

Name	Mag	Sidereal Hour Angle												Declination													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Alrai	3.2	5	03.1	03.7	04.0	03.9	03.4	02.6	01.8	01.1	00.7	00.7	01.0	01.5	77	42.1	42.0	41.9	41.7	41.6	41.5	41.6	41.7	41.9	42.1	42.3	42.4
Lambda Andromeda	3.9	5	28.3	28.4	28.5	28.4	28.2	27.9	27.6	27.4	27.2	27.2	27.2	27.3	46	31.4	31.3	31.2	31.1	31.0	31.0	31.1	31.3	31.4	31.6	31.7	31.8
98 Aquarius	4.0	9	06.6	06.7	06.7	06.6	06.5	06.3	06.0	05.8	05.7	05.6	05.7	05.8	-20	02.4	02.4	02.4	02.3	02.2	02.1	02.0	02.0	01.9	02.0	02.0	02.1
Gamma Tucana	4.0	10	29.0	29.1	29.2	29.1	28.8	28.5	28.1	27.8	27.6	27.6	27.7	27.9	-58	10.7	10.6	10.5	10.3	10.1	10.0	10.0	10.0	10.1	10.2	10.3	10.4
Gamma Pices	3.7	10	33.8	33.9	33.9	33.8	33.7	33.4	33.2	33.0	32.9	32.8	32.9	33.0	3	20.7	20.6	20.6	20.6	20.6	20.7	20.8	20.9	21.0	21.0	21.1	21.0
Iota Grus	3.9	12	15.2	15.3	15.3	15.2	15.1	14.8	14.5	14.2	14.1	14.0	14.1	14.3	-45	11.3	11.3	11.2	11.0	10.9	10.8	10.7	10.7	10.8	10.9	11.0	11.0
88 Aquarius	3.7	12	29.4	29.4	29.4	29.4	29.2	29.0	28.7	28.5	28.4	28.4	28.4	28.5	-21	06.8	06.8	06.7	06.6	06.5	06.4	06.3	06.3	06.3	06.3	06.4	06.4
Markab	2.5	13	40.2	40.3	40.4	40.2	40.1	39.8	39.6	39.4	39.3	39.2	39.3	39.4	15	16.1	16.0	15.9	15.9	15.9	16.0	16.1	16.2	16.3	16.4	16.4	16.4
Scheat	2.5	13	55.3	55.3	55.3	55.3	55.1	54.8	54.6	54.4	54.3	54.2	54.3	54.4	28	08.8	08.7	08.6	08.6	08.6	08.6	08.7	08.9	09.0	09.1	09.2	09.2
Omicron Andromeda	3.6	14	23.5	23.6	23.6	23.5	23.3	23.1	22.8	22.5	22.4	22.4	22.5	22.6	42	23.4	23.3	23.2	23.1	23.1	23.1	23.2	23.4	23.5	23.7	23.8	23.8
Fomalhaut	1.2	15	26.0	26.1	26.1	26.0	25.8	25.6	25.3	25.1	25.0	25.0	25.0	25.1	-29	33.9	33.9	33.8	33.7	33.6	33.5	33.4	33.3	33.4	33.4	33.5	33.5
Skat	3.3	16	11.4	11.4	11.4	11.3	11.2	10.9	10.7	10.5	10.4	10.4	10.4	10.5	-15	45.7	45.7	45.7	45.6	45.5	45.4	45.3	45.3	45.3	45.3	45.3	45.4
Lambda Aquarius	3.8	16	42.1	42.1	42.1	42.0	41.8	41.6	41.4	41.2	41.1	41.1	41.1	41.2	-7	31.2	31.2	31.2	31.2	31.1	31.0	30.9	30.8	30.8	30.8	30.8	30.8
Sadalbari	3.5	17	21.9	21.9	21.9	21.9	21.7	21.4	21.2	21.0	20.9	20.9	20.9	21.1	24	39.8	39.7	39.7	39.6	39.6	39.7	39.8	39.9	40.0	40.1	40.2	40.2
Iota Cepheus	3.5	17	29.1	29.3	29.4	29.3	28.9	28.4	28.0	27.7	27.5	27.6	27.8	28.1	66	15.9	15.8	15.6	15.5	15.4	15.4	15.5	15.7	15.9	16.0	16.2	16.2
Epsilon Grus	3.5	17	41.7	41.8	41.8	41.7	41.5	41.2	40.8	40.5	40.4	40.4	40.5	40.7	-51	15.7	15.6	15.5	15.3	15.2	15.1	15.0	15.0	15.1	15.2	15.3	15.4
Lambda Pegasus	4.0	18	14.0	14.0	14.0	13.9	13.8	13.5	13.3	13.1	13.0	13.0	13.0	13.2	23	37.6	37.6	37.5	37.4	37.4	37.5	37.6	37.7	37.9	38.0	38.0	38.0
Matar	2.9	19	07.2	07.2	07.2	07.1	06.9	06.7	06.4	06.2	06.1	06.1	06.2	06.3	30	17.0	16.9	16.8	16.7	16.7	16.8	16.9	17.0	17.2	17.3	17.3	17.4
Beta Grus	2.1	19	10.1	10.2	10.2	10.1	09.9	09.6	09.2	09.0	08.9	08.9	09.0	09.2	-46	49.7	49.7	49.5	49.4	49.3	49.2	49.1	49.1	49.2	49.3	49.4	49.4
Homam	3.4	19	29.7	29.8	29.8	29.7	29.5	29.3	29.0	28.8	28.8	28.8	28.8	28.9	10	53.5	53.4	53.4	53.4	53.4	53.5	53.6	53.7	53.8	53.8	53.9	53.9
Alpha Lacerta	3.8	22	03.9	04.0	04.0	03.8	03.6	03.3	03.0	02.7	02.7	02.7	02.8	03.0	50	20.7	20.6	20.4	20.3	20.3	20.3	20.4	20.6	20.8	20.9	21.0	21.0
Delta Grus	4.0	22	31.1	31.2	31.1	31.0	30.8	30.5	30.2	29.9	29.8	29.9	30.0	30.1	-43	26.5	26.4	26.3	26.1	26.0	25.9	25.9	25.9	25.9	26.0	26.1	26.1
Zeta Aquarius	3.7	22	38.9	39.0	38.9	38.8	38.7	38.4	38.2	38.0	37.9	37.9	38.0	38.1	0	02.3	02.2	02.2	02.2	02.3	02.4	02.5	02.6	02.6	02.7	02.7	02.6
Sadachbia	3.9	24	26.6	26.6	26.5	26.4	26.3	26.0	25.8	25.6	25.5	25.6	25.6	25.7	-1	19.8	19.9	19.9	19.8	19.8	19.7	19.6	19.5	19.5	19.4	19.4	19.5
Alpha Tucana	2.9	25	11.4	11.4	11.4	11.2	10.9	10.5	10.1	09.8	09.7	09.7	09.9	10.2	-60	12.4	12.3	12.1	12.0	11.9	11.8	11.7	11.8	11.9	12.0	12.1	12.1
Zeta Cepheus	3.3	27	11.6	11.8	11.8	11.6	11.3	10.9	10.6	10.3	10.3	10.4	10.6	10.8	58	15.7	15.5	15.4	15.3	15.2	15.3	15.4	15.6	15.7	15.9	16.0	16.0
Baham	3.5	27	18.6	18.6	18.6	18.5	18.3	18.1	17.8	17.7	17.6	17.6	17.7	17.8	6	15.2	15.2	15.2	15.2	15.2	15.3	15.4	15.5	15.6	15.6	15.6	15.6
Alnair	1.8	27	46.2	46.2	46.1	46.0	45.7	45.4	45.1	44.9	44.8	44.8	45.0	45.1	-46	54.6	54.5	54.3	54.2	54.1	54.0	54.0	54.0	54.1	54.2	54.2	54.3
Iota Pegasus	3.8	28	07.1	07.2	07.1	07.0	06.8	06.5	06.3	06.1	06.1	06.1	06.2	06.3	25	24.1	24.1	24.0	23.9	23.9	24.0	24.1	24.3	24.4	24.5	24.5	24.5
Sadal Melik	2.9	28	24.7	24.7	24.7	24.6	24.4	24.1	23.9	23.7	23.7	23.7	23.8	23.9	-0	15.9	15.9	15.9	15.9	15.9	15.8	15.7	15.6	15.5	15.5	15.5	15.5
Al Dhanab	3.0	31	21.1	21.1	21.0	20.9	20.7	20.4	20.1	19.9	19.8	19.9	20.0	20.1	-37	18.8	18.8	18.7	18.6	18.5	18.4	18.3	18.3	18.4	18.5	18.5	18.5
Deneb Algiedi	2.9	33	05.3	05.3	05.2	05.0	04.9	04.6	04.4	04.2	04.1	04.2	04.3	04.4	-16	04.6	04.6	04.6	04.5	04.4	04.4	04.3	04.2	04.2	04.2	04.3	04.3
Enif	2.4	33	49.1	49.1	49.0	48.9	48.7	48.5	48.2	48.1	48.0	48.1	48.2	48.3	9	55.7	55.6	55.6	55.5	55.6	55.7	55.8	55.9	56.0	56.0	56.0	56.0
Nu Octans	3.7	34	20.6	20.8	20.6	20.1	19.4	18.5	17.7	17.2	17.1	17.4	18.0	18.7	-77	20.6	20.4	20.2	20.1	20.0	19.9	19.9	20.0	20.2	20.3	20.4	20.4
Nashira	3.7	34	49.5	49.5	49.4	49.3	49.1	48.8	48.6	48.4	48.4	48.4	48.5	48.6	-16	36.7	36.7	36.7	36.6	36.6	36.5	36.4	36.3	36.3	36.4	36.4	36.4
Rho Cygnus	4.0	36	24.2	24.3	24.2	24.0	23.8	23.5	23.2	23.1	23.0	23.1	23.3	23.5	45	38.7	38.6	38.4	38.3	38.3	38.4	38.5	38.7	38.9	39.0	39.1	39.1
Sadal Suud	2.9	36	57.9	57.9	57.8	57.7	57.5	57.2	57.0	56.9	56.8	56.9	57.0	57.1	-5	31.3	31.3	31.3	31.3	31.2	31.1	31.0	31.0	30.9	30.9	30.9	31.0
Alfirk	3.2	37	48.7	48.9	48.9	48.5	48.0	47.5	47.1	46.9	46.9	47.1	47.6	48.0	70	36.9	36.7	36.6	36.4	36.4	36.4	36.6	36.8	37.0	37.1	37.2	37.2
Zeta Capricornus	3.8	38	10.6	10.6	10.5	10.3	10.1	09.9	09.6	09.5	09.4	09.5	09.6	09.7	-22	21.8	21.8	21.7	21.7	21.6	21.5	21.4	21.4	21.4	21.5	21.5	21.5
Alderamin	2.5	40	17.8	17.9	17.9	17.6	17.2	16.8	16.5	16.3	16.3	16.5	16.8	17.2	62	38.2	38.1	37.9	37.8	37.8	37.9	38.0	38.2	38.4	38.5	38.6	38.6
Kitalpha	3.9	40	54.4	54.4	54.3	54.1	53.9	53.7	53.5	53.4	53.3	53.4	53.5	53.6	5	17.7	17.7	17.6	17.6	17.7	17.8	17.9	18.0	18.0	18.1	18.1	18.0
Tau Cygnus	3.7	41	11.7	11.7	11.6	11.4	11.2	10.9	10.7	10.5	10.5	10.6	10.8	10.9	38	05.8	05.6	05.5	05.4	05.4	05.5	05.7	05.8	06.0	06.1	06.2	06.1
