

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	07.1	07.8	08.1	08.0	07.5	06.8	06.0	05.3	04.9	04.8	05.2	05.7	77	40.2	40.2	40.0	39.9	39.8	39.7	39.8	39.9	40.1	40.3	40.5	40.6	
Lambda Andromeda	3.9	5	32.4	32.6	32.6	32.6	32.4	32.1	31.8	31.5	31.3	31.3	31.3	31.5	46	29.6	29.6	29.4	29.3	29.3	29.3	29.4	29.5	29.7	29.8	30.0	30.0	
98 Aquarius	4.0	9	10.8	10.9	10.9	10.8	10.6	10.4	10.2	09.9	09.8	09.7	09.8	09.9	-20	04.2	04.2	04.2	04.1	04.0	03.9	03.8	03.7	03.7	03.7	03.8	03.9	
Gamma Tucana	4.0	10	33.4	33.5	33.6	33.5	33.2	32.9	32.5	32.1	31.9	31.9	32.0	32.2	-58	12.5	12.4	12.3	12.1	11.9	11.8	11.7	11.8	11.8	12.0	12.1	12.1	
Gamma Pices	3.7	10	38.0	38.1	38.1	38.0	37.8	37.6	37.3	37.1	37.0	37.0	37.0	37.1	3	18.9	18.8	18.8	18.8	18.9	19.0	19.1	19.2	19.2	19.3	19.3	19.3	
Iota Grus	3.9	12	19.6	19.7	19.7	19.6	19.4	19.1	18.8	18.5	18.4	18.3	18.4	18.6	-45	13.1	13.1	13.0	12.8	12.7	12.5	12.5	12.5	12.5	12.6	12.7	12.8	
88 Aquarius	3.7	12	33.6	33.7	33.7	33.6	33.4	33.2	32.9	32.7	32.6	32.5	32.6	32.7	-21	08.6	08.6	08.5	08.4	08.3	08.2	08.1	08.1	08.1	08.1	08.1	08.2	
Markab	2.5	13	44.3	44.4	44.4	44.3	44.1	43.9	43.6	43.4	43.3	43.3	43.3	43.4	15	14.3	14.2	14.2	14.1	14.1	14.2	14.3	14.5	14.6	14.6	14.7	14.7	
Scheat	2.5	13	59.3	59.3	59.3	59.3	59.1	58.8	58.6	58.4	58.2	58.2	58.3	58.4	28	07.0	06.9	06.8	06.8	06.8	06.8	06.9	07.1	07.2	07.3	07.4	07.4	
Omicron Andromeda	3.6	14	27.4	27.5	27.5	27.4	27.2	26.9	26.6	26.4	26.3	26.2	26.3	26.5	42	21.6	21.6	21.4	21.3	21.3	21.3	21.4	21.6	21.8	21.9	22.0	22.0	
Fomalhaut	1.2	15	30.4	30.5	30.4	30.3	30.1	29.9	29.6	29.4	29.3	29.2	29.3	29.4	-29	35.6	35.6	35.5	35.4	35.3	35.2	35.1	35.1	35.1	35.2	35.2	35.3	
Skat	3.3	16	15.6	15.7	15.6	15.6	15.4	15.1	14.9	14.7	14.6	14.5	14.6	14.7	-15	47.5	47.5	47.5	47.4	47.3	47.2	47.1	47.0	47.0	47.0	47.1	47.1	
Lambda Aquarius	3.8	16	46.3	46.3	46.3	46.2	46.0	45.8	45.5	45.3	45.2	45.2	45.2	45.3	-7	33.0	33.0	33.0	32.9	32.9	32.8	32.7	32.6	32.5	32.5	32.6	32.6	
Sadalbari	3.5	17	25.9	25.9	25.9	25.8	25.6	25.4	25.1	24.9	24.8	24.8	24.9	25.0	24	38.1	38.0	37.9	37.8	37.8	37.9	38.0	38.2	38.3	38.4	38.4	38.4	
Iota Cepheus	3.5	17	32.3	32.6	32.6	32.5	32.1	31.7	31.2	30.9	30.8	30.8	31.0	31.4	66	14.1	14.0	13.9	13.7	13.7	13.7	13.8	13.9	14.1	14.3	14.4	14.5	
Epsilon Grus	3.5	17	46.4	46.5	46.5	46.3	46.1	45.7	45.4	45.1	45.0	45.0	45.1	45.3	-51	17.4	17.3	17.2	17.1	16.9	16.8	16.7	16.8	16.8	16.9	17.0	17.1	
Lambda Pegasus	4.0	18	18.0	18.0	18.0	17.9	17.7	17.5	17.2	17.0	16.9	16.9	17.0	17.1	23	35.9	35.8	35.7	35.7	35.7	35.7	35.9	36.0	36.1	36.2	36.3	36.3	
Matar	2.9	19	11.0	11.1	11.1	11.0	10.8	10.5	10.3	10.1	10.0	10.0	10.0	10.2	30	15.2	15.1	15.1	15.0	15.0	15.0	15.2	15.3	15.4	15.6	15.6	15.6	
Beta Grus	2.1	19	14.8	14.8	14.8	14.7	14.5	14.1	13.8	13.6	13.4	13.4	13.5	13.7	-46	51.5	51.4	51.3	51.1	51.0	50.9	50.8	50.9	50.9	51.0	51.1	51.2	
Homam	3.4	19	33.8	33.8	33.8	33.7	33.5	33.3	33.1	32.9	32.8	32.8	32.8	32.9	10	51.7	51.7	51.6	51.6	51.7	51.7	51.8	52.0	52.1	52.1	52.1	52.1	
Alpha Lacerta	3.8	22	07.4	07.5	07.5	07.4	07.1	06.8	06.5	06.2	06.1	06.2	06.3	06.5	50	19.0	18.8	18.7	18.6	18.6	18.6	18.7	18.9	19.1	19.2	19.3	19.3	
Delta Grus	4.0	22	35.8	35.8	35.8	35.6	35.4	35.1	34.8	34.5	34.4	34.4	34.5	34.7	-43	28.2	28.1	28.0	27.9	27.7	27.6	27.6	27.6	27.6	27.7	27.7	27.8	27.9
Zeta Aquarius	3.7	22	43.1	43.1	43.1	43.0	42.8	42.5	42.3	42.1	42.0	42.0	42.1	42.2	0	00.6	00.5	00.5	00.5	00.6	00.7	00.8	00.9	00.9	01.0	01.0	00.9	
Sadachbia	3.9	24	30.7	30.8	30.7	30.6	30.4	30.2	29.9	29.7	29.7	29.7	29.7	29.8	-1	21.5	21.6	21.6	21.5	21.5	21.4	21.3	21.2	21.1	21.1	21.1	21.1	
Alpha Tucana	2.9	25	16.6	16.7	16.6	16.4	16.1	15.7	15.2	14.9	14.8	14.8	15.0	15.3	-60	14.1	14.0	13.8	13.7	13.5	13.4	13.4	13.5	13.6	13.7	13.8	13.8	
Zeta Cepheus	3.3	27	14.7	14.8	14.8	14.6	14.3	13.9	13.6	13.4	13.3	13.4	13.6	13.9	58	14.0	13.9	13.7	13.6	13.6	13.6	13.7	13.9	14.1	14.2	14.4	14.4	
Baham	3.5	27	22.7	22.7	22.7	22.6	22.4	22.1	21.9	21.7	21.6	21.6	21.7	21.8	6	13.6	13.5	13.5	13.5	13.5	13.6	13.7	13.8	13.9	14.0	14.0	14.0	
Alnair	1.8	27	51.1	51.1	51.0	50.9	50.6	50.3	50.0	49.7	49.6	49.6	49.8	49.9	-46	56.2	56.1	56.0	55.9	55.7	55.6	55.6	55.6	55.7	55.8	55.9	55.9	
Iota Pegasus	3.8	28	11.0	11.0	11.0	10.8	10.6	10.3	10.1	09.9	09.9	09.9	10.0	10.1	25	22.5	22.4	22.3	22.3	22.3	22.3	22.5	22.6	22.7	22.8	22.9	22.9	
Sadal Melik	2.9	28	28.9	28.9	28.8	28.7	28.5	28.2	28.0	27.9	27.8	27.8	27.9	28.0	-0	17.5	17.6	17.6	17.6	17.5	17.4	17.3	17.2	17.2	17.1	17.2	17.2	
Al Dhanab	3.0	31	25.9	25.9	25.8	25.6	25.4	25.1	24.8	24.6	24.5	24.5	24.7	24.8	-37	20.4	20.4	20.3	20.2	20.1	20.0	19.9	19.9	20.0	20.1	20.1	20.2	
Deneb Algiedi	2.9	33	09.7	09.7	09.6	09.4	09.2	09.0	08.7	08.6	08.5	08.5	08.6	08.7	-16	06.2	06.2	06.1	06.1	06.0	05.9	05.8	05.8	05.8	05.8	05.8	05.9	
Enif	2.4	33	53.1	53.1	53.0	52.9	52.7	52.4	52.2	52.0	52.0	52.0	52.1	52.2	9	54.1	54.0	54.0	54.0	54.0	54.1	54.2	54.3	54.4	54.5	54.5	54.4	
Nu Octans	3.7	34	28.8	28.9	28.7	28.2	27.4	26.5	25.7	25.2	25.0	25.3	25.9	26.5	-77	22.1	22.0	21.8	21.6	21.5	21.4	21.5	21.6	21.7	21.8	21.9	21.9	
Nashira	3.7	34	53.9	53.9	53.8	53.7	53.4	53.2	53.0	52.8	52.7	52.8	52.8	52.9	-16	38.3	38.3	38.3	38.2	38.1	38.0	37.9	37.9	37.9	37.9	37.9	38.0	
Rho Cygnus	4.0	36	27.4	27.4	27.4	27.2	26.9	26.6	26.4	26.2	26.2	26.3	26.5	26.6	45	37.2	37.0	36.9	36.8	36.8	36.9	37.0	37.2	37.4	37.5	37.6	37.5	
Sadal Suud	2.9	37	02.2	02.1	02.1	01.9	01.7	01.4	01.2	01.1	01.0	01.0	01.1	01.2	-5	32.8	32.8	32.8	32.8	32.8	32.7	32.6	32.5	32.5	32.5	32.5	32.5	
Alfirk	3.2	37	50.1	50.3	50.2	49.9	49.4	48.9	48.5	48.2	48.3	48.6	49.0	49.5	70	35.3	35.2	35.0	34.9	34.9	34.9	35.1	35.2	35.4	35.6	35.7	35.7	
Zeta Capricornus	3.8	38	15.1	15.1	15.0	14.9	14.6	14.4	14.1	14.0	13.9	13.9	14.0	14.1	-22	23.3	23.3	23.2	23.2	23.1	23.0	23.0	22.9	22.9	23.0	23.0	23.0	
Alderamin	2.5	40	20.0	20.1	20.0	19.7	19.4	19.0	18.6	18.5	18.5	18.7	19.0	19.3	62	36.8	36.6	36.4	36.3	36.3	36.4	36.5	36.7	36.9	37.0	37.1	37.1	
Kitalpha	3.9	40	58.5	58.4	58.3	58.2	58.0	57.7	57.5	57.4	57.3	57.4	57.5	57.6	5	16.3	16.2	16.2	16.2	16.2	16.3	16.4	16.5	16.6	16.6	16.6	16.6	
Tau Cygnus	3.7	41	15.0	15.0	14.9	14.7	14.5	14.2	14.0	13.8	13.8	13.9	14.1	14.2	38	04.3	04.1	04.0	04.0	04.0	04.1	04.2	04.4	04.5	04.6	04.7	04.6	
Zeta Cygnus	3.2	41	42.5	42.5	42.4	42.3	42.0	41.8	41.6	41.4	41.4	41.5	41.6	41.7	30	15.1	15.0	14.9	14.8	14.8	14.9	15.0	15.2	15.3	15.4	15.5	15.4	
Xi Cygnus	3.7	43	43.3	43.3	43.2	43.0	42.7	42.4	42.2	42.1	42.1	42.2	42.4	42.5	43	57.1	57.0	56.9	56.8	56.8	56.9	57.0	57.2	57.4	57.5	57.5	57.5	
Nu Cygnus	3.9	45	39.5	39.5	39.4	39.2	39.0	38.7	38.5	38.4	38.4	38.5	38.6	38.8	41	11.4	11.3	11.2	11.1	11.1	11.2	11.3	11.5	11.7	11.8	11.8	11.8	
Beta Indus	3.7	46	11.3	11.3	11.1	10.8	10.4	09.9	09.6	09.4	09.3	09.5	09.7	09.9	-58	26.2	26.0	25.9	25.8	25.7	25.7	25.7	25.8	25.9	26.0	26.0	26.0	
Albali	3.8	48	00.3	00.3	00.1	00.0	59.7	59.5	59.3	59.2	59.1	59.2	59.3	59.4	-9	28.6	28.6	28.6	28.6	28.5	28.4	28.4	28.3	28.3	28.3	28.3	28.3	
