

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	08.3	08.9	09.3	09.2	08.8	08.0	07.2	06.5	06.2	06.1	06.4	07.0	77	39.5	39.4	39.3	39.2	39.0	39.0	39.1	39.2	39.4	39.6	39.7	39.8	
Lambda Andromeda	3.9	5	34.0	34.1	34.2	34.1	34.0	33.7	33.4	33.1	32.9	32.9	32.9	33.1	46	28.9	28.8	28.7	28.6	28.6	28.6	28.7	28.8	29.0	29.1	29.2	29.3	
98 Aquarius	4.0	9	12.6	12.6	12.6	12.6	12.4	12.2	11.9	11.7	11.5	11.5	11.5	11.6	-20	05.0	04.9	04.9	04.8	04.7	04.6	04.5	04.4	04.4	04.5	04.5	04.6	
Gamma Tucana	4.0	10	35.4	35.5	35.5	35.4	35.2	34.8	34.4	34.1	33.9	33.8	34.0	34.2	-58	13.2	13.1	13.0	12.8	12.7	12.5	12.5	12.5	12.6	12.7	12.8	12.9	
Gamma Pices	3.7	10	39.7	39.8	39.8	39.7	39.5	39.3	39.1	38.8	38.7	38.7	38.7	38.8	3	18.1	18.1	18.1	18.1	18.1	18.2	18.3	18.4	18.5	18.5	18.6	18.5	
Iota Grus	3.9	12	21.5	21.6	21.6	21.5	21.3	21.0	20.7	20.4	20.3	20.2	20.3	20.4	-45	13.8	13.8	13.7	13.5	13.4	13.3	13.2	13.2	13.2	13.3	13.4	13.5	
88 Aquarius	3.7	12	35.4	35.5	35.4	35.4	35.2	35.0	34.7	34.5	34.3	34.3	34.4	34.4	-21	09.3	09.3	09.2	09.1	09.0	08.9	08.8	08.8	08.8	08.8	08.9	08.9	
Markab	2.5	13	45.9	46.0	46.0	45.9	45.7	45.5	45.3	45.1	44.9	44.9	45.0	45.0	15	13.6	13.5	13.5	13.4	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.0	
Scheat	2.5	14	00.9	00.9	00.9	00.8	00.7	00.4	00.2	59.9	59.8	59.8	59.9	00.0	28	06.3	06.2	06.1	06.1	06.1	06.1	06.2	06.4	06.5	06.6	06.7	06.7	
Omicron Andromeda	3.6	14	28.9	29.0	29.0	28.9	28.7	28.4	28.1	27.9	27.8	27.8	27.8	28.0	42	20.9	20.9	20.7	20.6	20.6	20.6	20.7	20.9	21.0	21.2	21.3	21.3	
Fomalhaut	1.2	15	32.3	32.3	32.3	32.2	32.0	31.7	31.5	31.2	31.1	31.1	31.1	31.2	-29	36.3	36.3	36.2	36.1	36.0	35.9	35.8	35.8	35.8	35.9	35.9	36.0	
Skat	3.3	16	17.4	17.4	17.4	17.3	17.1	16.9	16.7	16.4	16.3	16.3	16.4	16.4	-15	48.2	48.2	48.2	48.1	48.0	47.9	47.8	47.7	47.7	47.7	47.8	47.8	
Lambda Aquarius	3.8	16	48.0	48.0	48.0	47.9	47.7	47.5	47.3	47.0	46.9	46.9	47.0	47.1	-7	33.7	33.7	33.7	33.6	33.6	33.5	33.4	33.3	33.2	33.2	33.3	33.3	
Sadalbari	3.5	17	27.4	27.5	27.5	27.4	27.2	27.0	26.7	26.5	26.4	26.4	26.5	26.6	24	37.4	37.3	37.2	37.1	37.1	37.2	37.3	37.5	37.6	37.7	37.7	37.7	
Iota Cepheus	3.5	17	33.4	33.6	33.7	33.6	33.3	32.8	32.4	32.0	31.9	32.0	32.2	32.5	66	13.5	13.3	13.2	13.1	13.0	13.0	13.1	13.2	13.4	13.6	13.8	13.8	
Epsilon Grus	3.5	17	48.4	48.5	48.5	48.4	48.1	47.8	47.4	47.1	47.0	47.0	47.1	47.3	-51	18.1	18.0	17.9	17.7	17.6	17.5	17.4	17.5	17.5	17.6	17.7	17.8	
Lambda Pegasus	4.0	18	19.5	19.6	19.6	19.5	19.3	19.0	18.8	18.6	18.5	18.5	18.6	18.7	23	35.2	35.1	35.0	35.0	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.6	
Matar	2.9	19	12.6	12.6	12.6	12.5	12.3	12.1	11.8	11.6	11.5	11.5	11.6	11.7	30	14.6	14.5	14.4	14.3	14.3	14.3	14.5	14.6	14.7	14.9	14.9	14.9	
Beta Grus	2.1	19	16.8	16.9	16.8	16.7	16.5	16.1	15.8	15.5	15.4	15.4	15.5	15.7	-46	52.2	52.1	52.0	51.8	51.7	51.6	51.5	51.5	51.6	51.7	51.8	51.8	
Homam	3.4	19	35.4	35.5	35.5	35.4	35.2	35.0	34.7	34.5	34.4	34.4	34.5	34.6	10	51.1	51.0	51.0	50.9	51.0	51.1	51.2	51.3	51.4	51.4	51.5	51.4	
Alpha Lacerta	3.8	22	08.7	08.8	08.8	08.7	08.4	08.1	07.8	07.6	07.5	07.5	07.7	07.9	50	18.3	18.2	18.0	17.9	17.9	17.9	18.0	18.2	18.4	18.5	18.6	18.7	
Delta Grus	4.0	22	37.8	37.8	37.8	37.6	37.4	37.1	36.8	36.5	36.4	36.4	36.5	36.7	-43	28.8	28.8	28.7	28.5	28.4	28.3	28.2	28.2	28.3	28.4	28.5	28.5	
Zeta Aquarius	3.7	22	44.8	44.8	44.8	44.7	44.5	44.3	44.0	43.8	43.7	43.7	43.8	43.9	-0	00.1	00.1	00.2	00.1	00.1	00.0	00.1	00.2	00.3	00.3	00.3	00.3	
Sadachbia	3.9	24	32.4	32.5	32.4	32.3	32.1	31.9	31.6	31.4	31.4	31.4	31.4	31.5	-1	22.2	22.2	22.2	22.2	22.1	22.1	22.0	21.9	21.8	21.8	21.8	21.8	
Alpha Tucana	2.9	25	18.9	19.0	18.9	18.7	18.4	18.0	17.6	17.2	17.1	17.1	17.3	17.6	-60	14.7	14.6	14.5	14.3	14.2	14.1	14.1	14.1	14.2	14.4	14.4	14.5	
Zeta Cepheus	3.3	27	15.7	15.9	15.9	15.7	15.4	15.1	14.7	14.5	14.4	14.5	14.7	15.0	58	13.4	13.2	13.1	13.0	12.9	13.0	13.1	13.3	13.4	13.6	13.7	13.7	
Baham	3.5	27	24.4	24.4	24.3	24.2	24.0	23.8	23.6	23.4	23.3	23.3	23.4	23.5	6	12.9	12.9	12.9	12.9	12.9	13.0	13.1	13.2	13.3	13.3	13.3	13.3	
Alnair	1.8	27	53.2	53.2	53.2	53.0	52.7	52.4	52.1	51.8	51.7	51.7	51.9	52.0	-46	56.8	56.7	56.6	56.5	56.4	56.3	56.2	56.3	56.3	56.4	56.5	56.5	
Iota Pegasus	3.8	28	12.5	12.5	12.5	12.3	12.1	11.9	11.7	11.5	11.4	11.4	11.5	11.6	25	21.9	21.8	21.7	21.6	21.6	21.7	21.8	22.0	22.1	22.2	22.2	22.2	
Sadal Melik	2.9	28	30.6	30.6	30.5	30.4	30.2	30.0	29.7	29.5	29.5	29.5	29.6	29.7	-0	18.2	18.2	18.2	18.2	18.2	18.1	18.0	17.9	17.8	17.8	17.8	17.8	
Al Dhanab	3.0	31	27.9	27.9	27.8	27.6	27.4	27.1	26.8	26.6	26.5	26.6	26.7	26.8	-37	21.1	21.0	20.9	20.8	20.7	20.6	20.6	20.6	20.6	20.7	20.7	20.8	
Deneb Algiedi	2.9	33	11.5	11.5	11.4	11.3	11.1	10.8	10.6	10.4	10.3	10.4	10.4	10.5	-16	06.8	06.7	06.7	06.7	06.6	06.5	06.4	06.4	06.4	06.4	06.4	06.5	
Enif	2.4	33	54.7	54.7	54.6	54.5	54.3	54.1	53.8	53.7	53.6	53.6	53.7	53.8	9	53.5	53.4	53.4	53.4	53.4	53.5	53.6	53.7	53.8	53.9	53.9	53.8	
Nu Octans	3.7	34	32.5	32.7	32.4	31.9	31.1	30.2	29.4	28.8	28.7	28.9	29.5	30.1	-77	22.7	22.5	22.4	22.2	22.1	22.0	22.1	22.2	22.2	22.3	22.4	22.5	22.5
Nashira	3.7	34	55.7	55.7	55.7	55.5	55.3	55.0	54.8	54.6	54.6	54.6	54.7	54.8	-16	38.9	38.9	38.8	38.8	38.7	38.6	38.5	38.5	38.5	38.5	38.5	38.6	
Rho Cygnus	4.0	36	28.6	28.6	28.6	28.4	28.2	27.9	27.6	27.4	27.4	27.5	27.7	27.9	45	36.6	36.5	36.3	36.2	36.2	36.3	36.4	36.6	36.8	36.9	37.0	37.0	
Sadal Suud	2.9	37	03.9	03.9	03.8	03.6	03.4	03.2	03.0	02.8	02.8	02.8	02.9	03.0	-5	33.4	33.4	33.4	33.4	33.3	33.2	33.1	33.1	33.0	33.0	33.0	33.1	
Alfirk	3.2	37	50.4	50.6	50.5	50.2	49.8	49.2	48.8	48.6	48.6	48.9	49.4	49.8	70	34.8	34.6	34.5	34.4	34.3	34.4	34.5	34.7	34.9	35.0	35.1	35.1	
Zeta Capricornus	3.8	38	17.0	17.0	16.9	16.7	16.5	16.3	16.0	15.8	15.8	15.8	15.9	16.0	-22	23.9	23.8	23.8	23.7	23.7	23.6	23.5	23.5	23.5	23.5	23.6	23.6	
Alderamin	2.5	40	20.7	20.8	20.7	20.5	20.1	19.7	19.4	19.2	19.3	19.4	19.8	20.1	62	36.2	36.1	35.9	35.8	35.8	35.8	36.0	36.2	36.3	36.5	36.6	36.6	
Kitalpha	3.9	41	00.1	00.1	00.0	59.8	59.6	59.4	59.2	59.0	59.0	59.0	59.1	59.2	5	15.7	15.7	15.6	15.6	15.7	15.8	15.9	16.0	16.0	16.1	16.1	16.1	
Tau Cygnus	3.7	41	16.3	16.3	16.2	16.0	15.8	15.5	15.3	15.1	15.1	15.2	15.4	15.5	38	03.7	03.6	0										

2004

Stars

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		
		°	'	'	'	'	'	'	'	'	'	'	'	°	'	'	'	'	'	'	'	'	'	'	'		
Ancha	3.3	57	07.8	07.8	07.6	07.4	07.2	07.0	06.8	06.7	06.7	06.8	06.9	07.0	-0	48.7	48.8	48.8	48.8	48.7	48.7	48.6	48.5	48.5	48.5	48.5	
Delta Pavonis	3.6	57	44.3	44.1	43.8	43.4	42.8	42.3	41.9	41.7	41.7	42.0	42.3	42.6	-66	10.5	10.4	10.3	10.2	10.1	10.1	10.2	10.3	10.4	10.5	10.6	10.5
Epsilon Pavonis	4.0	59	45.6	45.4	45.0	44.4	43.7	43.0	42.5	42.3	42.4	42.7	43.2	43.6	-72	54.2	54.1	53.9	53.8	53.8	53.8	53.9	54.0	54.1	54.2	54.3	54.2
Gamma Sagitta	3.5	60	16.5	16.4	16.3	16.1	15.9	15.6	15.5	15.4	15.4	15.5	15.7	15.7	19	30.1	30.0	29.9	29.9	29.9	30.0	30.1	30.3	30.3	30.4	30.4	30.3