Zeta Cygnus	3.2	41	39.0	39.0	38.9	38.8	38.5	38.3	38.1	37.9	37.9	38.0	38.1	38.3	30	16.5	16.4	16.3	16.2	16.3	16.4	16.5	16.6	16.8	16.9	16.9	16.9
Xi Cygnus	3.7	43	40.2	40.2	40.1	40.0	39.7	39.4	39.2	39.0	39.1	39.2	39.3	39.5	43	58.5	58.4	58.3	58.2	58.2	58.3	58.4	58.6	58.8	58.9	58.9	58.9
Nu Cygnus	3.9	45	36.4	36.4	36.3	36.1	35.9	35.6	35.4	35.3	35.3	35.4	35.6	35.7	41	12.8	12.7	12.5	12.4	12.5	12.6	12.7	12.9	13.0	13.1	13.2	13.1
Beta Indus	3.7	46	05.2	05.2	05.0	04.7	04.3	03.9	03.6	03.4	03.4	03.5	03.8	04.0	-58	24.8	24.7	24.5	24.4	24.3	24.3	24.3	24.4	24.5	24.6	24.6	24.6
Albali	3.8	47	56.0	55.9	55.8	55.6	55.4	55.2	55.0	54.8	54.8	54.9	55.0	55.1	-9	27.3	27.3	27.3	27.3	27.2	27.1	27.0	27.0	27.0	26.9	27.0	27.0
Gienah Cygni	2.5	48	20.3	20.3	20.2	20.0	19.7	19.5	19.3	19.2	19.2	19.3	19.4	19.6	34	00.9	00.7	00.6	00.6	00.6	00.7	00.8	01.0	01.1	01.2	01.3	01.2

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		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Ancha	3.3	57	02.0	01.9	01.8	01.6	01.4	01.1	01.0	00.9	00.9	01.0	01.1	01.2	-0	47.3	47.3	47.3	47.3	47.3	47.3	47.2	47.1	47.0	47.0	47.0	47.0
Delta Pavonis	3.6	57	33.4	33.2	32.9	32.5	32.0	31.5	31.1	30.9	31.0	31.3	31.6	31.9	-66	09.2	09.1	09.0	08.9	08.8	08.8	08.9	09.0	09.1	09.2	09.1	09.1
Epsilon Pavonis	4.0	59	32.8	32.6	32.2	31.6	31.0	30.3	29.8	29.6	29.8	30.1	30.6	31.0	-72	52.9	52.7	52.6	52.5	52.4	52.4	52.5	52.6	52.8	52.8	52.9	52.8
Gamma Sagitta	3.5	60	11.4	11.3	11.2	11.0	10.8	10.6	10.4	10.3	10.4	10.5	10.6	10.7	19	31.4	31.3	31.2	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.8	31.7
Eta Cygnus	3.9	60	49.4	49.4	49.2	49.0	48.8	48.5	48.3	48.3	48.3	48.5	48.7	48.8	35	06.9	06.8	06.6	06.6	06.6	06.8	06.9	07.1	07.2	07.3	07.3	07.2
Alshain	3.7	61	02.3	02.2	02.1	01.9	01.6	01.4	01.3	01.2	01.2	01.3	01.4	01.5	6	26.1	26.1	26.0	26.0	26.1	26.2	26.3	26.4	26.4	26.4	26.4	26.4
Eta Aquila	3.9	61	44.6	44.5	44.3	44.1	43.9	43.7	43.5	43.5	43.5	43.6	43.7	43.8	1	02.1	02.1	02.0	02.0	02.1	02.2	02.3	02.3	02.4	02.4	02.4	02.4
Altair	0.9	62	10.3	10.2	10.1	09.9	09.6	09.4	09.3	09.2	09.2	09.3	09.5	09.5	8	53.9	53.9	53.8	53.8	53.8	53.9	54.0	54.1	54.2	54.3	54.2	54.2
Tyl	3.8	62	59.0	59.0	58.8	58.3	57.8	57.4	57.1	57.1	57.4	57.8	58.3	58.8	70	17.9	17.7	17.6	17.5	17.5	17.7	17.8	18.0	18.2	18.3	18.3	18.2
Kaus Media	3.8	63	01.9	01.9	01.7	01.5	01.3	01.1	00.9	00.9	00.9	01.0	01.2	01.3	18	33.8	33.7	33.6	33.6	33.6	33.7	33.9	34.0	34.1	34.1	34.1	34.1
Tarazed	2.7	63	18.4	18.3	18.1	17.9	17.7	17.5	17.3	17.3	17.3	17.4	17.5	17.6	10	38.5	38.4	38.3	38.3	38.4	38.5	38.6	38.7	38.8	38.8	38.8	38.8
Delta Cygnus	2.9	63	40.5	40.5	40.3	40.1	39.8	39.5	39.4	39.3	39.4	39.6	39.8	40.0	45	09.6	09.4	09.3	09.3	09.3	09.4	09.6	09.8	09.9	10.0	10.0	09.9
Albireo	3.1	67	12.7	12.6	12.5	12.2	12.0	11.8	11.6	11.6	11.7	11.8	12.0	12.1	27	59.1	58.9	58.8	58.8	58.9	59.0	59.1	59.3	59.4	59.4	59.4	59.3
Iota Cygnus	3.8	67	30.7	30.6	30.4	30.1	29.8	29.6	29.4	29.4	29.5	29.7	30.0	30.2	51	45.3	45.1	45.0	45.0	45.0	45.1	45.3	45.5	45.6	45.7	45.7	45.6
Delta Aquila	3.4	68	29.3	29.2	29.0	28.8	28.6	28.4	28.2	28.2	28.2	28.3	28.5	28.5	3	08.3	08.2	08.2	08.2	08.2	08.3	08.4	08.5	08.5	08.5	08.5	08.5
Rukbat	4.0	68	50.4	50.2	50.0	49.8	49.5	49.2	49.0	48.9	49.0	49.1	49.3	49.4	-40	35.7	35.6	35.5	35.5	35.5	35.4	35.5	35.5	35.6	35.6	35.6	35.6
Arkab	4.0	69	08.7	08.6	08.3	08.0	07.7	07.4	07.2	07.2	07.2	07.4	07.5	07.7	-44	26.3	26.2	26.1	26.1	26.0	26.0	26.0	26.1	26.2	26.2	26.2	26.2
Rho Sagittarius	3.9	69	25.4	25.3	25.1	24.9	24.7	24.4	24.3	24.2	24.3	24.4	24.5	24.6	-17	49.5	49.5	49.5	49.5	49.5	49.6	49.4	49.4	49.4	49.4	49.4	49.4
Kappa Cygnus	3.8	70	40.1	40.0	39.8	39.5	39.2	38.9	38.8	38.8	38.9	39.2	39.5	39.7	53	23.4	23.2	23.1	23.1	23.1	23.3	23.4	23.6	23.7	23.8	23.8	23.7
Nodus Secundus	3.1	71	52.6	52.5	52.2	51.8	51.3	50.9	50.8	50.9	51.1	51.5	52.0	52.4	67	40.9	40.8	40.6	40.6	40.6	40.8	40.9	41.1	41.3	41.3	41.3	41.2
Albaldah	2.9	72	23.8	23.7	23.5	23.3	23.0	22.8	22.6	22.6	22.6	22.7	22.9	22.9	-21	00.3	00.3	00.3	00.3	00.2	00.2	00.2	00.2	00.2	00.2	00.2	00.2
Tau Sagittarius	3.3	73	05.7	05.5	05.3	05.1	04.8	04.6	04.4	04.4	04.4	04.6	04.7	04.8	-27	39.2	39.2	39.2	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1
Al Thalimain	3.4	73	17.6	17.5	17.3	17.1	16.9	16.6	16.5	16.5	16.5	16.6	16.7	16.8	-4	51.9	52.0	52.0	52.0	51.9	51.9	51.8	51.7	51.7	51.7	51.7	51.7
Deneb el Okab	3.0	73	31.4	31.3	31.1	30.9	30.7	30.5	30.3	30.3	30.4	30.5	30.6	30.7	13	52.9	52.8	52.7	52.7	52.7	52.8	52.9	53.1	53.1	53.2	53.1	53.1
Omicron Sagittarius	3.8	73	39.9	39.8	39.6	39.4	39.1	38.9	38.8	38.7	38.8	38.9	39.0	39.1	-21	43.5	43.5	43.5	43.4	43.4	43.4	43.3	43.3	43.3	43.3	43.3	43.3
Ascella	2.6	74	10.4	10.3	10.1	09.8	09.6	09.3	09.1	09.1	09.2	09.3	09.4	09.5	-29	51.8	51.8	51.8	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7
Sulafat	3.3	75	09.9	09.8	09.6	09.4	09.1	08.9	08.8	08.8	08.9	09.0	09.2	09.3	32	42.3	42.2	42.1	42.1	42.1	42.3	42.4	42.6	42.7	42.7	42.7	42.6
Xi Sagittarius	3.5	75	24.3	24.1	23.9	23.7	23.5	23.3	23.1	23.0	23.1	23.2	23.4	23.4	-21	05.5	05.5	05.5	05.4	05.4	05.4	05.3	05.3	05.3	05.4	05.4	05.4
Nunki	2.1	76	00.9	00.7	00.5	00.3	00.0	59.8	59.6	59.6	59.7	59.8	59.9	00.0	-26	16.9	16.9	16.9	16.9	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
Sheliak	3.5	77	22.9	22.8	22.6	22.4	22.2	21.9	21.8	21.8	21.9	22.1	22.3	22.4	33	22.6	22.4	22.3	22.3	22.4	22.5	22.7	22.8	22.9	22.9	22.9	22.8
Phi Sagittarius	3.2	78	24.9	24.8	24.6	24.3	24.1	23.8	23.7	23.6	23.7	23.8	24.0	24.0	-26	58.7	58.7	58.7	58.7	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6
Vega	0.0	80	40.6	40.5	40.3	40.0	39.8	39.6	39.5	39.5	39.6	39.8	40.0	40.1	38	47.7	47.5	47.4	47.4	47.5	47.6	47.8	47.9	48.0	48.1	48.0	47.9
Alpha Scutum	3.9	81	03.0	02.8	02.6	02.4	02.2	02.0	01.9	01.9	01.9	02.0	02.2	02.2	-8	14.1	14.2	14.2	14.2	14.2	14.1	14.0	14.0	14.0	14.0	14.0	14.0
Kaus Borealis	2.8	82	50.3	50.1	49.9	49.7	49.5	49.2	49.1	49.1	49.2	49.3	49.4	49.5	-25	24.9	24.9	24.9	24.9	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8
