

2005

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		
Alrai	3.2	5	07.7	08.4	08.7	08.6	08.2	07.4	06.6	05.9	05.6	05.5	05.9	06.4	77	39.9	39.8	39.7	39.5	39.4	39.4	39.4	39.6	39.7	39.9	40.1	40.2
Lambda Andromeda	3.9	5	33.2	33.4	33.4	33.4	33.2	32.9	32.6	32.3	32.1	32.1	32.2	32.3	46	29.3	29.2	29.1	29.0	28.9	28.9	29.0	29.2	29.3	29.5	29.6	29.6
98 Aquarius	4.0	9	11.7	11.8	11.8	11.7	11.5	11.3	11.0	10.8	10.7	10.6	10.7	10.8	-20	04.6	04.6	04.6	04.5	04.4	04.2	04.2	04.1	04.1	04.1	04.2	04.2
Gamma Tucana	4.0	10	34.4	34.5	34.6	34.4	34.2	33.8	33.4	33.1	32.9	32.8	33.0	33.2	-58	12.9	12.8	12.6	12.5	12.3	12.2	12.1	12.1	12.2	12.3	12.5	12.5
Gamma Pices	3.7	10	38.9	38.9	38.9	38.8	38.7	38.4	38.2	38.0	37.9	37.8	37.9	37.9	3	18.5	18.5	18.4	18.4	18.5	18.6	18.7	18.8	18.9	18.9	18.9	18.9
Iota Grus	3.9	12	20.6	20.7	20.7	20.6	20.4	20.1	19.7	19.5	19.3	19.3	19.4	19.5	-45	13.5	13.4	13.3	13.2	13.0	12.9	12.8	12.8	12.9	13.0	13.1	13.1
88 Aquarius	3.7	12	34.5	34.6	34.6	34.5	34.3	34.1	33.8	33.6	33.4	33.4	33.5	33.6	-21	08.9	08.9	08.9	08.8	08.7	08.6	08.5	08.4	08.4	08.5	08.5	08.6
Markab	2.5	13	45.1	45.2	45.2	45.1	44.9	44.7	44.4	44.2	44.1	44.1	44.2	44.2	15	13.9	13.9	13.8	13.8	13.8	13.9	14.0	14.1	14.2	14.3	14.3	14.3
Scheat	2.5	14	00.1	00.1	00.1	00.1	59.9	59.6	59.4	59.2	59.0	59.0	59.1	59.2	28	06.6	06.6	06.5	06.4	06.4	06.5	06.6	06.7	06.9	07.0	07.0	07.0
Omicron Andromeda	3.6	14	28.1	28.2	28.3	28.2	27.9	27.7	27.4	27.1	27.0	27.0	27.1	27.2	42	21.3	21.2	21.1	21.0	20.9	21.0	21.1	21.2	21.4	21.5	21.6	21.7
Fomalhaut	1.2	15	31.3	31.4	31.4	31.3	31.1	30.8	30.5	30.3	30.2	30.2	30.2	30.3	-29	36.0	36.0	35.9	35.8	35.7	35.6	35.5	35.4	35.5	35.5	35.6	35.6
Skat	3.3	16	16.5	16.6	16.5	16.4	16.3	16.0	15.8	15.6	15.4	15.4	15.5	15.6	-15	47.8	47.8	47.8	47.7	47.6	47.5	47.5	47.4	47.4	47.4	47.4	47.5
Lambda Aquarius	3.8	16	47.1	47.2	47.1	47.0	46.9	46.6	46.4	46.2	46.1	46.1	46.1	46.2	-7	33.3	33.3	33.4	33.3	33.2	33.1	33.0	32.9	32.9	32.9	32.9	32.9
Sadalbari	3.5	17	26.7	26.7	26.7	26.6	26.4	26.2	25.9	25.7	25.6	25.6	25.7	25.8	24	37.7	37.6	37.5	37.5	37.5	37.6	37.7	37.8	37.9	38.0	38.1	38.1
Iota Cepheus	3.5	17	32.9	33.1	33.2	33.0	32.7	32.2	31.8	31.5	31.3	31.4	31.6	32.0	66	13.8	13.7	13.5	13.4	13.3	13.3	13.4	13.6	13.8	14.0	14.1	14.2
Epsilon Grus	3.5	17	47.4	47.5	47.5	47.3	47.1	46.8	46.4	46.1	46.0	46.0	46.1	46.3	-51	17.8	17.7	17.6	17.4	17.3	17.1	17.1	17.1	17.2	17.3	17.4	17.4
Lambda Pegasus	4.0	18	18.7	18.8	18.8	18.7	18.5	18.3	18.0	17.8	17.7	17.7	17.8	17.9	23	35.5	35.5	35.4	35.3	35.3	35.4	35.5	35.6	35.8	35.9	35.9	35.9
Matar	2.9	19	11.8	11.9	11.9	11.8	11.6	11.3	11.0	10.8	10.7	10.7	10.8	10.9	30	14.9	14.8	14.7	14.6	14.6	14.7	14.8	15.0	15.1	15.2	15.3	15.3
Beta Grus	2.1	19	15.8	15.9	15.8	15.7	15.4	15.1	14.8	14.5	14.4	14.4	14.5	14.7	-46	51.8	51.7	51.6	51.5	51.3	51.2	51.2	51.2	51.3	51.4	51.5	51.5
Homam	3.4	19	34.6	34.7	34.7	34.5	34.4	34.1	33.9	33.7	33.6	33.6	33.7	33.7	10	51.4	51.3	51.3	51.3	51.3	51.4	51.5	51.6	51.7	51.8	51.8	51.8
Alpha Lacerta	3.8	22	08.0	08.2	08.2	08.0	07.8	07.5	07.2	06.9	06.8	06.9	07.0	07.2	50	18.6	18.5	18.4	18.3	18.2	18.3	18.4	18.5	18.7	18.9	19.0	19.0
Delta Grus	4.0	22	36.8	36.8	36.8	36.6	36.4	36.1	35.8	35.5	35.4	35.4	35.5	35.7	-43	28.5	28.4	28.3	28.2	28.1	28.0	27.9	27.9	28.0	28.1	28.2	28.2
Zeta Aquarius	3.7	22	44.0	44.0	44.0	43.8	43.6	43.4	43.2	43.0	42.9	42.9	43.0	43.0	0	00.2	00.2	00.2	00.2	00.2	00.3	00.4	00.5	00.6	00.6	00.6	00.6
Sadachbia	3.9	24	31.6	31.6	31.6	31.4	31.3	31.0	30.8	30.6	30.5	30.5	30.6	30.7	-1	21.8	21.9	21.9	21.9	21.8	21.7	21.6	21.5	21.5	21.5	21.5	21.5
Alpha Tucana	2.9	25	17.7	17.8	17.8	17.6	17.2	16.8	16.4	16.1	15.9	16.0	16.2	16.4	-60	14.4	14.3	14.2	14.0	13.9	13.8	13.8	13.8	13.9	14.0	14.1	14.2
Zeta Cepheus	3.3	27	15.2	15.4	15.4	15.2	14.9	14.5	14.2	13.9	13.9	14.0	14.2	14.4	58	13.7	13.5	13.4	13.3	13.2	13.3	13.4	13.6	13.8	13.9	14.0	14.1
Baham	3.5	27	23.6	23.6	23.5	23.4	23.2	23.0	22.7	22.5	22.5	22.5	22.6	22.7	6	13.3	13.2	13.2	13.2	13.2	13.3	13.4	13.5	13.6	13.6	13.6	13.6
Alnair	1.8	27	52.1	52.2	52.1	51.9	51.6	51.3	51.0	50.8	50.6	50.7	50.8	51.0	-46	56.5	56.4	56.3	56.2	56.1	56.0	55.9	56.0	56.0	56.1	56.2	56.2
Iota Pegasus	3.8	28	11.7	11.8	11.7	11.6	11.4	11.1	10.9	10.7	10.6	10.7	10.8	10.9	25	22.2	22.1	22.0	21.9	21.9	22.0	22.1	22.3	22.4	22.5	22.6	22.5
Sadal Melik	2.9	28	29.7	29.7	29.7	29.5	29.3	29.1	28.9	28.7	28.6	28.6	28.7	28.8	-0	17.9	17.9	17.9	17.9	17.8	17.7	17.6	17.6	17.5	17.5	17.5	17.5
Al Dhanab	3.0	31	26.9	26.9	26.8	26.6	26.4	26.1	25.8	25.6	25.5	25.6	25.7	25.8	-37	20.8	20.7	20.6	20.5	20.4	20.3	20.3	20.3	20.3	20.4	20.4	20.5
Deneb Algiedi	2.9	33	10.6	10.6	10.5	10.4	10.1	09.9	09.7	09.5	09.4	09.4	09.5	09.6	-16	06.5	06.5	06.4	06.4	06.3	06.2	06.1	06.1	06.1	06.1	06.1	06.2
Enif	2.4	33	53.9	53.9	53.8	53.7	53.5	53.2	53.0	52.9	52.8	52.8	52.9	53.0	9	53.8	53.7	53.7	53.7	53.7	53.8	53.9	54.0	54.1	54.2	54.2	54.1
Nu Octans	3.7	34	30.6	30.8	30.6	30.0	29.2	28.3	27.5	27.0	26.8	27.1	27.7	28.3	-77	22.4	22.2	22.1	21.9	21.8	21.7	21.8	21.9	22.0	22.1	22.2	22.2
Nashira	3.7	34	54.8	54.8	54.7	54.6	54.4	54.1	53.9	53.7	53.6	53.7	53.8	53.9	-16	38.6	38.6	38.5	38.5	38.4	38.3	38.2	38.2	38.2	38.2	38.2	38.3
Rho Cygnus	4.0	36	28.0	28.1	28.0	27.8	27.6	27.3	27.0	26.8	26.8	26.9	27.1	27.3	45	36.9	36.7	36.6	36.5	36.5	36.6	36.7	36.9	37.1	37.2	37.3	37.2
Sadal Suud	2.9	37	03.0	03.0	02.9	02.8	02.6	02.3	02.1	01.9	01.9	01.9	02.0	02.1	-5	33.1	33.1	33.1	33.1	33.0	33.0	32.9	32.8	32.8	32.7	32.8	32.8
Alfirk	3.2	37	50.2	50.5	50.4	50.1	49.6	49.1	48.6	48.4	48.5	48.8	49.2	49.7	70	35.1	34.9	34.8	34.6	34.6	34.6	34.8	35.0	35.2	35.3	35.4	35.4
Zeta Capricornus	3.8	38	16.1	16.1	16.0	15.8	15.6	15.3	15.1	14.9	14.8	14.9	15.0	15.1	-22	23.6	23.6	23.5	23.5	23.4	23.3	23.2	23.2	23.2	23.3	23.3	23.3
Alderamin	2.5	40	20.3	20.5	20.4	20.1	19.7	19.3	19.0	18.9	18.9	19.1	19.4	19.7	62	36.5	36.3	36.2	36.1	36.0	36.1	36.2	36.4	36.6	36.8	36.8	36.8
Kitalpha	3.9	40	59.3	59.3	59.2	59.0	58.8	58.6	58.3	58.2	58.2	58.2	58.3	58.4	5	16.0	15.9	15.9	15.9	15.9	16.0	16.1	16.2	16.3	16.3	16.3	16.3
Tau Cygnus	3.7	41	15.6	15.6	15.6	15.4	15.1	14.9	14.6	14.5	14.5	14.6	14.7	14.9	38	04.0	03.9	03.8	03.7	03.7	03.8	03.9	04.1	04.2	04.3	04.4	04.4
Zeta Cygnus	3.2	41	43.2	43.2	43.1	43.0	42.7	42.5	42.3	42.1	42.1	42.2	42.3	42.4	30	14.8	14.7	14.6	14.5	14.6	14.6	14.8	14.9	15.1	15.2	15.2	15.2
Xi Cygnus	3.7	43	43.9	43.9	43.8	43.6	43.3	43.0	42.8	42.7	42.7	42.8	43.0	43.2	43	56.9	56.7	56.6	56.5	56.5	56.6	56.8	56.9	57.1	57.2	57.3	57.2
Nu Cygnus	3.9	45	40.1	40.1	40.1	39.8	39.6	39.3	39.1	39.0	39.0	39.1	39.3	39.4	41	11.2	11.0	10.9	10.8	10.8	10.9	11.1	11.3	11.4	11.5	11.6	11.5
Beta Indus	3.7	46	12.6	12.6	12.4	12.1	11.7	11.2	10.9	10.7	10.6	10.8	11.0	11.2	-58	26.4	26.3	26.1	26.0	25.9	25.9	25.9	26.0	26.1	26.2	26.3	26.2
Albali	3.8	48	01.2	01.2	01.1	00.9	00.6	00.4	00.2	00.0	00.0	00.1	00.2	00.3	-9	28.8	28.8	28.8	28.8	28.7	28.7	28.6	28.5	28.5	28.5	28.5	28.6
Gienah Cygni	2.5	48	24.3	24.3	24.2	24.0	23.7	23.5	23.3	23.2	23.2	23.3	23.4	23.6	33	59.3	59.2	59.1	59.0	59.0	59.1	59.3	59.4	59.6	59.6	59.7	59.6
