

Table with columns for planets: Aries, Venus, Mars, Jupiter, Saturn. Columns include GHA, Dec, and magnitude (m).

Table with columns for planets: Thu, GHA, Dec, and magnitude (m).

Table with columns for planets: Fri, GHA, Dec, and magnitude (m).

Table for Stars with columns: SHA, Dec, and magnitude (m).

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Table for Sun and Moon with columns: h, Sun (GHA, Dec), Moon (GHA, ν, Dec, d, HP).

Table for Sun and Moon with columns: Thu, GHA, Dec, ν, Dec, d, HP.

Table for Sun and Moon with columns: Fri, GHA, Dec, ν, Dec, d, HP.

Table for Twilight and Sunrise/Sunset with columns: Lat., Twilight (Naut., Civil), Sunrise, Sunset, Twilight (Civil, Naut.).

Table for Moonrise and Moonset with columns: Lat., Moonrise (Wed, Thu, Fri), Moonset (Wed, Thu, Fri).

Table for Day with columns: Day, Sun (Eqn. of Time, 00h, 12h, mm:ss), Mer. Pass (hh:mm), Moon (Mer. Pass, Upper/Lower, hh:mm), Age (19-21, 84-68%), and Moon phase icon.

Table with columns for planets: Aries, Venus, Mars, Jupiter, Saturn. Columns include GHA, Dec, and other astronomical data.

Table with columns for Sun, GHA, Dec, and other astronomical data for the Sun.

Table with columns for Moon, GHA, Dec, and other astronomical data for the Moon.

Table with columns for Stars, SHA, Dec, and other astronomical data for various stars.

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Table with columns for Sun, Moon, GHA, Dec, and other astronomical data for the Sun and Moon.

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Table with columns for Twilight, Sunrise, Sunset, and other astronomical data for twilight and sunrise/sunset.

Table with columns for Moonrise, Moonset, and other astronomical data for moonrise and moonset.

Table with columns for Sun, Mer. Pass, Moon, and other astronomical data for sun and moon observations.

Table with columns for planets: Aries, Venus, Mars, Jupiter, Saturn. Includes GHA, Dec, and magnitude data for each planet over a 23-day period.

Table with columns for planets: Wed, GHA, Dec. Includes GHA, Dec, and magnitude data for each planet over a 23-day period.

Table with columns for planets: Thu, GHA, Dec. Includes GHA, Dec, and magnitude data for each planet over a 23-day period.

Table with columns for stars: SHA, Dec. Lists stars like Alpheratz, Ankaa, Schedar, Diphda, Achernar, Hamal, Polaris, etc. with their coordinates and magnitudes.

Table with columns for stars: SHA, Dec. Lists stars like Denebola, Gienah, Acrux, Gaucrus, Alloth, Spica, Alkaid, Hadar, etc. with their coordinates and magnitudes.

Table with columns for stars: SHA, Dec, Mer. pass. Lists stars like Venus, Mars, Jupiter, Saturn with their coordinates and transit times.

Table with columns for stars: Horizontal parallax. Lists stars like Venus, Mars with their parallax values.

Table with columns for Sun and Moon: h, GHA, Dec, ν, Dec, d, HP. Includes data for the Sun and Moon over a 23-day period.

Table with columns for Sun and Moon: GHA, Dec, ν, Dec, d, HP. Includes data for the Sun and Moon over a 23-day period.

Table with columns for Sun and Moon: Thu, GHA, Dec, ν, Dec, d, HP. Includes data for the Sun and Moon over a 23-day period.

Table with columns for twilight and sunrise/sunset: Lat., Twilight (Naut., Civil), Sunrise, Sunset, Twilight (Civil, Naut.). Includes data for various latitudes.

Table with columns for moonrise and moonset: Lat., Tue, Moonrise (Wed, Thu), Tue, Moonset (Wed, Thu). Includes data for various latitudes.

