

Aries			Venus			Mars			Jupiter			Saturn		
Sat	GHA		GHA	Dec		GHA	Dec		GHA	Dec		GHA	Dec	
0	357°55.0	147°18.0	S18°32.6	241°17.1	N22°00.7	217°56.5	N16°10.5	345°22.3	N02°27.1					
1	12°57.5	162°19.4	33.3	256°18.0	00.5	232°58.5	10.3	0°24.9	27.1					
2	28°00.0	177°20.9	34.0	271°18.8	00.2	248°00.4	10.2	15°27.6	27.0					
3	43°02.4	192°22.3	.. 34.7	286°19.7	22°00.0	263°02.4	.. 10.1	30°30.2	.. 26.9					
4	58°04.9	207°23.7	35.4	301°20.5	21°59.8	278°04.4	09.9	45°32.8	26.8					
5	73°07.3	222°25.2	36.1	316°21.4	59.5	293°06.4	09.8	60°35.5	26.8					
6	88°09.8	237°26.6	S18°36.8	331°22.2	N21°59.3	308°08.4	N16°09.6	75°38.1	N02°26.7					
7	103°12.3	252°28.0	37.5	346°23.1	59.1	323°10.3	09.5	90°40.7	26.6					
8	118°14.7	267°29.5	38.2	1°23.9	58.8	338°12.3	09.3	105°43.4	26.5					
9	133°17.2	282°30.9	.. 38.9	16°24.8	.. 58.6	353°14.3	.. 09.2	120°46.0	.. 26.5					
10	148°19.7	297°32.4	39.5	31°25.7	58.4	8°16.3	09.1	135°48.6	26.4					
11	163°22.1	312°33.8	40.2	46°26.5	58.1	23°18.3	08.9	150°51.3	26.3					
12	178°24.6	327°35.3	S18°40.9	61°27.4	N21°57.9	38°20.3	N16°08.8	165°53.9	N02°26.2					
13	193°27.1	342°36.7	41.6	76°28.2	57.7	53°22.2	08.6	180°56.5	26.2					
14	208°29.5	357°38.2	42.3	91°29.1	57.4	68°24.2	08.5	195°59.2	26.1					
15	223°32.0	12°39.7	.. 43.0	106°29.9	.. 57.2	83°26.2	.. 08.3	211°01.8	.. 26.0					
16	238°34.5	27°41.1	43.6	121°30.8	57.0	98°28.2	08.2	226°04.4	25.9					
17	253°36.9	42°42.6	44.3	136°31.6	56.7	113°30.2	08.1	241°07.1	25.9					
18	268°39.4	57°44.1	S18°45.0	151°32.5	N21°56.5	128°32.2	N16°07.9	256°09.7	N02°25.8					
19	283°41.8	72°45.5	45.7	166°33.3	56.3	143°34.1	07.8	271°12.3	25.7					
20	298°44.3	87°47.0	46.3	181°34.2	56.0	158°36.1	07.6	286°15.0	25.6					
21	313°46.8	102°48.5	.. 47.0	196°35.1	.. 55.8	173°38.1	.. 07.5	301°17.6	.. 25.5					
22	328°49.2	117°50.0	47.7	211°50.0	55.6	188°40.1	07.4	316°20.2	25.5					
23	343°51.7	132°51.5	48.4	226°36.8	55.3	203°42.1	07.2	331°22.9	25.4					
Mer.pass. 00:08			ν 1.4' d 0.7' m -4.80			ν 0.9' d -0.2' m 1.17			ν 2.0' d -0.1' m -1.84			ν 2.6' d -0.1' m 0.40		

Sun	GHA	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	358°54.2	147°52.9	S18°49.0	241°37.6	N21°55.1	218°44.1	N16°07.1	346°25.5	N02°25.3
1	13°56.6	162°54.4	49.7	256°38.5	54.9	233°46.0	06.9	1°28.1	25.2
2	28°59.1	177°55.9	50.4	271°39.3	54.6	248°48.0	06.8	16°30.8	25.2
3	44°01.6	192°57.4	.. 51.0	286°40.2	.. 54.4	263°50.0	.. 06.6	31°33.4	.. 25.1
4	59°04.0	207°58.9	51.7	301°41.1	54.2	278°52.0	06.5	46°36.0	25.0
5	74°06.5	223°00.4	52.4	316°41.9	53.9	293°54.0	06.4	61°38.7	24.9
6	89°08.9	238°01.9	S18°53.0	331°42.8	N21°53.7	308°56.0	N16°06.2	76°41.3	N02°24.9
7	104°11.4	253°03.4	53.7	346°43.6	53.5	323°58.0	06.1	91°43.9	24.8
8	119°13.9	268°04.9	54.3	1°44.5	53.2	338°59.9	05.9	106°46.6	24.7
9	134°16.3	283°06.4	.. 55.0	16°45.4	.. 53.0	354°01.9	.. 05.8	121°49.2	.. 24.6
10	149°18.8	298°07.9	55.7	31°46.2	52.7	9°03.9	05.7	136°51.8	24.6
11	164°21.3	313°09.4	56.3	46°47.1	52.5	24°05.9	05.5	151°54.5	24.5
12	179°23.7	328°11.0	S18°57.0	61°47.9	N21°52.3	39°07.9	N16°05.4	166°57.1	N02°24.4
13	194°26.2	343°12.5	57.6	76°48.8	52.0	54°09.9	05.2	181°59.7	24.3
14	209°28.7	358°14.0	58.3	91°49.7	51.8	69°11.9	05.1	197°02.4	24.3
15	224°31.1	13°15.5	.. 58.9	106°50.5	.. 51.6	84°13.8	.. 04.9	212°05.0	.. 24.2
16	239°33.6	28°17.1	18°59.6	121°51.4	51.3	99°15.8	04.8	227°07.6	24.1
17	254°36.1	43°18.6	19°00.2	136°52.3	51.1	114°17.8	04.7	242°10.3	24.0
18	269°38.5	58°20.1	S19°00.9	151°53.1	N21°50.8	129°19.8	N16°04.5	257°12.9	N02°24.0
19	284°41.0	73°21.7	01.5	166°54.0	50.6	144°21.8	04.4	272°15.5	23.9
20	299°43.4	88°23.2	02.2	181°54.8	50.4	159°23.8	04.2	287°18.2	23.8
21	314°45.9	103°24.7	.. 02.8	196°55.7	.. 50.1	174°25.8	.. 04.1	302°20.8	.. 23.7
22	329°48.4	118°26.3	03.5	211°56.6	49.9	189°27.7	04.0	317°23.4	23.6
23	344°50.8	133°27.8	04.1	226°57.4	49.7	204°29.7	03.8	332°26.1	23.6
Mer.pass. 00:04 ν 1.5' d 0.7' m -4.80 ν 0.9' d -0.2' m 1.17 ν 2.0' d -0.1' m -1.84 ν 2.6' d -0.1' m 0.40									

Mon	GHA	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	359°53.3	148°29.4	S19°04.8	241°58.3	N21°49.4	219°31.7	N16°03.7	347°28.7	N02°23.5
1	14°55.8	163°30.9	05.4	256°59.2	49.2	234°33.7	03.5	2°31.3	23.4
2	29°58.2	178°32.5	06.0	272°00.0	48.9	249°35.7	03.4	17°34.0	23.3
3	45°00.7	193°34.0	.. 06.7	287°00.9	.. 48.7	264°37.7	.. 03.3	32°36.6	.. 23.3
4	60°03.2	208°35.6	07.3	302°01.8	48.4	279°39.7	03.1	47°39.2	23.2
5	75°05.6	223°37.2	07.9	317°02.6	48.2	294°41.7	03.0	62°41.9	23.1
6	90°08.1	238°38.7	S19°08.6	332°03.5	N21°48.0	309°43.6	N16°02.8	77°44.5	N02°23.0
7	105°10.6	253°40.3	09.2	347°04.4	47.7	324°45.6	02.7	92°47.1	23.0
8	120°13.0	268°41.9	09.8	2°05.2	47.5	339°47.6	02.5	107°49.8	22.9
9	135°15.5	283°43.4	.. 10.5	17°06.1	.. 47.2	354°49.6	.. 02.4	122°52.4	.. 22.8
10	150°17.9	298°45.0	11.1	32°07.0	47.0	9°51.6	02.3	137°55.0	22.7
11	165°20.4	313°46.6	11.7	47°07.8	46.8	24°53.6	02.1	152°57.7	22.7
12	180°22.9	328°48.2	S19°12.4	62°08.7	N21°46.5	39°55.6	N16°02.0	168°00.3	N02°22.6
13	195°25.3	343°49.8	13.0	77°09.6	46.3	54°57.6	01.8	183°03.0	22.5
14	210°27.8	358°51.3	13.6	92°10.4	46.0	69°59.6	01.7	198°05.6	22.4
15	225°30.3	13°52.9	.. 14.2	107°11.3	.. 45.8	85°01.5	.. 01.6	213°08.2	.. 22.3
16	240°32.7	28°54.5	14.8	122°12.2	45.5	100°03.5	01.4	228°10.9	22.3
17	255°35.2	43°56.1	15.5	137°13.0	45.3	115°05.5	01.3	243°13.5	22.2
18	270°37.7	58°57.7	S19°16.1	152°13.9	N21°45.1	130°07.5	N16°01.1	258°16.1	N02°22.1
19	285°40.1	73°59.3	16.7	167°14.8	44.8	145°09.5	01.0	273°18.8	22.0
20	300°42.6	88°00.9	17.3	182°15.6	44.6	160°11.5	00.9	288°21.4	22.0
21	315°45.0	104°02.5	.. 17.9	197°16.5	.. 44.3	175°13.5	.. 00.7	303°24.0	.. 21.9
22	330°47.5	119°04.1	18.6	212°17.4	44.1	190°15.5	00.6	318°26.7	21.8
23	345°50.0	134°05.7	19.2	227°18.3	43.8	205°17.5	00.4	333°29.3	21.7
Mer.pass. 23:57 ν 1.6' d 0.6' m -4.81 ν 0.9' d -0.2' m 1.16 ν 2.0' d -0.1' m -1.84 ν 2.6' d -0.1' m 0.39									

Stars		SHA	Dec
Alpheratz	357°33.0	29°14.4	
Ankaa	353°05.3	-42°09.4	
Schedar	349°28.3	-56°41.1	
Diphda	348°45.6	-17°50.2	
Achernar	335°18.6	-57°05.8	
Hamal	327°49.3	23°35.4	
Polaris	321°00.0	89°22.4	
Acamar	315°10.4	-40°11.5	
Menkar	314°04.5	-41°11.8	
Mirafak	308°25.9	-49°57.3	
Aldebaran	290°37.9	16°33.8	
Rigel	281°02.5	-8°10.0	
Capella	280°19.7	46°01.3	
Bellatrix	278°21.1	6°22.5	
Elmath	278°00.1	28°37.9	
Anilam	275°36.3	-1°10.9	
Betelgeuse	270°50.6	7°24.8	
Canopus	263°51.9	-52°42.2	
Sirius	258°25.1	-16°44.9	
Adhara	255°04.9	-29°00.2	
Procyon	244°49.5	5°09.5	
Pollux	243°15.8	27°57.7	
Avior	234°14.6	-59°35.4	
Suhail	222°45.6	-43°32.2	
Maplacidus	221°38.7	-69°49.4	
Alphard	217°46.6	-8°46.3	
Regulus	207°33.2	11°50.3	
Dubhe	193°39.9	61°36.4	
Denebola	182°23.8	14°25.4	
Gienah	175°42.5	-17°41.4	
Acrux	172°59.2	-63°14.9	
Caprux	171°50.7	-57°15.8	
Alioth	166°12.3	55°49.0	
Spica	158°21.1	-11°18.0	
Alkaid	152°51.3	49°10.9	
Hadar	148°34.5	-60°30.2	
Menkent	147°56.3	-36°30.1	
Arcturus	145°46.9	19°02.7	
Rigel Kent.	139°38.8	-60°56.9	
Kochab	137°20.6	74°02.9	
Zuben'ubi	136°54.7	-16°09.1	
Alphecca	126°02.7	26°37.7	
Antares	112°14.2	-26°29.5	
Atria	107°07.3	-69°04.7	
Sabik	102°01.2	-15°45.4	
Shaula	96°08.5	-37°07.5	
Rasalhague	95°57.3	12°32.6	
Eltanin	90°41.5	51°29.4	
Kaus Aus.	83°30.6	-34°22.4	
Vega	80°32.2	-38°48.8	
Nunki	75°45.9	-26°15.8	
Altair	61°58.4	8°56.5	
Peacock	53°03.2	-56°39.0	
Deneb	49°24.5	45°22.8	
Enif	33°37.1	10°00.1	
Al Na'ir	27°30.7	-46°49.8	
Fomalhaut	15°12.6	-29°28.7	
Scheat	13°43.5	28°13.9	
Markab	13°28.2	15°21.1	

Aries			Venus			Mars			Jupiter			Saturn		
Tue	GHA	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec	
0	0°52.4	149°07.4	S19°19.8	242°19.1	N21°43.6	220°19.4	N16°00.3	348°31.9	N02°21.7					
1	15°54.9	164°09.0	20.4	257°20.0	43.4	235°21.4	00.2	3°34.6	21.6					
2	30°57.4	179°10.6	21.0	272°20.9	43.1	250°23.4	16°00.0	18°37.2	21.5					
3	45°59.8	194°12.2	•• 21.6	287°21.7	•• 42.9	265°25.4	15°59.9	33°39.9	•• 21.4					
4	61°02.3	209°13.8	22.2	302°22.6	42.6	280°27.4	59.7	48°42.5	21.4					
5	76°04.8	224°15.5	22.8	317°23.5	42.4	295°29.4	59.6	63°45.1	21.3					
6	91°07.2	239°17.1	S19°23.4	332°24.4	N21°42.1	310°31.4	N15°59.5	78°47.8	N02°21.2					
7	106°09.7	254°18.7	24.0	347°25.2	41.9	325°33.4	59.3	93°50.4	21.1					
8	121°12.2	269°20.4	24.6	•• 26.1	41.6	340°35.4	59.2	108°53.0	21.0					
9	136°14.6	284°22.0	•• 25.2	17°27.0	•• 41.4	355°37.4	•• 59.0	123°55.7	•• 21.0					
10	151°17.1	299°23.7	25.8	32°27.9	41.1	10°39.4	58.9	138°58.3	20.9					
11	166°19.5	314°25.3	26.4	47°28.7	40.9	25°41.4	58.7	154°00.9	20.8					
12	181°22.0	329°27.0	S19°27.0	62°29.6	N21°40.6	40°43.3	N15°58.6	169°03.6	N02°20.7					
13	196°24.5	344°28.6	27.6	77°30.5	40.4	55°45.3	58.5	184°06.2	20.7					
14	211°26.9	359°30.3	28.2	92°31.4	40.2	70°47.3	58.3	199°08.9	20.6					
15	226°29.4	14°31.9	•• 28.8	107°32.2	•• 39.9	85°49.3	•• 58.2	214°11.5	•• 20.5					
16	241°31.9	29°33.6	29.4	122°33.1	39.7	100°51.3	58.0	229°14.1	20.4					
17	256°34.3	44°35.2	30.0	137°34.0	39.4	115°53.3	57.9	244°16.8	20.4					
18	271°36.8	59°36.9	S19°30.6	152°34.9	N21°39.2	130°55.3	N15°57.8	259°19.4	N02°20.3					
19	286°39.3	74°38.6	31.2	167°35.7	38.9	145°57.3	57.6	274°22.0	20.2					
20	301°41.7	89°40.2	31.7	182°36.6	38.7	160°59.3	57.5	289°24.7	20.1					
21	316°44.2	104°41.9	•• 32.3	197°37.5	•• 38.4	176°01.3	•• 57.3	304°27.3	•• 20.0					
22	331°46.7	119°43.6	32.9	212°38.2	38.2	191°03.3	57.2	319°30.0	20.0					
23	346°49.1	134°45.3	33.5	227°39.2	37.9	206°05.3	57.1	334°32.6	19.9					
Mer.pass. 23:53			ν 1.6' d 0.6' m -4.81			ν 0.9' d -0.2' m 1.16			ν 2.0' d -0.1' m -1.85			ν 2.6' d -0.1' m 0.39		

