

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	182 35.1 +00.2	S	03 16.9 +01.0	220 05.0 -00.3	N	12 28.2 -00.8	9 28.6 -25.0	S	05 07.7 -12.2	00										
01	197 35.3 +00.2	S	03 17.9 +00.9	235 04.7 -00.4	N	12 27.4 -00.9	24 03.6 -25.0	S	04 55.5 -12.2	01										
02	212 35.5 +00.2	S	03 18.8 +01.0	250 04.3 -00.4	N	12 26.5 -00.8	38 38.6 -24.9	S	04 43.3 -12.3	02										
03	227 35.7 +00.2	S	03 19.8 +01.0	265 03.9 -00.4	N	12 25.7 -00.9	53 13.7 -24.9	S	04 31.0 -12.2	03										
04	242 35.9 +00.2	S	03 20.8 +00.9	280 03.5 -00.4	N	12 24.8 -00.9	67 48.8 -25.0	S	04 18.8 -12.2	04										
05	257 36.1 +00.2	S	03 21.7 +01.0	295 03.1 -00.4	N	12 23.9 -00.8	82 23.8 -24.8	S	04 06.6 -12.3	05										
06	272 36.3 +00.2	S	03 22.7 +01.0	310 02.7 -00.3	N	12 23.1 -00.9	96 59.0 -24.9	S	03 54.3 -12.3	06										
07	287 36.5 +00.2	S	03 23.7 +00.9	325 02.4 -00.4	N	12 22.2 -00.8	111 34.1 -24.8	S	03 42.0 -12.3	07										
08	302 36.7 +00.2	S	03 24.6 +01.0	340 02.0 -00.4	N	12 21.4 -00.9	126 09.3 -24.8	S	03 29.7 -12.3	08										
09	317 36.9 +00.2	S	03 25.6 +01.0	355 01.6 -00.4	N	12 20.5 -00.9	140 44.5 -24.8	S	03 17.4 -12.3	09										
10	332 37.1 +00.2	S	03 26.6 +00.9	10 01.2 -00.4	N	12 19.6 -00.8	155 19.7 -24.8	S	03 05.1 -12.3	10										
11	347 37.3 +00.2	S	03 27.5 +01.0	25 00.8 -00.3	N	12 18.8 -00.9	169 54.9 -24.8	S	02 52.8 -12.3	11										
12	2 37.5 +00.2	S	03 28.5 +01.0	40 00.5 -00.4	N	12 17.9 -00.8	184 30.1 -24.7	S	02 40.5 -12.3	12										
13	17 37.7 +00.2	S	03 29.5 +00.9	55 00.1 -00.4	N	12 17.1 -00.9	199 05.4 -24.7	S	02 28.2 -12.4	13										
14	32 37.9 +00.2	S	03 30.4 +01.0	69 59.7 -00.4	N	12 16.2 -00.9	213 40.7 -24.7	S	02 15.8 -12.3	14										
15	47 38.1 +00.2	S	03 31.4 +01.0	84 59.3 -00.4	N	12 15.3 -00.8	228 16.0 -24.7	S	02 03.5 -12.4	15										
16	62 38.3 +00.2	S	03 32.4 +00.9	99 58.9 -00.3	N	12 14.5 -00.9	242 51.3 -24.7	S	01 51.1 -12.3	16										
17	77 38.5 +00.2	S	03 33.3 +01.0	114 58.6 -00.4	N	12 13.6 -00.9	257 26.6 -24.7	S	01 38.8 -12.4	17										
18	92 38.7 +00.2	S	03 34.3 +01.0	129 58.2 -00.4	N	12 12.7 -00.8	272 01.9 -24.6	S	01 26.4 -12.3	18										
19	107 38.9 +00.2	S	03 35.3 +00.9	144 57.8 -00.4	N	12 11.9 -00.9	286 37.3 -24.7	S	01 14.1 -12.4	19										
20	122 39.1 +00.2	S	03 36.2 +01.0	159 57.4 -00.3	N	12 11.0 -00.9	301 12.6 -24.6	S	01 01.7 -12.3	20										
21	137 39.3 +00.2	S	03 37.2 +01.0	174 57.1 -00.4	N	12 10.1 -00.8	315 48.0 -24.6	S	00 49.4 -12.4	21										
22	152 39.5 +00.2	S	03 38.2 +00.9	189 56.7 -00.4	N	12 09.3 -00.9	330 23.4 -24.7	S	00 37.0 -12.4	22										
23	167 39.7 +00.2	S	03 39.1 +01.0	204 56.3 -00.4	N	12 08.4 -00.9	344 58.7 -24.6	S	00 24.6 -12.3	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	16'0	16'0	16'0	16'0	16'0	16'0	SD	00'1	00'1	00'1	00'1	00'1	00'1	SD						
HP	00'1	00'1	00'1	00'1	00'1	00'1	HP	00'1	00'1	00'1	00'1	00'1	00'1	HP						
SHA	172°	172°	172°	172°	172°	172°	SHA	210°	210°	209°	209°	209°	209°	SHA						
Greenwich Culmination Time: 11:49							Greenwich Culmination Time: 09:19							Greenwich Culmination Time: -1:00						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	345 36.8 +03.1	N	06 14.3 -00.2	80 42.2 +02.3	S	22 39.9 +00.0	72 49.4 +02.5	S	21 22.6 +00.0	00										
01	0 39.9 +03.2	N	06 14.1 -00.1	95 44.5 +02.3	S	22 39.9 +00.0	87 51.9 +02.4	S	21 22.6 +00.0	01										
02	15 43.1 +03.1	N	06 14.0 -00.2	110 46.8 +02.3	S	22 39.9 +00.0	102 54.3 +02.5	S	21 22.6 +00.0	02										
03	30 46.2 +03.2	N	06 13.8 -00.1	125 49.1 +02.3	S	22 39.9 -00.1	117 56.8 +02.4	S	21 22.6 +00.0	03										
04	45 49.4 +03.1	N	06 13.7 -00.2	140 51.4 +02.4	S	22 39.8 +00.0	132 59.2 +02.5	S	21 22.6 +00.0	04										
05	60 52.5 +03.2	N	06 13.5 -00.1	155 53.8 +02.3	S	22 39.8 +00.0	148 01.7 +02.5	S	21 22.6 +00.0	05										
06	75 55.7 +03.1	N	06 13.4 -00.1	170 56.1 +02.3	S	22 39.8 +00.0	163 04.2 +02.4	S	21 22.6 +00.0	06										
07	90 58.8 +03.1	N	06 13.3 -00.2	185 58.4 +02.3	S	22 39.8 +00.0	178 06.6 +02.5	S	21 22.6 +00.0	07										
08	106 01.9 +03.2	N	06 13.1 -00.1	201 00.7 +02.3	S	22 39.8 +00.0	193 09.1 +02.4	S	21 22.6 +00.0	08										
09	121 05.1 +03.1	N	06 13.0 -00.2	216 03.0 +02.3	S	22 39.8 -00.1	208 11.5 +02.5	S	21 22.6 +00.0	09										
10	136 08.2 +03.2	N	06 12.8 -00.1	231 05.3 +02.3	S	22 39.7 +00.0	223 14.0 +02.4	S	21 22.6 +00.0	10										
11	151 11.4 +03.1	N	06 12.7 -00.2	246 07.6 +02.3	S	22 39.7 +00.0	238 16.4 +02.5	S	21 22.6 +00.0	11										
12	166 14.5 +03.2	N	06 12.5 -00.1	261 09.9 +02.3	S	22 39.7 +00.0	253 18.9 +02.4	S	21 22.6 +00.0	12										
13	181 17.7 +03.1	N	06 12.4 -00.2	276 12.2 +02.3	S	22 39.7 +00.0	268 21.3 +02.5	S	21 22.6 +00.0	13										
14	196 20.8 +03.2	N	06 12.2 -00.1	291 14.5 +02.3	S	22 39.7 +00.0	283 23.8 +02.4	S	21 22.6 +00.0	14										
15	211 24.0 +03.1	N	06 12.1 -00.1	306 16.8 +02.3	S	22 39.7 -00.1	298 26.2 +02.5	S	21 22.6 +00.0	15										
16	226 27.1 +03.2	N	06 12.0 -00.2	321 19.1 +02.3	S	22 39.6 +00.0	313 28.7 +02.4	S	21 22.6 +00.0	16										
17	241 30.3 +03.1	N	06 11.8 -00.1	336 21.4 +02.3	S	22 39.6 +00.0	328 31.1 +02.5	S	21 22.6 +00.0	17										
18	256 33.4 +03.2	N	06 11.7 -00.2	351 23.7 +02.3	S	22 39.6 +00.0	343 33.6 +02.4	S	21 22.6 +00.0	18										
19	271 36.6 +03.1	N	06 11.5 -00.1	6 26.0 +02.4	S	22 39.6 +00.0	358 36.0 +02.5	S	21 22.6 +00.0	19										
20	286 39.7 +03.2	N	06 11.4 -00.2	21 28.4 +02.3	S	22 39.6 -00.1	13 38.5 +02.5	S	21 22.6 +00.0	20										
21	301 42.9 +03.2	N	06 11.2 -00.1	36 30.7 +02.3	S	22 39.5 +00.0	28 41.0 +02.4	S	21 22.6 +00.0	21										
22	316 46.1 +03.1	N	06 11.1 -00.2	51 33.0 +02.3	S	22 39.5 +00.0	43 43.4 +02.5	S	21 22.6 +00.0	22										
23	331 49.2 +03.2	N	06 10.9 -00.1	66 35.3 +02.3	S	22 39.5 +00.0	58 45.9 +02.4	S	21 22.6 +00.0	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	00'2	00'2	00'2	00'2	00'2	00'2	SD	00'3	00'3	00'3	00'3	00'3	00'3	SD						
HP	00'4	00'4	00'4	00'4	00'4	00'4	HP	00'0	00'0	00'0	00'0	00'0	00'0	HP						
SHA	335°	335°	336°	336°	336°	336°	SHA	071°	071°	070°	070°	070°	070°	SHA						
Greenwich Culmination Time: 00:57							Greenwich Culmination Time: 18:34							Greenwich Culmination Time: 19:05						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 39.9 +00.2	S	03 40.1 +01.0	219 55.9 -00.4	N	12 07.5 -00.9	359 34.1 -24.6	S	00 12.3 -12.4	00			
01	197 40.1 +00.2	S	03 41.1 +00.9	234 55.5 -00.3	N	12 06.6 -00.8	14 09.5 -24.6	N	00 00.1 +12.3	01			
02	212 40.3 +00.2	S	03 42.0 +01.0	249 55.2 -00.4	N	12 05.8 -00.9	28 44.9 -24.6	N	00 12.4 +12.4	02			
03	227 40.5 +00.2	S	03 43.0 +01.0	264 54.8 -00.4	N	12 04.9 -00.9	43 20.3 -24.5	N	00 24.8 +12.3	03			
04	242 40.7 +00.2	S	03 44.0 +00.9	279 54.4 -00.4	N	12 04.0 -00.8	57 55.8 -24.6	N	00 37.1 +12.4	04			
05	257 40.9 +00.2	S	03 44.9 +01.0	294 54.0 -00.4	N	12 03.2 -00.9	72 31.2 -24.6	N	00 49.5 +12.3	05			
06	272 41.1 +00.2	S	03 45.9 +01.0	309 53.6 -00.3	N	12 02.3 -00.9	87 06.6 -24.6	N	01 01.8 +12.3	06			
07	287 41.3 +00.2	S	03 46.9 +00.9	324 53.3 -00.4	N	12 01.4 -00.9	101 42.0 -24.5	N	01 14.1 +12.3	07			
08	302 41.5 +00.2	S	03 47.8 +01.0	339 52.9 -00.4	N	12 00.5 -00.8	116 17.5 -24.6	N	01 26.4 +12.4	08			
09	317 41.7 +00.2	S	03 48.8 +01.0	354 52.5 -00.4	N	11 59.7 -00.9	130 52.9 -24.6	N	01 38.8 +12.3	09			
10	332 41.9 +00.2	S	03 49.8 +00.9	9 52.1 -00.3	N	11 58.8 -00.9	145 28.3 -24.5	N	01 51.1 +12.3	10			
11	347 42.1 +00.2	S	03 50.7 +01.0	24 51.8 -00.4	N	11 57.9 -00.9	160 03.8 -24.6	N	02 03.4 +12.2	11			
12	2 42.3 +00.2	S	03 51.7 +01.0	39 51.4 -00.4	N	11 57.0 -00.9	174 39.2 -24.6	N	02 15.6 +12.3	12			
13	17 42.5 +00.2	S	03 52.7 +00.9	54 51.0 -00.4	N	11 56.1 -00.8	189 14.6 -24.6	N	02 27.9 +12.3	13			
14	32 42.7 +00.2	S	03 53.6 +01.0	69 50.6 -00.4	N	11 55.3 -00.9	203 50.0 -24.5	N	02 40.2 +12.2	14			
15	47 42.9 +00.2	S	03 54.6 +01.0	84 50.2 -00.3	N	11 54.4 -00.9	218 25.5 -24.6	N	02 52.4 +12.3	15			
16	62 43.1 +00.2	S	03 55.6 +00.9	99 49.9 -00.4	N	11 53.5 -00.9	233 00.9 -24.6	N	03 04.7 +12.2	16			
17	77 43.3 +00.2	S	03 56.5 +01.0	114 49.5 -00.4	N	11 52.6 -00.9	247 36.3 -24.6	N	03 16.9 +12.2	17			
18	92 43.5 +00.2	S	03 57.5 +01.0	129 49.1 -00.4	N	11 51.7 -00.8	262 11.7 -24.6	N	03 29.1 +12.2	18			
19	107 43.7 +00.2	S	03 58.5 +00.9	144 48.7 -00.3	N	11 50.9 -00.9	276 47.1 -24.6	N	03 41.3 +12.2	19			
20	122 43.9 +00.2	S	03 59.4 +01.0	159 48.4 -00.4	N	11 50.0 -00.9	291 22.5 -24.6	N	03 53.5 +12.2	20			
21	137 44.1 +00.2	S	04 00.4 +01.0	174 48.0 -00.4	N	11 49.1 -00.9	305 57.9 -24.7	N	04 05.7 +12.1	21			
22	152 44.3 +00.2	S	04 01.4 +00.9	189 47.6 -00.4	N	11 48.2 -00.9	320 33.2 -24.6	N	04 17.8 +12.2	22			
23	167 44.5 +00.2	S	04 02.3 +01.0	204 47.2 -00.3	N	11 47.3 -00.9	335 08.6 -24.7	N	04 30.0 +12.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'0 16'0 16'0			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 14'7 14'7 14'7 14'7 14'7 14'7						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'1 54'0 54'0 54'0 54'0 54'0						
	SHA 171° 171° 171° 171° 171° 171°			SHA 209° 208° 208° 208° 208° 208°			SHA 347° 346° 344° 342° 340° 338°						
	Greenwich Culmination Time: 11:49			Greenwich Culmination Time: 09:20			Greenwich Culmination Time: 00:01						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	346 52.4 +03.1	N	06 10.8 -00.1	81 37.6 +02.3	S	22 39.5 +00.0	73 48.3 +02.5	S	21 22.6 +00.0	00			
01	1 55.5 +03.2	N	06 10.7 -00.2	96 39.9 +02.3	S	22 39.5 +00.0	88 50.8 +02.4	S	21 22.6 +00.0	01			
02	16 58.7 +03.2	N	06 10.5 -00.1	111 42.2 +02.3	S	22 39.5 -00.1	103 53.2 +02.5	S	21 22.6 +00.0	02			
03	32 01.9 +03.1	N	06 10.4 -00.2	126 44.5 +02.3	S	22 39.4 +00.0	118 55.7 +02.4	S	21 22.6 +00.0	03			
04	47 05.0 +03.2	N	06 10.2 -00.1	141 46.8 +02.3	S	22 39.4 +00.0	133 58.1 +02.5	S	21 22.6 +00.0	04			
05	62 08.2 +03.1	N	06 10.1 -00.2	156 49.1 +02.3	S	22 39.4 +00.0	149 00.6 +02.4	S	21 22.6 +00.0	05			
06	77 11.3 +03.2	N	06 09.9 -00.1	171 51.4 +02.3	S	22 39.4 +00.0	164 03.0 +02.5	S	21 22.6 +00.0	06			
07	92 14.5 +03.2	N	06 09.8 -00.2	186 53.7 +02.3	S	22 39.4 -00.1	179 05.5 +02.4	S	21 22.6 +00.0	07			
08	107 17.7 +03.1	N	06 09.6 -00.1	201 56.0 +02.3	S	22 39.3 +00.0	194 07.9 +02.5	S	21 22.6 +00.0	08			
09	122 20.8 +03.2	N	06 09.5 -00.2	216 58.3 +02.3	S	22 39.3 +00.0	209 10.4 +02.4	S	21 22.6 +00.0	09			
10	137 24.0 +03.2	N	06 09.3 -00.1	232 00.6 +02.3	S	22 39.3 +00.0	224 12.8 +02.5	S	21 22.6 +00.0	10			
11	152 27.2 +03.1	N	06 09.2 -00.2	247 02.9 +02.3	S	22 39.3 +00.0	239 15.3 +02.4	S	21 22.6 +00.0	11			
12	167 30.3 +03.2	N	06 09.0 -00.1	262 05.2 +02.3	S	22 39.3 -00.1	254 17.7 +02.5	S	21 22.6 +00.0	12			
13	182 33.5 +03.2	N	06 08.9 -00.2	277 07.5 +02.3	S	22 39.2 +00.0	269 20.2 +02.4	S	21 22.6 +00.0	13			
14	197 36.7 +03.1	N	06 08.7 -00.1	292 09.8 +02.3	S	22 39.2 +00.0	284 22.6 +02.5	S	21 22.6 +00.0	14			
15	212 39.8 +03.2	N	06 08.6 -00.2	307 12.1 +02.3	S	22 39.2 +00.0	299 25.1 +02.4	S	21 22.6 +00.0	15			
16	227 43.0 +03.2	N	06 08.4 -00.1	322 14.4 +02.3	S	22 39.2 +00.0	314 27.5 +02.5	S	21 22.6 +00.0	16			
17	242 46.2 +03.2	N	06 08.3 -00.2	337 16.7 +02.3	S	22 39.2 -00.1	329 30.0 +02.4	S	21 22.6 +00.0	17			
18	257 49.4 +03.1	N	06 08.1 -00.1	352 19.0 +02.3	S	22 39.1 +00.0	344 32.4 +02.5	S	21 22.6 +00.0	18			
19	272 52.5 +03.2	N	06 08.0 -00.1	7 21.3 +02.3	S	22 39.1 +00.0	359 34.9 +02.4	S	21 22.6 +00.0	19			
20	287 55.7 +03.2	N	06 07.9 -00.2	22 23.6 +02.3	S	22 39.1 +00.0	14 37.3 +02.4	S	21 22.6 +00.0	20			
21	302 58.9 +03.2	N	06 07.7 -00.1	37 25.9 +02.2	S	22 39.1 +00.0	29 39.7 +02.5	S	21 22.6 +00.0	21			
22	318 02.1 +03.1	N	06 07.6 -00.2	52 28.1 +02.3	S	22 39.1 -00.1	44 42.2 +02.4	S	21 22.6 +00.0	22			
23	333 05.2 +03.2	N	06 07.4 -00.1	67 30.4 +02.3	S	22 39.0 +00.0	59 44.6 +02.5	S	21 22.6 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'4 00'4 00'4 00'4 00'4 00'4			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 336° 336° 336° 336° 336° 336°			SHA 070° 070° 070° 070° 070° 070°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 00:52			Greenwich Culmination Time: 18:30			Greenwich Culmination Time: 19:01						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	182 44.7 +00.2	S	04 03.3 +01.0	219 46.9 -00.4	N	11 46.4 -00.9	349 43.9 -24.6	N	04 42.1 +12.1	00										
01	197 44.9 +00.2	S	04 04.3 +00.9	234 46.5 -00.4	N	11 45.5 -00.8	4 19.3 -24.7	N	04 54.2 +12.1	01										
02	212 45.1 +00.2	S	04 05.2 +01.0	249 46.1 -00.4	N	11 44.7 -00.9	18 54.6 -24.7	N	05 06.3 +12.0	02										
03	227 45.3 +00.2	S	04 06.2 +01.0	264 45.7 -00.3	N	11 43.8 -00.9	33 29.9 -24.7	N	05 18.3 +12.1	03										
04	242 45.5 +00.2	S	04 07.2 +00.9	279 45.4 -00.4	N	11 42.9 -00.9	48 05.2 -24.7	N	05 30.4 +12.0	04										
05	257 45.7 +00.1	S	04 08.1 +01.0	294 45.0 -00.4	N	11 42.0 -00.9	62 40.5 -24.7	N	05 42.4 +12.0	05										
06	272 45.8 +00.2	S	04 09.1 +01.0	309 44.6 -00.4	N	11 41.1 -00.9	77 15.8 -24.8	N	05 54.4 +11.9	06										
07	287 46.0 +00.2	S	04 10.1 +00.9	324 44.2 -00.3	N	11 40.2 -00.9	91 51.0 -24.7	N	06 06.3 +12.0	07										
08	302 46.2 +00.2	S	04 11.0 +01.0	339 43.9 -00.4	N	11 39.3 -00.9	106 26.3 -24.8	N	06 18.3 +11.9	08										
09	317 46.4 +00.2	S	04 12.0 +00.9	354 43.5 -00.4	N	11 38.4 -00.9	121 01.5 -24.8	N	06 30.2 +11.9	09										
10	332 46.6 +00.2	S	04 12.9 +01.0	9 43.1 -00.4	N	11 37.5 -00.9	135 36.7 -24.9	N	06 42.1 +11.9	10										
11	347 46.8 +00.2	S	04 13.9 +01.0	24 42.7 -00.3	N	11 36.6 -00.9	150 11.8 -24.8	N	06 54.0 +11.8	11										
12	2 47.0 +00.2	S	04 14.9 +00.9	39 42.4 -00.4	N	11 35.7 -00.8	164 47.0 -24.9	N	07 05.8 +11.8	12										
13	17 47.2 +00.2	S	04 15.8 +01.0	54 42.0 -00.4	N	11 34.9 -00.9	179 22.1 -24.8	N	07 17.6 +11.8	13										
14	32 47.4 +00.2	S	04 16.8 +01.0	69 41.6 -00.4	N	11 34.0 -00.9	193 57.3 -25.0	N	07 29.4 +11.8	14										
15	47 47.6 +00.2	S	04 17.8 +00.9	84 41.2 -00.3	N	11 33.1 -00.9	208 32.3 -24.9	N	07 41.2 +11.7	15										
16	62 47.8 +00.2	S	04 18.7 +01.0	99 40.9 -00.4	N	11 32.2 -00.9	223 07.4 -24.9	N	07 52.9 +11.7	16										