Table with columns for day and moon: Day, Sun (Eqn. of Time, 00h, 12h, Mer. Pass, hh:mm), Moon (Mer. Pass, Upper/Lower, hh:mm), Age, 25-27%, 29-11%. Includes data for various days.

Aries			Venus			Mars			Jupiter			Saturn		
Fri	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec		
0	232°44.3	148°04.5	N24°48.6	207°22.1	N09°41.2	119°54.9	N22°11.1	222°04.9	N02°11.2					
1	247°46.8	163°03.6	48.8	222°22.8	41.9	134°57.0	11.1	237°07.1	11.3					
2	262°49.3	178°02.8	49.0	237°23.5	42.6	149°59.0	11.0	252°09.3	11.4					
3	277°51.7	193°02.0	49.2	252°24.2	43.3	165°01.0	10.9	267°11.6	11.5					
4	292°54.2	208°01.1	49.4	267°24.9	44.0	180°03.0	10.9	282°13.8	11.6					
5	307°56.7	223°00.3	49.6	282°25.5	44.7	195°05.0	10.8	297°16.0	11.7					
6	322°59.1	237°59.5	N24°49.8	297°26.2	N09°45.4	210°07.1	N22°10.8	312°18.2	N02°11.7					
7	338°01.6	252°58.6	50.0	312°26.9	46.1	225°09.1	10.7	327°20.5	11.8					
8	353°04.1	267°57.8	50.2	327°27.6	46.8	240°11.1	10.6	342°22.7	11.9					
9	8°06.5	282°57.0	50.4	342°28.3	47.5	255°13.1	10.6	357°24.9	12.0					
10	23°09.0	297°56.2	50.6	357°28.9	48.2	270°15.2	10.5	12°27.2	12.1					
11	38°11.4	312°55.3	50.7	12°29.6	48.9	285°17.2	10.4	27°29.4	12.2					
12	53°13.9	327°54.5	N24°50.9	27°30.3	N09°49.6	300°19.2	N22°10.4	42°31.6	N02°12.3					
13	68°16.4	342°53.7	51.1	42°31.0	50.3	315°21.2	10.3	57°33.8	12.4					
14	83°18.8	357°52.8	51.3	57°31.7	51.0	330°23.2	10.3	72°36.1	12.5					
15	98°21.3	12°52.0	51.5	72°32.4	51.7	345°25.3	10.2	87°38.3	12.6					
16	113°23.8	27°51.2	51.7	87°33.0	52.4	0°27.3	10.1	102°40.5	12.7					
17	128°26.2	42°50.3	51.8	102°33.7	53.1	15°29.3	10.1	117°42.7	12.8					
18	143°28.7	57°49.5	N24°51.2	117°34.4	N09°53.8	30°31.3	N22°10.0	132°45.0	N02°12.9					
19	158°31.2	72°48.7	52.2	132°35.1	54.5	45°33.3	09.9	147°47.2	13.0					
20	173°33.6	87°47.8	52.4	147°35.8	55.2	60°35.4	09.9	162°49.4	13.0					
21	188°36.1	102°47.0	52.5	162°36.4	55.9	75°37.4	09.8	177°51.7	13.1					
22	203°38.6	117°46.2	52.7	177°37.1	56.6	90°39.4	09.8	192°53.9	13.2					
23	218°41.0	132°45.3	52.9	192°37.8	57.3	105°41.4	09.7	207°56.1	13.3					
Mer.pass. 08:28			$\nu -0.8' d 0.2' m -3.93$			$\nu 0.7' d 0.7' m 1.25$			$\nu 2.0' d -0.1' m -1.95$			$\nu 2.2' d 0.1' m 0.91$		