Eta Cepheus	3.4	48																									

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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	07.0	06.9	06.8	06.6	06.4	06.1	05.9	05.8	05.8	05.9	06.1	06.1	-0	48.5	48.6	48.6	48.6	48.6	48.5	48.4	48.3	48.3	48.3	48.3	
Delta Pavonis	3.6	57	42.7	42.5	42.2	41.7	41.2	40.7	40.3	40.1	40.1	40.4	40.7	41.0	-66	10.4	10.2	10.1	10.0	10.0	10.0	10.1	10.2	10.3	10.4	10.4	10.3
Epsilon Pavonis	4.0	59	43.7	43.5	43.1	42.4	41.7	41.1	40.6	40.3	40.4	40.8	41.3	41.7	-72	54.1	53.9	53.8	53.7	53.6	53.6	53.7	53.9	54.0	54.1	54.1	54.0
Gamma Sagitta	3.5	60	15.8	15.7	15.6	15.4	15.1	14.9	14.7	14.6	14.7	14.8	14.9	15.0	19	30.2	30.1	30.0	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.6	30.5
Eta Cygnus	3.9	60	53.1	53.1	52.9	52.7	52.4	52.2	52.0	52.0	52.0	52.2	52.3	52.5	35	05.7	05.6	05.5	05.4	05.5	05.6	05.7	05.9	06.0	06.1	06.1	06.0
Aishain	3.7	61	07.1	07.0	06.8	06.6	06.4	06.2	06.0	05.9	05.9	06.0	06.2	06.2	6	25.0	24.9	24.9	24.9	24.9	25.0	25.1	25.2	25.3	25.3	25.3	25.2
Eta Aquila	3.9	61	49.5	49.5	49.3	49.1	48.9	48.6	48.5	48.4	48.4	48.5	48.6	48.7	1	01.0	00.9	00.9	00.9	00.9	01.0	01.1	01.2	01.2	01.2	01.2	01.2
Altair	0.9	62	15.0	15.0	14.8	14.6	14.4	14.2	14.0	13.9	13.9	14.0	14.2	14.2	8	52.8	52.7	52.6	52.6	52.7	52.8	52.9	53.0	53.0	53.1	53.0	53.0
Tyl	3.8	62	58.8	58.8	58.6	58.1	57.6	57.2	56.9	57.0	57.2	57.7	58.2	58.6	70	16.8	16.6	16.5	16.4	16.4	16.5	16.7	16.9	17.0	17.1	17.1	17.1
Kaus Media	3.8	63	06.3	06.2	06.1	05.9	05.6	05.4	05.3	05.2	05.2	05.3	05.5	05.6	18	32.7	32.6	32.5	32.5	32.5	32.6	32.7	32.9	33.0	33.0	33.0	32.9
Tarazed	2.7	63	23.0	22.9	22.8	22.6	22.3	22.1	21.9	21.9	21.9	22.0	22.1	22.2	10	37.4	37.3	37.3	37.2	37.3	37.4	37.5	37.6	37.7	37.7	37.7	37.6
Delta Cygnus	2.9	63	43.6	43.6	43.4	43.2	42.9	42.6	42.5	42.4	42.5	42.7	42.9	43.1	45	08.5	08.3	08.2	08.2	08.2	08.3	08.5	08.6	08.8	08.9	08.9	08.8
Albireo	3.1	67	16.7	16.6	16.4	16.2	15.9	15.7	15.6	15.5	15.6	15.7	15.9	16.0	27	58.1	58.0	57.9	57.8	57.9	58.0	58.1	58.3	58.4	58.4	58.4	58.3
Iota Cygnus	3.8	67	33.2	33.1	32.9	32.6	32.3	32.1	31.9	31.9	32.0	32.2	32.5	32.7	51	44.3	44.2	44.0	44.0	44.0	44.2	44.3	44.5	44.6	44.7	44.7	44.6
Delta Aquila	3.4	68	34.2	34.1	33.9	33.7	33.5	33.3	33.1	33.0	33.1	33.2	33.3	33.4	3	07.3	07.3	07.2	07.2	07.3	07.4	07.4	07.5	07.6	07.6	07.6	07.5
Rukbat	4.0	68	57.1	56.9	56.7	56.4	56.1	55.8	55.6	55.5	55.6	55.7	55.9	56.0	-40	36.6	36.5	36.4	36.4	36.4	36.4	36.4	36.4	36.5	36.5	36.5	36.5
Arkab	4.0	69	15.6	15.5	15.3	14.9	14.6	14.3	14.1	14.0	14.1	14.2	14.4	14.5	-44	27.1	27.1	27.0	27.0	26.9	26.9	27.0	27.0	27.1	27.1	27.1	27.1
Rho Sagittarius	3.9	69	31.0	30.9	30.7	30.5	30.3	30.0	29.9	29.8	29.8	29.9	30.0	30.1	-17	50.4	50.4	50.4	50.4	50.4	50.3	50.3	50.3	50.3	50.3	50.3	50.3
Kappa Cygnus	3.8	70	42.4	42.3	42.1	41.8	41.5	41.2	41.1	41.1	41.2	41.5	41.8	42.0	53	22.6	22.4	22.3	22.2	22.3	22.4	22.6	22.7	22.9	22.9	22.9	22.8
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	40.1	39.9	39.8	39.8	39.8	39.9	40.1	40.3	40.4	40.5	40.5	40.4
Albaldah	2.9	72	29.6	29.4	29.3	29.0	28.7	28.5	28.4	28.3	28.3	28.4	28.6	28.6	-21	01.1	01.1	01.1	01.1	01.0	01.0	01.0	01.0	01.0	01.0	01.0	01.0
Tau Sagittarius	3.3	73	11.7	11.6	11.4	11.1	10.9	10.6	10.5	10.4	10.4	10.5	10.7	10.7	-27	39.9	39.9	39.9	39.9	39.8	39.8	39.8	39.8	39.9	39.9	39.9	39.9
Al Thalimain	3.4	73	22.7	22.6	22.5	22.2	22.0	21.8	21.6	21.6	21.6	21.7	21.8	21.9	-4	52.6	52.7	52.7	52.7	52.7	52.6	52.5	52.5	52.5	52.5	52.5	52.5
Deneb el Okab	3.0	73	35.9	35.8	35.6	35.4	35.1	34.9	34.8	34.7	34.8	34.9	35.1	35.1	13	52.1	52.0	51.9	51.9	52.0	52.1	52.2	52.3	52.4	52.4	52.4	52.3
Omicron Sagittarius	3.8	73	45.8	45.6	45.4	45.2	44.9	44.7	44.5	44.5	44.5	44.6	44.8	44.8	-21	44.2	44.2	44.2	44.2	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1
Ascella	2.6	74	16.6	16.4	16.2	15.9	15.7	15.4	15.3	15.2	15.2	15.4	15.5	15.6	-29	52.5	52.5	52.5	52.4	52.4	52.4	52.4	52.4	52.5	52.5	52.5	52.5
Sulafat	3.3	75	13.6	13.4	13.3	13.0	12.8	12.6	12.4	12.4	12.5	12.7	12.8	12.9	32	41.7	41.5	41.4	41.4	41.4	41.6	41.7	41.8	41.9	42.0	42.0	41.9
Xi Sagittarius	3.5	75	30.1	29.9	29.7	29.5	29.2	29.0	28.9	28.8	28.8	29.0	29.1	29.1	-21	06.2	06.2	06.1	06.1	06.1	06.1	06.0	06.0	06.1	06.1	06.1	06.1
Nunki	2.1	76	06.9	06.7	06.5	06.3	06.0	05.8	05.6	05.5	05.6	05.7	05.9	05.9	-26	17.6	17.6	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Sheliak	3.5	77	26.5	26.4	26.2	26.0	25.7	25.5	25.4	25.4	25.5	25.7	25.8	25.9	33	22.0	21.8	21.7	21.7	21.8	21.9	22.0	22.2	22.3	22.3	22.3	22.2
Phi Sagittarius	3.2	78	31.0	30.8	30.6	30.3	30.1	29.9	29.7	29.7	29.7	29.8	30.0	30.0	-26	59.3	59.3	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2
Vega	0.0	80	43.9	43.8	43.6	43.3	43.1	42.9	42.8	42.8	42.9	43.1	43.3	43.4	38	47.2	47.0	46.9	46.9	46.9	47.1	47.2	47.4	47.5	47.5	47.5	47.4
Alpha Scutum	3.9	81	08.3	08.1	07.9	07.7	07.5	07.3	07.1	07.1	07.2	07.3	07.4	07.4	-8	14.6	14.6	14.6	14.6	14.6	14.6	14.5	14.5	14.5	14.5	14.5	14.5
Kaus Borealis	2.8	82	56.3	56.2	55.9	55.7	55.4	55.2	55.1	55.0	55.1	55.2	55.3	55.4	-25	25.3	25.3	25.3	25.2	25.2	25.2	25.2	25.2	25.3	25.3	25.3	25.2
Alpha Telescopium	3.5	83	10.5	10.3	10.0	09.7	09.3	09.1	08.9	08.9	08.9	09.1	09.3	09.3	-45	58.1	58.0	57.9	57.9	57.9	58.0	58.0	58.1	58.2	58.2	58.2	58.1
Kaus Australis	1.8	83	53.0	52.8	52.6	52.3	52.0	51.8	51.6	51.6	51.7	51.8	51.9	52.0	-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	01.8	01.7	01.5	01.2	01.0	00.8	00.7	00.7	00.8	00.9	01.1	01.1	21	46.2	46.0	46.0	46.0	46.0	46.1	46.2	46.4	46.4	46.4	46.4	46.3
Eta Serpens	3.3	84	36.9	36.8	36.6	36.3	36.1	35.9	35.8	35.8	35.9	36.0	36.1	36.1	-2	54.0	54.1	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	46.7	46.5	46.0	45.4	44.9	44.6	44.5	44.8	45.3	45.8	46.4	46.8	72	43.9	43.7	43.6	43.6	43.7	43.8	44.0	44.2	44.3	44.3	44.2	44.1
Kaus Media	2.7	84	40.8	40.6	40.4	40.1	39.9	39.7	39.5	39.5	39.5	39.7	39.8	39.8	-29	49.7	49.7	49.6	49.6	49.6	49.6	49.6	49.7	49.7	49.7	49.7	49.7
Eta Sagittarius	3.1	85	31.1	30.9	30.6	30.3	30.1	29.8	29.7	29.7	29.7	29.9	30.0	30.1	-36	45.7	45.7	45.7	45.6	45.7	45.7	45.7	45.8	45.8	45.8	45.8	45.7
Mu Sagittarius	3.8	86	29.6	29.4	29.2	28.9	28.7	28.5	28.3	28.3	28.4	28.5	28.6	28.7	-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	04.4	04.3	04.1	03.8	03.6	03.4	03.3	03.3	03.4	03.6	03.8	03.8	28	45.6	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	06.6	06.5	06.3	06.1	05.8	05.7	05.6	05.6	05.6	05.8	05.9	05.9	9	33.7	33.6	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	15.4	15.2	14.8	14.5	14.1	13.9	13.7	13.7	13.8	14.0	14.2	14.2	-50	05.5	05.5	05.4	05.4	05.5	05.5	05.6	05.7	05.7	05.7	05.7	05.6
El Nasl	3.6	88	28.6	28.4	28.2	27.9	27.6	27.4	27.3	27.3	27.3	27.5	27.6	27.6	-30	25.5	25.5	25.5	25.5	25.5	25.5	25.6	25.6	25.6	25.6	25.6	25.6
Nu Ophiuchus	3.3	90	10.9	10.8	10.6	10.3	10.1	09.9	09.8	09.8	09.9	10.0	10.1	10.1	-9	46.6	46.6	46.7	46.7	46.6	46.6	46.6	46.5	46.5	46.5	46.5	46.5