Alpha Telescopium	3.5	83	03.3	03.1	02.8	02.5	02.2	01.9	01.7	01.7	01.8	02.0	02.2	02.3	-45	57.7	57.6	57.6	57.5	57.5	57.6	57.6	57.7	57.7	57.7	57.7	57.7
Kaus Australis	1.8	83	46.5	46.4	46.1	45.9	45.6	45.4	45.2	45.2	45.3	45.4	45.6	45.6	-34	22.7	22.7	22.6	22.6	22.6	22.6	22.7	22.7	22.7	22.7	22.7	22.7
109 Hercules	3.9	83	57.6	57.5	57.3	57.1	56.9	56.7	56.6	56.6	56.7	56.8	57.0	57.0	21	46.5	46.4	46.3	46.3	46.4	46.5	46.6	46.7	46.8	46.8	46.8	46.7
Eta Serpens	3.3	84	31.9	31.7	31.5	31.3	31.1	30.9	30.8	30.8	30.9	31.0	31.1	31.2	-2	53.7	53.8	53.8	53.8	53.8	53.7	53.6	53.6	53.6	53.5	53.6	53.6
Chi Draco	3.6	84	48.4	48.2	47.8	47.2	46.7	46.3	46.2	46.5	47.0	47.5	48.1	48.5	72	44.2	44.0	43.9	43.9	44.0	44.1	44.3	44.5	44.6	44.6	44.6	44.5
Kaus Media	2.7	84	34.6	34.4	34.2	33.9	33.7	33.5	33.3	33.3	33.4	33.5	33.7	33.7	-29	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
Eta Sagittarius	3.1	85	24.5	24.3	24.1	23.8	23.5	23.3	23.2	23.1	23.2	23.4	23.5	23.6	-36	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.5	45.5	45.5	45.4
Mu Sagittarius	3.8	86	23.7	23.6	23.3	23.1	22.9	22.7	22.6	22.5	22.6	22.8	22.9	22.9	-21	03.3	03.3	03.3	03.3	03.3	03.3	03.2	03.2	03.2	03.2	03.2	03.2
Omicron Hercules	3.8	88	00.6	00.5	00.3	00.0	59.8	59.6	59.5	59.6	59.7	59.8	00.0	00.1	28	45.8	45.7	45.6	45.6	45.7	45.8	46.0	46.1	46.2	46.2	46.1	46.0
Omicron Ophiuchus	3.7	88	02.0	01.9	01.7	01.5	01.3	01.1	01.0	01.0	01.1	01.2	01.3	01.4	9	33.9	33.8	33.8	33.8	33.8	33.9	34.0	34.1	34.2	34.2	34.2	34.1
Theta Ara	3.7	88	07.8	07.6	07.3	06.9	06.6	06.3	06.2	06.2	06.3	06.5	06.7	06.8	-50	05.4	05.3	05.2	05.2	05.2	05.3	05.4	05.4	05.5	05.5	05.5	05.4
El Nasl	3.6	88	22.3	22.1	21.9	21.6	21.4	21.2	21.1	21.1	21.2	21.3	21.4	21.5	-30	25.4	25.4	25.3	25.3	25.3	25.3	25.4	25.4	25.4	25.4	25.3	25.3
Nu Ophiuchus	3.3	90	05.6	05.4	05.2	05.0	04.8	04.6	04.5	04.5	04.6	04.7	04.8	04.8	-9	46.5	46.5	46.5	46.5	46.5	46.5	46.4	46.4	46.4	46.3	46.4	46.4
Xi Hercules	3.7	90	27.3	27.1	26.9	26.7	26.5	26.3	26.2	26.3	26.4	26.6	26.7	26.8	29	14.8	14.7	14.6	14.6	14.6	14.8	14.9	15.0	15.1	15.1	15.1</	

Name	Mag	Sidereal Hour Angle												Declination													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Sargas	1.9	95	28.4	28.2	27.9	27.6	27.3	27.1	27.0	27.0	27.1	27.3	27.4	27.5	-43	00.2	00.1	00.1	00.1	00.2	00.2	00.3	00.3	00.4	00.3	00.3	00.2
Ras Alhague	2.1	96	08.4	08.2	08.0	07.8	07.6	07.5	07.4	07.4	07.5	07.7	07.8	07.8	12	33.1	33.0	32.9	32.9	33.0	33.1	33.2	33.3	33.3	33.3	33.3	33.2
Shaula	1.6	96	24.7	24.5	24.2	23.9	23.7	23.5	23.4	23.4	23.5	23.7	23.8	23.8	-37	06.6	06.6	06.6	06.6	06.6	06.7	06.7	06.7	06.7	06.8	06.7	06.7
Choo	2.9	96	49.7	49.4	49.1	48.8	48.5	48.2	48.1	48.1	48.3	48.5	48.7	48.7	-49	53.0	52.9	52.9	52.9	52.9	53.0	53.1	53.2	53.2	53.2	53.1	53.1
Delta Ara	3.6	96	58.8	58.4	58.0	57.6	57.2	56.9	56.8	56.8	57.0	57.3	57.5	57.6	-60	41.4	41.4	41.3	41.3	41.4	41.5	41.6	41.7	41.7	41.7	41.7	41.5
Lesath	2.7	97	07.4	07.1	06.9	06.6	06.3	06.1	06.0	06.0	06.2	06.3	06.4	06.5	-37	18.2	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.2
Rastaban	2.8	97	20.2	20.0	19.7	19.4	19.1	19.0	19.0	19.1	19.3	19.6	19.8	19.9	52	17.5	17.3	17.3	17.3	17.4	17.5	17.7	17.8	17.9	17.9	17.8	17.7
Gamma Ara	3.3	98	25.3	25.0	24.6	24.2	23.9	23.6	23.5	23.6	23.7	24.0	24.2	24.2	-56	23.2	23.1	23.1	23.1	23.1	23.2	23.3	23.4	23.4	23.4	23.3	23.3
Beta Ara	2.8	98	26.9	26.6	26.2	25.8	25.5	25.2	25.1	25.2	25.4	25.6	25.8	25.8	-55	32.3	32.2	32.2	32.2	32.3	32.3	32.4	32.5	32.6	32.5	32.5	32.4
Theta Ophiuchus	3.3	99	19.8	19.5	19.3	19.0	18.8	18.7	18.6	18.6	18.7	18.8	18.9	18.9	-25	00.6	00.6	00.6	00.6	00.6	00.6	00.6	00.6	00.6	00.6	00.6	00.6
Pi Hercules	3.1	101	08.8	08.6	08.3	08.1	07.9	07.7	07.7	07.8	07.9	08.1	08.3	08.3	36	47.7	47.6	47.5	47.5	47.6	47.8	47.9	48.0	48.1	48.1	48.0	47.9
Sarin	3.1	101	07.9	07.7	07.5	07.2	07.1	06.9	06.9	06.9	07.1	07.2	07.3	07.4	24	49.5	49.4	49.3	49.3	49.4	49.5	49.7	49.8	49.8	49.8	49.7	49.6
Ras Algethi	2.7	101	12.9	12.7	12.4	12.2	12.0	11.9	11.9	11.9	12.0	12.1	12.2	12.3	14	22.6	22.5	22.5	22.5	22.5	22.6	22.7	22.8	22.9	22.9	22.8	22.7
Eta Scorpius	3.3	101	45.9	45.7	45.4	45.1	44.8	44.6	44.5	44.5	44.7	44.9	45.0	45.0	-43	15.1	15.1	15.1	15.1	15.1	15.2	15.3	15.3	15.3	15.3	15.3	15.2
Sabik	2.4	102	14.9	14.7	14.4	14.2	14.0	13.9	13.8	13.8	13.9	14.1	14.1	14.1	-15	44.3	44.3	44.3	44.4	44.3	44.3	44.3	44.3	44.3	44.3	44.3	44.3
Aldhibah	3.2	102	48.5	48.2	47.8	47.3	47.0	46.9	46.9	47.2	47.5	48.0	48.3	48.5	65	41.9	41.8	41.7	41.7	41.8	42.0	42.2	42.3	42.3	42.3	42.2	42.1
Epsilon Hercules	3.9	104	49.5	49.3	49.1	48.8	48.6	48.5	48.5	48.6	48.7	48.9	49.0	49.0	30	54.5	54.4	54.3	54.3	54.4	54.6	54.7	54.8	54.8	54.8	54.8	54.6
Zeta Ara	3.1	105	07.1	06.8	06.4	06.0	05.7	05.5	05.4	05.4	05.7	05.9	06.0	06.0	-56	00.3	00.2	00.2	00.3	00.3	00.4	00.5	00.6	00.6	00.6	00.5	00.4
Kappa Ophiuchus	3.2	105	27.2	27.0	26.8	26.6	26.4	26.3	26.2	26.3	26.4	26.5	26.6	26.6	9	21.4	21.3	21.3	21.3	21.3	21.4	21.5	21.6	21.6	21.6	21.6	21.5
Zeta Scorpius	3.6	106	09.7	09.4	09.1	08.8	08.5	08.4	08.3	08.3	08.5	08.7	08.8	08.8	-42	22.7	22.7	22.7	22.7	22.8	22.8	22.9	22.9	22.9	22.9	22.9	22.8
Mu2 Scorpius	3.6	106	43.8	43.5	43.3	43.0	42.7	42.6	42.5	42.5	42.7	42.8	42.9	42.9	-38	02.1	02.1	02.1	02.1	02.2	02.2	02.2	02.3	02.3	02.3	02.2	02.2
Mu1 Scorpius	3.0	106	50.8	50.5	50.2	49.9	49.7	49.6	49.5	49.5	49.7	49.8	49.9	49.9	-38	03.9	03.9	03.9	03.9	04.0	04.0	04.0	04.1	04.1	04.1	04.0	04.0
Epsilon Scorpius	2.3	107	16.9	16.6	16.3	16.1	15.9	15.7	15.6	15.7	15.8	16.0	16.1	16.0	-34	18.7	18.7	18.7	18.8	18.8	18.8	18.9	18.9	18.9	18.9	18.8	18.8
Eta Ara	3.8	107	19.0	18.7	18.2	17.8	17.5	17.3	17.2	17.3	17.5	17.8	17.9	17.9	-59	03.5	03.4	03.4	03.5	03.6	03.7	03.8	03.8	03.9	03.8	03.8	03.6
Atria	1.9	107	32.7	32.2	31.6	31.1	30.6	30.3	30.2	30.4	30.7	31.1	31.4	31.4	-69	02.7	02.6	02.6	02.6	02.7	02.9	03.0	03.1	03.1	03.1	03.0	02.9
Eta Hercules	3.5	109	11.1	10.9	10.6	10.4	10.2	10.1	10.1	10.2	10.4	10.5	10.7	10.7	38	53.9	53.8	53.7	53.8	53.9	54.0	54.2	54.3	54.3	54.3	54.2	54.0
Zeta Hercules	2.9	109	34.6	34.4	34.2	34.0	33.8	33.7	33.7	33.7	33.9	34.1	34.2	34.2	31	34.8	34.7	34.7	34.7	34.8	34.9	35.0	35.1	35.2	35.2	35.1	34.9