Wed	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	1°51.6	149°47.0	S19°34.1	242°40.1	N21°37.7	221°07.3	N15°56.9	349°35.2
1	16°54.0	164°48.7	34.7	257°41.0	37.4	236°09.3	56.8	4°37.9
2	31°56.5	179°50.3	35.2	272°41.9	37.2	251°11.2	56.6	19°40.5
3	46°59.0	194°52.0	•• 35.8	287°42.8	•• 36.9	266°13.2	•• 56.5	34°43.1
4	62°01.4	209°53.7	36.4	302°43.6	36.7	281°15.2	56.4	49°45.8
5	77°03.9	224°55.4	37.0	317°44.5	36.4	296°17.2	56.2	64°48.4
6	92°06.4	239°57.1	S19°37.5	332°45.4	N21°36.2	311°19.2	N15°56.1	79°51.1
7	107°08.8	254°58.8	38.1	347°46.3	35.9	326°21.2	55.9	94°53.7
8	122°11.3	270°00.5	38.7	2°47.2	35.7	341°23.2	55.8	109°56.3
9	137°13.8	285°02.2	•• 39.2	17°48.0	•• 35.4	356°25.2	•• 55.7	124°59.0
10	152°16.2	300°04.0	39.8	32°48.9	35.2	11°27.2	55.5	140°01.6
11	167°18.7	315°05.7	40.4	47°49.8	34.9	26°29.2	55.4	155°04.2
12	182°21.1	330°07.4	S19°40.9	62°50.7	N21°34.7	41°31.2	N15°55.2	170°06.9
13	197°23.6	345°09.1	41.5	77°51.6	34.4	56°33.2	55.1	185°09.5
14	212°26.1	0°10.8	42.1	92°52.4	34.2	71°35.2	55.0	200°12.2
15	227°28.5	15°12.6	•• 42.6	107°53.3	•• 33.9	86°37.2	•• 54.8	215°14.8
16	242°31.0	30°14.3	43.2	122°54.2	33.7	101°39.2	54.7	230°17.4
17	257°33.5	45°16.0	43.8	137°55.1	33.4	116°41.2	54.5	245°20.1
18	272°35.9	60°17.8	S19°44.3	152°56.0	N21°33.1	131°43.2	N15°54.4	260°22.7
19	287°38.4	75°19.5	44.9	167°56.9	32.9	146°45.2	54.3	275°25.3
20	302°40.9	90°21.3	45.4	182°57.7	32.6	161°47.2	54.1	290°28.0
21	317°43.3	105°23.0	•• 46.0	197°58.6	•• 32.6	176°49.2	•• 54.0	305°30.6
22	332°45.8	120°24.7	46.5	212°59.5	32.1	191°51.1	53.9	320°33.3
23	347°48.3	135°26.5	47.1	228°00.4	31.9	206°53.1	53.7	335°35.9
Mer.pass. 23:49			ν 1.7' d 0.6' m -4.81			ν 0.9' d -0.2' m 1.15		

Thu	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	2°50.7	150°28.3	S19°47.6	243°01.3	N21°31.6	221°55.1	N15°53.6	350°38.5
1	17°53.2	165°30.0	48.2	258°02.2	31.4	236°57.1	53.4	5°41.2
2	32°55.6	180°31.8	48.7	273°03.1	31.1	251°59.1	53.3	20°43.8
3	47°58.1	195°35.5	•• 49.3	288°03.9	•• 30.9	267°01.1	•• 53.2	35°46.4
4	63°00.4	210°36.5	49.9	303°04.8	30.6	282°03.1	53.0	50°49.1
5	78°03.0	225°37.1	50.3	318°05.7	30.4	297°05.1	52.9	65°51.7
6	93°05.5	240°38.8	S19°50.9	333°06.6	N21°30.1	312°07.1	N15°52.7	80°54.4
7	108°08.0	255°40.6	51.4	348°07.5	29.8	327°09.1	52.6	95°57.0
8	123°10.4	270°42.4	52.0	0°3°08.4	29.6	342°11.1	52.5	110°59.6
9	138°12.9	285°44.2	•• 52.5	16°09.3	•• 29.3	357°13.1	•• 52.2	126°02.3
10	153°15.4	300°46.0	53.0	33°10.1	29.1	12°15.1	52.2	141°04.9
11	168°17.8	315°47.8	53.6	48°11.0	28.8	27°17.1	52.0	156°07.6
12	183°20.3	330°49.5	S19°54.1	63°11.9	N21°28.6	42°19.1	N15°51.9	171°10.2
13	198°22.8	345°51.3	54.6	78°12.8	28.3	57°21.1	51.8	186°12.8
14	213°25.2	0°53.1	55.2	93°13.7	28.0	72°23.1	51.6	201°15.5
15	228°27.7	15°54.9	•• 55.7	108°14.6	•• 27.8	87°25.1	•• 51.5	216°18.1
16	243°30.1	30°56.7	56.2	123°15.5	27.5	102°27.1	51.3	231°20.8
17	258°32.6	45°58.6	56.7	138°16.4	27.3	117°29.1	51.2	246°23.4
18	273°35.1	61°00.4	S19°57.3	153°17.3	N21°27.0	132°31.1	N15°51.1	261°26.0
19	288°37.5	76°02.2	57.8	168°18.2	26.8	147°33.1	50.9	276°28.7
20	303°40.0	91°04.0	58.3	183°19.0	26.5	162°35.1	50.8	291°31.3
21	318°42.5	106°05.8	•• 58.8	198°19.9	•• 26.2	177°37.1	•• 50.6	306°33.9
22	333°44.9	121°07.6	59.3	213°20.8	26.0	192°39.1	50.5	321°36.6
23	348°47.4	136°09.5	59.9	228°21.7	25.7	207°41.1	50.4	336°39.2
Mer.pass. 23:45			ν 1.8' d 0.5' m -4.81			ν 0.9' d -0.3' m 1.15		

Stars		
	SHA	Dec
Alpheratz	357°33.0	29°14.5
Ankaa	353°05.3	-42°09.5
Schedar	349°28.9	56°41.1
Diphda	348°45.6	-17°50.2
Achernar	335°18.6	-57°05.8
Hamal	327°49.3	23°35.4
Polaris	317°58.7	89°22.4
Acamar	315°10.4	-40°11.5
Menkar	314°04.4	-41°11.8
Mirafak	308°25.9	49°57.3
Aldebaran	290°37.9	16°33.8
Rigel	281°02.4	-8°10.0
Capella	280°19.7	46°01.3
Bellatrix	278°21.3	6°22.5
Elath	278°00.0	28°37.9
Anilam	275°36.3	-1°10.9
Betelgeuse	270°50.6	7°24.8
Canopus	263°51.8	-52°42.2
Sirius	258°25.1	-16°44.9
Adhara	255°04.8	-29°00.2
Procyon	244°49.5	5°09.5
Pollux	243°15.7	27°57.6
Avior	234°14.5	-59°35.4
Shaul	222°45.6	-43°32.2
Maplacidus	221°38.7	-69°49.4
Alphard	217°46.6	-8°46.3
Regulus	207°33.2	11°50.2
Dubhe	193°39.9	61°36.3
Denebola	182°23.8	14°25.4
Gienah	175°42.5	-17°41.4
Acrux	172°59.2	-63°14.9
Gacrux	171°50.7	-57°15.8
Alioth	166°12.3	55°49.0
Spica	158°21.1	-11°18.0
Alkaid	152°51.3	49°10.9
Hadar	148°34.6	-60°30.2
Menkent	147°55.3	-36°30.1
Arcturus	145°46.9	19°02.7
Rigel Kent.	139°58.9	-60°56.9
Kochab	137°20.7	74°02.9
Zuben'ubi	136°54.7	-16°09.1
Alphecca	126°02.8	26°37.7
Antares	112°14.2	-26°29.5
Atria	107°07.3	-69°04.7
Sabik	102°01.2	-15°45.2
Shaula	96°08.5	-37°07.5
Rasalhague	95°57.3	12°32.6
Eltanin	90°41.5	51°29.4
Kaus Austral.	83°30.6	-34°22.4
Vega	80°32.2	38°48.8
Nunki	75°45.9	-26°15.8
Altair	61°58.4	8°56.5
Peacock	53°03.2	-56°39.0
Deneb	49°24.6	45°22.8
Enif	33°37.1	10°00.1
Al Na'ir	27°30.7	-46°49.9
Fomalhaut	15°12.6	-29°28.7
Scheat	13°43.5	28°13.9
Markab	13°28.2	15°21.1
Sep 22 Tue		
Venus	SHA	Mer.pass.
Venus	148°14.9	14.02
Mars	241°26.7	07.50
Jupiter	219°27.0	09.17
Saturn	347°39.5	00.46
Sep 23 Wed		
Venus	SHA	Mer.pass.
Venus	147°55.4	13.59
Mars	240°48.5	07.49
Jupiter	219°15.7	09.14
Saturn	347°43.6	00.42
Sep 24 Thu		
Venus	SHA	Mer.pass.
Venus	147°37.5	13.56
Mars	240°10.6	07.47
Jupiter	219°04.4	09.11
Saturn	347°47.8	00.37
Horizontal parallax		
Venus:	0.4	
Mars:	0.1	

Sun			Moon			
Tue	GHA	Dec	GHA	ν	Dec	HP
0	181°46.5	N00°23.4	54°34.7	12.4°	S21°38.2	-9.6° 54.9'
1	196°46.7	22.4	69°06.1	12.4°	21°28.5	-9.7° 54.9'
2	211°46.9	21.5	83°37.6	12.5°	21°18.8	-9.8° 54.9'
3	226°47.1	20.5	98°09.0	12.5°	21°09.0	-9.9° 54.9'
4	241°47.4	19.5	112°40.6	12.6°	20°59.1	-10.0° 54.9'
5	256°47.6	18.6	127°12.1	12.6°	20°49.0	-10.1° 55.0'
6	271°47.8	N00°17.6	141°43.8	12.7°	S20°38.9	-10.2° 55.0'
7	286°48.0	16.6	156°15.4	12.7°	20°28.7	-10.3° 55.0'
8	301°48.2	15.6	170°47.1	12.7°	20°18.3	-10.4° 55.0'
9	316°48.5	14.6	185°18.8	12.8°	20°07.9	-10.5° 55.1'
10	331°48.7	13.7	199°50.6	12.8°	19°57.4	-10.6° 55.1'
11	346°48.9	12.7	214°22.5	12.9°	19°46.8	-10.7° 55.1'
12	1°49.1	N00°11.8	228°54.3	12.9°	S19°36.1	-10.8° 55.1'
13	16°49.3	10.8	243°26.2	13.0°	19°25.3	-10.9° 55.1'
14	31°49.6	09.8	257°58.2	13.0°	19°14.4	-11.0° 55.1'
15	46°49.8	08.8	272°30.2	13.0°	19°03.4	-11.1° 55.2'
16	61°50.0	07.9	287°02.2	13.1°	18°52.3	-11.2° 55.2'
17	76°50.2	06.9	301°34.3	13.1°	18°41.1	-11.3° 55.2'
18	91°50.5	N00°05.9	316°06.4	13.2°	S18°29.8	-11.4° 55.2'
19	106°50.7	04.9	330°38.6	13.2°	18°18.4	-11.5° 55.3'
20	121°50.9	04.0	345°10.8	13.2°	18°07.0	-11.5° 55.3'
21	136°51.1	03.0	359°43.0	13.3°	17°55.4	-11.6° 55.3'
22	151°51.3	02.0	14°15.3	13.3°	17°43.8	-11.7° 55.3'
23	166°51.6	01.1	28°47.6	13.3°	17°32.1	-11.8° 55.3'
SD = 15.9' d = -1.0'			SD = 15.0'			
Wed	GHA	Dec	GHA	ν	Dec	HP
0	181°51.8	N00°00.1	43°19.9	13.4°	S17°20.3	-11.9° 55.4'
1	196°52.0	S00°00.9	57°52.3	13.4°	17°08.4	-12.0° 55.4'
2	211°52.2	01.9	72°24.7	13.5°	16°56.4	-12.1° 55.4'
3	226°52.4	02.8	86°57.2	13.5°	16°44.4	-12.1° 55.4'
4	241°52.7	03.8	101°29.7	13.5°	16°32.2	-12.2° 55.5'
5	256°52.9	04.8	116°02.2	13.6°	16°20.0	-12.3° 55.5'
6	271°53.1	S00°05.8	130°34.7	13.6°	S16°07.7	-12.4° 55.5'
7	286°53.3	06.7	145°07.3	13.6°	15°55.3	-12.5° 55.5'
8	301°53.5	07.7	159°39.9	13.7°	15°42.8	-12.5° 55.6'
9	316°53.8	08.7	174°12.6	13.7°	15°30.3	-12.6° 55.6'
10	331°54.0	09.6	188°45.3	13.7°	15°17.6	-12.7° 55.6'
11	346°54.2	10.6	203°18.0	13.7°	15°04.9	-12.8° 55.6'
12	1°54.4	S00°11.6	217°50.7	13.8°	S14°52.2	-12.9° 55.7'
13	16°54.6	12.6	232°23.5	13.8°	14°39.3	-12.9° 55.7'
14	31°54.9	13.5	246°56.3	13.8°	14°26.4	-13.0° 55.7'
15	46°55.1	14.5	261°29.2	13.9°	14°13.4	-13.1° 55.7'
16	61°55.3	15.5	276°02.0	13.9°	14°00.3	-13.2° 55.8'
17	76°55.5	16.5	290°34.9	13.9°	13°47.1	-13.2° 55.8'
18	91°55.7	S00°17.4	305°07.8	13.9°	S13°33.9	-13.3° 55.8'
19	106°56.0	18.4	319°40.8	14.0°	13°20.6	-13.4° 55.8'
20	121°56.2	19.4	334°13.7	14.0°	13°07.2	-13.4° 55.9'
21	136°56.4	20.4	348°46.6	14.1°	12°53.8	-13.5° 55.9'
22	151°56.6	21.3	3°19.7	14.0°	12°40.3	-13.6° 55.9'
23	166°56.8	22.3	17°52.7	14.1°	12°26.7	-13.6° 55.9'
SD = 15.9' d = -1.0'			SD = 15.1'			
Thu	GHA	Dec	GHA	ν	Dec	HP
0	181°57.1	S00°23.3	32°25.8	14.1°	S12°13.1	-13.7° 56.0'
1	196°57.3	24.2	46°58.9	14.1°	11°59.4	-13.8° 56.0'
2	211°57.5	25.2	61°32.0	14.1°	11°45.6	-13.8° 56.0'
3	226°57.7	26.2	76°05.1	14.1°	11°31.8	-13.9° 56.1'
4	241°57.9	27.2	90°38.2	14.1°	11°17.9	-14.0° 56.1'
5	256°58.1	28.1	105°11.3	14.2°	11°03.9	-14.0° 56.1'
6	271°58.4	S00°29.1	119°44.5	14.2°	S10°49.9	-14.1° 56.1'
7	286°58.6	30.1	134°17.7	14.2°	10°35.8	-14.1° 56.2'
8	301°58.8	31.0	148°50.9	14.2°	10°21.7	-14.2° 56.2'
9	316°59.0	32.0	163°24.1	14.2°	10°07.5	-14.3° 56.2'
10	331°59.2	33.0	177°57.3	14.2°	09°53.2	-14.3° 56.2'
11	346°59.5	34.0	192°30.5	14.2°	09°38.9	-14.4° 56.3'
12	1°59.7	S00°34.9	207°03.8	14.3°	S09°24.5	-14.4° 56.3'
13	16°59.9	35.9	221°37.0	14.3°	09°10.1	-14.5° 56.3'
14	32°00.1	36.9	236°10.3	14.3°	08°55.6	-14.5° 56.4'
15	47°00.3	37.9	250°43.6	14.3°	08°41.1	-14.6° 56.4'
16	62°00.6	38.8	265°16.9	14.3°	08°26.5	-14.6° 56.4'
17	77°00.8	39.8	279°50.1	14.3°	08°11.9	-14.7° 56.4'
18	92°01.0	S00°40.8	294°23.4	14.3°	S07°57.2	-14.7° 56.5'
19	107°01.2	41.8	308°56.7	14.3°	07°42.5	-14.8° 56.5'
20	122°01.4	42.7	323°30.0	14.3°	07°27.7	-14.8° 56.5'
21	137°01.6	43.7	338°03.3	14.3°	07°12.8	-14.9° 56.5'
22	152°01.9	44.7	352°36.6	14.3°	06°58.0	-14.9° 56.6'
23	167°02.1	45.6	7°09.9	14.3°	06°43.1	-15.0° 56.6'
SD = 15.9' d = 1.0'			SD = 15.3'			