Xi Hercules	3.7	90	31.1	30.9	30.7	30.5	30.2	30.1	30.0	30.0	30.1	30.3	30.4	30.5	29	14.7	14.5	14.5	14.4	14.5	14.6	14.8	14.9	15.0	15.0	14.9	14.8
Eltanin	2.2	90	49.8																								

2005

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		
Sargas	1.9	95	35.4	35.2	34.9	34.6	34.3	34.1	34.0	34.0	34.1	34.2	34.4	34.4	-43	00.1	00.1	00.1	00.1	00.1	00.1	00.2	00.2	00.3	00.3	00.3	00.2
Ras Alhague	2.1	96	12.9	12.8	12.6	12.3	12.1	12.0	11.9	11.9	12.0	12.1	12.2	12.3	12	33.2	33.1	33.1	33.1	33.1	33.1	33.2	33.3	33.4	33.4	33.4	33.3
Shaula	1.6	96	31.3	31.1	30.8	30.5	30.3	30.1	30.0	30.0	30.1	30.2	30.4	30.4	-37	06.5	06.5	06.5	06.5	06.5	06.5	06.6	06.6	06.7	06.7	06.7	06.6
Choo	2.9	96	57.3	57.0	56.7	56.3	56.0	55.7	55.6	55.6	55.8	56.0	56.1	56.1	-49	52.8	52.8	52.8	52.8	52.8	52.8	52.9	53.0	53.1	53.1	53.1	53.0
Delta Ara	3.6	97	07.6	07.3	06.9	06.4	06.0	05.7	05.6	05.6	05.8	06.1	06.3	06.3	-60	41.3	41.2	41.2	41.2	41.2	41.3	41.4	41.5	41.6	41.6	41.6	41.5
Lesath	2.7	97	14.0	13.8	13.5	13.2	12.9	12.7	12.6	12.6	12.7	12.9	13.0	13.0	-37	18.0	18.0	18.0	18.0	18.0	18.1	18.1	18.2	18.2	18.2	18.2	18.1
Rastaban	2.8	97	22.4	22.2	21.9	21.6	21.3	21.2	21.1	21.2	21.5	21.7	22.0	22.1	52	17.7	17.5	17.4	17.4	17.4	17.5	17.6	17.8	17.9	18.0	18.0	17.9
Gamma Ara	3.3	98	33.6	33.2	32.9	32.4	32.1	31.8	31.7	31.7	31.9	32.1	32.3	32.3	-56	23.0	22.9	22.9	22.9	22.9	23.0	23.0	23.1	23.2	23.3	23.3	23.1
Beta Ara	2.8	98	35.0	34.7	34.4	33.9	33.6	33.3	33.2	33.3	33.4	33.6	33.8	33.8	-55	32.1	32.0	32.0	32.0	32.0	32.1	32.2	32.3	32.4	32.4	32.4	32.2
Theta Ophiuchus	3.3	99	25.8	25.5	25.3	25.0	24.8	24.6	24.5	24.5	24.6	24.8	24.9	24.9	-25	00.3	00.4	00.4	00.4	00.4	00.4	00.4	00.4	00.4	00.4	00.4	00.4
Pi Hercules	3.1	101	12.1	11.9	11.7	11.4	11.2	11.1	11.1	11.1	11.3	11.5	11.6	11.6	36	48.0	47.9	47.8	47.8	47.8	47.9	48.0	48.2	48.3	48.3	48.2	48.1
Sarin	3.1	101	11.9	11.7	11.5	11.2	11.0	10.9	10.8	10.9	11.0	11.1	11.3	11.3	24	49.8	49.7	49.6	49.6	49.6	49.7	49.8	49.9	50.0	50.1	50.1	49.9
Ras Algethi	2.7	101	17.3	17.1	16.9	16.6	16.5	16.3	16.3	16.3	16.4	16.5	16.6	16.6	14	22.9	22.8	22.7	22.7	22.7	22.8	22.9	23.0	23.1	23.1	23.1	23.0
Eta Scorpius	3.3	101	52.9	52.7	52.4	52.0	51.8	51.6	51.5	51.5	51.6	51.8	51.9	51.9	-43	14.8	14.7	14.7	14.8	14.8	14.8	14.9	14.9	15.0	15.0	15.0	14.9
Sabik	2.4	102	20.5	20.3	20.0	19.8	19.6	19.4	19.4	19.4	19.5	19.6	19.7	19.7	-15	43.9	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0
Aldhibah	3.2	102	48.7	48.4	48.0	47.6	47.2	47.1	47.1	47.4	47.8	48.2	48.5	48.7	65	42.3	42.1	42.0	42.0	42.0	42.2	42.3	42.5	42.6	42.7	42.6	42.5
Epsilon Hercules	3.9	104	53.2	53.0	52.8	52.5	52.3	52.2	52.2	52.2	52.4	52.5	52.7	52.7	30	55.0	54.8	54.7	54.7	54.8	55.0	55.1	55.2	55.2	55.2	55.1	55.0
Zeta Ara	3.1	105	15.3	14.9	14.5	14.1	13.8	13.6	13.5	13.5	13.7	14.0	14.1	14.1	-55	59.9	59.8	59.8	59.8	59.8	59.9	00.0	00.1	00.2	00.2	00.2	00.1
Kappa Ophiuchus	3.2	105	31.8	31.6	31.4	31.2	31.0	30.9	30.8	30.9	31.0	31.1	31.2	31.2	9	21.9	21.8	21.7	21.7	21.8	21.9	21.9	22.0	22.0	22.0	22.0	21.9
Zeta Scorpius	3.6	106	16.6	16.3	16.0	15.7	15.4	15.2	15.2	15.2	15.3	15.5	15.6	15.6	-42	22.2	22.2	22.2	22.2	22.2	22.3	22.4	22.4	22.5	22.5	22.5	22.4
Mu2 Scorpius	3.6	106	50.4	50.2	49.9	49.6	49.4	49.2	49.1	49.1	49.3	49.4	49.5	49.5	-38	01.6	01.6	01.6	01.6	01.6	01.7	01.7	01.8	01.8	01.8	01.8	01.7
Mu1 Scorpius	3.0	106	57.4	57.2	56.9	56.6	56.3	56.2	56.1	56.1	56.2	56.4	56.5	56.5	-38	03.4	03.4	03.4	03.4	03.4	03.5	03.5	03.6	03.6	03.6	03.6	03.5
Epsilon Scorpius	2.3	107	23.2	23.0	22.7	22.4	22.2	22.0	22.0	22.0	22.1	22.2	22.3	22.3	-34	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.4	18.4	18.4	18.4	18.3
Eta Ara	3.8	107	27.6	27.2	26.8	26.3	26.0	25.8	25.7	25.8	26.0	26.2	26.4	26.4	-59	03.0	02.9	02.9	03.0	03.0	03.1	03.2	03.3	03.4	03.4	03.4	03.3
Atria	1.9	107	43.2	42.7	42.1	41.5	41.0	40.7	40.7	40.8	41.1	41.5	41.8	41.8	-69	02.1	02.1	02.1	02.1	02.1	02.2	02.4	02.5	02.6	02.6	02.6	02.5
Eta Hercules	3.5	109	14.4	14.2	13.9	13.7	13.5	13.4	13.4	13.5	13.6	13.8	13.9	14.0	38	54.5	54.4	54.3	54.4	54.4	54.4	54.6	54.7	54.8	54.9	54.8	54.7
Zeta Hercules	2.9	109	38.3	38.1	37.8	37.6	37.4	37.3	37.3	37.4	37.5	37.7	37.8	37.8	31	35.4	35.3	35.2	35.2	35.3	35.4	35.6	35.7	35.7	35.7	35.6	
Zeta Ophiuchus	2.6	110	38.9	38.7	38.5	38.2	38.0	37.9	37.9	37.9	38.0	38.1	38.2	38.1	-10	34.7	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
Tau Scorpius	2.8	110	57.6	57.3	57.1	56.8	56.6	56.5	56.4	56.4	56.5	56.7	56.8	56.7	-28	13.6	13.6	13.7	13.7	13.7	13.7	13.8	13.8	13.8	13.8	13.8	13.7
Gamma Apus	3.9	111	28.6	27.7	26.7	25.6	24.8	24.4	24.3	24.7	25.4	26.1	26.6	26.6	-78	54.4	54.3	54.3	54.4	54.5	54.5	54.6	54.8	54.9	54.9	54.8	54.7
Marfik	3.9	112	12.9	12.7	12.5	12.2	12.1	12.0	11.9	12.0	12.1	12.2	12.2	12.2	1	58.3	58.2	58.1	58.1	58.1	58.1	58.2	58.3	58.3	58.3	58.3	58.2
Kornephoros	2.8	112	23.9	23.6	23.4	23.2	23.0	22.9	22.9	22.9	23.1	23.2	23.3	23.3	21	28.5	28.4	28.4	28.4	28.4	28.4	28.5	28.6	28.7	28.8	28.7	28.5
Antares	1.1	112	34.8	34.5	34.3	34.0	33.8	33.7	33.6	33.7	33.8	33.9	34.0	33.9	-26	26.6	26.6	26.7	26.7	26.7	26.8	26.8	26.8	26.8	26.8	26.8	26.7
Eta Draco	2.7	113	59.6	59.3	58.9	58.6	58.3	58.2	58.3	58.6	58.9	59.2	59.5	59.5	61	29.9	29.8	29.7	29.7	29.9	30.0	30.2	30.3	30.3	30.3	30.2	29.9
Gamma Hercules	3.7	114	28.3	28.0	27.8	27.6	27.4	27.3	27.3	27.4	27.5	27.6	27.7	27.7	19	08.3	08.2	08.1	08.1	08.1	08.2	08.3	08.4	08.5	08.5	08.5	08.3
Alniyat	2.9	114	38.1	37.8	37.6	37.3	37.1	37.0	37.0	37.0	37.1	37.2	37.3	37.2	-25	36.3	36.3	36.4	36.4	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5
Tau Hercules	3.9	115	02.1	01.8	01.5	01.2	01.0	01.0	01.0	01.1	01.3	01.5	01.7	01.7	46	17.8	17.7	17.6	17.7	17.7	17.8	17.9	18.1	18.2	18.2	18.1	17.9
Yed Posterior	3.2	115	21.6	21.4	21.2	20.9	20.8	20.6	20.6	20.7	20.8	20.9	20.9	20.9	-4	42.4	42.4	42.5	42.5	42.5	42.5	42.5	42.4	42.4	42.4	42.4	42.5
Atria	3.9	116	02.5	02.0	01.6	01.1	00.7	00.5	00.5	00.7	00.9	01.2	01.4	01.3	-63	41.8	41.8	41.8	41.9	42.0	42.1	42.2	42.3	42.3	42.3	42.2	42.1
Yed Prior	2.7	116	21.3	21.1	20.8	20.6	20.4	20.3	20.3	20.3	20.4	20.6	20.6	20.6	-3	42.5	42.6	42.7	42.7	42.7	42.7	42.6	42.6	42.6	42.6	42.6	42.6
Graffias	2.6	118	34.5	34.3	34.0	33.8	33.6	33.5	33.5	33.5	33.6	33.7	33.8	33.7	-19	49.2	49.2	49.3	49.3	49.3	49.3	49.4	49.4	49.4	49.3	49.3	49.3
Dschubba	2.3	119	51.0	50.7	50.5	50.3	50.1	50.0	49.9	50.0	50.1	50.2	50.3	50.2	-22	38.2	38.2	38.3	38.3	38.3	38.4	38.4	38.4	38.4	38.4	38.3	38.3
Eta Lupus	3.4	119	53.7	53.4	53.1	52.9	52.7	52.5	52.5	52.6	52.7	52.8	52.9	52.8	-38	24.6	24.6	24.7	24.7	24.8	24.9	24.9	25.0	25.0	24.9	24.9	24.8
Pi Scorpius	2.9	120	13.1	12.9	12.6	12.4	12.2	12.1	12.1	12.1	12.2	12.3	12.4	12.3	-26	07.7	07.7	07.8	07.9	07.9	07.9	07.9	08.0	08.0	07.9	07.9	07.9
Gamma Serpens	3.9	120	50.1	49.9	49.6	49.4	49.3	49.2	49.2	49.2	49.4	49.5	49.5	49.5	15	38.6	38.4	38.4	38.4	38.5	38.5	38.6	38.7	38.7	38.7	38.6	38.5
Beta Triangl' Aust'	2.8	121	07.1	06.6	06.2	05.7	05.4	05.2	05.2	05.4	05.7	05.9	06.1	06.0	-63	26.6	26.6	26.6	26.7	26.9	27.0	27.1	27.2	27.2	27.1	27.0	26.9