17	77 48.0 +00.2	S	04 19.7 +01.0	114 40.5 -00.4	N	11 31.3 -00.9	237 42.5 -25.0	N	08 04.6 +11.7	17										
18	92 48.2 +00.2	S	04 20.7 +00.9	129 40.1 -00.4	N	11 30.4 -00.9	252 17.5 -25.0	N	08 16.3 +11.6	18										
19	107 48.4 +00.2	S	04 21.6 +01.0	144 39.7 -00.3	N	11 29.5 -00.9	266 52.5 -25.0	N	08 27.9 +11.6	19										
20	122 48.6 +00.2	S	04 22.6 +01.0	159 39.4 -00.4	N	11 28.6 -00.9	281 27.5 -25.1	N	08 39.5 +11.6	20										
21	137 48.8 +00.1	S	04 23.6 +00.9	174 39.0 -00.4	N	11 27.7 -00.9	296 02.4 -25.1	N	08 51.1 +11.6	21										
22	152 48.9 +00.2	S	04 24.5 +01.0	189 38.6 -00.4	N	11 26.8 -00.9	310 37.3 -25.1	N	09 02.7 +11.5	22										
23	167 49.1 +00.2	S	04 25.5 +00.9	204 38.2 -00.3	N	11 25.9 -00.9	325 12.2 -25.1	N	09 14.2 +11.4	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	16°0	16°0	16°0	16°0	16°0	16°0	SD	00°1	00°1	00°1	00°1	00°1	00°1	SD						
HP	00°1	00°1	00°1	00°1	00°1	00°1	HP	00°1	00°1	00°1	00°1	00°1	00°1	HP						
SHA	171°	170°	170°	170°	170°	170°	SHA	208°	207°	207°	207°	207°	207°	SHA						
Greenwich Culmination Time: 11:48							Greenwich Culmination Time: 09:21							Greenwich Culmination Time: 00:42						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	348 08.4 +03.2	N	06 07.3 -00.2	82 32.7 +02.3	S	22 39.0 +00.0	74 47.1 +02.4	S	21 22.6 +00.0	00										
01	3 11.6 +03.2	N	06 07.1 -00.1	97 35.0 +02.3	S	22 39.0 +00.0	89 49.5 +02.5	S	21 22.6 +00.0	01										
02	18 14.8 +03.2	N	06 07.0 -00.2	112 37.3 +02.3	S	22 39.0 +00.0	104 52.0 +02.4	S	21 22.6 +00.0	02										
03	33 18.0 +03.1	N	06 06.8 -00.1	127 39.6 +02.3	S	22 39.0 -00.1	119 54.4 +02.5	S	21 22.6 +00.0	03										
04	48 21.1 +03.2	N	06 06.7 -00.2	142 41.9 +02.3	S	22 38.9 +00.0	134 56.9 +02.4	S	21 22.6 +00.0	04										
05	63 24.3 +03.2	N	06 06.5 -00.1	157 44.2 +02.3	S	22 38.9 +00.0	149 59.3 +02.5	S	21 22.6 +00.0	05										
06	78 27.5 +03.2	N	06 06.4 -00.2	172 46.5 +02.3	S	22 38.9 +00.0	165 01.8 +02.4	S	21 22.6 +00.0	06										
07	93 30.7 +03.2	N	06 06.2 -00.1	187 48.8 +02.3	S	22 38.9 +00.0	180 04.2 +02.5	S	21 22.6 +00.0	07										
08	108 33.9 +03.1	N	06 06.1 -00.2	202 51.1 +02.3	S	22 38.9 +00.0	195 06.7 +02.4	S	21 22.6 +00.0	08										
09	123 37.0 +03.2	N	06 05.9 -00.1	217 53.4 +02.3	S	22 38.9 -00.1	210 09.1 +02.5	S	21 22.6 +00.0	09										
10	138 40.2 +03.2	N	06 05.8 -00.2	232 55.7 +02.3	S	22 38.8 +00.0	225 11.6 +02.4	S	21 22.6 +00.0	10										
11	153 43.4 +03.2	N	06 05.6 -00.1	247 58.0 +02.3	S	22 38.8 +00.0	240 14.0 +02.4	S	21 22.6 +00.0	11										
12	168 46.6 +03.2	N	06 05.5 -00.2	263 00.3 +02.2	S	22 38.8 +00.0	255 16.4 +02.5	S	21 22.6 +00.0	12										
13	183 49.8 +03.2	N	06 05.3 -00.1	278 02.5 +02.3	S	22 38.8 -00.1	270 18.9 +02.4	S	21 22.6 +00.0	13										
14	198 53.0 +03.2	N	06 05.2 -00.2	293 04.8 +02.3	S	22 38.7 +00.0	285 21.3 +02.5	S	21 22.6 +00.0	14										
15	213 56.2 +03.2	N	06 05.0 -00.1	308 07.1 +02.3	S	22 38.7 +00.0	300 23.8 +02.4	S	21 22.6 +00.0	15										
16	228 59.4 +03.1	N	06 04.9 -00.2	323 09.4 +02.3	S	22 38.7 +00.0	315 26.2 +02.5	S	21 22.6 +00.0	16										
17	244 02.5 +03.2	N	06 04.7 -00.1	338 11.7 +02.3	S	22 38.7 +00.0	330 28.7 +02.4	S	21 22.6 +00.0	17										
18	259 05.7 +03.2	N	06 04.6 -00.2	353 14.0 +02.3	S	22 38.7 -00.1	345 31.1 +02.5	S	21 22.6 +00.0	18										
19	274 08.9 +03.2	N	06 04.4 -00.1	8 16.3 +02.3	S	22 38.6 +00.0	0 33.6 +02.4	S	21 22.6 +00.0	19										
20	289 12.1 +03.2	N	06 04.3 -00.2	23 18.6 +02.3	S	22 38.6 +00.0	15 36.0 +02.4	S	21 22.6 +00.0	20										
21	304 15.3 +03.2	N	06 04.1 -00.1	38 20.9 +02.2	S	22 38.6 +00.0	30 38.4 +02.5	S	21 22.6 +00.0	21										
22	319 18.5 +03.2	N	06 04.0 -00.2	53 23.1 +02.3	S	22 38.6 +00.0	45 40.9 +02.4	S	21 22.6 +00.0	22										
23	334 21.7 +03.2	N	06 03.8 -00.2	68 25.4 +02.3	S	22 38.6 -00.1	60 43.3 +02.5	S	21 22.6 +00.0	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	00°2	00°2	00°2	00°2	00°2	00°2	SD	00°3	00°3	00°3	00°3	00°3	00°3	SD						
HP	00°4	00°4	00°4	00°4	00°4	00°4	HP	00°0	00°0	00°0	00°0	00°0	00°0	HP						
SHA	336°	336°	336°	336°	336°	336°	SHA	070°	070°	070°	070°	070°	070°	SHA						
Greenwich Culmination Time: 00:47							Greenwich Culmination Time: 18:26							Greenwich Culmination Time: 18:57						

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 49.3 +00.2	S	04 26.4 +01.0	219 37.9 -00.4	N	11 25.0 -00.9	339 47.1 -25.2	N	09 25.6 +11.5	00			
01	197 49.5 +00.2	S	04 27.4 +01.0	234 37.5 -00.4	N	11 24.1 -00.9	354 21.9 -25.2	N	09 37.1 +11.4	01			
02	212 49.7 +00.2	S	04 28.4 +00.9	249 37.1 -00.4	N	11 23.2 -00.9	8 56.7 -25.3	N	09 48.5 +11.3	02			
03	227 49.9 +00.2	S	04 29.3 +01.0	264 36.7 -00.3	N	11 22.3 -00.9	23 31.4 -25.2	N	09 59.8 +11.4	03			
04	242 50.1 +00.2	S	04 30.3 +01.0	279 36.4 -00.4	N	11 21.4 -00.9	38 06.2 -25.3	N	10 11.2 +11.3	04			
05	257 50.3 +00.2	S	04 31.3 +00.9	294 36.0 -00.4	N	11 20.5 -00.9	52 40.9 -25.4	N	10 22.5 +11.2	05			
06	272 50.5 +00.2	S	04 32.2 +01.0	309 35.6 -00.3	N	11 19.6 -01.0	67 15.5 -25.3	N	10 33.7 +11.2	06			
07	287 50.7 +00.2	S	04 33.2 +00.9	324 35.3 -00.4	N	11 18.6 -00.9	81 50.2 -25.4	N	10 44.9 +11.2	07			
08	302 50.9 +00.2	S	04 34.1 +01.0	339 34.9 -00.4	N	11 17.7 -00.9	96 24.8 -25.5	N	10 56.1 +11.1	08			
09	317 51.1 +00.1	S	04 35.1 +01.0	354 34.5 -00.4	N	11 16.8 -00.9	110 59.3 -25.4	N	11 07.2 +11.1	09			
10	332 51.2 +00.2	S	04 36.1 +00.9	9 34.1 -00.3	N	11 15.9 -00.9	125 33.9 -25.5	N	11 18.3 +11.0	10			
11	347 51.4 +00.2	S	04 37.0 +01.0	24 33.8 -00.4	N	11 15.0 -00.9	140 08.4 -25.6	N	11 29.3 +11.0	11			
12	2 51.6 +00.2	S	04 38.0 +01.0	39 33.4 -00.4	N	11 14.1 -00.9	154 42.8 -25.6	N	11 40.3 +11.0	12			
13	17 51.8 +00.2	S	04 39.0 +00.9	54 33.0 -00.4	N	11 13.2 -00.9	169 17.2 -25.6	N	11 51.3 +10.9	13			
14	32 52.0 +00.2	S	04 39.9 +01.0	69 32.6 -00.3	N	11 12.3 -00.9	183 51.6 -25.7	N	12 02.2 +10.8	14			
15	47 52.2 +00.2	S	04 40.9 +00.9	84 32.3 -00.4	N	11 11.4 -00.9	198 25.9 -25.7	N	12 13.0 +10.8	15			
16	62 52.4 +00.2	S	04 41.8 +01.0	99 31.9 -00.4	N	11 10.5 -00.9	213 00.2 -25.7	N	12 23.8 +10.8	16			
17	77 52.6 +00.2	S	04 42.8 +01.0	114 31.5 -00.3	N	11 09.6 -01.0	227 34.5 -25.8	N	12 34.6 +10.7	17			
18	92 52.8 +00.2	S	04 43.8 +00.9	129 31.2 -00.4	N	11 08.6 -00.9	242 08.7 -25.8	N	12 45.3 +10.7	18			
19	107 53.0 +00.1	S	04 44.7 +01.0	144 30.8 -00.4	N	11 07.7 -00.9	256 42.9 -25.9	N	12 56.0 +10.6	19			
20	122 53.1 +00.2	S	04 45.7 +00.9	159 30.4 -00.4	N	11 06.8 -00.9	271 17.0 -25.9	N	13 06.6 +10.6	20			
21	137 53.3 +00.2	S	04 46.6 +01.0	174 30.0 -00.3	N	11 05.9 -00.9	285 51.1 -26.0	N	13 17.2 +10.5	21			
22	152 53.5 +00.2	S	04 47.6 +01.0	189 29.7 -00.4	N	11 05.0 -00.9	300 25.1 -26.0	N	13 27.7 +10.5	22			
23	167 53.7 +00.2	S	04 48.6 +00.9	204 29.3 -00.4	N	11 04.1 -00.9	314 59.1 -26.0	N	13 38.2 +10.4	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16°0 16°0 16°0 16°0 16°0 16°0			SD 00°1 00°1 00°1 00°1 00°1 00°1			SD 14°7 14°7 14°7 14°7 14°7 14°7						
	HP 00°1 00°1 00°1 00°1 00°1 00°1			HP 00°1 00°1 00°1 00°1 00°1 00°1			HP 53°9 54°0 54°0 54°0 54°0 54°0						
	SHA 170° 169° 169° 169° 169° 169°			SHA 206° 206° 206° 206° 206° 205°			SHA 326° 324° 322° 320° 318° 316°						
	Greenwich Culmination Time: 11:48			Greenwich Culmination Time: 09:21			Greenwich Culmination Time: 01:23						

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	349 24.9 +03.2	N	06 03.6 -00.1	83 27.7 +02.3	S	22 38.5 +00.0	75 45.8 +02.4	S	21 22.6 +00.0	00			
01	4 28.1 +03.2	N	06 03.5 -00.2	98 30.0 +02.3	S	22 38.5 +00.0	90 48.2 +02.5	S	21 22.6 +00.0	01			
02	19 31.3 +03.2	N	06 03.3 -00.1	113 32.3 +02.3	S	22 38.5 +00.0	105 50.7 +02.4	S	21 22.6 +00.0	02			
03	34 34.5 +03.2	N	06 03.2 -00.2	128 34.6 +02.3	S	22 38.5 +00.0	120 53.1 +02.4	S	21 22.6 +00.0	03			
04	49 37.7 +03.2	N	06 03.0 -00.1	143 36.9 +02.3	S	22 38.5 -00.1	135 55.5 +02.5	S	21 22.6 -00.1	04			
05	64 40.9 +03.2	N	06 02.9 -00.2	158 39.2 +02.2	S	22 38.4 +00.0	150 58.0 +02.4	S	21 22.5 +00.0	05			
06	79 44.1 +03.2	N	06 02.7 -00.1	173 41.4 +02.3	S	22 38.4 +00.0	166 00.4 +02.5	S	21 22.5 +00.0	06			
07	94 47.3 +03.2	N	06 02.6 -00.2	188 43.7 +02.3	S	22 38.4 +00.0	181 02.9 +02.4	S	21 22.5 +00.0	07			
08	109 50.5 +03.2	N	06 02.4 -00.1	203 46.0 +02.3	S	22 38.4 +00.0	196 05.3 +02.4	S	21 22.5 +00.0	08			
09	124 53.7 +03.2	N	06 02.3 -00.2	218 48.3 +02.3	S	22 38.4 -00.1	211 07.7 +02.5	S	21 22.5 +00.0	09			
10	139 56.9 +03.2	N	06 02.1 -00.1	233 50.6 +02.3	S	22 38.3 +00.0	226 10.2 +02.4	S	21 22.5 +00.0	10			
11	155 00.1 +03.2	N	06 02.0 -00.2	248 52.9 +02.2	S	22 38.3 +00.0	241 12.6 +02.5	S	21 22.5 +00.0	11			
12	170 03.3 +03.2	N	06 01.8 -00.1	263 55.1 +02.3	S	22 38.3 +00.0	256 15.1 +02.4	S	21 22.5 +00.0	12			
13	185 06.5 +03.2	N	06 01.7 -00.2	278 57.4 +02.3	S	22 38.3 -00.1	271 17.5 +02.4	S	21 22.5 +00.0	13			
14	200 09.7 +03.2	N	06 01.5 -00.1	293 59.7 +02.3	S	22 38.2 +00.0	286 19.9 +02.5	S	21 22.5 +00.0	14			
15	215 12.9 +03.2	N	06 01.4 -00.2	309 02.0 +02.3	S	22 38.2 +00.0	301 22.4 +02.4	S	21 22.5 +00.0	15			
16	230 16.1 +03.2	N	06 01.2 -00.1	324 04.3 +02.2	S	22 38.2 +00.0	316 24.8 +02.5	S	21 22.5 +00.0	16			
17	245 19.3 +03.2	N	06 01.1 -00.2	339 06.5 +02.3	S	22 38.2 +00.0	331 27.3 +02.4	S	21 22.5 +00.0	17			
18	260 22.5 +03.2	N	06 00.9 -00.1	354 08.8 +02.3	S	22 38.2 -00.1	346 29.7 +02.4	S	21 22.5 +00.0	18			
19	275 25.7 +03.2	N	06 00.8 -00.2	9 11.1 +02.3	S	22 38.1 +00.0	1 32.1 +02.5	S	21 22.5 +00.0	19			
20	290 28.9 +03.2	N	06 00.6 -00.2	24 13.4 +02.3	S	22 38.1 +00.0	16 34.6 +02.4	S	21 22.5 +00.0	20			
21	305 32.1 +03.2	N	06 00.4 -00.1	39 15.7 +02.3	S	22 38.1 +00.0	31 37.0 +02.5	S	21 22.5 +00.0	21			
22	320 35.3 +03.3	N	06 00.3 -00.2	54 18.0 +02.2	S	22 38.1 +00.0	46 39.5 +02.4	S	21 22.5 +00.0	22			
23	335 38.6 +03.2	N	06 00.1 -00.1	69 20.2 +02.3	S	22 38.1 -00.1	61 41.9 +02.4	S	21 22.5 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00°2 00°2 00°2 00°2 00°2 00°2			SD 00°3 00°3 00°3 00°3 00°3 00°3			SD 00°1 00°1 00°1 00°1 00°1 00°1						
	HP 00°4 00°4 00°4 00°4 00°4 00°4			HP 00°0 00°0 00°0 00°0 00°0 00°0			HP 00°0 00°0 00°0 00°0 00°0 00°0						
	SHA 336° 336° 336° 336° 336° 337°			SHA 070° 070° 070° 070° 070° 070°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 00:42			Greenwich Culmination Time: 18:23			Greenwich Culmination Time: 18:53						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 53.9 +00.2	S	04 49.5 +01.0	219 28.9 -00.3	N	11 03.2 -01.0	329 33.1 -26.1	N	13 48.6 +10.3	00			
01	197 54.1 +00.2	S	04 50.5 +00.9	234 28.6 -00.4	N	11 02.2 -00.9	344 07.0 -26.1	N	13 58.9 +10.4	01			
02	212 54.3 +00.2	S	04 51.4 +01.0	249 28.2 -00.4	N	11 01.3 -00.9	358 40.9 -26.2	N	14 09.3 +10.2	02			
03	227 54.5 +00.2	S	04 52.4 +01.0	264 27.8 -00.3	N	11 00.4 -00.9	13 14.7 -26.3	N	14 19.5 +10.2	03			
04	242 54.7 +00.1	S	04 53.4 +00.9	279 27.5 -00.4	N	10 59.5 -00.9	27 48.4 -26.3	N	14 29.7 +10.1	04			
05	257 54.8 +00.2	S	04 54.3 +01.0	294 27.1 -00.4	N	10 58.6 -01.0	42 22.1 -26.3	N	14 39.8 +10.1	05			
06	272 55.0 +00.2	S	04 55.3 +00.9	309 26.7 -00.4	N	10 57.6 -00.9	56 55.8 -26.4	N	14 49.9 +10.1	06			
07	287 55.2 +00.2	S	04 56.2 +01.0	324 26.3 -00.3	N	10 56.7 -00.9	71 29.4 -26.4	N	14 60.0 +09.9	07			
08	302 55.4 +00.2	S	04 57.2 +01.0	339 26.0 -00.4	N	10 55.8 -00.9	86 03.0 -26.5	N	15 09.9 +09.9	08			
09	317 55.6 +00.2	S	04 58.2 +00.9	354 25.6 -00.4	N	10 54.9 -00.9	100 36.5 -26.5	N	15 19.8 +09.9	09			
10	332 55.8 +00.2	S	04 59.1 +01.0	9 25.2 -00.3	N	10 54.0 -01.0	115 10.0 -26.6	N	15 29.7 +09.8	10			
11	347 56.0 +00.1	S	05 00.1 +00.9	24 24.9 -00.4	N	10 53.0 -00.9	129 43.4 -26.6	N	15 39.5 +09.7	11			
12	2 56.1 +00.2	S	05 01.0 +01.0	39 24.5 -00.4	N	10 52.1 -00.9	144 16.8 -26.7	N	15 49.2 +09.7	12			
13	17 56.3 +00.2	S	05 02.0 +01.0	54 24.1 -00.3	N	10 51.2 -00.9	158 50.1 -26.8	N	15 58.9 +09.6	13			
14	32 56.5 +00.2	S	05 03.0 +00.9	69 23.8 -00.4	N	10 50.3 -01.0	173 23.3 -26.8	N	16 08.5 +09.5	14			
15	47 56.7 +00.2	S	05 03.9 +01.0	84 23.4 -00.4	N	10 49.3 -00.9	187 56.5 -26.8	N	16 18.0 +09.5	15			
16	62 56.9 +00.2	S	05 04.9 +00.9	99 23.0 -00.4	N	10 48.4 -00.9	202 29.7 -26.9	N	16 27.5 +09.4	16			
17	77 57.1 +00.2	S	05 05.8 +01.0	114 22.6 -00.3	N	10 47.5 -00.9	217 02.8 -27.0	N	16 36.9 +09.3	17			
18	92 57.3 +00.1	S	05 06.8 +01.0	129 22.3 -00.4	N	10 46.6 -01.0	231 35.8 -27.0	N	16 46.2 +09.3	18			
19	107 57.4 +00.2	S	05 07.8 +00.9	144 21.9 -00.4	N	10 45.6 -00.9	246 08.8 -27.1	N	16 55.5 +09.2	19			
20	122 57.6 +00.2	S	05 08.7 +01.0	159 21.5 -00.3	N	10 44.7 -00.9	260 41.7 -27.1	N	17 04.7 +09.1	20			
21	137 57.8 +00.2	S	05 09.7 +00.9	174 21.2 -00.4	N	10 43.8 -01.0	275 14.6 -27.2	N	17 13.8 +09.1	21			
22	152 58.0 +00.2	S	05 10.6 +01.0	189 20.8 -00.4	N	10 42.8 -00.9	289 47.4 -27.2	N	17 22.9 +09.0	22			
23	167 58.2 +00.2	S	05 11.6 +01.0	204 20.4 -00.3	N	10 41.9 -00.9	304 20.2 -27.3	N	17 31.9 +08.9	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'0 16'0 16'0			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 14'7 14'7 14'7 14'7 14'8 14'8						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'0 54'1 54'1 54'1 54'2 54'2						
	SHA 169° 169° 168° 168° 168° 168°			SHA 205° 205° 205° 205° 205° 204°			SHA 314° 313° 311° 309° 307° 305°						
	Greenwich Culmination Time: 11:48			Greenwich Culmination Time: 09:22			Greenwich Culmination Time: 02:05						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	350 41.8 +03.2	N	05 60.0 -00.2	84 22.5 +02.3	S	22 38.0 +00.0	76 44.3 +02.5	S	21 22.5 +00.0	00			
01	5 45.0 +03.2	N	05 59.8 -00.1	99 24.8 +02.3	S	22 38.0 +00.0	91 46.8 +02.4	S	21 22.5 +00.0	01			
02	20 48.2 +03.2	N	05 59.7 -00.2	114 27.1 +02.2	S	22 38.0 +00.0	106 49.2 +02.5	S	21 22.5 +00.0	02			
03	35 51.4 +03.2	N	05 59.5 -00.1	129 29.3 +02.3	S	22 38.0 -00.1	121 51.7 +02.4	S	21 22.5 +00.0	03			
04	50 54.6 +03.2	N	05 59.4 -00.2	144 31.6 +02.3	S	22 37.9 +00.0	136 54.1 +02.4	S	21 22.5 +00.0	04			
05	65 57.8 +03.2	N	05 59.2 -00.1	159 33.9 +02.3	S	22 37.9 +00.0	151 56.5 +02.5	S	21 22.5 +00.0	05			
06	81 01.0 +03.3	N	05 59.1 -00.2	174 36.2 +02.3	S	22 37.9 +00.0	166 59.0 +02.4	S	21 22.5 +00.0	06			