Gienah Cygni	2.5	48	23.6	23.6	23.5	23.3	23.1	22.8	22.6	22.5	22.5	22.6	22.7	22.9	33	59.5	59.4	59.3	59.2	59.3	59.4	59.5	59.7	59.8	59.9	59.9		

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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	06.1	06.1	05.9	05.7	05.5	05.3	05.1	05.0	05.0	05.1	05.2	05.3	-0	48.4	48.4	48.4	48.4	48.4	48.3	48.2	48.1	48.1	48.1	48.1
Delta Pavonis	3.6	57	41.0	40.9	40.6	40.1	39.6	39.0	38.7	38.5	38.5	38.7	39.1	39.3	-66	10.2	10.1	10.0	09.9	09.8	09.8	09.9	10.0	10.1	10.2	10.2
Epsilon Pavonis	4.0	59	41.8	41.6	41.2	40.5	39.8	39.2	38.7	38.4	38.5	38.9	39.4	39.8	-72	53.9	53.7	53.6	53.5	53.4	53.5	53.6	53.7	53.8	53.9	53.8
Gamma Sagitta	3.5	60	15.0	15.0	14.8	14.6	14.4	14.2	14.0	13.9	13.9	14.0	14.2	14.3	19	30.4	30.3	30.2	30.2	30.2	30.3	30.5	30.6	30.7	30.7	30.7
Eta Cygnus	3.9	60	52.5	52.4	52.3	52.1	51.8	51.6	51.4	51.3	51.4	51.5	51.7	51.8	35	05.9	05.7	05.6	05.6	05.6	05.7	05.9	06.0	06.2	06.2	06.2
Aishain	3.7	61	06.2	06.2	06.0	05.8	05.6	05.4	05.2	05.1	05.1	05.2	05.3	05.4	6	25.2	25.1	25.1	25.1	25.1	25.2	25.3	25.4	25.4	25.5	25.4
Eta Aquila	3.9	61	48.7	48.6	48.5	48.3	48.0	47.8	47.6	47.5	47.6	47.6	47.8	47.8	1	01.1	01.1	01.0	01.0	01.0	01.1	01.2	01.3	01.3	01.4	01.4
Altair	0.9	62	14.2	14.1	14.0	13.8	13.6	13.3	13.2	13.1	13.1	13.2	13.3	13.4	8	52.9	52.8	52.8	52.8	52.8	52.9	53.0	53.1	53.2	53.2	53.2
Tyl	3.8	62	58.9	58.9	58.7	58.2	57.7	57.3	57.0	57.0	57.3	57.7	58.3	58.7	70	16.9	16.8	16.6	16.6	16.6	16.7	16.9	17.0	17.2	17.3	17.3
Kaus Media	3.8	63	05.6	05.5	05.3	05.1	04.9	04.7	04.5	04.4	04.5	04.6	04.7	04.8	18	32.8	32.7	32.7	32.6	32.7	32.8	32.9	33.0	33.1	33.2	33.1
Tarazed	2.7	63	22.2	22.1	22.0	21.8	21.5	21.3	21.1	21.1	21.1	21.2	21.3	21.4	10	37.6	37.5	37.4	37.4	37.4	37.5	37.6	37.7	37.8	37.9	37.8
Delta Cygnus	2.9	63	43.1	43.1	42.9	42.6	42.4	42.1	41.9	41.9	42.0	42.2	42.4	42.5	45	08.7	08.5	08.4	08.3	08.4	08.5	08.6	08.8	08.9	09.0	09.0
Albireo	3.1	67	16.0	15.9	15.7	15.5	15.3	15.0	14.9	14.9	14.9	15.0	15.2	15.3	27	58.2	58.1	58.0	58.0	58.0	58.1	58.3	58.4	58.5	58.6	58.5
Iota Cygnus	3.8	67	32.8	32.7	32.5	32.2	31.9	31.6	31.5	31.5	31.6	31.8	32.1	32.3	51	44.5	44.3	44.2	44.1	44.2	44.3	44.5	44.6	44.8	44.8	44.8
Delta Aquila	3.4	68	33.4	33.3	33.1	32.9	32.6	32.4	32.3	32.2	32.2	32.3	32.5	32.5	3	07.5	07.4	07.4	07.4	07.4	07.5	07.6	07.7	07.7	07.7	07.7
Rukbat	4.0	68	55.9	55.8	55.6	55.3	55.0	54.7	54.5	54.4	54.4	54.6	54.7	54.8	-40	36.4	36.4	36.3	36.3	36.2	36.2	36.3	36.3	36.4	36.4	36.4
Arkab	4.0	69	14.4	14.3	14.1	13.8	13.4	13.1	12.9	12.8	12.9	13.0	13.2	13.3	-44	27.0	27.0	26.9	26.8	26.8	26.8	26.8	26.9	27.0	27.0	27.0
Rho Sagittarius	3.9	69	30.1	29.9	29.8	29.5	29.3	29.1	28.9	28.8	28.8	28.9	29.1	29.1	-17	50.3	50.3	50.3	50.3	50.2	50.2	50.2	50.1	50.1	50.2	50.2
Kappa Cygnus	3.8	70	42.0	41.9	41.7	41.4	41.1	40.9	40.7	40.7	40.9	41.1	41.4	41.6	53	22.7	22.5	22.4	22.3	22.4	22.5	22.7	22.8	23.0	23.0	22.9
Nodus Secundus	3.1	71	52.7	52.6	52.3	51.9	51.4	51.1	50.9	51.0	51.3	51.7	52.2	52.5	67	40.2	40.0	39.9	39.9	39.9	40.0	40.2	40.4	40.5	40.6	40.5
Albaldah	2.9	72	28.6	28.4	28.3	28.0	27.8	27.5	27.4	27.3	27.3	27.4	27.6	27.6	-21	01.0	01.0	01.0	01.0	00.9	00.9	00.9	00.9	00.9	00.9	00.9
Tau Sagittarius	3.3	73	10.7	10.5	10.3	10.1	09.8	09.6	09.4	09.3	09.4	09.5	09.6	09.7	-27	39.9	39.8	39.8	39.8	39.7	39.7	39.7	39.7	39.8	39.8	39.8
Al Thalimain	3.4	73	21.9	21.7	21.6	21.3	21.1	20.9	20.7	20.7	20.7	20.8	21.0	21.0	-4	52.6	52.6	52.6	52.6	52.6	52.5	52.5	52.4	52.4	52.4	52.4
Deneb el Okab	3.0	73	35.1	35.0	34.8	34.6	34.4	34.2	34.0	34.0	34.0	34.2	34.3	34.4	13	52.2	52.1	52.0	52.0	52.1	52.2	52.3	52.4	52.5	52.5	52.4
Omicron Sagittarius	3.8	73	44.8	44.6	44.4	44.2	43.9	43.7	43.5	43.5	43.5	43.6	43.7	43.8	-21	44.1	44.1	44.1	44.1	44.0	44.0	44.0	44.0	44.0	44.0	44.0
Ascella	2.6	74	15.5	15.4	15.2	14.9	14.6	14.4	14.2	14.1	14.2	14.3	14.4	14.5	-29	52.4	52.4	52.4	52.4	52.3	52.3	52.3	52.3	52.4	52.4	52.4
Sulafat	3.3	75	12.9	12.8	12.6	12.4	12.2	11.9	11.8	11.8	11.9	12.0	12.2	12.3	32	41.7	41.6	41.5	41.5	41.5	41.6	41.8	41.9	42.0	42.1	42.0
Xi Sagittarius	3.5	75	29.1	28.9	28.7	28.5	28.2	28.0	27.9	27.8	27.8	28.0	28.1	28.1	-21	06.1	06.1	06.1	06.0	06.0	06.0	06.0	06.0	06.0	06.0	06.0
Nunki	2.1	76	05.8	05.7	05.5	05.2	05.0	04.7	04.6	04.5	04.6	04.7	04.8	04.9	-26	17.5	17.5	17.5	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
Sheliak	3.5	77	25.9	25.8	25.6	25.4	25.1	24.9	24.8	24.8	24.9	25.1	25.2	25.3	33	22.0	21.9	21.8	21.8	21.8	22.0	22.1	22.2	22.3	22.4	22.3
Phi Sagittarius	3.2	78	29.9	29.8	29.6	29.3	29.1	28.8	28.7	28.6	28.7	28.8	28.9	29.0	-26	59.2	59.2	59.2	59.2	59.1	59.1	59.1	59.1	59.2	59.2	59.2
Vega	0.0	80	43.3	43.2	43.0	42.8	42.5	42.3	42.2	42.2	42.3	42.5	42.7	42.8	38	47.2	47.1	46.9	46.9	47.0	47.1	47.3	47.4	47.5	47.6	47.5
Alpha Scutum	3.9	81	07.4	07.2	07.0	06.8	06.6	06.4	06.2	06.2	06.3	06.4	06.5	06.5	-8	14.5	14.6	14.6	14.6	14.6	14.5	14.5	14.4	14.4	14.4	14.4
Kaus Borealis	2.8	82	55.3	55.1	54.9	54.6	54.4	54.2	54.0	54.0	54.1	54.2	54.3	54.3	-25	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2
Alpha Telescopium	3.5	83	09.3	09.0	08.8	08.4	08.1	07.8	07.7	07.6	07.7	07.9	08.0	08.1	-45	58.0	58.0	57.9	57.9	57.9	57.9	58.0	58.1	58.1	58.1	58.1
Kaus Australis	1.8	83	51.9	51.7	51.5	51.2	50.9	50.7	50.5	50.5	50.6	50.7	50.8	50.9	-34	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.1	23.1	23.0
109 Hercules	3.9	84	01.1	01.0	00.8	00.5	00.3	00.1	00.0	00.0	00.1	00.2	00.4	00.4	21	46.2	46.1	46.0	46.0	46.0	46.1	46.3	46.4	46.5	46.5	46.4
Eta Serpens	3.3	84	36.1	35.9	35.7	35.5	35.3	35.1	35.0	34.9	35.0	35.1	35.2	35.3	-2	54.0	54.0	54.1	54.1	54.0	54.0	53.9	53.9	53.8	53.8	53.9
Chi Draco	3.6	84	47.0	46.8	46.3	45.8	45.2	44.9	44.8	45.1	45.6	46.1	46.7	47.1	72	43.9	43.8	43.6	43.6	43.7	43.8	44.0	44.2	44.3	44.3	44.1
Kaus Media	2.7	84	39.8	39.6	39.3	39.1	38.8	38.6	38.4	38.4	38.5	38.6	38.7	38.8	-29	49.7	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.7	49.7	49.6
Eta Sagittarius	3.1	85	30.0	29.8	29.5	29.2	28.9	28.7	28.6	28.5	28.6	28.7	28.9	28.9	-36	45.7	45.7	45.6	45.6	45.6	45.7	45.7	45.7	45.7	45.8	45.7
Mu Sagittarius	3.8	86	28.6	28.4	28.2	27.9	27.7	27.5	27.3	27.3	27.4	27.5	27.6	27.7	-21	03.6	03.6	03.6	03.6	03.6	03.5	03.5	03.5	03.5	03.5	03.5
Omicron Hercules	3.8	88	03.8	03.6	03.4	03.2	02.9	02.8	02.7	02.7	02.8	03.0	03.1	03.2	28	45.6	45.5	45.4	45.4	45.5	45.6	45.7	45.8	45.9	45.9	45.8
Omicron Ophiuchus	3.7	88	05.9	05.7	05.5	05.3	05.1	04.9	04.8	04.8	04.9	05.0	05.1	05.1	9	33.7	33.6	33.6	33.6	33.6	33.7	33.8	33.9	33.9	33.9	33.8
Theta Ara	3.7	88	14.1	13.8	13.5	13.2	12.8	12.6	12.4	12.4	12.5	12.7	12.9	12.9	-50	05.5	05.5	05.4	05.4	05.5	05.5	05.6	05.7	05.7	05.7	05.6
El Nasl	3.6	88	27.5	27.3	27.1	26.8	26.6	26.3	26.2	26.2	26.3	26.4	26.5	26.6	-30	25.5	25.5	25.5	25.5	25.5	25.5	25.6	25.6	25.6	25.6	25.6
Nu Ophiuchus	3.3	90	10.0	09.8	09.6	09.4	09.2	09.0	08.9	08.9	09.0	09.1	09.2	09.2	-9	46.6	46.6	46.7	46.7	46.6	46.6	46.6	46.5	46.5	46.5	46.6
Xi Hercules	3.7	90	30.4	30.3	30.1	29.8	29.6	29.4	29.4	29.4	29.5	29.6	29.8	29.9	29	14.7	14.5	14.4	14.4	14.5	14.6	14.8	14.9	14.9	15.0	14.9
