	+02.5	72	04.8	+02.4	73	03.9	+02.5	74	03.1	+02.4	75	02.2	+02.5	02
03	86	08.1	+02.5	87	07.2	+02.5	88	06.4	+02.4	89	05.5	+02.5	90	04.7	+02.4	03
04	101	10.6	+02.4	102	09.7	+02.5	103	08.8	+02.5	104	08.0	+02.4	105	07.1	+02.5	04
05	116	13.0	+02.5	117	12.2	+02.4	118	11.3	+02.5	119	10.4	+02.5	120	09.6	+02.4	05
06	131	15.5	+02.5	132	14.6	+02.5	133	13.8	+02.4	134	12.9	+02.5	135	12.0	+02.5	06
07	146	18.0	+02.4	147	17.1	+02.5	148	16.2	+02.5	149	15.4	+02.4	150	14.5	+02.5	07
08	161	20.4	+02.5	162	19.6	+02.4	163	18.7	+02.5	164	17.8	+02.5	165	17.0	+02.4	08
09	176	22.9	+02.4	177	22.0	+02.5	178	21.2	+02.4	179	20.3	+02.5	180	19.4	+02.5	09
10	191	25.3	+02.5	192	24.5	+02.4	193	23.6	+02.5	194	22.8	+02.4	195	21.9	+02.5	10
11	206	27.8	+02.5	207	26.9	+02.5	208	26.1	+02.5	209	25.2	+02.5	210	24.4	+02.4	11
12	221	30.3	+02.4	222	29.4	+02.5	223	28.6	+02.4	224	27.7	+02.5	225	26.8	+02.5	12
13	236	32.7	+02.5	237	31.9	+02.4	238	31.0	+02.5	239	30.2	+02.4	240	29.3	+02.5	13
14	251	35.2	+02.5	252	34.3	+02.5	253	33.5	+02.4	254	32.6	+02.5	255	31.8	+02.4	14
15	266	37.7	+02.4	267	36.8	+02.5	268	35.9	+02.5	269	35.1	+02.4	270	34.2	+02.5	15
16	281	40.1	+02.5	282	39.3	+02.4	283	38.4	+02.5	284	37.5	+02.5	285	36.7	+02.5	16
17	296	42.6	+02.5	297	41.7	+02.5	298	40.9	+02.4	299	40.0	+02.5	300	39.2	+02.4	17
18	311	45.1	+02.4	312	44.2	+02.5	313	43.3	+02.5	314	42.5	+02.4	315	41.6	+02.5	18
19	326	47.5	+02.5	327	46.7	+02.4	328	45.8	+02.5	329	44.9	+02.5	330	44.1	+02.4	19
20	341	50.0	+02.4	342	49.1	+02.5	343	48.3	+02.4	344	47.4	+02.5	345	46.5	+02.5	20
21	356	52.4	+02.5	357	51.6	+02.5	358	50.7	+02.5	359	49.9	+02.4	0	49.0	+02.5	21
22	11	54.9	+02.5	12	54.1	+02.4	13	53.2	+02.5	14	52.3	+02.5	15	51.5	+02.4	22
23	26	57.4	+02.4	27	56.5	+02.5	28	55.7	+02.4	29	54.8	+02.5	30	53.9	+02.5	23

	SHA	Dec		SHA	Dec				
	° ' "	' "		° ' "	' "				
Alpheratz	357	35.6	N 29	13.5	Gienah	175	44.9	S 17	40.3
Ankaa	353	07.9	S 42	10.5	Acrux	173	01.8	S 63	13.6
Schedir	349	31.7	N 56	40.2	Gacrux	171	53.3	S 57	14.4
Diphda	348	48.1	S 17	51.4	Alioth	166	14.5	N 55	49.8
Achernar	335	20.4	S 57	07.0	Spica	158	23.7	S 11	17.0
Hamal	327	52.1	N 23	34.6	Alkaid	152	53.2	N 49	11.7
Polaris	314	04.0	N 89	21.8	Hadar	148	38.1	S 60	29.1
Acamar	315	12.1	S 40	12.5	Menkent	147	58.9	S 36	28.8
Menkar	314	06.9	N 04	11.1	Arcturus	145	48.8	N 19	04.4
Mirfak	308	29.2	N 49	56.7	Rigel Kentaurus	139	39.6	S 60	56.1
Aldebaran	290	40.5	N 16	33.6	Zubenelgenubi	136	57.4	S 16	08.3
Capella	280	23.1	N 46	01.4	Kocab	137	20.9	N 74	03.5
Rigel	281	04.6	S 08	10.3	Alphecca	126	05.0	N 26	38.2
Bellatrix	278	23.7	N 06	22.4	Antares	112	17.5	S 26	29.0
Elnath	278	02.9	N 28	37.7	Atria	107	13.0	S 69	04.3
Alnilam	275	38.5	S 01	11.1	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	53.0	N 07	24.8	Shaula	96	12.0	S 37	07.3
Canopus	263	52.5	S 52	42.2	Rasalhague	95	59.8	N 12	32.8
Sirius	258	26.8	S 16	44.2	Etamin	90	43.0	N 51	29.3
Adhara	255	06.5	S 28	60.0	Kaus Australis	83	34.1	S 34	22.4
Castor	245	58.2	N 31	50.2	Vega	80	34.2	N 38	48.4
Procyon	244	51.6	N 05	10.3	Nunki	75	49.2	S 26	16.1
Pollux	243	18.1	N 27	58.1	Albireo	67	05.0	N 28	00.7
Avior	234	15.1	S 59	34.7	Altair	62	01.2	N 08	55.8
Suhail	222	47.1	S 43	31.3	Peacock	53	07.4	S 56	39.7
Miaplacidus	221	38.4	S 69	48.5	Deneb	49	26.5	N 45	22.1
Alphard	217	48.8	S 08	45.5	Enif	33	39.7	N 09	59.2
Regulus	207	35.5	N 11	51.1	Alnair	27	34.1	S 46	50.9
Dubhe	193	42.5	N 61	37.2	Formalhaut	15	15.6	S 29	29.8
Denebola	182	26.0	N 14	26.5	Markab	13	30.7	N 15	20.1

2023 - First Point of Aries / Selected Stars

UT	day 311 of 365		day 312 of 365		day 313 of 365		day 314 of 365		day 315 of 365		UT					
	<i>November 7</i>		<i>November 8</i>		<i>November 9</i>		<i>November 10</i>		<i>November 11</i>							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	45	56.4	+02.5	46	55.5	+02.5	47	54.7	+02.4	48	53.8	+02.5	49	52.9	+02.5	00
01	60	58.9	+02.4	61	58.0	+02.5	62	57.1	+02.5	63	56.3	+02.4	64	55.4	+02.5	01
02	76	01.3	+02.5	77	00.5	+02.4	77	59.6	+02.5	78	58.7	+02.5	79	57.9	+02.4	02
03	91	03.8	+02.5	92	02.9	+02.5	93	02.1	+02.4	94	01.2	+02.5	95	00.3	+02.5	03
04	106	06.3	+02.4	107	05.4	+02.5	108	04.5	+02.5	109	03.7	+02.4	110	02.8	+02.5	04
05	121	08.7	+02.5	122	07.9	+02.4	123	07.0	+02.5	124	06.1	+02.5	125	05.3	+02.4	05
06	136	11.2	+02.4	137	10.3	+02.5	138	09.5	+02.4	139	08.6	+02.5	140	07.7	+02.5	06
07	151	13.6	+02.5	152	12.8	+02.4	153	11.9	+02.5	154	11.1	+02.4	155	10.2	+02.5	07
08	166	16.1	+02.5	167	15.2	+02.5	168	14.4	+02.5	169	13.5	+02.5	170	12.7	+02.4	08
09	181	18.6	+02.4	182	17.7	+02.5	183	16.9	+02.4	184	16.0	+02.5	185	15.1	+02.5	09
10	196	21.0	+02.5	197	20.2	+02.4	198	19.3	+02.5	199	18.5	+02.4	200	17.6	+02.5	10
11	211	23.5	+02.5	212	22.6	+02.5	213	21.8	+02.4	214	20.9	+02.5	215	20.1	+02.4	11
12	226	26.0	+02.4	227	25.1	+02.5	228	24.2	+02.5	229	23.4	+02.4	230	22.5	+02.5	12
13	241	28.4	+02.5	242	27.6	+02.4	243	26.7	+02.5	244	25.8	+02.5	245	25.0	+02.4	13
14	256	30.9	+02.5	257	30.0	+02.5	258	29.2	+02.4	259	28.3	+02.5	260	27.4	+02.5	14
15	271	33.4	+02.4	272	32.5	+02.5	273	31.6	+02.5	274	30.8	+02.4	275	29.9	+02.5	15
16	286	35.8	+02.5	287	35.0	+02.4	288	34.1	+02.5	289	33.2	+02.5	290	32.4	+02.4	16
17	301	38.3	+02.5	302	37.4	+02.5	303	36.6	+02.4	304	35.7	+02.5	305	34.8	+02.5	17
18	316	40.8	+02.4	317	39.9	+02.5	318	39.0	+02.5	319	38.2	+02.4	320	37.3	+02.5	18
19	331	43.2	+02.5	332	42.4	+02.4	333	41.5	+02.5	334	40.6	+02.5	335	39.8	+02.4	19
20	346	45.7	+02.4	347	44.8	+02.5	348	44.0	+02.4	349	43.1	+02.5	350	42.2	+02.5	20
21	1	48.1	+02.5	2	47.3	+02.4	3	46.4	+02.5	4	45.6	+02.4	5	44.7	+02.5	21
22	16	50.6	+02.5	17	49.7	+02.5	18	48.9	+02.4	19	48.0	+02.5	20	47.2	+02.4	22
23	31	53.1	+02.4	32	52.2	+02.5	33	51.3	+02.5	34	50.5	+02.4	35	49.6	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.6	N 29	13.5	Gienah	175	44.8	S 17	40.3
Ankaa	353	07.9	S 42	10.6	Acrux	173	01.8	S 63	13.6
Schedir	349	31.8	N 56	40.3	Gacrux	171	53.3	S 57	14.4
Diphda	348	48.1	S 17	51.4	Alioth	166	14.4	N 55	49.8
Achernar	335	20.4	S 57	07.0	Spica	158	23.7	S 11	17.0
Hamal	327	52.1	N 23	34.7	Alkaid	152	53.2	N 49	11.7
Polaris	314	03.4	N 89	21.9	Hadar	148	38.1	S 60	29.1
Acamar	315	12.1	S 40	12.5	Menkent	147	58.9	S 36	28.8
Menkar	314	06.9	N 04	11.1	Arcturus	145	48.8	N 19	04.4
Mirfak	308	29.2	N 49	56.8	Rigel Kentaurus	139	39.6	S 60	56.1
Aldebaran	290	40.5	N 16	33.6	Zubenelgenubi	136	57.4	S 16	08.3
Capella	280	23.0	N 46	01.4	Kocab	137	20.9	N 74	03.4
Rigel	281	04.5	S 08	10.3	Alphecca	126	05.0	N 26	38.2
Bellatrix	278	23.7	N 06	22.4	Antares	112	17.5	S 26	29.0
Elnath	278	02.8	N 28	37.7	Atria	107	13.1	S 69	04.3
Alnilam	275	38.5	S 01	11.1	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	52.9	N 07	24.8	Shaula	96	12.1	S 37	07.3
Canopus	263	52.5	S 52	42.2	Rasalhague	95	59.8	N 12	32.8
Sirius	258	26.7	S 16	44.2	Etamin	90	43.0	N 51	29.3
Adhara	255	06.4	S 28	60.0	Kaus Australis	83	34.1	S 34	22.4
Castor	245	58.1	N 31	50.2	Vega	80	34.3	N 38	48.4
Procyon	244	51.5	N 05	10.3	Nunki	75	49.2	S 26	16.1
Pollux	243	18.0	N 27	58.1	Albireo	67	05.0	N 28	00.7
Avior	234	15.0	S 59	34.8	Altair	62	01.2	N 08	55.8
Suhail	222	47.0	S 43	31.4	Peacock	53	07.4	S 56	39.7
Miaplacidus	221	38.4	S 69	48.5	Deneb	49	26.6	N 45	22.1
Alphard	217	48.8	S 08	45.5	Enif	33	39.7	N 09	59.1
Regulus	207	35.5	N 11	51.1	Alnair	27	34.1	S 46	50.9
Dubhe	193	42.4	N 61	37.2	Formalhaut	15	15.6	S 29	29.8
Denebola	182	26.0	N 14	26.5	Markab	13	30.8	N 15	20.1