07	96 04.3 +03.2	N	05 58.9 -00.1	189 38.5 +02.2	S	22 37.9 +00.0	182 01.4 +02.4	S	21 22.5 +00.0	07			
08	111 07.5 +03.2	N	05 58.8 -00.2	204 40.7 +02.3	S	22 37.9 -00.1	197 03.8 +02.5	S	21 22.5 +00.0	08			
09	126 10.7 +03.2	N	05 58.6 -00.2	219 43.0 +02.3	S	22 37.8 +00.0	212 06.3 +02.4	S	21 22.5 +00.0	09			
10	141 13.9 +03.2	N	05 58.4 -00.1	234 45.3 +02.3	S	22 37.8 +00.0	227 08.7 +02.5	S	21 22.5 +00.0	10			
11	156 17.1 +03.2	N	05 58.3 -00.2	249 47.6 +02.2	S	22 37.8 +00.0	242 11.2 +02.4	S	21 22.5 +00.0	11			
12	171 20.3 +03.3	N	05 58.1 -00.1	264 49.8 +02.3	S	22 37.8 -00.1	257 13.6 +02.4	S	21 22.5 +00.0	12			
13	186 23.6 +03.2	N	05 58.0 -00.2	279 52.1 +02.3	S	22 37.7 +00.0	272 16.0 +02.5	S	21 22.5 +00.0	13			
14	201 26.8 +03.2	N	05 57.8 -00.1	294 54.4 +02.3	S	22 37.7 +00.0	287 18.5 +02.4	S	21 22.5 +00.0	14			
15	216 30.0 +03.2	N	05 57.7 -00.2	309 56.7 +02.2	S	22 37.7 +00.0	302 20.9 +02.4	S	21 22.5 +00.0	15			
16	231 33.2 +03.2	N	05 57.5 -00.1	324 58.9 +02.3	S	22 37.7 +00.0	317 23.3 +02.5	S	21 22.5 +00.0	16			
17	246 36.4 +03.3	N	05 57.4 -00.2	340 01.2 +02.3	S	22 37.7 -00.1	332 25.8 +02.4	S	21 22.5 +00.0	17			
18	261 39.7 +03.2	N	05 57.2 -00.1	355 03.5 +02.2	S	22 37.6 +00.0	347 28.2 +02.4	S	21 22.5 +00.0	18			
19	276 42.9 +03.2	N	05 57.1 -00.2	10 05.7 +02.3	S	22 37.6 +00.0	2 30.6 +02.5	S	21 22.5 +00.0	19			
20	291 46.1 +03.2	N	05 56.9 -00.2	25 08.0 +02.3	S	22 37.6 +00.0	17 33.1 +02.4	S	21 22.5 +00.0	20			
21	306 49.3 +03.2	N	05 56.7 -00.1	40 10.3 +02.3	S	22 37.6 -00.1	32 35.5 +02.4	S	21 22.5 -00.1	21			
22	321 52.5 +03.3	N	05 56.6 -00.2	55 12.6 +02.2	S	22 37.5 +00.0	47 37.9 +02.5	S	21 22.4 +00.0	22			
23	336 55.8 +03.2	N	05 56.4 -00.1	70 14.8 +02.3	S	22 37.5 +00.0	62 40.4 +02.4	S	21 22.4 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'4 00'4 00'4 00'4 00'4 00'4			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 337° 337° 337° 337° 337° 337°			SHA 070° 070° 070° 070° 070° 070°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 00:37			Greenwich Culmination Time: 18:19			Greenwich Culmination Time: 18:49						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 58.4 +00.2	S	05 12.6 +00.9	219 20.1 -00.4	N	10 41.0 -00.9	318 52.9 -27.4	N	17 40.8 +08.9	00			
01	197 58.6 +00.1	S	05 13.5 +01.0	234 19.7 -00.4	N	10 40.1 -01.0	333 25.5 -27.4	N	17 49.7 +08.8	01			
02	212 58.7 +00.2	S	05 14.5 +00.9	249 19.3 -00.3	N	10 39.1 -00.9	347 58.1 -27.5	N	17 58.5 +08.7	02			
03	227 58.9 +00.2	S	05 15.4 +01.0	264 19.0 -00.4	N	10 38.2 -00.9	2 30.6 -27.5	N	18 07.2 +08.6	03			
04	242 59.1 +00.2	S	05 16.4 +00.9	279 18.6 -00.4	N	10 37.3 -01.0	17 03.1 -27.6	N	18 15.8 +08.6	04			
05	257 59.3 +00.2	S	05 17.3 +01.0	294 18.2 -00.3	N	10 36.3 -00.9	31 35.5 -27.7	N	18 24.4 +08.4	05			
06	272 59.5 +00.2	S	05 18.3 +01.0	309 17.9 -00.4	N	10 35.4 -00.9	46 07.8 -27.7	N	18 32.8 +08.5	06			
07	287 59.7 +00.1	S	05 19.3 +00.9	324 17.5 -00.4	N	10 34.5 -01.0	60 40.1 -27.8	N	18 41.3 +08.3	07			
08	302 59.8 +00.2	S	05 20.2 +01.0	339 17.1 -00.3	N	10 33.5 -00.9	75 12.3 -27.8	N	18 49.6 +08.2	08			
09	318 00.0 +00.2	S	05 21.2 +00.9	354 16.8 -00.4	N	10 32.6 -00.9	89 44.5 -27.9	N	18 57.8 +08.2	09			
10	333 00.2 +00.2	S	05 22.1 +01.0	9 16.4 -00.4	N	10 31.7 -01.0	104 16.6 -28.0	N	19 06.0 +08.1	10			
11	348 00.4 +00.2	S	05 23.1 +00.9	24 16.0 -00.3	N	10 30.7 -00.9	118 48.6 -28.0	N	19 14.1 +08.0	11			
12	3 00.6 +00.2	S	05 24.0 +01.0	39 15.7 -00.4	N	10 29.8 -01.0	133 20.6 -28.1	N	19 22.1 +08.0	12			
13	18 00.8 +00.1	S	05 25.0 +01.0	54 15.3 -00.4	N	10 28.8 -00.9	147 52.5 -28.1	N	19 30.1 +07.8	13			
14	33 00.9 +00.2	S	05 26.0 +00.9	69 14.9 -00.3	N	10 27.9 -00.9	162 24.4 -28.2	N	19 37.9 +07.8	14			
15	48 01.1 +00.2	S	05 26.9 +01.0	84 14.6 -00.4	N	10 27.0 -01.0	176 56.2 -28.3	N	19 45.7 +07.7	15			
16	63 01.3 +00.2	S	05 27.9 +00.9	99 14.2 -00.4	N	10 26.0 -00.9	191 27.9 -28.3	N	19 53.4 +07.6	16			
17	78 01.5 +00.2	S	05 28.8 +01.0	114 13.8 -00.3	N	10 25.1 -01.0	205 59.6 -28.4	N	20 01.0 +07.5	17			
18	93 01.7 +00.1	S	05 29.8 +00.9	129 13.5 -00.4	N	10 24.1 -00.9	220 31.2 -28.5	N	20 08.5 +07.4	18			
19	108 01.8 +00.2	S	05 30.7 +01.0	144 13.1 -00.4	N	10 23.2 -00.9	235 02.7 -28.5	N	20 15.9 +07.3	19			
20	123 02.0 +00.2	S	05 31.7 +01.0	159 12.7 -00.3	N	10 22.3 -01.0	249 34.2 -28.6	N	20 23.2 +07.3	20			
21	138 02.2 +00.2	S	05 32.7 +00.9	174 12.4 -00.4	N	10 21.3 -00.9	264 05.6 -28.7	N	20 30.5 +07.2	21			
22	153 02.4 +00.2	S	05 33.6 +01.0	189 12.0 -00.4	N	10 20.4 -01.0	278 36.9 -28.7	N	20 37.7 +07.0	22			
23	168 02.6 +00.1	S	05 34.6 +00.9	204 11.6 -00.3	N	10 19.4 -00.9	293 08.2 -28.8	N	20 44.7 +07.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'0 16'0 16'0			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 14'8 14'8 14'8 14'8 14'8 14'9						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'2 54'3 54'3 54'4 54'4 54'5						
	SHA 168° 168° 167° 167° 167° 167°			SHA 204° 204° 204° 204° 203° 203°			SHA 303° 301° 299° 297° 295° 293°						
	Greenwich Culmination Time: 11:47			Greenwich Culmination Time: 09:22			Greenwich Culmination Time: 02:49						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	351 59.0 +03.2	N	05 56.3 -00.2	85 17.1 +02.3	S	22 37.5 +00.0	77 42.8 +02.4	S	21 22.4 +00.0	00			
01	7 02.2 +03.2	N	05 56.1 -00.1	100 19.4 +02.2	S	22 37.5 -00.1	92 45.2 +02.5	S	21 22.4 +00.0	01			
02	22 05.4 +03.3	N	05 56.0 -00.2	115 21.6 +02.3	S	22 37.4 +00.0	107 47.7 +02.4	S	21 22.4 +00.0	02			
03	37 08.7 +03.2	N	05 55.8 -00.1	130 23.9 +02.3	S	22 37.4 +00.0	122 50.1 +02.4	S	21 22.4 +00.0	03			
04	52 11.9 +03.2	N	05 55.7 -00.2	145 26.2 +02.3	S	22 37.4 +00.0	137 52.5 +02.5	S	21 22.4 +00.0	04			
05	67 15.1 +03.3	N	05 55.5 -00.2	160 28.5 +02.2	S	22 37.4 +00.0	152 55.0 +02.4	S	21 22.4 +00.0	05			
06	82 18.4 +03.2	N	05 55.3 -00.1	175 30.7 +02.3	S	22 37.4 -00.1	167 57.4 +02.4	S	21 22.4 +00.0	06			
07	97 21.6 +03.2	N	05 55.2 -00.2	190 33.0 +02.3	S	22 37.3 +00.0	182 59.8 +02.5	S	21 22.4 +00.0	07			
08	112 24.8 +03.2	N	05 55.0 -00.1	205 35.3 +02.2	S	22 37.3 +00.0	198 02.3 +02.4	S	21 22.4 +00.0	08			
09	127 28.0 +03.3	N	05 54.9 -00.2	220 37.5 +02.3	S	22 37.3 +00.0	213 04.7 +02.4	S	21 22.4 +00.0	09			
10	142 31.3 +03.2	N	05 54.7 -00.1	235 39.8 +02.3	S	22 37.3 -00.1	228 07.1 +02.5	S	21 22.4 +00.0	10			
11	157 34.5 +03.2	N	05 54.6 -00.2	250 42.1 +02.2	S	22 37.2 +00.0	243 09.6 +02.4	S	21 22.4 +00.0	11			
12	172 37.7 +03.3	N	05 54.4 -00.1	265 44.3 +02.3	S	22 37.2 +00.0	258 12.0 +02.4	S	21 22.4 +00.0	12			
13	187 41.0 +03.2	N	05 54.3 -00.2	280 46.6 +02.3	S	22 37.2 +00.0	273 14.4 +02.5	S	21 22.4 +00.0	13			
14	202 44.2 +03.2	N	05 54.1 -00.2	295 48.9 +02.2	S	22 37.2 -00.1	288 16.9 +02.4	S	21 22.4 +00.0	14			
15	217 47.4 +03.3	N	05 53.9 -00.1	310 51.1 +02.3	S	22 37.1 +00.0	303 19.3 +02.4	S	21 22.4 +00.0	15			
16	232 50.7 +03.2	N	05 53.8 -00.2	325 53.4 +02.3	S	22 37.1 +00.0	318 21.7 +02.5	S	21 22.4 +00.0	16			
17	247 53.9 +03.2	N	05 53.6 -00.1	340 55.7 +02.2	S	22 37.1 +00.0	333 24.2 +02.4	S	21 22.4 +00.0	17			
18	262 57.1 +03.3	N	05 53.5 -00.2	355 57.9 +02.3	S	22 37.1 -00.1	348 26.6 +02.4	S	21 22.4 +00.0	18			
19	278 00.4 +03.2	N	05 53.3 -00.1	11 00.2 +02.3	S	22 37.0 +00.0	3 29.0 +02.5	S	21 22.4 +00.0	19			
20	293 03.6 +03.2	N	05 53.2 -00.2	26 02.5 +02.2	S	22 37.0 +00.0	18 31.5 +02.4	S	21 22.4 +00.0	20			
21	308 06.8 +03.3	N	05 53.0 -00.2	41 04.7 +02.3	S	22 37.0 +00.0	33 33.9 +02.4	S	21 22.4 +00.0	21			
22	323 10.1 +03.2	N	05 52.8 -00.1	56 07.0 +02.3	S	22 37.0 +00.0	48 36.3 +02.4	S	21 22.4 +00.0	22			
23	338 13.3 +03.2	N	05 52.7 -00.2	71 09.3 +02.2	S	22 37.0 -00.1	63 38.7 +02.5	S	21 22.4 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'4 00'4 00'4 00'4 00'4 00'4			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 337° 337° 337° 337° 337° 337°			SHA 070° 070° 070° 070° 070° 070°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 00:31			Greenwich Culmination Time: 18:16			Greenwich Culmination Time: 18:46						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 67%				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 02.7 +00.2	S	05 35.5 +01.0	219 11.3 -00.4	N	10 18.5 -01.0	307 39.4 -28.8	N	20 51.7 +06.9				
01	198 02.9 +00.2	S	05 36.5 +00.9	234 10.9 -00.4	N	10 17.5 -00.9	322 10.6 -28.9	N	20 58.6 +06.8				
02	213 03.1 +00.2	S	05 37.4 +01.0	249 10.5 -00.3	N	10 16.6 -01.0	336 41.7 -29.0	N	21 05.4 +06.7				
03	228 03.3 +00.2	S	05 38.4 +00.9	264 10.2 -00.4	N	10 15.6 -00.9	351 12.7 -29.1	N	21 12.1 +06.6				
04	243 03.5 +00.1	S	05 39.3 +01.0	279 09.8 -00.4	N	10 14.7 -01.0	5 43.6 -29.1	N	21 18.7 +06.6				
05	258 03.6 +00.2	S	05 40.3 +00.9	294 09.4 -00.3	N	10 13.7 -00.9	20 14.5 -29.1	N	21 25.3 +06.4				
06	273 03.8 +00.2	S	05 41.2 +01.0	309 09.1 -00.4	N	10 12.8 -01.0	34 45.4 -29.3	N	21 31.7 +06.3				
07	288 04.0 +00.2	S	05 42.2 +01.0	324 08.7 -00.4	N	10 11.8 -00.9	49 16.1 -29.3	N	21 38.0 +06.3				
08	303 04.2 +00.2	S	05 43.2 +00.9	339 08.3 -00.3	N	10 10.9 -00.9	63 46.8 -29.3	N	21 44.3 +06.1				
09	318 04.4 +00.1	S	05 44.1 +01.0	354 08.0 -00.4	N	10 10.0 -01.0	78 17.5 -29.4	N	21 50.4 +06.0				
10	333 04.5 +00.2	S	05 45.1 +00.9	9 07.6 -00.4	N	10 09.0 -01.0	92 48.1 -29.5	N	21 56.4 +06.0				
11	348 04.7 +00.2	S	05 46.0 +01.0	24 07.2 -00.3	N	10 08.0 -00.9	107 18.6 -29.6	N	22 02.4 +05.8				
12	3 04.9 +00.2	S	05 47.0 +00.9	39 06.9 -00.4	N	10 07.1 -01.0	121 49.0 -29.6	N	22 08.2 +05.8				
13	18 05.1 +00.1	S	05 47.9 +01.0	54 06.5 -00.3	N	10 06.1 -00.9	136 19.4 -29.7	N	22 14.0 +05.6				
14	33 05.2 +00.2	S	05 48.9 +00.9	69 06.2 -00.4	N	10 05.2 -01.0	150 49.7 -29.7	N	22 19.6 +05.6				
15	48 05.4 +00.2	S	05 49.8 +01.0	84 05.8 -00.4	N	10 04.2 -00.9	165 20.0 -29.8	N	22 25.2 +05.4				
16	63 05.6 +00.2	S	05 50.8 +00.9	99 05.4 -00.3	N	10 03.3 -01.0	179 50.2 -29.9	N	22 30.6 +05.3				
17	78 05.8 +00.1	S	05 51.7 +01.0	114 05.1 -00.4	N	10 02.3 -00.9	194 20.3 -30.0	N	22 35.9 +05.3				
18	93 05.9 +00.2	S	05 52.7 +00.9	129 04.7 -00.4	N	10 01.4 -01.0	208 50.3 -30.0	N	22 41.2 +05.1				
19	108 06.1 +00.2	S	05 53.6 +01.0	144 04.3 -00.3	N	10 00.4 -00.9	223 20.3 -30.0	N	22 46.3 +05.0				
20	123 06.3 +00.2	S	05 54.6 +01.0	159 04.0 -00.4	N	09 59.5 -01.0	237 50.3 -30.1	N	22 51.3 +04.9				
21	138 06.5 +00.2	S	05 55.6 +00.9	174 03.6 -00.4	N	09 58.5 -00.9	252 20.2 -30.2	N	22 56.2 +04.8				
22	153 06.7 +00.1	S	05 56.5 +01.0	189 03.2 -00.3	N	09 57.6 -01.0	266 50.0 -30.3	N	23 01.0 +04.7				
23	168 06.8 +00.2	S	05 57.5 +00.9	204 02.9 -00.4	N	09 56.6 -01.0	281 19.7 -30.3	N	23 05.7 +04.6				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'0 16'0 16'0			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 14'9 14'9 14'9 14'9 15'0 15'0						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'6 54'6 54'7 54'8 54'9 55'0						
	SHA 167° 167° 167° 166° 166° 166°			SHA 203° 203° 203° 202° 202° 202°			SHA 291° 288° 286° 284° 282° 280°						
	Greenwich Culmination Time: 11:47			Greenwich Culmination Time: 09:23			Greenwich Culmination Time: 03:36						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	353 16.5 +03.3	N	05 52.5 -00.1	86 11.5 +02.3	S	22 36.9 +00.0	78 41.2 +02.4	S	21 22.4 +00.0				
01	8 19.8 +03.2	N	05 52.4 -00.2	101 13.8 +02.2	S	22 36.9 +00.0	93 43.6 +02.4	S	21 22.4 -00.1				
02	23 23.0 +03.3	N	05 52.2 -00.1	116 16.0 +02.3	S	22 36.9 +00.0	108 46.0 +02.5	S	21 22.3 +00.0				
03	38 26.3 +03.2	N	05 52.1 -00.2	131 18.3 +02.3	S	22 36.9 -00.1	123 48.5 +02.4	S	21 22.3 +00.0				
04	53 29.5 +03.2	N	05 51.9 -00.1	146 20.6 +02.2	S	22 36.8 +00.0	138 50.9 +02.4	S	21 22.3 +00.0				
05	68 32.7 +03.3	N	05 51.8 -00.2	161 22.8 +02.3	S	22 36.8 +00.0	153 53.3 +02.5	S	21 22.3 +00.0				
06	83 36.0 +03.2	N	05 51.6 -00.2	176 25.1 +02.3	S	22 36.8 +00.0	168 55.8 +02.4	S	21 22.3 +00.0				
07	98 39.2 +03.2	N	05 51.4 -00.1	191 27.4 +02.2	S	22 36.8 -00.1	183 58.2 +02.4	S	21 22.3 +00.0				
08	113 42.4 +03.3	N	05 51.3 -00.2	206 29.6 +02.3	S	22 36.7 +00.0	199 00.6 +02.4	S	21 22.3 +00.0				
09	128 45.7 +03.2	N	05 51.1 -00.1	221 31.9 +02.2	S	22 36.7 +00.0	214 03.0 +02.5	S	21 22.3 +00.0				
10	143 48.9 +03.3	N	05 51.0 -00.2	236 34.1 +02.3	S	22 36.7 +00.0	229 05.5 +02.4	S	21 22.3 +00.0				
11	158 52.2 +03.2	N	05 50.8 -00.1	251 36.4 +02.3	S	22 36.7 -00.1	244 07.9 +02.4	S	21 22.3 +00.0				
12	173 55.4 +03.3	N	05 50.7 -00.2	266 38.7 +02.2	S	22 36.6 +00.0	259 10.3 +02.4	S	21 22.3 +00.0				
13	188 58.7 +03.2	N	05 50.5 -00.2	281 40.9 +02.3	S	22 36.6 +00.0	274 12.7 +02.5	S	21 22.3 +00.0				
14	204 01.9 +03.2	N	05 50.3 -00.1	296 43.2 +02.2	S	22 36.6 +00.0	289 15.2 +02.4	S	21 22.3 +00.0				
15	219 05.1 +03.3	N	05 50.2 -00.2	311 45.4 +02.3	S	22 36.6 -00.1	304 17.6 +02.4	S	21 22.3 +00.0				
16	234 08.4 +03.2	N	05 50.0 -00.1	326 47.7 +02.2	S	22 36.5 +00.0	319 20.0 +02.5	S	21 22.3 +00.0				
17	249 11.6 +03.3	N	05 49.9 -00.2	341 49.9 +02.3	S	22 36.5 +00.0	334 22.5 +02.4	S	21 22.3 +00.0				
18	264 14.9 +03.2	N	05 49.7 -00.1	356 52.2 +02.3	S	22 36.5 +00.0	349 24.9 +02.4	S	21 22.3 +00.0				
19	279 18.1 +03.3	N	05 49.6 -00.2	11 54.5 +02.2	S	22 36.5 -00.1	4 27.3 +02.4	S	21 22.3 +00.0				
20	294 21.4 +03.2	N	05 49.4 -00.2	26 56.7 +02.3	S	22 36.4 +00.0	19 29.7 +02.5	S	21 22.3 +00.0				
21	309 24.6 +03.3	N	05 49.2 -00.1	41 59.0 +02.2	S	22 36.4 +00.0	34 32.2 +02.4	S	21 22.3 +00.0				
22	324 27.9 +03.2	N	05 49.1 -00.2	57 01.2 +02.3	S	22 36.4 +00.0	49 34.6 +02.4	S	21 22.3 +00.0				
23	339 31.1 +03.2	N	05 48.9 -00.1	72 03.5 +02.2	S	22 36.4 -00.1	64 37.0 +02.4	S	21 22.3 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'4 00'4 00'4 00'4 00'4 00'4			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 337° 337° 337° 337° 337° 337°			SHA 070° 070° 070° 070° 070° 070°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 00:26			Greenwich Culmination Time: 18:12			Greenwich Culmination Time: 18:42						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 07.0 +00.2	S	05 58.4 +01.0	219 02.5 -00.3	N	09 55.6 -00.9	295 49.4 -30.4	N	23 10.3 +04.5				
01	198 07.2 +00.2	S	05 59.4 +00.9	234 02.2 -00.4	N	09 54.7 -01.0	310 19.0 -30.4	N	23 14.8 +04.3				