Sat	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec						
0	233°43.5	147°44.5	N24°53.1	207°38.5	N09°57.9	120°43.5	N22°09.6	222°58.3						
1	248°45.9	162°43.7	53.2	222°39.2	58.6	135°45.5	09.6	238°00.6						
2	263°48.4	177°42.8	53.4	237°39.9	09°59.3	150°47.5	09.5	253°02.8						
3	278°50.9	192°42.0	53.6	252°40.5	10°00.0	165°49.5	9.9	268°05.0						
4	293°53.3	207°41.2	53.7	267°41.2	00.7	180°51.5	09.4	283°07.3						
5	308°55.8	222°40.3	53.9	282°41.9	01.4	195°53.5	09.3	298°09.5						
6	323°58.3	237°39.5	N24°54.1	297°42.6	N10°02.1	210°55.6	N22°09.2	313°11.7						
7	339°00.7	252°38.7	54.2	312°43.3	02.8	225°57.6	09.2	328°13.9						
8	354°03.2	267°37.8	54.4	327°43.9	03.5	240°59.6	09.1	343°16.2						
9	9°05.7	282°37.0	54.5	342°44.6	04.2	256°01.6	9.9	358°18.4						
10	24°08.1	297°36.2	54.7	357°45.3	04.9	271°03.6	09.0	13°20.6						
11	39°10.6	312°35.3	54.9	12°46.0	05.6	286°05.7	08.9	28°22.9						
12	54°13.1	327°34.5	N24°55.0	27°46.7	N10°06.3	301°07.7	N22°08.9	43°25.1						
13	69°15.5	342°33.7	55.2	42°47.3	07.0	316°09.7	08.8	58°27.3						
14	84°18.0	357°32.8	55.3	57°48.0	07.6	331°11.7	08.7	73°29.6						
15	99°20.4	12°32.0	55.5	72°48.7	07.7	346°13.7	08.7	88°31.8						
16	114°22.9	27°31.2	55.6	87°49.4	09.0	1°15.7	08.6	103°34.0						
17	129°25.4	42°30.3	55.8	102°50.1	09.7	16°17.8	08.5	118°36.2						
18	144°27.8	57°29.5	N24°55.9	117°50.7	N10°10.4	31°19.8	N22°08.5	133°38.5						
19	159°30.3	72°28.7	56.1	132°51.4	11.1	46°21.8	08.4	148°40.7						
20	174°32.8	87°27.8	56.2	147°52.1	11.8	61°23.8	08.4	163°42.9						
21	189°35.2	102°27.0	56.4	162°52.8	12.5	76°25.8	08.3	178°45.2						
22	204°37.7	117°26.2	56.5	177°53.5	13.2	91°27.8	08.2	193°47.4						
23	219°40.2	132°25.3	56.7	192°54.1	13.9	106°29.9	08.2	208°49.6						
Mer.pass. 08:24			$\nu -0.8' d 0.2' m -3.93$			$\nu 0.7' d 0.7' m 1.25$			$\nu 2.0' d -0.1' m -1.94$			$\nu 2.2' d 0.1' m 0.91$		