Aries			Venus			Mars			Jupiter			Saturn		
Fri	GHA		GHA	Dec		GHA	Dec		GHA	Dec		GHA	Dec	
0	3°49.9	151°11.3	S20°00.4	243°22.6	N21°25.5	222°43.1	N15°50.2	351°41.9	N02°16.1					
1	18°52.3	166°13.1	00.9	258°23.5	25.2	237°45.1	50.1	6°44.5	16.0					
2	33°54.8	181°15.0	01.4	273°24.4	25.0	252°47.1	50.0	21°47.1	16.0					
3	48°57.2	196°16.8	.. 01.9	288°25.3	.. 24.7	267°49.1	.. 49.8	36°49.8	.. 15.9					
4	63°59.7	211°18.6	02.4	303°26.2	24.4	282°51.1	49.7	51°52.4	15.8					
5	79°02.2	226°20.5	02.9	318°27.1	24.2	297°53.1	49.5	66°55.1	15.7					
6	94°04.6	241°22.3	S20°03.4	333°28.0	N21°23.9	312°55.1	N15°49.4	81°57.7	N02°15.6					
7	109°07.1	256°24.2	03.9	348°28.9	23.7	327°57.1	49.3	97°00.3	15.6					
8	124°09.6	271°26.0	04.4	3°29.8	23.4	342°59.1	49.1	112°03.0	15.5					
9	139°12.0	286°27.9	.. 04.9	18°30.6	.. 23.1	358°01.1	.. 49.0	127°05.6	.. 15.4					
10	154°14.5	301°29.7	05.4	33°31.5	22.9	13°03.1	48.8	142°08.3	15.3					
11	169°17.0	316°31.6	05.9	48°32.4	22.6	28°05.1	48.7	157°10.9	15.3					
12	184°19.4	331°33.5	S20°06.4	63°33.3	N21°22.4	43°07.1	N15°48.6	172°13.5	N02°15.2					
13	199°21.9	346°35.3	06.9	78°34.2	22.1	58°09.1	48.4	187°16.2	15.1					
14	214°24.4	1°37.2	07.4	93°35.1	21.8	73°11.1	48.3	202°18.8	15.0					
15	229°26.8	16°39.1	.. 07.9	108°36.0	.. 21.6	88°13.1	.. 48.2	217°21.5	.. 15.0					
16	244°29.3	31°41.0	08.4	123°36.9	21.3	103°15.1	48.0	232°24.1	14.9					
17	259°31.7	46°42.9	08.9	138°37.8	21.0	118°17.1	47.9	247°26.7	14.8					
18	274°34.2	61°44.7	S20°09.4	153°38.7	N21°20.8	133°19.1	N15°47.7	262°29.4	N02°14.7					
19	289°36.7	76°46.6	09.9	168°39.6	20.5	148°21.1	47.6	277°32.0	14.6					
20	304°39.1	91°48.5	10.4	183°45.5	20.3	163°23.1	47.5	292°34.7	14.6					
21	319°41.6	106°50.4	.. 10.9	198°41.4	.. 20.0	178°25.1	.. 47.3	307°37.3	.. 14.5					
22	334°44.1	121°52.3	11.3	213°42.1	19.7	193°27.1	47.2	322°39.9	14.4					
23	349°46.5	136°54.2	11.8	228°43.2	19.5	208°29.1	47.0	337°42.6	14.3					
Mer.pass. 23:41			ν 1.8° d 0.5' m -4.82			ν 0.9' d -0.3' m 1.14			ν 2.0' d -0.1' m -1.86			ν 2.6' d -0.1' m 0.38		

Sat	GHA		GHA	Dec		GHA	Dec		GHA	Dec		GHA	Dec	
0	4°49.0	151°56.1	S20°12.3	243°44.1	N21°19.2	223°31.1	N15°46.9	352°45.2	N02°14.3					
1	19°51.5	166°58.0	12.8	258°45.0	18.8	238°33.2	46.8	7°47.9	14.2					
2	34°53.9	182°00.0	13.3	273°45.9	18.7	253°35.2	46.6	22°50.5	14.1					
3	49°56.4	197°01.9	.. 13.7	288°46.8	.. 18.4	268°37.2	.. 46.5	37°53.1	.. 14.0					
4	64°58.8	212°03.8	14.2	303°47.7	18.2	283°39.2	46.4	52°55.8	13.9					
5	80°01.3	227°05.7	14.7	318°48.6	17.9	298°41.2	46.2	67°58.4	13.9					
6	95°06.8	242°07.6	S20°15.2	333°49.5	N21°17.6	313°43.2	N15°46.1	83°01.1	N02°13.8					
7	110°06.2	257°09.6	15.6	348°50.4	17.4	328°45.2	45.9	98°03.7	13.7					
8	125°08.7	272°15.1	16.1	3°51.3	17.1	343°47.2	45.8	113°06.3	13.6					
9	140°11.2	287°13.4	.. 16.6	18°52.2	.. 16.8	358°49.2	.. 45.7	128°09.0	.. 13.6					
10	155°13.6	302°15.4	17.0	33°53.1	16.6	13°51.2	45.5	143°11.6	13.5					
11	170°16.1	317°17.3	17.5	48°54.0	16.3	28°53.2	45.4	158°14.3	13.4					
12	185°18.6	332°19.2	S20°17.9	63°54.9	N21°16.0	43°55.2	N15°45.3	173°16.9	N02°13.3					
13	200°21.0	347°21.2	18.4	78°55.8	15.8	58°57.2	45.1	188°19.6	13.2					
14	215°23.5	2°23.1	18.9	93°56.7	15.5	73°59.2	45.0	203°22.2	13.2					
15	230°26.0	17°25.1	.. 19.3	108°57.6	.. 15.2	89°01.2	.. 44.8	218°24.8	.. 13.1					
16	245°28.4	32°27.1	19.8	123°58.5	15.0	104°03.2	44.7	233°27.5	13.0					
17	260°30.9	47°29.0	20.2	138°59.4	14.7	119°05.2	44.6	248°30.1	12.9					
18	275°33.3	62°31.0	S20°20.7	154°00.3	N21°14.4	134°07.2	N15°44.4	263°32.8	N02°12.9					
19	290°35.8	77°33.0	21.1	169°01.2	14.2	149°09.2	44.3	278°35.4	12.8					
20	305°38.3	92°34.9	21.6	184°02.1	13.9	164°11.2	44.2	293°38.0	12.7					
21	320°40.7	107°36.9	.. 22.0	199°03.1	.. 13.6	179°13.3	.. 44.0	308°40.7	.. 12.6					
22	335°43.2	122°38.9	22.5	214°04.0	13.4	194°15.3	43.9	323°43.3	12.5					
23	350°45.7	137°40.9	22.9	229°04.9	13.1	209°17.3	43.7	338°46.0	12.5					
Mer.pass. 23:37			ν 1.9' d 0.5' m -4.81			ν 0.9' d -0.3' m 1.14			ν 2.0' d -0.1' m -1.86			ν 2.6' d -0.1' m 0.37		

Sun	GHA		GHA	Dec		GHA	Dec		GHA	Dec		GHA	Dec	
0	5°48.1	152°42.8	S20°23.4	244°05.8	N21°12.8	224°19.3	N15°43.6	353°48.6	N02°12.4					
1	20°50.6	167°44.8	23.8	259°06.7	12.6	239°21.3	43.5	8°51.2	12.3					
2	35°53.1	182°46.8	24.3	274°07.6	12.3	254°23.3	43.3	23°53.9	12.2					
3	50°55.5	197°48.8	.. 24.7	289°08.5	.. 12.0	269°23.3	.. 43.2	38°56.5	.. 12.2					
4	65°58.0	212°50.8	25.2	304°09.2	11.8	284°27.3	43.1	53°59.2	12.1					
5	81°00.4	227°52.8	25.6	319°10.3	11.5	299°29.3	42.9	69°01.8	12.0					
6	96°02.9	242°54.8	S20°26.0	334°11.2	N21°11.2	314°31.3	N15°42.8	84°04.5	N02°11.9					
7	111°05.4	257°56.8	26.4	349°12.1	11.0	329°33.3	42.6	99°07.1	11.8					
8	126°07.8	272°58.8	26.9	4°13.0	10.7	344°35.3	42.5	114°09.7	11.8					
9	141°10.3	288°00.8	.. 27.3	19°13.9	.. 10.4	359°37.3	.. 42.4	129°12.4	.. 11.7					
10	156°12.8	303°02.9	27.7	34°14.8	10.2	14°39.3	42.2	144°15.0	11.6					
11	171°15.2	318°04.9	28.2	49°15.8	09.9	29°41.4	42.1	159°17.7	11.5					
12	186°17.7	333°06.9	S20°28.6	64°16.7	N21°09.6	44°43.4	N15°42.0	174°20.3	N02°11.5					
13	201°20.2	348°08.9	29.0	79°17.6	09.4	59°45.4	41.8	189°22.9	11.4					
14	216°22.6	3°11.0	29.4	94°18.5	09.1	74°47.4	41.7	204°25.6	11.3					
15	231°25.1	18°13.0	.. 29.8	109°19.4	.. 08.8	89°49.4	.. 41.5	219°28.2	.. 11.2					
16	246°27.6	33°15.0	30.3	124°20.3	08.5	104°51.4	41.4	234°30.9	11.1					
17	261°30.0	48°17.1	30.7	139°21.2	08.3	119°53.4	41.3	249°33.5	11.1					
18	276°32.5	63°19.1	S20°31.1	154°22.1	N21°08.0	134°55.4	N15°41.1	264°36.2	N02°11.0					
19	291°34.9	78°21.2	31.5	169°23.0	07.7	149°57.4	41.0	279°38.8	10.9					
20	306°37.4	93°23.2	31.9	184°24.0	07.5	164°59.4	40.9	294°41.4	10.8					
21	321°39.9	108°25.3	.. 32.3	199°24.9	.. 07.2	180°01.4	.. 40.7	309°44.1	.. 10.8					
22	336°42.3	123°27.3	32.7	214°25.8	06.9	195°03.5	40.6	324°46.7	10.7					
23	351°44.8	138°29.4	33.1	229°26.7	06.6	210°05.5	40.4	339°49.4	10.6					
Mer.pass. 23:33			ν 2.0' d 0.4' m -4.81			ν 0.9' d -0.3' m 1.13			ν 2.0' d -0.1' m -1.86			ν 2.6' d -0.1' m 0.37		

Stars		
	SHA	Dec
Alpheratz	357°33.0	29°14.5
Ankaa	353°05.3	42°09.5
Schedar	349°28.9	56°41.1
Diphda	348°45.6	17°50.2
Achernar	335°18.6	-57°05.8
Hamal	327°49.3	23°35.4
Polaris	312°57.6	89°22.4
Acamar	315°10.4	-40°11.5
Menkar	314°04.4	4°11.8
Mirfak	308°25.9	49°57.3
Aldebaran	290°37.9	16°33.8
Rigel	281°02.4	-8°10.0
Capella	280°19.7	46°01.4
Bellatrix	278°21.3	6°22.5
Elnath	278°00.0	28°37.8
Alnilam	275°36.2	-1°10.9
Beteiguse	270°50.5	7°24.8
Canopus	263°51.8	-52°42.2
Sirius	258°25.0	-16°44.9
Adhara	255°04.8	-29°00.2
Procyon	244°49.5	5°09.5
Pollux	243°15.7	27°57.6
Avior	234°14.5	-59°35.4
Suhail	222°45.6	-43°32.2
Miaplacidus	221°38.7	-69°49.3
Alphard	217°46.6	-8°46.3
Regulus	207°33.2	11°50.2
Dubhe	193°39.9	61°36.3
Denebola	182°23.8	14°25.4
Gienah	175°42.5	-17°41.4
Acrux	172°59.2	-63°14.8
Gacrux	171°50.7	-57°15.8
Alloth	166°12.3	55°48.9
Spica	158°21.1	-11°18.0
Alkaid	152°51.3	49°10.9
Hadar	148°34.6	-60°30.2
Menkent	147°56.3	-36°30.1
Arcturus	145°46.9	19°02.7
Rigel Kent	139°38.9	-60°56.9
Kochab	137°20.7	74°02.9
Zuben ubi	136°54.7	-16°09.1
Alphecca	126°02.8	26°37.7
Antares	112°14.3	-26°29.5
Atria	107°07.4	-69°04.7
Sabik	102°01.2	-15°45.4
Shaula	96°08.5	-37°07.5
Rasalhague	95°57.3	7°47.3
Eltanin	90°41.6	51°29.4
Kaus Aust.	83°30.6	-34°22.4
Vega	80°32.2	38°48.8
Nunki	75°45.9	-26°15.8
Altair	61°58.5	8°56.5
Peacock	53°03.2	-56°39.0
Deneb	49°24.6	45°22.8
Enif	33°37.2	10°00.1
Al Na'ir	27°30.7	-46°54.9
Fomalhaut	15°12.6	-29°28.7
Scheat	13°43.5	28°13.9
Markab	13°28.2	15°21.2
Sep 25 Fri	SHA	Mer.pas.
Venus	147°21.4	13.54
Mars	239°32.8	07.46
Jupiter	218°53.2	09.08
Saturn	347°52.0	00.33
Sep 26 Sat	SHA	Mer.pas.
Venus	147°07.1	13.50
Mars	238°55.1	07.45
Jupiter	218°42.2	09.05
Saturn	347°56.2	00.29
Sep 27 Sun	SHA	Mer.pas.
Venus	146°54.7	13.47
Mars	238°17.6	07.43
Jupiter	218°31.1	09.02
Saturn	348°00.5	00.25
Horizontal parallax		
Venus:		0.4
Mars:		0.1