Epsilon Serpens	3.7	122	14.4	14.1	13.9	13.7	13.6	13.5	13.5	13.5																	

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		
		<small>0</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>0</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>	<small>.</small>		
Phi Lupus	3.6	129	28.6	28.3	28.0	27.8	27.6	27.5	27.5	27.6	27.7	27.9	27.9	27.8	-36	16.7	16.7	16.8	16.9	17.0	17.0	17.1	17.1	17.1	17.0	17.0	16.9
Delta Lupus	3.2	129	35.0	34.7	34.4	34.1	33.9	33.9	33.9	34.0	34.1	34.2	34.3	34.1	-40	39.8	39.9	39.9	40.0	40.1	40.2	40.3	40.3	40.3	40.2	40.1	40.1
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	48.6	48.5	48.5	48.6	48.8	48.9	49.0	49.1	49.0	48.9	48.8	48.6
Gamma Triang' Aust'	2.9	130	10.3	09.7	09.2	08.7	08.3	08.2	08.3	08.6	08.9	09.3	09.4	09.2	-68	41.7	41.7	41.7	41.9	42.0	42.2	42.3	42.3	42.3	42.3	42.2	42.0
Zuben Elschemali	2.6	130	41.2	41.0	40.7	40.5	40.4	40.3	40.3	40.4	40.5	40.6	40.6	40.5	-9	24.1	24.2	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.2	24.2	24.3
Delta Bootes	3.5	131	04.7	04.5	04.2	04.0	03.9	03.8	03.9	04.0	04.1	04.3	04.3	04.2	33	17.5	17.4	17.4	17.4	17.5	17.7	17.8	17.8	17.8	17.7	17.6	17.5
Zeta Lupus	3.4	131	50.9	50.5	50.2	49.9	49.7	49.6	49.6	49.8	50.0	50.1	50.2	50.0	-52	06.9	07.0	07.0	07.1	07.3	07.4	07.5	07.5	07.5	07.4	07.3	07.2
Kappa Lupus	3.9	131	56.3	56.0	55.6	55.3	55.2	55.1	55.1	55.2	55.4	55.5	55.6	55.4	-48	45.3	45.3	45.4	45.5	45.6	45.7	45.8	45.8	45.8	45.7	45.6	45.5
Brachium	3.3	133	54.9	54.7	54.4	54.2	54.1	54.0	54.0	54.1	54.2	54.3	54.3	54.2	-25	18.0	18.1	18.2	18.3	18.3	18.3	18.4	18.4	18.3	18.3	18.3	18.3
Nekkar	3.5	134	28.3	28.0	27.7	27.5	27.4	27.3	27.4	27.6	27.7	27.9	27.9	27.8	40	22.0	21.9	21.9	21.9	22.0	22.2	22.3	22.3	22.3	22.2	22.1	21.9
Ke Kwan	3.1	135	08.2	07.8	07.6	07.3	07.1	07.1	07.1	07.2	07.4	07.5	07.5	07.4	-42	07.3	07.4	07.4	07.6	07.7	07.7	07.8	07.8	07.8	07.7	07.6	07.6
Beta Lupus	2.7	135	17.6	17.3	17.0	16.7	16.5	16.5	16.5	16.6	16.8	16.9	16.9	16.8	-43	09.1	09.2	09.2	09.3	09.4	09.5	09.6	09.6	09.6	09.5	09.4	09.4
Zuben El Genubi	2.8	137	13.0	12.7	12.5	12.3	12.2	12.2	12.2	12.2	12.3	12.4	12.4	12.3	-16	03.7	03.8	03.9	03.9	04.0	04.0	04.0	04.0	03.9	03.9	03.9	03.9
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	20.3	74	07.8	07.7	07.7	07.8	07.9	08.1	08.2	08.2	08.2	08.0	07.8	07.7
Alpha Apus	3.8	137	54.2	53.1	52.2	51.4	50.9	50.9	51.2	51.9	52.6	53.2	53.3	52.9	-79	03.7	03.7	03.8	03.9	04.1	04.3	04.4	04.5	04.4	04.3	04.2	04.1
109 Virgo	3.7	138	22.8	22.5	22.3	22.1	22.0	22.0	22.0	22.1	22.2	22.2	22.2	22.1	1	52.2	52.1	52.1	52.1	52.1	52.1	52.2	52.2	52.2	52.2	52.1	52.1
Mirak	2.4	138	42.2	41.9	41.7	41.5	41.4	41.4	41.4	41.5	41.6	41.7	41.8	41.7	27	03.0	02.9	02.9	02.9	03.0	03.1	03.2	03.2	03.2	03.1	03.0	02.9
Rijl al Awwa	3.9	139	10.4	10.2	10.0	09.8	09.7	09.6	09.7	09.7	09.8	09.9	09.9	09.8	-5	40.8	40.9	41.0	41.0	41.0	41.0	41.0	41.0	41.0	40.9	40.9	41.0
Alpha Circinus	3.2	139	17.1	16.5	16.1	15.7	15.5	15.5	15.6	15.8	16.1	16.3	16.4	16.2	-64	59.6	59.6	59.7	59.8	00.0	00.1	00.2	00.3	00.2	00.2	00.0	59.9
Men	2.3	139	26.6	26.2	25.9	25.6	25.5	25.4	25.5	25.6	25.8	25.9	25.9	25.8	-47	24.4	24.5	24.5	24.7	24.8	24.9	24.9	25.0	24.9	24.9	24.8	24.7
Zeta Bootes	3.8	139	39.4	39.2	39.0	38.8	38.7	38.7	38.7	38.8	38.9	39.0	39.0	38.9	13	42.3	42.2	42.1	42.1	42.2	42.3	42.3	42.4	42.4	42.3	42.2	42.1
Rigel Kentaurus	0.0	140	01.4	01.0	00.6	00.3	00.1	00.1	00.2	00.4	00.7	00.9	00.9	00.7	-60	51.1	51.1	51.2	51.3	51.5	51.6	51.7	51.7	51.7	51.6	51.5	51.4
Eta Centaurus	2.3	141	03.1	02.7	02.5	02.2	02.1	02.1	02.1	02.2	02.3	02.5	02.5	02.3	-42	10.6	10.7	10.8	10.9	11.0	11.1	11.1	11.1	11.1	11.0	11.0	10.9
Seginus	3.0	141	56.0	55.7	55.5	55.3	55.2	55.2	55.3	55.4	55.6	55.7	55.7	55.6	38	16.9	16.8	16.8	16.9	17.0	17.1	17.2	17.2	17.2	17.1	17.0	16.8
Rho Bootes	3.6	141	59.5	59.3	59.0	58.9	58.8	58.8	58.8	58.9	59.0	59.1	59.2	59.0	30	20.8	20.7	20.6	20.7	20.8	20.9	21.0	21.0	21.0	20.9	20.8	20.6
Lambda Bootes	3.6	145	04.6	04.2	03.9	03.7	03.6	03.6	03.6	03.8	03.9	04.0	04.0	03.8	-46	04.7	04.7	04.8	05.0	05.1	05.2	05.2	05.3	05.2	05.1	05.0	05.0
Arcturus	0.2	146	01.9	01.6	01.4	01.2	01.2	01.2	01.2	01.3	01.4	01.5	01.5	01.3	19	09.2	09.1	09.1	09.1	09.2	09.3	09.3	09.3	09.3	09.3	09.2	09.0
Menkent	2.1	148	15.7	15.4	15.1	15.0	14.9	14.8	14.9	15.0	15.1	15.2	15.2	15.0	-36	23.5	23.6	23.7	23.8	23.9	24.0	24.0	24.0	24.0	23.9	23.8	23.8
Pi Hydra	3.3	148	20.5	20.2	20.0	19.8	19.7	19.7	19.7	19.8	19.9	20.0	19.9	19.8	-26	42.3	42.4	42.5	42.6	42.6	42.7	42.7	42.7	42.7	42.6	42.6	42.5
Thuban	3.7	148	52.3	51.8	51.4	51.1	51.1	51.2	51.4	51.8	52.1	52.3	52.3	52.1	64	20.8	20.7	20.8	20.9	21.0	21.2	21.2	21.2	21.2	21.1	21.0	20.8
Agena	0.6	148	57.9	57.5	57.1	56.8	56.7	56.7	56.8	57.0	57.3	57.4	57.4	57.1	-60	23.6	23.6	23.7	23.9	24.1	24.2	24.3	24.3	24.2	24.1	24.0	23.9
Zeta Centaurus	2.5	151	02.6	02.3	02.0	01.8	01.7	01.7	01.8	01.9	02.1	02.2	02.1	01.9	-47	18.6	18.6	18.8	18.9	19.0	19.1	19.2	19.2	19.1	19.0	18.9	18.9
Muphrid	2.7	151	16.3	16.1	15.9	15.7	15.7	15.7	15.7	15.8	15.9	16.0	15.9	15.8	18	22.2	22.1	22.1	22.1	22.2	22.2	22.3	22.3	22.3	22.2	22.1	22.0
Mu Centaurus	3.5	152	31.6	31.3	31.0	30.8	30.7	30.7	30.8	30.9	31.1	31.1	31.1	30.9	-42	29.7	29.8	29.9	30.1	30.2	30.2	30.3	30.3	30.2	30.1	30.1	30.0
Nu Centaurus	3.4	152	33.3	33.0	32.7	32.5	32.4	32.4	32.5	32.6	32.8	32.8	32.8	32.6	-41	42.6	42.6	42.8	42.9	43.0	43.1	43.1	43.1	43.1	43.0	42.9	42.9
Alkaid	1.9	153	04.1	03.7	03.4	03.3	03.2	03.3	03.4	03.6	03.8	03.9	03.8	03.7	49	17.0	16.9	17.0	17.1	17.2	17.3	17.4	17.4	17.3	17.2	17.0	16.8
Epsilon Centaurus	2.3	154	57.3	57.0	56.7	56.4	56.4	56.4	56.5	56.7	56.9	57.0	56.9	56.7	-53	29.3	29.3	29.5	29.6	29.8	29.9	29.9	29.9	29.9	29.7	29.6	29.6
Heze	3.4	156	16.0	15.7	15.5	15.4	15.3	15.3	15.4	15.5	15.5	15.6	15.5	15.4	-0	37.3	37.4	37.5	37.5	37.5	37.5	37.4	37.4	37.4	37.4	37.5	37.5
delta Centaurus	3.9	157	10.3	10.0	09.7	09.6	09.5	09.5	09.6	09.7	09.8	09.9	09.8	09.6	-39	25.8	25.9	26.0	26.1	26.2	26.3	26.3	26.3	26.3	26.2	26.1	26.1
Spica	1.1	158	38.4	38.1	37.9	37.8	37.7	37.7	37.8	37.9	37.9	38.0	37.9	37.7	-11	11.2	11.3	11.4	11.4	11.5	11.5	11.5	11.4	11.4	11.4	11.4	11.5
Mizar	2.2	158	58.1	57.8	57.5	57.3	57.3	57.4	57.6	57.8	57.9	58.0	58.0	57.8	54	53.7	53.6	53.6	53.8	53.9	54.0	54.1	54.1	54.0	53.8	53.6	53.5
Iota Centaurus	2.8	159	47.1	46.8	46.6	46.4	46.4	46.4	46.5	46.6	46.7	46.7	46.7	46.5	-36	44.1	44.2	44.4	44.5	44.6	44.6	44.7	44.6	44.6	44.5	44.4	44.4
Gamma Hydra	3.0	160	12.3	12.1	11.9	11.7	11.7	11.7	11.7	11.8	11.9	11.9	11.9	11.7	-23	11.8	11.9	12.0	12.1	12.1	12.1	12.1	12.1	12.1	12.0	12.0	12.0
Delta Musca	3.6	164	21.3	20.7	20.2	20.0	20.0	20.2	20.5	20.9	21.3	21.4	21.3	20.8	-71	34.2	34.3	34.5	34.6	34.8	35.0	35.0	35.0	34.9	34.8	34.6	34.6
Vindemiatrix	2.8	164	23.7	23.5	23.3	23.2	23.2	23.2	23.3	23.3	23.4	23.4	23.3	23.2	10	55.9	55.8	55.7	55.7	55.8	55.8	55.9	55.9	55.9	55.8	55.7	55.6
Cor Caroli	2.9	165	56.1	55.8	55.6	55.5	55.5	55.6	55.7	55.8	55.9	55.9	55.8	55.6	38	17.3	17										