2023 - First Point of Aries / Selected Stars

UT	day 316 of 365		day 317 of 365		day 318 of 365		day 319 of 365		day 320 of 365		UT					
	November 12		November 13		November 14		November 15		November 16							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "						
00	50	52.1	+02.5	51	51.2	+02.5	52	50.4	+02.4	53	49.5	+02.5	54	48.6	+02.5	00
01	65	54.6	+02.4	66	53.7	+02.5	67	52.8	+02.5	68	52.0	+02.4	69	51.1	+02.5	01
02	80	57.0	+02.5	81	56.2	+02.4	82	55.3	+02.5	83	54.4	+02.5	84	53.6	+02.4	02
03	95	59.5	+02.4	96	58.6	+02.5	97	57.8	+02.4	98	56.9	+02.5	99	56.0	+02.5	03
04	111	01.9	+02.5	112	01.1	+02.4	113	00.2	+02.5	113	59.4	+02.4	114	58.5	+02.5	04
05	126	04.4	+02.5	127	03.5	+02.5	128	02.7	+02.5	129	01.8	+02.5	130	01.0	+02.4	05
06	141	06.9	+02.4	142	06.0	+02.5	143	05.2	+02.4	144	04.3	+02.5	145	03.4	+02.5	06
07	156	09.3	+02.5	157	08.5	+02.4	158	07.6	+02.5	159	06.8	+02.4	160	05.9	+02.5	07
08	171	11.8	+02.5	172	10.9	+02.5	173	10.1	+02.4	174	09.2	+02.5	175	08.4	+02.4	08
09	186	14.3	+02.4	187	13.4	+02.5	188	12.5	+02.5	189	11.7	+02.4	190	10.8	+02.5	09
10	201	16.7	+02.5	202	15.9	+02.4	203	15.0	+02.5	204	14.1	+02.5	205	13.3	+02.5	10
11	216	19.2	+02.5	217	18.3	+02.5	218	17.5	+02.4	219	16.6	+02.5	220	15.8	+02.4	11
12	231	21.7	+02.4	232	20.8	+02.5	233	19.9	+02.5	234	19.1	+02.4	235	18.2	+02.5	12
13	246	24.1	+02.5	247	23.3	+02.4	248	22.4	+02.5	249	21.5	+02.5	250	20.7	+02.4	13
14	261	26.6	+02.4	262	25.7	+02.5	263	24.9	+02.4	264	24.0	+02.5	265	23.1	+02.5	14
15	276	29.0	+02.5	277	28.2	+02.5	278	27.3	+02.5	279	26.5	+02.4	280	25.6	+02.5	15
16	291	31.5	+02.5	292	30.7	+02.4	293	29.8	+02.5	294	28.9	+02.5	295	28.1	+02.4	16
17	306	34.0	+02.4	307	33.1	+02.5	308	32.3	+02.4	309	31.4	+02.5	310	30.5	+02.5	17
18	321	36.4	+02.5	322	35.6	+02.4	323	34.7	+02.5	324	33.9	+02.4	325	33.0	+02.5	18
19	336	38.9	+02.5	337	38.0	+02.5	338	37.2	+02.4	339	36.3	+02.5	340	35.5	+02.4	19
20	351	41.4	+02.4	352	40.5	+02.5	353	39.6	+02.5	354	38.8	+02.5	355	37.9	+02.5	20
21	6	43.8	+02.5	7	43.0	+02.4	8	42.1	+02.5	9	41.3	+02.4	10	40.4	+02.5	21
22	21	46.3	+02.5	22	45.4	+02.5	23	44.6	+02.4	24	43.7	+02.5	25	42.9	+02.4	22
23	36	48.8	+02.4	37	47.9	+02.5	38	47.0	+02.5	39	46.2	+02.4	40	45.3	+02.5	23

	SHA	Dec		SHA	Dec
	° ' "	° ' "		° ' "	° ' "
Alpheratz	357 35.6	N 29 13.5	Gienah	175 44.8	S 17 40.3
Ankaa	353 07.9	S 42 10.6	Acrux	173 01.7	S 63 13.6
Schedir	349 31.8	N 56 40.3	Gacrux	171 53.3	S 57 14.4
Diphda	348 48.1	S 17 51.4	Alioth	166 14.4	N 55 49.7
Achernar	335 20.4	S 57 07.0	Spica	158 23.6	S 11 17.0
Hamal	327 52.1	N 23 34.7	Alkaid	152 53.2	N 49 11.6
Polaris	314 03.1	N 89 21.9	Hadar	148 38.1	S 60 29.1
Acamar	315 12.1	S 40 12.5	Menkent	147 58.9	S 36 28.8
Menkar	314 06.9	N 04 11.1	Arcturus	145 48.8	N 19 04.3
Mirfak	308 29.2	N 49 56.8	Rigel Kentaurus	139 39.6	S 60 56.1
Aldebaran	290 40.5	N 16 33.6	Zubenelgenubi	136 57.4	S 16 08.3
Capella	280 23.0	N 46 01.4	Kocab	137 20.9	N 74 03.4
Rigel	281 04.5	S 08 10.3	Alphecca	126 05.0	N 26 38.2
Bellatrix	278 23.6	N 06 22.4	Antares	112 17.5	S 26 29.0
Elnath	278 02.8	N 28 37.7	Atria	107 13.1	S 69 04.3
Alnilam	275 38.5	S 01 11.1	Sabik	102 04.2	S 15 45.3
Betelgeuze	270 52.9	N 07 24.8	Shaula	96 12.1	S 37 07.3
Canopus	263 52.5	S 52 42.2	Rasalhague	95 59.8	N 12 32.7
Sirius	258 26.7	S 16 44.2	Etamin	90 43.1	N 51 29.3
Adhara	255 06.4	S 28 60.0	Kaus Australis	83 34.1	S 34 22.4
Castor	245 58.1	N 31 50.1	Vega	80 34.3	N 38 48.4
Procyon	244 51.5	N 05 10.3	Nunki	75 49.2	S 26 16.1
Pollux	243 18.0	N 27 58.1	Albireo	67 05.1	N 28 00.7
Avior	234 15.0	S 59 34.8	Altair	62 01.3	N 08 55.8
Suhail	222 47.0	S 43 31.4	Peacock	53 07.4	S 56 39.7
Miaplacidus	221 38.3	S 69 48.5	Deneb	49 26.6	N 45 22.1
Alphard	217 48.7	S 08 45.5	Enif	33 39.8	N 09 59.1
Regulus	207 35.4	N 11 51.1	Alnair	27 34.1	S 46 50.9
Dubhe	193 42.4	N 61 37.2	Formalhaut	15 15.6	S 29 29.8
Denebola	182 26.0	N 14 26.4	Markab	13 30.8	N 15 20.1

2023 - First Point of Aries / Selected Stars

UT	day 321 of 365 November 17		day 322 of 365 November 18		day 323 of 365 November 19		day 324 of 365 November 20		day 325 of 365 November 21		UT
	GHA ° ' "	ddGHA +	GHA ° ' "	ddGHA +	GHA ° ' "	ddGHA +	GHA ° ' "	ddGHA +	GHA ° ' "	ddGHA +	
00	55 47.8	+02.5	56 46.9	+02.5	57 46.1	+02.4	58 45.2	+02.5	59 44.3	+02.5	00
01	70 50.3	+02.4	71 49.4	+02.5	72 48.5	+02.5	73 47.7	+02.4	74 46.8	+02.5	01
02	85 52.7	+02.5	86 51.9	+02.4	87 51.0	+02.5	88 50.1	+02.5	89 49.3	+02.4	02
03	100 55.2	+02.4	101 54.3	+02.5	102 53.5	+02.4	103 52.6	+02.5	104 51.7	+02.5	03
04	115 57.6	+02.5	116 56.8	+02.5	117 55.9	+02.5	118 55.1	+02.4	119 54.2	+02.5	04
05	131 00.1	+02.5	131 59.3	+02.4	132 58.4	+02.5	133 57.5	+02.5	134 56.7	+02.4	05
06	146 02.6	+02.4	147 01.7	+02.5	148 00.9	+02.4	148 60.0	+02.5	149 59.1	+02.5	06
07	161 05.0	+02.5	162 04.2	+02.4	163 03.3	+02.5	164 02.5	+02.4	165 01.6	+02.5	07
08	176 07.5	+02.5	177 06.6	+02.5	178 05.8	+02.4	179 04.9	+02.5	180 04.1	+02.4	08
09	191 10.0	+02.4	192 09.1	+02.5	193 08.2	+02.5	194 07.4	+02.5	195 06.5	+02.5	09
10	206 12.4	+02.5	207 11.6	+02.4	208 10.7	+02.5	209 09.9	+02.4	210 09.0	+02.5	10
11	221 14.9	+02.5	222 14.0	+02.5	223 13.2	+02.4	224 12.3	+02.5	225 11.5	+02.4	11
12	236 17.4	+02.4	237 16.5	+02.5	238 15.6	+02.5	239 14.8	+02.4	240 13.9	+02.5	12
13	251 19.8	+02.5	252 19.0	+02.4	253 18.1	+02.5	254 17.2	+02.5	255 16.4	+02.4	13
14	266 22.3	+02.5	267 21.4	+02.5	268 20.6	+02.4	269 19.7	+02.5	270 18.8	+02.5	14
15	281 24.8	+02.4	282 23.9	+02.5	283 23.0	+02.5	284 22.2	+02.4	285 21.3	+02.5	15
16	296 27.2	+02.5	297 26.4	+02.4	298 25.5	+02.5	299 24.6	+02.5	300 23.8	+02.4	16
17	311 29.7	+02.4	312 28.8	+02.5	313 28.0	+02.4	314 27.1	+02.5	315 26.2	+02.5	17
18	326 32.1	+02.5	327 31.3	+02.4	328 30.4	+02.5	329 29.6	+02.4	330 28.7	+02.5	18
19	341 34.6	+02.5	342 33.7	+02.5	343 32.9	+02.5	344 32.0	+02.5	345 31.2	+02.4	19
20	356 37.1	+02.4	357 36.2	+02.5	358 35.4	+02.4	359 34.5	+02.5	0 33.6	+02.5	20
21	11 39.5	+02.5	12 38.7	+02.4	13 37.8	+02.5	14 37.0	+02.4	15 36.1	+02.5	21
22	26 42.0	+02.5	27 41.1	+02.5	28 40.3	+02.4	29 39.4	+02.5	30 38.6	+02.4	22
23	41 44.5	+02.4	42 43.6	+02.5	43 42.7	+02.5	44 41.9	+02.4	45 41.0	+02.5	23