Eltanin	2.2	90	49.4	49.2	48.9	48.6	48.3	48.2	48.1	48.2	48.4	48.6	48.9	49.0	51	29.1	28.9	28.8	28.8	28.9	29.1	29.2	29.4	29.5	29.5	29.4
Theta Hercules	3.8	90	53.6	53.4	53.2	52.9	52.7	52.5	52.4	52.5	52.6	52.8	53.0	53.0	37	14.8	14.6	14.6	14.5							

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	34.3	34.0	33.7	33.4	33.1	32.9	32.8	32.8	32.9	33.0	33.2	33.2	-43	00.2	00.1	00.1	00.1	00.2	00.2	00.3	00.3	00.4	00.4	00.3	00.3
Ras Alhague	2.1	96	12.2	12.0	11.8	11.5	11.3	11.2	11.1	11.1	11.2	11.4	11.5	11.5	12	33.2	33.1	33.0	33.0	33.1	33.1	33.2	33.3	33.4	33.4	33.3	33.2
Shaula	1.6	96	30.2	30.0	29.7	29.4	29.2	28.9	28.8	28.8	28.9	29.1	29.2	29.2	-37	06.6	06.5	06.5	06.6	06.6	06.6	06.7	06.7	06.7	06.7	06.7	06.6
Choo	2.9	96	56.0	55.7	55.4	55.0	54.7	54.5	54.3	54.4	54.5	54.7	54.8	54.9	-49	52.9	52.8	52.8	52.8	52.9	53.0	53.0	53.1	53.2	53.2	53.1	53.0
Delta Ara	3.6	97	06.1	05.8	05.4	04.9	04.5	04.2	04.1	04.1	04.3	04.6	04.8	04.8	-60	41.4	41.3	41.2	41.3	41.3	41.4	41.5	41.6	41.7	41.7	41.6	41.5
Lesath	2.7	97	12.9	12.6	12.4	12.1	11.8	11.6	11.5	11.5	11.6	11.8	11.9	11.9	-37	18.1	18.1	18.1	18.1	18.1	18.2	18.2	18.3	18.3	18.3	18.2	18.2
Rastaban	2.8	97	22.0	21.8	21.5	21.2	20.9	20.8	20.7	20.9	21.1	21.3	21.6	21.7	52	17.6	17.4	17.3	17.3	17.4	17.6	17.8	17.9	18.0	18.0	17.9	17.7
Gamma Ara	3.3	98	32.2	31.8	31.5	31.1	30.7	30.4	30.3	30.3	30.5	30.7	30.9	30.9	-56	23.0	23.0	22.9	23.0	23.0	23.1	23.2	23.3	23.3	23.3	23.3	23.2
Beta Ara	2.8	98	33.7	33.3	33.0	32.6	32.2	32.0	31.8	31.9	32.0	32.3	32.4	32.5	-55	32.2	32.1	32.1	32.1	32.2	32.2	32.3	32.4	32.5	32.5	32.4	32.3
Theta Ophiuchus	3.3	99	24.7	24.5	24.3	24.0	23.8	23.6	23.5	23.5	23.6	23.7	23.8	23.8	-25	00.4	00.4	00.5	00.5	00.5	00.5	00.5	00.5	00.5	00.5	00.5	00.5
Pi Hercules	3.1	101	11.6	11.4	11.1	10.9	10.6	10.5	10.5	10.5	10.7	10.9	11.0	11.1	36	47.9	47.8	47.7	47.7	47.8	47.9	48.1	48.2	48.2	48.2	48.0	48.0
Sarin	3.1	101	11.2	11.0	10.8	10.5	10.3	10.2	10.1	10.2	10.3	10.5	10.6	10.6	24	49.7	49.6	49.5	49.5	49.6	49.7	49.8	49.9	50.0	50.0	49.9	49.8
Ras Algethi	2.7	101	16.5	16.3	16.1	15.9	15.7	15.6	15.5	15.5	15.6	15.8	15.9	15.9	14	22.8	22.7	22.7	22.7	22.7	22.8	22.9	23.0	23.0	23.0	23.0	22.9
Eta Scorpius	3.3	101	51.8	51.5	51.2	50.9	50.6	50.4	50.3	50.3	50.4	50.6	50.7	50.7	-43	14.9	14.8	14.8	14.9	14.9	15.0	15.0	15.1	15.1	15.1	15.1	15.0
Sabik	2.4	102	19.5	19.3	19.1	18.8	18.6	18.5	18.4	18.4	18.5	18.6	18.7	18.7	-15	44.0	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1
Aldhibah	3.2	102	48.6	48.3	48.0	47.5	47.2	47.0	47.1	47.3	47.7	48.1	48.5	48.6	65	42.2	42.0	41.9	42.0	42.1	42.2	42.4	42.5	42.6	42.5	42.4	42.3
Epsilon Hercules	3.9	104	52.6	52.4	52.1	51.9	51.7	51.6	51.5	51.6	51.7	51.9	52.0	52.0	30	54.8	54.7	54.6	54.6	54.7	54.9	55.0	55.1	55.1	55.1	55.0	54.9
Zeta Ara	3.1	105	13.9	13.5	13.2	12.8	12.4	12.2	12.1	12.2	12.3	12.6	12.7	12.7	-56	00.0	59.9	59.9	00.0	00.0	00.1	00.2	00.3	00.3	00.3	00.3	00.2
Kappa Ophiuchus	3.2	105	31.1	30.8	30.6	30.4	30.2	30.1	30.0	30.1	30.2	30.3	30.4	30.4	9	21.8	21.7	21.6	21.6	21.7	21.7	21.8	21.9	21.9	21.9	21.9	21.8
Zeta Scorpius	3.6	106	15.4	15.1	14.8	14.5	14.2	14.1	14.0	14.0	14.2	14.3	14.4	14.4	-42	22.3	22.3	22.3	22.4	22.4	22.5	22.5	22.6	22.6	22.6	22.5	22.5
Mu2 Scorpius	3.6	106	49.3	49.1	48.8	48.5	48.2	48.1	48.0	48.0	48.1	48.3	48.4	48.4	-38	01.7	01.7	01.7	01.7	01.8	01.8	01.9	01.9	01.9	01.9	01.9	01.8
Mu1 Scorpius	3.0	106	56.3	56.0	55.7	55.5	55.2	55.0	55.0	55.0	55.1	55.3	55.4	55.3	-38	03.5	03.5	03.5	03.5	03.6	03.6	03.7	03.7	03.7	03.7	03.7	03.6
Epsilon Scorpius	2.3	107	22.1	21.9	21.6	21.3	21.1	20.9	20.9	20.9	21.0	21.2	21.3	21.2	-34	18.3	18.3	18.3	18.3	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.4
Eta Ara	3.8	107	26.1	25.7	25.3	24.9	24.5	24.3	24.2	24.3	24.5	24.8	24.9	24.9	-59	03.1	03.0	03.0	03.1	03.2	03.3	03.4	03.5	03.5	03.5	03.4	03.3
Atria	1.9	107	41.5	40.9	40.4	39.8	39.3	39.0	38.9	39.0	39.4	39.7	40.0	40.0	-69	02.3	02.2	02.2	02.2	02.3	02.5	02.6	02.7	02.7	02.7	02.6	02.5
Eta Hercules	3.5	109	13.8	13.6	13.4	13.1	12.9	12.8	12.8	12.9	13.1	13.2	13.4	13.4	38	54.4	54.3	54.2	54.2	54.3	54.5	54.6	54.7	54.7	54.7	54.6	54.5
Zeta Hercules	2.9	109	37.7	37.4	37.2	37.0	36.8	36.7	36.6	36.7	36.9	37.0	37.1	37.2	31	35.3	35.1	35.1	35.1	35.2	35.3	35.4	35.5	35.6	35.5	35.5	35.3
Zeta Ophiuchus	2.6	110	38.0	37.8	37.5	37.3	37.1	37.0	36.9	37.0	37.1	37.2	37.3	37.2	-10	34.8	34.9	35.0	35.0	35.0	35.0	34.9	34.9	34.9	34.9	34.9	34.9
Tau Scorpius	2.8	110	56.5	56.3	56.0	55.8	55.6	55.4	55.4	55.4	55.5	55.6	55.7	55.7	-28	13.7	13.8	13.8	13.8	13.9	13.9	13.9	14.0	13.9	13.9	13.9	13.9
Gamma Apus	3.9	111	26.1	25.1	24.1	23.1	22.2	21.8	21.7	22.1	22.8	23.5	24.0	24.0	-78	54.5	54.5	54.5	54.5	54.6	54.8	54.9	55.0	55.1	55.1	54.9	54.8
Marfik	3.9	112	12.1	11.9	11.6	11.4	11.2	11.1	11.1	11.1	11.2	11.3	11.4	11.4	1	58.1	58.0	58.0	58.0	58.0	58.0	58.1	58.1	58.2	58.2	58.1	58.1
Kornephoros	2.8	112	23.1	22.9	22.7	22.5	22.3	22.2	22.2	22.2	22.4	22.5	22.6	22.6	21	28.4	28.3	28.2	28.2	28.3	28.4	28.5	28.6	28.6	28.6	28.5	28.4
Antares	1.1	112	33.7	33.5	33.2	33.0	32.8	32.6	32.6	32.6	32.7	32.9	32.9	32.9	-26	26.8	26.8	26.8	26.9	26.9	26.9	27.0	27.0	27.0	26.9	26.9	26.9
Eta Draco	2.7	113	59.4	59.1	58.7	58.3	58.1	58.0	58.1	58.3	58.7	59.0	59.2	59.3	61	29.7	29.6	29.5	29.6	29.7	29.9	30.0	30.1	30.1	30.1	30.0	29.8
Gamma Hercules	3.7	114	27.5	27.3	27.1	26.9	26.7	26.6	26.6	26.6	26.8	26.9	27.0	26.9	19	08.2	08.0	08.0	08.0	08.0	08.1	08.2	08.3	08.3	08.3	08.2	08.1
Alniyat	2.9	114	37.1	36.8	36.6	36.3	36.1	36.0	35.9	36.0	36.1	36.2	36.3	36.2	-25	36.5	36.5	36.6	36.6	36.6	36.7	36.7	36.7	36.7	36.6	36.6	36.6
Tau Hercules	3.9	115	01.5	01.3	01.0	00.7	00.5	00.5	00.5	00.6	00.8	01.0	01.2	01.2	46	17.7	17.5	17.5	17.5	17.6	17.8	17.9	18.0	18.0	18.0	17.9	17.7
Yed Posterior	3.2	115	20.7	20.5	20.3	20.1	19.9	19.8	19.7	19.8	19.9	20.0	20.0	20.0	-4	42.5	42.6	42.7	42.7	42.7	42.6	42.6	42.6	42.5	42.5	42.6	42.6
Atria	3.9	116	01.0	00.5	00.1	59.6	59.2	59.0	59.0	59.1	59.4	59.7	59.8	59.8	-63	42.0	41.9	42.0	42.0	42.1	42.3	42.4	42.5	42.5	42.4	42.3	42.2
Yed Prior	2.7	116	20.4	20.2	19.9	19.7	19.6	19.4	19.4	19.5	19.6	19.7	19.7	19.7	-3	42.7	42.8	42.8	42.9	42.8	42.8	42.8	42.7	42.7	42.7	42.8	42.8
Graffias	2.6	118	33.5	33.3	33.0	32.8	32.6	32.5	32.5	32.5	32.7	32.8	32.8	32.8	-19	49.4	49.4	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5
Dschubba	2.3	119	50.0	49.8	49.5	49.3	49.1	49.0	49.0	49.0	49.1	49.2	49.3	49.2	-22	38.4	38.4	38.5	38.5	38.5	38.6	38.6	38.6	38.6	38.5	38.5	38.5
Eta Lupus	3.4	119	52.6	52.3	52.0	51.8	51.6	51.4	51.4	51.5	51.6	51.7	51.8	51.7	-38	24.8	24.8	24.9	24.9	25.0	25.1	25.1	25.2	25.2	25.1	25.1	25.0
Pi Scorpius	2.9	120	12.1	11.9	11.6	11.4	11.2	11.1	11.0	11.1	11.2	11.3	11.4	11.3	-26	07.9	07.9	08.0	08.0	08.1	08.1	08.1	08.1	08.1	08.1	08.1	08.1
Gamma Serpens	3.9	120	49.3	49.1	48.9	48.6	48.5	48.4	48.4	48.5	48.6	48.7	48.8	48.7	15	38.3	38.2	38.2	38.2	38.2	38.3	38.4	38.5	38.5	38.4	38.4	38.3