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	35.8	35.4	35.2	35.0	35.1	35.3	35.5	35.7	35.9	35.9	35.7	35.3	-60	25.4	25.5	25.7	25.9	26.0	26.1	26.1	26.1	26.0	25.9	25.8	25.7	
Zaniah	3.9	174	57.7	57.4	57.3	57.2	57.2	57.2	57.3	57.4	57.4	57.4	57.4	57.3	57.1	-0	41.7	41.8	41.8	41.9	41.9	41.8	41.8	41.8	41.8	41.8	41.8	41.9
Gienah Ghurab	2.6	175	59.2	58.9	58.8	58.7	58.7	58.7	58.8	58.9	58.9	58.9	58.8	58.6	-17	34.1	34.2	34.3	34.4	34.4	34.4	34.4	34.4	34.4	34.3	34.3	34.3	34.3
Megrez	3.3	176	04.8	04.4	04.1	04.0	04.1	04.3	04.5	04.7	04.8	04.8	04.6	04.3	57	00.0	00.0	00.1	00.2	00.3	00.4	00.4	00.4	00.3	00.1	59.9	59.8	
Delta Crux	2.8	176	09.1	08.7	08.5	08.4	08.4	08.6	08.8	09.0	09.1	09.1	09.0	08.6	-58	46.3	46.4	46.6	46.8	46.9	47.0	47.0	47.0	46.9	46.7	46.6	46.6	
Minkar	3.0	177	24.4	24.1	24.0	23.9	23.9	24.0	24.1	24.1	24.2	24.2	24.0	23.8	-22	38.7	38.8	38.9	39.0	39.1	39.1	39.1	39.1	39.0	38.9	38.9	39.0	
Delta Centaurus	2.6	177	50.9	50.6	50.4	50.3	50.4	50.5	50.6	50.8	50.9	50.9	50.7	50.4	-50	44.7	44.9	45.0	45.2	45.3	45.4	45.4	45.3	45.2	45.1	45.0	45.0	
Phad	2.4	181	28.4	28.1	27.9	27.8	27.9	28.1	28.2	28.4	28.4	28.4	28.2	27.9	53	39.8	39.8	39.8	40.0	40.1	40.2	40.2	40.1	40.0	39.8	39.7	39.5	
Zavijava	3.6	182	15.7	15.5	15.3	15.3	15.3	15.4	15.5	15.5	15.5	15.4	15.3	15.1	1	44.2	44.1	44.1	44.0	44.0	44.1	44.1	44.1	44.1	44.1	44.0	43.9	
Denebola	2.1	182	40.3	40.1	39.9	39.9	39.9	39.9	40.0	40.1	40.1	40.1	39.9	39.7	14	32.6	32.5	32.5	32.5	32.5	32.6	32.6	32.6	32.6	32.5	32.4	32.3	
Chi Ursae Major	3.7	183	25.2	24.9	24.7	24.6	24.7	24.8	25.0	25.1	25.1	25.1	24.9	24.6	47	44.9	44.9	44.9	45.0	45.2	45.2	45.2	45.2	45.1	44.9	44.8	44.6	
Lambda Musca	3.6	183	32.5	32.1	31.9	31.8	32.0	32.2	32.5	32.8	33.0	33.0	32.7	32.3	-66	45.0	45.2	45.4	45.6	45.7	45.8	45.8	45.7	45.6	45.5	45.4	45.3	
Lambda Centaurus	3.1	185	59.9	59.6	59.4	59.3	59.5	59.7	00.0	00.2	00.3	00.3	00.0	59.6	-63	02.5	02.7	02.8	03.0	03.2	03.2	03.2	03.2	03.1	02.9	02.8	02.8	
Xi Hydra	3.5	186	41.3	41.1	41.0	40.9	41.0	41.1	41.2	41.2	41.3	41.2	41.1	40.8	-31	52.9	53.0	53.2	53.3	53.4	53.4	53.4	53.3	53.2	53.2	53.1	53.2	
Giauzar	3.8	187	04.1	03.6	03.3	03.2	03.4	03.8	04.1	04.4	04.5	04.4	04.1	03.6	69	18.0	18.0	18.1	18.2	18.4	18.4	18.4	18.3	18.1	18.0	17.8	17.6	
Pi Centaurus	3.9	189	41.5	41.2	41.1	41.1	41.2	41.4	41.6	41.7	41.8	41.7	41.5	41.2	-54	30.8	30.9	31.1	31.3	31.4	31.5	31.5	31.4	31.3	31.1	31.0	31.1	
Delta Crater	3.6	190	06.2	05.9	05.8	05.8	05.8	05.9	06.0	06.0	06.0	06.0	05.8	05.6	-14	48.2	48.3	48.4	48.5	48.5	48.5	48.5	48.5	48.4	48.4	48.4	48.5	
Alula Borealis	3.5	190	18.7	18.4	18.3	18.3	18.3	18.4	18.5	18.6	18.6	18.5	18.3	18.1	33	03.9	03.9	03.9	04.0	04.0	04.1	04.1	04.1	04.0	03.9	03.7	03.6	
Alula Australis	3.8	190	23.2	22.9	22.8	22.8	22.8	22.9	23.0	23.1	23.1	23.0	22.8	22.6	31	29.9	29.9	29.9	30.0	30.1	30.1	30.1	30.1	30.0	29.9	29.8	29.7	
Chort	3.3	191	22.4	22.2	22.1	22.0	22.1	22.2	22.2	22.3	22.3	22.2	22.1	21.8	15	24.1	24.0	24.0	24.0	24.1	24.1	24.1	24.1	24.1	24.0	23.9	23.8	
Zozma	2.6	191	24.3	24.1	24.0	23.9	24.0	24.1	24.2	24.2	24.2	24.1	24.0	23.7	20	29.7	29.7	29.7	29.7	29.7	29.8	29.8	29.8	29.7	29.7	29.6	29.5	
Psi Ursae Major	3.0	192	30.7	30.4	30.2	30.2	30.3	30.4	30.6	30.6	30.6	30.6	30.4	30.1	44	28.1	28.1	28.2	28.3	28.4	28.4	28.4	28.3	28.2	28.1	28.0	27.8	
BS 4337	3.9	192	48.0	47.7	47.5	47.5	47.7	47.9	48.1	48.3	48.4	48.3	48.1	47.7	-58	59.8	00.0	00.1	00.3	00.4	00.5	00.5	00.4	00.3	00.1	00.0	00.1	
Dubhe	1.8	193	59.1	58.7	58.5	58.6	58.7	59.0	59.2	59.3	59.3	59.2	58.9	58.5	61	43.2	43.3	43.4	43.5	43.6	43.7	43.6	43.5	43.4	43.2	43.0	42.9	
Merak	2.4	194	27.6	27.2	27.1	27.1	27.2	27.4	27.6	27.7	27.7	27.6	27.3	27.0	56	21.1	21.2	21.3	21.4	21.5	21.5	21.5	21.4	21.3	21.1	21.0	20.8	
u Carina	3.8	196	34.5	34.2	34.1	34.2	34.3	34.6	34.8	34.9	35.0	34.9	34.6	34.2	-58	52.5	52.6	52.8	53.0	53.1	53.1	53.1	53.0	52.9	52.8	52.7	52.7	
Praecipula	3.8	196	36.0	35.8	35.6	35.6	35.7	35.8	35.9	35.9	35.9	35.8	35.6	35.4	34	11.2	11.1	11.2	11.2	11.3	11.4	11.4	11.3	11.2	11.1	11.0	10.9	
Nu Hydra	3.1	197	31.9	31.7	31.6	31.6	31.7	31.7	31.8	31.9	31.8	31.8	31.6	31.3	-16	13.0	13.2	13.3	13.4	13.4	13.4	13.3	13.3	13.2	13.2	13.2	13.3	
Mu Velorum	2.7	198	15.2	15.0	14.9	14.9	15.0	15.2	15.3	15.5	15.5	15.4	15.2	14.8	-49	26.5	26.7	26.8	27.0	27.1	27.1	27.1	27.0	26.9	26.8	26.7	26.7	
Theta Carina	2.7	199	12.9	12.6	12.5	12.6	12.8	13.1	13.4	13.6	13.7	13.5	13.2	12.8	-64	24.9	25.1	25.3	25.4	25.6	25.6	25.6	25.5	25.3	25.2	25.1	25.1	
Rho Leo	3.9	201	43.8	43.6	43.5	43.5	43.6	43.7	43.7	43.7	43.7	43.6	43.4	43.2	9	16.9	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.7	16.6	
BS 4140	3.4	201	56.9	56.6	56.5	56.6	56.8	57.1	57.3	57.5	57.6	57.4	57.1	56.7	-61	42.3	42.5	42.7	42.9	43.0	43.0	43.0	42.9	42.7	42.6	42.5	42.6	
BS 4114	3.8	202	59.0	58.7	58.6	58.7	58.9	59.2	59.4	59.5	59.6	59.4	59.1	58.7	-58	45.6	45.8	45.9	46.1	46.2	46.2	46.2	46.1	46.0	45.8	45.8	45.8	
Mu Hydra	3.8	203	25.0	24.8	24.7	24.7	24.8	24.9	25.0	25.0	24.9	24.8	24.7	24.4	-16	51.6	51.7	51.8	51.9	51.9	51.9	51.8	51.8	51.7	51.7	51.7	51.8	
Tania Australis	3.1	204	20.4	20.1	20.0	20.1	20.2	20.3	20.4	20.4	20.4	20.2	20.0	19.7	41	28.3	28.4	28.4	28.5	28.6	28.6	28.6	28.5	28.4	28.3	28.2	28.1	
Algiba	2.0	204	56.2	56.0	55.9	55.9	56.0	56.1	56.1	56.1	56.1	56.0	55.8	55.5	19	48.9	48.9	48.9	48.9	49.0	49.0	49.0	49.0	49.0	48.9	48.8	48.7	
Tania Borealis	3.4	205	38.8	38.6	38.5	38.5	38.6	38.7	38.8	38.9	38.8	38.7	38.4	38.1	42	53.2	53.3	53.3	53.4	53.5	53.5	53.5	53.4	53.3	53.2	53.1	53.0	
BS4050	3.4	205	41.1	40.9	40.8	40.9	41.1	41.4	41.7	41.8	41.8	41.7	41.4	41.0	-61	21.1	21.3	21.5	21.6	21.8	21.8	21.7	21.6	21.5	21.3	21.3	21.3	
Adhafera	3.4	205	45.3	45.1	45.1	45.1	45.1	45.2	45.3	45.3	45.3	45.1	44.9	44.7	23	23.5	23.5	23.5	23.5	23.6	23.6	23.6	23.6	23.5	23.5	23.4	23.3	
BS 4023	3.8	206	15.7	15.5	15.5	15.5	15.6	15.8	15.9	16.0	16.0	15.9	15.6	15.3	-42	08.5	08.7	08.9	09.0	09.1	09.1	09.0	08.9	08.8	08.7	08.7	08.7	
Omega Carina	3.3	206	31.9	31.6	31.6	31.8	32.1	32.6	32.9	33.2	33.3	33.1	32.6	32.1	-70	03.4	03.6	03.8	04.0	04.1	04.1	04.1	04.0	03.8	03.7	03.6	03.6	
Lambda Hydra	3.6	207	17.4	17.3	17.2	17.2	17.3	17.4	17.5	17.5	17.4	17.3	17.1	16.9	-12	22.6	22.7	22.8	22.9	22.9	22.9	22.8	22.8	22.7	22.7	22.7	22.7	
Regulus	1.4	207	50.3	50.1	50.1	50.1	50.2	50.2	50.3	50.3	50.2	50.1	49.9	49.7	11	56.6	56.5	56.5	56.5	56.5	56.6	56.6	56.6	56.6	56.5	56.4	56.4	
Eta Leo	3.5	208	05.8	05.6	05.5	05.6	05.6	05.7	05.8	05.8	05.7	05.6	05.4	05.2	16	44.3	44.2	44.2	44.3	44.3	44.3	44.3	44.3	44.3	44.2	44.2	44.1	
Tseen Ke	3.5	210	44.3	44.1	44.0	44.1	44.3	44.6	44.8	44.8	44.8	44.7	44.4	44.0	-54	35.2	35.4	35.6	35.7	35.8	35.8	35.7	35.6	35.5	35.4	35.3	35.4	
Rasalas	3.9	211	44.1	43.9	43.9	43.9	44.0	44.1	44.1	44.1	44.1	43.9	43.7	43.4	25	59.0	58.9	59.0	59.0	59.1	59.1	59.1	59.0	59.0	58.9	58.8	58.7	
Upsilon Ursae Major	3.8	212	09.4	09.1	09.0	09.1																						

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		