Zeta Ophiuchus	2.6	110	33.5	33.3	33.1	32.9	32.7	32.6	32.5	32.6	32.7	32.8	32.9	32.8	-10	35.3	35.4	35.5	35.5	35.5	35.4	35.4	35.4	35.3	35.3	35.3	35.4
Tau Scorpius	2.8	110	51.5	51.2	51.0	50.7	50.5	50.4	50.3	50.4	50.5	50.6	50.7	50.7	-28	14.3	14.3	14.3	14.3	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.3
Gamma Apus	3.9	111	13.2	12.2	11.2	10.2	09.4	08.9	08.9	09.3	10.0	10.7	11.2	11.2	-78	55.1	55.0	55.0	55.0	55.1	55.3	55.4	55.5	55.6	55.5	55.4	55.3
Marfik	3.9	112	08.0	07.8	07.6	07.3	07.2	07.1	07.0	07.1	07.2	07.3	07.4	07.4	1	57.6	57.5	57.4	57.4	57.5	57.5	57.6	57.6	57.7	57.7	57.6	57.6
Kornephoros	2.8	112	19.7	19.5	19.2	19.0	18.9	18.8	18.7	18.8	19.0	19.1	19.2	19.2	21	27.8	27.7	27.7	27.7	27.8	27.9	28.0	28.1	28.1	28.1	28.0	27.9
Antares	1.1	112	28.8	28.5	28.2	28.0	27.8	27.7	27.6	27.7	27.8	27.9	28.0	28.0	-26	27.3	27.3	27.4	27.4	27.4	27.5	27.5	27.5	27.5	27.4	27.4	27.4
Eta Draco	2.7	113	58.4	58.1	57.7	57.3	57.1	57.0	57.1	57.4	57.7	58.0	58.3	58.4	61	29.1	29.0	28.9	29.0	29.1	29.3	29.5	29.6	29.6	29.5	29.4	29.2
Gamma Hercules	3.7	114	24.0	23.8	23.5	23.3	23.2	23.1	23.1	23.1	23.3	23.4	23.5	23.5	19	07.5	07.4	07.4	07.4	07.5	07.6	07.7	07.7	07.8	07.8	07.7	07.6
Alniyat	2.9	114	32.1	31.9	31.6	31.4	31.2	31.1	31.0	31.1	31.2	31.3	31.4	31.4	-25	37.1	37.1	37.2	37.2	37.2	37.2	37.3	37.3	37.2	37.2	37.2	37.2
Tau Hercules	3.9	114	59.2	58.9	58.6	58.4	58.2	58.1	58.1	58.3	58.5	58.7	58.9	58.9	46	17.0	16.9	16.9	16.9	17.0	17.2	17.3	17.4	17.4	17.4	17.3	17.1
Yed Posterior	3.2	115	16.4	16.2	16.0	15.8	15.6	15.5	15.5	15.5	15.6	15.8	15.8	15.8	-4	43.2	43.2	43.3	43.3	43.3	43.2	43.2	43.2	43.1	43.1	43.2	43.2
Atria	3.9	115	53.5	53.0	52.5	52.1	51.7	51.5	51.5	51.6	51.9	52.2	52.4	52.3	-63	42.6	42.6	42.6	42.7	42.8	42.9	43.0	43.1	43.1	43.1	43.0	42.8
Yed Prior	2.7	116	16.2	15.9	15.7	15.5	15.3	15.2	15.2	15.3	15.4	15.5	15.6	15.5	-3	43.4	43.5	43.5	43.5	43.5	43.5	43.4	43.4	43.3	43.3	43.4	43.4
Graffias	2.6	118	28.8	28.6	28.3	28.1	27.9	27.8	27.8	27.9	28.0	28.1	28.1	28.1	-19	50.1	50.1	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2
Dschubba	2.3	119	45.2	44.9	44.7	44.5	44.3	44.2	44.2	44.2	44.4	44.5	44.5	44.5	-22	39.1	39.2	39.2	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.2	39.2
Eta Lupus	3.4	119	47.2	46.9	46.6	46.3	46.1	46.0	46.0	46.1	46.2	46.4	46.4	46.4	-38	25.6	25.6	25.6	25.7	25.8	25.8	25.9	25.9	25.9	25.8	25.8	25.7
Pi Scorpius	2.9	120	07.2	06.9	06.7	06.4	06.3	06.2	06.1	06.2	06.3	06.5	06.5	06.5	-26	08.7	08.7	08.8	08.8	08.9	08.9	08.9	08.9	08.9	08.8	08.8	08.8
Gamma Serpens	3.9	120	45.6	45.4	45.1	44.9	44.8	44.7	44.7	44.8	44.9	45.0	45.1	45.1	15	37.4	37.3	37.3	37.3	37.3	37.4	37.5	37.6	37.6	37.6	37.5	37.4
Beta Triang' Aust'	2.8	120	58.3	57.8	57.4	56.9	56.6	56.4	56.4	56.6	56.9	57.2	57.3	57.2	-63	27.7	27.7	27.7	27.8	27.9	28.0	28.1	28.2	28.2	28.1	28.0	27.9
Epsilon Serpens	3.7	122	09.5	09.3	09.1	08.9	08.7	08.6	08.6	08.7	08.8	08.9	09.0	08.9	4	26.6	26.5	26.5	26.5	26.5	26.6	26.6	26.7	26.7	26.7	26.7	26.6
Mu Serpens	3.6	122	27.1	26.8	26.6	26.4	26.3	26.2	26.2	26.2	26.3	26.4	26.5	26.4	-3	27.9	27.9	28.0	28.0	28.0	28.0	27.9	27.9</				

Name	Mag	Sidereal Hour Angle												Declination														
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Phi Lupus	3.6	129	22.3	22.0	21.8	21.5	21.4	21.3	21.3	21.4	21.5	21.6	21.7	21.6	-36	18.0	18.0	18.1	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.2	18.2	
Delta Lupus	3.2	129	28.5	28.2	27.9	27.6	27.5	27.4	27.4	27.5	27.6	27.8	27.8	27.7	-40	41.1	41.1	41.2	41.3	41.3	41.4	41.5	41.5	41.5	41.5	41.4	41.3	
Pherkad	3.0	129	49.9	49.4	48.9	48.4	48.2	48.3	48.6	49.0	49.6	50.0	50.3	50.3	71	47.4	47.3	47.2	47.3	47.5	47.7	47.8	47.8	47.8	47.7	47.5	47.4	
Gamma Triang' Aust'	2.9	130	00.8	00.3	59.7	59.2	58.9	58.8	58.9	59.1	59.5	59.8	59.9	59.8	-68	43.0	43.0	43.0	43.1	43.3	43.4	43.5	43.6	43.6	43.6	43.4	43.2	
Zuben Elschemali	2.6	130	35.9	35.7	35.5	35.3	35.1	35.1	35.1	35.2	35.3	35.4	35.4	35.3	-9	25.4	25.5	25.6	25.6	25.6	25.6	25.6	25.5	25.5	25.5	25.5	25.5	
Delta Bootes	3.5	131	00.9	00.6	00.4	00.1	00.0	00.0	00.0	00.2	00.3	00.5	00.5	00.5	33	16.2	16.1	16.1	16.1	16.2	16.3	16.5	16.5	16.5	16.5	16.3	16.2	
Zeta Lupus	3.4	131	43.8	43.4	43.0	42.7	42.6	42.5	42.5	42.6	42.8	43.0	43.0	42.9	-52	08.3	08.3	08.4	08.5	08.6	08.7	08.8	08.8	08.8	08.7	08.6	08.5	
Kappa Lupus	3.9	131	49.4	49.0	48.7	48.4	48.3	48.2	48.2	48.3	48.5	48.7	48.7	48.6	-48	46.6	46.6	46.7	46.8	46.9	47.0	47.1	47.1	47.1	47.1	47.0	46.9	46.8
Brachium	3.3	133	49.2	48.9	48.7	48.5	48.3	48.3	48.3	48.4	48.5	48.6	48.6	48.5	-25	19.5	19.5	19.6	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.6	19.6	
Nekkar	3.5	134	24.7	24.4	24.1	23.9	23.8	23.8	23.9	24.0	24.2	24.3	24.4	24.3	40	20.6	20.5	20.4	20.5	20.6	20.8	20.9	20.9	20.9	20.8	20.7	20.5	
Ke Kwan	3.1	135	01.7	01.4	01.1	00.9	00.7	00.6	00.7	00.8	00.9	01.1	01.1	01.0	-42	08.8	08.8	08.9	09.0	09.1	09.2	09.2	09.2	09.2	09.1	09.0	09.0	
Beta Lupus	2.7	135	11.1	10.7	10.4	10.2	10.1	10.0	10.0	10.1	10.3	10.4	10.4	10.3	-43	10.6	10.6	10.7	10.8	10.9	11.0	11.0	11.0	11.0	10.9	10.8	10.8	
Zuben El Genubi	2.8	137	07.6	07.3	07.1	06.9	06.8	06.7	06.8	06.8	07.0	07.0	07.0	06.9	-16	05.2	05.3	05.4	05.4	05.5	05.5	05.5	05.4	05.4	05.4	05.4	05.4	
Kochab	2.1	137	20.5	19.8	19.2	18.8	18.6	18.8	19.2	19.7	20.3	20.8	21.1	21.0	74	06.3	06.2	06.2	06.3	06.5	06.6	06.7	06.7	06.7	06.6	06.4	06.2	
Alpha Apus	3.8	137	41.2	40.1	39.1	38.3	37.9	37.8	38.1	38.8	39.5	40.1	40.2	39.9	-79	05.2	05.2	05.3	05.4	05.6	05.8	05.9	05.9	05.9	05.8	05.7	05.5	
109 Virgo	3.7	138	17.8	17.6	17.4	17.2	17.1	17.1	17.1	17.2	17.3	17.4	17.4	17.3	1	50.7	50.6	50.5	50.5	50.6	50.6	50.7	50.7	50.7	50.7	50.7	50.6	
Mirak	2.4	138	38.0	37.7	37.5	37.3	37.2	37.2	37.2	37.4	37.5	37.6	37.6	37.5	27	01.5	01.3	01.3	01.4	01.5	01.6	01.7	01.7	01.7	01.7	01.6	01.5	01.4
Rijl al Awwa	3.9	139	05.3	05.0	04.8	04.6	04.5	04.5	04.5	04.6	04.7	04.8	04.8	04.7	-5	42.4	42.5	42.6	42.6	42.6	42.6	42.5	42.5	42.5	42.5	42.5	42.6	
Alpha Circinus	3.2	139	08.9	08.3	07.9	07.5	07.3	07.3	07.4	07.6	07.9	08.2	08.2	08.0	-65	01.2	01.2	01.3	01.4	01.5	01.7	01.8	01.8	01.8	01.8	01.7	01.6	01.4
Men	2.3	139	19.9	19.6	19.3	19.0	18.9	18.8	18.9	19.0	19.2	19.3	19.3	19.2	-47	26.0	26.0	26.1	26.2	26.3	26.4	26.5	26.5	26.5	26.5	26.4	26.3	26.2