Beta Triang' Aust'	2.8	121	05.6	05.2	04.7	04.3	03.9	03.7	03.8	03.9	04.2	04.5	04.6	04.5	-63	26.8	26.8	26.9	27.0	27.1	27.2	27.3	27.4	27.4	27.3	27.2	27.1
Epsilon Serpens	3.7	122	13.5	13.3	13.1	12.9	12.7	12.6	12.6	12.7	12.8	12.9	12.9	12.9	4	27.4	27.3	27.3	27.3	27.3	27.4	27.4	27.5	27.5	27.5	27.4	27.4
Mu Serpens	3.6	122	31.3	31.0	30.8	30.6	30.5	30.4	30.3	30.4	30.5	30.6	30.7	30.6	-3	27.0	27.1	27.2	27.2	27.2	27.1	27.1	27.1</				

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			
Phi Lupus	3.6	129	27.6	27.3	27.0	26.7	26.6	26.5	26.5	26.6	26.7	26.8	26.8	26.7	-36	16.9	17.0	17.0	17.1	17.2	17.3	17.3	17.3	17.3	17.3	17.2	17.2	
Delta Lupus	3.2	129	33.9	33.6	33.3	33.0	32.9	32.8	32.8	32.9	33.0	33.1	33.2	33.0	-40	40.1	40.1	40.2	40.3	40.4	40.4	40.5	40.5	40.5	40.5	40.4	40.3	
Pherkad	3.0	129	49.6	49.1	48.5	48.1	47.8	47.9	48.2	48.6	49.2	49.6	49.9	49.9	71	48.4	48.3	48.3	48.4	48.5	48.7	48.8	48.8	48.8	48.7	48.5	48.3	
Gamma Triang' Aust'	2.9	130	08.7	08.2	07.6	07.1	06.8	06.7	06.7	07.0	07.4	07.7	07.8	07.6	-68	41.9	41.9	42.0	42.1	42.3	42.4	42.5	42.6	42.6	42.6	42.5	42.2	
Zuben Elschemali	2.6	130	40.3	40.1	39.8	39.6	39.5	39.4	39.4	39.5	39.6	39.7	39.7	39.6	-9	24.4	24.5	24.5	24.6	24.6	24.5	24.5	24.5	24.5	24.5	24.5	24.5	
Delta Bootes	3.5	131	04.1	03.8	03.5	03.3	03.2	03.2	03.2	03.3	03.5	03.6	03.6	03.6	33	17.3	17.2	17.1	17.2	17.3	17.4	17.5	17.6	17.6	17.5	17.4	17.2	
Zeta Lupus	3.4	131	49.7	49.3	49.0	48.7	48.5	48.4	48.4	48.6	48.8	48.9	49.0	48.8	-52	07.2	07.2	07.3	07.4	07.5	07.6	07.7	07.7	07.7	07.7	07.6	07.5	
Kappa Lupus	3.9	131	55.2	54.8	54.5	54.2	54.0	53.9	53.9	54.1	54.2	54.4	54.4	54.3	-48	45.5	45.6	45.6	45.7	45.8	45.9	46.0	46.0	46.0	46.0	45.9	45.8	
Brachium	3.3	133	54.0	53.7	53.4	53.2	53.1	53.0	53.0	53.1	53.2	53.3	53.3	53.2	-25	18.3	18.4	18.5	18.5	18.6	18.6	18.6	18.6	18.6	18.6	18.5	18.5	
Nekkar	3.5	134	27.6	27.3	27.1	26.9	26.7	26.7	26.8	26.9	27.1	27.2	27.3	27.2	40	21.7	21.6	21.6	21.6	21.8	21.9	22.0	22.0	22.0	21.9	21.8	21.6	
Ke Kwan	3.1	135	07.1	06.8	06.5	06.2	06.1	06.0	06.0	06.1	06.3	06.4	06.4	06.3	-42	07.6	07.6	07.7	07.8	07.9	08.0	08.1	08.1	08.1	08.0	07.9	07.9	
Beta Lupus	2.7	135	16.5	16.2	15.9	15.6	15.5	15.4	15.4	15.5	15.7	15.8	15.8	15.7	-43	09.4	09.4	09.5	09.6	09.7	09.8	09.9	09.9	09.9	09.8	09.8	09.7	09.7
Zuben El Genubi	2.8	137	12.1	11.8	11.6	11.4	11.3	11.2	11.2	11.3	11.4	11.5	11.5	11.4	-16	04.0	04.1	04.2	04.2	04.3	04.3	04.3	04.2	04.2	04.2	04.2	04.2	
Kochab	2.1	137	19.9	19.3	18.7	18.2	18.0	18.2	18.6	19.1	19.7	20.2	20.4	20.4	74	07.5	07.4	07.4	07.5	07.7	07.8	07.9	07.9	07.9	07.8	07.6	07.4	
Alpha Apus	3.8	137	52.1	51.1	50.1	49.3	48.8	48.8	49.1	49.8	50.5	51.0	51.2	50.8	-79	04.0	04.0	04.1	04.2	04.4	04.5	04.7	04.7	04.7	04.6	04.5	04.3	
109 Virgo	3.7	138	21.9	21.7	21.4	21.3	21.2	21.1	21.1	21.2	21.3	21.4	21.4	21.3	1	52.0	51.9	51.8	51.8	51.8	51.8	51.9	51.9	51.9	51.9	51.9	51.8	
Mirak	2.4	138	41.4	41.2	40.9	40.8	40.7	40.6	40.7	40.8	40.9	41.0	41.0	40.9	27	02.7	02.6	02.6	02.6	02.7	02.8	02.9	02.9	02.9	02.8	02.7	02.6	
Rijl al Awwa	3.9	139	09.6	09.3	09.1	08.9	08.8	08.7	08.8	08.8	08.9	09.0	09.0	08.9	-5	41.1	41.2	41.3	41.3	41.3	41.3	41.3	41.2	41.2	41.2	41.3	41.3	
Alpha Circinus	3.2	139	15.7	15.2	14.7	14.4	14.1	14.1	14.2	14.5	14.8	15.0	15.0	14.8	-64	59.9	59.9	00.0	00.1	00.3	00.4	00.5	00.6	00.5	00.4	00.3	00.2	
Men	2.3	139	25.5	25.1	24.8	24.5	24.4	24.3	24.4	24.5	24.7	24.8	24.8	24.6	-47	24.7	24.8	24.8	25.0	25.1	25.2	25.2	25.3	25.2	25.1	25.1	25.0	
Zeta Bootes	3.8	139	38.6	38.4	38.2	38.0	37.9	37.9	37.9	38.0	38.1	38.2	38.2	38.1	13	42.0	41.9	41.8	41.8	41.9	42.0	42.0	42.1	42.1	42.0	42.0	41.8	
Rigel Kentaurus	0.0	140	00.3	59.8	59.4	59.1	59.0	58.9	59.1	59.3	59.5	59.7	59.7	59.5	-60	51.4	51.4	51.5	51.6	51.8	51.9	52.0	52.0	52.0	51.9	51.8	51.7	
Eta Centaurus	2.3	141	02.0	01.7	01.4	01.2	01.0	01.0	01.0	01.2	01.3	01.4	01.4	01.2	-42	10.9	11.0	11.1	11.2	11.3	11.4	11.4	11.4	11.4	11.3	11.3	11.2	
Seginus	3.0	141	55.4	55.1	54.8	54.6	54.5	54.5	54.6	54.7	54.9	55.0	55.0	54.9	38	16.6	16.5	16.5	16.6	16.7	16.8	16.9	16.9	16.9	16.8	16.7	16.5	
Rho Bootes	3.6	141	58.8	58.5	58.3	58.1	58.0	58.0	58.1	58.2	58.3	58.4	58.4	58.3	30	20.5	20.4	20.3	20.4	20.5	20.6	20.7	20.7	20.7	20.6	20.5	20.3	
Lambda Bootes	3.6	145	03.5	03.2	02.9	02.7	02.5	02.5	02.6	02.7	02.8	02.9	02.9	02.7	-46	05.0	05.1	05.2	05.3	05.4	05.5	05.6	05.6	05.5	05.4	05.3	05.3	
Arcturus	0.2	146	01.1	00.8	00.6	00.5	00.4	00.4	00.4	00.5	00.6	00.7	00.7	00.6	19	08.9	08.8	08.7	08.8	08.8	08.9	09.0	09.0	09.0	08.9	08.8	08.7	
Menkent	2.1	148	14.7	14.4	14.2	14.0	13.9	13.9	13.9	14.0	14.1	14.2	14.2	14.0	-36	23.8	23.9	24.0	24.1	24.2	24.3	24.3	24.3	24.3	24.2	24.2	24.1	
Pi Hydra	3.3	148	19.5	19.2	19.0	18.8	18.7	18.7	18.8	18.9	19.0	19.0	19.0	18.8	-26	42.6	42.7	42.8	42.9	42.9	43.0	43.0	43.0	42.9	42.9	42.9	42.9	
Thuban	3.7	148	51.8	51.3	50.9	50.7	50.6	50.7	51.0	51.3	51.6	51.8	51.8	51.7	64	20.5	20.4	20.4	20.5	20.7	20.8	20.9	20.9	20.8	20.7	20.5	20.3	
Agena	0.6	148	56.7	56.3	55.9	55.6	55.5	55.5	55.6	55.9	56.1	56.2	56.2	56.0	-60	23.9	24.0	24.1	24.2	24.4	24.5	24.6	24.6	24.5	24.4	24.3	24.2	
Zeta Centaurus	2.5	151	01.6	01.2	01.0	00.8	00.7	00.6	00.7	00.9	01.0	01.1	01.1	00.9	-47	18.9	19.0	19.1	19.2	19.3	19.4	19.5	19.5	19.4	19.3	19.3	19.2	
Muphrid	2.7	151	15.5	15.3	15.1	14.9	14.9	14.9	14.9	15.0	15.1	15.2	15.1	15.0	18	21.9	21.8	21.7	21.8	21.8	21.9	22.0	22.0	22.0	21.9	21.8	21.7	
Mu Centaurus	3.5	152	30.6	30.3	30.0	29.8	29.7	29.7	29.8	29.9	30.1	30.1	30.1	29.9	-42	30.1	30.1	30.3	30.4	30.5	30.6	30.6	30.6	30.6	30.5	30.4	30.4	
Nu Centaurus	3.4	152	32.3	32.0	31.7	31.5	31.4	31.4	31.5	31.6	31.8	31.8	31.8	31.6	-41	42.9	43.0	43.1	43.2	43.3	43.4	43.5	43.4	43.4	43.3	43.2	43.2	
Alkaid	1.9	153	03.4	03.0	02.8	02.6	02.5	02.6	02.7	02.9	03.1	03.2	03.2	03.0	49	16.7	16.6	16.6	16.7	16.9	17.0	17.0	17.1	17.0	16.9	16.7	16.5	
Epsilon Centaurus	2.3	154	56.3	55.9	55.6	55.4	55.3	55.3	55.5	55.6	55.8	55.9	55.8	55.6	-53	29.6	29.7	29.8	30.0	30.1	30.2	30.3	30.3	30.2	30.1	30.0	29.9	
Heze	3.4	156	15.1	14.9	14.7	14.5	14.5	14.5	14.5	14.6	14.7	14.7	14.7	14.5	-0	37.6	37.8	37.8	37.8	37.8	37.8	37.8	37.7	37.7	37.7	37.8	37.9	
d Centaurus	3.9	157	09.3	09.0	08.8	08.6	08.6	08.6	08.6	08.8	08.9	08.9	08.9	08.7	-39	26.1	26.2	26.4	26.5	26.6	26.7	26.7	26.7	26.6	26.5	26.4		
Spica	1.1	158	37.5	37.2	37.0	36.9	36.8	36.8	36.9	37.0	37.1	37.1	37.0	36.9	-11	11.5	11.7	11.7	11.8	11.8	11.8	11.8	11.8	11.7	11.7	11.7	11.8	
Mizar	2.2	158	57.5	57.1	56.8	56.6	56.6	56.7	56.9	57.1	57.3	57.4	57.3	57.1	54	53.3	53.3	53.3	53.4	53.5	53.7	53.7	53.7	53.6	53.5	53.3	53.1	
Iota Centaurus	2.8	159	46.2	45.9	45.6	45.5	45.4	45.5	45.5	45.7	45.8	45.8	45.7	45.5	-36	44.5	44.6	44.7	44.8	44.9	45.0	45.0	45.0	44.9	44.9	44.8	44.8	
Gamma Hydra	3.0	160	11.4	11.1	10.9	10.8	10.8	10.8	10.8	10.9	11.0	11.0	11.0	10.8	-23	12.1	12.2	12.3	12.4	12.5	12.5	12.5	12.5	12.4	12.4	12.4	12.4	
Delta Musca	3.6	164	20.2	19.6	19.1	18.9	18.8	19.0	19.4	19.8	20.1	20.3	20.1	19.6	-71	34.6	34.7	34.8	35.0	35.2	35.3	35.4	35.4	35.3	35.1	35.0	34.9	