Sun	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec						
0	234°42.6	147°24.5	N24°56.8	207°54.8	N10°14.6	121°31.9	N22°08.1	223°51.9						
1	249°45.1	162°23.7	56.9	222°55.5	15.2	136°33.9	08.0	238°54.1						
2	264°47.5	177°22.8	57.1	237°56.2	15.9	151°35.9	08.0	253°56.3						
3	279°49.0	192°22.0	57.2	252°56.9	16.6	166°37.9	07.9	268°58.6						
4	294°50.5	207°21.2	57.3	267°57.5	17.3	181°39.9	07.8	283°50.8						
5	309°52.0	222°20.3	57.5	282°58.2	18.0	196°42.0	07.8	298°53.0						
6	324°53.4	237°19.5	N24°57.6	297°58.9	N10°18.7	211°44.0	N22°07.7	313°05.2						
7	339°54.9	252°18.7	57.7	312°59.6	19.4	226°46.0	07.6	328°07.5						
8	354°56.3	267°17.8	57.9	328°00.3	20.1	241°48.0	07.6	343°09.7						
9	10°04.3	282°17.0	58.0	343°00.9	20.8	256°50.0	07.5	358°11.9						
10	25°07.3	297°16.2	58.1	358°01.6	21.4	271°52.0	07.5	14°14.2						
11	40°09.7	312°15.3	58.3	13°02.3	22.1	286°54.0	07.4	29°16.4						
12	55°12.2	327°14.5	N24°58.4	28°03.0	N10°22.8	301°56.0	N22°07.3	44°18.6						
13	70°14.7	342°13.7	58.5	43°03.7	23.5	316°58.1	07.3	59°20.9						
14	85°17.1	357°12.8	58.6	58°04.3	24.2	332°00.1	07.2	74°23.1						
15	100°19.6	12°12.0	58.7	73°05.0	24.9	347°02.1	07.1	89°25.3						
16	115°22.0	27°11.2	58.9	88°05.7	25.6	2°04.1	07.1	104°27.6						
17	130°24.5	42°10.3	59.0	103°06.4	26.2	17°06.1	07.0	119°29.8						
18	145°27.0	57°09.5	N24°59.1	118°07.1	N10°26.9	32°08.1	N22°06.9	134°32.0						
19	160°29.4	72°08.7	59.2	133°07.7	27.6	47°10.1	06.9	149°34.3						
20	175°31.9	87°07.8	59.4	148°08.4	28.3	62°12.2	06.8	164°36.5						
21	190°34.4	102°07.0	59.5	163°09.1	29.0	77°14.2	06.7	179°38.7						
22	205°36.8	117°06.2	59.6	178°09.8	29.7	92°16.2	06.7	194°41.0						
23	220°39.3	132°05.3	59.7	193°10.5	30.4	107°18.2	06.6	209°43.2						
Mer.pass. 08:20			$\nu -0.8' d 0.1' m -3.93$			$\nu 0.7' d 0.7' m 1.25$			$\nu 2.0' d -0.1' m -1.94$			$\nu 2.2' d 0.1' m 0.91$		

Stars		
Star	SHA	Dec
Alpheratz	357°33.9	29°14.0
Ankaa	345°30.3	-42°09.6
Schedar	359°06.2	56°40.7
Diphda	348°46.4	-17°50.5
Achernar	335°19.9	-57°06.0
Hamal	327°50.3	23°35.1
Polaris	313°57.7	89°22.4
Acamar	315°11.4	-40°11.9
Menkar	314°05.3	4°11.5
Mirfak	308°27.2	49°57.2
Aldebaran	290°38.7	16°33.7
Rigel	281°03.1	-8°10.3
Capella	280°20.7	46°01.5
Bellatrix	278°22.0	6°22.4
Elmath	273°00.8	28°37.8
Anilam	275°36.9	-1°11.2
Betelgeuse	270°51.2	7°24.7
Canopus	263°52.3	-52°42.7
Sirius	258°25.5	-16°45.3
Adhara	255°05.3	-29°00.6
Procyon	244°49.9	5°09.4
Pollux	162°49.4	27°57.8
Avior	234°14.5	-59°35.9
Suhail	222°45.6	-43°32.6
Miaplacidus	221°38.2	-69°49.8
Alphard	217°46.7	-8°46.5
Regulus	207°33.3	11°50.3
Dubhe	193°39.4	61°36.7
Denebola	182°23.7	14°25.4
Gienah	175°42.3	-17°41.5
Acrux	172°58.4	-63°15.0
Gacrux	171°50.0	57°15.9
Alloth	166°11.6	55°49.1
Spica	158°20.9	-11°11.1
Alkaid	152°50.7	49°10.9
Hadar	148°33.8	-60°30.2
Meknet	147°56.6	-36°30.2
Arcturus	145°46.6	19°02.6
Rigel Kent	139°38.1	-60°56.8
Kochab	137°18.7	74°02.8
Zuben'ubi	136°54.5	-16°09.2
Alphecca	126°02.4	26°37.4
Antares	112°14.1	-26°29.5
Atria	107°06.8	-69°04.4
Sabik	102°11.2	-15°45.5
Shaula	96°08.5	-37°07.3
Rasalhague	95°57.2	12°32.3
Eltanin	90°41.2	51°28.9
Kaus Aust.	83°30.8	-34°22.2
Vega	80°32.2	38°48.3
Nunki	75°46.2	-26°15.8
Altair	61°58.7	8°56.2
Peacock	53°03.8	-56°38.8
Deneb	49°24.6	45°22.2
Enif	33°37.7	9°59.6
Al Na'ir	27°31.6	-46°4

Table with columns for planets: Aries, Venus, Mars, Jupiter, Saturn. Includes GHA, Dec, and magnitude data for various dates.