Zeta Bootes	3.8	139	34.8	34.6	34.3	34.2	34.1	34.1	34.1	34.2	34.3	34.4	34.4	34.3	13	40.7	40.6	40.6	40.6	40.6	40.7	40.8	40.8	40.8	40.8	40.7	40.6	
Rigel Kentaurus	0.0	139	54.5	54.0	53.7	53.4	53.2	53.2	53.3	53.5	53.8	54.0	54.0	53.8	-60	52.6	52.6	52.7	52.9	53.0	53.1	53.2	53.2	53.2	53.1	53.0	52.9	
Eta Centaurus	2.3	140	56.7	56.4	56.1	55.9	55.8	55.8	55.8	55.9	56.1	56.2	56.2	56.0	-42	12.2	12.3	12.4	12.5	12.6	12.7	12.7	12.7	12.7	12.7	12.6	12.5	12.5
Seginus	3.0	141	52.2	51.9	51.7	51.5	51.4	51.4	51.5	51.6	51.8	51.9	51.9	51.8	38	15.3	15.2	15.2	15.3	15.4	15.5	15.6	15.7	15.6	15.6	15.4	15.3	
Rho Bootes	3.6	141	55.4	55.1	54.9	54.7	54.7	54.7	54.7	54.8	55.0	55.1	55.1	55.0	30	19.1	19.0	19.0	19.1	19.2	19.3	19.4	19.4	19.4	19.4	19.3	19.1	
Lambda Bootes	3.6	144	58.2	57.8	57.5	57.3	57.2	57.2	57.2	57.4	57.6	57.7	57.6	57.5	-46	06.4	06.4	06.5	06.7	06.8	06.9	06.9	06.9	06.9	06.8	06.7	06.6	
Arcturus	0.2	145	57.5	57.2	57.0	56.8	56.8	56.8	56.8	56.9	57.0	57.1	57.1	57.0	19	07.3	07.2	07.2	07.2	07.3	07.4	07.4	07.5	07.5	07.4	07.4	07.3	07.2
Menkent	2.1	148	09.8	09.5	09.3	09.1	09.0	09.0	09.1	09.2	09.3	09.4	09.4	09.2	-36	25.3	25.4	25.5	25.6	25.7	25.8	25.8	25.8	25.8	25.7	25.7	25.6	25.6
Pi Hydra	3.3	148	14.8	14.5	14.3	14.2	14.1	14.1	14.1	14.2	14.3	14.4	14.4	14.2	-26	44.1	44.2	44.2	44.3	44.4	44.4	44.4	44.4	44.4	44.4	44.3	44.3	44.3
Thuban	3.7	148	49.8	49.4	49.0	48.8	48.7	48.8	49.1	49.4	49.7	50.0	50.0	49.9	64	19.0	18.9	19.0	19.1	19.2	19.4	19.5	19.5	19.5	19.4	19.3	18.9	
Agena	0.6	148	50.8	50.3	49.9	49.6	49.5	49.5	49.7	49.9	50.1	50.3	50.2	50.0	-60	25.4	25.4	25.5	25.7	25.8	25.9	26.0	26.0	26.0	25.9	25.7	25.6	
Zeta Centaurus	2.5	150	56.4	56.0	55.7	55.5	55.5	55.5	55.5	55.7	55.8	55.9	55.9	55.7	-47	20.4	20.5	20.6	20.7	20.8	20.9	21.0	21.0	21.0	20.9	20.8	20.7	20.7
Muphrid	2.7	151	11.7	11.5	11.3	11.1	11.1	11.1	11.2	11.3	11.4	11.4	11.4	11.3	18	20.3	20.3	20.2	20.2	20.3	20.4	20.5	20.5	20.5	20.4	20.3	20.2	
Mu Centaurus	3.5	152	25.6	25.2	25.0	24.8	24.7	24.7	24.8	24.9	25.1	25.2	25.1	24.9	-42	31.6	31.7	31.8	31.9	32.0	32.1	32.1	32.1	32.1	32.0	32.0	31.9	31.8
Nu Centaurus	3.4	152	27.3	27.0	26.7	26.5	26.5	26.5	26.5	26.7	26.8	26.9	26.8	26.6	-41	44.4	44.5	44.6	44.7	44.8	44.9	45.0	44.9	44.9	44.8	44.7	44.7	
Alkaid	1.9	153	00.4	00.0	59.8	59.6	59.6	59.8	00.0	00.1	00.3	00.2	00.1	49	15.1	15.1	15.1	15.2	15.3	15.5	15.5	15.5	15.5	15.5	15.4	15.2	15.0	
Epsilon Centaurus	2.3	154	51.0	50.6	50.3	50.1	50.0	50.0	50.1	50.3	50.5	50.6	50.5	50.3	-53	31.2	31.2	31.4	31.5	31.6	31.8	31.8	31.8	31.8	31.7	31.6	31.5	31.4
Heze	3.4	156	11.0	10.7	10.5	10.4	10.4	10.4	10.4	10.5	10.6	10.7	10.6	10.5	-0	39.2	39.3	39.4	39.4	39.4	39.4	39.3	39.3	39.3	39.3	39.3	39.4	
d Centaurus	3.9	157	04.5	04.2	04.0	03.8	03.7	03.8	03.8	04.0	04.1	04.2	04.1	03.9	-39	27.7	27.8	28.0	28.1	28.2	28.2	28.3	28.2	28.2	28.1	28.0	28.0	
Spica	1.1	158	33.2	32.9	32.7	32.6	32.6	32.6	32.6	32.7	32.8	32.8	32.8	32.6	-11	13.2	13.3	13.4	13.4	13.4	13.4	13.4	13.4	13.3	13.3	13.3	13.4	
Mizar	2.2	158	54.4	54.0	53.8	53.6	53.6	53.7	53.9	54.1	54.3	54.4	54.4	54.2	54	51.7	51.6	51.7	51.8	51.9	52.1	52.1	52.1	52.1	52.0	51.9	51.7	51.5
Iota Centaurus	2.8	159																										

Name	Mag	Sidereal Hour Angle												Declination													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Epsilon Crux	3.6	174	30.3	29.8	29.6	29.5	29.5	29.7	29.9	30.1	30.3	30.3	30.1	29.8	-60	27.5	27.7	27.8	28.0	28.1	28.2	28.3	28.2	28.1	28.0	27.9	27.8
Zaniah	3.9	174	52.7	52.4	52.3	52.2	52.2	52.3	52.3	52.4	52.5	52.4	52.3	52.1	-0	43.8	43.9	44.0	44.0	44.0	44.0	43.9	43.9	43.9	43.9	44.0	
Gienah Ghurab	2.6	175	54.1	53.8	53.7	53.6	53.6	53.7	53.8	53.8	53.9	53.9	53.8	53.6	-17	36.2	36.3	36.4	36.5	36.6	36.6	36.5	36.5	36.4	36.4	36.4	36.4
Megrez	3.3	176	00.2	59.8	59.6	59.5	59.6	59.8	00.0	00.2	00.3	00.3	00.2	59.9	56	57.9	57.9	57.9	58.1	58.2	58.3	58.3	58.3	58.1	58.0	57.8	57.6
Delta Crux	2.8	176	03.6	03.2	03.0	02.9	03.0	03.1	03.3	03.5	03.7	03.7	03.5	03.2	-58	48.4	48.6	48.7	48.9	49.0	49.1	49.2	49.1	49.0	48.9	48.8	48.7
Minkar	3.0	177	19.3	19.0	18.9	18.8	18.8	18.9	19.0	19.1	19.1	19.1	19.0	18.8	-22	40.9	41.0	41.1	41.2	41.2	41.3	41.2	41.2	41.1	41.1	41.1	41.1
Delta Centaurus	2.6	177	45.7	45.3	45.1	45.1	45.1	45.2	45.4	45.5	45.6	45.6	45.5	45.2	-50	46.9	47.0	47.2	47.3	47.5	47.5	47.5	47.5	47.4	47.3	47.2	47.1
Phad	2.4	181	23.5	23.2	23.0	22.9	23.0	23.2	23.4	23.6	23.6	23.6	23.5	23.2	53	37.6	37.6	37.7	37.8	37.9	38.0	38.0	38.0	37.8	37.7	37.5	37.4
Zavijava	3.6	182	10.6	10.4	10.3	10.2	10.2	10.3	10.4	10.4	10.5	10.4	10.3	10.1	1	42.0	41.9	41.9	41.8	41.8	41.9	41.9	41.9	41.9	41.9	41.9	41.8
Denebola	2.1	182	35.4	35.1	35.0	34.9	35.0	35.0	35.1	35.2	35.2	35.2	35.1	34.9	14	30.4	30.3	30.3	30.3	30.4	30.4	30.5	30.5	30.4	30.4	30.3	30.2
Chi Ursae Major	3.7	183	20.2	19.9	19.7	19.7	19.8	19.9	20.1	20.2	20.3	20.2	20.1	19.8	47	42.7	42.7	42.8	42.9	43.0	43.1	43.1	43.0	42.9	42.8	42.6	42.5
Lambda Musca	3.6	183	27.6	27.1	26.9	26.8	27.0	27.2	27.5	27.8	28.0	28.0	27.7	27.2	-66	47.2	47.3	47.5	47.7	47.9	47.9	48.0	47.9	47.8	47.6	47.5	47.5
Lambda Centaurus	3.1	185	55.1	54.7	54.6	54.5	54.7	54.9	55.1	55.4	55.5	55.5	55.2	54.8	-63	04.7	04.8	05.0	05.2	05.3	05.4	05.4	05.3	05.2	05.1	05.0	04.9
Xi Hydra	3.5	186	36.5	36.2	36.1	36.0	36.1	36.2	36.3	36.4	36.4	36.4	36.2	36.0	-31	55.1	55.2	55.4	55.5	55.5	55.6	55.6	55.5	55.4	55.3	55.3	
Giauzar	3.8	186	58.7	58.2	58.0	57.9	58.2	58.5	58.9	59.2	59.3	59.3	59.0	58.5	69	15.8	15.8	15.9	16.1	16.2	16.3	16.2	16.1	16.0	15.8	15.6	15.5
Pi Centaurus	3.9	189	36.9	36.6	36.4	36.4	36.5	36.7	36.9	37.0	37.1	37.1	36.8	36.5	-54	32.9	33.1	33.3	33.4	33.6	33.6	33.6	33.5	33.4	33.3	33.2	33.2
Delta Crater	3.6	190	01.2	01.0	00.9	00.9	00.9	01.0	01.1	01.2	01.2	01.1	01.0	00.7	-14	50.3	50.5	50.6	50.6	50.7	50.7	50.6	50.6	50.5	50.5	50.5	50.6
Alula Borealis	3.5	190	13.5	13.3	13.1	13.1	13.2	13.3	13.4	13.5	13.5	13.4	13.3	13.0	33	01.7	01.7	01.7	01.8	01.9	01.9	02.0	01.9	01.9	01.7	01.6	01.5
Alula Australis	3.8	190	18.1	17.8	17.7	17.7	17.8	17.9	18.0	18.0	18.1	18.0	17.8	17.6	31	27.7	27.7	27.7	27.8	27.9	27.9	27.9	27.9	27.8	27.7	27.6	27.5