Vindemiatrix	2.8	164	22.9	22.7	22.5	22.4	22.3	22.4	22.4	22.5	22.6	22.6	22.5	22.3	10	55.5	55.4	55.4	55.4	55.4	55.5	55.5	55.5	55.5	55.5	55.4	55.3	
Cor Caroli	2.9	165	55.3	55.0	54.8	54.7	54.7	54.8	54.9	55.0	55.1	55.1	55.0	54.8	38	16.9	16.8	16.9	16.9	17.0	17.1	17.2	17.2	17.1	17.0	16.8	16.7	
Auva	3.4	166	01.5	01.2	01.0	00.9	00.9	00.9	01.0	01.1	01.1	01.1	01.0	00.9	3	21.8	21.7	21.7	21.7	21.7	21.7	21.7	21.8	21.8	21.7	21.7	21.6	
Alioth	1.8	166	25.5	25.1	24.8	24.7	24.7	24.8	25.0	25.2	25.4	25.4	25.4	25.1	55	55.3	55.3	55.3	55.5	55.6	55.7	55.7	5					

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	34.9	34.5	34.3	34.2	34.2	34.3	34.6	34.8	35.0	35.0	34.8	34.4	-60	25.8	25.9	26.1	26.2	26.4	26.5	26.5	26.5	26.4	26.2	26.1	26.1	
Zaniah	3.9	174	56.8	56.6	56.4	56.3	56.3	56.4	56.4	56.5	56.5	56.5	56.4	56.2	-0	42.0	42.1	42.2	42.2	42.2	42.2	42.2	42.1	42.1	42.1	42.2	42.3	
Gienah Ghurab	2.6	175	58.3	58.1	57.9	57.8	57.8	57.9	57.9	58.0	58.1	58.0	57.9	57.7	-17	34.4	34.6	34.7	34.7	34.8	34.8	34.8	34.7	34.7	34.6	34.6	34.7	
Megrez	3.3	176	03.9	03.5	03.3	03.2	03.3	03.4	03.6	03.8	04.0	03.9	03.8	03.5	56	59.7	59.6	59.7	59.8	00.0	00.1	00.1	00.0	59.9	59.7	59.5	59.4	
Delta Crux	2.8	176	08.2	07.8	07.6	07.5	07.5	07.7	07.9	08.1	08.2	08.2	08.1	07.7	-58	46.7	46.8	46.9	47.1	47.3	47.4	47.4	47.3	47.2	47.1	47.0	47.0	
Minkar	3.0	177	23.5	23.3	23.1	23.1	23.1	23.1	23.2	23.3	23.3	23.3	23.2	22.9	-22	39.1	39.2	39.3	39.4	39.5	39.5	39.5	39.4	39.4	39.3	39.3	39.3	
Delta Centaurus	2.6	177	50.1	49.7	49.5	49.5	49.5	49.6	49.8	49.9	50.0	50.0	49.8	49.6	-50	45.1	45.2	45.4	45.6	45.7	45.8	45.8	45.7	45.6	45.5	45.4	45.4	
Phad	2.4	181	27.6	27.2	27.0	26.9	27.0	27.2	27.3	27.5	27.6	27.5	27.4	27.1	53	39.4	39.4	39.5	39.6	39.7	39.8	39.8	39.7	39.6	39.5	39.3	39.1	
Zavijava	3.6	182	14.8	14.6	14.5	14.4	14.4	14.4	14.5	14.5	14.6	14.6	14.6	14.4	1	43.8	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.8	43.7	43.7	43.6	
Denebola	2.1	182	39.4	39.2	39.1	39.0	39.0	39.1	39.2	39.2	39.2	39.2	39.1	38.9	14	32.2	32.1	32.1	32.1	32.2	32.2	32.3	32.3	32.2	32.2	32.1	32.0	
Chi Ursae Major	3.7	183	24.3	24.0	23.8	23.7	23.8	23.9	24.1	24.2	24.2	24.2	24.0	23.8	47	44.5	44.5	44.6	44.7	44.8	44.9	44.9	44.8	44.7	44.6	44.4	44.2	
Lambda Musca	3.6	183	31.7	31.3	31.1	31.0	31.2	31.4	31.8	32.1	32.2	32.2	31.9	31.5	-66	45.4	45.5	45.7	45.9	46.1	46.2	46.2	46.1	46.0	45.8	45.7	45.7	
Lambda Centaurus	3.1	185	59.2	58.8	58.6	58.6	58.7	58.9	59.2	59.4	59.6	59.5	59.3	58.9	-63	02.9	03.0	03.2	03.4	03.5	03.6	03.6	03.5	03.4	03.3	03.2	03.2	
Xi Hydra	3.5	186	40.5	40.3	40.2	40.1	40.2	40.2	40.3	40.4	40.5	40.4	40.2	40.0	-31	53.3	53.4	53.6	53.7	53.8	53.8	53.8	53.7	53.6	53.5	53.5	53.5	
Giauzar	3.8	187	03.1	02.5	02.3	02.2	02.4	02.8	03.1	03.4	03.5	03.4	03.1	02.7	69	17.6	17.6	17.7	17.9	18.0	18.0	18.0	17.9	17.8	17.6	17.4	17.3	
Pi Centaurus	3.9	189	40.8	40.5	40.3	40.3	40.4	40.6	40.8	41.0	41.0	41.0	40.7	40.4	-54	31.1	31.3	31.5	31.7	31.8	31.8	31.8	31.7	31.6	31.5	31.4	31.4	
Delta Crater	3.6	190	05.3	05.1	05.0	05.0	05.0	05.1	05.1	05.2	05.2	05.1	05.0	04.8	-14	48.6	48.7	48.8	48.9	48.9	48.9	48.9	48.8	48.8	48.7	48.7	48.8	
Alula Borealis	3.5	190	17.8	17.5	17.4	17.4	17.4	17.5	17.6	17.7	17.7	17.6	17.4	17.2	33	03.5	03.5	03.5	03.6	03.7	03.7	03.7	03.7	03.6	03.5	03.4	03.3	
Alula Australis	3.8	190	22.3	22.0	21.9	21.9	21.9	22.0	22.1	22.2	22.2	22.1	21.9	21.7	31	29.6	29.5	29.6	29.6	29.7	29.8	29.8	29.7	29.7	29.6	29.4	29.3	
Chort	3.3	191	21.5	21.3	21.2	21.2	21.2	21.3	21.4	21.4	21.4	21.3	21.2	20.9	15	23.7	23.7	23.6	23.7	23.7	23.7	23.8	23.8	23.7	23.7	23.6	23.5	
Zozma	2.6	191	23.4	23.2	23.1	23.1	23.1	23.2	23.3	23.3	23.3	23.2	23.1	22.8	20	29.3	29.3	29.3	29.3	29.4	29.4	29.4	29.4	29.4	29.3	29.3	29.2	29.1
Psi Ursae Major	3.0	192	29.7	29.4	29.3	29.3	29.4	29.5	29.6	29.7	29.7	29.6	29.4	29.1	44	27.8	27.7	27.8	27.9	28.0	28.1	28.0	28.0	27.9	27.7	27.6	27.5	
BS 4337	3.9	192	47.3	47.0	46.8	46.8	47.0	47.2	47.4	47.6	47.7	47.6	47.3	47.0	-59	00.2	00.3	00.5	00.7	00.8	00.9	00.8	00.8	00.6	00.5	00.4	00.4	
Dubhe	1.8	193	58.1	57.7	57.5	57.5	57.7	57.9	58.1	58.3	58.3	58.2	57.9	57.5	61	42.9	42.9	43.0	43.1	43.2	43.3	43.3	43.2	43.0	42.8	42.7	42.6	
Merak	2.4	194	26.6	26.2	26.1	26.1	26.2	26.4	26.6	26.7	26.7	26.6	26.3	26.0	56	20.8	20.8	20.9	21.0	21.1	21.2	21.1	21.1	20.9	20.8	20.6	20.5	
u Carina	3.8	196	33.9	33.6	33.5	33.5	33.6	33.9	34.1	34.3	34.3	34.2	34.0	33.6	-58	52.8	53.0	53.2	53.3	53.5	53.5	53.5	53.4	53.2	53.1	53.0	53.1	
Praecipula	3.8	196	35.1	34.8	34.7	34.7	34.8	34.9	35.0	35.0	35.0	34.9	34.7	34.4	34	10.8	10.8	10.8	10.9	11.0	11.0	11.0	11.0	10.9	10.8	10.6	10.5	
Nu Hydra	3.1	197	31.1	30.9	30.8	30.8	30.8	30.9	31.0	31.0	31.0	30.9	30.8	30.5	-16	13.4	13.5	13.6	13.7	13.7	13.7	13.7	13.6	13.6	13.5	13.6	13.6	
Mu Velorum	2.7	198	14.5	14.3	14.2	14.2	14.3	14.5	14.6	14.8	14.8	14.7	14.4	14.1	-49	26.9	27.0	27.2	27.4	27.5	27.5	27.5	27.4	27.2	27.1	27.1	27.1	
Theta Carina	2.7	199	12.3	12.0	11.9	12.0	12.2	12.5	12.8	13.0	13.1	12.9	12.6	12.2	-64	25.2	25.4	25.6	25.8	25.9	26.0	25.9	25.8	25.7	25.6	25.5	25.5	
Rho Leo	3.9	201	42.9	42.7	42.6	42.6	42.7	42.8	42.8	42.9	42.8	42.7	42.5	42.3	9	16.5	16.4	16.4	16.4	16.4	16.5	16.5	16.5	16.5	16.5	16.4	16.3	
BS 4140	3.4	201	56.3	56.0	55.9	56.0	56.2	56.5	56.8	56.9	57.0	56.8	56.5	56.1	-61	42.7	42.8	43.0	43.2	43.3	43.4	43.3	43.2	43.1	42.9	42.9	42.9	
BS 4114	3.8	202	58.4	58.1	58.0	58.1	58.3	58.6	58.8	58.9	59.0	58.8	58.5	58.1	-58	45.9	46.1	46.3	46.4	46.5	46.6	46.5	46.4	46.3	46.2	46.1	46.1	
Mu Hydra	3.8	203	24.2	24.0	23.9	23.9	24.0	24.1	24.1	24.2	24.1	24.0	23.9	23.6	-16	51.9	52.0	52.2	52.2	52.2	52.2	52.2	52.1	52.1	52.0	52.0	52.1	
Tania Australis	3.1	204	19.4	19.1	19.0	19.1	19.2	19.3	19.4	19.4	19.4	19.3	19.0	18.7	41	28.0	28.0	28.1	28.2	28.2	28.3	28.3	28.2	28.1	28.0	27.8	27.7	
Algieba	2.0	204	55.2	55.0	54.9	55.0	55.0	55.1	55.2	55.2	55.2	55.0	54.8	54.6	19	48.6	48.6	48.6	48.6	48.6	48.7	48.7	48.7	48.6	48.6	48.5	48.4	
Tania Borealis	3.4	205	37.8	37.5	37.5	37.5	37.6	37.7	37.8	37.9	37.8	37.7	37.4	37.1	42	52.9	52.9	53.0	53.1	53.2	53.2	53.2	53.1	53.0	52.9	52.7	52.6	
BS4050	3.4	205	40.6	40.3	40.3	40.4	40.6	40.9	41.1	41.3	41.3	41.1	40.8	40.4	-61	21.4	21.6	21.8	22.0	22.1	22.1	22.1	21.9	21.8	21.7	21.6	21.6	
Adhafera	3.4	205	44.4	44.2	44.1	44.1	44.2	44.3	44.4	44.4	44.3	44.2	44.0	43.8	23	23.2	23.1	23.2	23.2	23.2	23.3	23.3	23.3	23.2	23.1	23.0	22.9	
BS 4023	3.8	206	15.0	14.8	14.8	14.8	15.0	15.1	15.2	15.3	15.3	15.2	14.9	14.6	-42	08.9	09.0	09.2	09.3	09.4	09.4	09.4	09.3	09.1	09.0	09.0	09.1	
Omega Carina	3.3	206	31.6	31.3	31.2	31.4	31.8	32.2	32.6	32.8	32.9	32.7	32.2	31.7	-70	03.7	03.9	04.1	04.3	04.4	04.4	04.4	04.3	04.1	04.0	03.9	03.9	
Lambda Hydra	3.6	207	16.6	16.5	16.4	16.4	16.5	16.6	16.6	16.7	16.6	16.5	16.3	16.1	-12	22.9	23.0	23.1	23.2	23.2	23.2	23.2	23.1	23.0	23.0	23.1	23.1	
Regulus	1.4	207	49.4	49.2	49.2	49.2	49.3	49.4	49.4	49.4	49.4	49.2	49.0	48.8	11	56.3	56.2	56.2	56.2	56.2	56.2	56.3	56.3	56.2	56.2	56.1	56.0	