	SHA ° ' "	Dec ° ' "		SHA ° ' "	Dec ° ' "
Alpheratz	357 35.6	N 29 13.6	Gienah	175 44.8	S 17 40.3
Ankaa	353 07.9	S 42 10.6	Acrux	173 01.7	S 63 13.6
Schedir	349 31.8	N 56 40.3	Gacrux	171 53.2	S 57 14.4
Diphda	348 48.1	S 17 51.4	Alioth	166 14.4	N 55 49.7
Achernar	335 20.4	S 57 07.1	Spica	158 23.6	S 11 17.0
Hamal	327 52.0	N 23 34.7	Alkaid	152 53.2	N 49 11.6
Polaris	314 02.5	N 89 21.9	Hadar	148 38.0	S 60 29.1
Acamar	315 12.1	S 40 12.5	Menkent	147 58.9	S 36 28.8
Menkar	314 06.8	N 04 11.1	Arcturus	145 48.7	N 19 04.3
Mirfak	308 29.2	N 49 56.8	Rigel Kentaurus	139 39.5	S 60 56.0
Aldebaran	290 40.4	N 16 33.6	Zubenelgenubi	136 57.4	S 16 08.3
Capella	280 22.9	N 46 01.4	Kocab	137 20.9	N 74 03.4
Rigel	281 04.5	S 08 10.3	Alphecca	126 05.0	N 26 38.2
Bellatrix	278 23.6	N 06 22.4	Antares	112 17.5	S 26 29.0
Elnath	278 02.8	N 28 37.7	Atria	107 13.1	S 69 04.2
Alnilam	275 38.4	S 01 11.1	Sabik	102 04.2	S 15 45.3
Betelgeuze	270 52.9	N 07 24.8	Shaula	96 12.1	S 37 07.3
Canopus	263 52.4	S 52 42.2	Rasalhague	95 59.8	N 12 32.7
Sirius	258 26.7	S 16 44.3	Etamin	90 43.1	N 51 29.3
Adhara	255 06.4	S 29 00.0	Kaus Australis	83 34.1	S 34 22.4
Castor	245 58.0	N 31 50.1	Vega	80 34.3	N 38 48.4
Procyon	244 51.4	N 05 10.3	Nunki	75 49.2	S 26 16.1
Pollux	243 18.0	N 27 58.1	Albireo	67 05.1	N 28 00.7
Avior	234 14.9	S 59 34.8	Altair	62 01.3	N 08 55.8
Suhail	222 46.9	S 43 31.4	Peacock	53 07.5	S 56 39.7
Miaplacidus	221 38.2	S 69 48.5	Deneb	49 26.6	N 45 22.1
Alphard	217 48.7	S 08 45.6	Enif	33 39.8	N 09 59.1
Regulus	207 35.4	N 11 51.1	Alnair	27 34.1	S 46 50.9
Dubhe	193 42.3	N 61 37.1	Formalhaut	15 15.6	S 29 29.8
Denebola	182 25.9	N 14 26.4	Markab	13 30.8	N 15 20.1

2023 - First Point of Aries / Selected Stars

UT	day 326 of 365 November 22		day 327 of 365 November 23		day 328 of 365 November 24		day 329 of 365 November 25		day 330 of 365 November 26		UT
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	
00	60	43.5 +02.5	61	42.6 +02.5	62	41.8 +02.4	63	40.9 +02.5	64	40.0 +02.5	00
01	75	46.0 +02.4	76	45.1 +02.5	77	44.2 +02.5	78	43.4 +02.4	79	42.5 +02.5	01
02	90	48.4 +02.5	91	47.6 +02.4	92	46.7 +02.5	93	45.8 +02.5	94	45.0 +02.4	02
03	105	50.9 +02.4	106	50.0 +02.5	107	49.2 +02.4	108	48.3 +02.5	109	47.4 +02.5	03
04	120	53.3 +02.5	121	52.5 +02.4	122	51.6 +02.5	123	50.8 +02.4	124	49.9 +02.5	04
05	135	55.8 +02.5	136	54.9 +02.5	137	54.1 +02.4	138	53.2 +02.5	139	52.4 +02.4	05
06	150	58.3 +02.4	151	57.4 +02.5	152	56.5 +02.5	153	55.7 +02.4	154	54.8 +02.5	06
07	166	00.7 +02.5	166	59.9 +02.4	167	59.0 +02.5	168	58.1 +02.5	169	57.3 +02.5	07
08	181	03.2 +02.5	182	02.3 +02.5	183	01.5 +02.4	184	00.6 +02.5	184	59.8 +02.4	08
09	196	05.7 +02.4	197	04.8 +02.5	198	03.9 +02.5	199	03.1 +02.4	200	02.2 +02.5	09
10	211	08.1 +02.5	212	07.3 +02.4	213	06.4 +02.5	214	05.5 +02.5	215	04.7 +02.4	10
11	226	10.6 +02.5	227	09.7 +02.5	228	08.9 +02.4	229	08.0 +02.5	230	07.1 +02.5	11
12	241	13.1 +02.4	242	12.2 +02.5	243	11.3 +02.5	244	10.5 +02.4	245	09.6 +02.5	12
13	256	15.5 +02.5	257	14.7 +02.4	258	13.8 +02.5	259	12.9 +02.5	260	12.1 +02.4	13
14	271	18.0 +02.4	272	17.1 +02.5	273	16.3 +02.4	274	15.4 +02.5	275	14.5 +02.5	14
15	286	20.4 +02.5	287	19.6 +02.4	288	18.7 +02.5	289	17.9 +02.4	290	17.0 +02.5	15
16	301	22.9 +02.5	302	22.0 +02.5	303	21.2 +02.5	304	20.3 +02.5	305	19.5 +02.4	16
17	316	25.4 +02.4	317	24.5 +02.5	318	23.7 +02.4	319	22.8 +02.5	320	21.9 +02.5	17
18	331	27.8 +02.5	332	27.0 +02.4	333	26.1 +02.5	334	25.3 +02.4	335	24.4 +02.5	18
19	346	30.3 +02.5	347	29.4 +02.5	348	28.6 +02.4	349	27.7 +02.5	350	26.9 +02.4	19
20	1	32.8 +02.4	2	31.9 +02.5	3	31.0 +02.5	4	30.2 +02.4	5	29.3 +02.5	20
21	16	35.2 +02.5	17	34.4 +02.4	18	33.5 +02.5	19	32.6 +02.5	20	31.8 +02.5	21
22	31	37.7 +02.5	32	36.8 +02.5	33	36.0 +02.4	34	35.1 +02.5	35	34.3 +02.4	22
23	46	40.2 +02.4	47	39.3 +02.5	48	38.4 +02.5	49	37.6 +02.4	50	36.7 +02.5	23

	SHA	Dec		SHA	Dec
	° ' "	° ' "		° ' "	° ' "
Alpheratz	357 35.6	N 29 13.6	Gienah	175 44.7	S 17 40.3
Ankaa	353 07.9	S 42 10.6	Acrux	173 01.6	S 63 13.6
Schedir	349 31.8	N 56 40.3	Gacrux	171 53.2	S 57 14.4
Diphda	348 48.1	S 17 51.4	Alioth	166 14.3	N 55 49.7
Achernar	335 20.5	S 57 07.1	Spica	158 23.6	S 11 17.0
Hamal	327 52.0	N 23 34.7	Alkaid	152 53.1	N 49 11.6
Polaris	314 02.6	N 89 22.0	Hadar	148 38.0	S 60 29.1
Acamar	315 12.0	S 40 12.6	Menkent	147 58.8	S 36 28.8
Menkar	314 06.8	N 04 11.1	Arcturus	145 48.7	N 19 04.3
Mirfak	308 29.1	N 49 56.8	Rigel Kentaurus	139 39.5	S 60 56.0
Aldebaran	290 40.4	N 16 33.6	Zubenelgenubi	136 57.4	S 16 08.3
Capella	280 22.9	N 46 01.4	Kocab	137 20.9	N 74 03.3
Rigel	281 04.5	S 08 10.3	Alphecca	126 05.0	N 26 38.1
Bellatrix	278 23.6	N 06 22.4	Antares	112 17.5	S 26 29.0
Elnath	278 02.7	N 28 37.7	Atria	107 13.1	S 69 04.2
Alnilam	275 38.4	S 01 11.1	Sabik	102 04.2	S 15 45.3
Betelgeuze	270 52.8	N 07 24.8	Shaula	96 12.1	S 37 07.3
Canopus	263 52.4	S 52 42.2	Rasalhague	95 59.8	N 12 32.7
Sirius	258 26.6	S 16 44.3	Etamin	90 43.1	N 51 29.3
Adhara	255 06.3	S 29 00.0	Kaus Australis	83 34.1	S 34 22.4
Castor	245 58.0	N 31 50.1	Vega	80 34.3	N 38 48.4
Procyon	244 51.4	N 05 10.3	Nunki	75 49.2	S 26 16.1
Pollux	243 17.9	N 27 58.1	Albireo	67 05.1	N 28 00.7
Avior	234 14.8	S 59 34.8	Altair	62 01.3	N 08 55.8
Suhail	222 46.9	S 43 31.4	Peacock	53 07.5	S 56 39.7
Miaplacidus	221 38.1	S 69 48.5	Deneb	49 26.6	N 45 22.1
Alphard	217 48.6	S 08 45.6	Enif	33 39.8	N 09 59.1
Regulus	207 35.4	N 11 51.1	Alnair	27 34.2	S 46 50.9
Dubhe	193 42.2	N 61 37.1	Formalhaut	15 15.6	S 29 29.8
Denebola	182 25.9	N 14 26.4	Markab	13 30.8	N 15 20.1

2023 - First Point of Aries / Selected Stars

UT	day 331 of 365		day 332 of 365		day 333 of 365		day 334 of 365		day 335 of 365		UT					
	<i>November 27</i>		<i>November 28</i>		<i>November 29</i>		<i>November 30</i>		<i>December 1</i>							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "						
00	65	39.2	+02.4	66	38.3	+02.5	67	37.5	+02.4	68	36.6	+02.5	69	35.7	+02.5	00
01	80	41.6	+02.5	81	40.8	+02.4	82	39.9	+02.5	83	39.1	+02.4	84	38.2	+02.5	01
02	95	44.1	+02.5	96	43.2	+02.5	97	42.4	+02.5	98	41.5	+02.5	99	40.7	+02.4	02
03	110	46.6	+02.4	111	45.7	+02.5	112	44.9	+02.4	113	44.0	+02.5	114	43.1	+02.5	03
04	125	49.0	+02.5	126	48.2	+02.4	127	47.3	+02.5	128	46.5	+02.4	129	45.6	+02.5	04
05	140	51.5	+02.5	141	50.6	+02.5	142	49.8	+02.4	143	48.9	+02.5	144	48.1	+02.4	05
06	155	54.0	+02.4	156	53.1	+02.5	157	52.2	+02.5	158	51.4	+02.5	159	50.5	+02.5	06
07	170	56.4	+02.5	171	55.6	+02.4	172	54.7	+02.5	173	53.9	+02.4	174	53.0	+02.5	07
08	185	58.9	+02.5	186	58.0	+02.5	187	57.2	+02.4	188	56.3	+02.5	189	55.5	+02.4	08
09	201	01.4	+02.4	202	00.5	+02.5	202	59.6	+02.5	203	58.8	+02.4	204	57.9	+02.5	09
10	216	03.8	+02.5	217	03.0	+02.4	218	02.1	+02.5	219	01.2	+02.5	220	00.4	+02.4	10
11	231	06.3	+02.4	232	05.4	+02.5	233	04.6	+02.4	234	03.7	+02.5	235	02.8	+02.5	11
12	246	08.7	+02.5	247	07.9	+02.5	248	07.0	+02.5	249	06.2	+02.4	250	05.3	+02.5	12
13	261	11.2	+02.5	262	10.4	+02.4	263	09.5	+02.5	264	08.6	+02.5	265	07.8	+02.4	13
14	276	13.7	+02.4	277	12.8	+02.5	278	12.0	+02.4	279	11.1	+02.5	280	10.2	+02.5	14
15	291	16.1	+02.5	292	15.3	+02.4	293	14.4	+02.5	294	13.6	+02.4	295	12.7	+02.5	15
16	306	18.6	+02.5	307	17.7	+02.5	308	16.9	+02.5	309	16.0	+02.5	310	15.2	+02.4	16
17	321	21.1	+02.4	322	20.2	+02.5	323	19.4	+02.4	324	18.5	+02.5	325	17.6	+02.5	17
18	336	23.5	+02.5	337	22.7	+02.4	338	21.8	+02.5	339	21.0	+02.4	340	20.1	+02.5	18
19	351	26.0	+02.5	352	25.1	+02.5	353	24.3	+02.4	354	23.4	+02.5	355	22.6	+02.4	19
20	6	28.5	+02.4	7	27.6	+02.5	8	26.7	+02.5	9	25.9	+02.5	10	25.0	+02.5	20
21	21	30.9	+02.5	22	30.1	+02.4	23	29.2	+02.5	24	28.4	+02.4	25	27.5	+02.5	21
22	36	33.4	+02.5	37	32.5	+02.5	38	31.7	+02.4	39	30.8	+02.5	40	30.0	+02.4	22
23	51	35.9	+02.4	52	35.0	+02.5	53	34.1	+02.5	54	33.3	+02.4	55	32.4	+02.5	23