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Table with columns for Stars: SHA, Dec. Lists stars like Alpheratz, Ankaa, Schedar, etc.

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Table with columns for Stars: SHA, Dec. Lists stars like Al Na'ir, Fomalhaut, Scheat, etc.

Table with columns for Sun and Moon: h, GHA, Dec, GHA, ν, Dec, d, HP. Includes SD and d values.

Table with columns for Sun and Moon: Tue, GHA, Dec, GHA, ν, Dec, d, HP. Includes SD and d values.

Table with columns for Sun and Moon: Wed, GHA, Dec, GHA, ν, Dec, d, HP. Includes SD and d values.

Table with columns for Twilight: Lat., Twilight (Naut., Civil, Sunrises, Sunset, Twilight (Civil, Naut.)).

Table with columns for Moonrise: Lat., Moonrise (Mon, Tue, Wed), Moonset (Mon, Tue, Wed).

Table with columns for Day: Day, Sun (Eqn. of Time, Mer. Pass), Moon (Mer. Pass, Age 2-4%).

Table with columns for planets: Aries, Venus, Mars, Jupiter, Saturn. Columns include GHA, Dec, and magnitude (m).

Table with columns for planets: Fri, GHA, Dec, and magnitude (m).

Table with columns for planets: Sat, GHA, Dec, and magnitude (m).

Table for Stars with columns: SHA, Dec, and magnitude (m). Includes stars like Alpheratz, Ankaa, Schedar, etc.

Table for Sun and Moon with columns: h, GHA, Dec, ν, d, HP.

Table for Moon with columns: Fri, GHA, Dec, ν, Dec, HP.

Table for Moon with columns: Sat, GHA, Dec, ν, Dec, d, HP.

Table for Twilight and Sunrise/Sunset with columns: Lat., Twilight (Naut., Civil), Sunrise, Sunset, Twilight (Civil, Naut.).

Table for Moonrise and Moonset with columns: Lat., Moonrise (Thu, Fri, Sat), Moonset (Thu, Fri, Sat).

Table for Day with columns: Day, Sun (Eqn. of Time, Mer. Pass), Moon (Mer. Pass, Age).

Table with columns for Sun, Aries, Venus, Mars, Jupiter, Saturn, Dec, and GHA. It lists celestial coordinates for various planets and the Sun over a period of 23 days.

Table with columns for Mon, GHA, Dec, and GHA. It lists celestial coordinates for various planets and the Sun over a period of 23 days.

Table with columns for Tue, GHA, Dec, and GHA. It lists celestial coordinates for various planets and the Sun over a period of 23 days.

Table with columns for Stars, SHA, Dec, and Mer.pass. It lists celestial coordinates for various stars and their meridian passages.

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Table with columns for Sun, Moon, GHA, Dec, and HP. It lists celestial coordinates for the Sun and Moon over a period of 23 days.

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Table with columns for Sun, Moon, GHA, Dec, and HP. It lists celestial coordinates for the Sun and Moon over a period of 23 days.

Table with columns for Twilight, Sunrise, Sunset, and Twilight. It lists twilight times and sunrise/sunset times for various latitudes.

Table with columns for Moonrise, Moonset, and Twilight. It lists moonrise and moonset times for various latitudes.

Table with columns for Day, Sun, Mer., Moon, and Age. It lists solar and lunar data for various days, including meridian passage and moon phase.