Turais	2.3	220	41.3	41.2	41.2	41.4	41.7	42.0	42.2	42.2	42.2	42.0	41.6	41.2	-59	17.5	17.7	17.9	18.0	18.1	18.0	18.0	17.8	17.7	17.6	17.5	17.6
Theta Hydra	3.9	221	20.5	20.3	20.3	20.4	20.5	20.5	20.6	20.6	20.5	20.3	20.1	19.8	2	17.7	17.6	17.5	17.5	17.5	17.6	17.6	17.6	17.6	17.6	17.6	17.6
Miaplacidus	1.7	221	40.7	40.5	40.6	41.0	41.4	41.8	42.2	42.3	42.3	42.0	41.5	41.0	-69	44.0	44.2	44.3	44.5	44.6	44.6	44.5	44.3	44.2	44.0	44.0	44.1
Canopus	3.4	222	13.2	13.0	13.1	13.3	13.6	13.8	14.0	14.1	14.0	13.8	13.5	13.1	-58	59.0	59.2	59.3	59.5	59.5	59.5	59.4	59.3	59.1	59.0	59.0	59.1
Suhail	2.2	222	57.1	57.0	57.0	57.1	57.3	57.4	57.5	57.6	57.5	57.3	57.0	56.7	-43	26.9	27.1	27.3	27.4	27.4	27.4	27.3	27.2	27.0	27.0	27.0	27.0
BS 3614	3.8	223	54.9	54.7	54.8	54.9	55.1	55.3	55.4	55.4	55.3	55.1	54.9	54.5	-47	06.8	07.0	07.2	07.3	07.3	07.3	07.2	07.1	06.9	06.8	06.8	06.9
Talitha Australis	3.6	224	00.2	00.0	59.9	00.0	00.2	00.3	00.4	00.4	00.2	00.0	59.7	59.3	47	08.1	08.2	08.3	08.4	08.4	08.4	08.3	08.3	08.1	08.0	07.9	07.9
Talitha	3.1	225	06.4	06.2	06.2	06.3	06.5	06.6	06.7	06.6	06.5	06.2	05.9	05.6	48	01.3	01.3	01.4	01.5	01.5	01.5	01.5	01.4	01.3	01.2	01.1	01.0
Zeta Hydra	3.1	226	05.0	04.8	04.8	04.9	05.0	05.1	05.1	05.0	04.9	04.8	04.5	04.3	5	55.7	55.6	55.6	55.6	55.6	55.6	55.6	55.7	55.7	55.6	55.6	55.5
BS 3571	3.8	226	12.2	12.1	12.2	12.4	12.7	13.0	13.2	13.3	13.2	12.9	12.5	12.2	-60	39.5	39.7	39.9	40.0	40.1	40.1	40.0	39.8	39.7	39.6	39.6	39.6
Epsilon Hydra	3.4	228	14.2	14.1	14.1	14.2	14.3	14.3	14.4	14.3	14.2	14.0	13.8	13.6	6	24.1	24.0	24.0	24.0	24.0	24.0	24.1	24.1	24.1	24.0	23.9	
Delta Vela	1.9	228	47.0	46.9	47.0	47.2	47.4	47.7	47.8	47.9	47.7	47.5	47.2	46.9	-54	43.4	43.6	43.7	43.9	43.9	43.9	43.8	43.6	43.5	43.4	43.4	43.5
Asellus Australis	3.9	228	45.3	45.1	45.1	45.2	45.3	45.4	45.4	45.4	45.2	45.0	44.8	44.5	18	08.2	08.2	08.2	08.2	08.2	08.2	08.2	08.2	08.2	08.2	08.1	08.0
Alpha Pyxis	3.7	229	02.9	02.8	02.8	02.9	03.1	03.2	03.3	03.2	03.1	03.0	02.7	02.4	-33	12.1	12.2	12.4	12.5	12.5	12.4	12.3	12.2	12.1	12.0	12.1	12.2
BS 3445	3.8	229	47.8	47.7	47.8	47.9	48.1	48.3	48.4	48.4	48.3	48.1	47.8	47.5	-46	39.8	39.9	40.1	40.2	40.2	40.2	40.1	40.0	39.8	39.7	39.7	39.8
Omicron Velorum	3.6	229	53.1	53.0	53.1	53.3	53.5	53.7	53.9	53.9	53.8	53.6	53.2	52.9	-62	56.1	56.3	56.5	56.6	56.6	56.6	56.5	56.3	56.2	56.1	56.1	56.2
Muscida	3.4	232	19.3	19.1	19.1	19.3	19.5	19.7	19.8	19.7	19.5	19.2	18.7	18.3	60	42.0	42.1	42.3	42.3	42.4	42.3	42.2	42.1	42.0	41.9	41.8	41.8
Beta Volans	3.8	233	32.6	32.5	32.7	33.0	33.4	33.8	34.0	34.1	33.9	33.6	33.1	32.7	-66	09.0	09.2	09.3	09.4	09.5	09.4	09.2	09.2	09.0	08.9	08.9	09.0
BS 3314	3.9	233	31.2	31.0	31.1	31.1	31.2	31.3	31.4	31.3	31.2	31.0	30.8	30.5	-3	55.3	55.4	55.4	55.4	55.4	55.4	55.3	55.3	55.2	55.2	55.3	55.4
Avior	2.0	234	20.3	20.2	20.4	20.6	20.9	21.2	21.4	21.4	21.2	21.0	20.6	20.2	-59	31.3	31.5	31.6	31.8	31.8	31.7	31.6	31.5	31.3	31.2	31.2	31.3
Altarf	3.5	235	48.0	47.9	47.9	48.0	48.1	48.2	48.2	48.1	48.0	47.8	47.5	47.3	9	10.3	10.2	10.2	10.2	10.2	10.2	10.3	10.3	10.3	10.3	10.2	10.2
Suhail	1.8	237	34.4	34.3	34.4	34.6	34.8	35.0	35.1	35.0	34.9	34.7	34.4	34.1	-47	20.9	21.1	21.2	21.3	21.3	21.2	21.1	21.0	20.8	20.8	20.8	20.9
Rho Puppis	2.8	238	03.4	03.3	03.4	03.5	03.6	03.7	03.8	03.7	03.6	03.4	03.1	02.9	-24	19.0	19.1	19.2	19.3	19.3	19.2	19.1	19.0	18.9	18.9	18.9	19.0
Naos	2.2	239	03.3	03.3	03.3	03.5	03.7	03.8	03.9	03.8	03.7	03.5	03.2	02.9	-40	00.9	01.0	01.2	01.2	01.2	01.2	01.1	00.9	00.8	00.7	00.8	00.9
Chi Carina	3.5	240	46.0	46.0	46.1	46.3	46.6	46.8	46.9	46.8	46.7	46.4	46.1	45.8	-52	59.5	59.7	59.9	00.0	00.0	59.9	59.8	59.6	59.5	59.4	59.4	59.5
BS 3080	3.7	241	53.9	53.8	53.9	54.1	54.2	54.4	54.4	54.4	54.2	54.0	53.7	53.5	-40	35.1	35.3	35.4	35.5	35.5	35.4	35.3	35.2	35.1	35.0	35.0	35.1
Asmidiske	3.3	242	37.2	37.1	37.2	37.3	37.4	37.5	37.6	37.5	37.3	37.1	36.9	36.7	-24	52.2	52.3	52.4	52.5	52.5	52.4	52.3	52.2	52.1	52.1	52.1	52.2
Pollux	1.2	243	35.4	35.3	35.4	35.5	35.6	35.7	35.6	35.5	35.4	35.1	34.9	34.6	28	00.9	00.9	00.9	01.0	01.0	01.0	01.0	00.9	00.9	00.8	00.8	00.8
c Puppis	3.6	243	38.2	38.2	38.2	38.4	38.6	38.7	38.7	38.7	38.5	38.3	38.0	37.8	-37	58.7	58.8	59.0	59.0	59.0	59.0	58.8	58.7	58.6	58.5	58.6	58.7
Kappa Gemini	3.6	243	48.5	48.4	48.4	48.6	48.7	48.7	48.7	48.6	48.4	48.2	48.0	47.7	24	23.2	23.2	23.2	23.3	23.3	23.3	23.3	23.2	23.2	23.2	23.1	23.1
Alpha Monoceros	3.9	244	37.5	37.4	37.5	37.6	37.7	37.8	37.8	37.7	37.5	37.3	37.1	36.9	-9	33.7	33.8	33.8	33.9	33.8	33.8	33.7	33.6	33.6	33.6	33.6	33.7
Procyon	0.4	245	06.3	06.3	06.3	06.4	06.5	06.6	06.6	06.5	06.3	06.1	05.9	05.6	5	12.8	12.8	12.7	12.7	12.7	12.8	12.8	12.8	12.9	12.9	12.8	12.7
Castor	1.6	246	16.0	15.9	15.9	16.0	16.2	16.2	16.2	16.1	15.9	15.7	15.4	15.1	31	52.7	52.7	52.8	52.8	52.8	52.8	52.7	52.7	52.7	52.6	52.6	52.5
Sigma Puppis	3.3	247	38.8	38.8	38.9	39.1	39.3	39.4	39.5	39.4	39.2	39.0	38.7	38.5	-43	18.5	18.7	18.8	18.8	18.9	18.8	18.7	18.5	18.4	18.3	18.4	18.5
Gomeisa	2.9	248	08.4	08.4	08.4	08.5	08.6	08.7	08.7	08.6	08.4	08.2	08.0	07.7	8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.9	16.9	16.9	16.8	16.8
Iota Gemini	3.8	248	29.2	29.1	29.1	29.3	29.4	29.5	29.4	29.3	29.1	28.9	28.6	28.3	27	47.3	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.3	47.3	47.3	47.2
Aludra	2.5	248	55.3	55.3	55.4	55.5	55.7	55.8	55.8	55.7	55.5	55.3	55.1	54.8	-29	18.6	18.8	18.9	18.9	18.9	18.8	18.7	18.6	18.5	18.4	18.5	18.6
Wasat	3.5	249	53.4	53.4	53.4	53.5	53.6	53.7	53.7	53.5	53.3	53.1	52.9	52.6	21	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.4	58.4	58.4
Lambda Gemini	3.6	250	24.1	24.0	24.0	24.1	24.3	24.3	24.3	24.2	24.0	23.8	23.5	23.3	16	32.0	31.9	31.9	31.9	32.0	32.0	32.0	32.0	32.0	32.0	31.9	31.9
Pi Puppis	2.7	250	39.9	39.9	40.0	40.1	40.3	40.4	40.4	40.4	40.2	40.0	39.7	39.5	-37	06.3	06.4	06.5	06.6	06.5	06.5	06.3	06.2	06.1	06.0	06.1	06.2
Gamma Volans	3.8	252	48.5	48.6	49.0	49.5	50.0	50.4	50.6	50.5	50.2	49.8	49.2	48.8	-70	30.3	30.4	30.6	30.6	30.6	30.5	30.4	30.2	30.1	30.0	30.0	30.2
Wezen	1.8	252	50.8	50.8	50.9	51.0	51.1	51.2	51.2	51.1	51.0	50.7	50.5	50.3	-26	24.0	24.1	24.2	24.2	24.2	24.1	24.0	23.9	23.8	23.7	23.8	23.9
Omicron Canis Major	3.0	254	11.2	11.2	11.3	11.4	11.6	11.6	11.6	11.5	11.3	11.1	10.9	10.7	-23	50.3	50.5	50.5	50.6	50.5	50.5	50.4	50.2	50.1	50.1	50.2	50.3
Sigma Canis Major	3.5	254	30.9	30.9	31.0	31.2	31.3	31.4	31.4	31.3	31.1	30.9	30.6	30.4	-27	56.4	56.5	56.6	56.7	56.6	56.6	56.4	56.3	56.2	56.2	56.2	56.3
Adara	1.5	255	17.4	17.4	17.5	17.6	17.7	17.8	17.8	17.7	17.5	17.3	17.1	16.9	-28	58.6	58.8	58.8	58.9	58.9	58.8	58.6	58.5	58.4	58.4	58.4	58.6
Theta Gemini	3.6	256	42.9	42.9	43.0	43.1	43.2	43.3	43.2	43.1	42.8	42.6	42.3	42.0	33	57.4	57.4	57.5	57.5	57.5	57.5	57.4	57.4	57.4	57.3	57.3	57.3
Tau Puppis	2.9	257	28.6	28.7	28.8	29.1	29.3	29.5	29.5	29.4	29.2	28.9	28.6	28.4	-50	37.1	37.3	37.4	37.4	37.4	37.3	37.1	37.0	36.9	36.8	36.9	37.0
Kappa Canis Major	3.5	257	29.3	29.3	29.4	29.5	29.7	29.8	29.8	29.7	29.5	29.2	29.0	28.8	-32	30.7	30.9	31.0	31.0	31.0	30.9	30.8	30.6	30.5	30.5	3	