	SHA	Dec		SHA	Dec				
	° ' "	' "		° ' "	' "				
Alpheratz	357	35.7	N 29	13.6	Gienah	175	44.7	S 17	40.3
Ankaa	353	08.0	S 42	10.6	Acrux	173	01.6	S 63	13.5
Schedir	349	31.8	N 56	40.3	Gacrux	171	53.1	S 57	14.4
Diphda	348	48.1	S 17	51.4	Alioth	166	14.3	N 55	49.7
Achernar	335	20.5	S 57	07.1	Spica	158	23.5	S 11	17.0
Hamal	327	52.0	N 23	34.7	Alkaid	152	53.1	N 49	11.5
Polaris	314	02.7	N 89	22.0	Hadar	148	37.9	S 60	29.0
Acamar	315	12.1	S 40	12.6	Menkent	147	58.8	S 36	28.8
Menkar	314	06.8	N 04	11.1	Arcturus	145	48.7	N 19	04.3
Mirfak	308	29.1	N 49	56.8	Rigel Kentaurus	139	39.5	S 60	56.0
Aldebaran	290	40.4	N 16	33.6	Zubenelgenubi	136	57.4	S 16	08.3
Capella	280	22.9	N 46	01.5	Kocab	137	20.8	N 74	03.3
Rigel	281	04.5	S 08	10.4	Alphecca	126	05.0	N 26	38.1
Bellatrix	278	23.6	N 06	22.3	Antares	112	17.5	S 26	29.0
Elnath	278	02.7	N 28	37.7	Atria	107	13.1	S 69	04.2
Alnilam	275	38.4	S 01	11.1	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	52.8	N 07	24.7	Shaula	96	12.1	S 37	07.3
Canopus	263	52.3	S 52	42.3	Rasalhague	95	59.8	N 12	32.7
Sirius	258	26.6	S 16	44.3	Etamin	90	43.1	N 51	29.2
Adhara	255	06.3	S 29	00.1	Kaus Australis	83	34.1	S 34	22.4
Castor	245	57.9	N 31	50.1	Vega	80	34.3	N 38	48.3
Procyon	244	51.4	N 05	10.3	Nunki	75	49.2	S 26	16.1
Pollux	243	17.9	N 27	58.1	Albireo	67	05.1	N 28	00.7
Avior	234	14.8	S 59	34.8	Altair	62	01.3	N 08	55.8
Suhail	222	46.8	S 43	31.4	Peacock	53	07.5	S 56	39.7
Miaplacidus	221	38.0	S 69	48.5	Deneb	49	26.7	N 45	22.1
Alphard	217	48.6	S 08	45.6	Enif	33	39.8	N 09	59.1
Regulus	207	35.3	N 11	51.1	Alnair	27	34.2	S 46	50.9
Dubhe	193	42.2	N 61	37.1	Formalhaut	15	15.6	S 29	29.8
Denebola	182	25.9	N 14	26.4	Markab	13	30.8	N 15	20.1

2023 - First Point of Aries / Selected Stars

UT	day 336 of 365		day 337 of 365		day 338 of 365		day 339 of 365		day 340 of 365		UT					
	<i>December 2</i>		<i>December 3</i>		<i>December 4</i>		<i>December 5</i>		<i>December 6</i>							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	70	34.9	+02.4	71	34.0	+02.5	72	33.2	+02.4	73	32.3	+02.5	74	31.4	+02.5	00
01	85	37.3	+02.5	86	36.5	+02.5	87	35.6	+02.5	88	34.8	+02.4	89	33.9	+02.5	01
02	100	39.8	+02.5	101	39.0	+02.4	102	38.1	+02.5	103	37.2	+02.5	104	36.4	+02.4	02
03	115	42.3	+02.4	116	41.4	+02.5	117	40.6	+02.4	118	39.7	+02.5	119	38.8	+02.5	03
04	130	44.7	+02.5	131	43.9	+02.4	132	43.0	+02.5	133	42.2	+02.4	134	41.3	+02.5	04
05	145	47.2	+02.5	146	46.3	+02.5	147	45.5	+02.4	148	44.6	+02.5	149	43.8	+02.4	05
06	160	49.7	+02.4	161	48.8	+02.5	162	47.9	+02.5	163	47.1	+02.4	164	46.2	+02.5	06
07	175	52.1	+02.5	176	51.3	+02.4	177	50.4	+02.5	178	49.5	+02.5	179	48.7	+02.5	07
08	190	54.6	+02.5	191	53.7	+02.5	192	52.9	+02.4	193	52.0	+02.5	194	51.2	+02.4	08
09	205	57.1	+02.4	206	56.2	+02.5	207	55.3	+02.5	208	54.5	+02.4	209	53.6	+02.5	09
10	220	59.5	+02.5	221	58.7	+02.4	222	57.8	+02.5	223	56.9	+02.5	224	56.1	+02.4	10
11	236	02.0	+02.5	237	01.1	+02.5	238	00.3	+02.4	238	59.4	+02.5	239	58.5	+02.5	11
12	251	04.5	+02.4	252	03.6	+02.5	253	02.7	+02.5	254	01.9	+02.4	255	01.0	+02.5	12
13	266	06.9	+02.5	267	06.1	+02.4	268	05.2	+02.5	269	04.3	+02.5	270	03.5	+02.4	13
14	281	09.4	+02.4	282	08.5	+02.5	283	07.7	+02.4	284	06.8	+02.5	285	05.9	+02.5	14
15	296	11.8	+02.5	297	11.0	+02.4	298	10.1	+02.5	299	09.3	+02.4	300	08.4	+02.5	15
16	311	14.3	+02.5	312	13.4	+02.5	313	12.6	+02.5	314	11.7	+02.5	315	10.9	+02.4	16
17	326	16.8	+02.4	327	15.9	+02.5	328	15.1	+02.4	329	14.2	+02.5	330	13.3	+02.5	17
18	341	19.2	+02.5	342	18.4	+02.4	343	17.5	+02.5	344	16.7	+02.4	345	15.8	+02.5	18
19	356	21.7	+02.5	357	20.8	+02.5	358	20.0	+02.4	359	19.1	+02.5	0	18.3	+02.4	19
20	11	24.2	+02.4	12	23.3	+02.5	13	22.4	+02.5	14	21.6	+02.4	15	20.7	+02.5	20
21	26	26.6	+02.5	27	25.8	+02.4	28	24.9	+02.5	29	24.0	+02.5	30	23.2	+02.4	21
22	41	29.1	+02.5	42	28.2	+02.5	43	27.4	+02.4	44	26.5	+02.5	45	25.6	+02.5	22
23	56	31.6	+02.4	57	30.7	+02.5	58	29.8	+02.5	59	29.0	+02.4	60	28.1	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.7	N 29	13.6	Gienah	175	44.6	S 17	40.3
Ankaa	353	08.0	S 42	10.6	Acrux	173	01.5	S 63	13.5
Schedir	349	31.9	N 56	40.4	Gacrux	171	53.0	S 57	14.4
Diphda	348	48.1	S 17	51.4	Alioth	166	14.2	N 55	49.6
Achernar	335	20.5	S 57	07.1	Spica	158	23.5	S 11	17.0
Hamal	327	52.0	N 23	34.7	Alkaid	152	53.1	N 49	11.5
Polaris	314	02.9	N 89	22.0	Hadar	148	37.9	S 60	29.0
Acamar	315	12.0	S 40	12.6	Menkent	147	58.7	S 36	28.8
Menkar	314	06.8	N 04	11.1	Arcturus	145	48.7	N 19	04.2
Mirfak	308	29.1	N 49	56.9	Rigel Kentaurus	139	39.4	S 60	56.0
Aldebaran	290	40.4	N 16	33.6	Zubenelgenubi	136	57.3	S 16	08.3
Capella	280	22.8	N 46	01.5	Kocab	137	20.8	N 74	03.3
Rigel	281	04.4	S 08	10.4	Alphecca	126	04.9	N 26	38.1
Bellatrix	278	23.5	N 06	22.3	Antares	112	17.5	S 26	29.0
Elnath	278	02.7	N 28	37.7	Atria	107	13.0	S 69	04.2
Alnilam	275	38.4	S 01	11.1	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	52.8	N 07	24.7	Shaula	96	12.1	S 37	07.3
Canopus	263	52.3	S 52	42.3	Rasalhague	95	59.8	N 12	32.7
Sirius	258	26.6	S 16	44.3	Etamin	90	43.1	N 51	29.2
Adhara	255	06.3	S 29	00.1	Kaus Australis	83	34.1	S 34	22.4
Castor	245	57.9	N 31	50.1	Vega	80	34.3	N 38	48.3
Procyon	244	51.3	N 05	10.3	Nunki	75	49.2	S 26	16.1
Pollux	243	17.8	N 27	58.1	Albireo	67	05.1	N 28	00.7
Avior	234	14.7	S 59	34.8	Altair	62	01.3	N 08	55.8
Suhail	222	46.8	S 43	31.4	Peacock	53	07.5	S 56	39.7
Miaplacidus	221	37.9	S 69	48.6	Deneb	49	26.7	N 45	22.1
Alphard	217	48.6	S 08	45.6	Enif	33	39.8	N 09	59.1
Regulus	207	35.3	N 11	51.0	Alnair	27	34.2	S 46	50.9
Dubhe	193	42.1	N 61	37.1	Formalhaut	15	15.7	S 29	29.8
Denebola	182	25.8	N 14	26.4	Markab	13	30.8	N 15	20.1