Aries			Venus			Mars			Jupiter			Saturn		
Wed	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec		
0	244°34.0	144°06.8	N24°55.0	210°36.6	N12°53.9	129°31.1	232°51.4	232°49.9	N02°36.2					
1	259°36.5	159°06.0	54.8	225°37.2	54.6	144°33.1	51.3	247°52.2	36.3					
2	274°38.9	174°05.2	54.7	240°37.9	55.2	159°35.0	51.2	262°54.4	36.3					
3	289°41.4	189°04.4	54.5	255°38.6	55.8	174°37.0	51.2	277°56.7	36.4					
4	304°43.9	204°03.6	54.4	270°39.2	56.5	189°39.0	51.1	292°58.9	36.4					
5	319°46.3	219°02.8	54.2	285°39.9	57.1	204°41.0	51.0	308°01.2	36.6					
6	334°48.8	234°02.0	N24°54.0	300°40.6	N12°57.7	219°43.0	N21°50.9	323°03.4	N02°36.7					
7	349°51.3	249°01.2	53.9	315°42.1	58.4	234°44.9	50.9	338°05.7	36.7					
8	4°53.7	264°00.4	53.7	330°41.9	59.0	249°46.9	50.8	353°07.9	36.8					
9	19°56.2	278°59.6	53.5	345°42.6	12°59.7	264°48.9	50.7	8°10.2	36.9					
10	34°58.7	293°58.8	53.4	0°43.2	13°00.3	279°50.9	50.6	23°12.4	37.0					
11	50°01.1	308°58.0	53.2	15°43.9	00.9	294°52.8	50.6	38°14.7	37.1					
12	65°03.6	323°57.2	N24°53.0	30°44.6	N13°01.6	309°54.8	N21°50.5	53°17.0	N02°37.1					
13	80°06.1	338°56.4	52.9	45°45.2	02.2	324°56.8	50.4	68°19.2	37.2					
14	95°08.5	353°55.6	52.7	60°45.9	02.8	339°58.8	50.3	83°21.5	37.3					
15	110°11.0	8°54.8	52.5	75°46.6	03.5	355°00.8	50.3	98°23.7	37.4					
16	125°13.4	23°54.0	52.3	90°47.2	04.1	10°02.7	50.2	113°26.0	37.4					
17	140°15.9	38°53.2	52.2	105°47.9	04.7	25°04.7	50.1	128°28.2	37.5					
18	155°18.4	53°52.4	N24°52.0	120°48.6	N13°05.4	40°06.7	N21°50.0	143°30.5	N02°37.6					
19	170°20.8	68°51.6	51.8	135°49.2	06.0	55°08.7	50.0	158°32.7	37.7					
20	185°23.3	83°50.8	51.6	150°49.9	06.6	70°10.6	49.9	173°35.0	37.8					
21	200°25.8	98°50.0	51.5	165°50.6	07.3	85°12.6	49.8	188°37.2	37.8					
22	215°28.2	113°49.3	51.3	180°51.2	07.9	100°14.6	49.7	203°39.5	37.9					
23	230°30.7	128°48.5	51.1	195°51.9	08.5	115°16.6	49.7	218°41.8	38.0					
Mer.pass. 07:40 ν -0.8' d-0.2' m-3.94 ν 0.7' d 0.6' m 1.26 ν 2.0' d -0.1' m -1.89 ν 2.3' d 0.1' m 0.89														