Aries			Venus			Mars			Jupiter			Saturn		
Mon	GHA		GHA	Dec		GHA	Dec		GHA	Dec		GHA	Dec	
0	6°47.3	153°31.5	S20°33.5	244°27.6	N21°06.4	225°07.5	N15°40.3	354°52.0	N02°10.5					
1	21°49.7	168°33.5	34.0	259°28.5	06.1	240°09.5	40.2	9°54.6	10.4					
2	36°52.2	183°35.6	34.4	274°29.4	05.8	255°11.5	40.0	24°57.3	10.4					
3	51°54.7	198°37.7	.. 34.8	289°30.3	.. 05.6	270°13.5	.. 39.9	39°59.9	.. 10.3					
4	66°57.1	213°39.8	35.2	304°31.3	05.3	285°15.5	39.8	55°02.6	10.2					
5	81°59.6	228°41.9	35.6	319°32.2	05.0	300°17.5	39.6	70°05.2	10.1					
6	97°02.0	243°43.9	S20°35.9	334°33.1	N21°04.7	315°19.5	N15°39.5	85°07.9	N02°10.1					
7	112°04.5	258°46.0	36.3	349°34.0	04.5	330°21.6	39.4	100°10.5	10.0					
8	127°07.0	273°48.1	36.7	4°34.9	04.2	345°23.6	39.2	115°13.1	09.9					
9	142°09.4	288°50.2	.. 37.1	19°35.8	.. 03.9	0°25.6	.. 39.1	130°15.8	.. 09.8					
10	157°11.9	303°52.3	37.5	34°36.8	03.7	15°27.6	38.9	145°18.4	09.7					
11	172°14.4	318°54.4	37.9	49°37.7	03.4	30°29.6	38.8	160°21.1	09.7					
12	187°16.8	333°56.5	S20°38.3	64°38.6	N21°03.1	45°31.6	N15°38.7	175°23.7	N02°09.6					
13	202°19.3	348°58.6	38.7	79°39.5	02.8	60°33.6	38.5	190°26.4	09.5					
14	217°21.8	4°00.8	39.1	94°40.4	02.6	75°35.6	38.4	205°29.0	09.4					
15	232°24.2	19°02.9	.. 39.4	109°41.3	.. 02.3	90°37.6	.. 38.3	220°31.6	.. 09.4					
16	247°26.7	34°05.0	39.8	124°42.3	02.0	105°39.7	38.1	235°34.3	09.3					
17	262°29.2	49°07.1	40.2	139°43.2	01.7	120°41.7	38.0	250°36.9	09.2					
18	277°31.6	64°09.2	S20°40.6	154°44.1	N21°01.5	135°43.7	N15°37.9	265°39.6	N02°09.1					
19	292°34.1	79°11.4	40.9	169°45.0	01.2	150°45.7	37.7	280°42.2	09.0					
20	307°36.5	94°13.5	41.3	184°45.9	00.9	165°47.7	37.6	295°44.8	09.0					
21	322°39.0	109°15.7	.. 41.7	199°46.9	.. 00.6	180°49.7	.. 37.4	310°47.5	.. 08.9					
22	337°41.5	124°17.8	42.1	214°47.8	00.4	195°51.7	37.3	325°50.1	08.8					
23	352°43.9	139°19.9	42.4	229°48.7	00.1	210°53.8	37.2	340°52.8	08.7					
Mer.pass. 23:29			ν 2.1° d 0.4' m -4.81			ν 0.9' d -0.3' m 1.13			ν 2.0' d -0.1' m -1.86			ν 2.6' d -0.1' m 0.36		

Tue	GHA	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	7°46.4	154°22.1	S20°42.8	244°49.6	N20°59.8	225°55.8	N15°37.0	355°55.4	N02°08.7
1	22°48.9	169°24.2	43.2	259°50.5	59.5	240°57.8	36.9	10°58.1	08.6
2	37°51.3	184°26.4	43.5	274°51.5	59.3	255°59.8	36.8	26°00.7	08.5
3	52°53.8	199°28.6	.. 43.9	289°52.4	.. 59.0	271°01.8	.. 36.6	41°03.3	.. 08.4
4	67°56.3	214°30.7	44.2	304°53.3	58.7	286°03.8	36.5	56°06.0	08.3
5	82°58.7	229°32.9	44.6	319°54.2	58.4	301°05.8	36.4	71°08.6	08.3
6	98°01.2	244°35.1	S20°45.0	334°55.1	N20°58.1	316°07.9	N15°36.2	86°11.3	N02°08.2
7	113°03.7	259°37.2	45.3	349°56.1	57.9	331°09.9	36.1	101°13.9	08.1
8	128°06.1	274°39.4	45.7	4°57.0	57.6	346°11.9	35.9	116°16.6	08.0
9	143°08.6	289°41.6	.. 46.0	19°57.9	.. 57.3	1°13.9	.. 35.8	131°19.2	.. 08.0
10	158°11.0	304°43.8	46.4	34°58.8	57.0	16°15.9	35.7	146°21.8	07.9
11	173°13.5	319°46.0	46.7	49°59.8	56.8	31°17.9	35.5	161°24.5	07.8
12	188°16.0	334°48.2	S20°47.1	65°00.7	N20°56.5	46°19.9	N15°35.4	176°27.1	N02°07.7
13	203°18.4	349°50.4	47.4	80°01.6	56.2	61°22.0	35.3	191°29.8	07.6
14	218°20.9	4°52.6	47.7	95°02.5	55.9	76°24.0	35.1	206°32.4	07.6
15	233°23.4	19°54.8	.. 48.1	110°03.5	.. 55.6	91°26.0	.. 35.0	221°35.1	.. 07.5
16	248°25.8	34°57.0	48.4	125°04.4	55.4	106°28.0	34.9	236°37.7	07.4
17	263°28.3	49°59.2	48.8	140°05.3	55.1	121°30.0	34.7	251°40.3	07.3
18	278°30.8	65°01.4	S20°49.1	155°06.2	N20°54.8	136°32.0	N15°34.6	266°43.0	N02°07.3
19	293°33.2	80°03.6	49.4	170°07.2	54.5	151°34.1	34.5	281°45.6	07.2
20	308°35.7	95°05.8	49.8	185°08.1	54.3	166°36.1	34.3	296°48.3	07.1
21	323°38.1	110°08.0	.. 50.1	200°09.0	.. 54.0	181°38.1	.. 34.2	311°50.9	.. 07.0
22	338°40.6	125°10.3	50.4	215°09.9	53.7	196°40.1	34.0	326°53.6	06.9
23	353°43.1	140°12.5	50.7	230°10.9	53.4	211°42.1	33.9	341°56.2	06.9
Mer.pass. 23:25 ν 2.2° d 0.4' m -4.80 ν 0.9' d -0.3' m 1.12 ν 2.0' d -0.1' m -1.87 ν 2.6' d -0.1' m 0.36									

Wed	GHA	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	8°45.5	155°14.7	S20°51.1	245°11.8	N20°53.1	226°44.1	N15°33.8	356°58.9	N02°06.8
1	23°48.0	170°17.0	51.4	260°12.7	52.9	241°46.2	33.6	12°01.5	06.7
2	38°50.5	185°19.2	51.7	275°13.6	52.6	256°48.2	33.5	27°04.1	06.6
3	53°52.9	200°21.5	.. 52.0	290°14.6	.. 52.3	271°50.2	.. 33.4	42°06.8	.. 06.6
4	68°55.4	215°23.7	52.3	305°15.5	52.0	286°52.2	33.2	57°09.4	06.5
5	83°57.9	230°26.0	52.7	320°16.4	51.7	301°54.2	33.1	72°12.1	06.4
6	99°00.3	245°28.2	S20°53.0	335°17.4	N20°51.5	316°56.2	N15°33.0	87°14.7	N02°06.3
7	114°02.8	260°30.5	53.3	350°18.3	51.2	331°58.3	32.8	102°17.4	06.2
8	129°05.3	275°32.7	53.6	5°19.2	50.9	347°00.3	32.7	117°20.0	06.2
9	144°07.7	290°35.0	.. 53.9	20°20.2	.. 50.6	2°02.3	.. 32.6	132°22.6	.. 06.1
10	159°10.2	305°37.3	54.2	35°21.1	50.3	17°04.3	32.4	147°25.3	06.0
11	174°12.6	320°39.6	54.5	50°22.0	50.0	32°06.3	32.3	162°27.9	05.9
12	189°15.1	335°41.8	S20°54.8	65°22.9	N20°49.8	47°08.4	N15°32.2	177°30.6	N02°05.9
13	204°17.6	350°44.1	55.1	80°23.9	49.5	62°10.4	32.0	192°33.2	05.8
14	219°20.0	5°46.4	55.4	95°24.8	49.2	77°12.4	31.9	207°35.9	05.7
15	234°22.5	20°48.7	.. 55.7	110°25.7	.. 48.9	92°14.4	.. 31.7	222°38.5	.. 05.6
16	249°25.0	35°51.0	56.0	125°26.7	48.6	107°16.4	31.6	237°41.1	05.5
17	264°27.4	50°53.3	56.3	140°27.6	48.4	122°18.5	31.5	252°43.8	05.4
18	279°29.9	65°55.6	S20°56.6	155°28.5	N20°48.1	137°20.5	N15°31.3	267°46.4	N02°05.4
19	294°32.4	80°57.9	56.9	170°29.5	47.8	152°22.5	31.2	282°49.1	05.3
20	309°34.8	96°00.2	57.2	185°30.4	47.5	167°24.5	31.1	297°51.7	05.2
21	324°37.3	111°02.5	.. 57.5	200°31.3	.. 47.2	182°26.5	.. 30.9	312°54.4	.. 05.2
22	339°39.8	126°04.8	57.8	215°32.3	46.9	197°28.6	30.8	327°57.0	05.1
23	354°42.2	141°07.1	58.0	230°33.2	46.7	212°30.6	30.7	342°59.7	05.0
Mer.pass. 23:21 ν 2.2° d 0.3' m -4.79 ν 0.9' d -0.3' m 1.12 ν 2.0' d -0.1' m -1.87 ν 2.6' d -0.1' m 0.35									

Stars		
	SHA	Dec
Alpheratz	357°33.0	29°14.5
Ankaa	353°05.3	-42°09.5
Schedar	349°28.9	56°41.2
Diphda	348°45.5	-17°50.2
Achernar	335°18.6	-57°05.8
Hamal	327°49.3	23°35.4
Polaris	321°56.4	89°22.4
Acamar	315°01.6	-40°11.6
Menkar	314°04.4	4°11.8
Mirfak	308°25.9	49°57.3
Aldebaran	290°37.8	16°33.8
Rigel	281°02.4	-8°10.0
Capella	280°19.7	46°01.4
Bellatrix	278°21.3	6°22.5
Elath	278°00.0	28°37.8
Anilam	275°36.2	-1°10.9
Betelgeuse	270°50.5	7°24.8
Canopus	263°51.8	-52°42.2
Sirius	258°25.0	-16°44.9
Adhara	255°04.8	-29°00.2
Procyon	244°49.5	5°09.5
Pollux	243°15.7	27°57.6
Avior	234°14.5	-59°35.4
Suhail	222°45.6	-43°32.2
Miaplacidus	221°38.6	-69°49.3
Alphard	217°46.6	-8°46.3
Regulus	207°33.2	11°50.2
Dubhe	193°39.9	61°36.3
Denebola	182°23.8	14°25.4
Gienah	175°42.5	-17°41.3
Acrux	172°59.2	-63°14.8
Gacrux	171°50.7	-57°15.8
Alioth	166°12.3	55°48.9
Spica	158°21.1	-13°18.0
Alkaid	152°51.3	49°10.9
Hadar	148°34.6	-60°30.2
Meknet	147°56.3	-36°30.1
Arcturus	145°46.9	19°02.7
Rigel Kent.	139°38.9	-60°56.9
Kochab	136°50.7	74°02.8
Zuben ubi	136°54.7	-16°09.1
Alphecca	126°02.8	26°37.6
Antares	112°14.3	-26°29.8
Atria	107°07.4	-69°04.7
Sabik	102°01.3	-15°45.4
Shaula	96°08.5	-37°07.5
Rasalhague	95°57.7	12°32.6
Eltanin	90°41.6	51°29.4
Kaus Aust.	83°30.6	-34°22.4
Vega	80°32.3	38°48.8
Nunki	75°46.0	-26°15.8
Altair	61°58.5	8°56.5
Peacock	53°03.2	-56°39.0
Deneb	49°24.6	45°22.8
Enif	33°37.2	10°00.1
Al Na'ir	27°30.8	-46°49.9
Fomalhaut	15°12.6	-29°28.7
Scheat	13°43.5	28°13.9
Makab	13°28.2	15°21.2
Sep 28 Mon	SHA	Mer,pass
Venus	146°44.2	13:44
Mars	237°04.5	07:19
Jupiter	218°20.2	08:58
Saturn	348°04.7	00:20
Sep 29 Tue	SHA	Mer,pass
Venus	146°35.7	13:41
Mars	237°03.7	07:40
Jupiter	218°20.2	08:55
Saturn	348°09.0	00:16
Sep 30 Wed	SHA	Mer,pass
Venus	146°29.2	13:37
Mars	236°26.2	07:39
Jupiter	217°58.6	08:52
Saturn	348°13.3	00:12
Horizontal parallax		
Venus:		0.4
Mars:		0.1