2023 - First Point of Aries / Selected Stars

UT	day 341 of 365		day 342 of 365		day 343 of 365		day 344 of 365		day 345 of 365		UT					
	<i>December 7</i>		<i>December 8</i>		<i>December 9</i>		<i>December 10</i>		<i>December 11</i>							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	75	30.6	+02.4	76	29.7	+02.5	77	28.9	+02.4	78	28.0	+02.5	79	27.1	+02.5	00
01	90	33.0	+02.5	91	32.2	+02.4	92	31.3	+02.5	93	30.5	+02.4	94	29.6	+02.5	01
02	105	35.5	+02.5	106	34.6	+02.5	107	33.8	+02.4	108	32.9	+02.5	109	32.1	+02.4	02
03	120	38.0	+02.4	121	37.1	+02.5	122	36.2	+02.5	123	35.4	+02.4	124	34.5	+02.5	03
04	135	40.4	+02.5	136	39.6	+02.4	137	38.7	+02.5	138	37.8	+02.5	139	37.0	+02.5	04
05	150	42.9	+02.5	151	42.0	+02.5	152	41.2	+02.4	153	40.3	+02.5	154	39.5	+02.4	05
06	165	45.4	+02.4	166	44.5	+02.5	167	43.6	+02.5	168	42.8	+02.4	169	41.9	+02.5	06
07	180	47.8	+02.5	181	47.0	+02.4	182	46.1	+02.5	183	45.2	+02.5	184	44.4	+02.4	07
08	195	50.3	+02.5	196	49.4	+02.5	197	48.6	+02.4	198	47.7	+02.5	199	46.8	+02.5	08
09	210	52.8	+02.4	211	51.9	+02.5	212	51.0	+02.5	213	50.2	+02.4	214	49.3	+02.5	09
10	225	55.2	+02.5	226	54.4	+02.4	227	53.5	+02.5	228	52.6	+02.5	229	51.8	+02.4	10
11	240	57.7	+02.4	241	56.8	+02.5	242	56.0	+02.4	243	55.1	+02.5	244	54.2	+02.5	11
12	256	00.1	+02.5	256	59.3	+02.4	257	58.4	+02.5	258	57.6	+02.4	259	56.7	+02.5	12
13	271	02.6	+02.5	272	01.7	+02.5	273	00.9	+02.5	274	00.0	+02.5	274	59.2	+02.4	13
14	286	05.1	+02.4	287	04.2	+02.5	288	03.4	+02.4	289	02.5	+02.5	290	01.6	+02.5	14
15	301	07.5	+02.5	302	06.7	+02.4	303	05.8	+02.5	304	05.0	+02.4	305	04.1	+02.5	15
16	316	10.0	+02.5	317	09.1	+02.5	318	08.3	+02.4	319	07.4	+02.5	320	06.6	+02.4	16
17	331	12.5	+02.4	332	11.6	+02.5	333	10.7	+02.5	334	09.9	+02.4	335	09.0	+02.5	17
18	346	14.9	+02.5	347	14.1	+02.4	348	13.2	+02.5	349	12.3	+02.5	350	11.5	+02.5	18
19	1	17.4	+02.5	2	16.5	+02.5	3	15.7	+02.4	4	14.8	+02.5	5	14.0	+02.4	19
20	16	19.9	+02.4	17	19.0	+02.5	18	18.1	+02.5	19	17.3	+02.4	20	16.4	+02.5	20
21	31	22.3	+02.5	32	21.5	+02.4	33	20.6	+02.5	34	19.7	+02.5	35	18.9	+02.4	21
22	46	24.8	+02.5	47	23.9	+02.5	48	23.1	+02.4	49	22.2	+02.5	50	21.3	+02.5	22
23	61	27.3	+02.4	62	26.4	+02.5	63	25.5	+02.5	64	24.7	+02.4	65	23.8	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.7	N 29	13.6	Gienah	175	44.6	S 17	40.3
Ankaa	353	08.0	S 42	10.6	Acrux	173	01.4	S 63	13.5
Schedir	349	31.9	N 56	40.4	Gacrux	171	53.0	S 57	14.4
Diphda	348	48.2	S 17	51.4	Alioth	166	14.2	N 55	49.6
Achernar	335	20.5	S 57	07.1	Spica	158	23.5	S 11	17.0
Hamal	327	52.0	N 23	34.7	Alkaid	152	53.0	N 49	11.5
Polaris	314	03.8	N 89	22.1	Hadar	148	37.8	S 60	29.0
Acamar	315	12.1	S 40	12.6	Menkent	147	58.7	S 36	28.8
Menkar	314	06.8	N 04	11.1	Arcturus	145	48.6	N 19	04.2
Mirfak	308	29.1	N 49	56.9	Rigel Kentaurus	139	39.4	S 60	56.0
Aldebaran	290	40.4	N 16	33.6	Zubenelgenubi	136	57.3	S 16	08.3
Capella	280	22.8	N 46	01.5	Kocab	137	20.8	N 74	03.2
Rigel	281	04.4	S 08	10.4	Alphecca	126	04.9	N 26	38.1
Bellatrix	278	23.5	N 06	22.3	Antares	112	17.5	S 26	29.0
Elnath	278	02.7	N 28	37.7	Atria	107	13.0	S 69	04.2
Alnilam	275	38.3	S 01	11.1	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	52.8	N 07	24.7	Shaula	96	12.0	S 37	07.2
Canopus	263	52.3	S 52	42.3	Rasalhague	95	59.8	N 12	32.7
Sirius	258	26.5	S 16	44.3	Etamin	90	43.1	N 51	29.2
Adhara	255	06.2	S 29	00.1	Kaus Australis	83	34.1	S 34	22.4
Castor	245	57.9	N 31	50.1	Vega	80	34.3	N 38	48.3
Procyon	244	51.3	N 05	10.3	Nunki	75	49.2	S 26	16.1
Pollux	243	17.8	N 27	58.1	Albireo	67	05.1	N 28	00.7
Avior	234	14.7	S 59	34.9	Altair	62	01.3	N 08	55.8
Suhail	222	46.8	S 43	31.4	Peacock	53	07.6	S 56	39.7
Miaplacidus	221	37.9	S 69	48.6	Deneb	49	26.7	N 45	22.1
Alphard	217	48.5	S 08	45.6	Enif	33	39.8	N 09	59.1
Regulus	207	35.2	N 11	51.0	Alnair	27	34.2	S 46	50.9
Dubhe	193	42.0	N 61	37.1	Formalhaut	15	15.7	S 29	29.8
Denebola	182	25.8	N 14	26.3	Markab	13	30.8	N 15	20.1

2023 - First Point of Aries / Selected Stars

UT	day 346 of 365			day 347 of 365			day 348 of 365			day 349 of 365			day 350 of 365			UT		
	<i>December 12</i>			<i>December 13</i>			<i>December 14</i>			<i>December 15</i>			<i>December 16</i>					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	80	26.3	+02.4	81	25.4	+02.5	82	24.6	+02.4	83	23.7	+02.5	84	22.8	+02.5	00		
01	95	28.7	+02.5	96	27.9	+02.4	97	27.0	+02.5	98	26.2	+02.4	99	25.3	+02.5	01		
02	110	31.2	+02.5	111	30.3	+02.5	112	29.5	+02.4	113	28.6	+02.5	114	27.8	+02.4	02		
03	125	33.7	+02.4	126	32.8	+02.5	127	31.9	+02.5	128	31.1	+02.5	129	30.2	+02.5	03		
04	140	36.1	+02.5	141	35.3	+02.4	142	34.4	+02.5	143	33.6	+02.4	144	32.7	+02.5	04		
05	155	38.6	+02.5	156	37.7	+02.5	157	36.9	+02.4	158	36.0	+02.5	159	35.2	+02.4	05		
06	170	41.1	+02.4	171	40.2	+02.5	172	39.3	+02.5	173	38.5	+02.4	174	37.6	+02.5	06		
07	185	43.5	+02.5	186	42.7	+02.4	187	41.8	+02.5	188	40.9	+02.5	189	40.1	+02.5	07		
08	200	46.0	+02.5	201	45.1	+02.5	202	44.3	+02.4	203	43.4	+02.5	204	42.6	+02.4	08		
09	215	48.5	+02.4	216	47.6	+02.5	217	46.7	+02.5	218	45.9	+02.4	219	45.0	+02.5	09		
10	230	50.9	+02.5	231	50.1	+02.4	232	49.2	+02.5	233	48.3	+02.5	234	47.5	+02.4	10		
11	245	53.4	+02.4	246	52.5	+02.5	247	51.7	+02.4	248	50.8	+02.5	249	49.9	+02.5	11		
12	260	55.8	+02.5	261	55.0	+02.4	262	54.1	+02.5	263	53.3	+02.4	264	52.4	+02.5	12		
13	275	58.3	+02.5	276	57.4	+02.5	277	56.6	+02.5	278	55.7	+02.5	279	54.9	+02.4	13		
14	291	00.8	+02.4	291	59.9	+02.5	292	59.1	+02.4	293	58.2	+02.5	294	57.3	+02.5	14		
15	306	03.2	+02.5	307	02.4	+02.4	308	01.5	+02.5	309	00.7	+02.4	309	59.8	+02.5	15		
16	321	05.7	+02.5	322	04.8	+02.5	323	04.0	+02.4	324	03.1	+02.5	325	02.3	+02.4	16		
17	336	08.2	+02.4	337	07.3	+02.5	338	06.4	+02.5	339	05.6	+02.5	340	04.7	+02.5	17		
18	351	10.6	+02.5	352	09.8	+02.4	353	08.9	+02.5	354	08.1	+02.4	355	07.2	+02.5	18		
19	6	13.1	+02.5	7	12.2	+02.5	8	11.4	+02.4	9	10.5	+02.5	10	09.7	+02.4	19		
20	21	15.6	+02.4	22	14.7	+02.5	23	13.8	+02.5	24	13.0	+02.4	25	12.1	+02.5	20		
21	36	18.0	+02.5	37	17.2	+02.4	38	16.3	+02.5	39	15.4	+02.5	40	14.6	+02.5	21		
22	51	20.5	+02.5	52	19.6	+02.5	53	18.8	+02.4	54	17.9	+02.5	55	17.1	+02.4	22		
23	66	23.0	+02.4	67	22.1	+02.5	68	21.2	+02.5	69	20.4	+02.4	70	19.5	+02.5	23		

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.7	N 29	13.6	Gienah	175	44.6	S 17	40.3
Ankaa	353	08.0	S 42	10.7	Acrux	173	01.3	S 63	13.5
Schedir	349	31.9	N 56	40.4	Gacrux	171	52.9	S 57	14.4
Diphda	348	48.2	S 17	51.4	Alioth	166	14.1	N 55	49.6
Achernar	335	20.6	S 57	07.1	Spica	158	23.4	S 11	17.0
Hamal	327	52.1	N 23	34.7	Alkaid	152	53.0	N 49	11.5
Polaris	314	04.5	N 89	22.1	Hadar	148	37.8	S 60	29.0
Acamar	315	12.1	S 40	12.7	Menkent	147	58.7	S 36	28.8
Menkar	314	06.8	N 04	11.1	Arcturus	145	48.6	N 19	04.2
Mirfak	308	29.1	N 49	56.9	Rigel Kentaurus	139	39.3	S 60	56.0
Aldebaran	290	40.3	N 16	33.6	Zubenelgenubi	136	57.3	S 16	08.3
Capella	280	22.8	N 46	01.5	Kocab	137	20.7	N 74	03.2
Rigel	281	04.4	S 08	10.4	Alphecca	126	04.9	N 26	38.0
Bellatrix	278	23.5	N 06	22.3	Antares	112	17.4	S 26	29.0
Elnath	278	02.6	N 28	37.7	Atria	107	13.0	S 69	04.1
Alnilam	275	38.3	S 01	11.2	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	52.7	N 07	24.7	Shaula	96	12.0	S 37	07.2
Canopus	263	52.3	S 52	42.4	Rasalhague	95	59.8	N 12	32.6
Sirius	258	26.5	S 16	44.4	Etamin	90	43.1	N 51	29.1
Adhara	255	06.2	S 29	00.1	Kaus Australis	83	34.1	S 34	22.4
Castor	245	57.8	N 31	50.1	Vega	80	34.4	N 38	48.3
Procyon	244	51.3	N 05	10.2	Nunki	75	49.2	S 26	16.0
Pollux	243	17.8	N 27	58.1	Albireo	67	05.1	N 28	00.6
Avior	234	14.6	S 59	34.9	Altair	62	01.3	N 08	55.8
Suhail	222	46.7	S 43	31.5	Peacock	53	07.6	S 56	39.7
Miaplacidus	221	37.8	S 69	48.6	Deneb	49	26.7	N 45	22.1
Alphard	217	48.5	S 08	45.6	Enif	33	39.8	N 09	59.1
Regulus	207	35.2	N 11	51.0	Alnair	27	34.3	S 46	50.9
Dubhe	193	41.9	N 61	37.1	Formalhaut	15	15.7	S 29	29.9
Denebola	182	25.7	N 14	26.3	Markab	13	30.9	N 15	20.1