Thu	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	245°33.2	143°47.7	N24°50.9	210°52.5	N13°09.2	130°18.5	N21°49.6	233°44.0
1	260°35.6	158°46.9	50.7	225°53.2	09.8	145°20.5	49.5	248°46.3
2	275°38.1	173°46.1	50.5	240°53.9	10.4	160°22.5	49.4	263°48.5
3	290°40.5	188°45.3	50.3	255°54.5	11.0	175°24.5	49.4	278°50.8
4	305°43.0	203°44.5	50.2	270°55.2	11.7	190°26.4	49.3	293°53.0
5	320°45.5	218°43.7	50.0	285°55.9	12.3	205°28.4	49.2	308°55.3
6	335°47.9	233°42.9	N24°49.8	300°56.5	N13°12.9	220°30.4	N21°49.1	323°57.6
7	350°50.4	248°42.1	49.6	315°57.2	13.6	235°32.4	49.1	338°59.8
8	5°52.9	263°41.3	49.4	330°57.9	14.2	250°34.4	49.0	353°02.1
9	20°55.3	278°40.5	49.2	345°58.5	14.8	265°36.3	48.9	9°04.3
10	35°57.8	293°39.7	49.0	0°59.2	15.5	280°38.3	48.8	24°06.6
11	51°00.3	308°38.9	48.8	15°59.9	16.1	295°40.3	48.7	39°08.8
12	66°02.7	323°38.1	N24°48.6	31°00.5	N13°16.7	310°42.2	N21°48.7	54°11.1
13	81°05.2	338°37.4	48.4	46°01.2	17.3	325°44.2	48.6	69°13.4
14	96°07.7	353°36.6	48.2	61°01.9	18.0	340°46.2	48.5	84°15.6
15	111°10.1	8°35.8	48.0	76°02.5	18.6	355°48.2	48.4	99°17.9
16	126°12.6	23°35.0	47.8	91°03.2	19.2	10°50.1	48.4	114°20.1
17	141°15.0	38°34.2	47.6	106°03.9	19.8	25°52.1	48.3	129°22.4
18	156°17.5	53°33.4	N24°47.4	121°04.5	N13°20.5	40°54.1	N21°48.2	144°24.6
19	171°20.0	68°32.6	47.2	136°05.2	21.1	55°56.1	48.1	159°26.9
20	186°22.4	83°31.8	47.0	151°05.8	21.7	70°58.0	48.1	174°29.2
21	201°24.9	98°31.0	46.8	166°06.5	22.4	86°00.0	48.0	189°31.4
22	216°27.4	113°30.2	46.6	181°07.2	23.0	101°02.0	47.9	204°33.7
23	231°29.8	128°29.5	46.3	196°07.8	23.6	116°04.0	47.8	219°35.9
Mer.pass. 07:37 ν -0.8' d-0.2' m-3.94 ν 0.7' d 0.6' m 1.26 ν 2.0' d -0.1' m -1.89 ν 2.3' d 0.1' m 0.89								

Fri	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	246°32.3	143°28.7	N24°46.1	211°08.5	N13°24.2	131°05.9	N21°47.7	234°38.2
1	261°34.8	158°27.9	45.9	226°09.2	24.9	146°07.9	47.7	249°40.4
2	276°37.2	173°27.1	45.7	241°09.8	25.5	161°09.9	47.6	264°42.7
3	291°39.7	188°26.3	45.5	256°10.5	26.1	176°11.9	47.5	279°45.0
4	306°42.3	203°25.6	45.3	271°11.2	26.7	191°13.8	47.4	294°47.2
5	321°44.6	218°24.7	45.1	286°11.8	27.4	206°15.8	47.4	309°49.5
6	336°47.1	233°23.9	N24°44.8	301°12.5	N13°28.0	221°17.8	N21°47.3	324°51.7
7	351°49.5	248°23.2	44.6	316°13.1	28.6	236°19.7	47.2	339°54.0
8	5°52.0	263°22.4	44.4	331°13.8	29.2	251°21.7	47.1	354°56.3
9	21°54.5	278°21.6	44.2	346°14.5	29.8	266°23.7	47.0	9°58.5
10	36°56.9	293°20.8	43.9	1°15.1	30.5	281°25.7	47.0	25°00.8
11	51°59.4	308°20.0	43.7	16°15.8	31.1	296°27.6	46.9	40°03.0
12	67°01.9	323°19.2	N24°43.5	31°16.5	N13°31.7	311°29.6	N21°46.8	55°05.3
13	82°04.3	338°18.5	43.3	46°17.1	32.3	326°31.6	46.7	70°07.6
14	97°06.8	353°17.7	43.0	61°17.8	33.0	341°33.5	46.7	85°09.8
15	112°09.3	8°16.9	42.8	76°18.5	33.6	356°35.5	46.6	100°12.1
16	127°11.7	23°16.1	42.6	91°19.1	34.2	11°37.5	46.5	115°14.3
17	142°14.2	38°15.3	42.3	106°19.8	34.8	26°39.5	46.4	130°16.6
18	157°16.6	53°14.5	N24°42.1	121°20.4	N13°35.4	41°41.4	N21°46.3	145°18.9
19	172°19.1	68°13.8	41.9	136°21.1	36.1	56°43.4	46.3	160°21.1
20	187°21.6	83°13.0	41.6	151°21.8	36.7	71°45.4	46.2	175°23.4
21	202°24.0	98°12.2	41.4	166°22.4	37.3	86°47.3	46.1	190°25.6
22	217°26.5	113°11.4	41.2	181°23.1	37.9	101°49.3	46.0	205°27.9
23	232°29.0	128°10.6	40.9	196°23.8	38.6	116°51.3	46.0	220°30.2
Mer.pass. 07:33 ν -0.8' d-0.2' m-3.94 ν 0.7' d 0.6' m 1.27 ν 2.0' d -0.1' m -1.89 ν 2.3' d 0.1' m 0.88								