02	213 07.4 +00.1	S	06 00.3 +01.0	249 01.8 -00.4	N	09 53.7 -00.9	324 48.6 -30.5	N	23 19.1 +04.3				
03	228 07.5 +00.2	S	06 01.3 +00.9	264 01.4 -00.3	N	09 52.8 -01.0	339 18.1 -30.6	N	23 23.4 +04.1				
04	243 07.7 +00.2	S	06 02.2 +01.0	279 01.1 -00.4	N	09 51.8 -01.0	353 47.5 -30.6	N	23 27.5 +04.1				
05	258 07.9 +00.2	S	06 03.2 +00.9	294 00.7 -00.4	N	09 50.8 -00.9	8 16.9 -30.7	N	23 31.6 +03.9				
06	273 08.1 +00.1	S	06 04.1 +01.0	309 00.3 -00.3	N	09 49.9 -01.0	22 46.2 -30.7	N	23 35.5 +03.8				
07	288 08.2 +00.2	S	06 05.1 +00.9	323 60.0 -00.4	N	09 48.9 -01.0	37 15.5 -30.8	N	23 39.3 +03.7				
08	303 08.4 +00.2	S	06 06.0 +01.0	338 59.6 -00.3	N	09 47.9 -00.9	51 44.7 -30.8	N	23 43.0 +03.5				
09	318 08.6 +00.1	S	06 07.0 +00.9	353 59.3 -00.4	N	09 47.0 -01.0	66 13.9 -30.9	N	23 46.5 +03.5				
10	333 08.7 +00.2	S	06 07.9 +01.0	8 58.9 -00.4	N	09 46.0 -00.9	80 43.0 -31.0	N	23 50.0 +03.3				
11	348 08.9 +00.2	S	06 08.9 +00.9	23 58.5 -00.3	N	09 45.1 -01.0	95 12.0 -31.0	N	23 53.3 +03.3				
12	3 09.1 +00.2	S	06 09.8 +01.0	38 58.2 -00.4	N	09 44.1 -01.0	109 41.0 -31.1	N	23 56.6 +03.1				
13	18 09.3 +00.1	S	06 10.8 +00.9	53 57.8 -00.4	N	09 43.1 -00.9	124 09.9 -31.2	N	23 59.7 +02.9				
14	33 09.4 +00.2	S	06 11.7 +01.0	68 57.4 -00.3	N	09 42.2 -01.0	138 38.7 -31.1	N	24 02.6 +02.9				
15	48 09.6 +00.2	S	06 12.7 +00.9	83 57.1 -00.4	N	09 41.2 -01.0	153 07.6 -31.3	N	24 05.5 +02.7				
16	63 09.8 +00.2	S	06 13.6 +01.0	98 56.7 -00.3	N	09 40.2 -00.9	167 36.3 -31.3	N	24 08.2 +02.7				
17	78 10.0 +00.1	S	06 14.6 +00.9	113 56.4 -00.4	N	09 39.3 -01.0	182 05.0 -31.3	N	24 10.9 +02.5				
18	93 10.1 +00.2	S	06 15.5 +01.0	128 56.0 -00.4	N	09 38.3 -01.0	196 33.7 -31.5	N	24 13.4 +02.4				
19	108 10.3 +00.2	S	06 16.5 +00.9	143 55.6 -00.3	N	09 37.3 -00.9	211 02.2 -31.4	N	24 15.8 +02.2				
20	123 10.5 +00.1	S	06 17.4 +01.0	158 55.3 -00.4	N	09 36.4 -01.0	225 30.8 -31.5	N	24 18.0 +02.1				
21	138 10.6 +00.2	S	06 18.4 +00.9	173 54.9 -00.3	N	09 35.4 -01.0	239 59.3 -31.6	N	24 20.1 +02.0				
22	153 10.8 +00.2	S	06 19.3 +01.0	188 54.6 -00.4	N	09 34.4 -01.0	254 27.7 -31.6	N	24 22.1 +01.9				
23	168 11.0 +00.2	S	06 20.3 +00.9	203 54.2 -00.4	N	09 33.4 -00.9	268 56.1 -31.7	N	24 24.0 +01.8				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'0 16'0 16'0			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'0 15'0 15'1 15'1 15'1 15'1						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 55'1 55'1 55'2 55'3 55'4 55'6						
	SHA 166° 166° 166° 165° 165° 165°			SHA 202° 202° 201° 201° 201° 201°			SHA 278° 275° 273° 271° 269° 266°						
	Greenwich Culmination Time: 11:47			Greenwich Culmination Time: 09:24			Greenwich Culmination Time: 04:25						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	354 34.3 +03.3	N	05 48.8 -00.2	87 05.7 +02.3	S	22 36.3 +00.0	79 39.4 +02.5	S	21 22.3 -00.1				
01	9 37.6 +03.2	N	05 48.6 -00.1	102 08.0 +02.3	S	22 36.3 +00.0	94 41.9 +02.4	S	21 22.2 +00.0				
02	24 40.8 +03.3	N	05 48.5 -00.2	117 10.3 +02.2	S	22 36.3 +00.0	109 44.3 +02.4	S	21 22.2 +00.0				
03	39 44.1 +03.2	N	05 48.3 -00.1	132 12.5 +02.3	S	22 36.3 -00.1	124 46.7 +02.4	S	21 22.2 +00.0				
04	54 47.3 +03.3	N	05 48.2 -00.2	147 14.8 +02.2	S	22 36.2 +00.0	139 49.1 +02.5	S	21 22.2 +00.0				
05	69 50.6 +03.2	N	05 48.0 -00.2	162 17.0 +02.3	S	22 36.2 +00.0	154 51.6 +02.4	S	21 22.2 +00.0				
06	84 53.8 +03.3	N	05 47.8 -00.1	177 19.3 +02.2	S	22 36.2 +00.0	169 54.0 +02.4	S	21 22.2 +00.0				
07	99 57.1 +03.2	N	05 47.7 -00.2	192 21.5 +02.3	S	22 36.2 -00.1	184 56.4 +02.4	S	21 22.2 +00.0				
08	115 00.3 +03.3	N	05 47.5 -00.1	207 23.8 +02.2	S	22 36.1 +00.0	199 58.8 +02.5	S	21 22.2 +00.0				
09	130 03.6 +03.2	N	05 47.4 -00.2	222 26.0 +02.3	S	22 36.1 +00.0	215 01.3 +02.4	S	21 22.2 +00.0				
10	145 06.8 +03.3	N	05 47.2 -00.1	237 28.3 +02.2	S	22 36.1 +00.0	230 03.7 +02.4	S	21 22.2 +00.0				
11	160 10.1 +03.2	N	05 47.1 -00.2	252 30.5 +02.3	S	22 36.1 -00.1	245 06.1 +02.4	S	21 22.2 +00.0				
12	175 13.3 +03.3	N	05 46.9 -00.2	267 32.8 +02.2	S	22 36.0 +00.0	260 08.5 +02.4	S	21 22.2 +00.0				
13	190 16.6 +03.2	N	05 46.7 -00.1	282 35.0 +02.3	S	22 36.0 +00.0	275 10.9 +02.5	S	21 22.2 +00.0				
14	205 19.8 +03.3	N	05 46.6 -00.2	297 37.3 +02.2	S	22 36.0 +00.0	290 13.4 +02.4	S	21 22.2 +00.0				
15	220 23.1 +03.2	N	05 46.4 -00.1	312 39.5 +02.3	S	22 36.0 -00.1	305 15.8 +02.4	S	21 22.2 +00.0				
16	235 26.3 +03.3	N	05 46.3 -00.2	327 41.8 +02.2	S	22 35.9 +00.0	320 18.2 +02.4	S	21 22.2 +00.0				
17	250 29.6 +03.2	N	05 46.1 -00.1	342 44.0 +02.3	S	22 35.9 +00.0	335 20.6 +02.5	S	21 22.2 +00.0				
18	265 32.8 +03.3	N	05 46.0 -00.2	357 46.3 +02.2	S	22 35.9 +00.0	350 23.1 +02.4	S	21 22.2 +00.0				
19	280 36.1 +03.3	N	05 45.8 -00.2	12 48.5 +02.3	S	22 35.9 -00.1	5 25.5 +02.4	S	21 22.2 +00.0				
20	295 39.4 +03.2	N	05 45.6 -00.1	27 50.8 +02.2	S	22 35.8 +00.0	20 27.9 +02.4	S	21 22.2 -00.1				
21	310 42.6 +03.3	N	05 45.5 -00.2	42 53.0 +02.3	S	22 35.8 +00.0	35 30.3 +02.4	S	21 22.1 +00.0				
22	325 45.9 +03.2	N	05 45.3 -00.1	57 55.3 +02.2	S	22 35.8 -00.1	50 32.7 +02.5	S	21 22.1 +00.0				
23	340 49.1 +03.3	N	05 45.2 -00.2	72 57.5 +02.3	S	22 35.7 +00.0	65 35.2 +02.4	S	21 22.1 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'4 00'4 00'4 00'4 00'4 00'4			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 338° 338° 338° 338° 338° 338°			SHA 070° 070° 070° 070° 070° 070°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 00:21			Greenwich Culmination Time: 18:08			Greenwich Culmination Time: 18:38						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183	11.2+00.1	S 06 21.2	+01.0	218	53.8-00.3	N 09 32.5	-01.0	283	24.4-31.7	N 24 25.8	+01.6	00
01	198	11.3+00.2	S 06 22.2	+00.9	233	53.5-00.4	N 09 31.5	-01.0	297	52.7-31.7	N 24 27.4	+01.5	01
02	213	11.5+00.2	S 06 23.1	+01.0	248	53.1-00.4	N 09 30.5	-00.9	312	21.0-31.8	N 24 28.9	+01.4	02
03	228	11.7+00.1	S 06 24.1	+00.9	263	52.7-00.3	N 09 29.6	-01.0	326	49.2-31.9	N 24 30.3	+01.3	03
04	243	11.8+00.2	S 06 25.0	+01.0	278	52.4-00.4	N 09 28.6	-01.0	341	17.3-31.9	N 24 31.6	+01.1	04
05	258	12.0+00.2	S 06 26.0	+00.9	293	52.0-00.3	N 09 27.6	-01.0	355	45.4-31.9	N 24 32.7	+01.0	05
06	273	12.2+00.1	S 06 26.9	+01.0	308	51.7-00.4	N 09 26.6	-00.9	10	13.5-32.0	N 24 33.7	+00.8	06
07	288	12.3+00.2	S 06 27.9	+00.9	323	51.3-00.4	N 09 25.7	-01.0	24	41.5-32.0	N 24 34.5	+00.8	07
08	303	12.5+00.2	S 06 28.8	+01.0	338	50.9-00.3	N 09 24.7	-01.0	39	09.5-32.1	N 24 35.3	+00.6	08
09	318	12.7+00.2	S 06 29.8	+00.9	353	50.6-00.4	N 09 23.7	-01.0	53	37.4-32.1	N 24 35.9	+00.4	09
10	333	12.9+00.1	S 06 30.7	+01.0	8	50.2-00.3	N 09 22.7	-01.0	68	05.3-32.2	N 24 36.3	+00.4	10
11	348	13.0+00.2	S 06 31.7	+00.9	23	49.9-00.4	N 09 21.7	-00.9	82	33.1-32.2	N 24 36.7	+00.2	11
12	3	13.2+00.2	S 06 32.6	+01.0	38	49.5-00.3	N 09 20.8	-01.0	97	00.9-32.2	N 24 36.9	+00.1	12
13	18	13.4+00.1	S 06 33.6	+00.9	53	49.2-00.4	N 09 19.8	-01.0	111	28.7-32.3	N 24 37.0	-00.1	13
14	33	13.5+00.2	S 06 34.5	+00.9	68	48.8-00.4	N 09 18.8	-01.0	125	56.4-32.3	N 24 36.9	-00.2	14
15	48	13.7+00.2	S 06 35.4	+01.0	83	48.4-00.3	N 09 17.8	-00.9	140	24.1-32.4	N 24 36.7	-00.3	15
16	63	13.9+00.1	S 06 36.4	+00.9	98	48.1-00.4	N 09 16.9	-01.0	154	51.7-32.3	N 24 36.4	-00.4	16
17	78	14.0+00.2	S 06 37.3	+01.0	113	47.7-00.3	N 09 15.9	-01.0	169	19.4-32.5	N 24 36.0	-00.6	17
18	93	14.2+00.2	S 06 38.3	+00.9	128	47.4-00.4	N 09 14.9	-01.0	183	46.9-32.4	N 24 35.4	-00.8	18
19	108	14.4+00.1	S 06 39.2	+01.0	143	47.0-00.4	N 09 13.9	-01.0	198	14.5-32.5	N 24 34.6	-00.8	19
20	123	14.5+00.2	S 06 40.2	+00.9	158	46.6-00.3	N 09 12.9	-01.0	212	42.0-32.5	N 24 33.8	-01.0	20
21	138	14.7+00.2	S 06 41.1	+01.0	173	46.3-00.4	N 09 11.9	-00.9	227	09.5-32.6	N 24 32.8	-01.1	21
22	153	14.9+00.1	S 06 42.1	+00.9	188	45.9-00.3	N 09 11.0	-01.0	241	36.9-32.5	N 24 31.7	-01.3	22
23	168	15.0+00.2	S 06 43.0	+01.0	203	45.6-00.4	N 09 10.0	-01.0	256	04.4-32.6	N 24 30.4	-01.4	23
	UT 02 06 10 14 18 22								UT 02 06 10 14 18 22				
	SD 16°0 16°0 16°0 16°0 16°0 16°0								SD 15°2 15°2 15°2 15°3 15°3 15°3				
	HP 00°1 00°1 00°1 00°1 00°1 00°1								HP 55°7 55°8 55°9 56°0 56°2 56°3				
	SHA 165° 165° 165° 165° 164° 164°								SHA 264° 262° 260° 257° 255° 253°				
	Greenwich Culmination Time: 11:47								Greenwich Culmination Time: 09:24				
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	355	52.4+03.2	N 05 45.0	-00.1	87	59.8+02.2	S 22 35.7	+00.0	80	37.6+02.4	S 21 22.1	+00.0	00
01	10	55.6+03.3	N 05 44.9	-00.2	103	02.0+02.3	S 22 35.7	+00.0	95	40.0+02.4	S 21 22.1	+00.0	01
02	25	58.9+03.2	N 05 44.7	-00.2	118	04.3+02.2	S 22 35.7	-00.1	110	42.4+02.5	S 21 22.1	+00.0	02
03	41	02.1+03.3	N 05 44.5	-00.1	133	06.5+02.3	S 22 35.6	+00.0	125	44.9+02.4	S 21 22.1	+00.0	03
04	56	05.4+03.3	N 05 44.4	-00.2	148	08.8+02.2	S 22 35.6	+00.0	140	47.3+02.4	S 21 22.1	+00.0	04
05	71	08.7+03.2	N 05 44.2	-00.1	163	11.0+02.3	S 22 35.6	+00.0	155	49.7+02.4	S 21 22.1	+00.0	05
06	86	11.9+03.3	N 05 44.1	-00.2	178	13.3+02.2	S 22 35.6	-00.1	170	52.1+02.4	S 21 22.1	+00.0	06
07	101	15.2+03.2	N 05 43.9	-00.1	193	15.5+02.3	S 22 35.5	+00.0	185	54.5+02.5	S 21 22.1	+00.0	07
08	116	18.4+03.3	N 05 43.8	-00.2	208	17.8+02.2	S 22 35.5	+00.0	200	57.0+02.4	S 21 22.1	+00.0	08
09	131	21.7+03.2	N 05 43.6	-00.1	223	20.0+02.2	S 22 35.5	+00.0	215	59.4+02.4	S 21 22.1	+00.0	09
10	146	24.9+03.3	N 05 43.5	-00.2	238	22.2+02.3	S 22 35.5	-00.1	231	01.8+02.4	S 21 22.1	+00.0	10
11	161	28.2+03.3	N 05 43.3	-00.2	253	24.5+02.2	S 22 35.4	+00.0	246	04.2+02.4	S 21 22.1	+00.0	11
12	176	31.5+03.2	N 05 43.1	-00.1	268	26.7+02.3	S 22 35.4	+00.0	261	06.6+02.4	S 21 22.1	+00.0	12
13	191	34.7+03.3	N 05 43.0	-00.2	283	29.0+02.2	S 22 35.4	-00.1	276	09.0+02.5	S 21 22.1	+00.0	13
14	206	38.0+03.2	N 05 42.8	-00.1	298	31.2+02.3	S 22 35.3	+00.0	291	11.5+02.4	S 21 22.1	-00.1	14
15	221	41.2+03.3	N 05 42.7	-00.2	313	33.5+02.2	S 22 35.3	+00.0	306	13.9+02.4	S 21 22.0	+00.0	15
16	236	44.5+03.3	N 05 42.5	-00.1	328	35.7+02.2	S 22 35.3	+00.0	321	16.3+02.4	S 21 22.0	+00.0	16
17	251	47.8+03.2	N 05 42.4	-00.2	343	37.9+02.3	S 22 35.3	-00.1	336	18.7+02.4	S 21 22.0	+00.0	17
18	266	51.0+03.3	N 05 42.2	-00.2	358	40.2+02.2	S 22 35.2	+00.0	351	21.1+02.5	S 21 22.0	+00.0	18
19	281	54.3+03.2	N 05 42.0	-00.1	13	42.4+02.3	S 22 35.2	+00.0	6	23.6+02.4	S 21 22.0	+00.0	19
20	296	57.5+03.3	N 05 41.9	-00.2	28	44.7+02.2	S 22 35.2	+00.0	21	26.0+02.4	S 21 22.0	+00.0	20
21	312	00.8+03.3	N 05 41.7	-00.1	43	46.9+02.3	S 22 35.2	-00.1	36	28.4+02.4	S 21 22.0	+00.0	21
22	327	04.1+03.2	N 05 41.6	-00.2	58	49.2+02.2	S 22 35.1	+00.0	51	30.8+02.4	S 21 22.0	+00.0	22
23	342	07.3+03.3	N 05 41.4	-00.1	73	51.4+02.2	S 22 35.1	+00.0	66	33.2+02.4	S 21 22.0	+00.0	23
	UT 02 06 10 14 18 22				UT 02 06 10 14 18 22				UT 02 06 10 14 18 22				
	SD 00°2 00°2 00°2 00°2 00°2 00°2				SD 00°3 00°3 00°3 00°3 00°3 00°3				SD 00°1 00°1 00°1 00°1 00°1 00°1				
	HP 00°4 00°4 00°4 00°4 00°4 00°4				HP 00°0 00°0 00°0 00°0 00°0 00°0				HP 00°0 00°0 00°0 00°0 00°0 00°0				
	SHA 338° 338° 338° 338° 338° 338°				SHA 070° 070° 070° 070° 070° 070°				SHA 063° 063° 063° 063° 063° 063°				
	Greenwich Culmination Time: 00:16				Greenwich Culmination Time: 18:05				Greenwich Culmination Time: 18:34				

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 15.2 +00.2	S	06 44.0 +00.9	218 45.2 -00.4	N	09 09.0 -01.0	270 31.8 -32.7	N	24 29.0 -01.6	00			
01	198 15.4 +00.1	S	06 44.9 +01.0	233 44.8 -00.3	N	09 08.0 -01.0	284 59.1 -32.6	N	24 27.4 -01.6	01			
02	213 15.5 +00.2	S	06 45.9 +00.9	248 44.5 -00.4	N	09 07.0 -01.0	299 26.5 -32.7	N	24 25.8 -01.9	02			
03	228 15.7 +00.2	S	06 46.8 +00.9	263 44.1 -00.3	N	09 06.0 -01.0	313 53.8 -32.7	N	24 23.9 -01.9	03			
04	243 15.9 +00.1	S	06 47.7 +01.0	278 43.8 -00.4	N	09 05.0 -00.9	328 21.1 -32.8	N	24 22.0 -02.1	04			
05	258 16.0 +00.2	S	06 48.7 +00.9	293 43.4 -00.3	N	09 04.1 -01.0	342 48.3 -32.7	N	24 19.9 -02.2	05			
06	273 16.2 +00.1	S	06 49.6 +01.0	308 43.1 -00.4	N	09 03.1 -01.0	357 15.6 -32.8	N	24 17.7 -02.4	06			
07	288 16.3 +00.2	S	06 50.6 +00.9	323 42.7 -00.4	N	09 02.1 -01.0	11 42.8 -32.8	N	24 15.3 -02.5	07			
08	303 16.5 +00.2	S	06 51.5 +01.0	338 42.3 -00.3	N	09 01.1 -01.0	26 10.0 -32.9	N	24 12.8 -02.6	08			
09	318 16.7 +00.1	S	06 52.5 +00.9	353 42.0 -00.4	N	09 00.1 -01.0	40 37.1 -32.8	N	24 10.2 -02.8	09			
10	333 16.8 +00.2	S	06 53.4 +01.0	8 41.6 -00.3	N	08 59.1 -01.0	55 04.3 -32.9	N	24 07.4 -02.9	10			
11	348 17.0 +00.2	S	06 54.4 +00.9	23 41.3 -00.4	N	08 58.1 -01.0	69 31.4 -32.9	N	24 04.5 -03.1	11			
12	3 17.2 +00.1	S	06 55.3 +00.9	38 40.9 -00.3	N	08 57.1 -01.0	83 58.5 -32.9	N	24 01.4 -03.2	12			
13	18 17.3 +00.2	S	06 56.2 +01.0	53 40.6 -00.4	N	08 56.1 -00.9	98 25.6 -32.9	N	23 58.2 -03.3	13			
14	33 17.5 +00.2	S	06 57.2 +00.9	68 40.2 -00.4	N	08 55.2 -01.0	112 52.7 -32.9	N	23 54.9 -03.5	14			
15	48 17.7 +00.1	S	06 58.1 +01.0	83 39.8 -00.3	N	08 54.2 -01.0	127 19.8 -32.9	N	23 51.4 -03.6	15			
16	63 17.8 +00.2	S	06 59.1 +00.9	98 39.5 -00.4	N	08 53.2 -01.0	141 46.9 -33.0	N	23 47.8 -03.8	16			
17	78 18.0 +00.1	S	07 00.0 +01.0	113 39.1 -00.3	N	08 52.2 -01.0	156 13.9 -33.0	N	23 44.0 -03.9	17			
18	93 18.1 +00.2	S	07 01.0 +00.9	128 38.8 -00.4	N	08 51.2 -01.0	170 40.9 -32.9	N	23 40.1 -04.0	18			
19	108 18.3 +00.2	S	07 01.9 +00.9	143 38.4 -00.3	N	08 50.2 -01.0	185 08.0 -33.0	N	23 36.1 -04.2	19			
20	123 18.5 +00.1	S	07 02.8 +01.0	158 38.1 -00.4	N	08 49.2 -01.0	199 35.0 -33.0	N	23 31.9 -04.3	20			
21	138 18.6 +00.2	S	07 03.8 +00.9	173 37.7 -00.4	N	08 48.2 -01.0	214 02.0 -33.0	N	23 27.6 -04.5	21			
22	153 18.8 +00.1	S	07 04.7 +01.0	188 37.3 -00.3	N	08 47.2 -01.0	228 29.0 -33.1	N	23 23.1 -04.6	22			
23	168 18.9 +00.2	S	07 05.7 +00.9	203 37.0 -00.4	N	08 46.2 -01.0	242 55.9 -33.0	N	23 18.5 -04.7	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'0 16'0 16'0			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'4 15'4 15'4 15'5 15'5 15'6						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 56'4 56'6 56'7 56'8 57'0 57'1						