Aries			Venus			Mars			Jupiter			Saturn		
Thu	GHA		GHA	Dec		GHA	Dec		GHA	Dec		GHA	Dec	
0	9°44.7	156°09.5	S20°58.3	245°34.1	N20°46.4	227°32.6	N15°30.5	358°02.3	N02°04.9					
1	24°47.1	171°11.8	58.6	260°35.1	46.1	242°34.6	30.4	13°04.9	04.8					
2	39°49.6	186°14.1	58.9	275°36.0	45.8	257°36.6	30.3	28°07.6	04.8					
3	54°52.1	201°16.4	59.2	290°37.0	45.5	272°38.7	30.1	43°10.2	04.7					
4	69°54.5	216°18.8	59.4	305°37.9	45.2	287°40.7	30.0	58°12.9	04.6					
5	84°57.0	231°21.1	20°59.7	320°38.8	44.5	302°42.7	29.9	73°15.5	04.5					
6	99°59.5	246°23.5	S21°00.0	335°39.8	N20°44.0	317°44.7	N15°29.7	88°18.2	N02°04.5					
7	115°01.9	261°25.8	00.2	350°40.7	44.4	332°46.7	29.6	103°20.8	04.4					
8	130°04.4	276°28.2	00.5	5°41.6	44.1	347°48.8	29.5	118°23.4	04.3					
9	145°06.9	291°30.5	00.8	20°42.6	43.8	2°50.8	29.3	133°26.1	04.2					
10	160°09.3	306°32.9	01.0	35°43.5	43.5	17°52.8	29.2	148°28.7	04.1					
11	175°11.8	321°35.2	01.3	50°44.4	43.2	32°54.8	29.1	163°31.4	04.1					
12	190°14.3	336°37.6	S21°01.6	65°45.4	N20°43.0	47°56.9	N15°28.9	178°34.0	N02°04.0					
13	205°16.7	351°40.0	01.8	80°46.3	42.7	62°58.9	28.8	193°36.7	03.9					
14	220°19.2	6°42.4	02.1	95°47.3	42.4	78°00.9	28.7	208°39.3	03.8					
15	235°21.6	21°44.7	02.3	110°48.2	42.1	93°02.9	28.5	223°42.0	03.8					
16	250°24.1	36°47.1	02.6	125°49.1	41.8	108°05.0	28.4	238°44.6	03.7					
17	265°26.6	51°49.5	02.8	140°50.1	41.5	123°07.0	28.3	253°47.2	03.6					
18	280°29.0	66°51.9	S21°03.1	155°51.0	N20°41.2	138°09.0	N15°28.1	268°49.0	N02°03.5					
19	295°31.5	81°54.3	03.3	170°52.0	41.0	153°11.0	28.0	283°52.5	03.5					
20	310°34.0	96°56.7	03.6	185°52.9	40.7	168°13.0	27.9	298°55.2	03.4					
21	325°36.4	111°59.1	03.8	200°53.8	40.4	183°15.1	27.7	313°57.8	03.3					
22	340°38.9	127°01.5	04.0	215°54.8	40.1	198°17.1	27.6	329°00.5	03.2					
23	355°41.4	142°03.9	04.3	230°55.7	39.8	213°19.1	27.5	344°03.1	03.1					
Mer.pass. 23:17			ν 2.3' d 0.3' m -4.78			ν 0.9' d -0.3' m 1.11			ν 2.0' d -0.1' m -1.87			ν 2.6' d -0.1' m 0.35		

Fri	GHA	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	10°43.8	157°06.3	S21°04.5	245°56.7	N20°39.5	228°21.1	N15°27.3	359°05.8	N02°03.1
1	25°46.3	172°08.7	04.8	260°57.6	39.2	243°23.2	27.2	14°08.4	03.0
2	40°48.7	187°11.1	05.0	275°58.6	38.9	258°25.2	27.0	29°11.0	02.9
3	55°51.2	202°13.6	05.2	290°59.5	38.7	273°27.2	26.9	44°13.7	02.8
4	70°53.7	217°16.0	05.5	306°00.4	38.4	288°29.2	26.8	59°16.3	02.8
5	85°56.1	232°18.4	05.7	321°01.4	38.1	303°31.3	26.6	74°19.0	02.7
6	100°58.6	247°20.8	S21°05.9	336°02.3	N20°37.8	318°33.3	N15°26.5	89°21.6	N02°02.6
7	116°01.1	262°23.3	06.1	351°03.3	37.5	343°35.3	26.4	104°24.3	02.5
8	131°03.5	277°25.7	06.4	6°04.2	37.2	348°37.3	26.2	119°26.9	02.4
9	146°06.0	292°28.2	06.6	21°05.2	36.9	3°39.4	26.1	134°29.5	02.4
10	161°08.5	307°30.6	06.8	36°06.1	36.6	18°41.4	26.0	149°32.2	02.3
11	176°10.9	322°33.1	07.0	51°07.1	36.3	33°43.4	25.8	164°34.8	02.2
12	191°13.4	337°35.5	S21°07.2	66°08.0	N20°36.1	48°45.5	N15°25.7	179°37.5	N02°02.1
13	206°15.9	352°38.0	07.4	81°09.0	35.8	63°47.5	25.6	194°40.1	02.1
14	221°18.3	7°40.4	07.6	96°09.9	35.5	78°49.5	25.4	209°42.8	02.0
15	236°20.8	22°42.9	07.9	111°10.8	35.2	93°51.5	25.3	224°45.4	01.9
16	251°23.2	37°45.4	08.1	126°11.8	34.9	108°53.6	25.2	239°48.1	01.8
17	266°25.7	52°47.9	08.3	141°12.7	34.6	123°55.6	25.0	254°50.7	01.7
18	281°28.2	67°50.3	S21°08.5	156°13.7	N20°34.3	138°57.6	N15°24.9	269°53.3	N02°01.7
19	296°30.6	82°52.8	08.7	171°14.6	34.0	153°59.6	24.8	284°56.0	01.6
20	311°33.1	97°55.3	08.9	186°15.6	33.7	169°01.7	24.6	299°58.6	01.5
21	326°35.6	112°57.8	09.1	201°16.5	33.4	184°03.7	24.5	315°01.3	01.4
22	341°38.0	128°00.3	09.3	216°17.5	33.2	199°05.7	24.4	330°03.9	01.4
23	356°40.5	143°02.8	09.4	231°18.4	32.9	214°07.8	24.3	345°06.6	01.3
Mer.pass. 23:13 ν 2.4' d 0.2' m -4.77 ν 0.9' d -0.3' m 1.10 ν 2.0' d -0.1' m -1.88 ν 2.6' d -0.1' m 0.34									

Sat	GHA		GHA		Dec		GHA		Dec		GHA		Dec	
0	11°43.0	158°05.3	S21°09.6	246°19.4	N20°32.6	229°09.8	N15°24.1	0°09.2	N02°01.2					
1	26°45.4	173°07.8	09.8	261°20.3	32.3	244°11.8	24.0	15°11.9	01.1					
2	41°47.9	188°10.3	10.0	276°21.3	32.0	259°13.8	23.9	30°14.5	01.0					
3	56°50.4	203°12.8	10.2	291°22.2	31.7	274°15.9	23.7	45°17.1	01.0					
4	71°52.8	218°15.3	10.4	306°23.2	31.4	289°17.9	23.6	60°19.8	00.9					
5	86°55.3	233°17.9	10.6	321°24.1	31.1	304°19.9	23.5	75°22.4	00.8					
6	101°57.7	248°20.4	S21°10.7	336°25.1	N20°30.8	319°22.0	N15°23.3	90°25.1	N02°00.7					
7	117°00.2	263°22.9	10.9	351°26.0	30.5	334°24.0	23.2	105°27.7	00.7					
8	132°02.7	278°25.4	11.1	6°27.0	30.2	349°26.0	23.1	120°30.4	00.6					
9	147°05.1	293°28.0	11.3	21°27.9	29.9	4°28.0	22.9	135°33.0	00.5					
10	162°07.6	308°30.5	11.4	36°28.9	29.7	19°30.1	22.8	150°35.7	00.4					
11	177°10.1	323°33.1	11.6	51°29.8	29.4	34°32.1	22.7	165°38.3	00.3					
12	192°12.5	338°35.6	S21°11.8	66°30.8	N20°29.1	49°34.1	N15°22.5	180°40.9	N02°00.3					
13	207°15.0	353°38.1	11.9	81°31.8	28.8	64°36.2	22.4	195°43.6	00.2					
14	222°17.5	8°40.7	12.1	96°32.7	28.5	79°38.2	22.3	210°46.2	00.1					
15	237°19.9	23°43.3	12.3	111°33.7	28.2	94°40.2	22.2	225°48.9	00.0					
16	252°22.4	38°45.8	12.4	126°34.6	27.9	109°42.3	22.0	240°51.5	02°00.0					
17	267°24.9	53°48.4	12.6	141°35.6	27.6	124°44.3	21.9	255°54.2	01°59.9					
18	282°27.3	68°51.0	S21°12.7	156°36.5	N20°27.3	139°46.3	N15°21.7	270°56.8	N01°59.8					
19	297°29.8	83°53.5	12.9	171°37.5	27.0	154°48.3	21.6	285°59.5	59.7					
20	312°32.2	98°56.1	13.0	186°38.4	26.7	169°50.4	21.5	301°02.1	59.6					
21	327°34.7	113°58.7	13.2	201°39.4	26.4	184°52.4	21.3	316°04.8	59.6					
22	342°37.2	129°01.3	13.3	216°40.4	26.1	199°54.4	21.2	331°07.4	59.5					
23	357°39.6	144°03.9	13.5	231°41.3	25.8	214°56.5	21.1	346°10.0	59.4					
Mer.pass. 23:09 ν 2.5' d 0.2' m -4.76 ν 1.0' d -0.3' m 1.10 ν 2.0' d -0.1' m -1.88 ν 2.6' d -0.1' m 0.33														

Stars		
	SHA	Dec
Alpheratz	357°32.9	29°14.5
Ankaa	353°05.3	-42°09.5
Schedar	349°28.8	56°41.2
Diphda	348°45.5	-17°50.2
Achernar	335°18.6	57°05.9
Hamal	327°49.3	23°35.5
Polaris	312°54.9	89°22.4
Acamar	315°10.4	-40°11.6
Menkar	314°04.4	4°11.8
Mirfak	308°25.8	49°57.3
Aldebaran	290°37.8	16°33.8
Rigel	281°02.4	-8°10.0
Capella	280°19.6	46°01.4
Bellatrix	278°21.3	6°22.5
Elath	278°00.0	28°37.8
Anilam	275°36.2	-1°10.9
Betelgeuse	263°51.7	-52°42.2
Canopus	263°51.7	-52°42.2
Sirius	258°25.0	-16°44.9
Adhara	255°04.8	-29°00.2
Procyon	244°49.4	5°09.5
Pollux	243°15.7	27°57.6
Avior	234°14.4	-59°35.4
Suhail	222°45.5	-43°32.2
Miaplacidus	221°38.6	-69°49.3
Alphard	217°46.6	-8°46.3
Regulus	207°33.2	11°50.2
Dubhe	193°39.9	61°36.3
Denebola	182°23.8	14°25.4
Gienah	175°42.5	-17°41.3
Acrux	172°59.2	-63°14.8
Gacrux	171°50.6	-57°15.7
Alioth	166°12.3	55°48.9
Spica	158°21.1	-11°18.0
Alkaid	152°51.3	49°10.9
Hadar	148°34.6	-60°30.2
Menkent	147°56.3	-36°30.1
Arcturus	145°46.9	19°02.7
Rigel Kent	139°38.9	-60°56.8
Kochab	137°20.8	74°02.8
Zuben'ubi	136°54.7	-16°09.1
Alphecca	126°02.8	26°37.6
Antares	112°14.3	-26°29.5
Atria	107°07.4	-69°04.7
Sabik	102°01.3	-15°45.4
Shaula	96°08.5	-37°07.4
Rasalhague	95°57.3	12°32.6
Eltanin	90°41.6	51°29.4
Kaus Aust.	83°30.7	-34°22.4
Vega	80°32.3	38°48.8
Nunki	75°46.0	-26°15.8
Altair	61°58.5	8°56.5
Peacock	53°03.2	-56°39.0
Deneb	49°24.6	45°22.8
Enif	33°37.2	10°00.1
Al Na'ir	27°30.8	-46°49.9
Fomalhaut	15°12.6	-29°28.7
Scheat	13°43.5	28°13.9
Markab	13°28.2	15°21.2
Oct 01 Thu		
Venus	146°24.8	13.33
Mars	235°49.5	07.37
Jupiter	217°47.9	08.49
Saturn	348°17.6	00.08
Oct 02 Fri		
Venus	146°22.5	13.29
Mars	235°12.9	07.36
Jupiter	217°37.3	08.45
Saturn	348°21.9	00.04
Oct 03 Sat		
Venus	146°22.3	13.25
Mars	234°36.4	07.34
Jupiter	217°26.8	08.42
Saturn	348°26.3	23.55
Horizontal parallax		
Venus:	0.4	
Mars:	0.1	

	Aries	Venus	Mars			Jupiter			Saturn					
Sun	GHA	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec			
0	12°42.1	159°06.5	S21°13.6	246°42.3	N20°25.5	229°58.5	N15°20.9	1°12.7	N01°59.3					
1	27°44.6	174°09.1	13.8	261°43.2	25.2	245°00.5	20.8	16°15.3	59.3					
2	42°47.0	189°11.7	13.9	276°44.2	25.0	260°02.6	20.7	31°18.0	59.2					
3	57°49.5	204°14.3	.. 14.0	291°45.1	.. 24.7	275°04.6	.. 20.5	46°20.6	.. 59.1					
4	72°52.0	219°16.9	14.2	306°46.1	24.4	290°06.6	20.4	61°23.3	59.0					
5	87°54.4	234°19.5	14.3	321°47.1	24.1	305°08.7	20.3	76°25.9	59.0					
6	102°56.9	249°22.1	S21°14.4	336°48.0	N20°23.8	320°10.7	N15°20.1	91°28.6	N01°58.9					
7	117°59.4	264°24.7	14.6	351°49.0	23.5	335°12.7	20.0	106°31.2	58.8					
8	133°01.8	279°27.3	14.7	6°49.9	23.2	350°14.8	19.9	121°33.8	58.7					
9	148°04.3	294°30.0	.. 14.8	21°50.9	.. 22.9	5°16.8	.. 19.8	136°36.5	.. 58.6					
10	163°06.7	309°32.6	14.9	36°51.9	22.6	20°18.8	19.6	151°39.1	58.6					
11	178°09.2	324°35.2	15.0	51°52.8	22.3	35°20.9	19.5	166°41.8	58.5					
12	193°11.7	339°37.9	S21°15.2	66°53.8	N20°22.0	50°22.9	N15°19.4	181°44.4	N01°58.4					
13	208°14.1	354°40.5	15.3	81°54.7	21.7	65°24.9	19.2	196°47.1	58.3					
14	223°16.6	9°43.2	15.4	96°55.7	21.4	80°27.0	19.1	211°49.7	58.3					
15	238°19.1	24°45.8	.. 15.5	111°56.7	.. 21.1	95°29.0	.. 19.0	226°52.4	.. 58.2					
16	253°21.5	39°48.5	15.6	126°57.0	20.8	110°31.0	18.8	241°55.0	58.1					
17	268°24.0	54°51.1	15.7	141°58.6	20.5	125°33.1	18.7	256°57.6	58.0					
18	283°26.5	69°53.8	S21°15.8	156°59.6	N20°20.2	140°35.1	N15°18.6	272°00.3	N01°57.9					
19	298°28.9	84°56.4	15.9	172°00.5	19.9	155°37.1	18.4	287°02.9	57.9					
20	313°31.4	99°59.1	16.0	187°01.5	19.6	170°39.2	18.3	302°05.6	57.8					
21	328°33.8	115°01.8	.. 16.1	202°02.4	.. 19.3	185°41.2	.. 18.2	317°08.2	.. 57.7					
22	343°36.3	130°04.5	16.2	217°03.4	19.0	200°43.3	18.0	332°10.9	57.6					
23	358°38.8	145°07.1	16.3	232°04.4	18.7	215°45.3	17.9	347°13.5	57.6					
Mer.pass. 23:05			ν 2.6° d 0.1' m -4.74			ν 1.0' d -0.3' m 1.09			ν 2.0' d -0.1' m -1.89			ν 2.6° d -0.1' m 0.33		