Eta Cygnus	3.9	60	53.7	53.7	53.5	53.3	53.1	52.8	52.6	52.6	52.6	52.8	52.9	53.1	35	05.6	05.4	05.3	05.3	05.3	05.4	05.6	05.7	05.8	05.9	05.9	05.8
Alshain	3.7	61	07.9	07.8	07.6	07.4	07.2	07.0	06.8	06.7	06.8	06.9	07.0	07.1	6	24.9	24.8	24.8	24.7	24.8	24.9	25.0	25.1	25.1	25.1	25.1	25.1
Eta Aquila	3.9	61	50.4	50.3	50.1	49.9	49.7	49.5	49.3	49.2	49.2	49.3	49.5	49.5	1	00.8	00.8	00.7	00.7	00.8	00.9	00.9	01.0	01.1	01.1	01.1	01.0
Altair	0.9	62	15.8	15.8	15.6	15.4	15.2	15.0	14.8	14.7	14.7	14.8	15.0	15.0	8	52.6	52.5	52.5	52.5	52.5	52.6	52.7	52.8	52.9	52.9	52.9	52.8
Tyl	3.8	62	58.7	58.7	58.5	58.0	57.5	57.1	56.9	56.9	57.1	57.6	58.1	58.5	70	16.7	16.5	16.3	16.3	16.3	16.4	16.5	16.7	16.7	16.9	17.0	16.9
Kaus Media	3.8	63	07.0	07.0	06.8	06.6	06.4	06.2	06.0	05.9	06.0	06.1	06.2	06.3	18	32.6	32.4	32.4	32.3	32.4	32.5	32.6	32.7	32.8	32.8	32.8	32.8
Tarazed	2.7	63	23.8	23.7	23.5	23.3	23.1	22.9	22.7	22.6	22.7	22.8	22.9	23.0	10	37.3	37.2	37.1	37.1	37.1	37.2	37.3	37.4	37.5	37.5	37.5	37.5
Delta Cygnus	2.9	63	44.1	44.1	43.9	43.7	43.4	43.1	43.0	42.9	43.0	43.2	43.4	43.6	45	08.4	08.2	08.1	08.0	08.1	08.2	08.3	08.5	08.6	08.7	08.7	08.6
Albireo	3.1	67	17.3	17.2	17.1	16.8	16.6	16.4	16.2	16.2	16.2	16.4	16.5	16.6	27	58.0	57.9	57.8	57.7	57.8	57.9	58.0	58.2	58.3	58.3	58.3	58.2
Iota Cygnus	3.8	67	33.6	33.5	33.3	33.0	32.7	32.5	32.3	32.3	32.4	32.6	32.9	33.1	51	44.2	44.1	43.9	43.9	43.9	44.0	44.2	44.4	44.5	44.6	44.6	44.5
Delta Aquila	3.4	68	35.0	34.9	34.8	34.5	34.3	34.1	34.0	33.9	33.9	34.0	34.1	34.2	3	07.2	07.2	07.1	07.1	07.2	07.2	07.3	07.4	07.5	07.5	07.5	07.4
Rukbat	4.0	68	58.2	58.1	57.9	57.6	57.3	57.0	56.8	56.7	56.7	56.9	57.0	57.1	-40	36.7	36.6	36.5	36.5	36.5	36.5	36.5	36.5	36.6	36.6	36.7	36.6
Arkab	4.0	69	16.8	16.7	16.4	16.1	15.8	15.5	15.3	15.2	15.3	15.4	15.6	15.7	-44	27.3	27.2	27.1	27.1	27.0	27.0	27.1	27.1	27.2	27.3	27.3	27.2
Rho Sagittarius	3.9	69	32.0	31.9	31.7	31.5	31.2	31.0	30.8	30.7	30.8	30.9	31.0	31.1	-17	50.5	50.5	50.5	50.5	50.5	50.4	50.4	50.4	50.4	50.4	50.4	50.4
Kappa Cygnus	3.8	70	42.8	42.7	42.5	42.2	41.9	41.6	41.5	41.5	41.6	41.9	42.1	42.3	53	22.5	22.3	22.2	22.1	22.2	22.3	22.5	22.6	22.8	22.8	22.8	22.7
Nodus Secundus	3.1	71	52.6	52.6	52.3	51.9	51.4	51.0	50.9	51.0	51.2	51.7	52.1	52.5	67	40.0	39.9	39.7	39.7	39.7	39.8	40.0	40.2	40.3	40.4	40.4	40.3
Albaldah	2.9	72	30.5	30.4	30.2	30.0	29.7	29.5	29.3	29.3	29.3	29.4	29.5	29.6	-21	01.2	01.2	01.2	01.1	01.1	01.1	01.1	01.1	01.1	01.1	01.1	01.1
Tau Sagittarius	3.3	73	12.8	12.6	12.4	12.2	11.9	11.7	11.5	11.4	11.5	11.6	11.7	11.8	-27	40.0	40.0	40.0	39.9	39.9	39.9	39.9	39.9	39.9	40.0	40.0	40.0
Al Thalimain	3.4	73	23.6	23.5	23.3	23.1	22.9	22.7	22.5	22.4	22.5	22.6	22.7	22.8	-4	52.7	52.8	52.8	52.8	52.8	52.7	52.6	52.6	52.6	52.6	52.6	52.6
Deneb el Okab	3.0	73	36.6	36.5	36.3	36.1	35.9	35.7	35.6	35.5	35.6	35.7	35.8	35.9	13	52.1	51.9	51.9	51.9	51.9	52.0	52.1	52.2	52.3	52.3	52.3	52.2
Omicron Sagittarius	3.8	73	46.7	46.6	46.4	46.2	45.9	45.7	45.5	45.5	45.5	45.6	45.7	45.8	-21	44.3	44.3	44.3	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2
Ascella	2.6	74	17.6	17.5	17.3	17.0	16.7	16.5	16.3	16.2	16.3	16.4	16.6	16.6	-29	52.6	52.6	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.6	52.6	52.6
Sulafat	3.3	75	14.2	14.1	13.9	13.6	13.4	13.2	13.1	13.0	13.1	13.3	13.4	13.5	32	41.6	41.5	41.4	41.3	41.4	41.5	41.6	41.8	41.9	41.9	41.9	41.8
Xi Sagittarius	3.5	75	31.0	30.9	30.7	30.5	30.2	30.0	29.8	29.8	29.8	29.9	30.1	30.1	-21	06.2	06.2	06.2	06.2	06.2	06.1	06.1	06.1	06.1	06.1	06.1	06.1
Nunki	2.1	76	07.9	07.8	07.5	07.3	07.0	06.8	06.6	06.6	06.6	06.7	06.9	06.9	-26	17.6	17.6	17.6	17.6	17.6	17.5	17.5	17.6	17.6	17.6	17.6	17.6
Sheliak	3.5	77	27.1	27.0	26.8	26.6	26.4	26.2	26.0	26.0	26.1	26.3	26.5	26.5	33	21.9	21.8	21.7	21.6	21.7	21.8	22.0	22.1	22.2	22.2	22.2	22.1
Phi Sagittarius	3.2	78	32.0	31.9	31.6	31.4	31.1	30.9	30.7	30.7	30.7	30.9	31.0	31.0	-26	59.3	59.3	59.3	59.3	59.3	59.2	59.2	59.3	59.3	59.3	59.3	59.3
Vega	0.0	80	44.5	44.3	44.1	43.9	43.6	43.4	43.3	43.3	43.4	43.6	43.8	43.9	38	47.1	47.0	46.9	46.8	46.9	47.0	47.2	47.3	47.4	47.5	47.4	47.3
Alpha Scutum	3.9	81	09.2	09.0	08.8	08.6	08.4	08.2	08.0	08.0	08.1	08.2	08.3	08.3	-8	14.6	14.6	14.7	14.7	14.6	14.6	14.5	14.5	14.5	14.5	14.5	14.5
Kaus Borealis	2.8	82	57.3	57.2	57.0	56.7	56.4	56.2	56.1	56.0	56.1	56.2	56.4	56.4	-25	25.3	25.3	25.3	25.3	25.2	25.2	25.2	25.2	25.3	25.3	25.3	25.3
Alpha Telescopium	3.5	83	11.7	11.5	11.2	10.9	10.6	10.3	10.1	10.1	10.2	10.3	10.5	10.6	-45	58.1	58.0	58.0	57.9	58.0	58.0	58.0	58.1	58.2	58.2	58.2	58.1
Kaus Australis	1.8	83	54.1	53.9	53.7	53.4	53.1	52.9	52.7	52.7	52.8	52.9	53.0	53.1	-34	23.1	23.0	23.0	23.0	23.0	23.0	23.1	23.1	23.1	23.1	23.1	23.1
109 Hercules	3.9	84	02.5	02.4	02.2	01.9	01.7	01.5	01.4	01.4	01.5	01.6	01.8	01.8	21	46.2	46.0	46.0	45.9	46.0	46.1	46.2	46.3	46.4	46.4	46.4	46.3
Eta Serpens	3.3	84	37.8	37.6	37.4	37.2	37.0	36.8	36.7	36.6	36.7	36.8	37.0	37.0	-2	54.0	54.0	54.1	54.1	54.1	54.0	53.9	53.9	53.9	53.9	53.9	53.9
Chi Draco	3.6	84	46.4	46.2	45.7	45.1	44.6	44.3	44.2	44.5	44.9	45.5	46.1	46.5	72	43.9	43.8	43.6	43.6	43.7	43.8	44.0	44.1	44.3	44.3	44.2	44.1
Kaus Media	2.7	84	41.9	41.7	41.5	41.2	40.9	40.7	40.6	40.5	40.6	40.7	40.9	40.9	-29	49.7	49.7	49.7	49.6	49.6	49.6	49.7	49.7	49.7	49.7	49.7	49.7
Eta Sagittarius	3.1	85	32.2	32.0	31.8	31.5	31.2	31.0	30.8	30.8	30.9	31.0	31.1	31.2	-36	45.7	45.7	45.7	45.6	45.7	45.7	45.7	45.8	45.8	45.8	45.8	45.8
Mu Sagittarius	3.8	86	30.5	30.4	30.2	29.9	29.7	29.5	29.3	29.3	29.4	29.5	29.6	29.6	-21	03.6	03.6	03.6	03.6	03.6	03.6	03.5	03.5	03.6	03.6	03.6	03.6
Omicron Hercules	3.8	88	05.1	04.9	04.7	04.5	04.2	04.1	04.0	04.0	04.1	04.3	04.4	04.5	28	45.7	45.5	45.4	45.4	45.5	45.6	45.7	45.8	45.9	45.9	45.9	45.8
Omicron Ophiuchus	3.7	88	07.4	07.3	07.1	06.8	06.6	06.5	06.4	06.3	06.4	06.6	06.7	06.7	9	33.8	33.7	33.6	33.6	33.6	33.7	33.8	33.9	33.9	33.9	33.9	33.8
Theta Ara	3.7	88	16.7	16.4	16.1	15.8	15.4	15.2	15.0	15.0	15.1	15.3	15.5	15.5	-50	05.5	05.5	05.4	05.4	05.4	05.5	05.6	05.7	05.7	05.7	05.7	05.6
El Nasl	3.6	88	29.7	29.5	29.2	28.9	28.7	28.5	28.4	28.3	28.4	28.5	28.7	28.7	-30	25.5	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	11.8	11.7	11.5	11.2	11.0	10.8	10.7	10.7	10.8	10.9	11.0	11.0	-9	46.5	46.6	46.6	46.6	46.6	46.6	46.5	46.5	46.5	46.5	46.5	46.5
Xi Hercules	3.7	90	31.7	31.6	31.4	31.1	30.9	30.7	30.6	30.7	30.8	30.9	31.1	31.1	29												

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	36.6	36.4	36.1	35.8	35.5	35.3	35.1	35.1	35.3	35.4	35.6	35.6	-43	00.0	00.0	00.0	00.0	00.0	00.1	00.2	00.2	00.3	00.3	00.2	00.2
Ras Alhague	2.1	96	13.7	13.5	13.3	13.1	12.9	12.7	12.7	12.7	12.8	12.9	13.0	13.0	12	33.3	33.2	33.1	33.1	33.2	33.3	33.4	33.4	33.5	33.5	33.4	33.4