2023 - First Point of Aries / Selected Stars

UT	day 351 of 365		day 352 of 365		day 353 of 365		day 354 of 365		day 355 of 365		UT					
	<i>December 17</i>		<i>December 18</i>		<i>December 19</i>		<i>December 20</i>		<i>December 21</i>							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	85	22.0	+02.4	86	21.1	+02.5	87	20.3	+02.4	88	19.4	+02.5	89	18.5	+02.5	00
01	100	24.4	+02.5	101	23.6	+02.4	102	22.7	+02.5	103	21.9	+02.4	104	21.0	+02.5	01
02	115	26.9	+02.5	116	26.0	+02.5	117	25.2	+02.5	118	24.3	+02.5	119	23.5	+02.4	02
03	130	29.4	+02.4	131	28.5	+02.5	132	27.7	+02.4	133	26.8	+02.5	134	25.9	+02.5	03
04	145	31.8	+02.5	146	31.0	+02.4	147	30.1	+02.5	148	29.3	+02.4	149	28.4	+02.5	04
05	160	34.3	+02.5	161	33.4	+02.5	162	32.6	+02.4	163	31.7	+02.5	164	30.9	+02.4	05
06	175	36.8	+02.4	176	35.9	+02.5	177	35.0	+02.5	178	34.2	+02.4	179	33.3	+02.5	06
07	190	39.2	+02.5	191	38.4	+02.4	192	37.5	+02.5	193	36.6	+02.5	194	35.8	+02.4	07
08	205	41.7	+02.5	206	40.8	+02.5	207	40.0	+02.4	208	39.1	+02.5	209	38.2	+02.5	08
09	220	44.2	+02.4	221	43.3	+02.5	222	42.4	+02.5	223	41.6	+02.4	224	40.7	+02.5	09
10	235	46.6	+02.5	236	45.8	+02.4	237	44.9	+02.5	238	44.0	+02.5	239	43.2	+02.4	10
11	250	49.1	+02.4	251	48.2	+02.5	252	47.4	+02.4	253	46.5	+02.5	254	45.6	+02.5	11
12	265	51.5	+02.5	266	50.7	+02.5	267	49.8	+02.5	268	49.0	+02.4	269	48.1	+02.5	12
13	280	54.0	+02.5	281	53.2	+02.4	282	52.3	+02.5	283	51.4	+02.5	284	50.6	+02.4	13
14	295	56.5	+02.4	296	55.6	+02.5	297	54.8	+02.4	298	53.9	+02.5	299	53.0	+02.5	14
15	310	58.9	+02.5	311	58.1	+02.4	312	57.2	+02.5	313	56.4	+02.4	314	55.5	+02.5	15
16	326	01.4	+02.5	327	00.5	+02.5	327	59.7	+02.4	328	58.8	+02.5	329	58.0	+02.4	16
17	341	03.9	+02.4	342	03.0	+02.5	343	02.1	+02.5	344	01.3	+02.4	345	00.4	+02.5	17
18	356	06.3	+02.5	357	05.5	+02.4	358	04.6	+02.5	359	03.7	+02.5	0	02.9	+02.5	18
19	11	08.8	+02.5	12	07.9	+02.5	13	07.1	+02.4	14	06.2	+02.5	15	05.4	+02.4	19
20	26	11.3	+02.4	27	10.4	+02.5	28	09.5	+02.5	29	08.7	+02.4	30	07.8	+02.5	20
21	41	13.7	+02.5	42	12.9	+02.4	43	12.0	+02.5	44	11.1	+02.5	45	10.3	+02.4	21
22	56	16.2	+02.5	57	15.3	+02.5	58	14.5	+02.4	59	13.6	+02.5	60	12.7	+02.5	22
23	71	18.7	+02.4	72	17.8	+02.5	73	16.9	+02.5	74	16.1	+02.4	75	15.2	+02.5	23

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.7	N 29	13.6	Gienah	175	44.5	S 17	40.4
Ankaa	353	08.0	S 42	10.7	Acrux	173	01.2	S 63	13.6
Schedir	349	31.9	N 56	40.4	Gacrux	171	52.8	S 57	14.4
Diphda	348	48.2	S 17	51.4	Alioth	166	14.0	N 55	49.6
Achernar	335	20.6	S 57	07.2	Spica	158	23.4	S 11	17.1
Hamal	327	52.1	N 23	34.7	Alkaid	152	52.9	N 49	11.4
Polaris	314	05.3	N 89	22.1	Hadar	148	37.7	S 60	29.0
Acamar	315	12.1	S 40	12.7	Menkent	147	58.6	S 36	28.8
Menkar	314	06.8	N 04	11.1	Arcturus	145	48.6	N 19	04.2
Mirfak	308	29.1	N 49	56.9	Rigel Kentaurus	139	39.2	S 60	56.0
Aldebaran	290	40.3	N 16	33.6	Zubenelgenubi	136	57.2	S 16	08.3
Capella	280	22.8	N 46	01.5	Kocab	137	20.6	N 74	03.2
Rigel	281	04.4	S 08	10.4	Alphecca	126	04.9	N 26	38.0
Bellatrix	278	23.5	N 06	22.3	Antares	112	17.4	S 26	29.0
Elnath	278	02.6	N 28	37.7	Atria	107	12.9	S 69	04.1
Alnilam	275	38.3	S 01	11.2	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	52.7	N 07	24.7	Shaula	96	12.0	S 37	07.2
Canopus	263	52.2	S 52	42.4	Rasalhague	95	59.8	N 12	32.6
Sirius	258	26.5	S 16	44.4	Etamin	90	43.1	N 51	29.1
Adhara	255	06.2	S 29	00.2	Kaus Australis	83	34.1	S 34	22.4
Castor	245	57.8	N 31	50.1	Vega	80	34.3	N 38	48.2
Procyon	244	51.2	N 05	10.2	Nunki	75	49.2	S 26	16.0
Pollux	243	17.7	N 27	58.1	Albireo	67	05.1	N 28	00.6
Avior	234	14.6	S 59	34.9	Altair	62	01.3	N 08	55.7
Suhail	222	46.7	S 43	31.5	Peacock	53	07.6	S 56	39.6
Miaplacidus	221	37.7	S 69	48.6	Deneb	49	26.8	N 45	22.1
Alphard	217	48.4	S 08	45.7	Enif	33	39.9	N 09	59.1
Regulus	207	35.1	N 11	51.0	Alnair	27	34.3	S 46	50.9
Dubhe	193	41.9	N 61	37.1	Formalhaut	15	15.7	S 29	29.9
Denebola	182	25.7	N 14	26.3	Markab	13	30.9	N 15	20.1

2023 - First Point of Aries / Selected Stars

UT	day 356 of 365			day 357 of 365			day 358 of 365			day 359 of 365			day 360 of 365			UT		
	<i>December 22</i>			<i>December 23</i>			<i>December 24</i>			<i>December 25</i>			<i>December 26</i>					
	GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA		GHA	ddGHA				
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"
00	90	17.7	+02.4	91	16.8	+02.5	92	16.0	+02.4	93	15.1	+02.5	94	14.2	+02.5	00		
01	105	20.1	+02.5	106	19.3	+02.4	107	18.4	+02.5	108	17.6	+02.4	109	16.7	+02.5	01		
02	120	22.6	+02.5	121	21.7	+02.5	122	20.9	+02.4	123	20.0	+02.5	124	19.2	+02.4	02		
03	135	25.1	+02.4	136	24.2	+02.5	137	23.3	+02.5	138	22.5	+02.4	139	21.6	+02.5	03		
04	150	27.5	+02.5	151	26.7	+02.4	152	25.8	+02.5	153	24.9	+02.5	154	24.1	+02.5	04		
05	165	30.0	+02.5	166	29.1	+02.5	167	28.3	+02.4	168	27.4	+02.5	169	26.6	+02.4	05		
06	180	32.5	+02.4	181	31.6	+02.5	182	30.7	+02.5	183	29.9	+02.4	184	29.0	+02.5	06		
07	195	34.9	+02.5	196	34.1	+02.4	197	33.2	+02.5	198	32.3	+02.5	199	31.5	+02.4	07		
08	210	37.4	+02.4	211	36.5	+02.5	212	35.7	+02.4	213	34.8	+02.5	214	33.9	+02.5	08		
09	225	39.8	+02.5	226	39.0	+02.5	227	38.1	+02.5	228	37.3	+02.4	229	36.4	+02.5	09		
10	240	42.3	+02.5	241	41.5	+02.4	242	40.6	+02.5	243	39.7	+02.5	244	38.9	+02.4	10		
11	255	44.8	+02.4	256	43.9	+02.5	257	43.1	+02.4	258	42.2	+02.5	259	41.3	+02.5	11		
12	270	47.2	+02.5	271	46.4	+02.4	272	45.5	+02.5	273	44.7	+02.4	274	43.8	+02.5	12		
13	285	49.7	+02.5	286	48.8	+02.5	287	48.0	+02.5	288	47.1	+02.5	289	46.3	+02.4	13		
14	300	52.2	+02.4	301	51.3	+02.5	302	50.5	+02.4	303	49.6	+02.5	304	48.7	+02.5	14		
15	315	54.6	+02.5	316	53.8	+02.4	317	52.9	+02.5	318	52.1	+02.4	319	51.2	+02.5	15		
16	330	57.1	+02.5	331	56.2	+02.5	332	55.4	+02.4	333	54.5	+02.5	334	53.7	+02.4	16		
17	345	59.6	+02.4	346	58.7	+02.5	347	57.8	+02.5	348	57.0	+02.4	349	56.1	+02.5	17		
18	1	02.0	+02.5	2	01.2	+02.4	3	00.3	+02.5	3	59.4	+02.5	4	58.6	+02.5	18		
19	16	04.5	+02.5	17	03.6	+02.5	18	02.8	+02.4	19	01.9	+02.5	20	01.1	+02.4	19		
20	31	07.0	+02.4	32	06.1	+02.5	33	05.2	+02.5	34	04.4	+02.4	35	03.5	+02.5	20		
21	46	09.4	+02.5	47	08.6	+02.4	48	07.7	+02.5	49	06.8	+02.5	50	06.0	+02.4	21		
22	61	11.9	+02.4	62	11.0	+02.5	63	10.2	+02.4	64	09.3	+02.5	65	08.4	+02.5	22		
23	76	14.3	+02.5	77	13.5	+02.5	78	12.6	+02.5	79	11.8	+02.4	80	10.9	+02.5	23		