Mon	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	13°41.2	160°09.8	S21°16.4	247°05.3	N20°18.4	230°47.3	N15°17.8	2°16.2
1	28°43.7	175°12.5	16.5	262°06.3	18.1	245°49.4	17.7	17°18.8
2	43°46.2	190°15.2	16.6	277°07.3	17.8	260°51.4	17.5	32°21.5
3	58°48.6	205°17.9	.. 16.7	292°08.2	.. 17.5	275°53.4	.. 17.4	47°24.1
4	73°51.1	220°20.6	16.8	307°09.2	17.2	290°55.5	17.3	62°26.7
5	88°53.6	235°23.3	16.8	322°10.2	16.9	305°57.5	17.1	77°29.4
6	103°56.0	250°26.0	S21°16.9	337°11.1	N20°16.6	320°59.5	N15°17.0	92°32.0
7	118°58.5	265°28.7	17.0	352°12.1	16.3	336°01.6	16.9	107°34.7
8	134°01.0	280°31.4	.. 17.1	7°13.1	16.0	351°03.6	16.7	122°37.3
9	149°03.4	295°34.2	.. 17.1	22°14.0	.. 15.7	6°05.7	.. 16.6	137°40.0
10	164°05.9	310°36.9	17.2	37°15.0	15.4	21°07.7	16.5	152°42.6
11	179°08.3	325°39.6	17.3	52°16.0	15.1	36°09.7	16.3	167°45.3
12	194°10.8	340°42.3	S21°17.3	67°16.9	N20°14.8	51°11.8	N15°16.2	182°47.9
13	209°13.3	355°45.1	17.4	82°17.9	14.5	66°13.8	15.6	197°50.5
14	224°15.7	10°47.8	17.5	97°18.9	14.2	81°15.8	16.0	212°53.2
15	239°18.2	25°50.6	.. 17.5	112°19.9	.. 13.9	96°17.9	.. 15.8	227°55.8
16	254°20.7	40°53.3	17.6	127°20.8	13.6	111°19.9	15.7	242°58.5
17	269°23.1	55°56.1	17.6	142°21.8	13.3	126°22.0	15.6	258°01.1
18	284°25.6	70°58.8	S21°17.7	157°22.8	N20°13.0	141°24.0	N15°15.4	273°03.8
19	299°28.1	86°01.6	17.8	172°23.7	12.7	156°26.0	15.3	288°06.4
20	314°30.5	101°04.3	17.8	187°24.7	12.4	171°28.1	15.2	303°09.1
21	329°33.0	116°07.1	.. 17.9	202°25.7	.. 12.1	186°30.1	.. 15.0	318°11.7
22	344°35.5	131°09.9	17.9	217°26.7	11.8	201°32.2	14.9	333°14.3
23	359°37.9	146°12.6	17.9	232°27.6	11.5	216°34.2	14.8	348°17.0
Mer.pass. 23:01			ν 2.7° d 0.1' m -4.72			ν 1.0' d -0.3' m 1.08		

Tue	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	14°40.4	161°15.4	S21°18.0	247°28.6	N20°11.2	231°36.2	N15°14.7	3°19.6
1	29°42.8	176°18.2	18.0	262°29.6	10.9	246°38.3	14.5	18°22.3
2	44°45.3	191°21.0	18.1	277°30.5	10.6	261°40.3	14.4	33°24.9
3	59°47.8	206°23.8	.. 18.1	292°31.5	.. 10.3	276°42.4	.. 14.3	48°27.6
4	74°50.3	221°26.6	18.1	307°32.5	10.0	291°44.4	14.1	63°30.2
5	89°52.7	236°29.3	18.1	322°33.5	09.7	306°46.4	14.0	78°32.9
6	104°55.2	251°32.1	S21°18.2	337°34.4	N20°09.4	321°48.5	N15°13.9	93°35.5
7	119°57.6	266°35.0	18.2	352°35.4	09.1	336°50.5	13.7	108°38.2
8	135°00.1	281°37.8	18.2	7°36.4	08.8	351°52.6	13.6	123°40.8
9	150°02.6	296°40.6	.. 18.2	22°37.4	.. 08.5	6°54.6	.. 13.5	138°43.4
10	165°05.0	311°43.4	18.3	37°38.3	08.2	21°56.6	13.4	153°46.1
11	180°07.5	326°46.2	18.3	52°39.3	07.9	36°58.7	13.2	168°48.7
12	195°10.0	341°49.0	S21°18.3	67°40.3	N20°07.6	52°00.7	N15°13.1	183°51.4
13	210°12.4	356°51.9	18.3	82°41.3	07.3	67°02.8	13.0	198°54.0
14	225°14.9	11°54.7	18.3	97°42.2	07.0	82°04.8	12.8	213°56.7
15	240°17.3	26°57.5	.. 18.3	112°43.2	.. 06.7	97°06.9	.. 12.7	228°59.3
16	255°19.8	42°00.4	18.3	127°44.2	06.4	112°08.9	12.6	244°02.0
17	270°22.3	57°03.2	18.3	142°45.2	06.1	127°10.9	12.4	259°04.6
18	285°24.7	72°06.0	S21°18.3	157°46.2	N20°05.8	142°13.0	N15°12.3	274°07.2
19	300°27.2	87°08.9	18.3	172°47.1	05.5	157°15.0	12.2	289°09.9
20	315°29.7	102°11.7	18.3	187°48.1	05.2	172°17.1	12.1	304°12.5
21	330°32.1	117°14.6	.. 18.3	202°49.1	.. 04.9	187°19.1	.. 11.9	319°15.2
22	345°34.6	132°17.5	18.3	217°50.1	04.6	202°21.2	11.8	334°17.8
23	0°37.1	147°20.3	18.3	232°51.1	04.3	217°23.2	11.7	349°20.5
Mer.pass. 22:58			ν 2.8° d 0.0' m -4.69			ν 1.0' d -0.3' m 1.08		

Stars		
SHA	Dec	
Alpheratz	357°32.9	29°14.5
Ankaa	353°05.3	42°09.5
Schedar	349°28.8	56°41.2
Diphda	348°45.5	17°50.2
Achernar	335°18.5	57°05.9
Hamal	327°49.3	23°35.5
Polaris	312°53.6	89°22.4
Acamar	315°10.3	40°11.6
Menkar	314°04.4	4°11.8
Mirafak	308°25.8	49°57.3
Aldebaran	290°37.8	16°33.9
Rigel	281°02.4	-8°10.0
Capella	280°19.6	46°01.4
Bellatrix	278°21.2	6°22.5
Elmath	277°59.9	28°37.8
Alnilam	275°36.2	-1°10.9
Betelgeuse	270°50.5	7°24.8
Canopus	263°51.7	-52°42.2
Sirius	258°25.0	-16°44.9
Adhara	255°04.8	-29°00.2
Procyon	244°49.4	5°09.5
Pollux	243°15.6	27°57.6
Avior	234°14.4	-59°35.4
Suhail	222°45.5	-43°32.2
Miaplacidus	221°38.6	-69°49.3
Alphard	217°46.6	-8°46.3
Regulus	207°33.2	11°50.2
Dubhe	193°39.9	61°36.3
Denebola	182°23.8	14°25.4
Gienah	175°42.4	-17°14.3
Acrux	172°59.2	-63°14.8
Gacrux	171°50.6	-57°15.7
Alioth	166°12.3	55°48.9
Spica	158°21.1	-11°18.0
Alkaid	152°51.3	49°10.9
Hadar	148°34.6	-60°30.2
Menkent	147°56.3	-36°30.1
Arcturus	145°46.9	19°02.7
Rigel Kent.	139°38.9	-60°56.8
Kochab	137°20.8	74°02.8
Ubeni	136°54.7	-16°09.1
Alphecca	126°02.8	26°37.6
Antares	112°14.3	-26°29.5
Atria	107°07.4	-69°04.7
Sabik	102°01.3	-15°45.4
Shaula	96°08.6	-37°07.4
Rasalhague	95°57.3	12°32.6
Eltanin	90°41.6	51°29.4
Kaus Aust.	83°30.7	-34°22.4
Vega	80°32.3	38°48.8
Nunki	75°46.0	-26°15.8
Altair	61°58.5	8°56.5
Peacock	53°03.2	-56°39.0
Deneb	49°24.6	45°22.8
Enif	33°37.2	10°00.1
Al Na'ir	27°30.8	-46°49.9
Fomalhaut	15°12.6	-29°28.7
Scheat	13°43.5	28°13.9
Makab	13°28.2	15°21.2

Oct 04 Sun	SHA	Mer.pass
Venus	146°24.4	13:21
Mars	234°00.2	07:33
Jupiter	217°16.4	08:39
Saturn	348°30.6	23:51

Oct 05 Mon	SHA	Mer.pass
Venus	146°28.6	13:17
Mars	233°24.1	07:31
Jupiter	217°06.1	08:36
Saturn	348°34.9	23:47

Oct 06 Tue	SHA	Mer.pass
Venus	146°33.0	13:13
Mars	232°48.2	07:30
Jupiter	216°55.9	08:32
Saturn	348°39.3	23:43

Horizontal parallax	
Venus:	0.5
Mars:	0.1

h	Sun			Moon			
Sun	GHA	Dec	GHA	ν	Dec	d	HP
0	182°47.0	S04°16.2	264°14.3	5.0°	N25°52.6	-6.9°	59.1°
1	197°47.2	17.2	278°38.3	5.1°	25°45.8	-7.0°	59.1°
2	212°47.4	18.1	293°02.4	5.2°	25°38.8	-7.2°	59.1°
3	227°47.6	19.1	307°26.6	5.3°	25°31.6	-7.3°	59.1°
4	242°47.8	20.1	321°50.9	5.4°	25°24.2	-7.5°	59.1°
5	257°48.0	21.0	336°15.2	5.4°	25°16.7	-7.7°	59.1°
6	272°48.2	S04°22.0	350°39.7	5.5°	N25°09.0	-7.8°	59.1°
7	287°48.4	23.0	5°04.2	5.6°	25°01.2	-8.0°	59.0°
8	302°48.6	23.9	19°28.8	5.7°	24°53.2	-8.1°	59.0°
9	317°48.8	24.9	33°53.6	5.8°	24°45.1	-8.3°	59.0°
10	332°49.0	25.9	48°18.4	5.9°	24°36.8	-8.5°	59.0°
11	347°49.1	26.8	62°43.3	6.0°	24°28.3	-8.6°	59.0°
12	2°49.3	S04°27.8	77°08.3	6.1°	N24°19.7	-8.8°	59.0°
13	17°49.5	27.7	91°33.4	6.2°	24°11.0	-8.9°	59.0°
14	32°49.7	29.7	105°58.6	6.3°	24°02.1	-9.1°	59.0°
15	47°49.9	30.7	120°23.9	6.4°	23°53.0	-9.2°	59.0°
16	62°50.1	31.6	134°49.3	6.5°	23°43.8	-9.3°	59.0°
17	77°50.3	32.6	149°14.8	6.6°	23°34.5	-9.5°	59.0°
18	92°50.5	S04°33.6	163°40.3	6.7°	N23°25.0	-9.6°	58.9°
19	107°50.7	34.5	178°06.0	6.8°	23°15.4	-9.8°	58.9°
20	122°50.9	35.5	192°31.8	6.9°	23°05.9	-9.9°	58.9°
21	137°51.0	36.4	206°57.7	7.0°	22°55.7	-10.0°	58.9°
22	152°51.2	37.4	221°23.7	7.1°	22°45.7	-10.2°	58.9°
23	167°51.4	38.4	235°49.8	7.2°	22°35.5	-10.3°	58.9°
SD = 16.0' d = 1.0'			SD = 16.1'				
Mon	GHA	Dec	GHA	ν	Dec	d	HP
0	182°51.6	S04°39.3	250°15.9	7.3°	N22°25.2	-10.4°	58.9°
1	197°51.8	40.3	264°42.2	7.4°	22°14.7	-10.6°	58.9°
2	212°52.0	41.3	279°08.6	7.5°	22°04.2	-10.7°	58.9°
3	227°52.2	42.2	293°35.1	7.6°	21°53.5	-10.8°	58.9°
4	242°52.4	43.2	308°01.7	7.7°	21°42.7	-10.9°	58.8°
5	257°52.6	44.1	322°28.4	7.8°	21°31.7	-11.1°	58.8°
6	272°52.8	S04°45.1	336°55.2	7.9°	N21°20.6	-11.2°	58.8°
7	287°52.9	46.1	351°22.1	8.0°	21°09.4	-11.3°	58.8°
8	302°53.1	47.0	5°49.1	8.1°	20°58.1	-11.4°	58.8°
9	317°53.3	48.0	20°16.2	8.2°	20°46.7	-11.5°	58.8°
10	332°53.5	49.0	34°43.4	8.3°	20°35.2	-11.7°	58.8°
11	347°53.7	49.9	49°10.7	8.4°	20°23.5	-11.8°	58.8°
12	2°53.9	S04°50.9	63°38.1	8.5°	N20°11.7	-11.9°	58.8°
13	17°54.1	51.8	78°05.6	8.6°	19°59.8	-12.0°	58.7°
14	32°54.3	52.8	92°33.2	8.7°	19°47.8	-12.1°	58.7°
15	47°54.4	53.8	107°00.9	8.8°	19°35.7	-12.2°	58.7°
16	62°54.6	54.7	121°28.7	8.9°	19°23.5	-12.3°	58.7°
17	77°54.8	55.6	135°56.6	9.0°	19°11.2	-12.4°	58.7°
18	92°55.0	S04°56.7	150°24.6	9.1°	N18°58.8	-12.5°	58.7°
19	107°55.2	57.6	164°52.7	9.2°	18°46.3	-12.6°	58.7°
20	122°55.4	58.6	179°20.9	9.3°	18°33.7	-12.7°	58.7°
21	137°55.6	04°55.0	193°48.9	9.4°	18°20.9	-12.8°	58.6°
22	152°55.7	05°00.5	208°17.6	9.5°	18°08.1	-12.9°	58.6°
23	167°55.9	01.4	222°46.0	9.6°	17°55.2	-13.0°	58.6°
SD = 16.0' d = 1.0'			SD = 16.1'				
Tue	GHA	Dec	GHA	ν	Dec	d	HP
0	182°56.1	S05°02.4	237°14.6	9.7°	N17°42.2	-13.1°	58.6°
1	197°56.3	03.4	251°43.3	9.8°	17°29.1	-13.2°	58.6°
2	212°56.5	04.3	266°12.1	9.9°	17°16.0	-13.3°	58.6°
3	227°56.7	05.3	280°40.9	10.0°	17°02.7	-13.4°	58.6°
4	242°56.9	06.2	295°09.9	10.0°	16°49.3	-13.4°	58.6°
5	257°57.0	07.2	309°38.9	10.1°	16°35.9	-13.5°	58.5°
6	272°57.2	S05°08.2	324°08.1	10.2°	N16°22.4	-13.6°	58.5°
7	287°57.4	09.1	338°37.3	10.3°	16°08.8	-13.7°	58.5°
8	302°57.6	10.1	353°06.6	10.4°	15°55.1	-13.8°	58.5°
9	317°57.8	11.0	7°36.0	10.5°	15°41.3	-13.8°	58.5°
10	332°58.0	12.0	22°05.5	10.6°	15°27.5	-13.9°	58.5°
11	347°58.1	13.0	36°35.1	10.7°	15°13.5	-14.0°	58.5°
12	2°58.3	S05°13.9	51°04.7	10.8°	N14°59.6	-14.1°	58.4°
13	17°58.5	14.9	65°34.5	10.8°	14°45.5	-14.1°	58.4°
14	32°58.7	15.8	80°04.3	10.9°	14°31.4	-14.2°	58.4°
15	47°58.9	16.7	94°34.2	11.0°	14°17.2	-14.3°	58.4°
16	62°59.1	17.6	109°04.2	11.1°	14°02.9	-14.3°	58.4°
17	77°59.2	18.7	123°34.3	11.2°	13°48.6	-14.4°	58.4°
18	92°59.4	S05°19.7	138°04.5	11.2°	N13°34.2	-14.5°	58.4°
19	107°59.6	20.6	152°34.7	11.3°	13°19.7	-14.5°	58.3°
20	122°59.8	21.6	167°05.0	11.4°	13°05.2	-14.6°	58.3°
21	138°00.0	22.5	181°35.4	11.5°	12°50.6	-14.6°	58.3°
22	153°00.1	23.5	196°05.9	11.5°	12°36.0	-14.7°	58.3°
23	168°00.3	24.5	210°36.5	11.6°	12°21.3	-14.7°	58.3°
SD = 16.0' d = 1.0'			SD = 16.0'				