Shaula	1.6	96	32.5	32.2	32.0	31.7	31.4	31.2	31.1	31.1	31.2	31.4	31.5	31.5	-37	06.4	06.4	06.4	06.4	06.5	06.5	06.5	06.6	06.6	06.6	06.6	06.5
Choo	2.9	96	58.5	58.3	57.9	57.6	57.3	57.0	56.9	56.9	57.1	57.3	57.4	57.4	-49	52.8	52.7	52.7	52.7	52.8	52.8	52.9	53.0	53.0	53.0	53.0	52.9
Delta Ara	3.6	97	09.1	08.8	08.4	07.9	07.5	07.2	07.1	07.1	07.3	07.6	07.8	07.8	-60	41.2	41.1	41.1	41.1	41.2	41.3	41.4	41.5	41.6	41.6	41.5	41.4
Lesath	2.7	97	15.1	14.9	14.6	14.3	14.1	13.9	13.8	13.8	13.9	14.0	14.1	14.1	-37	18.0	17.9	17.9	18.0	18.0	18.0	18.1	18.1	18.2	18.2	18.1	18.1
Rastaban	2.8	97	22.8	22.6	22.3	22.0	21.7	21.5	21.5	21.6	21.8	22.1	22.3	22.4	52	17.7	17.6	17.5	17.5	17.6	17.7	17.9	18.0	18.1	18.1	18.0	17.8
Gamma Ara	3.3	98	34.9	34.6	34.3	33.8	33.5	33.2	33.1	33.1	33.3	33.5	33.7	33.7	-56	22.9	22.8	22.8	22.8	22.9	23.0	23.1	23.2	23.2	23.2	23.1	23.0
Beta Ara	2.8	98	36.4	36.1	35.7	35.3	35.0	34.7	34.6	34.6	34.8	35.0	35.2	35.2	-55	32.0	31.9	31.9	31.9	32.0	32.1	32.2	32.3	32.3	32.3	32.3	32.2
Theta Ophiuchus	3.3	99	26.8	26.5	26.3	26.0	25.8	25.6	25.6	25.5	25.6	25.8	25.9	25.9	-25	00.3	00.3	00.3	00.3	00.3	00.3	00.3	00.4	00.4	00.4	00.3	00.3
Pi Hercules	3.1	101	12.7	12.5	12.3	12.0	11.8	11.7	11.6	11.7	11.9	12.0	12.2	12.2	36	48.1	48.0	47.9	47.9	48.0	48.1	48.2	48.4	48.4	48.4	48.3	48.2
Sarin	3.1	101	12.6	12.4	12.1	11.9	11.7	11.6	11.5	11.6	11.7	11.8	11.9	12.0	24	49.9	49.8	49.7	49.7	49.8	49.9	50.0	50.1	50.2	50.2	50.1	50.0
Ras Algethi	2.7	101	18.0	17.9	17.6	17.4	17.2	17.1	17.0	17.0	17.1	17.3	17.4	17.4	14	23.0	22.9	22.8	22.8	22.9	23.0	23.1	23.2	23.2	23.2	23.1	23.0
Eta Scorpius	3.3	101	54.1	53.9	53.5	53.2	53.0	52.8	52.7	52.7	52.8	53.0	53.1	53.1	-43	14.7	14.6	14.6	14.7	14.7	14.8	14.8	14.9	14.9	14.9	14.9	14.8
Sabik	2.4	102	21.4	21.2	21.0	20.7	20.5	20.4	20.3	20.3	20.4	20.5	20.6	20.6	-15	43.8	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9
Aldhibah	3.2	102	48.8	48.5	48.1	47.6	47.3	47.1	47.2	47.4	47.8	48.2	48.6	48.8	65	42.4	42.2	42.1	42.2	42.3	42.4	42.6	42.7	42.8	42.7	42.6	42.5
Epsilon Hercules	3.9	104	53.9	53.7	53.4	53.2	53.0	52.9	52.8	52.9	53.0	53.2	53.3	53.3	30	55.1	54.9	54.9	54.9	54.9	55.1	55.2	55.3	55.3	55.3	55.2	55.1
Zeta Ara	3.1	105	16.6	16.3	15.9	15.5	15.2	14.9	14.8	14.9	15.1	15.3	15.5	15.5	-55	59.7	59.7	59.7	59.7	59.8	59.9	00.0	00.1	00.1	00.1	00.0	59.9
Kappa Ophiuchus	3.2	105	32.6	32.4	32.2	32.0	31.8	31.7	31.6	31.6	31.7	31.9	32.0	32.0	9	22.0	21.9	21.9	21.8	21.9	22.0	22.1	22.1	22.1	22.1	22.1	22.0
Zeta Scorpius	3.6	106	17.7	17.4	17.1	16.8	16.6	16.4	16.3	16.3	16.5	16.7	16.8	16.7	-42	22.1	22.0	22.1	22.1	22.2	22.2	22.3	22.3	22.4	22.3	22.3	22.2
Mu2 Scorpius	3.6	106	51.6	51.3	51.0	50.7	50.5	50.3	50.2	50.3	50.4	50.5	50.6	50.6	-38	01.4	01.4	01.5	01.5	01.5	01.6	01.6	01.7	01.7	01.7	01.6	01.6
Mu1 Scorpius	3.0	106	58.5	58.3	58.0	57.7	57.5	57.3	57.2	57.2	57.4	57.5	57.6	57.6	-38	03.2	03.2	03.2	03.3	03.3	03.4	03.4	03.5	03.5	03.5	03.4	03.4
Epsilon Scorpius	2.3	107	24.3	24.0	23.8	23.5	23.3	23.1	23.0	23.0	23.2	23.3	23.4	23.4	-34	18.0	18.0	18.0	18.1	18.1	18.2	18.2	18.2	18.3	18.2	18.2	18.2
Eta Ara	3.8	107	29.0	28.6	28.2	27.7	27.4	27.2	27.1	27.2	27.4	27.6	27.8	27.8	-59	02.8	02.8	02.8	02.8	02.9	03.0	03.1	03.2	03.3	03.2	03.2	03.1
Atria	1.9	107	45.0	44.4	43.9	43.3	42.8	42.5	42.4	42.5	42.9	43.3	43.5	43.5	-69	02.0	01.9	01.9	02.0	02.1	02.2	02.3	02.4	02.5	02.5	02.4	02.3
Eta Hercules	3.5	109	15.0	14.8	14.5	14.3	14.1	13.9	13.9	14.0	14.2	14.4	14.5	14.5	38	54.7	54.6	54.5	54.5	54.6	54.7	54.9	55.0	55.0	55.0	54.9	54.7
Zeta Hercules	2.9	109	38.9	38.7	38.5	38.2	38.0	37.9	37.9	38.0	38.1	38.3	38.4	38.4	31	35.6	35.4	35.4	35.4	35.5	35.6	35.7	35.8	35.8	35.8	35.7	35.6
Zeta Ophiuchus	2.6	110	39.8	39.6	39.4	39.1	38.9	38.8	38.8	38.8	38.9	39.0	39.1	39.1	-10	34.5	34.6	34.7	34.7	34.7	34.7	34.6	34.6	34.6	34.6	34.6	34.6
Tau Scorpius	2.8	110	58.6	58.4	58.1	57.8	57.6	57.5	57.4	57.5	57.6	57.7	57.8	57.7	-28	13.4	13.5	13.5	13.5	13.6	13.6	13.6	13.7	13.7	13.6	13.6	13.6
Gamma Apus	3.9	111	31.2	30.2	29.2	28.2	27.4	26.9	26.9	27.2	28.0	28.7	29.2	29.2	-78	54.2	54.1	54.1	54.2	54.3	54.5	54.6	54.7	54.8	54.8	54.6	54.5
Marfik	3.9	112	13.7	13.5	13.3	13.1	12.9	12.8	12.8	12.8	12.9	13.0	13.1	13.1	1	58.4	58.3	58.3	58.3	58.3	58.4	58.4	58.5	58.5	58.5	58.4	58.4
Kornephoros	2.8	112	24.6	24.4	24.1	23.9	23.7	23.6	23.6	23.7	23.8	23.9	24.0	24.0	21	28.7	28.6	28.5	28.5	28.6	28.7	28.8	28.9	28.9	28.9	28.8	28.7
Antares	1.1	112	35.8	35.5	35.3	35.0	34.8	34.7	34.6	34.7	34.8	34.9	35.0	34.9	-26	26.4	26.5	26.5	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
Eta Draco	2.7	113	59.9	59.6	59.2	58.8	58.6	58.5	58.6	58.8	59.1	59.5	59.7	59.8	61	30.1	29.9	29.9	29.9	30.0	30.2	30.3	30.4	30.5	30.4	30.3	30.1
Gamma Hercules	3.7	114	29.0	28.8	28.5	28.3	28.2	28.1	28.0	28.1	28.2	28.4	28.4	28.4	19	08.5	08.4	08.3	08.3	08.4	08.5	08.6	08.6	08.7	08.6	08.6	08.5
Alniyat	2.9	114	39.1	38.8	38.6	38.3	38.1	38.0	38.0	38.0	38.1	38.2	38.3	38.2	-25	36.1	36.2	36.2	36.2	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3
Tau Hercules	3.9	115	02.6	02.3	02.0	01.8	01.6	01.5	01.5	01.6	01.8	02.0	02.2	02.2	46	18.0	17.9	17.8	17.9	18.0	18.1	18.2	18.3	18.4	18.3	18.2	18.0
Yed Posterior	3.2	115	22.5	22.3	22.0	21.8	21.6	21.5	21.5	21.5	21.6	21.7	21.8	21.8	-4	42.2	42.3	42.3	42.3	42.3	42.3	42.3	42.2	42.2	42.2	42.2	42.3
Atria	3.9	116	04.0	03.5	03.1	02.6	02.2	02.0	02.0	02.1	02.4	02.7	02.9	02.8	-63	41.6	41.6	41.6	41.7	41.8	41.9	42.0	42.1	42.1	42.1	42.0	41.9
Yed Prior	2.7	116	22.1	21.9	21.7	21.5	21.3	21.2	21.2	21.2	21.3	21.4	21.5	21.4	-3	42.3	42.4	42.5	42.5	42.5	42.4	42.4	42.4	42.4	42.4	42.4	42.4
Graffias	2.6	118	35.5	35.2	35.0	34.7	34.6	34.5	34.4	34.5	34.6	34.7	34.7	34.7	-19	49.0	49.0	49.1	49.1	49.1	49.2	49.2	49.2	49.2	49.1	49.1	49.1
Dschubba	2.3	119	52.0	51.7	51.5	51.2	51.1	51.0	50.9	51.0	51.1	51.2	51.2	51.2	-22	38.0	38.0	38.1	38.1	38.1	38.2	38.2	38.2	38.2	38.2	38.1	38.1
Eta Lupus	3.4	119	54.8	54.5	54.2	53.9	53.7	53.6	53.6	53.7	53.8	53.9	54.0	53.9	-38	24.4	24.4	24.5	24.5	24.6	24.7	24.7	24.8	24.8	24.7	24.7	24.6
Pi Scorpius	2.9	120	14.1	13.9	13.6	13.4	13.2	13.1	13.0	13.1	13.2	13.3	13.4	13.3	-26	07.5	07.5	07.6	07.6	07.7	07.7	07.7	07.8	07.7	07.7	07.7	07.7
Gamma Serpens	3.9	120	50.9	50.6	50.4	50.2	50.0	49.9	49.9	50.0	50.1	50.2	50.3	50.3	15	38.8	38.7	38.6	38.6	38.7	38.8	38.9	38.9	38.9	38.9	38.8	38.7
Beta Triang' Aust'	2.8	121	08.5	08.1	07.6	07.2	06.8	06.7	06.7	06.8	07.1	07.4	07.5	07.4	-63	26.4	26.4	26.4	26.5	26.6	26.8	26.9	27.0	27.0	26.9	26.8	26.7
Epsilon Serpens	3.7	122	15.2	15.0	14.7	14.5	14.4	14.3	14.3	14.3	14.4	14.6	14.6	14.5	4	27.9	27.8	27.7	27.7	27.7	27.8	27.8	27.9	27.9	27.9	27.8	27.8
Mu Serpens	3.6	122	33.0	32.8	32.5	32.3	32.2	32.1	32.1	32.1	32.2	32.3	32.4	32.3	-3	26.6	26.7	26.7	26.8	26.7	26.7	26.7	26.6</				

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	29.6	29.3	29.1	28.8	28.7	28.6	28.6	28.7	28.8	28.9	28.9	28.8	-36	16.4	16.5	16.5	16.6	16.7	16.8	16.8	16.8	16.8	16.8	16.7	16.7	