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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		
		°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°		
Theta Auriga	2.7	269	58.8	58.8	58.9	59.0	59.2	59.2	59.1	58.9	58.6	58.3	58.0	57.8	37	12.9	12.9	13.0	13.0	13.0	12.9	12.9	12.8	12.8	12.8	12.9	
Menkalinan	1.9	270	01.2	01.2	01.4	01.5	01.7	01.7	01.6	01.4	01.1	00.8	00.4	00.2	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	270	00.5	00.5	00.7	00.9	01.1	01.1	01.0	00.7	00.4	00.0	59.6	59.3	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	10.1	10.2	10.3	10.5	10.7	10.8	10.8	10.6	10.4	10.1	09.9	09.7	-42	48.8	49.0	49.1	49.1	49.0	48.9	48.7	48.6	48.5	48.5	48.7	
Eta Lepus	3.7	270	50.3	50.3	50.4	50.5	50.6	50.6	50.6	50.4	50.2	50.0	49.8	49.6	-14	09.9	10.0	10.1	10.1	10.0	10.0	09.8	09.7	09.7	09.7	09.8	
Betelgeuse	0.6	271	08.1	08.1	08.2	08.3	08.4	08.5	08.4	08.2	08.0	07.8	07.5	07.4	7	24.6	24.5	24.5	24.5	24.5	24.6	24.6	24.7	24.7	24.7	24.6	
Delta Lepus	3.8	272	06.7	06.7	06.8	07.0	07.1	07.1	07.0	06.9	06.7	06.4	06.2	06.1	-20	52.7	52.8	52.8	52.8	52.8	52.7	52.6	52.4	52.4	52.3	52.4	52.5
Wezn	3.1	272	12.6	12.7	12.8	13.0	13.1	13.2	13.1	13.0	12.8	12.5	12.3	12.1	-35	45.9	46.1	46.1	46.1	46.1	45.9	45.8	45.7	45.6	45.5	45.6	45.8
Saiph	2.1	272	59.9	59.9	60.0	00.1	00.2	00.2	00.1	00.0	59.8	59.5	59.3	59.2	-9	40.0	40.1	40.1	40.1	40.1	40.0	39.9	39.8	39.7	39.7	39.8	39.9
Beta Pictor	3.9	273	08.5	08.6	08.8	09.0	09.2	09.4	09.3	09.1	08.9	08.6	08.3	08.1	-51	03.8	04.0	04.1	04.1	04.0	03.8	03.7	03.5	03.4	03.4	03.5	03.6
Zeta Lepus	3.6	273	12.0	12.0	12.1	12.3	12.4	12.4	12.3	12.2	12.0	11.7	11.5	11.4	-14	49.1	49.2	49.3	49.3	49.2	49.1	49.0	48.9	48.9	48.8	48.9	49.0
Gamma Lepus	3.6	273	49.6	49.7	49.8	49.9	50.1	50.1	50.0	49.9	49.6	49.4	49.2	49.0	-22	26.8	26.9	26.9	26.9	26.9	26.7	26.6	26.5	26.4	26.4	26.5	26.6
Alnitak	1.7	274	44.6	44.6	44.7	44.8	44.9	44.9	44.9	44.7	44.5	44.2	44.0	43.9	-1	56.3	56.4	56.4	56.4	56.4	56.3	56.2	56.2	56.1	56.1	56.1	56.2
Phact	2.7	275	02.2	02.3	02.4	02.6	02.7	02.8	02.7	02.5	02.3	02.1	01.8	01.7	-34	04.3	04.4	04.4	04.4	04.4	04.2	04.1	03.9	03.9	03.8	03.9	04.1
Sigma Orion	3.8	275	14.8	14.8	14.9	15.1	15.1	15.2	15.1	14.9	14.7	14.5	14.2	14.1	-2	35.8	35.8	35.8	35.8	35.8	35.8	35.7	35.6	35.5	35.5	35.6	35.6
Zeta Taurus	3.0	275	30.6	30.6	30.7	30.9	30.9	30.9	30.8	30.6	30.4	30.2	29.9	29.7	21	08.8	08.8	08.8	08.8	08.8	08.8	08.9	08.9	08.9	08.9	08.9	08.9
Alnilam	1.7	275	52.8	52.8	52.9	53.0	53.1	53.1	53.0	52.8	52.6	52.4	52.2	52.0	-1	11.8	11.9	11.9	11.9	11.9	11.8	11.8	11.7	11.6	11.6	11.7	11.8
Na'ir al Saif	2.8	276	04.6	04.6	04.7	04.9	04.9	04.9	04.9	04.7	04.5	04.3	04.0	03.9	-5	54.3	54.4	54.4	54.4	54.4	54.3	54.2	54.1	54.1	54.1	54.1	54.2
Heka	3.4	276	08.6	08.6	08.7	08.8	08.9	08.9	08.8	08.6	08.4	08.2	07.9	07.8	9	56.3	56.3	56.3	56.3	56.3	56.3	56.4	56.4	56.5	56.5	56.5	56.4
Beta Dorado	3.8	276	34.2	34.4	34.8	35.1	35.4	35.6	35.6	35.4	35.0	34.6	34.3	34.1	-62	29.2	29.3	29.4	29.4	29.3	29.1	29.0	28.8	28.7	28.7	28.8	28.9
Arneb	2.6	276	45.5	45.5	45.6	45.8	45.9	45.9	45.8	45.6	45.4	45.2	45.0	44.8	-17	49.1	49.2	49.2	49.2	49.2	49.1	48.9	48.8	48.7	48.7	48.8	48.9
Mintaka	2.2	276	55.8	55.9	56.0	56.1	56.2	56.2	56.1	55.9	55.7	55.5	55.3	55.1	-0	17.6	17.7	17.7	17.7	17.7	17.6	17.6	17.5	17.4	17.4	17.5	17.5
Epsilon Columba	3.9	277	08.8	08.9	09.0	09.2	09.3	09.4	09.3	09.1	08.9	08.7	08.4	08.3	-35	28.0	28.1	28.2	28.2	28.1	27.9	27.8	27.7	27.6	27.6	27.6	27.8
Nihal	2.8	277	52.8	52.9	53.0	53.1	53.2	53.3	53.2	53.0	52.8	52.6	52.4	52.2	-20	45.3	45.4	45.4	45.4	45.4	45.3	45.1	45.0	44.9	44.9	45.0	45.1
Alnath	1.7	278	20.6	20.7	20.8	20.9	21.0	21.0	20.9	20.7	20.4	20.1	19.9	19.7	28	36.8	36.8	36.9	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.9	36.9
Bellatrix	1.7	278	38.8	38.8	38.9	39.0	39.1	39.1	39.0	38.8	38.6	38.4	38.2	38.0	6	21.3	21.3	21.3	21.3	21.3	21.3	21.4	21.5	21.5	21.5	21.5	21.5
Eta Orion	3.4	278	48.9	48.9	49.0	49.1	49.2	49.2	49.1	48.9	48.7	48.5	48.3	48.1	-2	23.5	23.5	23.6	23.6	23.5	23.5	23.4	23.3	23.2	23.2	23.3	23.3
Tau Orion	3.6	280	32.0	32.1	32.2	32.3	32.4	32.4	32.3	32.1	31.9	31.7	31.5	31.3	-6	50.3	50.3	50.4	50.4	50.3	50.3	50.2	50.1	50.0	50.0	50.0	50.1
Capella	0.1	280	43.8	43.9	44.0	44.2	44.3	44.3	44.1	43.9	43.6	43.2	42.9	42.7	46	00.3	00.4	00.4	00.4	00.4	00.3	00.2	00.2	00.2	00.2	00.3	00.3
Rigel	0.3	281	18.1	18.1	18.2	18.4	18.4	18.4	18.4	18.2	17.9	17.7	17.5	17.4	-8	11.7	11.8	11.8	11.8	11.7	11.7	11.6	11.5	11.4	11.4	11.4	11.5
Mu Lepus	3.3	281	42.4	42.5	42.6	42.7	42.8	42.8	42.7	42.5	42.3	42.1	41.9	41.7	-16	11.9	12.0	12.1	12.0	12.0	11.9	11.8	11.7	11.6	11.6	11.6	11.7
Cursa	2.8	282	58.3	58.4	58.5	58.6	58.7	58.7	58.6	58.4	58.2	57.9	57.7	57.6	-5	04.7	04.8	04.8	04.8	04.8	04.7	04.6	04.5	04.5	04.5	04.5	04.6
Hoedus II	3.2	283	16.8	16.8	16.9	17.1	17.2	17.2	17.0	16.8	16.5	16.2	15.9	15.7	41	14.6	14.7	14.7	14.7	14.6	14.6	14.5	14.5	14.5	14.6	14.6	14.7
Epsilon Lepus	3.2	283	34.6	34.7	34.8	35.0	35.1	35.1	35.0	34.8	34.6	34.3	34.1	34.0	-22	21.8	21.9	22.0	22.0	21.9	21.8	21.6	21.5	21.4	21.4	21.5	21.6
Haedi	3.8	284	17.3	17.4	17.5	17.7	17.8	17.7	17.6	17.3	17.0	16.7	16.5	16.3	41	05.1	05.2	05.2	05.2	05.2	05.1	05.1	05.0	05.1	05.1	05.1	05.2
Al Anz	3.0	284	24.8	24.9	25.0	25.2	25.3	25.3	25.1	24.8	24.5	24.2	23.9	23.7	43	50.0	50.1	50.1	50.1	50.0	50.0	49.9	49.9	49.9	49.9	50.0	50.0
Hassaleh	2.7	285	40.0	40.0	40.2	40.3	40.4	40.3	40.2	40.0	39.7	39.4	39.2	39.0	33	10.6	10.6	10.6	10.6	10.6	10.5	10.5	10.5	10.6	10.6	10.6	10.7
Pi5 Orion	3.7	286	22.1	22.2	22.3	22.4	22.4	22.4	22.3	22.1	21.9	21.7	21.5	21.3	2	27.0	27.0	26.9	26.9	27.0	27.0	27.1	27.2	27.2	27.2	27.2	27.2
Pi4 Orion	3.7	287	07.7	07.8	07.9	08.0	08.0	08.0	07.9	07.7	07.5	07.2	07.0	06.9	5	36.9	36.9	36.8	36.8	36.9	36.9	37.0	37.0	37.1	37.1	37.1	37.1
Pi3 Orion	3.2	287	28.1	28.2	28.3	28.4	28.5	28.4	28.3	28.1	27.9	27.6	27.4	27.3	6	58.3	58.2	58.2	58.2	58.3	58.3	58.4	58.4	58.5	58.5	58.5	58.4
Sceptrum	3.9	290	23.6	23.7	23.8	23.9	24.0	24.0	23.9	23.7	23.4	23.2	23.0	22.9	-14	17.6	17.7	17.7	17.7	17.7	17.5	17.4	17.3	17.3	17.3	17.4	17.4
Nu Eridanus	3.9	290	51.3	51.3	51.4	51.5	51.6	51.6	51.5	51.2	51.0	50.8	50.6	50.5	-3	20.5	20.5	20.6	20.6	20.5	20.4	20.3	20.3	20.2	20.2	20.2	20.3
Aldebaran	1.0	290	56.7	56.8	56.9	57.0	57.0	57.0	56.9	56.6	56.4	56.2	56.0	55.8	16	31.3	31.3	31.2	31.2	31.2	31.3	31.3	31.3	31.4	31.4	31.4	31.4
Theemim	3.8	291	03.5	03.6	03.8	03.9	04.0	04.0	03.9	03.7	03.4	03.2	03.0	02.9	-30	33.2	33.2	33.3	33.2	33.1	33.0	32.9	32.7	32.7	32.7	32.8	32.9
Alpha Dorado	3.3	291	27.9	28.1	28.3	28.6	28.8	28.8	28.7	28.5	28.1	27.8	27.6	27.5	-55	02.1	02.3	02.3	02.2	02.1	01.9	01.8	01.6	01.5	01.6	01.7	01.8
Theta2 Taurus	3.4	292	45.6	45.7	45.8	45.9	45.9	45.9	45.7	45.5	45.3	45.0	44.9	44.7	15	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.1	53.2	53.2	53.2	53.2
Ain	3.5	292	46.2	46.3	46.4	46.5	46.5	46.5	46.3	46.1	45.8	45.6	45.4	45.3	19	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.7	11.7	11.7	11.8	11.8