	SHA 164° 164° 164° 164° 164° 163°			SHA 200° 199° 199° 199° 199° 199°			SHA 250° 248° 246° 243° 241° 239°						
	Greenwich Culmination Time: 11:46			Greenwich Culmination Time: 09:25			Greenwich Culmination Time: 06:11						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	357 10.6 +03.2	N	05 41.3 -00.2	88 53.6 +02.3	S	22 35.1 +00.0	81 35.6 +02.5	S	21 22.0 +00.0	00			
01	12 13.8 +03.3	N	05 41.1 -00.1	103 55.9 +02.2	S	22 35.1 -00.1	96 38.1 +02.4	S	21 22.0 +00.0	01			
02	27 17.1 +03.3	N	05 41.0 -00.2	118 58.1 +02.3	S	22 35.0 +00.0	111 40.5 +02.4	S	21 22.0 +00.0	02			
03	42 20.4 +03.2	N	05 40.8 -00.2	134 00.4 +02.2	S	22 35.0 +00.0	126 42.9 +02.4	S	21 22.0 +00.0	03			
04	57 23.6 +03.3	N	05 40.6 -00.1	149 02.6 +02.2	S	22 35.0 -00.1	141 45.3 +02.4	S	21 22.0 +00.0	04			
05	72 26.9 +03.2	N	05 40.5 -00.2	164 04.8 +02.3	S	22 34.9 +00.0	156 47.7 +02.4	S	21 22.0 +00.0	05			
06	87 30.1 +03.3	N	05 40.3 -00.1	179 07.1 +02.2	S	22 34.9 +00.0	171 50.1 +02.5	S	21 22.0 -00.1	06			
07	102 33.4 +03.3	N	05 40.2 -00.2	194 09.3 +02.2	S	22 34.9 +00.0	186 52.6 +02.4	S	21 21.9 +00.0	07			
08	117 36.7 +03.2	N	05 40.0 -00.1	209 11.5 +02.3	S	22 34.9 -00.1	201 55.0 +02.4	S	21 21.9 +00.0	08			
09	132 39.9 +03.3	N	05 39.9 -00.2	224 13.8 +02.2	S	22 34.8 +00.0	216 57.4 +02.4	S	21 21.9 +00.0	09			
10	147 43.2 +03.3	N	05 39.7 -00.1	239 16.0 +02.3	S	22 34.8 +00.0	231 59.8 +02.4	S	21 21.9 +00.0	10			
11	162 46.5 +03.2	N	05 39.6 -00.2	254 18.3 +02.2	S	22 34.8 -00.1	247 02.2 +02.4	S	21 21.9 +00.0	11			
12	177 49.7 +03.3	N	05 39.4 -00.2	269 20.5 +02.2	S	22 34.7 +00.0	262 04.6 +02.4	S	21 21.9 +00.0	12			
13	192 53.0 +03.3	N	05 39.2 -00.1	284 22.7 +02.3	S	22 34.7 +00.0	277 07.0 +02.5	S	21 21.9 +00.0	13			
14	207 56.3 +03.2	N	05 39.1 -00.2	299 25.0 +02.2	S	22 34.7 +00.0	292 09.5 +02.4	S	21 21.9 +00.0	14			
15	222 59.5 +03.3	N	05 38.9 -00.1	314 27.2 +02.2	S	22 34.7 -00.1	307 11.9 +02.4	S	21 21.9 +00.0	15			
16	238 02.8 +03.2	N	05 38.8 -00.2	329 29.4 +02.3	S	22 34.6 +00.0	322 14.3 +02.4	S	21 21.9 +00.0	16			
17	253 06.0 +03.3	N	05 38.6 -00.1	344 31.7 +02.2	S	22 34.6 +00.0	337 16.7 +02.4	S	21 21.9 +00.0	17			
18	268 09.3 +03.3	N	05 38.5 -00.2	359 33.9 +02.2	S	22 34.6 +00.0	352 19.1 +02.4	S	21 21.9 +00.0	18			
19	283 12.6 +03.2	N	05 38.3 -00.1	14 36.1 +02.3	S	22 34.6 -00.1	7 21.5 +02.4	S	21 21.9 +00.0	19			
20	298 15.8 +03.3	N	05 38.2 -00.2	29 38.4 +02.2	S	22 34.5 +00.0	22 23.9 +02.4	S	21 21.9 +00.0	20			
21	313 19.1 +03.3	N	05 38.0 -00.2	44 40.6 +02.2	S	22 34.5 +00.0	37 26.3 +02.5	S	21 21.9 -00.1	21			
22	328 22.4 +03.2	N	05 37.8 -00.1	59 42.8 +02.3	S	22 34.5 -00.1	52 28.8 +02.4	S	21 21.8 +00.0	22			
23	343 25.6 +03.3	N	05 37.7 -00.2	74 45.1 +02.2	S	22 34.4 +00.0	67 31.2 +02.4	S	21 21.8 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'4 00'4 00'4 00'4 00'4 00'4			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 338° 338° 338° 338° 338° 338°			SHA 070° 070° 070° 070° 070° 070°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 00:11			Greenwich Culmination Time: 18:01			Greenwich Culmination Time: 18:30						

UT	Sun				Venus				Moon				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	183 19.1 +00.2	S	07 06.6 +01.0	218 36.6 -00.3	N	08 45.2 -01.0	257 22.9 -33.0	N	23 13.8 -04.9	00										
01	198 19.3 +00.1	S	07 07.6 +00.9	233 36.3 -00.4	N	08 44.2 -01.0	271 49.9 -33.0	N	23 08.9 -05.0	01										
02	213 19.4 +00.2	S	07 08.5 +00.9	248 35.9 -00.3	N	08 43.2 -01.0	286 16.9 -33.1	N	23 03.9 -05.2	02										
03	228 19.6 +00.1	S	07 09.4 +01.0	263 35.6 -00.4	N	08 42.2 -01.0	300 43.8 -33.0	N	22 58.7 -05.3	03										
04	243 19.7 +00.2	S	07 10.4 +00.9	278 35.2 -00.3	N	08 41.2 -01.0	315 10.8 -33.0	N	22 53.4 -05.4	04										
05	258 19.9 +00.2	S	07 11.3 +01.0	293 34.9 -00.4	N	08 40.2 -01.0	329 37.8 -33.1	N	22 48.0 -05.6	05										
06	273 20.1 +00.1	S	07 12.3 +00.9	308 34.5 -00.4	N	08 39.2 -01.0	344 04.7 -33.0	N	22 42.4 -05.7	06										
07	288 20.2 +00.2	S	07 13.2 +00.9	323 34.1 -00.3	N	08 38.2 -01.0	358 31.7 -33.1	N	22 36.7 -05.8	07										
08	303 20.4 +00.1	S	07 14.1 +01.0	338 33.8 -00.4	N	08 37.2 -01.0	12 58.6 -33.0	N	22 30.9 -06.0	08										
09	318 20.5 +00.2	S	07 15.1 +00.9	353 33.4 -00.3	N	08 36.2 -01.0	27 25.6 -33.1	N	22 24.9 -06.1	09										
10	333 20.7 +00.2	S	07 16.0 +01.0	8 33.1 -00.4	N	08 35.2 -01.0	41 52.5 -33.0	N	22 18.8 -06.3	10										
11	348 20.9 +00.1	S	07 17.0 +00.9	23 32.7 -00.3	N	08 34.2 -01.0	56 19.5 -33.0	N	22 12.5 -06.4	11										
12	3 21.0 +00.2	S	07 17.9 +00.9	38 32.4 -00.4	N	08 33.2 -01.0	70 46.5 -33.1	N	22 06.1 -06.5	12										
13	18 21.2 +00.1	S	07 18.8 +01.0	53 32.0 -00.3	N	08 32.2 -01.0	85 13.4 -33.0	N	21 59.6 -06.7	13										
14	33 21.3 +00.2	S	07 19.8 +00.9	68 31.7 -00.4	N	08 31.2 -01.0	99 40.4 -33.0	N	21 52.9 -06.8	14										
15	48 21.5 +00.1	S	07 20.7 +01.0	83 31.3 -00.4	N	08 30.2 -01.0	114 07.4 -33.0	N	21 46.1 -06.9	15										
16	63 21.6 +00.2	S	07 21.7 +00.9	98 30.9 -00.3	N	08 29.2 -01.0	128 34.4 -33.0	N	21 39.2 -07.1	16										
17	78 21.8 +00.2	S	07 22.6 +00.9	113 30.6 -00.4	N	08 28.2 -01.0	143 01.4 -33.0	N	21 32.1 -07.2	17										
18	93 22.0 +00.1	S	07 23.5 +01.0	128 30.2 -00.3	N	08 27.2 -01.0	157 28.4 -33.0	N	21 24.9 -07.4	18										
19	108 22.1 +00.2	S	07 24.5 +00.9	143 29.9 -00.4	N	08 26.2 -01.0	171 55.4 -33.0	N	21 17.5 -07.5	19										
20	123 22.3 +00.1	S	07 25.4 +00.9	158 29.5 -00.3	N	08 25.2 -01.0	186 22.4 -32.9	N	21 10.0 -07.6	20										
21	138 22.4 +00.2	S	07 26.3 +01.0	173 29.2 -00.4	N	08 24.2 -01.0	200 49.5 -33.0	N	21 02.4 -07.7	21										
22	153 22.6 +00.1	S	07 27.3 +00.9	188 28.8 -00.3	N	08 23.1 -01.0	215 16.5 -33.0	N	20 54.7 -07.9	22										
23	168 22.7 +00.2	S	07 28.2 +01.0	203 28.5 -00.4	N	08 22.1 -01.0	229 43.5 -32.9	N	20 46.8 -08.0	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	16°0	16°0	16°0	16°0	16°0	16°0	SD	00°1	00°1	00°1	00°1	00°1	00°1	SD						
HP	00°1	00°1	00°1	00°1	00°1	00°1	HP	00°1	00°1	00°1	00°1	00°1	00°1	HP						
SHA	163°	163°	163°	163°	163°	162°	SHA	198°	198°	198°	198°	198°	198°	SHA						
Greenwich Culmination Time: 11:46							Greenwich Culmination Time: 09:25							Greenwich Culmination Time: 07:06						

UT	Mars				Jupiter				Saturn				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	358 28.9 +03.3	N	05 37.5 -00.1	89 47.3 +02.2	S	22 34.4 +00.0	82 33.6 +02.4	S	21 21.8 +00.0	00										
01	13 32.2 +03.2	N	05 37.4 -00.2	104 49.5 +02.3	S	22 34.4 +00.0	97 36.0 +02.4	S	21 21.8 +00.0	01										
02	28 35.4 +03.3	N	05 37.2 -00.1	119 51.8 +02.2	S	22 34.4 -00.1	112 38.4 +02.4	S	21 21.8 +00.0	02										
03	43 38.7 +03.3	N	05 37.1 -00.2	134 54.0 +02.2	S	22 34.3 +00.0	127 40.8 +02.4	S	21 21.8 +00.0	03										
04	58 42.0 +03.2	N	05 36.9 -00.1	149 56.2 +02.3	S	22 34.3 +00.0	142 43.2 +02.4	S	21 21.8 +00.0	04										
05	73 45.2 +03.3	N	05 36.8 -00.2	164 58.5 +02.2	S	22 34.3 -00.1	157 45.6 +02.5	S	21 21.8 +00.0	05										
06	88 48.5 +03.3	N	05 36.6 -00.1	180 00.7 +02.2	S	22 34.2 +00.0	172 48.1 +02.4	S	21 21.8 +00.0	06										
07	103 51.8 +03.2	N	05 36.5 -00.2	195 02.9 +02.3	S	22 34.2 +00.0	187 50.5 +02.4	S	21 21.8 +00.0	07										
08	118 55.0 +03.3	N	05 36.3 -00.2	210 05.2 +02.2	S	22 34.2 +00.0	202 52.9 +02.4	S	21 21.8 +00.0	08										
09	133 58.3 +03.3	N	05 36.1 -00.1	225 07.4 +02.2	S	22 34.2 -00.1	217 55.3 +02.4	S	21 21.8 +00.0	09										
10	149 01.6 +03.2	N	05 36.0 -00.2	240 09.6 +02.2	S	22 34.1 +00.0	232 57.7 +02.4	S	21 21.8 +00.0	10										
11	164 04.8 +03.3	N	05 35.8 -00.1	255 11.8 +02.3	S	22 34.1 +00.0	248 00.1 +02.4	S	21 21.8 -00.1	11										
12	179 08.1 +03.3	N	05 35.7 -00.2	270 14.1 +02.2	S	22 34.1 -00.1	263 02.5 +02.4	S	21 21.7 +00.0	12										
13	194 11.4 +03.2	N	05 35.5 -00.1	285 16.3 +02.2	S	22 34.0 +00.0	278 04.9 +02.4	S	21 21.7 +00.0	13										
14	209 14.6 +03.3	N	05 35.4 -00.2	300 18.5 +02.3	S	22 34.0 +00.0	293 07.3 +02.4	S	21 21.7 +00.0	14										
15	224 17.9 +03.3	N	05 35.2 -00.1	315 20.8 +02.2	S	22 34.0 -00.1	308 09.7 +02.5	S	21 21.7 +00.0	15										
16	239 21.2 +03.2	N	05 35.1 -00.2	330 23.0 +02.2	S	22 33.9 +00.0	323 12.2 +02.4	S	21 21.7 +00.0	16										
17	254 24.4 +03.3	N	05 34.9 -00.1	345 25.2 +02.2	S	22 33.9 +00.0	338 14.6 +02.4	S	21 21.7 +00.0	17										
18	269 27.7 +03.3	N	05 34.8 -00.2	0 27.4 +02.3	S	22 33.9 +00.0	353 17.0 +02.4	S	21 21.7 +00.0	18										
19	284 31.0 +03.2	N	05 34.6 -00.1	15 29.7 +02.2	S	22 33.9 -00.1	8 19.4 +02.4	S	21 21.7 +00.0	19										
20	299 34.2 +03.3	N	05 34.5 -00.2	30 31.9 +02.2	S	22 33.8 +00.0	23 21.8 +02.4	S	21 21.7 +00.0	20										
21	314 37.5 +03.3	N	05 34.3 -00.1	45 34.1 +02.2	S	22 33.8 +00.0	38 24.2 +02.4	S	21 21.7 +00.0	21										
22	329 40.8 +03.2	N	05 34.2 -00.2	60 36.3 +02.3	S	22 33.8 -00.1	53 26.6 +02.4	S	21 21.7 +00.0	22										
23	344 44.0 +03.3	N	05 34.0 -00.2	75 38.6 +02.2	S	22 33.7 +00.0	68 29.0 +02.4	S	21 21.7 +00.0	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	00°2	00°2	00°2	00°2	00°2	00°2	SD	00°3	00°3	00°3	00°3	00°3	00°3	SD						
HP	00°4	00°4	00°4	00°4	00°4	00°4	HP	00°0	00°0	00°0	00°0	00°0	00°0	HP						
SHA	338°	339°	339°	339°	339°	339°	SHA	070°	070°	070°	070°	070°	070°	SHA						
Greenwich Culmination Time: 00:06							Greenwich Culmination Time: 17:58							Greenwich Culmination Time: 18:26						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 22.9 +00.1	S	07 29.2 +00.9	218 28.1 -00.3	N	08 21.1 -01.0	244 10.6 -32.9	N	20 38.8 -08.2				
01	198 23.0 +00.2	S	07 30.1 +00.9	233 27.8 -00.4	N	08 20.1 -01.0	258 37.7 -32.9	N	20 30.6 -08.3				
02	213 23.2 +00.2	S	07 31.0 +01.0	248 27.4 -00.3	N	08 19.1 -01.0	273 04.8 -32.9	N	20 22.3 -08.4				
03	228 23.4 +00.1	S	07 32.0 +00.9	263 27.1 -00.4	N	08 18.1 -01.0	287 31.9 -32.9	N	20 13.9 -08.5				
04	243 23.5 +00.2	S	07 32.9 +00.9	278 26.7 -00.4	N	08 17.1 -01.0	301 59.0 -32.9	N	20 05.4 -08.7				
05	258 23.7 +00.1	S	07 33.8 +01.0	293 26.3 -00.3	N	08 16.1 -01.0	316 26.1 -32.9	N	19 56.7 -08.8				
06	273 23.8 +00.2	S	07 34.8 +00.9	308 26.0 -00.4	N	08 15.1 -01.0	330 53.2 -32.8	N	19 47.9 -08.9				
07	288 24.0 +00.1	S	07 35.7 +01.0	323 25.6 -00.3	N	08 14.1 -01.1	345 20.4 -32.8	N	19 39.0 -09.1				
08	303 24.1 +00.2	S	07 36.7 +00.9	338 25.3 -00.4	N	08 13.0 -01.0	359 47.6 -32.8	N	19 29.9 -09.2				
09	318 24.3 +00.1	S	07 37.6 +00.9	353 24.9 -00.3	N	08 12.0 -01.0	14 14.8 -32.8	N	19 20.7 -09.3				
10	333 24.4 +00.2	S	07 38.5 +01.0	8 24.6 -00.4	N	08 11.0 -01.0	28 42.0 -32.8	N	19 11.4 -09.4				
11	348 24.6 +00.1	S	07 39.5 +00.9	23 24.2 -00.3	N	08 10.0 -01.0	43 09.2 -32.8	N	19 02.0 -09.6				
12	3 24.7 +00.2	S	07 40.4 +00.9	38 23.9 -00.4	N	08 09.0 -01.0	57 36.4 -32.7	N	18 52.4 -09.7				
13	18 24.9 +00.1	S	07 41.3 +01.0	53 23.5 -00.3	N	08 08.0 -01.0	72 03.7 -32.8	N	18 42.7 -09.8				
14	33 25.0 +00.2	S	07 42.3 +00.9	68 23.2 -00.4	N	08 07.0 -01.1	86 30.9 -32.7	N	18 32.9 -09.9				
15	48 25.2 +00.1	S	07 43.2 +00.9	83 22.8 -00.3	N	08 05.9 -01.0	100 58.2 -32.7	N	18 23.0 -10.1				
16	63 25.3 +00.2	S	07 44.1 +01.0	98 22.5 -00.4	N	08 04.9 -01.0	115 25.5 -32.6	N	18 12.9 -10.2				
17	78 25.5 +00.1	S	07 45.1 +00.9	113 22.1 -00.3	N	08 03.9 -01.0	129 52.9 -32.7	N	18 02.7 -10.2				
18	93 25.6 +00.2	S	07 46.0 +00.9	128 21.8 -00.4	N	08 02.9 -01.0	144 20.2 -32.6	N	17 52.5 -10.5				
19	108 25.8 +00.1	S	07 46.9 +01.0	143 21.4 -00.3	N	08 01.9 -01.0	158 47.6 -32.7	N	17 42.0 -10.5				
20	123 25.9 +00.2	S	07 47.9 +00.9	158 21.1 -00.4	N	08 00.9 -01.1	173 14.9 -32.6	N	17 31.5 -10.7				
21	138 26.1 +00.1	S	07 48.8 +00.9	173 20.7 -00.3	N	07 59.8 -01.0	187 42.3 -32.6	N	17 20.8 -10.7				
22	153 26.2 +00.2	S	07 49.7 +01.0	188 20.4 -00.4	N	07 58.8 -01.0	202 09.7 -32.5	N	17 10.1 -10.9				
23	168 26.4 +00.1	S	07 50.7 +00.9	203 20.0 -00.3	N	07 57.8 -01.0	216 37.2 -32.6	N	16 59.2 -11.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'0 16'0 16'0			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'9 15'9 16'0 16'0 16'0 16'1						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 58'2 58'4 58'6 58'7 58'9 59'0						
	SHA 162° 162° 162° 162° 162° 162°			SHA 197° 197° 197° 197° 197° 196°			SHA 222° 220° 217° 215° 213° 210°						
	Greenwich Culmination Time: 11:46			Greenwich Culmination Time: 09:26			Greenwich Culmination Time: 08:00						
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	359 47.3 +03.3	N	05 33.8 -00.1	90 40.8 +02.2	S	22 33.7 +00.0	83 31.4 +02.4	S	21 21.7 -00.1				
01	14 50.6 +03.2	N	05 33.7 -00.2	105 43.0 +02.2	S	22 33.7 +00.0	98 33.8 +02.4	S	21 21.6 +00.0				
02	29 53.8 +03.3	N	05 33.5 -00.1	120 45.2 +02.3	S	22 33.7 -00.1	113 36.2 +02.4	S	21 21.6 +00.0				
03	44 57.1 +03.3	N	05 33.4 -00.2	135 47.5 +02.2	S	22 33.6 +00.0	128 38.6 +02.5	S	21 21.6 +00.0				
04	60 00.4 +03.3	N	05 33.2 -00.1	150 49.7 +02.2	S	22 33.6 +00.0	143 41.1 +02.4	S	21 21.6 +00.0				
05	75 03.7 +03.2	N	05 33.1 -00.2	165 51.9 +02.2	S	22 33.6 -00.1	158 43.5 +02.4	S	21 21.6 +00.0				
06	90 06.9 +03.3	N	05 32.9 -00.1	180 54.1 +02.3	S	22 33.5 +00.0	173 45.9 +02.4	S	21 21.6 +00.0				
07	105 10.2 +03.3	N	05 32.8 -00.2	195 56.4 +02.2	S	22 33.5 +00.0	188 48.3 +02.4	S	21 21.6 +00.0				
08	120 13.5 +03.2	N	05 32.6 -00.1	210 58.6 +02.2	S	22 33.5 -00.1	203 50.7 +02.4	S	21 21.6 +00.0				
09	135 16.7 +03.3	N	05 32.5 -00.2	226 00.8 +02.2	S	22 33.4 +00.0	218 53.1 +02.4	S	21 21.6 +00.0				
10	150 20.0 +03.3	N	05 32.3 -00.1	241 03.0 +02.2	S	22 33.4 +00.0	233 55.5 +02.4	S	21 21.6 +00.0				
11	165 23.3 +03.2	N	05 32.2 -00.2	256 05.2 +02.3	S	22 33.4 +00.0	248 57.9 +02.4	S	21 21.6 +00.0				
12	180 26.5 +03.3	N	05 32.0 -00.1	271 07.5 +02.2	S	22 33.4 -00.1	264 00.3 +02.4	S	21 21.6 -00.1				
13	195 29.8 +03.3	N	05 31.9 -00.2	286 09.7 +02.2	S	22 33.3 +00.0	279 02.7 +02.4	S	21 21.5 +00.0				
14	210 33.1 +03.2	N	05 31.7 -00.1	301 11.9 +02.2	S	22 33.3 +00.0	294 05.1 +02.4	S	21 21.5 +00.0				
15	225 36.3 +03.3	N	05 31.6 -00.2	316 14.1 +02.3	S	22 33.3 -00.1	309 07.5 +02.4	S	21 21.5 +00.0				
16	240 39.6 +03.3	N	05 31.4 -00.1	331 16.4 +02.2	S	22 33.2 +00.0	324 09.9 +02.4	S	21 21.5 +00.0				