Delta Lupus	3.2	129	36.1	35.7	35.4	35.2	35.0	34.9	34.9	35.0	35.2	35.3	35.3	35.2	-40	39.6	39.6	39.7	39.8	39.9	39.9	40.0	40.0	40.0	40.0	39.9	39.8	
Pherkad	3.0	129	49.7	49.1	48.6	48.1	47.9	47.9	48.2	48.7	49.2	49.6	49.9	49.9	71	48.9	48.8	48.8	48.9	49.0	49.2	49.3	49.3	49.3	49.2	49.0	48.8	
Gamma Triang' Aust'	2.9	130	11.8	11.2	10.7	10.2	09.9	09.8	09.8	10.1	10.5	10.8	10.9	10.7	-68	41.4	41.4	41.5	41.6	41.7	41.9	42.0	42.1	42.1	42.0	41.9	41.8	
Zuben Elschemali	2.6	130	42.1	41.8	41.6	41.4	41.3	41.2	41.2	41.3	41.4	41.5	41.5	41.4	-9	23.8	23.9	24.0	24.0	24.1	24.0	24.0	24.0	24.0	24.0	24.0	24.0	
Delta Bootes	3.5	131	05.4	05.1	04.9	04.7	04.6	04.5	04.6	04.7	04.8	04.9	05.0	04.9	33	17.8	17.7	17.7	17.7	17.8	17.9	18.0	18.1	18.1	18.0	17.9	17.7	
Zeta Lupus	3.4	131	52.1	51.7	51.4	51.1	50.9	50.8	50.8	50.9	51.1	51.3	51.3	51.2	-52	06.7	06.7	06.8	06.9	07.0	07.1	07.2	07.2	07.2	07.1	07.1	07.0	
Kappa Lupus	3.9	131	57.4	57.1	56.8	56.5	56.3	56.2	56.2	56.3	56.5	56.7	56.7	56.6	-48	45.0	45.0	45.1	45.2	45.3	45.4	45.5	45.5	45.5	45.4	45.4	45.3	
Brachium	3.3	133	55.9	55.6	55.4	55.2	55.0	55.0	55.0	55.0	55.2	55.3	55.3	55.2	-25	17.8	17.8	17.9	18.0	18.0	18.1	18.1	18.1	18.1	18.0	18.0	18.0	
Nekkar	3.5	134	28.9	28.6	28.3	28.1	28.0	28.0	28.1	28.2	28.3	28.5	28.5	28.5	40	22.3	22.2	22.1	22.2	22.3	22.4	22.5	22.6	22.6	22.5	22.3	22.2	
Ke Kwan	3.1	135	09.2	08.9	08.6	08.4	08.2	08.1	08.2	08.3	08.4	08.5	08.6	08.4	-42	07.0	07.1	07.2	07.3	07.4	07.5	07.5	07.5	07.5	07.4	07.4	07.3	
Beta Lupus	2.7	135	18.6	18.3	18.0	17.8	17.6	17.6	17.6	17.7	17.8	18.0	18.0	17.8	-43	08.8	08.9	09.0	09.1	09.2	09.2	09.3	09.3	09.3	09.2	09.2	09.1	
Zuben El Genubi	2.8	137	13.9	13.7	13.4	13.2	13.1	13.1	13.1	13.1	13.3	13.3	13.3	13.2	-16	03.4	03.5	03.6	03.7	03.7	03.7	03.7	03.7	03.7	03.7	03.6	03.7	
Kochab	2.1	137	20.0	19.4	18.7	18.2	18.1	18.2	18.6	19.1	19.7	20.2	20.4	20.3	74	08.1	08.0	08.0	08.1	08.2	08.4	08.5	08.5	08.4	08.3	08.1	07.9	
Alpha Apus	3.8	137	56.2	55.1	54.2	53.4	53.0	52.9	53.3	53.9	54.7	55.2	55.4	55.0	-79	03.4	03.4	03.5	03.6	03.8	04.0	04.1	04.2	04.1	04.0	03.9	03.8	
109 Virgo	3.7	138	23.6	23.3	23.1	22.9	22.8	22.8	22.8	22.9	23.0	23.1	23.1	23.0	1	52.5	52.4	52.4	52.3	52.4	52.4	52.5	52.5	52.5	52.5	52.4	52.3	
Mirak	2.4	138	42.9	42.6	42.4	42.2	42.1	42.1	42.1	42.2	42.4	42.5	42.5	42.4	27	03.3	03.2	03.1	03.2	03.3	03.4	03.5	03.5	03.5	03.4	03.3	03.1	
Rijl al Awwa	3.9	139	11.3	11.1	10.8	10.6	10.5	10.5	10.5	10.6	10.7	10.8	10.8	10.7	-5	40.5	40.6	40.7	40.7	40.7	40.7	40.7	40.7	40.6	40.6	40.7	40.7	
Alpha Circinus	3.2	139	18.4	17.8	17.4	17.0	16.8	16.8	16.9	17.1	17.4	17.7	17.7	17.5	-64	59.3	59.3	59.4	59.5	59.7	59.8	59.9	00.0	00.0	59.9	59.7	59.6	
Men	2.3	139	27.6	27.3	27.0	26.7	26.6	26.5	26.6	26.7	26.9	27.0	27.0	26.8	-47	24.1	24.2	24.2	24.4	24.5	24.6	24.7	24.7	24.6	24.6	24.5	24.4	
Zeta Bootes	3.8	139	40.2	40.0	39.8	39.6	39.5	39.5	39.5	39.6	39.7	39.8	39.8	39.6	13	42.6	42.5	42.4	42.4	42.5	42.6	42.6	42.7	42.7	42.6	42.5	42.4	
Rigel Kentaurus	0.0	140	02.5	02.1	01.7	01.4	01.2	01.2	01.3	01.5	01.8	02.0	02.0	01.8	-60	50.8	50.8	50.9	51.1	51.2	51.3	51.4	51.4	51.4	51.3	51.2	51.1	
Eta Centaurus	2.3	141	04.1	03.8	03.5	03.3	03.1	03.1	03.1	03.2	03.4	03.5	03.5	03.3	-42	10.3	10.4	10.5	10.6	10.7	10.8	10.8	10.9	10.8	10.7	10.7	10.6	
Seginus	3.0	141	56.7	56.4	56.2	56.0	55.9	55.9	56.0	56.1	56.2	56.4	56.4	56.3	38	17.3	17.1	17.1	17.2	17.3	17.4	17.5	17.5	17.5	17.4	17.3	17.1	
Rho Bootes	3.6	142	00.3	00.0	59.8	59.6	59.5	59.5	59.5	59.6	59.8	59.9	59.9	59.8	30	21.1	21.0	20.9	21.0	21.1	21.2	21.3	21.3	21.3	21.2	21.1	20.9	
Lambda Bootes	3.6	145	05.6	05.3	05.0	04.7	04.6	04.6	04.7	04.8	05.0	05.1	05.0	04.9	-46	04.4	04.4	04.5	04.7	04.8	04.9	04.9	04.9	04.9	04.8	04.7	04.7	
Arcturus	0.2	146	02.6	02.4	02.2	02.0	01.9	01.9	02.0	02.1	02.2	02.2	02.2	02.1	19	09.6	09.5	09.4	09.5	09.5	09.6	09.7	09.7	09.7	09.6	09.5	09.4	
Menkent	2.1	148	16.7	16.3	16.1	15.9	15.8	15.8	15.9	16.0	16.1	16.2	16.1	16.0	-36	23.2	23.3	23.4	23.5	23.6	23.6	23.7	23.7	23.6	23.6	23.5	23.5	
Pi Hydra	3.3	148	21.4	21.1	20.9	20.7	20.6	20.6	20.6	20.7	20.8	20.9	20.9	20.7	-26	41.9	42.0	42.1	42.2	42.3	42.3	42.4	42.3	42.3	42.3	42.2	42.2	
Thuban	3.7	148	52.8	52.3	51.9	51.6	51.6	51.7	51.9	52.2	52.5	52.7	52.8	52.6	64	21.1	21.1	21.1	21.2	21.3	21.5	21.6	21.6	21.5	21.3	21.1	21.0	
Agena	0.6	148	59.0	58.6	58.2	57.9	57.8	57.8	58.0	58.2	58.4	58.6	58.5	58.3	-60	23.2	23.3	23.4	23.6	23.7	23.9	23.9	23.9	23.9	23.8	23.7	23.6	
Zeta Centaurus	2.5	151	03.6	03.3	03.0	02.8	02.7	02.7	02.8	02.9	03.1	03.2	03.1	02.9	-47	18.2	18.3	18.4	18.6	18.7	18.8	18.8	18.8	18.8	18.7	18.6	18.5	
Muphrid	2.7	151	17.1	16.9	16.7	16.5	16.4	16.5	16.5	16.6	16.7	16.8	16.7	16.6	18	22.6	22.5	22.4	22.4	22.5	22.6	22.6	22.7	22.7	22.6	22.5	22.4	
Mu Centaurus	3.5	152	32.6	32.2	32.0	31.8	31.7	31.7	31.8	31.9	32.1	32.1	32.1	31.9	-42	29.4	29.5	29.6	29.7	29.8	29.9	29.9	29.9	29.9	29.9	29.8	29.7	29.7
Nu Centaurus	3.4	152	34.3	33.9	33.7	33.5	33.4	33.4	33.5	33.6	33.7	33.8	33.8	33.6	-41	42.2	42.3	42.4	42.6	42.7	42.7	42.8	42.8	42.7	42.6	42.6	42.5	
Alkaid	1.9	153	04.7	04.4	04.1	03.9	03.9	03.9	04.1	04.3	04.4	04.5	04.5	04.3	49	17.4	17.3	17.3	17.4	17.5	17.6	17.7	17.7	17.7	17.5	17.4	17.2	
Epsilon Centaurus	2.3	154	58.4	58.0	57.7	57.5	57.4	57.4	57.5	57.7	57.9	58.0	57.9	57.7	-53	28.9	29.0	29.1	29.3	29.4	29.5	29.6	29.6	29.5	29.4	29.3	29.2	
Heze	3.4	156	16.8	16.6	16.4	16.2	16.2	16.2	16.2	16.3	16.4	16.4	16.4	16.2	-0	37.0	37.1	37.1	37.2	37.1	37.1	37.1	37.1	37.1	37.0	37.1	37.2	
d Centaurus	3.9	157	11.2	10.9	10.7	10.5	10.5	10.5	10.6	10.7	10.8	10.9	10.8	10.6	-39	25.4	25.5	25.7	25.8	25.9	26.0	26.0	26.0	25.9	25.8	25.8	25.7	
Spica	1.1	158	39.2	39.0	38.8	38.6	38.6	38.6	38.6	38.7	38.8	38.8	38.8	38.6	-11	10.8	10.9	11.0	11.1	11.1	11.1	11.1	11.1	11.0	11.0	11.0	11.1	
Mizar	2.2	158	58.8	58.5	58.2	58.0	58.0	58.1	58.3	58.5	58.6	58.7	58.7	58.5	54	54.0	54.0	54.0	54.1	54.2	54.4	54.4	54.4	54.3	54.3	54.2	54.0	53.8
Iota Centaurus	2.8	159	48.0	47.7	47.5	47.3	47.3	47.3	47.4	47.5	47.6	47.7	47.6	47.4	-36	43.8	43.9	44.0	44.1	44.2	44.3	44.3	44.3	44.2	44.1	44.1	44.1	
Gamma Hydra	3.0	160	13.2	12.9	12.7	12.6	12.6	12.6	12.6	12.7	12.8	12.8	12.8	12.6	-23	11.4	11.5	11										

2004

Stars

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	36.6	36.2	36.0	35.9	35.9	36.1	36.3	36.5	36.7	36.8	36.6	36.2	-60	25.0	25.2	25.3	25.5	25.7	25.8	25.8	25.7	25.6	25.5	25.4	25.4	
Zaniah	3.9	174	58.5	58.3	58.1	58.0	58.0	58.1	58.1	58.2	58.2	58.2	58.1	57.9	-0	41.3	41.4	41.5	41.5	41.5	41.5	41.4	41.4	41.4	41.4	41.4	41.5	41.5
Gienah Ghurab	2.6	176	00.0	59.8	59.6	59.5	59.5	59.6	59.7	59.7	59.8	59.8	59.6	59.4	-17	33.7	33.8	33.9	34.0	34.0	34.1	34.0	34.0	34.0	33.9	33.9	33.9	34.0
Megrez	3.3	176	05.6	05.2	05.0	04.9	05.0	05.1	05.3	05.5	05.6	05.6	05.5	05.2	57	00.4	00.4	00.4	00.6	00.7	00.8	00.8	00.8	00.6	00.5	00.3	00.1	