Chort	3.3	191	17.4	17.1	17.0	17.0	17.1	17.1	17.2	17.3	17.3	17.2	17.1	16.8	15	21.9	21.9	21.8	21.9	21.9	22.0	22.0	22.0	22.0	21.9	21.8	21.7
Zozma	2.6	191	19.2	19.0	18.9	18.8	18.9	19.0	19.1	19.1	19.1	19.1	18.9	18.7	20	27.5	27.5	27.5	27.5	27.6	27.6	27.6	27.6	27.6	27.5	27.4	27.3
Psi Ursae Major	3.0	192	25.4	25.1	24.9	24.9	25.0	25.2	25.3	25.4	25.4	25.4	25.2	24.9	44	26.0	26.0	26.0	26.1	26.2	26.3	26.3	26.2	26.1	26.0	25.8	25.7
BS 4337	3.9	192	43.6	43.2	43.1	43.1	43.3	43.5	43.7	43.9	44.0	43.9	43.6	43.2	-59	01.9	02.1	02.3	02.5	02.6	02.6	02.6	02.5	02.4	02.3	02.2	02.2
Dubhe	1.8	193	53.4	53.0	52.9	52.9	53.1	53.3	53.6	53.7	53.8	53.7	53.4	53.0	61	41.1	41.1	41.2	41.4	41.5	41.5	41.5	41.4	41.3	41.1	40.9	40.8
Merak	2.4	194	22.0	21.6	21.5	21.5	21.6	21.9	22.0	22.2	22.2	22.1	21.9	21.5	56	19.0	19.0	19.1	19.2	19.4	19.4	19.4	19.3	19.2	19.0	18.8	18.7
u Carina	3.8	196	30.3	30.0	29.9	30.0	30.1	30.3	30.6	30.7	30.8	30.7	30.4	30.0	-58	54.6	54.7	54.9	55.1	55.2	55.3	55.2	55.1	55.0	54.9	54.8	54.8
Praecipula	3.8	196	30.7	30.4	30.3	30.3	30.4	30.5	30.6	30.7	30.7	30.6	30.4	30.1	34	09.0	09.0	09.0	09.1	09.2	09.2	09.2	09.2	09.1	09.0	08.9	08.8
Nu Hydra	3.1	197	27.1	26.8	26.8	26.8	26.8	26.9	27.0	27.0	27.0	27.0	26.8	26.6	-16	15.1	15.3	15.4	15.4	15.5	15.5	15.4	15.4	15.3	15.3	15.3	15.3
Mu Velorum	2.7	198	10.8	10.6	10.5	10.5	10.7	10.8	11.0	11.1	11.1	11.0	10.8	10.5	-49	28.6	28.8	29.0	29.1	29.2	29.2	29.2	29.1	29.0	28.9	28.8	28.8
Theta Carina	2.7	199	09.1	08.8	08.7	08.8	09.0	09.3	09.6	09.8	09.9	09.7	09.4	09.0	-64	27.0	27.2	27.3	27.5	27.6	27.7	27.7	27.6	27.4	27.3	27.2	27.2
Rho Leo	3.9	201	38.7	38.5	38.4	38.4	38.5	38.6	38.7	38.7	38.7	38.6	38.4	38.2	9	14.8	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.7	14.7	14.6
BS 4140	3.4	201	53.2	52.9	52.8	52.9	53.1	53.4	53.6	53.8	53.8	53.7	53.4	52.9	-61	44.4	44.6	44.8	44.9	45.0	45.1	45.0	44.9	44.8	44.7	44.6	44.6
BS 4114	3.8	202	55.2	54.9	54.8	54.9	55.1	55.3	55.6	55.7	55.7	55.6	55.3	54.9	-58	47.6	47.8	48.0	48.1	48.3	48.3	48.2	48.1	48.0	47.9	47.8	47.8
Mu Hydra	3.8	203	20.2	20.0	19.9	20.0	20.0	20.1	20.2	20.3	20.2	20.1	20.0	19.7	-16	53.6	53.7	53.9	53.9	53.9	53.9	53.9	53.8	53.8	53.7	53.7	53.8
Tania Australis	3.1	204	14.7	14.5	14.4	14.4	14.6	14.7	14.8	14.8	14.8	14.7	14.5	14.2	41	26.3	26.3	26.4	26.5	26.6	26.6	26.6	26.5	26.4	26.3	26.1	26.0
Algieba	2.0	204	50.8	50.6	50.6	50.6	50.7	50.8	50.8	50.9	50.8	50.7	50.5	50.3	19	46.9	46.9	46.9	46.9	46.9	47.0	47.0	47.0	46.9	46.9	46.8	46.7
Tania Borealis	3.4	205	33.1	32.8	32.7	32.8	32.9	33.1	33.2	33.2	33.2	33.1	32.8	32.5	42	51.2	51.2	51.3	51.4	51.5	51.5	51.5	51.4	51.3	51.2	51.1	51.0
BS4050	3.4	205	37.6	37.4	37.3	37.4	37.6	37.9	38.1	38.3	38.3	38.2	37.8	37.4	-61	23.1	23.3	23.5	23.7	23.8	23.8	23.7	23.6	23.5	23.4	23.3	23.3
Adhafera	3.4	205	40.0	39.8	39.7	39.7	39.8	39.9	40.0	40.0	40.0	39.9	39.7	39.4	23	21.5	21.4	21.5	21.5	21.6	21.6	21.6	21.6	21.5	21.4	21.3	21.2
BS 4023	3.8	206	11.5	11.3	11.3	11.3	11.4	11.6	11.7	11.8	11.8	11.7	11.4	11.1	-42	10.5	10.7	10.9	11.0	11.1	11.1	11.0	10.9	10.8	10.7	10.7	10.7
Omega Carina	3.3	206	29.3	29.0	28.9	29.1	29.5	29.9	30.2	30.5	30.5	30.3	29.9	29.3	-70	05.4	05.6	05.8	06.0	06.1	06.1	06.1	06.0	05.8	05.7	05.6	05.6
Lambda Hydra	3.6	207	12.7	12.5	12.4	12.5	12.5	12.6	12.7	12.7	12.7	12.6	12.4	12.2	-12	24.6	24.7	24.8	24.9	24.9	24.9	24.8	24.8	24.7	24.7	24.7	24.8
Regulus	1.4	207	45.2	45.0	44.9	44.9	45.0	45.1	45.2	45.2	45.2	45.0	44.9	44.6	11	54.6	54.5	54.5	54.5	54.6	54.6	54.6	54.6	54.6	54.5	54.5	54.4
Eta Leo	3.5	208	00.5	00.3	00.3	00.3	00.4	00.5	00.6	00.6	00.5	00.4	00.2	00.0	16	42.3	42.3	42.3	42.3	42.3	42.3	42.4	42.3	42.3	42.3	42.2	42.1
Tseen Ke	3.5	210	40.7	40.5	40.4	40.6	40.7	41.0	41.1	41.2	41.2	41.1	40.8	40.4	-54	37.1	37.3	37.5	37.6	37.7	37.7	37.7	37.6	37.4	37.3	37.3	37.3
Rasalas	3.9	211	38.6	38.4	38.4	38.4	38.6	38.7	38.7	38.7	38.7	38.5	38.3	38.1	25	57.0	57.0	57.0	57.1	57.1	57.2	57.2	57.1	57.1	57.0	56.9	56.8
Upsilon Ursae Major	3.8	212	02.7	02.5	02.4	02.5	02.7	03.0	03.1	03.2	03.1	02.9	02.6	02.2	58	58.9	58.9	59.0	59.1	59.2	59.2	59.2	59.0	58.9	58.8	58.6	58.5
Upsilon Carina	3.0	213	08.7	08.4	08.4	08.6	08.9	09.2	09.5	09.7	09.7	09.4	09.1	08.6	-65	07.3	07.5	07.7	07.8	07.9	07.9	07.9					

Name	Mag	Sidereal Hour Angle												Declination													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Turais	2.3	220	38.6	38.4	38.4	38.6	38.9	39.2	39.4	39.4	39.4	39.2	38.8	38.4	-59	19.2	19.4	19.6	19.7	19.8	19.8	19.7	19.6	19.4	19.3	19.3	19.3
Theta Hydra	3.9	221	15.4	15.3	15.2	15.3	15.4	15.5	15.6	15.5	15.5	15.3	15.1	14.9	2	15.9	15.8	15.8	15.8	15.8	15.8	15.8	15.9	15.9	15.9	15.8	15.7
Miaplacidus	1.7	221	39.4	39.2	39.3	39.6	40.0	40.5	40.8	41.0	40.9	40.6	40.1	39.6	-69	45.7	45.9	46.0	46.2	46.3	46.3	46.2	46.0	45.9	45.8	45.7	45.8
Canopus	3.4	222	10.5	10.3	10.4	10.6	10.8	11.1	11.3	11.4	11.3	11.1	10.7	10.3	-59	00.6	00.8	01.0	01.2	01.2	01.2	01.1	01.0	00.8	00.7	00.7	00.8
Suhail	2.2	222	53.4	53.3	53.3	53.4	53.6	53.8	53.9	53.9	53.8	53.6	53.4	53.1	-43	28.6	28.8	28.9	29.1	29.1	29.1	29.0	28.9	28.7	28.7	28.6	28.7
BS 3614	3.8	223	51.4	51.3	51.3	51.4	51.6	51.8	51.9	51.9	51.9	51.7	51.4	51.1	-47	08.5	08.7	08.8	08.9	09.0	09.0	08.9	08.7	08.6	08.5	08.5	08.6
Talitha Australis	3.6	223	53.7	53.5	53.4	53.6	53.7	53.9	54.0	53.9	53.8	53.6	53.3	53.0	47	06.5	06.5	06.6	06.7	06.7	06.7	06.7	06.6	06.5	06.4	06.3	06.2
Talitha	3.1	224	59.9	59.7	59.7	59.8	00.0	00.1	00.2	00.2	00.1	59.8	59.5	59.2	47	59.6	59.7	59.8	59.8	59.9	59.9	59.8	59.7	59.6	59.5	59.4	59.4
Zeta Hydra	3.1	225	59.8	59.7	59.7	59.8	59.9	00.0	00.0	00.0	59.9	59.7	59.5	59.2	5	54.1	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.1	54.0	54.0	53.9
BS 3571	3.8	226	09.9	09.7	09.8	10.0	10.3	10.6	10.8	10.9	10.8	10.5	10.1	09.8	-60	41.1	41.3	41.5	41.6	41.7	41.7	41.6	41.4	41.3	41.2	41.2	41.2
Epsilon Hydra	3.4	228	09.1	09.0	08.9	09.0	09.1	09.2	09.3	09.2	09.1	09.0	08.7	08.5	6	22.5	22.5	22.4	22.4	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.4
Delta Vela	1.9	228	44.2	44.1	44.2	44.4	44.6	44.9	45.0	45.0	44.9	44.7	44.4	44.0	-54	44.9	45.1	45.3	45.4	45.4	45.4	45.3	45.2	45.0	44.9	44.9	45.0
Asellus Australis	3.9	228	39.8	39.6	39.6	39.7	39.8	39.9	39.9	39.9	39.8	39.6	39.4	39.1	18	06.6	06.6	06.6	06.6	06.6	06.7	06.7	06.7	06.6	06.6	06.6	06.4