17	255 42.9 +03.2	N	05 31.3 -00.2	346 18.6 +02.2	S	22 33.2 +00.0	339 12.3 +02.4	S	21 21.5 +00.0				
18	270 46.1 +03.3	N	05 31.1 -00.1	1 20.8 +02.2	S	22 33.2 -00.1	354 14.7 +02.4	S	21 21.5 +00.0				
19	285 49.4 +03.3	N	05 31.0 -00.2	16 23.0 +02.2	S	22 33.1 +00.0	9 17.1 +02.4	S	21 21.5 +00.0				
20	300 52.7 +03.2	N	05 30.8 -00.1	31 25.2 +02.2	S	22 33.1 +00.0	24 19.5 +02.5	S	21 21.5 +00.0				
21	315 55.9 +03.3	N	05 30.7 -00.2	46 27.4 +02.3	S	22 33.1 +00.0	39 22.0 +02.4	S	21 21.5 +00.0				
22	330 59.2 +03.3	N	05 30.5 -00.1	61 29.7 +02.2	S	22 33.1 -00.1	54 24.4 +02.4	S	21 21.5 +00.0				
23	346 02.5 +03.2	N	05 30.4 -00.2	76 31.9 +02.2	S	22 33.0 +00.0	69 26.8 +02.4	S	21 21.5 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'4 00'4 00'4 00'4 00'4 00'4			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 339° 339° 339° 339° 339° 339°			SHA 070° 070° 070° 070° 070° 070°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 00:00			Greenwich Culmination Time: 17:54			Greenwich Culmination Time: 18:22						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 26.5 +00.2	S	07 51.6 +00.9	218 19.7 -00.4	N	07 56.8 -01.0	231 04.6 -32.5	N	16 48.2 -11.1	00			
01	198 26.7 +00.1	S	07 52.5 +01.0	233 19.3 -00.3	N	07 55.8 -01.1	245 32.1 -32.5	N	16 37.1 -11.3	01			
02	213 26.8 +00.2	S	07 53.5 +00.9	248 19.0 -00.4	N	07 54.7 -01.0	259 59.6 -32.5	N	16 25.8 -11.3	02			
03	228 27.0 +00.1	S	07 54.4 +00.9	263 18.6 -00.4	N	07 53.7 -01.0	274 27.1 -32.5	N	16 14.5 -11.5	03			
04	243 27.1 +00.2	S	07 55.3 +01.0	278 18.2 -00.3	N	07 52.7 -01.0	288 54.6 -32.4	N	16 03.0 -11.5	04			
05	258 27.3 +00.1	S	07 56.3 +00.9	293 17.9 -00.4	N	07 51.7 -01.1	303 22.2 -32.5	N	15 51.5 -11.7	05			
06	273 27.4 +00.2	S	07 57.2 +00.9	308 17.5 -00.3	N	07 50.6 -01.0	317 49.7 -32.4	N	15 39.8 -11.8	06			
07	288 27.6 +00.1	S	07 58.1 +01.0	323 17.2 -00.4	N	07 49.6 -01.0	332 17.3 -32.4	N	15 28.0 -11.9	07			
08	303 27.7 +00.2	S	07 59.1 +00.9	338 16.8 -00.3	N	07 48.6 -01.0	346 44.9 -32.3	N	15 16.1 -12.0	08			
09	318 27.9 +00.1	S	08 00.0 +00.9	353 16.5 -00.4	N	07 47.6 -01.1	1 12.6 -32.4	N	15 04.1 -12.1	09			
10	333 28.0 +00.2	S	08 00.9 +01.0	8 16.1 -00.3	N	07 46.5 -01.0	15 40.2 -32.3	N	14 52.0 -12.2	10			
11	348 28.2 +00.1	S	08 01.9 +00.9	23 15.8 -00.4	N	07 45.5 -01.0	30 07.9 -32.4	N	14 39.8 -12.3	11			
12	3 28.3 +00.2	S	08 02.8 +00.9	38 15.4 -00.3	N	07 44.5 -01.0	44 35.5 -32.3	N	14 27.5 -12.4	12			
13	18 28.5 +00.1	S	08 03.7 +01.0	53 15.1 -00.4	N	07 43.5 -01.1	59 03.2 -32.2	N	14 15.1 -12.5	13			
14	33 28.6 +00.2	S	08 04.7 +00.9	68 14.7 -00.3	N	07 42.4 -01.0	73 31.0 -32.3	N	14 02.6 -12.6	14			
15	48 28.8 +00.1	S	08 05.6 +00.9	83 14.4 -00.4	N	07 41.4 -01.0	87 58.7 -32.3	N	13 50.0 -12.7	15			
16	63 28.9 +00.2	S	08 06.5 +01.0	98 14.0 -00.3	N	07 40.4 -01.0	102 26.4 -32.2	N	13 37.3 -12.8	16			
17	78 29.1 +00.1	S	08 07.5 +00.9	113 13.7 -00.4	N	07 39.4 -01.1	116 54.2 -32.2	N	13 24.5 -12.9	17			
18	93 29.2 +00.1	S	08 08.4 +00.9	128 13.3 -00.3	N	07 38.3 -01.0	131 22.0 -32.2	N	13 11.6 -13.0	18			
19	108 29.3 +00.2	S	08 09.3 +00.9	143 13.0 -00.4	N	07 37.3 -01.0	145 49.8 -32.2	N	12 58.6 -13.1	19			
20	123 29.5 +00.1	S	08 10.2 +01.0	158 12.6 -00.3	N	07 36.3 -01.1	160 17.6 -32.1	N	12 45.5 -13.2	20			
21	138 29.6 +00.2	S	08 11.2 +00.9	173 12.3 -00.4	N	07 35.2 -01.0	174 45.5 -32.2	N	12 32.3 -13.3	21			
22	153 29.8 +00.1	S	08 12.1 +00.9	188 11.9 -00.3	N	07 34.2 -01.0	189 13.3 -32.1	N	12 19.0 -13.3	22			
23	168 29.9 +00.2	S	08 13.0 +01.0	203 11.6 -00.4	N	07 33.2 -01.1	203 41.2 -32.1	N	12 05.7 -13.5	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'0 16'0 16'0			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'1 16'2 16'2 16'3 16'3 16'3						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 59'2 59'4 59'5 59'7 59'8 59'9						
	SHA 161° 161° 161° 161° 161° 161°			SHA 196° 196° 196° 196° 195° 195°			SHA 208° 206° 203° 201° 199° 196°						
	Greenwich Culmination Time: 11:46			Greenwich Culmination Time: 09:26			Greenwich Culmination Time: 08:54						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	1 05.7 +03.3	N	05 30.2 -00.1	91 34.1 +02.2	S	22 33.0 +00.0	84 29.2 +02.4	S	21 21.5 -00.1	00			
01	16 09.0 +03.3	N	05 30.1 -00.2	106 36.3 +02.2	S	22 33.0 -00.1	99 31.6 +02.4	S	21 21.4 +00.0	01			
02	31 12.3 +03.2	N	05 29.9 -00.1	121 38.5 +02.3	S	22 32.9 +00.0	114 34.0 +02.4	S	21 21.4 +00.0	02			
03	46 15.5 +03.3	N	05 29.8 -00.2	136 40.8 +02.2	S	22 32.9 +00.0	129 36.4 +02.4	S	21 21.4 +00.0	03			
04	61 18.8 +03.3	N	05 29.6 -00.1	151 43.0 +02.2	S	22 32.9 -00.1	144 38.8 +02.4	S	21 21.4 +00.0	04			
05	76 22.1 +03.3	N	05 29.5 -00.2	166 45.2 +02.2	S	22 32.8 +00.0	159 41.2 +02.4	S	21 21.4 +00.0	05			
06	91 25.4 +03.2	N	05 29.3 -00.1	181 47.4 +02.2	S	22 32.8 +00.0	174 43.6 +02.4	S	21 21.4 +00.0	06			
07	106 28.6 +03.3	N	05 29.2 -00.2	196 49.6 +02.2	S	22 32.8 -00.1	189 46.0 +02.4	S	21 21.4 +00.0	07			
08	121 31.9 +03.3	N	05 29.0 -00.1	211 51.8 +02.2	S	22 32.7 +00.0	204 48.4 +02.4	S	21 21.4 +00.0	08			
09	136 35.2 +03.2	N	05 28.9 -00.2	226 54.0 +02.3	S	22 32.7 +00.0	219 50.8 +02.4	S	21 21.4 +00.0	09			
10	151 38.4 +03.3	N	05 28.7 -00.1	241 56.3 +02.2	S	22 32.7 -00.1	234 53.2 +02.4	S	21 21.4 +00.0	10			
11	166 41.7 +03.3	N	05 28.6 -00.2	256 58.5 +02.2	S	22 32.6 +00.0	249 55.6 +02.4	S	21 21.4 +00.0	11			
12	181 45.0 +03.2	N	05 28.4 -00.1	272 00.7 +02.2	S	22 32.6 +00.0	264 58.0 +02.4	S	21 21.4 -00.1	12			
13	196 48.2 +03.3	N	05 28.3 -00.2	287 02.9 +02.2	S	22 32.6 +00.0	280 00.4 +02.4	S	21 21.3 +00.0	13			
14	211 51.5 +03.3	N	05 28.1 -00.1	302 05.1 +02.2	S	22 32.6 -00.1	295 02.8 +02.4	S	21 21.3 +00.0	14			
15	226 54.8 +03.2	N	05 28.0 -00.2	317 07.3 +02.2	S	22 32.5 +00.0	310 05.2 +02.4	S	21 21.3 +00.0	15			
16	241 58.0 +03.3	N	05 27.8 -00.1	332 09.5 +02.3	S	22 32.5 +00.0	325 07.6 +02.4	S	21 21.3 +00.0	16			
17	257 01.3 +03.3	N	05 27.7 -00.2	347 11.8 +02.2	S	22 32.5 -00.1	340 10.0 +02.4	S	21 21.3 +00.0	17			
18	272 04.6 +03.2	N	05 27.5 -00.1	2 14.0 +02.2	S	22 32.4 +00.0	355 12.4 +02.4	S	21 21.3 +00.0	18			
19	287 07.8 +03.3	N	05 27.4 -00.2	17 16.2 +02.2	S	22 32.4 +00.0	10 14.8 +02.4	S	21 21.3 +00.0	19			
20	302 11.1 +03.3	N	05 27.2 -00.1	32 18.4 +02.2	S	22 32.4 -00.1	25 17.2 +02.4	S	21 21.3 +00.0	20			
21	317 14.4 +03.2	N	05 27.1 -00.2	47 20.6 +02.2	S	22 32.3 +00.0	40 19.6 +02.4	S	21 21.3 +00.0	21			
22	332 17.6 +03.3	N	05 26.9 -00.1	62 22.8 +02.2	S	22 32.3 +00.0	55 22.0 +02.4	S	21 21.3 +00.0	22			
23	347 20.9 +03.3	N	05 26.8 -00.2	77 25.0 +02.2	S	22 32.3 -00.1	70 24.4 +02.4	S	21 21.3 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'4 00'4 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 339° 339° 339° 339° 339° 339°			SHA 070° 070° 070° 069° 069° 069°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 23:50			Greenwich Culmination Time: 17:51			Greenwich Culmination Time: 18:19						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 30.1 +00.1	S	08 14.0 +00.9	218 11.2 -00.3	N	07 32.1 -01.0	218 09.1 -32.1	N	11 52.2 -13.5				
01	198 30.2 +00.2	S	08 14.9 +00.9	233 10.9 -00.4	N	07 31.1 -01.0	232 37.0 -32.1	N	11 38.7 -13.7				
02	213 30.4 +00.1	S	08 15.8 +00.9	248 10.5 -00.3	N	07 30.1 -01.1	247 04.9 -32.1	N	11 25.0 -13.7				
03	228 30.5 +00.1	S	08 16.7 +01.0	263 10.2 -00.4	N	07 29.0 -01.0	261 32.8 -32.1	N	11 11.3 -13.7				
04	243 30.6 +00.2	S	08 17.7 +00.9	278 09.8 -00.3	N	07 28.0 -01.0	276 00.7 -32.0	N	10 57.6 -13.9				
05	258 30.8 +00.1	S	08 18.6 +00.9	293 09.5 -00.4	N	07 27.0 -01.1	290 28.7 -32.1	N	10 43.7 -14.0				
06	273 30.9 +00.2	S	08 19.5 +01.0	308 09.1 -00.3	N	07 25.9 -01.0	304 56.6 -32.0	N	10 29.7 -14.0				
07	288 31.1 +00.1	S	08 20.5 +00.9	323 08.8 -00.4	N	07 24.9 -01.0	319 24.6 -32.0	N	10 15.7 -14.1				
08	303 31.2 +00.1	S	08 21.4 +00.9	338 08.4 -00.3	N	07 23.9 -01.1	333 52.6 -32.0	N	10 01.6 -14.2				
09	318 31.3 +00.2	S	08 22.3 +00.9	353 08.1 -00.4	N	07 22.8 -01.0	348 20.6 -32.0	N	09 47.4 -14.2				
10	333 31.5 +00.1	S	08 23.2 +01.0	8 07.7 -00.3	N	07 21.8 -01.0	2 48.6 -32.0	N	09 33.2 -14.4				
11	348 31.6 +00.2	S	08 24.2 +00.9	23 07.4 -00.3	N	07 20.8 -01.1	17 16.6 -31.9	N	09 18.8 -14.4				
12	3 31.8 +00.1	S	08 25.1 +00.9	38 07.1 -00.4	N	07 19.7 -01.0	31 44.7 -32.0	N	09 04.4 -14.4				
13	18 31.9 +00.2	S	08 26.0 +00.9	53 06.7 -00.3	N	07 18.7 -01.0	46 12.7 -31.9	N	08 50.0 -14.6				
14	33 32.1 +00.1	S	08 26.9 +01.0	68 06.4 -00.4	N	07 17.7 -01.1	60 40.8 -32.0	N	08 35.4 -14.6				
15	48 32.2 +00.1	S	08 27.9 +00.9	83 06.0 -00.3	N	07 16.6 -01.0	75 08.8 -31.9	N	08 20.8 -14.7				
16	63 32.3 +00.2	S	08 28.8 +00.9	98 05.7 -00.4	N	07 15.6 -01.1	89 36.9 -32.0	N	08 06.1 -14.7				
17	78 32.5 +00.1	S	08 29.7 +00.9	113 05.3 -00.3	N	07 14.5 -01.0	104 04.9 -31.9	N	07 51.4 -14.8				
18	93 32.6 +00.2	S	08 30.6 +01.0	128 05.0 -00.4	N	07 13.5 -01.0	118 33.0 -31.9	N	07 36.6 -14.8				
19	108 32.8 +00.1	S	08 31.6 +00.9	143 04.6 -00.3	N	07 12.5 -01.1	133 01.1 -31.9	N	07 21.8 -15.0				
20	123 32.9 +00.1	S	08 32.5 +00.9	158 04.3 -00.4	N	07 11.4 -01.0	147 29.2 -31.9	N	07 06.8 -14.9				
21	138 33.0 +00.2	S	08 33.4 +00.9	173 03.9 -00.3	N	07 10.4 -01.1	161 57.3 -32.0	N	06 51.9 -15.1				
22	153 33.2 +00.1	S	08 34.3 +01.0	188 03.6 -00.4	N	07 09.3 -01.0	176 25.3 -31.9	N	06 36.8 -15.0				
23	168 33.3 +00.1	S	08 35.3 +00.9	203 03.2 -00.3	N	07 08.3 -01.1	190 53.4 -31.9	N	06 21.8 -15.2				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'0 16'0 16'0			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'4 16'4 16'4 16'5 16'5 16'5						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 60'1 60'2 60'3 60'5 60'6 60'7						
	SHA 160° 160° 160° 160° 160° 160°			SHA 195° 195° 195° 195° 194° 194°			SHA 194° 192° 189° 187° 185° 183°						
	Greenwich Culmination Time: 11:45			Greenwich Culmination Time: 09:27			Greenwich Culmination Time: 09:48						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	2 24.2 +03.2	N	05 26.6 -00.1	92 27.2 +02.2	S	22 32.2 +00.0	85 26.8 +02.4	S	21 21.2 +00.0				
01	17 27.4 +03.3	N	05 26.5 -00.2	107 29.4 +02.2	S	22 32.2 +00.0	100 29.2 +02.4	S	21 21.2 +00.0				
02	32 30.7 +03.3	N	05 26.3 -00.1	122 31.6 +02.3	S	22 32.2 -00.1	115 31.6 +02.4	S	21 21.2 +00.0				
03	47 34.0 +03.2	N	05 26.2 -00.2	137 33.9 +02.2	S	22 32.1 +00.0	130 34.0 +02.4	S	21 21.2 +00.0				
04	62 37.2 +03.3	N	05 26.0 -00.1	152 36.1 +02.2	S	22 32.1 +00.0	145 36.4 +02.4	S	21 21.2 +00.0				
05	77 40.5 +03.2	N	05 25.9 -00.1	167 38.3 +02.2	S	22 32.1 -00.1	160 38.8 +02.4	S	21 21.2 +00.0				
06	92 43.7 +03.3	N	05 25.8 -00.2	182 40.5 +02.2	S	22 32.0 +00.0	175 41.2 +02.4	S	21 21.2 +00.0				
07	107 47.0 +03.3	N	05 25.6 -00.1	197 42.7 +02.2	S	22 32.0 +00.0	190 43.6 +02.4	S	21 21.2 +00.0				
08	122 50.3 +03.2	N	05 25.5 -00.2	212 44.9 +02.2	S	22 32.0 +00.0	205 46.0 +02.4	S	21 21.2 +00.0				
09	137 53.5 +03.3	N	05 25.3 -00.1	227 47.1 +02.2	S	22 32.0 -00.1	220 48.4 +02.4	S	21 21.2 -00.1				
10	152 56.8 +03.3	N	05 25.2 -00.2	242 49.3 +02.2	S	22 31.9 +00.0	235 50.8 +02.4	S	21 21.1 +00.0				
11	168 00.1 +03.2	N	05 25.0 -00.1	257 51.5 +02.2	S	22 31.9 +00.0	250 53.2 +02.4	S	21 21.1 +00.0				
12	183 03.3 +03.3	N	05 24.9 -00.2	272 53.7 +02.2	S	22 31.9 -00.1	265 55.6 +02.4	S	21 21.1 +00.0				
13	198 06.6 +03.3	N	05 24.7 -00.1	287 55.9 +02.2	S	22 31.8 +00.0	280 58.0 +02.4	S	21 21.1 +00.0				
14	213 09.9 +03.2	N	05 24.6 -00.2	302 58.1 +02.2	S	22 31.8 +00.0	296 00.4 +02.4	S	21 21.1 +00.0				
15	228 13.1 +03.3	N	05 24.4 -00.1	318 00.3 +02.2	S	22 31.8 -00.1	311 02.8 +02.4	S	21 21.1 +00.0				
16	243 16.4 +03.3	N	05 24.3 -00.1	333 02.5 +02.3	S	22 31.7 +00.0	326 05.2 +02.4	S	21 21.1 +00.0				
17	258 19.7 +03.2	N	05 24.2 -00.2	348 04.8 +02.2	S	22 31.7 +00.0	341 07.6 +02.4	S	21 21.1 +00.0				
18	273 22.9 +03.3	N	05 24.0 -00.1	3 07.0 +02.2	S	22 31.7 -00.1	356 10.0 +02.3	S	21 21.1 +00.0				
19	288 26.2 +03.2	N	05 23.9 -00.2	18 09.2 +02.2	S	22 31.6 +00.0	11 12.3 +02.4	S	21 21.1 +00.0				
20	303 29.4 +03.3	N	05 23.7 -00.1	33 11.4 +02.2	S	22 31.6 +00.0	26 14.7 +02.4	S	21 21.1 -00.1				
21	318 32.7 +03.3	N	05 23.6 -00.2	48 13.6 +02.2	S	22 31.6 -00.1	41 17.1 +02.4	S	21 21.0 +00.0				
22	333 36.0 +03.2	N	05 23.4 -00.1	63 15.8 +02.2	S	22 31.5 +00.0	56 19.5 +02.4	S	21 21.0 +00.0				
23	348 39.2 +03.3	N	05 23.3 -00.2	78 18.0 +02.2	S	22 31.5 +00.0	71 21.9 +02.4	S	21 21.0 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 339° 339° 340° 340° 340° 340°			SHA 069° 069° 069° 069° 069° 069°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 23:45			Greenwich Culmination Time: 17:47			Greenwich Culmination Time: 18:15						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 33.4 +00.2	S	08 36.2 +00.9	218 02.9 -00.4	N	07 07.2 -01.0	205 21.5 -31.9	N	06 06.6 -15.1	00			
01	198 33.6 +00.1	S	08 37.1 +00.9	233 02.5 -00.3	N	07 06.2 -01.0	219 49.6 -31.9	N	05 51.5 -15.3	01			
02	213 33.7 +00.2	S	08 38.0 +01.0	248 02.2 -00.4	N	07 05.2 -01.1	234 17.7 -31.9	N	05 36.2 -15.3	02			
03	228 33.9 +00.1	S	08 39.0 +00.9	263 01.8 -00.3	N	07 04.1 -01.0	248 45.8 -31.9	N	05 20.9 -15.3	03			
04	243 34.0 +00.1	S	08 39.9 +00.9	278 01.5 -00.4	N	07 03.1 -01.1	263 13.9 -31.9	N	05 05.6 -15.4	04			
05	258 34.1 +00.2	S	08 40.8 +00.9	293 01.1 -00.3	N	07 02.0 -01.0	277 42.0 -31.9	N	04 50.2 -15.4	05			
06	273 34.3 +00.1	S	08 41.7 +01.0	308 00.8 -00.4	N	07 01.0 -01.1	292 10.1 -31.9	N	04 34.8 -15.4	06			
07	288 34.4 +00.1	S	08 42.7 +00.9	323 00.4 -00.3	N	06 59.9 -01.0	306 38.2 -31.9	N	04 19.4 -15.5	07			
08	303 34.5 +00.2	S	08 43.6 +00.9	338 00.1 -00.4	N	06 58.9 -01.1	321 06.3 -31.9	N	04 03.9 -15.5	08			
09	318 34.7 +00.1	S	08 44.5 +00.9	352 59.7 -00.3	N	06 57.8 -01.0	335 34.4 -32.0	N	03 48.4 -15.6	09			
10	333 34.8 +00.1	S	08 45.4 +00.9	7 59.4 -00.3	N	06 56.8 -01.0	350 02.4 -31.9	N	03 32.8 -15.6	10			
11	348 34.9 +00.2	S	08 46.3 +01.0	22 59.1 -00.4	N	06 55.8 -01.1	4 30.5 -31.9	N	03 17.2 -15.6	11			
12	3 35.1 +00.1	S	08 47.3 +00.9	37 58.7 -00.3	N	06 54.7 -01.0	18 58.6 -32.0	N	03 01.6 -15.7	12			
13	18 35.2 +00.1	S	08 48.2 +00.9	52 58.4 -00.4	N	06 53.7 -01.1	33 26.6 -31.9	N	02 45.9 -15.7	13			