Secundus Hyadum	3.8	294	11.5	11.5	11.7	11.8	11.8	11.8	11.6	11.4	11.1	10.9	10.7	10.6	17												

2005

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	28.0	28.1	28.2	28.3	28.3	28.3	28.1	27.8	27.5	27.3	27.2	27.0	24	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.3	23.3
Nu Perseus	3.8	303	36.8	37.0	37.1	37.2	37.3	37.2	37.0	36.7	36.3	36.1	35.9	35.7	42	35.9	35.9	35.9	35.8	35.8	35.7	35.7	35.7	35.7	35.7	36.0
Electra	3.7	303	42.3	42.4	42.5	42.6	42.6	42.5	42.3	42.1	41.8	41.6	41.4	41.3	24	07.9	07.9	07.9	07.8	07.8	07.8	07.8	07.9	07.9	08.0	08.1
Atik	3.9	303	50.4	50.5	50.6	50.7	50.7	50.7	50.5	50.2	49.9	49.7	49.5	49.4	32	18.4	18.4	18.4	18.4	18.3	18.3	18.3	18.3	18.3	18.4	18.5
Beta Reticulum	3.8	303	55.3	55.7	56.0	56.4	56.6	56.6	56.4	56.0	55.6	55.2	55.0	54.9	-64	47.6	47.7	47.7	47.6	47.4	47.2	47.1	46.9	46.9	47.0	47.3
Rana	3.5	304	07.5	07.6	07.7	07.8	07.8	07.8	07.6	07.4	07.2	07.0	06.8	06.7	-9	44.8	44.8	44.9	44.8	44.8	44.7	44.5	44.4	44.4	44.4	44.5
Delta Perseus	3.0	304	10.6	10.7	10.9	11.1	11.1	11.0	10.8	10.4	10.1	09.8	09.6	09.5	47	48.4	48.5	48.5	48.4	48.3	48.3	48.2	48.2	48.3	48.4	48.6
Epsilon Eridanus	3.7	306	42.4	42.4	42.6	42.7	42.7	42.6	42.4	42.2	42.0	41.8	41.6	41.6	-9	26.5	26.5	26.6	26.5	26.5	26.3	26.2	26.1	26.1	26.1	26.2
Xi Taurus	3.7	308	08.3	08.4	08.5	08.6	08.6	08.5	08.3	08.1	07.8	07.6	07.5	07.4	9	45.1	45.1	45.0	45.0	45.0	45.1	45.2	45.2	45.3	45.3	45.4
Omicron Taurus	3.6	308	43.7	43.7	43.8	43.9	43.9	43.9	43.7	43.4	43.2	43.0	42.9	42.8	9	02.9	02.8	02.8	02.8	02.8	02.9	02.9	03.0	03.1	03.1	03.1
Mirafak	1.8	308	49.7	49.8	50.0	50.1	50.2	50.0	49.8	49.4	49.1	48.8	48.6	48.5	49	53.0	53.0	53.0	52.9	52.8	52.8	52.7	52.7	52.8	52.9	53.0
16 Eridanus	3.7	310	03.7	03.8	04.0	04.1	04.1	04.0	03.8	03.6	03.4	03.2	03.0	03.0	-21	44.5	44.5	44.5	44.5	44.4	44.2	44.1	44.0	43.9	43.9	44.0
Fornacis	3.8	311	55.5	55.6	55.7	55.8	55.9	55.8	55.6	55.4	55.1	54.9	54.8	54.7	-28	58.2	58.2	58.2	58.2	58.0	57.9	57.7	57.6	57.6	57.6	57.7
Algol	2.1	312	52.5	52.6	52.8	52.9	52.9	52.8	52.5	52.2	51.9	51.7	51.5	51.4	40	58.7	58.7	58.7	58.6	58.6	58.5	58.5	58.6	58.6	58.7	58.9
Gorgonea Tertia	3.4	313	37.5	37.6	37.7	37.8	37.8	37.7	37.5	37.2	36.9	36.6	36.5	36.4	38	51.8	51.8	51.8	51.7	51.6	51.6	51.6	51.6	51.7	51.8	51.9
Gamma Perseus	2.9	313	42.5	42.7	42.9	43.0	43.0	42.9	42.6	42.2	41.9	41.6	41.4	41.3	53	31.8	31.8	31.8	31.7	31.6	31.6	31.5	31.6	31.6	31.7	31.9
Menkar	2.6	314	21.8	21.9	22.0	22.1	22.1	22.0	21.8	21.5	21.3	21.1	21.0	20.9	4	06.6	06.6	06.5	06.6	06.6	06.7	06.7	06.8	06.9	06.9	06.9
Acamar	3.2	315	23.0	23.1	23.3	23.4	23.5	23.4	23.2	22.9	22.6	22.4	22.3	22.3	-40	17.2	17.3	17.3	17.2	17.0	16.9	16.7	16.6	16.6	16.6	16.9
Azha	3.9	315	49.8	49.9	50.0	50.1	50.1	50.0	49.8	49.6	49.3	49.2	49.0	49.0	-8	52.7	52.8	52.8	52.7	52.7	52.6	52.5	52.4	52.3	52.3	52.4
Tau Perseus	3.9	316	20.7	20.9	21.1	21.2	21.2	21.1	20.8	20.4	20.1	19.8	19.6	19.5	52	47.2	47.3	47.2	47.1	47.0	47.0	46.9	47.0	47.1	47.2	47.3
Miram	3.8	317	14.0	14.2	14.4	14.5	14.5	14.4	14.1	13.7	13.3	13.0	12.8	12.7	55	55.2	55.3	55.2	55.1	55.0	55.0	54.9	55.0	55.0	55.2	55.4
41 Aries	3.6	317	25.8	25.9	26.0	26.1	26.1	25.9	25.7	25.4	25.2	25.0	24.9	24.8	27	17.0	17.0	17.0	16.9	16.9	16.9	16.9	17.0	17.1	17.2	17.3
Kaffajjihmah	3.5	319	06.5	06.6	06.7	06.8	06.8	06.7	06.5	06.2	06.0	05.8	05.7	05.7	3	15.4	15.4	15.4	15.4	15.4	15.5	15.6	15.7	15.8	15.8	15.8
Polaris	2.0	320	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	89	17.5	17.6	17.5	17.4	17.3	17.1	17.0	17.0	17.1	17.3	17.5
Phi Eridanus	3.6	325	49.4	49.6	49.8	49.9	49.9	49.8	49.5	49.2	48.9	48.7	48.6	48.6	-51	29.6	29.6	29.5	29.4	29.2	29.1	28.9	28.8	28.8	28.9	29.0
Beta Triangulum	3.0	327	32.4	32.5	32.6	32.7	32.7	32.5	32.2	31.9	31.7	31.5	31.4	31.4	35	00.8	00.8	00.8	00.7	00.7	00.6	00.7	00.7	00.9	01.0	
Hamal	2.0	328	08.2	08.3	08.4	08.4	08.4	08.2	08.0	07.7	07.5	07.3	07.2	07.2	23	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.3	29.4	29.5	
Almaak	2.2	328	56.9	57.1	57.2	57.3	57.2	57.1	56.8	56.5	56.2	56.0	55.9	55.9	42	21.4	21.4	21.4	21.3	21.2	21.2	21.2	21.3	21.4	21.5	
Alrishah	3.8	329	25.4	25.5	25.6	25.6	25.6	25.4	25.2	25.0	24.8	24.6	24.5	24.5	2	47.3	47.2	47.2	47.2	47.3	47.4	47.5	47.6	47.6	47.7	
Alpha Hydrus	2.9	330	15.7	16.0	16.3	16.4	16.4	16.2	15.9	15.5	15.1	14.9	14.8	14.9	-61	33.0	33.0	32.9	32.8	32.6	32.4	32.3	32.2	32.2	32.3	
Chi Eridanus	3.7	330	57.5	57.7	57.9	58.0	58.0	57.8	57.5	57.2	56.9	56.7	56.6	56.7	-51	35.3	35.3	35.2	35.1	34.9	34.7	34.6	34.5	34.5	34.6	
Sheratan	2.7	331	16.3	16.4	16.5	16.5	16.5	16.3	16.1	15.8	15.6	15.4	15.3	15.3	20	50.0	50.0	50.0	49.9	49.9	50.0	50.0	50.1	50.2	50.3	
Segin	3.4	331	18.7	19.0	19.3	19.4	19.4	19.1	18.7	18.2	17.8	17.5	17.4	17.4	63	42.0	42.0	41.9	41.8	41.7	41.6	41.6	41.6	41.8	41.9	
Mothallah	3.4	331	39.5	39.7	39.8	39.8	39.7	39.6	39.3	39.0	38.8	38.6	38.6	38.5	29	36.3	36.3	36.3	36.2	36.2	36.2	36.2	36.3	36.4	36.5	
Baten Kaitos	3.7	332	04.4	04.5	04.6	04.6	04.5	04.4	04.2	03.9	03.7	03.6	03.5	03.5	-10	18.7	18.7	18.7	18.7	18.6	18.5	18.4	18.3	18.2	18.2	
Tau Cetus	3.5	333	55.5	55.6	55.7	55.7	55.6	55.5	55.3	55.0	54.8	54.7	54.6	54.6	-15	54.8	54.8	54.8	54.7	54.6	54.5	54.4	54.3	54.2	54.2	
51 Andromeda	3.6	335	25.6	25.8	25.9	26.0	25.9	25.7	25.4	25.0	24.7	24.6	24.5	24.5	48	39.4	39.4	39.4	39.3	39.2	39.1	39.2	39.2	39.4	39.5	
Achemar	0.5	335	31.2	31.5	31.7	31.8	31.8	31.6	31.3	30.9	30.5	30.3	30.3	30.4	-57	13.0	13.0	12.9	12.7	12.5	12.4	12.2	12.2	12.2	12.3	
Eta Pisces	3.6	337	03.8	03.9	04.0	04.0	03.9	03.8	03.5	03.3	03.0	02.9	02.9	02.9	15	22.4	22.3	22.3	22.3	22.3	22.3	22.4	22.5	22.6		
Delta Phoenix	3.9	337	07.9	08.1	08.3	08.4	08.3	08.1	07.8	07.5	07.2	07.1	07.0	07.1	-49	03.1	03.1	03.0	02.8	02.7	02.5	02.4	02.3	02.3	02.4	
Gamma Phoenix	3.4	337	51.2	51.3	51.4	51.5	51.4	51.3	51.0	50.7	50.4	50.3	50.2	50.3	-43	17.8	17.8	17.7	17.6	17.4	17.3	17.2	17.1	17.1	17.2	
Ruchbah	2.7	338	28.0	28.3	28.5	28.6	28.4	28.2	27.8	27.3	27.0	26.8	26.7	26.8	60	15.9	15.9	15.9	15.7	15.6	15.6	15.6	15.6	15.8	15.9	
Theta Cetus	3.6	338	55.9	56.0	56.1	56.1	56.0	55.9	55.6	55.4	55.2	55.1	55.0	55.0	-8	09.5	09.6	09.5	09.5	09.4	09.3	09.2	09.1	09.1	09.1	09.1
Mirach	2.1	342	30.0	30.1	30.2	30.2	30.1	29.9	29.6	29.3	29.1	29.0	28.9	28.9	35	39.0	39.0	38.9	38.8	38.8	38.8	38.8	38.9	39.0	39.2	
Dheneb	3.5	342	47.4	47.5	47.6	47.6	47.5	47.3	47.1	46.9	46.6	46.5	46.5	46.5	-10	09.4	09.5	09.5	09.4	09.3	09.2	09.1	09.0	09.0	09.0	09.1
Beta Phoenix	3.3	343	25.3	25.5	25.6	25.6	25.6	25.3	25.1	24.8	24.5	24.4	24.3	24.4	-46	41.8	41.8	41.7	41.5	41.4	41.2	41.1	41.0	41.0	41.1	
Mu Andromeda	3.9	345	44.7	44.8	44.9	44.9	44.8	44.6	44.3	44.0	43.8	43.7	43.6	43.7	38	31.8	31.7	31.6	31.6	31.5	31.5	31.6	31.7	31.8	31.9	
Tsih	2.2	345	45.1	45.4	45.5	45.6	45.4	45.1	44.7	44.3	44.0	43.8	43.8	43.9	60	44.9	44.9	44.8	44.6	44.5	44.5	44.5	44.6	44.8	44.9	
Achird	3.5	347	39.2	39.4	39.5	39.6	39.4	39.1	38.7	38.3	38.0	37.9	37.9	38.0	57	50.8	50.7	50.6	50.5	50.4	50.3	50.4	50.5			