Alpha Pyxis	3.7	228	58.9	58.8	58.8	58.9	59.1	59.2	59.3	59.3	59.2	59.0	58.8	58.5	-33	13.6	13.8	13.9	14.0	14.0	14.0	13.9	13.8	13.6	13.6	13.6	13.7
BS 3445	3.8	229	44.5	44.4	44.5	44.6	44.8	45.0	45.1	45.1	45.0	44.8	44.5	44.2	-46	41.3	41.5	41.6	41.7	41.7	41.7	41.6	41.5	41.3	41.3	41.3	41.4
Omicron Velorum	3.6	229	50.2	50.1	50.2	50.4	50.6	50.8	51.0	51.0	50.9	50.7	50.3	50.0	-52	57.6	57.8	58.0	58.1	58.1	58.1	58.0	57.9	57.7	57.6	57.6	57.7
Muscida	3.4	232	11.4	11.2	11.2	11.4	11.7	11.9	12.0	12.0	11.8	11.4	11.0	10.6	60	40.6	40.7	40.8	40.9	40.9	40.9	40.8	40.7	40.5	40.4	40.3	40.3
Beta Volans	3.8	233	31.4	31.3	31.5	31.8	32.2	32.5	32.8	32.8	32.7	32.3	31.9	31.4	-66	10.4	10.6	10.7	10.9	10.9	10.9	10.7	10.6	10.4	10.3	10.3	10.4
BS 3314	3.9	233	26.3	26.2	26.2	26.3	26.4	26.5	26.5	26.5	26.4	26.2	26.0	25.7	-3	56.7	56.8	56.8	56.8	56.8	56.8	56.8	56.7	56.7	56.7	56.7	56.8
Avior	2.0	234	18.2	18.1	18.2	18.5	18.8	19.1	19.2	19.2	19.1	18.8	18.5	18.1	-59	32.7	32.9	33.0	33.1	33.2	33.1	33.0	32.9	32.7	32.6	32.6	32.7
Altarf	3.5	235	42.7	42.6	42.6	42.7	42.9	42.9	43.0	42.9	42.8	42.6	42.4	42.1	9	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.8
Suhail	1.8	237	31.3	31.2	31.3	31.5	31.7	31.9	32.0	32.0	31.8	31.6	31.3	31.0	-47	22.1	22.3	22.5	22.6	22.6	22.5	22.4	22.3	22.1	22.1	22.1	22.2
Rho Puppis	2.8	237	59.2	59.1	59.2	59.3	59.5	59.6	59.6	59.6	59.4	59.2	59.0	58.8	-24	20.2	20.4	20.5	20.5	20.5	20.5	20.4	20.3	20.2	20.2	20.2	20.3
Naos	2.2	238	59.8	59.8	59.8	00.0	00.2	00.3	00.4	00.3	00.2	00.0	59.7	59.5	-40	02.1	02.3	02.4	02.5	02.5	02.4	02.3	02.2	02.0	02.0	02.0	02.1
Chi Carina	3.5	240	43.5	43.4	43.5	43.8	44.0	44.2	44.3	44.3	44.1	43.9	43.5	43.2	-53	00.7	00.9	01.1	01.1	01.2	01.1	01.0	00.8	00.7	00.6	00.6	00.7
BS 3080	3.7	241	50.5	50.4	50.5	50.7	50.8	51.0	51.0	51.0	50.8	50.6	50.4	50.1	-40	36.3	36.5	36.6	36.7	36.7	36.6	36.5	36.3	36.2	36.2	36.2	36.3
Asmidiske	3.3	242	33.1	33.0	33.0	33.2	33.3	33.4	33.5	33.4	33.3	33.1	32.8	32.6	-24	53.3	53.5	53.6	53.6	53.6	53.6	53.5	53.3	53.2	53.2	53.3	53.4
Pollux	1.2	243	29.5	29.4	29.4	29.6	29.7	29.8	29.8	29.7	29.5	29.3	29.0	28.8	27	59.8	59.8	59.8	59.9	59.9	59.9	59.8	59.8	59.8	59.7	59.7	59.6
c Puppis	3.6	243	34.7	34.6	34.7	34.9	35.1	35.2	35.2	35.2	35.0	34.8	34.6	34.3	-37	59.8	59.9	00.1	00.1	00.1	00.1	59.9	59.8	59.7	59.6	59.7	59.8
Kappa Gemini	3.6	243	42.7	42.6	42.6	42.7	42.9	42.9	42.9	42.8	42.7	42.5	42.2	42.0	24	22.1	22.1	22.1	22.2	22.2	22.2	22.2	22.1	22.1	22.1	22.0	22.0
Alpha Monoceros	3.9	244	32.8	32.8	32.8	32.9	33.0	33.1	33.1	33.0	32.9	32.7	32.5	32.3	-9	34.7	34.8	34.9	34.9	34.9	34.9	34.8	34.7	34.6	34.6	34.7	34.8
Procyon	0.4	245	01.2	01.2	01.2	01.3	01.4	01.5	01.5	01.4	01.3	01.1	00.8	00.6	5	11.7	11.6	11.6	11.6	11.6	11.6	11.6	11.7	11.7	11.7	11.6	11.6
Castor	1.6	246	09.8	09.7	09.8	09.9	10.0	10.1	10.1	10.0	09.8	09.6	09.3	09.1	31	51.7	51.7	51.7	51.8	51.8	51.7	51.7	51.7	51.6	51.6	51.5	51.5
Sigma Puppis	3.3	247	35.7	35.6	35.8	36.0	36.2	36.3	36.3	36.3	36.1	35.9	35.6	35.3	-43	19.5	19.6	19.8	19.8	19.8	19.7	19.6	19.5	19.3	19.3	19.3	19.5
Gomeisa	2.9	248	03.2	03.1	03.1	03.3	03.4	03.5	03.4	03.3	03.2	03.0	02.7	02.5	8	15.9	15.9	15.8	15.8	15.8	15.9	15.9	15.9	15.9	15.9	15.9	15.8
Iota Gemini	3.8	248	23.2	23.1	23.1	23.3	23.4	23.5	23.5	23.3	23.2	22.9	22.7	22.4	27	46.4	46.4	46.5	46.5	46.5	46.5	46.4	46.4	46.4	46.3	46.3	46.3
Aludra	2.5	248	51.4	51.4	51.5	51.6	51.8	51.9	51.9	51.8	51.7	51.5	51.2	51.0	-29	19.5	19.7	19.8	19.8	19.8	19.8	19.6	19.5	19.4	19.4	19.4	19.5
Wasat	3.5	249	47.6	47.6	47.6	47.7	47.9	47.9	47.9	47.8	47.6	47.4	47.2	46.9	21	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.5	57.5	57.5
Lambda Gemini	3.6	250	18.5	18.4	18.5	18.6	18.7	18.8	18.7	18.6	18.5	18.3	18.0	17.8	16	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.0	31.0
Pi Puppis	2.7	250	36.4	36.4	36.5	36.7	36.8	37.0	37.0	36.9	36.7	36.5	36.3	36.0	-37	07.1	07.3	07.4	07.4	07.4	07.3	07.2	07.1	07.0	06.9	07.0	07.1
Gamma Volans	3.8	252	49.2	49.4	49.7	50.2	50.7	51.1	51.3	51.3	50.9	50.5	49.9	49.5	-70	31.0	31.2	31.3	31.4	31.4	31.3	31.1	31.0	30.8	30.8	30.8	31.0
Wezen	1.8	252	46.8	46.8	46.9	47.0	47.2	47.3	47.3	47.2	47.0	46.8	46.6	46.3	-26	24.7	24.9	24.9	25.0	25.0	24.9	24.8	24.7	24.6	24.5	24.6	24.7
Omicron Canis Major	3.0	254	07.1	07.1	07.2	07.3	07.5	07.6	07.6	07.5	07.3	07.1	06.9	06.6	-23	51.0	51.2	51.3	51.3	51.3	51.2	51.1	51.0	50.9	50.9	50.9	51.0
Sigma Canis Major	3.5	254	27.0	27.0	27.1	27.3	27.4	27.5	27.5	27.4	27.2	27.0	26.8	26.6	-27	57.1	57.3	57.3	57.4	57.4	57.3	57.2	57.0	57.0	56.9	57.0	57.1
Adara	1.5	255	13.5	13.5	13.6	13.8	13.9	14.0	14.0	13.9	13.7	13.5	13.3	13.1	-28	59.3	59.4	59.5	59.6	59.5	59.5	59.4	59.2	59.1	59.1	59.2	59.3
Theta Gemini	3.6	256	36.5	36.5	36.6	36.7	36.9	36.9	36.9	36.7	36.5	36.3	36.0	35.7	33	56.8	56.8	56.8	56.8	56.8	56.8	56.7	56.7	56.7	56.6	56.6	56.6
Tau Puppis	2.9	257	26.2	26.2	26.4	26.6	26.9	27.0	27.1	27.0	26.8	26.5	26.2	25.9	-50	37.7	37.9	38.0	38.0	38.0	37.9	37.8	37.6	37.5	37.5	37.5	37.7
Kappa Canis Major	3.5	257	25.6	25.6	25.7	25.9	26.0	26.1	26.1	26.0	25.9	25.6	25.4	25.2	-32	31.3	31.5	31.6	31.6	31.6	3						

Name	Mag	Sidereal Hour Angle												Declination														
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Maia	3.9	303	22.2	22.2	22.3	22.5	22.5	22.4	22.3	22.0	21.8	21.5	21.4	21.3	24	24.2	24.2	24.2	24.2	24.1	24.1	24.1	24.2	24.2	24.3	24.3	24.3	
Nu Perseus	3.8	303	30.1	30.2	30.4	30.5	30.6	30.5	30.3	30.0	29.7	29.4	29.2	29.1	42	37.0	37.0	37.0	36.9	36.8	36.8	36.7	36.8	36.8	36.9	37.0	37.0	
Electra	3.7	303	36.4	36.5	36.6	36.8	36.8	36.7	36.5	36.3	36.1	35.8	35.7	35.6	24	09.0	09.0	08.9	08.9	08.9	08.9	08.9	08.9	09.0	09.0	09.1	09.1	
Atik	3.9	303	44.2	44.3	44.4	44.5	44.6	44.5	44.3	44.0	43.8	43.5	43.4	43.3	32	19.5	19.5	19.5	19.5	19.4	19.4	19.4	19.4	19.5	19.5	19.6	19.6	
Beta Reticulum	3.8	303	54.2	54.6	55.0	55.3	55.5	55.5	55.3	55.0	54.6	54.2	54.0	53.9	-64	46.5	46.6	46.6	46.5	46.3	46.2	46.0	45.9	45.8	45.9	46.0	46.2	
Rana	3.5	304	02.9	02.9	03.0	03.2	03.2	03.2	03.0	02.8	02.6	02.4	02.2	02.1	-9	43.6	43.7	43.7	43.7	43.6	43.5	43.4	43.3	43.2	43.2	43.3	43.4	