14	33 35.3 +00.2	S	08 49.1 +00.9	67 58.0 -00.3	N	06 52.6 -01.0	47 54.7 -32.0	N	02 30.2 -15.7	14			
15	48 35.5 +00.1	S	08 50.0 +00.9	82 57.7 -00.4	N	06 51.6 -01.1	62 22.7 -32.0	N	02 14.5 -15.7	15			
16	63 35.6 +00.2	S	08 50.9 +01.0	97 57.3 -00.3	N	06 50.5 -01.0	76 50.7 -32.0	N	01 58.8 -15.8	16			
17	78 35.8 +00.1	S	08 51.9 +00.9	112 57.0 -00.4	N	06 49.5 -01.1	91 18.7 -32.0	N	01 43.0 -15.7	17			
18	93 35.9 +00.1	S	08 52.8 +00.9	127 56.6 -00.3	N	06 48.4 -01.0	105 46.7 -32.0	N	01 27.3 -15.8	18			
19	108 36.0 +00.2	S	08 53.7 +00.9	142 56.3 -00.4	N	06 47.4 -01.1	120 14.7 -32.0	N	01 11.5 -15.8	19			
20	123 36.2 +00.1	S	08 54.6 +00.9	157 55.9 -00.3	N	06 46.3 -01.0	134 42.7 -32.0	N	00 55.7 -15.9	20			
21	138 36.3 +00.1	S	08 55.5 +01.0	172 55.6 -00.4	N	06 45.3 -01.1	149 10.7 -32.1	N	00 39.8 -15.8	21			
22	153 36.4 +00.1	S	08 56.5 +00.9	187 55.2 -00.3	N	06 44.2 -01.0	163 38.6 -32.0	N	00 24.0 -15.9	22			
23	168 36.5 +00.2	S	08 57.4 +00.9	202 54.9 -00.3	N	06 43.2 -01.1	178 06.6 -32.1	N	00 08.1 -15.8	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'0 16'0 16'0			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'6 16'6 16'6 16'6 16'7 16'7						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 60'8 60'9 61'0 61'1 61'1 61'2						
	SHA 159° 159° 159° 159° 159° 159°			SHA 194° 194° 194° 193° 193° 193°			SHA 180° 178° 176° 173° 171° 169°						
	Greenwich Culmination Time: 11:45			Greenwich Culmination Time: 09:28			Greenwich Culmination Time: 10:41						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	3 42.5 +03.3	N	05 23.1 -00.1	93 20.2 +02.2	S	22 31.5 -00.1	86 24.3 +02.4	S	21 21.0 +00.0	00			
01	18 45.8 +03.2	N	05 23.0 -00.1	108 22.4 +02.2	S	22 31.4 +00.0	101 26.7 +02.4	S	21 21.0 +00.0	01			
02	33 49.0 +03.3	N	05 22.9 -00.2	123 24.6 +02.2	S	22 31.4 +00.0	116 29.1 +02.4	S	21 21.0 +00.0	02			
03	48 52.3 +03.2	N	05 22.7 -00.1	138 26.8 +02.2	S	22 31.4 -00.1	131 31.5 +02.4	S	21 21.0 +00.0	03			
04	63 55.5 +03.3	N	05 22.6 -00.2	153 29.0 +02.2	S	22 31.3 +00.0	146 33.9 +02.4	S	21 21.0 +00.0	04			
05	78 58.8 +03.3	N	05 22.4 -00.1	168 31.2 +02.2	S	22 31.3 +00.0	161 36.3 +02.4	S	21 21.0 -00.1	05			
06	94 02.1 +03.2	N	05 22.3 -00.2	183 33.4 +02.2	S	22 31.3 -00.1	176 38.7 +02.4	S	21 20.9 +00.0	06			
07	109 05.3 +03.3	N	05 22.1 -00.1	198 35.6 +02.2	S	22 31.2 +00.0	191 41.1 +02.4	S	21 20.9 +00.0	07			
08	124 08.6 +03.2	N	05 22.0 -00.1	213 37.8 +02.2	S	22 31.2 +00.0	206 43.5 +02.4	S	21 20.9 +00.0	08			
09	139 11.8 +03.3	N	05 21.9 -00.2	228 40.0 +02.2	S	22 31.2 -00.1	221 45.9 +02.4	S	21 20.9 +00.0	09			
10	154 15.1 +03.3	N	05 21.7 -00.1	243 42.2 +02.2	S	22 31.1 +00.0	236 48.3 +02.4	S	21 20.9 +00.0	10			
11	169 18.4 +03.2	N	05 21.6 -00.2	258 44.4 +02.2	S	22 31.1 +00.0	251 50.7 +02.3	S	21 20.9 +00.0	11			
12	184 21.6 +03.3	N	05 21.4 -00.1	273 46.6 +02.2	S	22 31.1 -00.1	266 53.0 +02.4	S	21 20.9 +00.0	12			
13	199 24.9 +03.2	N	05 21.3 -00.1	288 48.8 +02.2	S	22 31.0 +00.0	281 55.4 +02.4	S	21 20.9 +00.0	13			
14	214 28.1 +03.3	N	05 21.2 -00.2	303 51.0 +02.2	S	22 31.0 +00.0	296 57.8 +02.4	S	21 20.9 +00.0	14			
15	229 31.4 +03.3	N	05 21.0 -00.1	318 53.2 +02.2	S	22 31.0 -00.1	312 00.2 +02.4	S	21 20.9 -00.1	15			
16	244 34.7 +03.2	N	05 20.9 -00.2	333 55.4 +02.2	S	22 30.9 +00.0	327 02.6 +02.4	S	21 20.8 +00.0	16			
17	259 37.9 +03.3	N	05 20.7 -00.1	348 57.6 +02.2	S	22 30.9 +00.0	342 05.0 +02.4	S	21 20.8 +00.0	17			
18	274 41.2 +03.2	N	05 20.6 -00.1	3 59.8 +02.2	S	22 30.9 -00.1	357 07.4 +02.4	S	21 20.8 +00.0	18			
19	289 44.4 +03.3	N	05 20.5 -00.2	19 02.0 +02.2	S	22 30.8 +00.0	12 09.8 +02.4	S	21 20.8 +00.0	19			
20	304 47.7 +03.2	N	05 20.3 -00.1	34 04.2 +02.2	S	22 30.8 +00.0	27 12.2 +02.4	S	21 20.8 +00.0	20			
21	319 50.9 +03.3	N	05 20.2 -00.2	49 06.4 +02.2	S	22 30.8 -00.1	42 14.6 +02.4	S	21 20.8 +00.0	21			
22	334 54.2 +03.2	N	05 20.0 -00.1	64 08.6 +02.2	S	22 30.7 +00.0	57 17.0 +02.4	S	21 20.8 +00.0	22			
23	349 57.4 +03.3	N	05 19.9 -00.1	79 10.8 +02.2	S	22 30.7 +00.0	72 19.4 +02.3	S	21 20.8 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 340° 340° 340° 340° 340° 340°			SHA 069° 069° 069° 069° 069° 069°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 23:40			Greenwich Culmination Time: 17:44			Greenwich Culmination Time: 18:11						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 36.7 +00.1	S	08 58.3 +00.9	217 54.6 -00.4	N	06 42.1 -01.0	192 34.5 -32.1	S	00 07.7 +15.9	00			
01	198 36.8 +00.1	S	08 59.2 +00.9	232 54.2 -00.3	N	06 41.1 -01.1	207 02.4 -32.1	S	00 23.6 +15.8	01			
02	213 36.9 +00.2	S	09 00.1 +01.0	247 53.9 -00.4	N	06 40.0 -01.1	221 30.3 -32.2	S	00 39.4 +15.9	02			
03	228 37.1 +00.1	S	09 01.1 +00.9	262 53.5 -00.3	N	06 38.9 -01.0	235 58.1 -32.1	S	00 55.3 +15.9	03			
04	243 37.2 +00.1	S	09 02.0 +00.9	277 53.2 -00.4	N	06 37.9 -01.1	250 26.0 -32.2	S	01 11.2 +15.9	04			
05	258 37.3 +00.2	S	09 02.9 +00.9	292 52.8 -00.3	N	06 36.8 -01.0	264 53.8 -32.2	S	01 27.1 +15.9	05			
06	273 37.5 +00.1	S	09 03.8 +00.9	307 52.5 -00.4	N	06 35.8 -01.1	279 21.6 -32.2	S	01 43.0 +15.8	06			
07	288 37.6 +00.1	S	09 04.7 +00.9	322 52.1 -00.3	N	06 34.7 -01.0	293 49.4 -32.3	S	01 58.8 +15.9	07			
08	303 37.7 +00.2	S	09 05.6 +01.0	337 51.8 -00.4	N	06 33.7 -01.1	308 17.1 -32.2	S	02 14.7 +15.8	08			
09	318 37.9 +00.1	S	09 06.6 +00.9	352 51.4 -00.3	N	06 32.6 -01.0	322 44.9 -32.3	S	02 30.5 +15.9	09			
10	333 38.0 +00.1	S	09 07.5 +00.9	7 51.1 -00.3	N	06 31.6 -01.1	337 12.6 -32.4	S	02 46.4 +15.8	10			
11	348 38.1 +00.1	S	09 08.4 +00.9	22 50.8 -00.4	N	06 30.5 -01.1	351 40.2 -32.3	S	03 02.2 +15.8	11			
12	3 38.2 +00.2	S	09 09.3 +00.9	37 50.4 -00.3	N	06 29.4 -01.0	6 07.9 -32.4	S	03 18.0 +15.8	12			
13	18 38.4 +00.1	S	09 10.2 +00.9	52 50.1 -00.4	N	06 28.4 -01.1	20 35.5 -32.4	S	03 33.8 +15.8	13			
14	33 38.5 +00.1	S	09 11.1 +01.0	67 49.7 -00.3	N	06 27.3 -01.0	35 03.1 -32.4	S	03 49.6 +15.8	14			
15	48 38.6 +00.2	S	09 12.1 +00.9	82 49.4 -00.4	N	06 26.3 -01.1	49 30.7 -32.4	S	04 05.4 +15.7	15			
16	63 38.8 +00.1	S	09 13.0 +00.9	97 49.0 -00.3	N	06 25.2 -01.1	63 58.3 -32.5	S	04 21.1 +15.8	16			
17	78 38.9 +00.1	S	09 13.9 +00.9	112 48.7 -00.4	N	06 24.1 -01.0	78 25.8 -32.5	S	04 36.9 +15.6	17			
18	93 39.0 +00.1	S	09 14.8 +00.9	127 48.3 -00.3	N	06 23.1 -01.1	92 53.3 -32.6	S	04 52.5 +15.7	18			
19	108 39.1 +00.2	S	09 15.7 +00.9	142 48.0 -00.3	N	06 22.0 -01.0	107 20.7 -32.6	S	05 08.2 +15.6	19			
20	123 39.3 +00.1	S	09 16.6 +00.9	157 47.7 -00.4	N	06 21.0 -01.1	121 48.1 -32.6	S	05 23.8 +15.6	20			
21	138 39.4 +00.1	S	09 17.5 +01.0	172 47.3 -00.3	N	06 19.9 -01.1	136 15.5 -32.6	S	05 39.4 +15.6	21			
22	153 39.5 +00.1	S	09 18.5 +00.9	187 47.0 -00.4	N	06 18.8 -01.0	150 42.9 -32.7	S	05 55.0 +15.5	22			
23	168 39.6 +00.2	S	09 19.4 +00.9	202 46.6 -00.3	N	06 17.8 -01.1	165 10.2 -32.7	S	06 10.5 +15.5	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'0 16'0 16'0			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'7 16'7 16'7 16'7 16'7 16'7						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 61'3 61'3 61'4 61'4 61'4 61'4						
	SHA 159° 158° 158° 158° 158° 158°			SHA 193° 193° 192° 192° 192° 192°			SHA 166° 164° 162° 160° 157° 155°						
	Greenwich Culmination Time: 11:45			Greenwich Culmination Time: 09:28			Greenwich Culmination Time: 11:34						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	5 00.7 +03.3	N	05 19.8 -00.2	94 13.0 +02.2	S	22 30.7 -00.1	87 21.7 +02.4	S	21 20.8 -00.1	00			
01	20 04.0 +03.2	N	05 19.6 -00.1	109 15.2 +02.1	S	22 30.6 +00.0	102 24.1 +02.4	S	21 20.7 +00.0	01			
02	35 07.2 +03.3	N	05 19.5 -00.2	124 17.3 +02.2	S	22 30.6 +00.0	117 26.5 +02.4	S	21 20.7 +00.0	02			
03	50 10.5 +03.2	N	05 19.3 -00.1	139 19.5 +02.2	S	22 30.6 -00.1	132 28.9 +02.4	S	21 20.7 +00.0	03			
04	65 13.7 +03.3	N	05 19.2 -00.1	154 21.7 +02.2	S	22 30.5 +00.0	147 31.3 +02.4	S	21 20.7 +00.0	04			
05	80 17.0 +03.2	N	05 19.1 -00.2	169 23.9 +02.2	S	22 30.5 +00.0	162 33.7 +02.4	S	21 20.7 +00.0	05			
06	95 20.2 +03.3	N	05 18.9 -00.1	184 26.1 +02.2	S	22 30.5 -00.1	177 36.1 +02.4	S	21 20.7 +00.0	06			
07	110 23.5 +03.2	N	05 18.8 -00.1	199 28.3 +02.2	S	22 30.4 +00.0	192 38.5 +02.4	S	21 20.7 +00.0	07			
08	125 26.7 +03.3	N	05 18.7 -00.2	214 30.5 +02.2	S	22 30.4 -00.1	207 40.9 +02.4	S	21 20.7 +00.0	08			
09	140 30.0 +03.2	N	05 18.5 -00.1	229 32.7 +02.2	S	22 30.3 +00.0	222 43.3 +02.3	S	21 20.7 -00.1	09			
10	155 33.2 +03.3	N	05 18.4 -00.2	244 34.9 +02.2	S	22 30.3 +00.0	237 45.6 +02.4	S	21 20.6 +00.0	10			
11	170 36.5 +03.2	N	05 18.2 -00.1	259 37.1 +02.2	S	22 30.3 -00.1	252 48.0 +02.4	S	21 20.6 +00.0	11			
12	185 39.7 +03.3	N	05 18.1 -00.1	274 39.3 +02.2	S	22 30.2 +00.0	267 50.4 +02.4	S	21 20.6 +00.0	12			
13	200 43.0 +03.2	N	05 18.0 -00.2	289 41.5 +02.2	S	22 30.2 +00.0	282 52.8 +02.4	S	21 20.6 +00.0	13			
14	215 46.2 +03.3	N	05 17.8 -00.1	304 43.7 +02.2	S	22 30.2 -00.1	297 55.2 +02.4	S	21 20.6 +00.0	14			
15	230 49.5 +03.2	N	05 17.7 -00.1	319 45.9 +02.1	S	22 30.1 +00.0	312 57.6 +02.4	S	21 20.6 +00.0	15			
16	245 52.7 +03.3	N	05 17.6 -00.2	334 48.0 +02.2	S	22 30.1 +00.0	327 60.0 +02.4	S	21 20.6 +00.0	16			
17	260 56.0 +03.2	N	05 17.4 -00.1	349 50.2 +02.2	S	22 30.1 -00.1	343 02.4 +02.3	S	21 20.6 +00.0	17			
18	275 59.2 +03.3	N	05 17.3 -00.1	4 52.4 +02.2	S	22 30.0 +00.0	358 04.7 +02.4	S	21 20.6 -00.1	18			
19	291 02.5 +03.2	N	05 17.2 -00.2	19 54.6 +02.2	S	22 30.0 +00.0	13 07.1 +02.4	S	21 20.5 +00.0	19			
20	306 05.7 +03.3	N	05 17.0 -00.1	34 56.8 +02.2	S	22 30.0 -00.1	28 09.5 +02.4	S	21 20.5 +00.0	20			
21	321 09.0 +03.2	N	05 16.9 -00.2	49 59.0 +02.2	S	22 29.9 +00.0	43 11.9 +02.4	S	21 20.5 +00.0	21			
22	336 12.2 +03.3	N	05 16.7 -00.1	65 01.2 +02.2	S	22 29.9 +00.0	58 14.3 +02.4	S	21 20.5 +00.0	22			
23	351 15.5 +03.2	N	05 16.6 -00.1	80 03.4 +02.2	S	22 29.9 -00.1	73 16.7 +02.4	S	21 20.5 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 340° 340° 340° 340° 340° 340°			SHA 069° 069° 069° 069° 069° 069°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 23:34			Greenwich Culmination Time: 17:40			Greenwich Culmination Time: 18:07						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 39.8 +00.1	S	09 20.3 +00.9	217 46.3 -00.4	N	06 16.7 -01.0	179 37.5 -32.7	S	06 26.0 +15.5	00			
01	198 39.9 +00.1	S	09 21.2 +00.9	232 45.9 -00.3	N	06 15.7 -01.1	194 04.8 -32.8	S	06 41.5 +15.4	01			
02	213 40.0 +00.1	S	09 22.1 +00.9	247 45.6 -00.4	N	06 14.6 -01.1	208 32.0 -32.8	S	06 56.9 +15.4	02			
03	228 40.1 +00.2	S	09 23.0 +00.9	262 45.2 -00.3	N	06 13.5 -01.0	222 59.2 -32.9	S	07 12.3 +15.3	03			
04	243 40.3 +00.1	S	09 23.9 +01.0	277 44.9 -00.3	N	06 12.5 -01.1	237 26.3 -32.9	S	07 27.6 +15.3	04			
05	258 40.4 +00.1	S	09 24.9 +00.9	292 44.6 -00.4	N	06 11.4 -01.1	251 53.4 -32.9	S	07 42.9 +15.2	05			
06	273 40.5 +00.1	S	09 25.8 +00.9	307 44.2 -00.3	N	06 10.3 -01.0	266 20.5 -33.0	S	07 58.1 +15.2	06			
07	288 40.6 +00.2	S	09 26.7 +00.9	322 43.9 -00.4	N	06 09.3 -01.1	280 47.5 -33.0	S	08 13.3 +15.1	07			
08	303 40.8 +00.1	S	09 27.6 +00.9	337 43.5 -00.3	N	06 08.2 -01.1	295 14.5 -33.0	S	08 28.4 +15.1	08			
09	318 40.9 +00.1	S	09 28.5 +00.9	352 43.2 -00.4	N	06 07.1 -01.0	309 41.5 -33.1	S	08 43.5 +15.0	09			
10	333 41.0 +00.1	S	09 29.4 +00.9	7 42.8 -00.3	N	06 06.1 -01.1	324 08.4 -33.2	S	08 58.5 +14.9	10			
11	348 41.1 +00.2	S	09 30.3 +00.9	22 42.5 -00.3	N	06 05.0 -01.1	338 35.2 -33.1	S	09 13.4 +14.9	11			
12	3 41.3 +00.1	S	09 31.2 +00.9	37 42.2 -00.4	N	06 03.9 -01.0	353 02.1 -33.3	S	09 28.3 +14.8	12			
13	18 41.4 +00.1	S	09 32.1 +01.0	52 41.8 -00.3	N	06 02.9 -01.1	7 28.8 -33.2	S	09 43.1 +14.8	13			
14	33 41.5 +00.1	S	09 33.1 +00.9	67 41.5 -00.4	N	06 01.8 -01.1	21 55.6 -33.3	S	09 57.9 +14.7	14			
15	48 41.6 +00.1	S	09 34.0 +00.9	82 41.1 -00.3	N	06 00.7 -01.0	36 22.3 -33.4	S	10 12.6 +14.6	15			
16	63 41.7 +00.2	S	09 34.9 +00.9	97 40.8 -00.4	N	05 59.7 -01.1	50 48.9 -33.3	S	10 27.2 +14.5	16			
17	78 41.9 +00.1	S	09 35.8 +00.9	112 40.4 -00.3	N	05 58.6 -01.1	65 15.6 -33.5	S	10 41.7 +14.5	17			
18	93 42.0 +00.1	S	09 36.7 +00.9	127 40.1 -00.4	N	05 57.5 -01.0	79 42.1 -33.5	S	10 56.2 +14.4	18			
19	108 42.1 +00.1	S	09 37.6 +00.9	142 39.7 -00.3	N	05 56.5 -01.1	94 08.6 -33.5	S	11 10.6 +14.3	19			
20	123 42.2 +00.2	S	09 38.5 +00.9	157 39.4 -00.3	N	05 55.4 -01.1	108 35.1 -33.5	S	11 24.9 +14.3	20			
21	138 42.4 +00.1	S	09 39.4 +00.9	172 39.1 -00.4	N	05 54.3 -01.1	123 01.6 -33.6	S	11 39.2 +14.1	21			
22	153 42.5 +00.1	S	09 40.3 +00.9	187 38.7 -00.3	N	05 53.2 -01.0	137 28.0 -33.7	S	11 53.3 +14.1	22			
23	168 42.6 +00.1	S	09 41.2 +00.9	202 38.4 -00.4	N	05 52.2 -01.1	151 54.3 -33.7	S	12 07.4 +14.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'1 16'1 16'1			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'7 16'7 16'7 16'7 16'7 16'7						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 61'4 61'4 61'4 61'3 61'3 61'3						
	SHA 158° 157° 157° 157° 157° 157°			SHA 192° 192° 191° 191° 191° 191°			SHA 152° 150° 148° 145° 143° 141°						
	Greenwich Culmination Time: 11:45			Greenwich Culmination Time: 09:29			Greenwich Culmination Time: 12:28						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	6 18.7 +03.3	N	05 16.5 -00.2	95 05.6 +02.1	S	22 29.8 +00.0	88 19.1 +02.4	S	21 20.5 +00.0	00			
01	21 22.0 +03.2	N	05 16.3 -00.1	110 07.7 +02.2	S	22 29.8 +00.0	103 21.5 +02.3	S	21 20.5 +00.0	01			
02	36 25.2 +03.3	N	05 16.2 -00.1	125 09.9 +02.2	S	22 29.8 -00.1	118 23.8 +02.4	S	21 20.5 +00.0	02			
03	51 28.5 +03.2	N	05 16.1 -00.2	140 12.1 +02.2	S	22 29.7 +00.0	133 26.2 +02.4	S	21 20.5 -00.1	03			
04	66 31.7 +03.3	N	05 15.9 -00.1	155 14.3 +02.2	S	22 29.7 -00.1	148 28.6 +02.4	S	21 20.4 +00.0	04			
05	81 35.0 +03.2	N	05 15.8 -00.1	170 16.5 +02.2	S	22 29.6 +00.0	163 31.0 +02.4	S	21 20.4 +00.0	05			
06	96 38.2 +03.3	N	05 15.7 -00.2	185 18.7 +02.2	S	22 29.6 +00.0	178 33.4 +02.4	S	21 20.4 +00.0	06			
07	111 41.5 +03.2	N	05 15.5 -00.1	200 20.9 +02.2	S	22 29.6 -00.1	193 35.8 +02.4	S	21 20.4 +00.0	07			
08	126 44.7 +03.2	N	05 15.4 -00.1	215 23.1 +02.1	S	22 29.5 +00.0	208 38.2 +02.3	S	21 20.4 +00.0	08			