Aries			Venus			Mars			Jupiter			Saturn		
Wed	GHA		GHA	Dec		GHA	Dec		GHA	Dec		GHA	Dec	
0	15°39'59	162°23'2	S21°18.3	247°52.0	N20°04.0	232°25.2	4°23.1	N01°53.8	24°23.1	N01°53.8		4°23.1	N01°53.8	
1	30°42.0	177°26.1	18.3	262°53.0	03.7	247°27.3	11.4	19°25.8	53.7			19°25.8	53.7	
2	45°44.4	192°28.9	18.3	277°54.0	03.4	262°29.3	11.3	34°28.4	53.6			34°28.4	53.6	
3	60°46.9	207°31.8	.. 18.2	292°55.0	.. 03.0	277°31.4	.. 11.2	49°31.0	.. 53.6			49°31.0	.. 53.6	
4	75°49.4	222°34.7	18.2	307°56.0	02.7	292°33.4	11.0	64°33.7	53.5			64°33.7	53.5	
5	90°51.8	237°37.6	18.2	322°56.9	02.4	307°35.5	10.9	79°36.3	53.4			79°36.3	53.4	
6	105°54.3	252°40.5	S21°18.2	337°57.9	N20°02.1	322°37.5	94°39.0	N01°53.3	94°39.0	N01°53.3		94°39.0	N01°53.3	
7	120°56.8	267°43.4	18.1	352°58.9	01.8	337°39.6	10.6	109°41.6	53.3			109°41.6	53.3	
8	135°59.2	282°46.3	18.1	7°59.9	01.5	352°41.6	10.5	124°44.3	53.2			124°44.3	53.2	
9	151°01.7	297°49.2	.. 18.1	23°00.9	.. 01.2	7°43.6	.. 10.4	139°46.9	.. 53.1			139°46.9	.. 53.1	
10	166°04.2	312°52.1	18.0	38°01.9	00.9	22°45.7	10.3	154°49.6	53.0			154°49.6	53.0	
11	181°06.6	327°55.0	18.0	53°02.8	00.6	37°47.7	10.1	169°52.2	52.9			169°52.2	52.9	
12	196°09.1	342°57.9	S21°18.0	68°03.8	N20°00.0	52°49.8	184°54.8	N01°52.9	184°54.8	N01°52.9		184°54.8	N01°52.9	
13	211°11.6	358°00.8	17.9	83°04.8	20°00.0	67°51.8	09.9	199°57.5	52.8			199°57.5	52.8	
14	226°14.0	13°03.8	17.9	98°05.8	19°59.7	82°53.9	09.7	215°00.1	52.7			215°00.1	52.7	
15	241°16.5	28°06.7	.. 17.8	113°06.8	.. 59.4	97°55.9	.. 09.6	230°02.8	.. 52.6			230°02.8	.. 52.6	
16	256°18.9	43°09.6	17.8	128°07.8	59.1	112°58.0	09.5	245°05.4	52.6			245°05.4	52.6	
17	271°21.4	58°12.6	17.7	143°08.8	58.8	128°00.0	09.4	260°08.1	52.5			260°08.1	52.5	
18	286°23.9	73°15.5	S21°17.7	158°09.7	N19°58.5	143°02.1	N15°09.2	275°10.7	N01°52.4			275°10.7	N01°52.4	
19	301°26.3	88°18.4	17.6	173°10.7	58.2	158°04.1	09.1	290°13.4	52.3			290°13.4	52.3	
20	316°28.8	103°21.4	17.6	188°11.7	57.8	173°06.2	09.0	305°16.0	52.3			305°16.0	52.3	
21	331°31.3	118°24.3	.. 17.5	203°12.7	.. 57.5	188°08.2	.. 08.8	320°18.7	.. 52.2			320°18.7	.. 52.2	
22	346°33.7	133°27.3	17.4	218°13.7	57.2	203°10.3	08.7	335°21.3	52.1			335°21.3	52.1	
23	1°36.2	148°30.2	17.4	233°14.7	56.9	218°12.3	08.6	350°23.9	52.0			350°23.9	52.0	
Mer.pass. 22:54			ν 2.9' d -0.0' m -4.67			ν 1.0' d -0.3' m 1.07			ν 2.0' d -0.1' m -1.89			ν 2.6' d -0.1' m 0.34		

Thu	GHA	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec					
0	16°38.7	163°33.2	S21°17.3	248°15.7	N19°56.6	233°14.3	N15°08.5	5°26.6	N01°52.0					
1	31°41.1	178°36.2	17.2	263°16.7	56.3	248°16.4	08.3	20°29.2	51.9					
2	46°43.6	193°39.1	17.1	278°17.6	56.0	263°18.4	08.2	35°31.9	51.8					
3	61°46.0	208°42.1	.. 17.1	293°18.6	.. 55.7	278°20.5	.. 08.1	50°34.5	.. 51.7					
4	76°48.5	223°45.1	17.0	308°19.6	55.4	293°22.5	07.9	65°37.2	51.6					
5	91°51.0	238°48.1	16.9	323°20.6	55.1	308°24.6	07.8	80°39.8	51.6					
6	106°53.4	253°51.0	S21°16.8	338°21.6	N19°54.8	323°26.6	N15°07.7	95°42.5	N01°51.5					
7	121°55.9	268°54.0	16.8	353°22.6	54.5	338°28.7	07.6	110°45.1	51.4					
8	136°58.4	283°57.0	16.7	8°23.6	54.2	353°30.7	07.4	125°47.7	51.3					
9	152°00.8	299°00.0	.. 16.6	23°24.6	.. 53.8	8°32.8	.. 07.3	140°50.4	.. 51.3					
10	167°03.8	314°03.0	16.5	38°25.6	53.5	23°34.8	07.2	155°53.0	51.2					
11	182°05.3	329°06.0	16.4	53°26.6	53.2	38°36.9	07.1	170°55.7	51.1					
12	197°08.2	344°09.0	S21°16.3	68°27.6	N19°52.9	53°38.9	N15°06.9	185°58.3	N01°51.0					
13	212°10.7	359°12.0	16.2	83°28.6	52.6	68°41.0	06.8	201°01.0	51.0					
14	227°13.2	14°15.0	16.1	98°29.5	52.3	83°43.0	06.7	216°03.6	50.9					
15	242°15.6	29°18.0	.. 16.0	113°30.5	.. 52.0	98°45.1	.. 06.5	231°06.3	.. 50.8					
16	257°18.1	44°21.1	15.9	128°31.5	51.7	113°47.1	06.4	246°08.9	50.7					
17	272°20.5	59°24.1	15.8	143°32.5	51.4	128°49.2	06.3	261°11.5	50.7					
18	287°23.0	74°27.1	S21°15.7	158°33.5	N19°51.1	143°51.2	N15°06.2	276°14.2	N01°50.6					
19	302°25.5	89°30.2	15.6	173°34.5	50.8	158°53.3	06.0	291°16.8	50.5					
20	317°27.9	104°33.2	15.4	188°35.5	50.4	173°55.3	05.9	306°19.5	50.4					
21	332°30.4	119°36.2	.. 15.3	203°36.5	.. 50.1	188°57.4	.. 05.8	321°22.1	.. 50.4					
22	347°32.9	134°39.3	15.2	218°37.5	49.8	203°59.5	05.7	336°24.8	50.3					
23	2°35.3	149°42.3	15.1	233°38.5	49.5	219°01.5	05.5	351°27.4	50.2					
Mer.pass. 22:50			ν 3.0' d -0.1' m -4.64			ν 1.0' d -0.3' m 1.06			ν 2.0' d -0.1' m -1.90			ν 2.6' d -0.1' m 0.34		

Fri	GHA	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	17°37.8	164°45.4	S21°15.0	248°39.5	N19°49.2	234°03.6	N15°05.4	6°30.1	N01°50.1
1	32°40.3	179°48.4	14.8	263°40.5	48.9	249°05.6	05.3	21°32.7	50.0
2	47°42.7	194°51.5	14.7	278°41.5	48.6	264°07.7	05.1	36°35.3	50.0
3	62°45.2	209°54.5	.. 14.6	293°42.5	.. 48.3	279°09.7	.. 05.0	51°38.0	.. 49.9
4	77°47.6	224°57.6	14.4	308°43.5	48.0	294°11.8	04.9	66°40.6	49.8
5	92°50.1	240°00.7	14.3	323°44.5	47.6	309°13.8	04.8	81°43.3	49.7
6	107°52.6	255°03.7	S21°14.2	338°45.5	N19°47.3	324°15.9	N15°04.6	96°45.9	N01°49.7
7	122°55.0	270°06.8	14.0	353°46.5	47.0	339°17.9	04.5	111°48.6	49.6
8	137°57.5	285°09.9	13.9	8°47.5	46.7	354°20.0	04.4	126°51.2	49.5
9	153°00.0	300°13.0	.. 13.7	23°48.5	.. 46.4	9°22.0	.. 04.3	141°53.8	.. 49.4
10	168°02.4	315°16.1	13.6	38°49.5	46.1	24°24.1	04.1	156°56.5	49.4
11	183°04.9	330°19.2	13.4	53°50.5	45.8	39°26.1	04.0	171°59.1	49.3
12	198°07.4	345°22.3	S21°13.3	68°51.5	N19°45.5	54°28.2	N15°03.9	187°01.8	N01°49.2
13	213°09.8	0°25.4	13.1	83°52.5	45.2	69°30.2	03.8	202°04.4	49.1
14	228°12.3	15°28.5	13.0	98°53.5	44.8	84°32.3	03.6	217°07.1	49.1
15	243°14.8	30°31.6	.. 12.8	113°54.5	.. 44.5	99°34.4	.. 03.5	232°09.7	.. 49.0
16	258°17.2	45°34.7	12.6	128°55.4	44.2	114°36.4	03.4	247°12.4	48.9
17	273°19.7	60°37.8	12.5	143°56.5	43.9	129°38.5	03.2	262°15.0	48.8
18	288°22.1	75°40.9	S21°12.3	158°57.5	N19°43.6	144°40.5	N15°03.1	277°17.6	N01°48.8
19	303°24.6	90°44.0	12.1	173°58.5	43.3	159°42.6	03.0	292°20.3	48.7
20	318°27.1	105°47.1	12.0	188°59.5	43.0	174°44.6	02.9	307°22.9	48.6
21	333°29.5	120°50.3	.. 11.8	204°00.5	.. 42.7	189°46.7	.. 02.7	322°25.6	.. 48.5
22	348°32.0	135°53.4	11.6	219°01.5	42.3	204°48.7	02.6	337°28.2	48.5
23	3°34.5	150°56.5	11.4	234°02.5	42.0	219°50.8	02.5	352°30.9	48.4
Mer.pass. 22:46 ν 3.1' d -0.1' m -4.60 ν 1.0' d -0.3' m 1.06 ν 2.1' d -0.1' m -1.90 ν 2.6' d -0.1' m 0.35									

Stars		
	SHA	Dec
Alpheratz	357°32.9	29°14.5
Ankaa	353°05.3	-42°09.5
Schedar	349°28.8	56°41.2
Diphda	348°45.5	-17°50.2
Achernar	335°18.5	-57°05.9
Hamal	327°49.2	23°35.5
Polaris	312°52.7	89°22.4
Acamar	315°10.3	-40°11.8
Menkar	314°04.4	4°11.6
Mirfak	308°25.8	49°57.3
Aldebaran	290°37.8	16°33.9
Rigel	281°02.3	-8°10.0
Capella	280°19.6	46°01.4
Bellatrix	278°21.2	6°22.5
Elinath	277°59.9	28°37.8
Alnilam	275°36.2	-1°10.9
Betelgeuse	270°50.4	-7°24.8
Canopus	263°51.7	-52°42.2
Sirius	258°24.9	-16°44.9
Adhara	255°04.7	-29°00.2
Procyon	244°49.4	5°09.5
Pollux	243°15.6	27°57.6
Avior	234°14.4	-59°35.4
Suhail	232°45.5	-43°32.2
Miaplacidus	221°38.5	-69°49.3
Alphard	217°46.5	-8°46.3
Regulus	207°33.2	11°50.2
Dubhe	193°39.8	61°36.3
Denebola	185°23.8	14°25.4
Gienah	175°42.4	-17°41.3
Acrux	172°59.2	-63°14.8
Gacrux	171°50.6	-57°15.7
Alioth	166°12.3	55°48.9
Spica	158°21.1	-13°12.0
Alkaid	152°51.3	49°10.8
Hadar	148°34.6	-60°30.2
Menkent	147°56.3	-36°30.1
Arcturus	145°46.9	19°02.7
Rigel Kent.	139°38.9	-60°56.8
Kochab	137°20.9	74°02.8
Zuben'ubi	136°54.7	-16°09.1
Alphecca	126°02.8	26°37.6
Antares	112°14.3	-26°29.5
Atria	107°07.5	-69°04.7
Sabik	102°03.1	-15°45.4
Shaula	96°08.6	37°07.4
Rasalhague	95°57.3	12°32.6
Eltanin	90°41.7	51°29.4
Kaus Aust.	83°30.7	-34°22.4
Vega	80°32.3	38°48.8
Nunki	75°46.0	-26°15.8
Altair	61°58.5	8°56.5
Peacock	53°03.3	-56°39.1
Deneb	49°24.6	45°22.9
Enif	33°37.2	10°00.1
Al Na'ir	27°30.8	-46°49.9
Fomalhaut	15°12.6	-2

October 10, 11, 12 UT (Sat., Sun., Mon.)