Delta Perseus	3.0	304	03.6	03.7	03.8	04.0	04.1	04.0	03.7	03.4	03.1	02.8	02.6	02.5	47	49.5	49.6	49.6	49.5	49.4	49.3	49.3	49.3	49.3	49.4	49.5	49.6	
Epsilon Eridanus	3.7	306	37.8	37.8	38.0	38.1	38.1	38.0	37.9	37.7	37.4	37.3	37.1	37.1	-9	25.3	25.3	25.4	25.3	25.3	25.2	25.1	25.0	24.9	24.9	25.0	25.1	
Xi Taurus	3.7	308	03.0	03.0	03.2	03.3	03.3	03.2	03.0	02.8	02.6	02.4	02.2	02.2	9	46.3	46.3	46.3	46.2	46.3	46.3	46.4	46.4	46.5	46.5	46.5	46.5	
Omicron Taurus	3.6	308	38.4	38.5	38.6	38.7	38.7	38.6	38.4	38.2	38.0	37.8	37.6	37.6	9	04.1	04.1	04.1	04.0	04.1	04.1	04.2	04.2	04.3	04.3	04.3	04.3	
Mirfak	1.8	308	42.6	42.7	42.9	43.0	43.1	43.0	42.7	42.4	42.0	41.8	41.5	41.4	49	54.2	54.3	54.2	54.2	54.1	54.0	53.9	54.0	54.0	54.1	54.2	54.3	
16 Eridanus	3.7	309	59.4	59.5	59.7	59.8	59.8	59.7	59.6	59.4	59.1	58.9	58.8	58.7	-21	43.1	43.2	43.2	43.2	43.1	43.0	42.8	42.7	42.7	42.7	42.8	42.9	
Fornacis	3.8	311	51.4	51.5	51.6	51.8	51.8	51.7	51.6	51.3	51.1	50.9	50.8	50.7	-28	56.8	56.8	56.8	56.8	56.7	56.5	56.4	56.3	56.2	56.3	56.3	56.5	
Algol	2.1	312	46.0	46.2	46.3	46.4	46.5	46.3	46.1	45.8	45.5	45.3	45.1	45.0	41	00.1	00.1	00.1	00.0	59.9	59.9	59.9	59.9	00.0	00.0	00.1	00.2	
Gorgonea Tertia	3.4	313	31.1	31.2	31.4	31.5	31.5	31.4	31.1	30.9	30.6	30.3	30.2	30.1	38	53.2	53.2	53.1	53.1	53.0	53.0	53.0	53.0	53.1	53.1	53.2	53.3	
Gamma Perseus	2.9	313	35.3	35.4	35.6	35.8	35.8	35.7	35.4	35.0	34.7	34.4	34.2	34.1	53	33.2	33.2	33.2	33.1	33.0	32.9	32.9	32.9	33.0	33.1	33.2	33.3	
Menkar	2.6	314	16.7	16.8	16.9	17.0	17.0	16.9	16.7	16.5	16.2	16.1	15.9	15.9	4	08.0	08.0	08.0	08.0	08.0	08.0	08.1	08.2	08.3	08.3	08.3	08.2	
Acamar	3.2	315	19.4	19.5	19.7	19.8	19.9	19.8	19.6	19.4	19.1	18.9	18.8	18.7	-40	15.8	15.8	15.8	15.7	15.6	15.4	15.3	15.2	15.2	15.2	15.3	15.5	
Azha	3.9	315	45.1	45.2	45.3	45.4	45.4	45.3	45.1	44.9	44.6	44.5	44.3	44.3	-8	51.3	51.3	51.3	51.3	51.2	51.2	51.0	51.0	50.9	50.9	50.9	51.0	
Tau Perseus	3.9	316	13.6	13.8	14.0	14.2	14.2	14.0	13.7	13.4	13.0	12.7	12.5	12.5	52	48.7	48.7	48.7	48.6	48.5	48.4	48.4	48.4	48.5	48.6	48.7	48.8	
Miram	3.8	317	06.7	06.9	07.1	07.2	07.3	07.1	06.8	06.4	06.0	05.7	05.5	05.4	55	56.7	56.8	56.7	56.6	56.5	56.4	56.4	56.4	56.5	56.6	56.7	56.9	
41 Aries	3.6	317	20.0	20.1	20.2	20.3	20.3	20.2	19.9	19.7	19.4	19.2	19.1	19.0	27	18.5	18.5	18.5	18.4	18.4	18.4	18.4	18.5	18.5	18.6	18.7	18.7	
Kaffajjidmah	3.5	319	01.5	01.6	01.7	01.7	01.7	01.6	01.4	01.2	01.0	00.8	00.7	00.7	3	17.0	16.9	16.9	16.9	17.0	17.0	17.1	17.2	17.3	17.3	17.3	17.2	
Polaris	2.0	318	23.2	23.3	23.4	23.5	23.5	23.4	23.1	22.7	22.5	22.4	22.3	22.2	89	19.1	19.1	19.1	19.1	19.0	18.8	18.7	18.6	18.6	18.6	18.8	18.9	19.1
Phi Eridanus	3.6	325	46.1	46.3	46.5	46.6	46.6	46.5	46.3	46.0	45.7	45.5	45.4	45.4	-51	27.9	27.9	27.8	27.7	27.5	27.4	27.2	27.1	27.1	27.2	27.4	27.5	
Beta Triangulum	3.0	327	26.5	26.6	26.7	26.8	26.8	26.6	26.4	26.1	25.8	25.6	25.5	25.5	35	02.6	02.6	02.5	02.5	02.4	02.4	02.4	02.5	02.6	02.7	02.8	02.8	
Hamal	2.0	328	02.6	02.7	02.8	02.9	02.9	02.7	02.5	02.2	02.0	01.8	01.7	01.7	23	31.0	31.0	31.0	30.9	30.9	30.9	31.0	31.0	31.1	31.2	31.3	31.3	
Almaak	2.2	328	50.8	51.0	51.1	51.2	51.1	51.0	50.7	50.4	50.1	49.9	49.8	49.8	42	23.2	23.2	23.2	23.1	23.0	22.9	23.0	23.0	23.1	23.2	23.4	23.4	
Alrishah	3.8	329	20.3	20.4	20.5	20.6	20.6	20.4	20.2	20.0	19.8	19.6	19.5	19.5	2	49.1	49.0	49.0	49.0	49.1	49.1	49.2	49.3	49.4	49.4	49.4	49.4	
Alpha Hydrus	2.9	330	12.9	13.2	13.4	13.6	13.6	13.5	13.2	12.8	12.4	12.2	12.1	12.2	-61	31.2	31.2	31.1	31.0	30.8	30.6	30.5	30.4	30.4	30.5	30.7	30.8	
Chi Eridanus	3.7	330	53.8	54.1	54.2	54.4	54.4	54.2	53.9	53.6	53.3	53.2	53.1	53.2	-51	33.4	33.4	33.4	33.2	33.1	32.9	32.8	32.7	32.7	32.8	32.9	33.1	
Sheratan	2.7	331	10.8	10.9	11.0	11.1	11.0	10.9	10.7	10.4	10.2	10.0	09.9	09.9	20	51.9	51.8	51.8	51.8	51.7	51.8	51.8	51.9	52.0	52.1	52.1	52.1	
Segin	3.4	331	11.4	11.7	11.9	12.1	12.0	11.7	11.3	10.8	10.4	10.1	10.0	10.0	63	43.8	43.8	43.7	43.6	43.5	43.4	43.4	43.4	43.6	43.7	43.9	44.0	
Mothallah	3.4	331	33.9	34.0	34.1	34.2	34.1	34.0	33.7	33.4	33.2	33.0	33.0	33.0	29	38.2	38.1	38.1	38.0	38.0	38.0	38.0	38.1	38.2	38.3	38.4	38.4	
Baten Kaitos	3.7	331	59.6	59.7	59.8	59.8	59.8	59.6	59.4	59.2	59.0	58.8	58.8	58.8	-10	16.8	16.9	16.9	16.8	16.8	16.7	16.5	16.5	16.4	16.4	16.5	16.5	
Tau Cetus	3.5	333	51.0	51.1	51.2	51.2	51.2	51.0	50.8	50.6	50.4	50.2	50.2	50.2	-15	52.8	52.8	52.8	52.8	52.7	52.5	52.4	52.3	52.3	52.3	52.4	52.5	
51 Andromeda	3.6	335	19.4	19.6	19.8	19.8	19.8	19.5	19.2	18.9	18.6	18.4	18.3	18.4	48	41.4	41.3	41.3	41.2	41.1	41.0	41.0	41.1	41.2	41.4	41.5	41.6	
Achemar	0.5	335	27.8	28.1	28.3	28.4	28.4	28.2	27.9	27.5	27.2	27.0	27.0	27.1	-57	11.1	11.1	11.0	10.8	10.6	10.5	10.3	10.3	10.3	10.4	10.6	10.7	
Eta Pisces	3.6	336	58.5	58.6	58.7	58.7	58.7	58.5	58.3	58.0	57.8	57.7	57.6	57.7	15	24.3	24.3	24.2	24.2	24.2	24.2	24.3	24.4	24.5	24.6	24.6	24.6	
Delta Phoenix	3.9	337	04.0	04.2	04.4	04.5	04.4	04.3	04.0	03.7	03.4	03.3	03.2	03.3	-49	01.1	01.1	01.0	00.9	00.7	00.6	00.4	00.4	00.4	00.5	00.6	00.7	
Gamma Phoenix	3.4	337	47.0	47.2	47.3	47.4	47.4	47.2	46.9	46.7	46.4	46.3	46.2	46.3	-43	15.9	15.9	15.8	15.7	15.5	15.4	15.2	15.2	15.2	15.3	15.4	15.5	
Ruchbah	2.7	338	21.3	21.6	21.8	21.9	21.8	21.5	21.1	20.7	20.3	20.1	20.0	20.1	60	17.9	17.9	17.8	17.7	17.6	17.5	17.5	17.6	17.7	17.9	18.0	18.1	
Theta Cetus	3.6	338	51.1	51.2	51.2	51.3	51.2	51.1	50.8	50.6	50.4	50.3	50.2	50.3	-8	07.6	07.6	07.6	07.6	07.5	07.4	07.3	07.2	07.1	07.1	07.2	07.2	
Mirach	2.1	342	24.4	24.5	24.6	24.6	24.5	24.3	24.1	23.8	23.6	23.4	23.4	23.4	35	41.0	41.0	40.9	40.8	40.8	40.8	40.8	40.9	41.0	41.1	41.2	41.3	
Dheneb	3.5	342	42.5	42.6	42.7	42.7	42.7	42.5	42.3	42.0	41.8	41.7	41.7	41.7	-10	07.4	07.4	07.4	07.4	07.3	07.2	07.1	07.0	07.0	07.0	07.0	07.1	
Beta Phoenix	3.3	343	21.1	21.3	21.4	21.5	21.4	21.2	20.9	20.6	20.4	20.3	20.3	20.4	-46	39.7	39.7	39.6	39.5	39.3	39.2	39.1	39.0	39.0	39.1	39.3	39.4	
Mu Andromeda	3.9	345	39.2	39.3	39.4	39.4	39.3	39.1	38.8	38.5	38.3	38.2	38.1	38.2	38	33.8	33.8	33.7	33.6	33.6	33.6	33.6	33.7	33.8	34.0	34.1	34.1	
Tsih	2.2	345	38.9	39.2	39.3	39.4	39.3	38.9	38.5	38.1	37.8	37.6	37.6	37.7	60	47.0	46.9	46.8	46.7	46.6	46.5							