Delta Crux	2.8	176	09.9	09.5	09.3	09.2	09.2	09.4	09.6	09.8	10.0	10.0	09.8	09.5	-58	45.9	46.0	46.2	46.4	46.5	46.6	46.6	46.6	46.5	46.4	46.3	46.2	
Minkar	3.0	177	25.2	25.0	24.8	24.7	24.8	24.8	24.9	25.0	25.0	25.0	24.9	24.7	-22	38.3	38.5	38.6	38.7	38.7	38.7	38.7	38.7	38.6	38.6	38.6	38.6	
Delta Centaurus	2.6	177	51.7	51.4	51.2	51.1	51.2	51.3	51.5	51.6	51.7	51.7	51.6	51.3	-50	44.4	44.5	44.6	44.8	44.9	45.0	45.0	45.0	44.9	44.8	44.7	44.7	
Phad	2.4	181	29.4	29.0	28.8	28.7	28.8	29.0	29.1	29.3	29.3	29.3	29.1	28.8	53	40.1	40.1	40.2	40.3	40.4	40.5	40.5	40.5	40.4	40.2	40.0	39.9	
Zavijava	3.6	182	16.6	16.3	16.2	16.1	16.1	16.2	16.3	16.3	16.3	16.3	16.2	16.0	1	44.6	44.5	44.4	44.4	44.4	44.4	44.5	44.5	44.5	44.5	44.4	44.3	
Denebola	2.1	182	41.1	40.9	40.7	40.7	40.7	40.8	40.9	40.9	40.9	40.9	40.8	40.6	14	33.0	32.9	32.9	32.9	32.9	33.0	33.0	33.0	33.0	32.9	32.8	32.7	
Chi Ursae Major	3.7	183	26.1	25.8	25.6	25.5	25.6	25.7	25.8	26.0	26.0	26.0	25.8	25.5	47	45.3	45.2	45.3	45.4	45.5	45.6	45.6	45.5	45.4	45.3	45.1	45.0	
Lambda Musca	3.6	183	33.2	32.8	32.6	32.5	32.7	32.9	33.3	33.6	33.7	33.7	33.5	33.0	-66	44.7	44.8	45.0	45.2	45.3	45.4	45.4	45.4	45.3	45.1	45.0	45.0	
Lambda Centaurus	3.1	186	00.6	00.3	00.1	00.0	00.2	00.4	00.7	00.9	01.1	01.0	00.8	00.4	-63	02.1	02.3	02.5	02.7	02.8	02.9	02.9	02.8	02.7	02.6	02.4	02.4	
Xi Hydra	3.5	186	42.1	41.9	41.8	41.7	41.8	41.9	42.0	42.0	42.1	42.0	41.9	41.6	-31	52.5	52.7	52.8	52.9	53.0	53.0	53.0	53.0	52.9	52.8	52.8	52.8	
Giauzar	3.8	187	05.1	04.6	04.3	04.3	04.5	04.8	05.2	05.4	05.5	05.4	05.2	04.7	69	18.3	18.3	18.4	18.6	18.7	18.8	18.8	18.7	18.5	18.3	18.1	18.0	
Pi Centaurus	3.9	189	42.3	41.9	41.8	41.8	41.9	42.1	42.3	42.4	42.5	42.5	42.2	41.9	-54	30.4	30.6	30.8	30.9	31.1	31.1	31.1	31.0	30.9	30.8	30.7	30.7	
Delta Crater	3.6	190	07.0	06.8	06.6	06.6	06.6	06.7	06.8	06.9	06.9	06.8	06.7	06.4	-14	47.9	48.0	48.1	48.2	48.2	48.2	48.2	48.1	48.0	48.0	48.0	48.0	
Alula Borealis	3.5	190	19.6	19.3	19.2	19.1	19.2	19.3	19.4	19.5	19.5	19.4	19.2	19.0	33	04.2	04.2	04.2	04.3	04.4	04.4	04.5	04.4	04.3	04.2	04.1	04.0	
Alula Australis	3.8	190	24.1	23.8	23.7	23.6	23.7	23.8	23.9	24.0	24.0	23.9	23.7	23.5	31	30.3	30.3	30.3	30.4	30.4	30.5	30.5	30.5	30.4	30.3	30.2	30.0	
Chort	3.3	191	23.3	23.1	22.9	22.9	23.0	23.0	23.1	23.2	23.2	23.1	22.9	22.7	15	24.4	24.4	24.4	24.4	24.4	24.5	24.5	24.5	24.5	24.4	24.3	24.2	
Zozma	2.6	191	25.2	25.0	24.9	24.8	24.9	25.0	25.0	25.1	25.1	25.0	24.8	24.6	20	30.1	30.0	30.0	30.0	30.1	30.1	30.2	30.1	30.1	30.0	29.9	29.8	
Psi Ursae Major	3.0	192	31.6	31.3	31.2	31.2	31.3	31.4	31.5	31.6	31.6	31.5	31.3	31.0	44	28.5	28.5	28.5	28.6	28.7	28.8	28.8	28.7	28.6	28.5	28.3	28.2	
BS 4337	3.9	192	48.6	48.3	48.2	48.2	48.4	48.6	48.8	49.0	49.1	49.0	48.7	48.4	-58	59.4	59.6	59.8	00.0	00.1	00.1	00.1	00.0	59.9	59.8	59.7	59.7	
Dubhe	1.8	194	00.2	59.8	59.6	59.6	59.8	00.0	00.2	00.4	00.4	00.3	00.0	59.6	61	43.6	43.6	43.7	43.8	44.0	44.0	44.0	43.9	43.7	43.6	43.4	43.3	
Merak	2.4	194	28.6	28.3	28.1	28.1	28.2	28.4	28.6	28.7	28.7	28.6	28.4	28.0	56	21.5	21.5	21.6	21.7	21.8	21.9	21.9	21.8	21.6	21.5	21.3	21.2	
u Carina	3.8	196	35.1	34.8	34.7	34.8	34.9	35.2	35.4	35.6	35.6	35.6	35.3	34.9	-58	52.1	52.3	52.5	52.6	52.8	52.8	52.8	52.7	52.5	52.4	52.3	52.3	
Praecipula	3.8	196	36.9	36.7	36.6	36.6	36.6	36.7	36.8	36.9	36.9	36.8	36.6	36.3	34	11.5	11.5	11.5	11.6	11.7	11.7	11.7	11.7	11.6	11.5	11.4	11.2	
Nu Hydra	3.1	197	32.7	32.5	32.4	32.4	32.5	32.6	32.6	32.7	32.7	32.6	32.4	32.2	-16	12.7	12.8	12.9	13.0	13.0	13.0	13.0	12.9	12.9	12.8	12.9	12.9	
Mu Velorum	2.7	198	15.9	15.6	15.5	15.6	15.7	15.9	16.0	16.1	16.2	16.1	15.8	15.5	-49	26.2	26.3	26.5	26.7	26.8	26.8	26.8	26.7	26.5	26.4	26.4	26.4	
Theta Carina	2.7	199	13.4	13.1	13.0	13.1	13.3	13.6	13.9	14.1	14.2	14.1	13.8	13.3	-64	24.6	24.7	24.9	25.1	25.2	25.3	25.2	25.1	25.0	24.9	24.8	24.8	
Rho Leo	3.9	201	44.7	44.5	44.4	44.4	44.4	44.5	44.6	44.6	44.6	44.5	44.3	44.1	9	17.2	17.1	17.1	17.1	17.1	17.1	17.2	17.2	17.2	17.1	17.1	17.0	
BS 4140	3.4	201	57.4	57.1	57.0	57.1	57.4	57.6	57.9	58.1	58.1	58.0	57.7	57.3	-61	42.0	42.2	42.4	42.5	42.6	42.7	42.7	42.5	42.4	42.3	42.2	42.2	
BS 4114	3.8	202	59.5	59.3	59.2	59.3	59.5	59.7	59.9	00.1	00.1	00.0	59.7	59.3	-58	45.2	45.4	45.4	45.6	45.8	45.9	45.9	45.8	45.6	45.5	45.5	45.4	45.5
Mu Hydra	3.8	203	25.7	25.6	25.5	25.5	25.6	25.7	25.7	25.8	25.7	25.7	25.5	25.2	-16	51.2	51.4	51.5	51.5	51.6	51.6	51.5	51.5	51.4	51.3	51.4	51.4	
Tania Australis	3.1	204	21.4	21.1	21.0	21.1	21.2	21.3	21.4	21.4	21.4	21.3	21.0	20.7	41	28.7	28.7	28.7	28.8	28.9	28.9	28.9	28.8	28.7	28.6	28.5	28.4	
Algieba	2.0	204	57.1	56.9	56.8	56.8	56.9	57.0	57.0	57.0	57.0	56.9	56.7	56.4	19	49.3	49.2	49.2	49.3	49.3	49.3	49.3	49.3	49.3	49.2	49.1	49.0	
Tania Borealis	3.4	205	39.8	39.6	39.5	39.5	39.6	39.8	39.9	39.9	39.8	39.7	39.4	39.1	42	53.6	53.6	53.6	53.7	53.8	53.8	53.8	53.7	53.6	53.5	53.4	53.3	
BS4050	3.4	205	41.6	41.4	41.3	41.4	41.6	41.9	42.2	42.3	42.4	42.2	41.9	41.5	-61	20.8	21.0	21.2	21.3	21.4	21.5	21.4	21.3	21.2	21.0	21.0	21.0	
Adhafera	3.4	205	46.3	46.1	46.0	46.0	46.1	46.2	46.2	46.2	46.2	46.1	45.9	45.6	23	23.8	23.8	23.8	23.8	23.9	23.9	23.9	23.9	23.9	23.8	23.7	23.6	
BS 4023	3.8	206	16.4	16.2	16.1	16.2	16.3	16.5	16.6	16.7	16.7	16.5	16.3	16.0	-42	08.2	08.4	08.6	08.7	08.8	08.8	08.7	08.6	08.5	08.4	08.4	08.4	
Omega Carina	3.3	206	32.3	31.9	31.9	32.1	32.4	32.9	33.3	33.5	33.6	33.4	33.0	32.4	-70	03.1	03.3	03.5	03.6	03.8	03.8	03.8	03.6	03.5	03.4	03.3	03.3	
Lambda Hydra	3.6	207	18.2	18.1	18.0	18.0	18.1	18.2	18.3	18.3	18.2	18.1	17.9	17.7	-02	22.3	22.4	22.5	22.6	22.6	22.6	22.5	22.5	22.4	22.4	22.4	22.4	
Regulus	1.4	207	51.2	51.0	50.9	51.0	51.0	51.1	51.2	51.2	51.1	51.0	50.8	50.6	11	56.9	56.8	56.8	56.8	56.8	56.9	56.9	56.9	56.9	56.8	56.8	56.7	
Eta Leo	3.5	208	06.7	06.5	06.4	06.5	06.5	06.6	06.7	06.7	06.6	06.5	06.3	06.1	16	44.6	44.5	44.5	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.5	44.4	
Tseen Ke	3.5	210	44.8	44.6	44.6	44.7	44.9	45.1	45.3	45.4	45.4	45.2	44.9	44.6	-54	34.9	35.1	35.3	35.4	35.5	35.5	35.4	35.3	35.2	35.1	35.0	35.1	
Rasalas	3.9	211	45.1	44.9	44.8	44.8	44.9	45.0	45.1	45.1	45.0	44.9	44.7	44.4	25	59.3	59.2	59.3	59.3	59.4	59.4	59.4	59.4	59.3	59.2	59.1	59.0	
Upsilon Ursae Major	3.8	212	10.6	10.3	10.2	10																						

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	41.7	41.6	41.6	41.8	42.1	42.4	42.6	42.7	42.6	42.4	42.0	41.7	-59	17.2	17.4	17.6	17.7	17.8	17.8	17.7	17.6	17.4	17.3	17.3	17.3
Theta Hydra	3.9	221	21.3	21.2	21.2	21.2	21.3	21.4	21.4	21.4	21.3	21.2	21.0	20.7	2	17.9	17.8	17.8	17.8	17.8	17.8	17.9	17.9	17.9	17.9	17.8	17.8
Miaplacidus	1.7	221	40.8	40.6	40.7	41.1	41.5	42.0	42.3	42.5	42.4	42.1	41.6	41.1	-69	43.7	43.9	44.1	44.2	44.3	44.3	44.2	44.1	43.9	43.8	43.7	43.8
Canopus	3.4	222	13.6	13.4	13.5	13.7	14.0	14.2	14.4	14.5	14.4	14.2	13.9	13.5	-58	58.7	58.9	59.1	59.2	59.3	59.3	59.2	59.0	58.9	58.8	58.7	58.8