	SHA	Dec		SHA	Dec				
	°	'		°	'				
Alpheratz	357	35.7	N 29	13.6	Gienah	175	44.5	S 17	40.4
Ankaa	353	08.1	S 42	10.7	Acrux	173	01.2	S 63	13.6
Schedir	349	32.0	N 56	40.4	Gacrux	171	52.8	S 57	14.4
Diphda	348	48.2	S 17	51.5	Alioth	166	14.0	N 55	49.5
Achernar	335	20.6	S 57	07.2	Spica	158	23.4	S 11	17.1
Hamal	327	52.1	N 23	34.7	Alkaid	152	52.9	N 49	11.4
Polaris	314	06.8	N 89	22.1	Hadar	148	37.6	S 60	29.0
Acamar	315	12.1	S 40	12.7	Menkent	147	58.6	S 36	28.8
Menkar	314	06.8	N 04	11.1	Arcturus	145	48.5	N 19	04.2
Mirfak	308	29.1	N 49	56.9	Rigel Kentaurus	139	39.2	S 60	56.0
Aldebaran	290	40.3	N 16	33.6	Zubenelgenubi	136	57.2	S 16	08.4
Capella	280	22.7	N 46	01.5	Kocab	137	20.6	N 74	03.1
Rigel	281	04.4	S 08	10.4	Alphecca	126	04.8	N 26	38.0
Bellatrix	278	23.5	N 06	22.3	Antares	112	17.4	S 26	29.0
Elnath	278	02.6	N 28	37.8	Atria	107	12.9	S 69	04.1
Alnilam	275	38.3	S 01	11.2	Sabik	102	04.2	S 15	45.3
Betelgeuze	270	52.7	N 07	24.7	Shaula	96	12.0	S 37	07.2
Canopus	263	52.2	S 52	42.4	Rasalhague	95	59.8	N 12	32.6
Sirius	258	26.5	S 16	44.4	Etamin	90	43.1	N 51	29.1
Adhara	255	06.2	S 29	00.2	Kaus Australis	83	34.1	S 34	22.4
Castor	245	57.7	N 31	50.1	Vega	80	34.3	N 38	48.2
Procyon	244	51.2	N 05	10.2	Nunki	75	49.2	S 26	16.0
Pollux	243	17.7	N 27	58.1	Albireo	67	05.1	N 28	00.6
Avior	234	14.5	S 59	34.9	Altair	62	01.3	N 08	55.7
Suhail	222	46.6	S 43	31.5	Peacock	53	07.6	S 56	39.6
Miaplacidus	221	37.6	S 69	48.7	Deneb	49	26.8	N 45	22.0
Alphard	217	48.4	S 08	45.7	Enif	33	39.9	N 09	59.1
Regulus	207	35.1	N 11	51.0	Alnair	27	34.3	S 46	50.9
Dubhe	193	41.8	N 61	37.1	Formalhaut	15	15.7	S 29	29.9
Denebola	182	25.7	N 14	26.3	Markab	13	30.9	N 15	20.1

2023 - First Point of Aries / Selected Stars

UT	day 361 of 365		day 362 of 365		day 363 of 365		day 364 of 365		day 365 of 365		UT					
	<i>December 27</i>		<i>December 28</i>		<i>December 29</i>		<i>December 30</i>		<i>December 31</i>							
	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA	GHA	ddGHA						
	°	'	°	'	°	'	°	'	°	'						
00	95	13.4	+02.4	96	12.5	+02.5	97	11.7	+02.4	98	10.8	+02.5	99	09.9	+02.5	00
01	110	15.8	+02.5	111	15.0	+02.4	112	14.1	+02.5	113	13.3	+02.4	114	12.4	+02.5	01
02	125	18.3	+02.5	126	17.4	+02.5	127	16.6	+02.4	128	15.7	+02.5	129	14.9	+02.4	02
03	140	20.8	+02.4	141	19.9	+02.5	142	19.0	+02.5	143	18.2	+02.5	144	17.3	+02.5	03
04	155	23.2	+02.5	156	22.4	+02.4	157	21.5	+02.5	158	20.7	+02.4	159	19.8	+02.5	04
05	170	25.7	+02.5	171	24.8	+02.5	172	24.0	+02.4	173	23.1	+02.5	174	22.3	+02.4	05
06	185	28.2	+02.4	186	27.3	+02.5	187	26.4	+02.5	188	25.6	+02.4	189	24.7	+02.5	06
07	200	30.6	+02.5	201	29.8	+02.4	202	28.9	+02.5	203	28.0	+02.5	204	27.2	+02.5	07
08	215	33.1	+02.5	216	32.2	+02.5	217	31.4	+02.4	218	30.5	+02.5	219	29.7	+02.4	08
09	230	35.6	+02.4	231	34.7	+02.5	232	33.8	+02.5	233	33.0	+02.4	234	32.1	+02.5	09
10	245	38.0	+02.5	246	37.2	+02.4	247	36.3	+02.5	248	35.4	+02.5	249	34.6	+02.4	10
11	260	40.5	+02.4	261	39.6	+02.5	262	38.8	+02.4	263	37.9	+02.5	264	37.0	+02.5	11
12	275	42.9	+02.5	276	42.1	+02.5	277	41.2	+02.5	278	40.4	+02.4	279	39.5	+02.5	12
13	290	45.4	+02.5	291	44.6	+02.4	292	43.7	+02.5	293	42.8	+02.5	294	42.0	+02.4	13
14	305	47.9	+02.4	306	47.0	+02.5	307	46.2	+02.4	308	45.3	+02.5	309	44.4	+02.5	14
15	320	50.3	+02.5	321	49.5	+02.4	322	48.6	+02.5	323	47.8	+02.4	324	46.9	+02.5	15
16	335	52.8	+02.5	336	51.9	+02.5	337	51.1	+02.4	338	50.2	+02.5	339	49.4	+02.4	16
17	350	55.3	+02.4	351	54.4	+02.5	352	53.5	+02.5	353	52.7	+02.5	354	51.8	+02.5	17
18	5	57.7	+02.5	6	56.9	+02.4	7	56.0	+02.5	8	55.2	+02.4	9	54.3	+02.5	18
19	21	00.2	+02.5	21	59.3	+02.5	22	58.5	+02.4	23	57.6	+02.5	24	56.8	+02.4	19
20	36	02.7	+02.4	37	01.8	+02.5	38	00.9	+02.5	39	00.1	+02.4	39	59.2	+02.5	20
21	51	05.1	+02.5	52	04.3	+02.4	53	03.4	+02.5	54	02.5	+02.5	55	01.7	+02.4	21
22	66	07.6	+02.5	67	06.7	+02.5	68	05.9	+02.4	69	05.0	+02.5	70	04.1	+02.5	22
23	81	10.1	+02.4	82	09.2	+02.5	83	08.3	+02.5	84	07.5	+02.4	85	06.6	+02.5	23

	SHA	Dec		SHA	Dec				
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Alpheratz	357	35.7	N 29	13.6	Gienah	175	44.4	S 17	40.4
Ankaa	353	08.1	S 42	10.7	Acrux	173	01.1	S 63	13.6
Schedir	349	32.0	N 56	40.4	Gacrux	171	52.7	S 57	14.4
Diphda	348	48.2	S 17	51.5	Alioth	166	13.9	N 55	49.5
Achernar	335	20.7	S 57	07.2	Spica	158	23.3	S 11	17.1
Hamal	327	52.1	N 23	34.7	Alkaid	152	52.8	N 49	11.4
Polaris	314	07.9	N 89	22.2	Hadar	148	37.5	S 60	29.0
Acamar	315	12.1	S 40	12.7	Menkent	147	58.5	S 36	28.8
Menkar	314	06.8	N 04	11.1	Arcturus	145	48.5	N 19	04.1
Mirfak	308	29.1	N 49	56.9	Rigel Kentaurus	139	39.1	S 60	56.0
Aldebaran	290	40.3	N 16	33.5	Zubenelgenubi	136	57.1	S 16	08.4
Capella	280	22.7	N 46	01.5	Kocab	137	20.5	N 74	03.1
Rigel	281	04.4	S 08	10.4	Alphecca	126	04.8	N 26	38.0
Bellatrix	278	23.5	N 06	22.3	Antares	112	17.4	S 26	29.0
Elnath	278	02.6	N 28	37.8	Atria	107	12.8	S 69	04.1
Alnilam	275	38.3	S 01	11.2	Sabik	102	04.1	S 15	45.3
Betelgeuze	270	52.7	N 07	24.7	Shaula	96	12.0	S 37	07.2
Canopus	263	52.2	S 52	42.5	Rasalhague	95	59.7	N 12	32.6
Sirius	258	26.4	S 16	44.4	Etamin	90	43.1	N 51	29.1
Adhara	255	06.1	S 29	00.2	Kaus Australis	83	34.1	S 34	22.4
Castor	245	57.7	N 31	50.1	Vega	80	34.3	N 38	48.2
Procyon	244	51.2	N 05	10.2	Nunki	75	49.2	S 26	16.0
Pollux	243	17.6	N 27	58.1	Albireo	67	05.1	N 28	00.6
Avior	234	14.5	S 59	35.0	Altair	62	01.3	N 08	55.7
Suhail	222	46.6	S 43	31.6	Peacock	53	07.6	S 56	39.6
Miaplacidus	221	37.6	S 69	48.7	Deneb	49	26.8	N 45	22.0
Alphard	217	48.4	S 08	45.7	Enif	33	39.9	N 09	59.1
Regulus	207	35.1	N 11	51.0	Alnair	27	34.3	S 46	50.9
Dubhe	193	41.7	N 61	37.0	Formalhaut	15	15.7	S 29	29.9
Denebola	182	25.6	N 14	26.3	Markab	13	30.9	N 15	20.1