Eta Leo	3.5	208	04.9	04.7	04.6	04.6	04.7	04.8	04.9	04.9	04.8	04.7	04.5	04.2	16	44.0	43.9	43.9	43.9	44.0	44.0	44.0	44.0	44.0	43.9	43.8	43.7	
Tseen Ke	3.5	210	43.7	43.5	43.5	43.6	43.8	44.0	44.2	44.3	44.2	44.1	43.8	43.4	-54	35.5	35.7	35.9	36.0	36.1	36.1	36.1	35.9	35.8	35.7	35.6	35.7	
Rasalas	3.9	211	43.2	43.0	42.9	42.9	43.0	43.1	43.2	43.2	43.1	43.0	42.8	42.5	25	58.7	58.6	58.7	58.7	58.7	58.8	58.8	58.7	58.7	58.6	58.5	58.4	
Upsilon Ursae Major	3.8	212	08.2	07.9	07.8	07.9	08.1	08.4	08.5	08.6	08.5	08.2	07.9	07.5	59	00.5	00.5	00.6	00.8	00.8	00.8	00.8	00.7	00.5	00.4	00.2	00.2	
Upsilon Carina	3.0	213	10.9	10.7	10.7	10.9	11.2	11.5	11.8	12.0	12.0	11.8	11.4	10.9	-65	05.7	05.9	06.1	06.2									

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	40.9	40.8	40.8	41.0	41.2	41.5	41.7	41.8	41.7	41.5	41.2	40.8	-59	17.8	17.9	18.1	18.3	18.3	18.3	18.2	18.1	18.0	17.8	17.8	17.9
Theta Hydra	3.9	221	19.6	19.5	19.4	19.5	19.6	19.7	19.7	19.7	19.6	19.4	19.2	19.0	2	17.4	17.3	17.3	17.2	17.3	17.3	17.3	17.4	17.4	17.4	17.3	17.2
Miaplacidus	1.7	221	40.6	40.4	40.5	40.8	41.2	41.7	42.0	42.2	42.1	41.8	41.3	40.8	-69	44.2	44.4	44.6	44.8	44.8	44.8	44.7	44.6	44.4	44.3	44.3	44.3
Canopus	3.4	222	12.8	12.6	12.7	12.9	13.1	13.4	13.6	13.7	13.6	13.4	13.0	12.6	-58	59.2	59.4	59.6	59.7	59.8	59.8	59.7	59.6	59.4	59.3	59.3	59.3
Suhail	2.2	222	56.5	56.4	56.4	56.5	56.7	56.8	56.9	57.0	56.9	56.7	56.4	56.1	-43	27.2	27.4	27.5	27.6	27.7	27.7	27.6	27.4	27.3	27.2	27.2	27.3
BS 3614	3.8	223	54.3	54.2	54.2	54.3	54.5	54.7	54.8	54.8	54.8	54.6	54.3	54.0	-47	07.1	07.3	07.4	07.5	07.6	07.6	07.5	07.3	07.2	07.1	07.1	07.2
Talitha Australis	3.6	223	59.0	58.8	58.8	58.9	59.1	59.2	59.3	59.2	59.1	58.9	58.6	58.2	47	07.9	07.9	08.0	08.1	08.1	08.1	08.1	08.0	07.9	07.8	07.7	07.6
Talitha	3.1	225	05.3	05.1	05.0	05.2	05.3	05.5	05.5	05.5	05.3	05.1	04.8	04.4	48	01.0	01.1	01.2	01.2	01.3	01.3	01.2	01.1	01.0	00.9	00.8	00.8
Zeta Hydra	3.1	226	04.1	03.9	03.9	04.0	04.1	04.2	04.2	04.2	04.1	03.9	03.7	03.4	5	55.4	55.3	55.3	55.3	55.3	55.3	55.4	55.4	55.4	55.4	55.3	55.2
BS 3571	3.8	226	11.9	11.7	11.8	12.0	12.3	12.6	12.8	12.9	12.8	12.5	12.2	11.8	-60	39.8	40.0	40.2	40.3	40.3	40.3	40.2	40.1	39.9	39.8	39.8	39.9
Epsilon Hydra	3.4	228	13.3	13.2	13.2	13.3	13.4	13.5	13.5	13.4	13.3	13.2	12.9	12.7	6	23.9	23.8	23.8	23.8	23.8	23.8	23.8	23.9	23.9	23.8	23.8	23.7
Delta Vela	1.9	228	46.6	46.5	46.6	46.8	47.0	47.2	47.4	47.4	47.3	47.1	46.7	46.4	-54	43.6	43.8	44.0	44.1	44.1	44.1	44.0	43.8	43.7	43.6	43.6	43.7
Asellus Australis	3.9	228	44.3	44.2	44.2	44.2	44.3	44.4	44.5	44.4	44.3	44.1	43.9	43.6	18	07.9	07.9	07.9	07.9	08.0	08.0	08.0	08.0	08.0	07.9	07.8	07.8
Alpha Pyxis	3.7	229	02.2	02.1	02.1	02.3	02.4	02.5	02.6	02.6	02.5	02.3	02.0	01.8	-33	12.3	12.5	12.6	12.7	12.7	12.7	12.6	12.5	12.3	12.3	12.3	12.4
BS 3445	3.8	229	47.3	47.2	47.2	47.4	47.6	47.8	47.9	47.9	47.8	47.6	47.3	47.0	-46	40.0	40.2	40.3	40.4	40.5	40.4	40.3	40.2	40.1	40.0	40.0	40.1
Omicron Velorum	3.6	229	52.7	52.6	52.6	52.8	53.1	53.3	53.4	53.4	53.3	53.1	52.8	52.4	-52	56.4	56.6	56.7	56.8	56.9	56.8	56.7	56.6	56.4	56.3	56.3	56.4
Muscida	3.4	232	17.9	17.7	17.7	17.9	18.2	18.4	18.4	18.4	18.1	17.8	17.3	16.9	-60	41.8	41.9	42.0	42.1	42.1	42.1	42.0	41.9	41.8	41.6	41.6	41.5
Beta Volans	3.8	233	32.4	32.4	32.5	32.9	33.2	33.6	33.8	33.9	33.7	33.4	33.0	32.5	-66	09.2	09.4	09.5	09.7	09.7	09.6	09.5	09.4	09.2	09.1	09.1	09.2
BS 3314	3.9	233	30.3	30.2	30.2	30.3	30.4	30.5	30.5	30.5	30.3	30.2	29.9	29.7	-3	55.5	55.6	55.6	55.6	55.6	55.6	55.6	55.5	55.5	55.5	55.5	55.6
Avior	2.0	234	20.0	19.9	20.0	20.3	20.6	20.9	21.0	21.1	20.9	20.6	20.3	19.9	-59	31.5	31.7	31.8	32.0	32.0	31.9	31.8	31.7	31.5	31.4	31.4	31.5
Altarf	3.5	235	47.1	47.0	47.0	47.1	47.2	47.3	47.3	47.2	47.1	46.9	46.6	46.4	9	10.1	10.0	10.0	10.0	10.0	10.0	10.1	10.1	10.1	10.1	10.0	09.9
Suhail	1.8	237	33.9	33.8	33.9	34.1	34.3	34.5	34.5	34.5	34.4	34.1	33.8	33.6	-47	21.1	21.2	21.4	21.5	21.5	21.4	21.3	21.2	21.0	21.0	21.0	21.1
Rho Puppis	2.8	238	02.7	02.6	02.7	02.8	02.9	03.0	03.0	03.0	02.9	02.7	02.4	02.2	-24	19.2	19.3	19.4	19.5	19.5	19.4	19.3	19.2	19.1	19.1	19.1	19.2
Naos	2.2	239	02.7	02.7	02.7	02.9	03.1	03.2	03.3	03.2	03.1	02.9	02.6	02.3	-40	01.0	01.2	01.3	01.4	01.4	01.4	01.2	01.1	01.0	00.9	00.9	01.1
Chi Carina	3.5	240	45.6	45.6	45.7	45.9	46.1	46.4	46.5	46.4	46.3	46.0	45.7	45.4	-52	59.7	59.9	00.0	00.1	00.1	00.1	00.0	59.8	59.7	59.6	59.6	59.7
BS 3080	3.7	241	53.3	53.2	53.3	53.5	53.7	53.8	53.9	53.8	53.7	53.4	53.2	52.9	-40	35.3	35.5	35.6	35.7	35.7	35.6	35.5	35.4	35.2	35.2	35.2	35.3
Asmidiske	3.3	242	36.5	36.4	36.5	36.6	36.7	36.8	36.9	36.8	36.6	36.4	36.2	36.0	-24	52.4	52.5	52.6	52.6	52.6	52.6	52.5	52.4	52.3	52.2	52.3	52.4
Pollux	1.2	243	34.4	34.3	34.3	34.4	34.6	34.6	34.6	34.5	34.3	34.1	33.8	33.6	28	00.7	00.8	00.8	00.8	00.8	00.8	00.8	00.8	00.7	00.7	00.6	00.6
c Puppis	3.6	243	37.6	37.6	37.6	37.8	38.0	38.1	38.1	38.1	37.9	37.7	37.4	37.2	-37	58.8	59.0	59.1	59.2	59.2	59.1	59.0	58.9	58.7	58.7	58.7	58.8
Kappa Gemini	3.6	243	47.5	47.4	47.4	47.6	47.7	47.7	47.7	47.6	47.4	47.2	47.0	46.7	24	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.0	23.0	22.9
Alpha Monoceros	3.9	244	36.7	36.6	36.7	36.8	36.9	37.0	37.0	36.9	36.7	36.5	36.3	36.1	-9	33.8	33.9	34.0	34.0	34.0	33.9	33.9	33.8	33.7	33.7	33.8	33.8
Procyon	0.4	245	05.5	05.4	05.4	05.5	05.6	05.7	05.7	05.6	05.4	05.2	05.0	04.8	5	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.7	12.7	12.7	12.6	12.6
Castor	1.6	246	14.9	14.8	14.9	15.0	15.1	15.2	15.2	15.1	14.9	14.6	14.3	14.1	31	52.5	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.5	52.5	52.4	52.4
Sigma Puppis	3.3	247	38.3	38.3	38.4	38.6	38.8	38.9	38.9	38.9	38.7	38.5	38.2	37.9	-43	18.7	18.8	19.0	19.0	19.0	18.9	18.8	18.6	18.5	18.5	18.5	18.6
Gomeisa	2.9	248	07.5	07.5	07.5	07.6	07.7	07.8	07.8	07.7	07.5	07.3	07.0	06.8	8	16.7	16.7	16.6	16.6	16.7	16.7	16.7	16.7	16.8	16.7	16.7	16.6
Iota Gemini	3.8	248	28.1	28.1	28.1	28.2	28.4	28.4	28.4	28.3	28.1	27.8	27.6	27.3	27	47.2	47.2	47.3	47.3	47.3	47.3	47.2	47.2	47.2	47.1	47.1	47.1
Aludra	2.5	248	54.7	54.6	54.7	54.9	55.0	55.1	55.1	55.0	54.9	54.7	54.4	54.2	-29	18.8	18.9	19.0	19.1	19.0	19.0	18.8	18.7	18.6	18.6	18.6	18.7
Wasat	3.5	249	52.4	52.4	52.4	52.5	52.6	52.7	52.7	52.5	52.4	52.1	51.9	51.6	21	58.3	58.3	58.4	58.4	58.4	58.4	58.4	58.4	58.3	58.3	58.3	58.2
Lambda Gemini	3.6	250	23.1	23.0	23.1	23.2	23.3	23.4	23.3	23.2	23.0	22.8	22.6	22.3	16	31.8	31.8	31.8	31.8	31.8	31.9	31.9	31.9	31.9	31.9	31.8	31.8
Pi Puppis	2.7	250	39.3	39.3	39.4	39.6	39.7	39.8	39.9	39.8	39.6	39.4	39.1	38.9	-37	06.4	06.5	06.6	06.7	06.7	06.6	06.4	06.3	06.2	06.2	06.2	06.3
Gamma Volans	3.8	252	48.7	48.8	49.1	49.7	50.2	50.6	50.8	50.7	50.4	49.9	49.4	49.0	-70	30.3	30.5	30.7	30.7	30.7	30.6	30.5	30.3	30.2	30.1	30.1	30.3
Wezen	1.8	252	50.1	50.1	50.2	50.3	50.5	50.5	50.5	50.5	50.3	50.1	49.8	49.6	-26	24.0	24.2	24.3	24.3	24.3	24.2	24.1	24.0	23.9	23.8	23.9	24.0
Omicron Canis Major	3.0	254	10.5	10.5	10.6	10.7	10.9	10.9	10.9	10.8	10.7	10.4	10.2	10.0	-23	50.4	50.5	50.6	50.7	50.6	50.6	50.4	50.3	50.2	50.2	50.3	50.4