Stars		
	SHA	Dec
Alpheratz	357°33.8	29°14.0
Ankaa	353°06.2	42°09.5
Schedar	349°30.1	56°40.0
Diphda	348°46.4	-17°50.4
Achernar	335°19.8	-57°05.9
Hamal	327°50.2	23°35.1
Polaris	313°55.1	89°22.4
Acamar	315°11.3	-40°11.8
Menkar	311°05.3	-4°11.6
Mirfak	308°27.1	49°57.2
Aldebaran	290°38.7	16°33.7
Rigel	281°03.1	-8°10.3
Capella	280°20.7	46°10.5
Bellatrix	278°22.0	6°22.4
Alnilath	278°00.8	28°37.8
Alnilam	275°36.9	-1°11.1
Betelgeuse	270°51.2	7°24.7
Canopus	263°52.4	-52°42.7
Sirius	258°25.5	-16°45.2
Adhara	255°03.5	-29°00.6
Procyon	244°49.9	5°09.4
Pollux	243°16.2	27°57.8
Avior	234°14.6	-59°35.9
Subair	222°45.7	-43°32.6
Miaplacidus	221°38.4	-69°49.8
Alphard	217°46.7	-8°46.5
Regulus	207°33.3	11°50.3
Dubhe	193°39.5	61°36.7
Denebola	182°23.7	14°25.5
Gienah	175°42.3	-17°41.5
Acrux	172°58.5	-63°15.0
Gacrux	171°50.1	-57°16.0
Alioth	166°11.6	55°49.9
Spica	158°20.9	-11°28.1
Alkaid	152°50.7	49°11.0
Hadar	148°33.9	60°30.2
Menkent	147°55.9	-36°30.2
Arcturus	145°46.9	19°02.7
Rigel Kent	139°38.1	-60°56.9
Kochab	137°17.7	74°02.9
Zuben'ubi	136°54.5	-16°09.9
Alphecca	126°02.4	26°37.5
Antares	112°14.1	-26°29.5
Atria	107°06.7	-69°04.5
Sabik	102°01.1	-15°45.5
Shaula	96°08.4	-37°07.3
Rasalhague	95°57.2	12°32.4
Eltanin	90°41.2	51°28.9
Kaus Aus	83°30.7	-34°22.9
Vega	80°32.1	38°48.3
Nunki	75°46.1	-26°15.8
Altair	61°58.6	8°56.2
Peacock	53°03.6	-56°38.6
Deneb	49°24.8	45°22.2
Enif	33°37.6	9°59.7
Al Na'ir	27°31.5	-46°49.7
Fomalhaut	15°13.3	-29°28.8
Scheat	13°44.2	28°13.4