Suhail	2.2	222	57.7	57.5	57.6	57.7	57.9	58.0	58.1	58.1	58.1	57.9	57.6	57.3	-43	26.7	26.9	27.0	27.1	27.2	27.1	27.1	26.9	26.8	26.7	26.7	26.8
BS 3614	3.8	223	55.4	55.3	55.3	55.4	55.6	55.8	55.9	56.0	55.9	55.7	55.4	55.1	-47	06.6	06.8	06.9	07.0	07.1	07.0	07.0	06.8	06.7	06.6	06.6	06.7
Talitha Australis	3.6	224	01.3	01.1	01.1	01.2	01.3	01.5	01.6	01.5	01.4	01.1	00.8	00.5	47	08.4	08.4	08.5	08.6	08.7	08.7	08.6	08.5	08.4	08.3	08.2	08.1
Talitha	3.1	225	07.6	07.4	07.3	07.4	07.6	07.8	07.8	07.8	07.6	07.4	07.1	06.7	48	01.5	01.6	01.7	01.7	01.8	01.8	01.7	01.6	01.5	01.4	01.3	01.3
Zeta Hydra	3.1	226	05.8	05.7	05.7	05.7	05.8	05.9	06.0	05.9	05.8	05.7	05.4	05.2	5	55.9	55.8	55.8	55.8	55.8	55.8	55.9	55.9	55.9	55.9	55.8	55.7
BS 3571	3.8	226	12.6	12.4	12.5	12.7	13.0	13.3	13.5	13.6	13.5	13.3	12.9	12.5	-60	39.3	39.5	39.7	39.8	39.9	39.8	39.7	39.6	39.4	39.3	39.3	39.4
Epsilon Hydra	3.4	228	15.1	15.0	14.9	15.0	15.1	15.2	15.2	15.2	15.1	14.9	14.7	14.4	6	24.3	24.3	24.2	24.2	24.2	24.3	24.3	24.3	24.3	24.3	24.3	24.2
Delta Vela	1.9	228	47.5	47.4	47.4	47.6	47.9	48.1	48.3	48.3	48.2	48.0	47.6	47.3	-54	43.2	43.3	43.5	43.6	43.7	43.6	43.5	43.4	43.2	43.1	43.1	43.2
Asellus Australis	3.9	228	46.2	46.1	46.0	46.1	46.2	46.3	46.3	46.3	46.2	46.0	45.8	45.5	18	08.4	08.4	08.4	08.4	08.4	08.5	08.5	08.5	08.4	08.4	08.3	08.2
Alpha Pyxis	3.7	229	03.5	03.4	03.4	03.6	03.7	03.8	03.9	03.9	03.8	03.6	03.4	03.1	-33	11.9	12.0	12.1	12.2	12.3	12.2	12.1	12.0	11.9	11.8	11.8	11.9
BS 3445	3.8	229	48.4	48.3	48.3	48.5	48.7	48.9	49.0	49.0	48.9	48.7	48.4	48.1	-46	39.5	39.7	39.9	40.0	40.0	40.0	39.9	39.7	39.6	39.5	39.5	39.6
Omicron Velorum	3.6	229	53.6	53.5	53.5	53.7	54.0	54.2	54.3	54.3	54.2	54.0	53.7	53.4	-62	55.9	56.1	56.3	56.4	56.4	56.4	56.3	56.1	56.0	55.9	55.9	56.0
Muscida	3.4	232	20.7	20.5	20.5	20.7	20.9	21.1	21.2	21.1	20.9	20.6	20.1	19.7	60	42.2	42.3	42.4	42.5	42.6	42.5	42.4	42.3	42.2	42.1	42.0	42.0
Beta Volans	3.8	233	32.7	32.6	32.8	33.1	33.5	33.9	34.1	34.2	34.1	33.8	33.3	32.9	-66	08.8	09.0	09.1	09.2	09.3	09.2	09.1	09.0	08.8	08.7	08.7	08.8
BS 3314	3.9	233	32.0	31.9	31.9	32.0	32.1	32.2	32.2	32.1	32.0	31.8	31.6	31.4	-3	55.1	55.2	55.2	55.2	55.2	55.2	55.1	55.1	55.0	55.0	55.1	55.2
Avior	2.0	234	20.6	20.6	20.7	20.9	21.2	21.5	21.7	21.7	21.6	21.3	20.9	20.6	-59	31.1	31.3	31.5	31.6	31.6	31.5	31.4	31.3	31.1	31.0	31.0	31.1
Altarf	3.5	235	48.9	48.8	48.8	48.9	49.0	49.1	49.1	49.0	48.9	48.7	48.5	48.2	9	10.5	10.4	10.4	10.4	10.4	10.4	10.5	10.5	10.5	10.5	10.4	10.3
Suhail	1.8	237	34.9	34.8	34.9	35.1	35.3	35.5	35.5	35.5	35.4	35.2	34.9	34.6	-47	20.7	20.9	21.0	21.1	21.1	21.1	21.0	20.8	20.7	20.6	20.6	20.7
Rho Puppis	2.8	238	04.1	04.0	04.1	04.2	04.3	04.4	04.5	04.4	04.3	04.1	03.8	03.6	-24	18.8	18.9	19.1	19.1	19.1	19.0	19.0	18.8	18.7	18.7	18.7	18.8
Naos	2.2	239	03.9	03.8	03.9	04.0	04.2	04.4	04.4	04.4	04.3	04.0	03.8	03.5	-40	00.7	00.9	01.0	01.1	01.1	01.0	00.9	00.8	00.6	00.6	00.6	00.7
Chi Carina	3.5	240	46.4	46.4	46.5	46.7	47.0	47.2	47.3	47.3	47.1	46.8	46.5	46.2	-52	59.4	59.6	59.7	59.8	59.8	59.7	59.6	59.5	59.3	59.2	59.3	59.4
BS 3080	3.7	241	54.4	54.4	54.4	54.6	54.8	54.9	55.0	54.9	54.8	54.6	54.3	54.0	-40	35.0	35.2	35.3	35.4	35.4	35.3	35.2	35.0	34.9	34.8	34.9	35.0
Asmidiske	3.3	242	37.9	37.8	37.9	38.0	38.1	38.2	38.2	38.2	38.0	37.8	37.6	37.4	-24	52.1	52.2	52.3	52.3	52.3	52.3	52.2	52.1	52.0	51.9	52.0	52.1
Pollux	1.2	243	36.4	36.3	36.4	36.5	36.6	36.7	36.7	36.6	36.4	36.2	35.9	35.6	28	01.0	01.0	01.1	01.1	01.1	01.1	01.1	01.1	01.0	01.0	00.9	00.9
c Puppis	3.6	243	38.8	38.7	38.8	39.0	39.1	39.3	39.3	39.3	39.1	38.9	38.6	38.4	-37	58.5	58.7	58.8	58.9	58.9	58.8	58.7	58.6	58.4	58.4	58.4	58.5
Kappa Gemini	3.6	243	49.5	49.4	49.4	49.5	49.7	49.7	49.7	49.6	49.5	49.2	49.0	48.7	24	23.3	23.3	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.3	23.3	23.2
Alpha Monoceros	3.9	244	38.3	38.2	38.2	38.3	38.5	38.6	38.5	38.5	38.3	38.1	37.9	37.7	-9	33.5	33.6	33.7	33.7	33.7	33.6	33.6	33.5	33.4	33.4	33.5	33.5
Procyon	0.4	245	07.2	07.1	07.1	07.3	07.4	07.4	07.4	07.3	07.2	07.0	06.7	06.5	5	13.0	12.9	12.9	12.9	12.9	12.9	13.0	13.0	13.0	13.0	13.0	12.9
Castor	1.6	246	17.0	16.9	17.0	17.1	17.2	17.3	17.3	17.2	17.0	16.7	16.5	16.2	31	52.8	52.8	52.9	52.9	52.9	52.9	52.9	52.8	52.8	52.8	52.7	52.7
Sigma Puppis	3.3	247	39.3	39.3	39.4	39.6	39.8	39.9	40.0	39.9	39.8	39.5	39.2	39.0	-43	18.4	18.6	18.7	18.8	18.8	18.7	18.6	18.4	18.3	18.2	18.2	18.4
Gomeisa	2.9	248	09.3	09.3	09.3	09.4	09.5	09.6	09.6	09.5	09.3	09.1	08.9	08.6	8	16.9	16.9	16.9	16.9	16.9	16.9	17.0	17.0	17.0	17.0	16.9	16.9
Iota Gemini	3.8	248	30.2	30.1	30.2	30.3	30.4	30.5	30.5	30.3	30.1	29.9	29.6	29.4	27	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.4	47.4	47.4
Aludra	2.5	248	56.0	55.9	56.0	56.2	56.3	56.4	56.4	56.3	56.2	56.0	55.7	55.5	-29	18.5	18.7	18.8	18.8	18.8	18.7	18.6	18.5	18.4	18.3	18.4	18.5
Wasat	3.5	249	54.4	54.3	54.4	54.5	54.6	54.7	54.6	54.5	54.3	54.1	53.9	53.6	21	58.6	58.5	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.5	58.5
Lambda Gemini	3.6	250	25.0	24.9	25.0	25.1	25.2	25.3	25.2	25.1	24.9	24.7	24.5	24.2	16	32.0	32.0	32.0	32.0	32.1	32.1	32.1	32.1	32.1	32.1	32.0	32.0
Pi Puppis	2.7	250	40.5	40.4	40.5	40.7	40.9	41.0	41.0	40.9	40.8	40.5	40.3	40.0	-37	06.2	06.3	06.4	06.5	06.4	06.4	06.2	06.1	06.0	05.9	06.0	06.1
Gamma Volans	3.8	252	48.3	48.4	48.8	49.3	49.8	50.2	50.4	50.4	50.1	49.6	49.1	48.7	-70	30.2	30.4	30.5	30.5	30.5	30.4	30.3	30.1	30.0	29.9	29.9	30.1
Wezen	1.8	252	51.5	51.4	51.5	51.7	51.8	51.9	51.9	51.8	51.6	51.4	51.2	50.9	-26	23.9	24.0	24.1	24.1	24.1	24.0	23.9	23.8	23.7	23.6	23.7	23.8
Omicron Canis Major	3.0	254	11.9	11.9	12.0	12.1	12.2	12.3	12.3	12.2	12.0	11.8	11.6	11.4	-23	50.3	50.4	50.5	50.5	50.5	50.4	50.3	50.2	50.1	50.0	50.1	50.2
Sigma Canis Major	3.5	254	31.6	31.6	31.7	31.8	32.0	32.0	32.0	31.9	31.8	31.5	31.3	31.1	-27	56.3	56.5	56.6	56.6	56.6	56.5	56.4	56.2	56.1	56.1	56.1	56.3
Adara	1.5	255	18.0	18.0	18.1	18.2	18.4	18.5	18.5	18.4	18.2	18.0	17.7	17.5	-28	58.6	58.7	58.8	58.8	58.8	58.7	58.6	58.4	58.3	58.3	58.4	58.5
Theta Gemini	3.6	256	44.0	44.0	44.0	44.2	44.3	44.4	44.3	44.1	43.9	43.7	43.4	43.1	33	57.4	57.5	57.5	57.5	57.5	57.5	57.5	57.4	57.4	57.4	57.4	57.4
Tau Puppis	2.9	257	29.0	29.1	29.2	29.5	29.7	29.9	29.9	29.8	29.6	29.3	29.0	28.8	-50	37.1	37.2	37.3	37.4	37.3	37.2	37.1	36.9	36.8	36.7	36.8	36.9
Kappa Canis Major	3.5	257	29.9	29.9	30.0	30.1	30.3	30.4	30.4	30.3	30.1	29.9	29.6	29.4	-32	30.7	30.8	30.9	31.0	30.9	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	59.9	59.9	00.0	00.2	00.3	00.3	00.2	00.0	59.7	59.5	59.2	58.9	37	12.9	12.9	12.9	13.0	12.9	12.9	12.8	12.8	12.8	12.8			
Menkalinan	1.9	270	02.5	02.4	02.6	02.7	02.9	02.9	02.8	02.6	02.3	02.0	01.7	01.4	44	57.0	57.0	57.1	57.1	57.1	57.0	56.9	56.9	56.9	56.9			