Sigma Canis Major	3.5	254	30.3	30.3	30.3	30.5	30.6	30.7	30.7	30.6	30.4	30.2	30.0	29.8	-27	56.5	56.6	56.7	56.8	56.7	56.6	56.5	56.4	56.3	56.3	56.3	56.4
Adara	1.5	255	16.7	16.7	16.8	17.0	17.1	17.2	17.2	17.1	16.9	16.7	16.4	16.2	-28	58.7	58.8	58.9	59.0	58.9	58.9	58.7	58.6	58.5	58.5	58.5	58.6
Theta Gemini	3.6	256	41.8	41.8	41.9	42.0	42.1	42.2	42.1	42.0	41.7	41.5	41.2	40.9	33	57.3	57.4	57.4	57.4	57.4	57.4	57.3	57.3	57.3	57.2	57.2	57.2
Tau Puppis	2.9	257	28.2	28.3	28.4	28.7	28.9	29.1	29.1	29.0	28.8	28.5	28.2	27.9	-50	37.2	37.3	37.5	37.5	37.5	37.4	37.2	37.1	36.9	36.9	36.9	37.1
Kappa Canis Major	3.5	257	28.7	28.6	28.8	28.9	29.1	29.2	29.2	29.0	28.9	28.6	28.4	28.2	-32	30.8	31.0	31.0	31.1	31.1	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	
Theta Auriga	2.7	269	57.7	57.6	57.7	57.9	58.0	58.0	57.9	57.7	57.5	57.2	56.9	56.7	37	12.9	13.0	13.0	13.0	13.0	12.9	12.9	12.8	12.8	12.8	12.9
Menkalinan	1.9	270	00.0	00.0	00.1	00.3	00.5	00.5	00.4	00.2	59.9	59.5	59.2	59.0	44	57.0	57.1	57.1	57.1	57.1	57.0	57.0	56.9	56.9	56.9	56.9
Prijipati	3.7	269	59.1	59.1	59.3	59.5	59.7	59.7	59.6	59.4	59.0	58.6	58.2	57.9	54	17.2	17.3	17.4	17.4	17.3	17.3	17.2	17.1	17.1	17.1	17.1
Eta Columba	3.9	270	09.6	09.7	09.8	10.0	10.2	10.3	10.3	10.1	09.9	09.6	09.3	09.2	-42	48.8	49.0	49.0	49.0	49.0	48.9	48.7	48.6	48.5	48.5	48.7
Eta Lepus	3.7	270	49.5	49.5	49.6	49.8	49.9	49.9	49.8	49.7	49.5	49.2	49.0	48.8	-14	09.9	10.0	10.1	10.1	10.0	09.9	09.8	09.7	09.7	09.7	09.8
Betelgeuse	0.6	271	07.2	07.2	07.3	07.4	07.5	07.5	07.5	07.3	07.1	06.9	06.6	06.4	7	24.6	24.6	24.5	24.5	24.5	24.6	24.6	24.7	24.7	24.7	24.6
Delta Lepus	3.8	272	06.0	06.0	06.1	06.2	06.4	06.4	06.3	06.2	06.0	05.7	05.5	05.3	-20	52.6	52.7	52.8	52.8	52.8	52.7	52.5	52.4	52.4	52.4	52.5
Wezn	3.1	272	12.0	12.1	12.2	12.4	12.5	12.6	12.6	12.4	12.2	11.9	11.7	11.5	-35	45.9	46.0	46.1	46.1	46.0	45.9	45.8	45.6	45.5	45.5	45.6
Saiph	2.1	272	59.1	59.1	59.2	59.3	59.4	59.4	59.3	59.2	59.0	58.8	58.5	58.4	-9	40.0	40.0	40.1	40.1	40.1	40.0	39.9	39.8	39.7	39.7	39.8
Beta Pictor	3.9	273	08.1	08.2	08.4	08.6	08.8	09.0	08.9	08.8	08.5	08.2	07.9	07.7	-51	03.8	04.0	04.0	04.0	04.0	03.8	03.6	03.5	03.4	03.4	03.5
Zeta Lepus	3.6	273	11.3	11.3	11.4	11.5	11.6	11.6	11.6	11.4	11.2	11.0	10.8	10.6	-14	49.1	49.2	49.2	49.2	49.2	49.1	49.0	48.9	48.8	48.8	49.0
Gamma Lepus	3.6	273	49.0	49.0	49.1	49.3	49.4	49.4	49.3	49.2	49.0	48.7	48.5	48.3	-22	26.7	26.8	26.9	26.9	26.8	26.7	26.6	26.5	26.4	26.4	26.6
Alnitak	1.7	274	43.8	43.8	43.9	44.0	44.1	44.1	44.0	43.8	43.6	43.4	43.2	43.0	-1	56.3	56.3	56.4	56.4	56.3	56.3	56.2	56.1	56.1	56.1	56.2
Phact	2.7	275	01.6	01.7	01.8	02.0	02.1	02.2	02.1	01.9	01.7	01.5	01.2	01.1	-34	04.2	04.3	04.4	04.4	04.3	04.2	04.0	03.9	03.8	03.8	04.0
Sigma Orion	3.8	275	14.0	14.0	14.1	14.2	14.3	14.3	14.2	14.1	13.8	13.6	13.4	13.2	-2	35.7	35.8	35.8	35.8	35.8	35.7	35.6	35.6	35.5	35.5	35.6
Zeta Taurus	3.0	275	29.6	29.6	29.7	29.9	29.9	29.9	29.8	29.7	29.4	29.2	28.9	28.7	21	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.9
Alnilam	1.7	275	51.9	51.9	52.0	52.2	52.2	52.2	52.2	52.0	51.8	51.5	51.3	51.2	-1	11.8	11.9	11.9	11.9	11.9	11.8	11.7	11.6	11.6	11.6	11.7
Na'ir al Saif	2.8	276	03.8	03.8	03.9	04.0	04.1	04.1	04.0	03.9	03.7	03.4	03.2	03.1	-5	54.3	54.3	54.4	54.4	54.3	54.3	54.2	54.1	54.0	54.0	54.2
Heka	3.4	276	07.7	07.7	07.8	07.9	08.0	08.0	07.9	07.7	07.5	07.2	07.0	06.8	9	56.4	56.4	56.4	56.4	56.4	56.4	56.4	56.5	56.5	56.5	56.5
Beta Dorado	3.8	276	34.1	34.3	34.6	35.0	35.3	35.5	35.4	35.2	34.9	34.5	34.1	33.9	-62	29.1	29.3	29.3	29.3	29.2	29.1	28.9	28.7	28.6	28.6	28.7
Arneb	2.6	276	44.7	44.8	44.9	45.0	45.1	45.1	45.1	44.9	44.7	44.5	44.2	44.1	-17	49.0	49.1	49.2	49.2	49.1	49.0	48.9	48.8	48.7	48.7	48.9
Mintaka	2.2	276	55.0	55.0	55.1	55.2	55.3	55.3	55.2	55.1	54.8	54.6	54.4	54.2	-0	17.6	17.6	17.7	17.7	17.6	17.6	17.5	17.4	17.4	17.4	17.5
Epsilon Columba	3.9	277	08.2	08.3	08.4	08.6	08.7	08.8	08.7	08.6	08.3	08.1	07.8	07.7	-35	27.9	28.0	28.1	28.1	28.0	27.9	27.7	27.6	27.5	27.5	27.6
Nihal	2.8	277	52.1	52.2	52.3	52.4	52.5	52.5	52.5	52.3	52.1	51.8	51.6	51.5	-20	45.2	45.3	45.4	45.4	45.3	45.2	45.1	45.0	44.9	44.9	45.0
Alnath	1.7	278	19.6	19.6	19.7	19.9	19.9	19.9	19.8	19.6	19.4	19.1	18.8	18.7	28	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9
Bellatrix	1.7	278	37.9	37.9	38.0	38.1	38.2	38.2	38.1	37.9	37.7	37.5	37.3	37.1	6	21.4	21.4	21.4	21.4	21.4	21.4	21.5	21.5	21.6	21.6	21.6
Eta Orion	3.4	278	48.0	48.0	48.1	48.3	48.3	48.3	48.2	48.1	47.9	47.6	47.4	47.3	-2	23.4	23.5	23.5	23.5	23.5	23.4	23.3	23.2	23.2	23.2	23.3
Tau Orion	3.6	280	31.2	31.3	31.4	31.5	31.6	31.6	31.5	31.3	31.1	30.8	30.6	30.5	-6	50.2	50.3	50.3	50.3	50.3	50.2	50.1	50.0	49.9	49.9	50.0
Capella	0.1	280	42.6	42.6	42.8	43.0	43.1	43.1	42.9	42.7	42.3	42.0	41.7	41.5	46	00.4	00.5	00.5	00.5	00.4	00.4	00.3	00.3	00.3	00.3	00.4
Rigel	0.3	281	17.3	17.3	17.4	17.6	17.7	17.6	17.5	17.4	17.1	16.9	16.7	16.6	-8	11.6	11.7	11.7	11.7	11.7	11.6	11.5	11.4	11.3	11.3	11.4
Mu Lepus	3.3	281	41.7	41.7	41.8	42.0	42.0	42.0	41.9	41.8	41.5	41.3	41.1	41.0	-16	11.8	11.9	12.0	12.0	11.9	11.8	11.7	11.6	11.5	11.5	11.6
Cursa	2.8	282	57.5	57.6	57.7	57.8	57.9	57.9	57.8	57.6	57.3	57.1	56.9	56.8	-5	04.6	04.7	04.7	04.7	04.7	04.6	04.5	04.4	04.4	04.4	04.5
Hoedus II	3.2	283	15.6	15.6	15.8	15.9	16.0	16.0	15.9	15.6	15.3	15.0	14.7	14.5	41	14.7	14.8	14.8	14.8	14.8	14.7	14.6	14.6	14.6	14.7	14.8
Epsilon Lepus	3.2	283	33.9	34.0	34.1	34.3	34.4	34.4	34.3	34.1	33.9	33.6	33.4	33.3	-22	21.7	21.8	21.9	21.9	21.8	21.7	21.5	21.4	21.4	21.4	21.5
Haedi	3.8	284	16.2	16.2	16.3	16.5	16.6	16.6	16.4	16.2	15.9	15.6	15.3	15.1	41	05.2	05.3	05.3	05.3	05.3	05.2	05.2	05.1	05.1	05.2	05.3
Al Anz	3.0	284	23.6	23.7	23.8	24.0	24.1	24.1	23.9	23.6	23.3	23.0	22.7	22.5	43	50.1	50.2	50.2	50.2	50.1	50.1	50.0	50.0	50.0	50.0	50.1
Hassaleh	2.7	285	38.9	38.9	39.1	39.2	39.3	39.3	39.1	38.9	38.6	38.3	38.1	37.9	33	10.7	10.7	10.7	10.7	10.7	10.7	10.6	10.6	10.7	10.7	10.8
Pi5 Orion	3.7	286	21.3	21.3	21.4	21.5	21.6	21.6	21.4	21.2	21.0	20.8	20.6	20.5	2	27.1	27.1	27.1	27.1	27.1	27.1	27.2	27.3	27.3	27.4	27.3
Pi4 Orion	3.7	287	06.8	06.9	07.0	07.1	07.2	07.1	07.0	06.8	06.6	06.3	06.1	06.0	5	37.0	37.0	37.0	37.0	37.0	37.0	37.1	37.2	37.2	37.2	37.2
Pi3 Orion	3.2	287	27.2	27.3	27.4	27.5	27.6	27.5	27.4	27.2	27.0	26.7	26.5	26.4	6	58.4	58.4	58.4	58.4	58.4	58.4	58.5	58.5	58.6	58.6	58.6
Sceptrum	3.9	290	22.9	22.9	23.0	23.2	23.3	23.2	23.1	22.9	22.7	22.5	22.3	22.2	-14	17.5	17.6	17.6	17.6	17.5	17.4	17.3	17.2	17.1	17.1	17.2
Nu Eridanus	3.9	290	50.4	50.5	50.6	50.7	50.8	50.7	50.6	50.4	50.2	50.0	49.8	49.7	-3	20.3	20.4	20.4	20.4	20.4	20.3	20.2	20.1	20.1	20.0	20.1
Aldebaran	1.0	290	55.8	55.8	55.9	56.0	56.1	56.0	55.9	55.7	55.4	55.2	55.0	54.9	16	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.5	31.5	31.5	31.6
Theemim	3.8	291	02.9	03.0	03.1	03.3	03.4	03.4	03.2	03.0	02.8	02.6	02.4	02.3	-30	33.0	33.1	33.1	33.1	33.0	32.9	32.7	32.6	32.5	32.5	32.6