Polaris (Pole Star) Tables, 2023

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
	'	'	'	'	'	'	'	'	'	'	'	'
0	0 32.1	0 27.8	0 24.4	0 22.1	0 20.9	0 20.9	0 22.0	0 24.3	0 27.6	0 31.8	0 36.9	0 42.6
1	0 31.6	0 27.4	0 24.2	0 22.0	0 20.9	0 21.0	0 22.2	0 24.5	0 27.9	0 32.3	0 37.4	0 43.3
2	0 31.2	0 27.1	0 23.9	0 21.8	0 20.8	0 21.0	0 22.4	0 24.8	0 28.3	0 32.8	0 38.0	0 43.9
3	0 30.7	0 26.7	0 23.6	0 21.6	0 20.8	0 21.1	0 22.6	0 25.1	0 28.7	0 33.3	0 38.6	0 44.5
4	0 30.3	0 26.3	0 23.4	0 21.5	0 20.8	0 21.2	0 22.8	0 25.5	0 29.2	0 33.8	0 39.1	0 45.1
5	0 29.9	0 26.0	0 23.1	0 21.4	0 20.8	0 21.3	0 23.0	0 25.8	0 29.6	0 34.3	0 39.7	0 45.7
6	0 29.4	0 25.7	0 22.9	0 21.3	0 20.8	0 21.4	0 23.2	0 26.1	0 30.0	0 34.8	0 40.3	0 46.3
7	0 29.0	0 25.3	0 22.7	0 21.2	0 20.8	0 21.6	0 23.5	0 26.5	0 30.4	0 35.3	0 40.9	0 47.0
8	0 28.6	0 25.0	0 22.5	0 21.1	0 20.8	0 21.7	0 23.7	0 26.8	0 30.9	0 35.8	0 41.5	0 47.6
9	0 28.2	0 24.7	0 22.3	0 21.0	0 20.8	0 21.9	0 24.0	0 27.2	0 31.3	0 36.4	0 42.0	0 48.3
Lat.	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1
	'	'	'	'	'	'	'	'	'	'	'	'
10	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8
20	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9
30	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.9	0.9
40	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0
45	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.8	0.9	1.0
50	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.0
55	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1
60	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1
62	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1
64	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.2
66	0.5	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.2
68	0.5	0.4	0.4	0.4	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3
70	0.5	0.4	0.4	0.4	0.4	0.5	0.6	0.8	0.9	1.1	1.2	1.3
Month	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2
	'	'	'	'	'	'	'	'	'	'	'	'
Jan	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3
Feb	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5
Mar	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6
Apr	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.7
May	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8
Jun	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7
Jul	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6
Aug	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5
Sep	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
Oct	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Nov	0.7	0.6	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Dec	0.8	0.8	0.8	0.7	0.6	0.6	0.5	0.4	0.3	0.2	0.2	0.1
Lat.	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo
	°	°	°	°	°	°	°	°	°	°	°	°
10	0.4	0.3	0.2	0.1	0.0	359.9	359.8	359.7	359.6	359.5	359.4	359.4
20	0.4	0.3	0.2	0.1	0.0	359.9	359.8	359.7	359.6	359.5	359.4	359.4
30	0.5	0.4	0.3	0.1	0.0	359.9	359.8	359.6	359.5	359.4	359.4	359.3
40	0.5	0.4	0.3	0.2	0.0	359.9	359.7	359.6	359.5	359.4	359.3	359.2
45	0.6	0.5	0.3	0.2	0.0	359.8	359.7	359.5	359.4	359.3	359.2	359.2
50	0.6	0.5	0.3	0.2	0.0	359.8	359.7	359.5	359.4	359.2	359.1	359.1
55	0.7	0.6	0.4	0.2	0.0	359.8	359.6	359.4	359.3	359.1	359.0	359.0
60	0.8	0.7	0.5	0.2	0.0	359.8	359.6	359.4	359.2	359.0	358.9	358.8
62	0.9	0.7	0.5	0.2	0.0	359.8	359.5	359.3	359.1	359.0	358.8	358.7
64	1.0	0.7	0.5	0.3	0.0	359.8	359.5	359.3	359.1	358.9	358.7	358.6
66	1.0	0.8	0.6	0.3	0.0	359.7	359.5	359.2	359.0	358.8	358.6	358.5
68	1.1	0.9	0.6	0.3	0.0	359.7	359.4	359.1	358.9	358.7	358.5	358.4
70	1.2	1.0	0.7	0.3	0.0	359.7	359.4	359.1	358.8	358.6	358.4	358.2

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.

Polaris (Pole Star) Tables, 2023

For determining Latitude from Sextant Altitude and for Azimuth

LHA ARIES	120° - 129°	130° - 139°	140° - 149°	150° - 159°	160° - 169°	170° - 179°	180° - 189°	190° - 199°	200° - 209°	210° - 219°	220° - 229°	230° - 239°
	a0	a0	a0	a0	a0	a0	a0	a0	a0	a0	a0	a0
	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,
0	0 48.9	0 55.5	1 02.1	1 08.7	1 15.0	1 20.8	1 25.9	1 30.2	1 33.6	1 35.9	1 37.1	1 37.1
1	0 49.5	0 56.1	1 02.8	1 09.3	1 15.6	1 21.3	1 26.4	1 30.6	1 33.8	1 36.0	1 37.1	1 37.0
2	0 50.2	0 56.8	1 03.4	1 10.0	1 16.2	1 21.8	1 26.8	1 30.9	1 34.1	1 36.2	1 37.2	1 37.0
3	0 50.8	0 57.4	1 04.1	1 10.6	1 16.8	1 22.4	1 27.3	1 31.3	1 34.4	1 36.4	1 37.2	1 36.9
4	0 51.5	0 58.1	1 04.8	1 11.2	1 17.3	1 22.9	1 27.7	1 31.7	1 34.6	1 36.5	1 37.2	1 36.8
5	0 52.1	0 58.8	1 05.4	1 11.9	1 17.9	1 23.4	1 28.1	1 32.0	1 34.9	1 36.6	1 37.2	1 36.7
6	0 52.8	0 59.5	1 06.1	1 12.5	1 18.5	1 23.9	1 28.6	1 32.3	1 35.1	1 36.7	1 37.2	1 36.6
7	0 53.5	1 00.1	1 06.7	1 13.1	1 19.1	1 24.4	1 29.0	1 32.7	1 35.3	1 36.8	1 37.2	1 36.4
8	0 54.1	1 00.8	1 07.4	1 13.7	1 19.6	1 24.9	1 29.4	1 33.0	1 35.5	1 36.9	1 37.2	1 36.3
9	0 54.8	1 01.5	1 08.0	1 14.4	1 20.2	1 25.4	1 29.8	1 33.3	1 35.7	1 37.0	1 37.2	1 36.1
Lat.	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1
	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,
10	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.5
20	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5
30	0.9	1.0	1.0	0.9	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5
40	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.7	0.6	0.6	0.5
45	1.0	1.0	1.0	1.0	1.0	0.9	0.8	0.8	0.7	0.6	0.6	0.5
50	1.1	1.1	1.1	1.1	1.0	0.9	0.9	0.8	0.7	0.6	0.6	0.5
55	1.1	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.6	0.5
60	1.2	1.2	1.2	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.6	0.5
62	1.2	1.2	1.2	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.6	0.5
64	1.2	1.3	1.3	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.6	0.5
66	1.3	1.3	1.3	1.3	1.2	1.1	0.9	0.8	0.7	0.6	0.6	0.5
68	1.3	1.4	1.3	1.3	1.2	1.1	1.0	0.8	0.7	0.6	0.6	0.5
70	1.4	1.4	1.4	1.3	1.2	1.1	1.0	0.9	0.7	0.6	0.6	0.5
Month	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2
	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,
Jan	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5
Feb	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Mar	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
Apr	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3
May	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.4	0.4
Jun	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.5
Jul	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7
Aug	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
Sep	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8
Oct	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.7
Nov	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.6
Dec	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.4
Lat.	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo
	°	°	°	°	°	°	°	°	°	°	°	°
10	359.4	359.4	359.4	359.4	359.4	359.5	359.6	359.7	359.8	359.9	360.0	0.1
20	359.3	359.3	359.3	359.4	359.4	359.5	359.6	359.7	359.8	359.9	360.0	0.1
30	359.3	359.3	359.3	359.3	359.4	359.4	359.5	359.6	359.7	359.9	360.0	0.1
40	359.2	359.2	359.2	359.2	359.3	359.4	359.5	359.6	359.7	359.9	360.0	0.1
45	359.1	359.1	359.1	359.2	359.2	359.3	359.4	359.5	359.7	359.8	360.0	0.1
50	359.0	359.0	359.0	359.1	359.1	359.2	359.4	359.5	359.7	359.8	360.0	0.2
55	358.9	358.9	358.9	359.0	359.0	359.2	359.3	359.4	359.6	359.8	360.0	0.2
60	358.7	358.7	358.7	358.8	358.9	359.0	359.2	359.4	359.6	359.8	360.0	0.2
62	358.7	358.6	358.7	358.7	358.8	359.0	359.1	359.3	359.5	359.8	360.0	0.2
64	358.6	358.5	358.6	358.6	358.8	358.9	359.1	359.3	359.5	359.7	360.0	0.2
66	358.5	358.4	358.5	358.5	358.7	358.8	359.0	359.2	359.5	359.7	360.0	0.3
68	358.3	358.3	358.3	358.4	358.5	358.7	358.9	359.2	359.4	359.7	360.0	0.3
70	358.2	358.1	358.2	358.3	358.4	358.6	358.8	359.1	359.4	359.7	360.0	0.3

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.

Polaris (Pole Star) Tables, 2023

For determining Latitude from Sextant Altitude and for Azimuth

LHA ARIES	240° - 249°	250° - 259°	260° - 269°	270° - 279°	280° - 289°	290° - 299°	300° - 309°	310° - 319°	320° - 329°	330° - 339°	340° - 349°	350° - 359°
	a0	a0	a0	a0	a0	a0	a0	a0	a0	a0	a0	a0
	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,	° ,
0	1 36.0	1 33.7	1 30.4	1 26.2	1 21.1	1 15.4	1 09.1	1 02.5	0 55.9	0 49.3	0 43.0	0 37.2
1	1 35.8	1 33.5	1 30.1	1 25.7	1 20.6	1 14.7	1 08.5	1 01.9	0 55.2	0 48.7	0 42.4	0 36.7
2	1 35.6	1 33.2	1 29.7	1 25.2	1 20.0	1 14.1	1 07.8	1 01.2	0 54.6	0 48.0	0 41.8	0 36.2
3	1 35.4	1 32.9	1 29.3	1 24.7	1 19.4	1 13.5	1 07.2	1 00.6	0 53.9	0 47.4	0 41.2	0 35.6
4	1 35.2	1 32.5	1 28.8	1 24.2	1 18.9	1 12.9	1 06.5	0 59.9	0 53.2	0 46.8	0 40.7	0 35.1
5	1 35.0	1 32.2	1 28.4	1 23.7	1 18.3	1 12.3	1 05.9	0 59.2	0 52.6	0 46.1	0 40.1	0 34.6
6	1 34.8	1 31.9	1 28.0	1 23.2	1 17.7	1 11.7	1 05.2	0 58.5	0 51.9	0 45.5	0 39.5	0 34.1
7	1 34.5	1 31.5	1 27.6	1 22.7	1 17.1	1 11.0	1 04.5	0 57.9	0 51.3	0 44.9	0 38.9	0 33.6
8	1 34.3	1 31.2	1 27.1	1 22.2	1 16.5	1 10.4	1 03.9	0 57.2	0 50.6	0 44.3	0 38.4	0 33.1
9	1 34.0	1 30.8	1 26.7	1 21.6	1 16.0	1 09.7	1 03.2	0 56.5	0 50.0	0 43.6	0 37.8	0 32.6
Lat.	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1
	,	,	,	,	,	,	,	,	,	,	,	,
10	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
20	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3
30	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
40	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
45	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3
50	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
55	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4
60	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
62	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5
64	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5
66	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5
68	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.5
70	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.7	0.7	0.6	0.6
Month	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2
	,	,	,	,	,	,	,	,	,	,	,	,
Jan	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Feb	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5
Apr	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4
May	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Jun	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Jul	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1
Aug	0.7	0.7	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2
Sep	0.8	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3
Oct	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.5
Nov	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7
Dec	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9
Lat.	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo	Zo
	°	°	°	°	°	°	°	°	°	°	°	°
10	0.2	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5
20	0.2	0.3	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.6	0.6	0.5
30	0.2	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.6
40	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.6
45	0.3	0.4	0.6	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.7
50	0.3	0.5	0.6	0.7	0.8	0.9	1.0	1.0	1.0	0.9	0.9	0.8
55	0.4	0.5	0.7	0.8	1.0	1.0	1.1	1.1	1.1	1.1	1.0	0.9
60	0.4	0.6	0.8	1.0	1.1	1.2	1.2	1.3	1.3	1.2	1.1	1.0
62	0.4	0.7	0.9	1.0	1.2	1.3	1.3	1.4	1.3	1.3	1.2	1.1
64	0.5	0.7	0.9	1.1	1.2	1.4	1.4	1.5	1.4	1.4	1.3	1.1
66	0.5	0.8	1.0	1.2	1.3	1.5	1.5	1.6	1.6	1.5	1.4	1.2
68	0.6	0.8	1.1	1.3	1.4	1.6	1.7	1.7	1.7	1.6	1.5	1.3
70	0.6	0.9	1.2	1.4	1.6	1.7	1.8	1.9	1.8	1.8	1.6	1.5

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.