Prijipati	3.7	270	01.9	01.9	02.0	02.2	02.4	02.5	02.3	02.1	01.7	01.4	01.0	00.7	54	17.2	17.3	17.4	17.4	17.3	17.2	17.2	17.1	17.0	17.1	17.1		
Eta Columba	3.9	270	10.6	10.7	10.8	11.0	11.2	11.3	11.3	11.1	10.9	10.6	10.4	10.2	-42	48.9	49.0	49.1	49.1	49.0	48.9	48.7	48.6	48.5	48.7			
Eta Lepus	3.7	270	51.0	51.0	51.1	51.3	51.4	51.4	51.3	51.2	51.0	50.8	50.5	50.4	-14	10.0	10.1	10.1	10.1	10.1	10.0	09.9	09.8	09.7	09.8			
Betelgeuse	0.6	271	09.0	09.0	09.1	09.2	09.3	09.3	09.3	09.1	08.9	08.7	08.4	08.2	7	24.5	24.5	24.5	24.5	24.5	24.5	24.6	24.6	24.7	24.7	24.6		
Delta Lepus	3.8	272	07.4	07.4	07.5	07.7	07.8	07.8	07.8	07.6	07.4	07.2	06.9	06.8	-20	52.7	52.8	52.9	52.9	52.8	52.7	52.6	52.5	52.4	52.4	52.5		
Wezn	3.1	272	13.2	13.2	13.4	13.6	13.7	13.8	13.7	13.6	13.3	13.1	12.9	12.7	-35	46.0	46.1	46.2	46.2	46.1	46.0	45.8	45.7	45.6	45.6	45.8		
Saiph	2.1	273	00.6	00.6	00.7	00.9	01.0	01.0	00.9	00.8	00.6	00.3	00.1	59.9	-9	40.1	40.1	40.2	40.2	40.1	40.1	40.0	39.9	39.8	39.8	39.9		
Beta Pictor	3.9	273	08.8	08.9	09.2	09.4	09.6	09.7	09.7	09.5	09.3	09.0	08.7	08.5	-51	03.9	04.0	04.1	04.1	04.0	03.9	03.7	03.6	03.5	03.4	03.5	03.7	
Zeta Lepus	3.6	273	12.8	12.8	12.9	13.0	13.1	13.2	13.1	12.9	12.7	12.5	12.3	12.1	-14	49.2	49.3	49.3	49.3	49.3	49.2	49.1	49.0	48.9	48.9	49.0		
Gamma Lepus	3.6	273	50.3	50.4	50.5	50.6	50.7	50.8	50.7	50.6	50.3	50.1	49.9	49.7	-22	26.8	26.9	27.0	27.0	26.9	26.8	26.7	26.6	26.5	26.5	26.6		
Alnitak	1.7	274	45.4	45.4	45.5	45.7	45.8	45.8	45.7	45.5	45.3	45.1	44.9	44.7	-1	56.4	56.4	56.5	56.5	56.4	56.4	56.3	56.2	56.2	56.1	56.2	56.2	
Phact	2.7	275	02.8	02.9	03.0	03.2	03.3	03.4	03.3	03.1	02.9	02.7	02.5	02.3	-34	04.3	04.4	04.5	04.5	04.4	04.3	04.1	04.0	03.9	03.9	04.0	04.1	
Sigma Orion	3.8	275	15.6	15.7	15.7	15.9	16.0	16.0	15.9	15.7	15.5	15.3	15.1	14.9	-2	35.8	35.9	35.9	35.9	35.9	35.8	35.7	35.7	35.6	35.6	35.6	35.7	
Zeta Taurus	3.0	275	31.6	31.6	31.7	31.8	31.9	31.9	31.8	31.6	31.4	31.2	30.9	30.7	21	08.8	08.8	08.8	08.8	08.8	08.8	08.8	08.8	08.8	08.9	08.8	08.8	
Anilam	1.7	275	53.6	53.6	53.7	53.8	53.9	53.9	53.8	53.7	53.5	53.2	53.0	52.9	-1	11.9	12.0	12.0	12.0	12.0	11.9	11.8	11.8	11.7	11.7	11.7	11.8	
Na'ir al Saif	2.8	276	05.4	05.4	05.5	05.7	05.7	05.8	05.7	05.5	05.3	05.1	04.9	04.7	-5	54.4	54.5	54.5	54.5	54.5	54.4	54.3	54.2	54.1	54.1	54.2	54.2	
Heka	3.4	276	09.5	09.5	09.6	09.7	09.8	09.8	09.7	09.5	09.3	09.1	08.9	08.7	9	56.3	56.2	56.2	56.2	56.2	56.3	56.3	56.4	56.4	56.4	56.4	56.4	
Beta Dorado	3.8	276	34.4	34.6	34.9	35.3	35.6	35.8	35.7	35.5	35.2	34.8	34.4	34.2	-62	29.2	29.4	29.5	29.4	29.3	29.2	29.0	28.9	28.8	28.7	28.8	29.0	
Arneb	2.6	276	46.2	46.2	46.3	46.5	46.6	46.6	46.5	46.4	46.2	45.9	45.7	45.6	-17	49.1	49.2	49.3	49.3	49.2	49.1	49.0	48.9	48.8	48.8	48.9	49.0	
Mintaka	2.2	276	56.7	56.7	56.8	56.9	57.0	57.0	56.9	56.7	56.5	56.3	56.1	55.9	-0	17.7	17.8	17.8	17.8	17.8	17.7	17.6	17.6	17.5	17.5	17.5	17.6	
Epsilon Columba	3.9	277	09.4	09.5	09.6	09.8	09.9	10.0	09.9	09.7	09.5	09.3	09.0	08.9	-35	28.1	28.2	28.2	28.2	28.2	28.0	27.9	27.7	27.6	27.6	27.7	27.8	
Nihal	2.8	277	53.5	53.6	53.7	53.8	54.0	54.0	53.9	53.7	53.5	53.3	53.1	52.9	-20	45.4	45.5	45.5	45.5	45.4	45.3	45.2	45.1	45.0	45.0	45.1	45.2	
Alnath	1.7	278	21.7	21.7	21.8	21.9	22.0	22.0	21.9	21.7	21.5	21.2	20.9	20.8	-28	36.7	36.8	36.8	36.8	36.8	36.7	36.7	36.7	36.8	36.8	36.8	36.8	
Bellatrix	1.7	278	39.7	39.7	39.8	39.9	40.0	40.0	39.9	39.7	39.5	39.3	39.1	38.9	6	21.3	21.2	21.2	21.2	21.2	21.3	21.3	21.4	21.4	21.4	21.4	21.4	
Eta Orion	3.4	278	49.7	49.7	49.8	49.9	50.0	50.0	49.9	49.7	49.5	49.3	49.1	48.9	-2	23.6	23.6	23.7	23.6	23.6	23.6	23.5	23.4	23.3	23.3	23.3	23.4	
Tau Orion	3.6	280	32.8	32.9	33.0	33.1	33.2	33.2	33.1	32.9	32.7	32.5	32.3	32.1	-6	50.4	50.4	50.5	50.5	50.4	50.4	50.3	50.2	50.1	50.1	50.1	50.2	
Capella	0.1	280	45.0	45.1	45.2	45.4	45.5	45.5	45.4	45.1	44.8	44.5	44.2	43.9	46	00.2	00.3	00.3	00.3	00.3	00.2	00.2	00.1	00.1	00.1	00.2	00.3	
Rigel	0.3	281	18.9	18.9	19.0	19.2	19.2	19.2	19.1	19.0	18.7	18.5	18.3	18.2	-8	11.8	11.9	11.9	11.9	11.8	11.8	11.7	11.6	11.5	11.5	11.5	11.6	
Mu Lepus	3.3	281	43.1	43.2	43.3	43.4	43.5	43.5	43.4	43.3	43.0	42.8	42.6	42.5	-16	12.0	12.1	12.2	12.1	12.1	12.0	11.9	11.8	11.7	11.7	11.7	11.8	
Cursa	2.8	282	59.2	59.2	59.3	59.4	59.5	59.5	59.4	59.2	59.0	58.8	58.6	58.4	-5	04.9	04.9	04.9	04.9	04.9	04.8	04.7	04.6	04.6	04.6	04.6	04.7	
Hoedus II	3.2	283	17.9	17.9	18.1	18.2	18.3	18.3	18.2	17.9	17.6	17.3	17.1	16.9	-41	14.5	14.6	14.6	14.6	14.5	14.5	14.4	14.4	14.4	14.5	14.5	14.6	
Epsilon Lepus	3.2	283	35.3	35.4	35.5	35.7	35.8	35.8	35.7	35.5	35.3	35.0	34.8	34.7	-22	22.0	22.0	22.1	22.1	22.0	21.9	21.8	21.6	21.5	21.5	21.6	21.7	
Haedi	3.8	284	18.5	18.5	18.7	18.8	18.9	18.9	18.7	18.5	18.2	17.9	17.6	17.4	41	05.0	05.1	05.1	05.1	05.0	05.0	04.9	04.9	04.9	05.0	05.0	05.1	
Al Anz	3.0	284	26.0	26.0	26.2	26.4	26.5	26.4	26.3	26.0	25.7	25.4	25.1	24.9	43	49.9	49.9	50.0	49.9	49.9	49.8	49.8	49.8	49.8	49.8	49.8	49.9	49.9
Hassaleh	2.7	285	41.1	41.1	41.2	41.4	41.4	41.4	41.3	41.0	40.8	40.5	40.3	40.1	33	10.5	10.5	10.5	10.5	10.5	10.4	10.4	10.4	10.4	10.4	10.5	10.5	10.5
Pi5 Orion	3.7	286	23.0	23.0	23.1	23.2	23.3	23.3	23.2	23.0	22.7	22.5	22.3	22.2	2	26.9	26.8	26.8	26.8	26.8	26.9	27.0	27.0	27.1	27.1	27.1	27.1	
Pi4 Orion	3.7	287	08.6	08.6	08.7	08.9	08.9	08.9	08.8	08.6	08.3	08.1	07.9	07.8	5	36.8	36.7	36.7	36.7	36.7	36.8	36.8	36.9	37.0	37.0	37.0	36.9	
Pi3 Orion	3.2	287	29.0	29.1	29.2	29.3	29.4	29.3	29.2	29.0	28.8	28.5	28.3	28.2	6	58.1	58.1	58.1	58.1	58.1	58.2	58.2	58.3	58.3	58.4	58.4	58.3	
Sceptrum	3.9	290	24.4	24.4	24.6	24.7	24.8	24.8	24.6	24.4	24.2	24.0	23.8	23.7	-14	17.8	17.9	17.9	17.9	17.8	17.7	17.6	17.5	17.4	17.4	17.5	17.5	
Nu Eridanus	3.9	290	52.1	52.1	52.2	52.4	52.4	52.4	52.3	52.1	51.8	51.6	51.4	51.3	-3	20.6	20.7	20.7	20.7	20.7	20.6	20.5	20.4	20.3	20.3	20.4	20.4	
Aldebaran	1.0	290	57.6	57.7	57.8	57.9	58.0	57.9	57.8	57.6	57.3	57.1	56.9	56.8	16	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.2	31.2	31.3	31.3	31.3	
Theemim	3.8	291	04.2	04.3	04.4	04.6	04.7	04.7	04.5	04.3	04.1	03.9	03.7	03.6	-30	33.3	33.4	33.4	33.4	33.3	33.2	33.0	32.9	32.8	32.8	32.9	33.0	
Alpha Dorado	3.3	291	28.3	28.5	28.7	29.0	29.2	29.2	29.1	28.8	28.5	28.2	28.0	27.9	-55	02.3	02.4	02.4	02.4	02.3	02.1	01.9	01.8	01.7	01.7	01.8	02.0	
Theta2 Taurus	3.4	292	46.5	46.6	46.7	46.8	46.9	46.8	46.7	46.5	46.2	46.0	45.8	45.7	15	52.9	52.8	52.8	52.8	52.8	52.8	52.9	52.9	53.0	53.0	53.0	53.0	
Ain	3.5	292	47.2	47.2	47.3	47.4	47.5	47.4	47.3	47.1	46.8	46.6	46.4	46.3	19	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	11.5	11.6	11.6	11.6	
Secundus Hyadum	3.8	294	12.4	12.5	12.6	12.7	12.8	12.7	12.6	12.3	12.1	11.9	11.7	11.5	17	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.3	33.3	33.3	33.4	33.4	
Primus Hyadum	3.7	294	59.6	59.6	59.8	59.9	59.9	59.9	59.7	59.5	59.3</																	

2004

Stars