Aries			Venus			Mars			Jupiter			Saturn		
Sat	GHA		GHA	Dec		GHA	Dec		GHA	Dec		GHA	Dec	
0	18°36'9	165°59'7	S21°11.2	249°03.5	N19°41.7	234°52.9	N15°02.4	7°33.5	N01°48.3					
1	33°39'4	181°02'8	11.1	264°04.5	41.4	249°54.9	02.2	22°36.2	48.2					
2	48°41'9	196°06'0	10.9	279°05.5	41.1	264°57.0	02.1	37°38.8	48.2					
3	63°44'3	211°09'1	.. 10.7	294°06.5	.. 40.8	279°59.0	.. 02.0	52°41.4	.. 48.1					
4	78°46'8	226°12'3	10.5	309°07.5	40.5	295°01.1	01.9	67°44.1	48.0					
5	93°49'2	241°15.4	10.3	324°08.5	40.2	310°03.1	01.7	82°46.7	47.9					
6	108°51'7	256°18.6	S21°10.1	339°09.5	N19°39.8	325°05.2	N15°01.6	97°49.4	N01°47.8					
7	123°54'2	271°21.8	09.9	354°10.6	39.5	340°07.3	01.5	112°52.0	47.8					
8	138°56'6	286°24.9	09.7	.. 9.7	39.2	355°09.3	01.4	127°54.7	47.7					
9	153°59'1	301°28.1	.. 09.5	24°12.6	.. 38.9	10°11.4	.. 01.2	142°57.3	.. 47.6					
10	169°01'6	316°31.3	09.3	39°13.6	38.6	25°13.4	01.1	157°59.9	47.5					
11	184°04'0	331°34.4	09.1	54°14.6	38.3	40°15.5	01.0	173°02.6	47.5					
12	199°06'5	346°37.6	S21°08.9	69°15.6	N19°38.0	55°17.6	N15°00.9	188°05.2	N01°47.4					
13	214°09'0	1°40.8	08.6	84°16.6	37.6	70°19.6	00.7	203°07.9	47.3					
14	229°11.4	16°44.0	08.4	99°17.6	37.3	85°21.7	00.6	218°10.5	47.2					
15	244°13.9	31°47.2	.. 08.2	114°18.6	.. 37.0	100°23.7	.. 00.5	233°13.2	.. 47.2					
16	259°16.4	46°50.4	08.0	129°19.6	36.7	115°25.8	00.4	248°15.8	47.1					
17	274°18.8	61°53.6	07.8	144°20.6	36.4	130°27.8	00.2	263°18.5	47.0					
18	289°21.3	76°56.8	S21°07.5	159°21.7	N19°36.1	145°29.9	N15°00.1	278°21.1	N01°46.9					
19	304°23.7	92°00.0	07.3	174°22.7	35.7	160°32.0	15°00.0	293°23.7	46.9					
20	319°26.2	107°03.2	07.1	189°23.7	35.4	175°34.0	14°59.9	308°26.4	46.8					
21	334°28.7	122°06.4	.. 06.8	204°24.7	.. 35.1	190°36.1	.. 59.7	323°29.0	.. 46.7					
22	349°31.1	137°09.6	06.6	219°25.7	34.8	205°38.1	59.6	338°31.7	46.6					
23	4°33'6	152°12.9	06.4	234°26.7	34.5	220°40.2	59.5	353°34.3	46.6					
Mer.pass. 22:42			ν 3.1° d -0.2' m -4.57			ν 1.0' d -0.3' m 1.05			ν 2.6' d -0.1' m -1.90			ν 3.3' d -0.1' m 0.36		

Sun	GHA	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	19°36.1	167°16.1	S21°06.1	249°27.7	N19°34.2	235°42.3	N14°59.4	8°37.0	N01°46.5
1	34°38.5	182°19.3	05.9	264°28.7	33.9	250°44.3	59.2	23°39.6	46.4
2	49°41.0	197°22.5	05.6	279°29.8	33.5	265°46.4	59.1	38°42.2	46.3
3	64°43.5	212°25.8	.. 05.4	294°30.8	.. 33.2	280°48.5	.. 59.0	53°44.9	.. 46.3
4	79°45.9	227°29.0	05.1	309°31.8	32.9	295°50.5	58.9	68°47.5	46.2
5	94°48.4	242°32.3	04.9	324°32.8	32.6	310°52.6	58.7	83°50.2	46.1
6	109°50.9	257°35.5	S21°04.6	339°33.8	N19°32.3	325°54.6	N14°58.6	98°52.8	N01°46.0
7	124°53.3	272°38.8	04.4	354°34.8	32.0	340°56.7	58.5	113°55.5	46.0
8	139°55.8	287°42.0	04.1	.. 9°35.8	31.6	355°58.8	58.4	128°58.1	45.9
9	154°58.2	302°45.3	.. 03.8	24°36.9	.. 31.3	11°00.8	.. 58.2	144°00.7	.. 45.8
10	170°00.7	317°48.5	03.6	39°37.9	31.0	26°02.9	58.1	159°03.4	45.7
11	185°03.2	332°51.8	03.3	54°38.9	30.7	41°04.9	58.0	174°06.0	45.7
12	200°05.6	347°55.1	S21°03.0	69°39.9	N19°30.4	56°07.0	N14°57.9	189°08.7	N01°45.6
13	215°08.1	2°58.3	02.8	84°40.9	30.1	71°09.1	57.7	204°11.3	45.5
14	230°10.6	18°01.6	02.5	99°41.9	29.7	86°11.1	57.6	219°14.0	45.4
15	245°13.0	33°04.9	.. 02.2	114°43.0	.. 29.4	101°13.2	.. 57.5	234°16.6	.. 45.4
16	260°15.5	48°08.2	01.9	129°44.0	29.1	116°15.3	57.4	249°19.2	45.3
17	275°18.0	63°11.4	01.6	144°45.0	28.8	131°17.3	57.2	264°21.9	45.2
18	290°20.4	78°14.7	S21°01.3	159°46.0	N19°28.5	146°19.4	N14°57.1	279°24.5	N01°45.1
19	305°22.9	93°18.0	01.1	174°47.0	28.1	161°21.5	57.0	294°27.2	45.1
20	320°25.3	108°21.3	00.8	189°48.1	27.8	176°23.5	56.9	309°29.8	45.0
21	335°27.8	123°24.6	.. 00.5	204°49.1	.. 27.5	191°25.6	.. 56.8	324°32.5	.. 44.9
22	350°30.3	138°27.9	21°00.2	219°50.1	27.2	206°27.7	56.6	339°35.1	44.8
23	5°32'7	153°31.2	20°59.9	234°51.1	26.9	221°29.7	56.5	354°37.7	44.8
Mer.pass. 22:38 ν 3.2° d -0.2' m -4.52 ν 1.0' d -0.3' m 1.04 ν 2.1° d -0.1' m -1.91 ν 2.6' d -0.1' m 0.36									

Mon	GHA	GHA	Dec	GHA	Dec	GHA	Dec	GHA	Dec
0	20°35.2	168°34.5	S20°59.6	249°52.1	N19°26.6	236°31.8	N14°56.4	9°40.4	N01°44.7
1	35°37.7	183°37.8	59.3	264°53.2	26.2	251°33.8	56.3	24°43.0	44.6
2	50°40.1	198°41.1	59.0	279°54.2	25.9	266°35.9	56.1	39°44.7	44.5
3	65°42.6	213°44.5	.. 59.7	294°55.2	.. 25.6	281°38.0	.. 56.0	54°48.3	.. 44.5
4	80°45.8	228°47.8	58.3	309°56.2	25.3	296°40.0	55.9	69°51.0	44.4
5	95°47.5	243°51.1	58.0	324°57.2	25.0	311°42.1	55.8	84°53.6	44.3
6	110°50.0	258°54.4	S20°57.7	339°58.3	N19°24.6	326°44.2	N14°55.6	99°56.2	N01°44.2
7	125°52.5	273°57.8	57.4	354°59.3	24.3	341°46.2	55.5	114°58.9	44.2
8	140°54.9	289°01.1	57.1	10°00.3	24.0	356°48.3	55.4	130°01.5	44.1
9	155°57.4	304°04.4	.. 56.7	25°01.3	.. 23.7	11°50.4	.. 55.3	145°04.2	.. 44.0
10	170°59.8	319°07.8	56.4	40°02.4	23.4	26°52.4	55.1	160°06.8	43.9
11	186°02.3	334°11.1	56.1	55°03.4	23.0	41°54.5	55.0	175°09.5	43.9
12	201°04.8	349°14.5	S20°58.8	70°04.4	N19°22.7	56°56.6	N14°54.9	190°12.1	N01°43.8
13	216°07.2	4°17.8	55.4	85°05.4	22.4	71°58.6	54.8	205°14.7	43.7
14	231°09.7	19°21.2	55.1	100°06.5	22.1	87°00.7	54.7	220°17.4	43.7
15	246°12.2	34°24.5	.. 54.7	115°07.5	.. 21.8	102°02.8	.. 54.5	235°20.0	.. 43.6
16	261°14.6	49°27.9	54.4	130°08.5	21.5	117°04.8	54.4	250°22.7	43.5
17	276°17.1	64°31.2	54.1	145°09.5	21.1	132°06.9	54.3	265°25.3	43.4
18	291°19.6	79°34.6	S20°53.7	70°10.6	N19°20.8	147°09.0	N14°54.2	280°28.0	N01°43.4
19	306°22.0	94°38.0	53.4	175°11.6	20.5	162°11.1	54.0	295°30.6	43.3
20	321°24.5	109°41.4	53.0	190°12.6	20.2	177°13.1	53.9	310°33.2	43.2
21	336°27.0	124°44.7	.. 52.7	205°13.7	.. 19.8	192°15.2	.. 53.8	325°35.9	.. 43.1
22	351°29.4	139°48.1	52.3	220°14.7	19.5	207°17.3	53.7	340°38.5	43.1
23	6°31.9	154°51.5	51.9	235°15.7	19.2	222°19.3	53.6	355°41.2	43.0
Mer.pass. 22:34 ν 3.3° d -0.3' m -4.48 ν 1.0' d -0.3' m 1.03 ν 2.1' d -0.1' m -1.91 ν 2.6' d -0.1' m 0.37									

Stars		
	SHA	Dec
Alpheratz	357°32.9	29°14.5
Ankaa	353°05.3	-42°09.5
Schedar	349°28.8	56°41.2
Diphda	348°45.5	-17°50.2
Achernar	335°18.5	-57°05.9
Hamal	327°49.2	23°35.5
Polaris	312°51.8	89°22.5
Acamar	315°10.3	-40°11.6
Menkar	314°04.4	4°11.8
Mirfak	308°25.8	49°57.3
Aldebaran	290°37.8	16°33.9
Rigel	281°02.3	-8°10.0
Capella	280°19.5	46°01.4
Bellatrix	278°21.2	6°22.5
Elnath	277°59.9	28°37.8
Alnilam	275°36.1	-1°10.9
Betelgeuse	270°50.4	7°24.8
Canopus	263°51.6	-52°42.2
Sirius	258°24.9	-16°44.9
Adhara	255°04.7	-29°00.2
Procyon	244°49.4	5°09.5
Pollux	242°55.6	27°57.6
Avior	234°14.3	-59°35.4
Suhail	222°25.5	-43°32.2
Miaplacidus	221°38.4	-69°49.3
Alphard	217°46.5	-8°46.3
Regulus	207°33.1	-11°50.2
Dubhe	193°39.8	61°36.3
Denebola	182°23.8	14°25.4
Gienah	175°42.4	-17°41.3
Acrux	172°59.2	-63°14.8
Gacrux	171°50.6	-57°15.7
Alioth	166°12.3	55°48.9
Spica	158°21.1	-13°18.0
Alkaid	152°51.3	49°10.8
Hadar	148°34.6	-60°30.2
Menkent	147°56.3	-36°30.1
Arcturus	145°46.9	19°02.7
Rigel Kent.	139°38.9	-60°56.8
Kochab	137°20.9	74°02.8
Zuben ul	136°54.7	-16°09.1
Alphecca	126°02.8	26°37.6
Antares	112°14.3	-26°29.5
Atria	107°07.5	-69°04.7
Sabik	102°01.3	-15°45.4
Shaula	96°08.6	-37°07.4
Rasalhague	95°57.4	12°32.6
Eltanin	90°41.7	51°29.4
Kaus Aust.	83°30.7	-34°22.4
Vega	80°32.3	-38°48.8
Nunki	75°46.0	-26°15.8
Altair	61°58.5	8°56.5
Peacock	53°03.3	-56°39.1
Deneb	49°24.7	45°22.9
Enif	33°37.2	10°00.1
Al Na'ir	27°30.8	-46°49.9
Fomalhaut	15°12.6	-29°28.7
Scheat	13°43.5	28°13.9
Markab	13°28.2	15°21.2
Oct 10 Sat		
Venus	SHA	Mer. pass.
Mars	247°22.8	12.53
Jupiter	230°26.6	07.23
Saturn	216°15.9	08.19
Saturn	348°56.6	23.26
Oct 11 Sun		
Venus	SHA	Mer. pass.
Mars	147°40.0	12.48
Jupiter	229°51.7	07.22
Saturn	216°06.2	08.21
Saturn	349°00.9	23.16
Oct 12 Mon		
Venus	SHA	Mer. pass.
Mars	147°59.3	12.43
Jupiter	229°16.9	07.20
Saturn	215°56.6	08.13
Saturn	349°05.2	23.17
Horizontal parallax		
Venus:		0.5
Mars:		0.7