Alpha Dorado	3.3	291	27.5	27.7	28.0	28.3	28.4	28.5	28.4	28.1	27.8	27.5	27.2	27.1	-55	02.0	02.1	02.1	02.1	02.0	01.8	01.6	01.5	01.4	01.4	01.5
Theta2 Taurus	3.4	292	44.7	44.7	44.8	44.9	45.0	44.9	44.8	44.6	44.3	44.1	43.9	43.8	15	53.2	53.2	53.2	53.1	53.1	53.2	53.2	53.3	53.3	53.3	53.3
Ain	3.5	292	45.2	45.3	45.4	45.5	45.6	45.5	45.4	45.1	44.9	44.6	44.4	44.3	19	11.8	11.8	11.7	11.7	11.7	11.7	11.8	11.8	11.9	11.9	11.9
Secundus Hyadum	3.8	294	10.5	10.6	10.7	10.8	10.9	10.8	10.6	10.4	10.2	09.9	09.7	09.6	17	33.5	33.5	33.5	33.5	33.5	33.5	33.6	33.6	33.7	33.7	33.7
Primus Hyadum	3.7	294	57.7	57.8	57.9	58.0	58.0	58.0	57.8	57.6	57.4	57.1	56.9	56.8	15	38.7	38.6	38.6	38.6	38.6	38.6	38.7	38.7	38.8	38.8	38.8
Upsilon4 Eridanus	3.6	295	27.8	27.9	28.1	28.2	28.3	28.3	28.2	28.0	27.7	27.5	27.3	27.2	-33	47.1										

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			
Maia	3.9	303	27.0	27.1	27.2	27.3	27.3	27.3	27.1	26.8	26.6	26.3	26.2	26.1	24	23.4	23.4	23.3	23.3	23.3	23.3	23.4	23.4	23.5	23.5	23.5		
Nu Perseus	3.8	303	35.7	35.8	36.0	36.1	36.1	36.0	35.8	35.5	35.2	34.9	34.7	34.6	42	36.1	36.1	36.1	36.0	36.0	35.9	35.9	35.9	36.0	36.0	36.1	36.2	
Electra	3.7	303	41.3	41.4	41.5	41.6	41.6	41.5	41.4	41.1	40.8	40.6	40.4	40.3	24	08.1	08.1	08.1	08.0	08.0	08.0	08.1	08.1	08.2	08.2	08.3	08.3	
Atik	3.9	303	49.3	49.4	49.6	49.7	49.7	49.6	49.4	49.1	48.9	48.6	48.4	48.3	32	18.6	18.6	18.6	18.6	18.5	18.5	18.5	18.6	18.6	18.7	18.7	18.8	
Beta Reticulum	3.8	303	55.1	55.4	55.8	56.2	56.4	56.4	56.2	55.8	55.4	55.0	54.8	54.7	-64	47.4	47.5	47.5	47.4	47.2	47.0	46.9	46.7	46.7	46.8	46.9	47.1	
Rana	3.5	304	06.7	06.8	06.9	07.0	07.0	07.0	06.8	06.6	06.4	06.2	06.0	05.9	-9	44.6	44.6	44.6	44.6	44.5	44.4	44.3	44.2	44.2	44.1	44.2	44.3	
Delta Perseus	3.0	304	09.4	09.6	09.7	09.9	09.9	09.8	09.6	09.3	08.9	08.6	08.4	08.3	47	48.6	48.7	48.7	48.6	48.5	48.5	48.4	48.4	48.5	48.6	48.7	48.8	
Epsilon Eridanus	3.7	306	41.6	41.6	41.8	41.9	41.9	41.8	41.6	41.4	41.2	41.0	40.8	40.8	-9	26.3	26.3	26.3	26.3	26.2	26.1	26.0	25.9	25.9	25.8	25.9	26.0	
Xi Taurus	3.7	308	07.4	07.5	07.6	07.7	07.7	07.6	07.4	07.2	06.9	06.7	06.6	06.5	9	45.3	45.3	45.3	45.3	45.3	45.3	45.4	45.5	45.5	45.6	45.6	45.6	
Omicron Taurus	3.6	308	42.8	42.8	42.9	43.0	43.0	43.0	42.8	42.5	42.3	42.1	41.9	41.9	9	03.1	03.1	03.1	03.0	03.1	03.1	03.2	03.3	03.3	03.4	03.4		
Mirfak	1.8	308	48.5	48.6	48.8	49.0	49.0	48.8	48.6	48.3	47.9	47.6	47.4	47.3	49	53.2	53.3	53.2	53.2	53.1	53.0	53.0	53.0	53.0	53.1	53.1	53.3	53.4
16 Eridanus	3.7	310	03.0	03.1	03.2	03.3	03.4	03.3	03.1	02.9	02.6	02.4	02.3	02.2	-21	44.2	44.3	44.3	44.2	44.1	44.0	43.8	43.7	43.7	43.7	43.8	43.9	
Fornacis	3.8	311	54.8	54.9	55.0	55.1	55.2	55.1	54.9	54.7	54.4	54.2	54.1	54.0	-28	57.9	58.0	58.0	57.9	57.8	57.6	57.5	57.4	57.3	57.3	57.4	57.6	
Algol	2.1	312	51.4	51.5	51.7	51.8	51.8	51.7	51.4	51.1	50.8	50.6	50.4	50.3	40	59.0	59.0	59.0	58.9	58.8	58.8	58.8	58.8	58.9	59.0	59.1	59.2	
Gorgonea Tertia	3.4	313	36.4	36.5	36.7	36.8	36.8	36.6	36.4	36.1	35.8	35.6	35.4	35.3	38	52.0	52.1	52.0	52.0	51.9	51.9	51.9	51.9	52.0	52.1	52.2	52.2	
Gamma Perseus	2.9	313	41.3	41.5	41.7	41.8	41.8	41.7	41.4	41.0	40.7	40.4	40.1	40.1	53	32.1	32.1	32.1	32.0	31.9	31.8	31.8	31.8	31.9	32.0	32.1	32.2	
Menkar	2.6	314	20.9	21.0	21.1	21.2	21.2	21.1	20.9	20.7	20.4	20.2	20.1	20.0	4	06.9	06.8	06.8	06.8	06.9	06.9	07.0	07.1	07.2	07.2	07.2	07.2	
Acamar	3.2	315	22.3	22.5	22.7	22.8	22.8	22.7	22.5	22.3	22.0	21.8	21.7	21.6	-40	17.0	17.0	17.0	16.9	16.8	16.6	16.4	16.3	16.3	16.3	16.5	16.6	
Azha	3.9	315	49.0	49.1	49.2	49.3	49.3	49.2	49.0	48.8	48.5	48.3	48.2	48.2	-8	52.5	52.5	52.5	52.5	52.4	52.3	52.2	52.1	52.0	52.0	52.1	52.1	
Tau Perseus	3.9	316	19.6	19.7	19.9	20.1	20.1	19.9	19.6	19.2	18.9	18.6	18.4	18.3	52	47.5	47.5	47.5	47.4	47.3	47.2	47.2	47.2	47.3	47.4	47.6	47.7	
Miram	3.8	317	12.8	13.0	13.2	13.3	13.3	13.2	12.8	12.5	12.1	11.8	11.6	11.5	55	55.5	55.5	55.5	55.4	55.3	55.2	55.2	55.2	55.3	55.4	55.6	55.7	
41 Aries	3.6	317	24.8	24.9	25.0	25.1	25.1	24.9	24.7	24.5	24.2	24.0	23.9	23.8	27	17.3	17.3	17.3	17.2	17.2	17.2	17.2	17.3	17.4	17.4	17.5	17.5	
Kaffajjidmah	3.5	319	05.7	05.8	05.9	05.9	05.9	05.8	05.6	05.4	05.1	05.0	04.8	04.8	3	15.7	15.7	15.7	15.7	15.7	15.8	15.9	16.0	16.0	16.1	16.1	16.0	
Polaris	2.0	320	13.6	26.1	38.2	46.9	48.4	42.7	31.7	17.4	02.9	51.8	45.8	46.3	89	17.8	17.9	17.8	17.7	17.6	17.4	17.3	17.3	17.4	17.6	17.7	17.9	
Phi Eridanus	3.6	325	48.8	49.0	49.2	49.3	49.3	49.2	48.9	48.6	48.3	48.1	48.0	48.0	-51	29.3	29.3	29.2	29.1	28.9	28.7	28.6	28.5	28.5	28.6	28.7	28.9	
Beta Triangulum	3.0	327	31.4	31.5	31.7	31.7	31.7	31.5	31.2	31.0	30.7	30.5	30.4	30.4	35	01.2	01.1	01.1	01.0	01.0	01.0	01.0	01.1	01.2	01.3	01.4	01.4	
Hamal	2.0	328	07.2	07.3	07.4	07.5	07.5	07.3	07.1	06.8	06.6	06.4	06.3	06.3	23	29.6	29.6	29.5	29.5	29.5	29.5	29.6	29.6	29.7	29.8	29.9	29.9	
Almaak	2.2	328	55.9	56.1	56.2	56.3	56.2	56.0	55.8	55.4	55.2	55.0	54.9	54.8	42	21.8	21.8	21.7	21.6	21.5	21.5	21.5	21.6	21.7	21.8	21.9	22.0	
Alrishah	3.8	329	24.5	24.6	24.7	24.8	24.7	24.6	24.4	24.1	23.9	23.7	23.7	23.6	2	47.6	47.6	47.6	47.6	47.6	47.7	47.8	47.9	47.9	48.0	48.0	48.0	
Alpha Hydrus	2.9	330	15.2	15.5	15.7	15.9	15.9	15.7	15.4	15.0	14.6	14.4	14.3	14.4	-61	32.7	32.7	32.6	32.5	32.3	32.1	31.9	31.9	31.9	32.0	32.1	32.3	
Chi Eridanus	3.7	330	56.8	57.0	57.2	57.3	57.3	57.1	56.9	56.5	56.2	56.0	56.0	56.0	-51	35.0	35.0	34.9	34.8	34.6	34.4	34.3	34.2	34.2	34.3	34.4	34.6	
Sheratan	2.7	331	15.4	15.5	15.6	15.6	15.5	15.4	15.2	14.9	14.7	14.5	14.4	14.4	20	50.4	50.4	50.3	50.3	50.3	50.3	50.4	50.4	50.5	50.6	50.7	50.7	
Segin	3.4	331	17.5	17.8	18.1	18.2	18.2	17.9	17.5	17.0	16.6	16.3	16.1	16.2	63	42.3	42.3	42.2	42.1	42.0	41.9	41.9	42.0	42.1	42.2	42.4	42.5	
Mothallah	3.4	331	38.6	38.7	38.8	38.9	38.8	38.6	38.4	38.1	37.9	37.7	37.6	37.6	29	36.7	36.6	36.6	36.5	36.5	36.6	36.6	36.6	36.7	36.8	36.9	37.0	
Baten Kaitos	3.7	332	03.5	03.6	03.7	03.8	03.7	03.6	03.4	03.1	02.9	02.7	02.7	02.7	-10	18.4	18.4	18.4	18.3	18.3	18.1	18.0	17.9	17.9	17.9	17.9	18.0	
Tau Cetus	3.5	333	54.7	54.8	54.9	54.9	54.9	54.7	54.5	54.3	54.0	53.9	53.8	53.9	-15	54.4	54.5	54.4	54.4	54.3	54.1	54.0	53.9	53.9	53.9	54.0	54.0	
51 Andromeda	3.6	335	24.6	24.8	24.9	25.0	24.9	24.7	24.4	24.0	23.7	23.5	23.4	23.5	48	39.8	39.8	39.7	39.6	39.5	39.5	39.5	39.6	39.7	39.8	40.0	40.1	
Achemar	0.5	335	30.6	30.8	31.1	31.2	31.1	30.9	30.6	30.3	29.9	29.7	29.7	29.8	-57	12.6	12.6	12.5	12.4	12.2	12.0	11.9	11.8	11.8	11.9	12.1	12.2	
Eta Pisces	3.6	337	02.9	03.0	03.1	03.1	03.0	02.9	02.6	02.4	02.2	02.0	02.0	02.0	15	22.7	22.7	22.6	22.6	22.6	22.7	22.7	22.8	22.9	23.0	23.0	23.1	
Delta Phoenix	3.9	337	07.2	07.4	07.6	07.7	07.6	07.4	07.1	06.8	06.5	06.4	06.3	06.4	-49	02.7	02.7	02.6	02.5	02.3	02.2	02.0	02.0	02.0	02.1	02.2	02.3	
Gamma Phoenix	3.4	337	50.4	50.6	50.7	50.8	50.7	50.5	50.3	50.0	49.7	49.6	49.5	49.6	-43	17.5	17.5	17.4	17.3	17.1	16.9	16.8	16.7	16.7	16.7	16.8	16.9	17.1
Ruchbah	2.7	338	26.9	27.2	27.4	27.5	27.4	27.1	26.7	26.3	25.9	25.7	25.6	25.7														