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	29.0	29.1	29.2	29.3	29.3	29.2	29.1	28.8	28.5	28.3	28.1	28.0	24	22.9	22.9	22.9	22.9	22.9	22.9	22.8	22.9	22.9	23.0	23.0	23.1	23.1	
Nu Perseus	3.8	303	37.9	38.0	38.2	38.3	38.4	38.3	38.1	37.8	37.5	37.2	37.0	36.9	42	35.6	35.7	35.7	35.6	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.6	35.7	35.8
Electra	3.7	303	43.3	43.3	43.4	43.6	43.6	43.5	43.3	43.1	42.8	42.6	42.4	42.3	24	07.6	07.6	07.6	07.6	07.6	07.6	07.6	07.6	07.7	07.7	07.8	07.8	07.9	
Atik	3.9	303	51.4	51.5	51.6	51.7	51.8	51.7	51.5	51.2	50.9	50.7	50.5	50.4	32	18.2	18.2	18.2	18.1	18.1	18.1	18.1	18.1	18.1	18.2	18.2	18.3	18.4	
Beta Reticulum	3.8	303	55.6	55.9	56.3	56.6	56.8	56.8	56.6	56.3	55.8	55.5	55.2	55.2	-64	47.9	47.9	47.9	47.8	47.7	47.5	47.3	47.2	47.2	47.1	47.2	47.3	47.5	
Rana	3.5	304	08.3	08.4	08.5	08.6	08.6	08.6	08.4	08.2	08.0	07.8	07.6	07.5	-9	45.0	45.1	45.1	45.1	45.0	44.9	44.8	44.7	44.7	44.6	44.6	44.7	44.7	
Delta Perseus	3.0	304	11.8	11.9	12.1	12.2	12.3	12.2	11.9	11.6	11.3	11.0	10.8	10.6	47	48.2	48.2	48.2	48.2	48.2	48.1	48.0	48.0	48.0	48.1	48.1	48.2	48.3	
Epsilon Eridanus	3.7	306	43.1	43.2	43.3	43.4	43.5	43.4	43.2	43.0	42.8	42.6	42.4	42.4	-9	26.7	26.8	26.8	26.8	26.8	26.7	26.6	26.5	26.4	26.3	26.3	26.4	26.4	
Xi Taurus	3.7	308	09.2	09.2	09.4	09.4	09.5	09.4	09.2	09.0	08.7	08.5	08.4	08.3	9	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.9	45.0	45.1	45.1	45.1	45.1	
Omicron Taurus	3.6	308	44.5	44.6	44.7	44.8	44.8	44.7	44.6	44.3	44.1	43.9	43.7	43.7	9	02.6	02.6	02.6	02.6	02.6	02.6	02.7	02.8	02.8	02.9	02.9	02.9	02.9	
Mirfak	1.8	308	50.8	51.0	51.1	51.3	51.3	51.2	51.0	50.6	50.3	50.0	49.8	49.6	49	52.7	52.8	52.7	52.7	52.6	52.5	52.5	52.5	52.5	52.6	52.7	52.8	52.9	
16 Eridanus	3.7	310	04.5	04.6	04.7	04.8	04.8	04.8	04.6	04.3	04.1	03.9	03.8	03.7	-21	44.7	44.8	44.8	44.7	44.6	44.5	44.3	44.2	44.2	44.2	44.2	44.3	44.4	
Fornacis	3.8	311	56.2	56.3	56.4	56.5	56.6	56.5	56.3	56.1	55.8	55.6	55.5	55.4	-28	58.5	58.5	58.5	58.4	58.3	58.2	58.0	57.9	57.9	57.9	58.0	58.1	58.1	
Algol	2.1	312	53.6	53.7	53.8	53.9	54.0	53.8	53.6	53.3	53.0	52.8	52.6	52.5	40	58.4	58.4	58.4	58.4	58.3	58.2	58.2	58.3	58.4	58.5	58.5	58.5	58.6	
Gorgonea Tertia	3.4	313	38.5	38.6	38.8	38.9	38.9	38.8	38.5	38.2	37.9	37.7	37.5	37.4	38	51.5	51.5	51.5	51.4	51.4	51.3	51.3	51.4	51.5	51.5	51.6	51.7	51.7	
Gamma Perseus	2.9	313	43.7	43.8	44.0	44.2	44.2	44.1	43.8	43.4	43.1	42.8	42.6	42.5	53	31.5	31.6	31.5	31.5	31.4	31.3	31.3	31.3	31.3	31.4	31.5	31.6	31.7	
Menkar	2.6	314	22.7	22.7	22.8	22.9	22.9	22.8	22.6	22.4	22.2	22.0	21.8	21.8	4	06.3	06.3	06.3	06.3	06.3	06.4	06.5	06.6	06.6	06.6	06.7	06.7	06.6	
Acamar	3.2	315	23.6	23.8	23.9	24.1	24.1	24.0	23.8	23.6	23.3	23.1	22.9	22.9	-40	17.5	17.6	17.5	17.5	17.3	17.1	17.0	16.9	16.8	16.9	17.0	17.1	17.1	
Azha	3.9	315	50.6	50.7	50.8	50.9	50.9	50.8	50.6	50.4	50.1	50.0	49.8	49.8	-8	53.0	53.0	53.0	53.0	52.9	52.8	52.7	52.6	52.6	52.6	52.6	52.7	52.7	
Tau Perseus	3.9	316	21.9	22.0	22.2	22.4	22.4	22.2	22.0	21.6	21.2	21.0	20.8	20.7	52	46.9	47.0	46.9	46.9	46.8	46.7	46.7	46.7	46.8	46.9	47.0	47.1	47.1	
Miram	3.8	317	15.2	15.3	15.6	15.7	15.7	15.6	15.3	14.9	14.5	14.2	14.0	13.9	55	54.9	55.0	54.9	54.9	54.8	54.7	54.6	54.7	54.8	54.9	55.0	55.1	55.1	
41 Aries	3.6	317	26.7	26.8	26.9	27.0	27.0	26.9	26.7	26.4	26.2	26.0	25.8	25.8	27	16.7	16.7	16.7	16.6	16.6	16.6	16.6	16.7	16.8	16.9	16.9	17.0	17.0	
Kaffajjidmah	3.5	319	07.4	07.5	07.6	07.6	07.6	07.5	07.3	07.1	06.9	06.7	06.6	06.5	3	15.1	15.1	15.1	15.1	15.1	15.2	15.3	15.4	15.5	15.5	15.5	15.5	15.5	
Polaris	2.0	320	50.3	50.2	50.4	50.5	50.6	50.5	50.2	49.8	49.5	49.3	49.2	49.3	89	17.2	17.3	17.2	17.1	17.0	16.8	16.7	16.7	16.8	17.0	17.2	17.3	17.3	
Phi Eridanus	3.6	325	50.0	50.2	50.4	50.5	50.6	50.4	50.2	49.8	49.5	49.3	49.2	49.3	-51	29.9	29.9	29.9	29.7	29.6	29.4	29.2	29.1	29.1	29.2	29.3	29.5	29.5	
Beta Triangulum	3.0	327	33.4	33.5	33.6	33.7	33.6	33.5	33.2	32.9	32.7	32.5	32.4	32.3	35	00.5	00.5	00.5	00.4	00.3	00.3	00.3	00.4	00.5	00.6	00.7	00.8	00.8	
Hamal	2.0	328	09.1	09.2	09.3	09.4	09.3	09.2	08.9	08.7	08.4	08.3	08.2	08.1	23	29.0	28.9	28.9	28.9	28.8	28.9	28.9	29.0	29.1	29.2	29.2	29.3	29.3	
Almaak	2.2	328	57.9	58.1	58.2	58.3	58.2	58.1	57.8	57.5	57.2	57.0	56.9	56.9	42	21.1	21.1	21.0	21.0	20.9	20.9	20.9	21.0	21.1	21.2	21.3	21.4	21.4	
Alrishah	3.8	329	26.3	26.3	26.4	26.5	26.4	26.3	26.1	25.8	25.6	25.5	25.4	25.4	2	46.9	46.9	46.9	46.9	47.0	47.0	47.1	47.2	47.3	47.3	47.3	47.3	47.3	
Alpha Hydrus	2.9	330	16.3	16.6	16.8	17.0	17.0	16.8	16.5	16.1	15.7	15.5	15.4	15.5	-61	33.3	33.3	33.3	33.1	32.9	32.7	32.6	32.5	32.5	32.6	32.8	32.9	32.9	
Chi Eridanus	3.7	330	58.1	58.4	58.5	58.6	58.6	58.5	58.2	57.8	57.5	57.3	57.3	57.3	-51	35.6	35.6	35.6	35.4	35.3	35.1	34.9	34.9	34.9	35.0	35.1	35.2	35.2	
Sheratan	2.7	331	17.2	17.3	17.4	17.4	17.4	17.2	17.0	16.7	16.5	16.3	16.3	16.2	20	49.7	49.7	49.7	49.6	49.6	49.6	49.7	49.8	49.9	50.0	50.0	50.0	50.0	
Segin	3.4	331	19.9	20.2	20.4	20.6	20.5	20.2	19.8	19.3	18.9	18.7	18.5	18.5	63	41.6	41.6	41.6	41.5	41.3	41.3	41.2	41.3	41.4	41.4	41.6	41.7	41.9	
Mothallah	3.4	331	40.5	40.6	40.7	40.7	40.7	40.5	40.3	40.0	39.8	39.6	39.5	39.5	29	36.0	36.0	35.9	35.9	35.8	35.8	35.9	36.0	36.1	36.2	36.3	36.3	36.3	
Baten Kaitos	3.7	332	05.2	05.3	05.4	05.4	05.4	05.2	05.0	04.7	04.5	04.4	04.3	04.3	-10	19.0	19.1	19.1	19.0	18.9	18.8	18.7	18.6	18.5	18.5	18.6	18.6	18.6	
Tau Cetus	3.5	333	56.2	56.3	56.4	56.5	56.4	56.3	56.1	55.8	55.6	55.5	55.4	55.4	-15	55.1	55.2	55.1	55.1	55.0	54.9	54.7	54.6	54.6	54.6	54.7	54.7	54.7	
51 Andromeda	3.6	335	26.6	26.8	26.9	27.0	26.9	26.7	26.4	26.0	25.8	25.6	25.5	25.5	48	39.1	39.1	39.0	38.9	38.8	38.8	38.8	38.9	39.0	39.2	39.3	39.4	39.4	
Achemar	0.5	335	31.9	32.1	32.3	32.4	32.4	32.2	31.9	31.5	31.2	31.0	31.0	31.0	-57	13.3	13.3	13.2	13.1	12.9	12.7	12.6	12.5	12.5	12.6	12.8	12.9	12.9	
Eta Pisces	3.6	337	04.7	04.8	04.8	04.9	04.8	04.6	04.4	04.1	03.9	03.8	03.7	03.7	15	22.0	22.0	21.9	21.9	21.9	22.0	22.0	22.2	22.2	22.3	22.4	22.4	22.4	
Delta Phoenix	3.9	337	08.7	08.8	09.0	09.1	09.0	08.8	08.6	08.2	07.9	07.8	07.7	07.8	-49	03.4	03.4	03.3	03.2	03.0	02.9	02.7	02.7	02.7	02.8	02.9	03.0	03.0	
Gamma Phoenix	3.4	337	51.9	52.0	52.2	52.2	52.2	52.0	51.7	51.4	51.2	51.0	51.0	51.0	-43	18.2	18.2	18.1	18.0	17.8	17.6	17.5	17.4	17.4	17.5	17.6	17.7	17.7	
Ruchbah	2.7	338	29.0	29.3	29.5	29.6	29.5	29.2	28.8	28.4	28.1	27.8	27.8	27.8	60	15.6	15.6	15.5	15.4	15.3	15.2	15.2	15.3	15.4	15.6	15.8	15.9	15.9	
Theta Cetus	3.6	338	56.7	56.8	56.9	56.9	56.9	56.7	56.5	56.2	56.0	55.9	55.9	55.9	-8	09.9	09.9	09.9	09.9	09.8	09.7	09.6	09.5	09.4	09.4	09.4	09.5	09.5	
Mirach	2.1	342	30.9	31.0	31.1	31.1	31.0	30.8	30.5	30.2	30.0	29.9	29.8	29.9	35	38.6	38.6	38.5	38.5	38.4	38.4	38.5	38.6	38.7	38.8	38.9	39.0	39.0	
Dheneb	3.5	342	48.3	48.3	48.4	48.4	48.3	48.2	47.9	47.7	47.5	47.4	47.3	47.4	-10	09.8	09.8	09.8	09.8	09.7	09.6	09.5	09.4	09.3	09.3				