09	141 47.9 +03.3	N	05 15.3 -00.1	230 25.2 +02.2	S	22 29.5 +00.0	223 40.5 +02.4	S	21 20.4 +00.0	09			
10	156 51.2 +03.2	N	05 15.2 -00.2	245 27.4 +02.2	S	22 29.5 -00.1	238 42.9 +02.4	S	21 20.4 +00.0	10			
11	171 54.4 +03.3	N	05 15.0 -00.1	260 29.6 +02.2	S	22 29.4 +00.0	253 45.3 +02.4	S	21 20.4 -00.1	11			
12	186 57.7 +03.2	N	05 14.9 -00.1	275 31.8 +02.2	S	22 29.4 +00.0	268 47.7 +02.4	S	21 20.3 +00.0	12			
13	202 00.9 +03.3	N	05 14.8 -00.2	290 34.0 +02.2	S	22 29.4 -00.1	283 50.1 +02.4	S	21 20.3 +00.0	13			
14	217 04.2 +03.2	N	05 14.6 -00.1	305 36.2 +02.1	S	22 29.3 +00.0	298 52.5 +02.3	S	21 20.3 +00.0	14			
15	232 07.4 +03.2	N	05 14.5 -00.1	320 38.3 +02.2	S	22 29.3 +00.0	313 54.8 +02.4	S	21 20.3 +00.0	15			
16	247 10.6 +03.3	N	05 14.4 -00.2	335 40.5 +02.2	S	22 29.3 -00.1	328 57.2 +02.4	S	21 20.3 +00.0	16			
17	262 13.9 +03.2	N	05 14.2 -00.1	350 42.7 +02.2	S	22 29.2 +00.0	343 59.6 +02.4	S	21 20.3 +00.0	17			
18	277 17.1 +03.3	N	05 14.1 -00.1	5 44.9 +02.2	S	22 29.2 -00.1	359 02.0 +02.4	S	21 20.3 +00.0	18			
19	292 20.4 +03.2	N	05 14.0 -00.2	20 47.1 +02.2	S	22 29.1 +00.0	14 04.4 +02.4	S	21 20.3 -00.1	19			
20	307 23.6 +03.2	N	05 13.8 -00.1	35 49.3 +02.1	S	22 29.1 +00.0	29 06.8 +02.3	S	21 20.2 +00.0	20			
21	322 26.8 +03.3	N	05 13.7 -00.1	50 51.4 +02.2	S	22 29.1 -00.1	44 09.1 +02.4	S	21 20.2 +00.0	21			
22	337 30.1 +03.2	N	05 13.6 -00.1	65 53.6 +02.2	S	22 29.0 +00.0	59 11.5 +02.4	S	21 20.2 +00.0	22			
23	352 33.3 +03.2	N	05 13.5 -00.2	80 55.8 +02.2	S	22 29.0 +00.0	74 13.9 +02.4	S	21 20.2 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 340° 340° 340° 341° 341° 341°			SHA 069° 069° 069° 069° 069° 069°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 23:29			Greenwich Culmination Time: 17:37			Greenwich Culmination Time: 18:03						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 42.7 +00.1	S	09 42.1 +00.9	217 38.0 -00.3	N	05 51.1 -01.1	166 20.6 -33.8	S	12 21.4 +13.9				
01	198 42.8 +00.2	S	09 43.0 +01.0	232 37.7 -00.3	N	05 50.0 -01.0	180 46.8 -33.7	S	12 35.3 +13.8				
02	213 43.0 +00.1	S	09 44.0 +00.9	247 37.4 -00.4	N	05 49.0 -01.1	195 13.1 -33.9	S	12 49.1 +13.8				
03	228 43.1 +00.1	S	09 44.9 +00.9	262 37.0 -00.3	N	05 47.9 -01.1	209 39.2 -33.9	S	13 02.9 +13.6				
04	243 43.2 +00.1	S	09 45.8 +00.9	277 36.7 -00.4	N	05 46.8 -01.1	224 05.3 -33.9	S	13 16.5 +13.6				
05	258 43.3 +00.1	S	09 46.7 +00.9	292 36.3 -00.3	N	05 45.7 -01.0	238 31.4 -34.0	S	13 30.1 +13.4				
06	273 43.4 +00.1	S	09 47.6 +00.9	307 36.0 -00.4	N	05 44.7 -01.1	252 57.4 -34.0	S	13 43.5 +13.4				
07	288 43.5 +00.2	S	09 48.5 +00.9	322 35.6 -00.3	N	05 43.6 -01.1	267 23.4 -34.1	S	13 56.9 +13.2				
08	303 43.7 +00.1	S	09 49.4 +00.9	337 35.3 -00.3	N	05 42.5 -01.1	281 49.3 -34.1	S	14 10.1 +13.2				
09	318 43.8 +00.1	S	09 50.3 +00.9	352 35.0 -00.4	N	05 41.4 -01.0	296 15.2 -34.2	S	14 23.3 +13.0				
10	333 43.9 +00.1	S	09 51.2 +00.9	7 34.6 -00.3	N	05 40.4 -01.1	310 41.0 -34.2	S	14 36.3 +13.0				
11	348 44.0 +00.1	S	09 52.1 +00.9	22 34.3 -00.4	N	05 39.3 -01.1	325 06.8 -34.3	S	14 49.3 +12.8				
12	3 44.1 +00.1	S	09 53.0 +00.9	37 33.9 -00.3	N	05 38.2 -01.1	339 32.5 -34.3	S	15 02.1 +12.8				
13	18 44.2 +00.2	S	09 53.9 +00.9	52 33.6 -00.4	N	05 37.1 -01.0	353 58.2 -34.3	S	15 14.9 +12.6				
14	33 44.4 +00.1	S	09 54.8 +00.9	67 33.2 -00.3	N	05 36.1 -01.1	8 23.9 -34.4	S	15 27.5 +12.5				
15	48 44.5 +00.1	S	09 55.7 +00.9	82 32.9 -00.3	N	05 35.0 -01.1	22 49.5 -34.5	S	15 40.0 +12.4				
16	63 44.6 +00.1	S	09 56.6 +00.9	97 32.6 -00.4	N	05 33.9 -01.1	37 15.0 -34.5	S	15 52.4 +12.3				
17	78 44.7 +00.1	S	09 57.5 +00.9	112 32.2 -00.3	N	05 32.8 -01.0	51 40.5 -34.5	S	16 04.7 +12.2				
18	93 44.8 +00.1	S	09 58.4 +00.9	127 31.9 -00.4	N	05 31.8 -01.1	66 06.0 -34.6	S	16 16.9 +12.0				
19	108 44.9 +00.1	S	09 59.3 +00.9	142 31.5 -00.3	N	05 30.7 -01.1	80 31.4 -34.7	S	16 28.9 +12.0				
20	123 45.0 +00.2	S	10 00.2 +00.9	157 31.2 -00.3	N	05 29.6 -01.1	94 56.7 -34.6	S	16 40.9 +11.8				
21	138 45.2 +00.1	S	10 01.1 +00.9	172 30.9 -00.4	N	05 28.5 -01.1	109 22.1 -34.8	S	16 52.7 +11.7				
22	153 45.3 +00.1	S	10 02.0 +00.9	187 30.5 -00.3	N	05 27.4 -01.0	123 47.3 -34.7	S	17 04.4 +11.6				
23	168 45.4 +00.1	S	10 02.9 +00.9	202 30.2 -00.4	N	05 26.4 -01.1	138 12.6 -34.8	S	17 16.0 +11.4				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 16'1 16'1 16'1 16'1 16'1 16'1			SD 00'1 00'1 00'1 00'1 00'1 00'1				SD 16'7 16'7 16'6 16'6 16'6 16'6					
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 61'2 61'1 61'1 61'0 60'9 60'8					
	SHA 157° 157° 156° 156° 156° 156°			SHA 191° 190° 190° 190° 190° 190°				SHA 138° 136° 133° 131° 128° 126°					
	Greenwich Culmination Time: 11:45			Greenwich Culmination Time: 09:29				Greenwich Culmination Time: 13:25					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	7 36.5 +03.3	N	05 13.3 -00.1	95 58.0 +02.2	S	22 29.0 -00.1	89 16.3 +02.4	S	21 20.2 +00.0				
01	22 39.8 +03.2	N	05 13.2 -00.1	111 00.2 +02.1	S	22 28.9 +00.0	104 18.7 +02.4	S	21 20.2 +00.0				
02	37 43.0 +03.3	N	05 13.1 -00.2	126 02.3 +02.2	S	22 28.9 +00.0	119 21.1 +02.3	S	21 20.2 +00.0				
03	52 46.3 +03.2	N	05 12.9 -00.1	141 04.5 +02.2	S	22 28.9 -00.1	134 23.4 +02.4	S	21 20.2 -00.1				
04	67 49.5 +03.2	N	05 12.8 -00.1	156 06.7 +02.2	S	22 28.8 +00.0	149 25.8 +02.4	S	21 20.1 +00.0				
05	82 52.7 +03.3	N	05 12.7 -00.1	171 08.9 +02.2	S	22 28.8 -00.1	164 28.2 +02.4	S	21 20.1 +00.0				
06	97 56.0 +03.2	N	05 12.6 -00.2	186 11.1 +02.1	S	22 28.7 +00.0	179 30.6 +02.4	S	21 20.1 +00.0				
07	112 59.2 +03.2	N	05 12.4 -00.1	201 13.2 +02.2	S	22 28.7 +00.0	194 33.0 +02.3	S	21 20.1 +00.0				
08	128 02.4 +03.3	N	05 12.3 -00.1	216 15.4 +02.2	S	22 28.7 -00.1	209 35.3 +02.4	S	21 20.1 +00.0				
09	143 05.7 +03.2	N	05 12.2 -00.1	231 17.6 +02.2	S	22 28.6 +00.0	224 37.7 +02.4	S	21 20.1 +00.0				
10	158 08.9 +03.2	N	05 12.1 -00.2	246 19.8 +02.2	S	22 28.6 +00.0	239 40.1 +02.4	S	21 20.1 +00.0				
11	173 12.1 +03.3	N	05 11.9 -00.1	261 22.0 +02.1	S	22 28.6 -00.1	254 42.5 +02.4	S	21 20.1 -00.1				
12	188 15.4 +03.2	N	05 11.8 -00.1	276 24.1 +02.2	S	22 28.5 +00.0	269 44.9 +02.3	S	21 20.0 +00.0				
13	203 18.6 +03.2	N	05 11.7 -00.1	291 26.3 +02.2	S	22 28.5 -00.1	284 47.2 +02.4	S	21 20.0 +00.0				
14	218 21.8 +03.2	N	05 11.6 -00.2	306 28.5 +02.2	S	22 28.4 +00.0	299 49.6 +02.4	S	21 20.0 +00.0				
15	233 25.0 +03.3	N	05 11.4 -00.1	321 30.7 +02.1	S	22 28.4 +00.0	314 52.0 +02.4	S	21 20.0 +00.0				
16	248 28.3 +03.2	N	05 11.3 -00.1	336 32.8 +02.2	S	22 28.4 -00.1	329 54.4 +02.4	S	21 20.0 +00.0				
17	263 31.5 +03.2	N	05 11.2 -00.1	351 35.0 +02.2	S	22 28.3 +00.0	344 56.8 +02.3	S	21 20.0 +00.0				
18	278 34.7 +03.3	N	05 11.1 -00.2	6 37.2 +02.2	S	22 28.3 +00.0	359 59.1 +02.4	S	21 20.0 +00.0				
19	293 38.0 +03.2	N	05 10.9 -00.1	21 39.4 +02.1	S	22 28.3 -00.1	15 01.5 +02.4	S	21 20.0 -00.1				
20	308 41.2 +03.2	N	05 10.8 -00.1	36 41.5 +02.2	S	22 28.2 +00.0	30 03.9 +02.4	S	21 19.9 +00.0				
21	323 44.4 +03.2	N	05 10.7 -00.1	51 43.7 +02.2	S	22 28.2 +00.0	45 06.3 +02.3	S	21 19.9 +00.0				
22	338 47.6 +03.3	N	05 10.6 -00.2	66 45.9 +02.2	S	22 28.2 -00.1	60 08.6 +02.4	S	21 19.9 +00.0				
23	353 50.9 +03.2	N	05 10.4 -00.1	81 48.1 +02.1	S	22 28.1 +00.0	75 11.0 +02.4	S	21 19.9 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3				SD 00'1 00'1 00'1 00'1 00'1 00'1					
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0					
	SHA 341° 341° 341° 341° 341° 341°			SHA 069° 069° 069° 069° 069° 069°				SHA 062° 062° 062° 062° 062° 062°					
	Greenwich Culmination Time: 23:24			Greenwich Culmination Time: 17:33				Greenwich Culmination Time: 18:00					

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 45.5 +00.1	S	10 03.8 +01.0	217 29.8 -00.3	N	05 25.3 -01.1	152 37.8 -34.9	S	17 27.4 +11.4	00			
01	198 45.6 +00.1	S	10 04.8 +00.9	232 29.5 -00.4	N	05 24.2 -01.1	167 02.9 -34.9	S	17 38.8 +11.2	01			
02	213 45.7 +00.1	S	10 05.7 +00.9	247 29.1 -00.3	N	05 23.1 -01.1	181 28.0 -34.9	S	17 50.0 +11.0	02			
03	228 45.8 +00.2	S	10 06.6 +00.9	262 28.8 -00.3	N	05 22.0 -01.1	195 53.1 -35.0	S	18 01.0 +11.0	03			
04	243 46.0 +00.1	S	10 07.5 +00.9	277 28.5 -00.4	N	05 20.9 -01.0	210 18.1 -35.0	S	18 12.0 +10.8	04			
05	258 46.1 +00.1	S	10 08.4 +00.9	292 28.1 -00.3	N	05 19.9 -01.1	224 43.1 -35.1	S	18 22.8 +10.6	05			
06	273 46.2 +00.1	S	10 09.3 +00.9	307 27.8 -00.4	N	05 18.8 -01.1	239 08.0 -35.1	S	18 33.4 +10.6	06			
07	288 46.3 +00.1	S	10 10.2 +00.9	322 27.4 -00.3	N	05 17.7 -01.1	253 32.9 -35.2	S	18 44.0 +10.4	07			
08	303 46.4 +00.1	S	10 11.1 +00.9	337 27.1 -00.3	N	05 16.6 -01.1	267 57.7 -35.1	S	18 54.4 +10.3	08			
09	318 46.5 +00.1	S	10 12.0 +00.9	352 26.8 -00.4	N	05 15.5 -01.1	282 22.6 -35.3	S	19 04.7 +10.1	09			
10	333 46.6 +00.1	S	10 12.9 +00.9	7 26.4 -00.3	N	05 14.4 -01.0	296 47.3 -35.2	S	19 14.8 +10.0	10			
11	348 46.7 +00.1	S	10 13.8 +00.8	22 26.1 -00.4	N	05 13.4 -01.1	311 12.1 -35.3	S	19 24.8 +09.8	11			
12	3 46.8 +00.1	S	10 14.6 +00.9	37 25.7 -00.3	N	05 12.3 -01.1	325 36.8 -35.3	S	19 34.6 +09.7	12			
13	18 46.9 +00.2	S	10 15.5 +00.9	52 25.4 -00.3	N	05 11.2 -01.1	340 01.5 -35.4	S	19 44.3 +09.6	13			
14	33 47.1 +00.1	S	10 16.4 +00.9	67 25.1 -00.4	N	05 10.1 -01.1	354 26.1 -35.4	S	19 53.9 +09.4	14			
15	48 47.2 +00.1	S	10 17.3 +00.9	82 24.7 -00.3	N	05 09.0 -01.1	8 50.7 -35.4	S	20 03.3 +09.3	15			
16	63 47.3 +00.1	S	10 18.2 +00.9	97 24.4 -00.4	N	05 07.9 -01.0	23 15.3 -35.5	S	20 12.6 +09.2	16			
17	78 47.4 +00.1	S	10 19.1 +00.9	112 24.0 -00.3	N	05 06.9 -01.1	37 39.8 -35.5	S	20 21.8 +08.9	17			
18	93 47.5 +00.1	S	10 20.0 +00.9	127 23.7 -00.3	N	05 05.8 -01.1	52 04.3 -35.5	S	20 30.7 +08.9	18			
19	108 47.6 +00.1	S	10 20.9 +00.9	142 23.4 -00.4	N	05 04.7 -01.1	66 28.8 -35.6	S	20 39.6 +08.7	19			
20	123 47.7 +00.1	S	10 21.8 +00.9	157 23.0 -00.3	N	05 03.6 -01.1	80 53.2 -35.5	S	20 48.3 +08.5	20			
21	138 47.8 +00.1	S	10 22.7 +00.9	172 22.7 -00.4	N	05 02.5 -01.1	95 17.7 -35.7	S	20 56.8 +08.4	21			
22	153 47.9 +00.1	S	10 23.6 +00.9	187 22.3 -00.3	N	05 01.4 -01.1	109 42.0 -35.6	S	21 05.2 +08.2	22			
23	168 48.0 +00.1	S	10 24.5 +00.9	202 22.0 -00.3	N	05 00.3 -01.1	124 06.4 -35.6	S	21 13.4 +08.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'1 16'1 16'1 16'1 16'1 16'1			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'5 16'5 16'5 16'4 16'4 16'4						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 60'7 60'6 60'5 60'3 60'2 60'1						
	SHA 156° 156° 155° 155° 155° 155°			SHA 189° 189° 189° 189° 189° 189°			SHA 123° 121° 118° 116° 113° 111°						
	Greenwich Culmination Time: 11:44			Greenwich Culmination Time: 09:30			Greenwich Culmination Time: 14:23						

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	8 54.1 +03.2	N	05 10.3 -00.1	96 50.2 +02.2	S	22 28.1 -00.1	90 13.4 +02.4	S	21 19.9 +00.0	00			
01	23 57.3 +03.2	N	05 10.2 -00.1	111 52.4 +02.2	S	22 28.0 +00.0	105 15.8 +02.4	S	21 19.9 +00.0	01			
02	39 00.5 +03.2	N	05 10.1 -00.1	126 54.6 +02.2	S	22 28.0 +00.0	120 18.2 +02.3	S	21 19.9 +00.0	02			
03	54 03.7 +03.3	N	05 10.0 -00.2	141 56.8 +02.1	S	22 28.0 -00.1	135 20.5 +02.4	S	21 19.9 -00.1	03			
04	69 07.0 +03.2	N	05 09.8 -00.1	156 58.9 +02.2	S	22 27.9 +00.0	150 22.9 +02.4	S	21 19.8 +00.0	04			
05	84 10.2 +03.2	N	05 09.7 -00.1	172 01.1 +02.2	S	22 27.9 -00.1	165 25.3 +02.4	S	21 19.8 +00.0	05			
06	99 13.4 +03.2	N	05 09.6 -00.1	187 03.3 +02.2	S	22 27.8 +00.0	180 27.7 +02.3	S	21 19.8 +00.0	06			
07	114 16.6 +03.3	N	05 09.5 -00.1	202 05.5 +02.1	S	22 27.8 +00.0	195 30.0 +02.4	S	21 19.8 +00.0	07			
08	129 19.9 +03.2	N	05 09.4 -00.2	217 07.6 +02.2	S	22 27.8 -00.1	210 32.4 +02.4	S	21 19.8 +00.0	08			
09	144 23.1 +03.2	N	05 09.2 -00.1	232 09.8 +02.2	S	22 27.7 +00.0	225 34.8 +02.4	S	21 19.8 +00.0	09			
10	159 26.3 +03.2	N	05 09.1 -00.1	247 12.0 +02.1	S	22 27.7 +00.0	240 37.2 +02.3	S	21 19.8 -00.1	10			
11	174 29.5 +03.2	N	05 09.0 -00.1	262 14.1 +02.2	S	22 27.7 -00.1	255 39.5 +02.4	S	21 19.7 +00.0	11			
12	189 32.7 +03.2	N	05 08.9 -00.1	277 16.3 +02.2	S	22 27.6 +00.0	270 41.9 +02.4	S	21 19.7 +00.0	12			
13	204 35.9 +03.3	N	05 08.8 -00.2	292 18.5 +02.1	S	22 27.6 -00.1	285 44.3 +02.4	S	21 19.7 +00.0	13			
14	219 39.2 +03.2	N	05 08.6 -00.1	307 20.6 +02.2	S	22 27.5 +00.0	300 46.7 +02.3	S	21 19.7 +00.0	14			
15	234 42.4 +03.2	N	05 08.5 -00.1	322 22.8 +02.2	S	22 27.5 +00.0	315 49.0 +02.4	S	21 19.7 +00.0	15			
16	249 45.6 +03.2	N	05 08.4 -00.1	337 25.0 +02.2	S	22 27.5 -00.1	330 51.4 +02.4	S	21 19.7 +00.0	16			
17	264 48.8 +03.2	N	05 08.3 -00.1	352 27.2 +02.1	S	22 27.4 +00.0	345 53.8 +02.4	S	21 19.7 -00.1	17			
18	279 52.0 +03.2	N	05 08.2 -00.1	7 29.3 +02.2	S	22 27.4 +00.0	0 56.2 +02.3	S	21 19.6 +00.0	18			
19	294 55.2 +03.2	N	05 08.1 -00.2	22 31.5 +02.2	S	22 27.4 -00.1	15 58.5 +02.4	S	21 19.6 +00.0	19			
20	309 58.4 +03.3	N	05 07.9 -00.1	37 33.7 +02.1	S	22 27.3 +00.0	31 00.9 +02.4	S	21 19.6 +00.0	20			
21	325 01.7 +03.2	N	05 07.8 -00.1	52 35.8 +02.2	S	22 27.3 -00.1	46 03.3 +02.4	S	21 19.6 +00.0	21			
22	340 04.9 +03.2	N	05 07.7 -00.1	67 38.0 +02.2	S	22 27.2 +00.0	61 05.7 +02.3	S	21 19.6 +00.0	22			
23	355 08.1 +03.2	N	05 07.6 -00.1	82 40.2 +02.1	S	22 27.2 +00.0	76 08.0 +02.4	S	21 19.6 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 341° 341° 341° 341° 341° 341°			SHA 069° 069° 069° 069° 069° 069°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 23:19			Greenwich Culmination Time: 17:30			Greenwich Culmination Time: 17:56						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 14%				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	183 48.1 +00.1	S 10	25.4 +00.9	217 21.7 -00.4	N 04	59.2 -01.1	138 30.8 -35.7	S 21	21.5 +08.0				
01	198 48.2 +00.1	S 10	26.3 +00.9	232 21.3 -00.3	N 04	58.1 -01.0	152 55.1 -35.7	S 21	29.5 +07.8				
02	213 48.3 +00.2	S 10	27.2 +00.9	247 21.0 -00.4	N 04	57.1 -01.1	167 19.4 -35.7	S 21	37.3 +07.6				
03	228 48.5 +00.1	S 10	28.1 +00.9	262 20.6 -00.3	N 04	56.0 -01.1	181 43.7 -35.8	S 21	44.9 +07.4				
04	243 48.6 +00.1	S 10	29.0 +00.9	277 20.3 -00.3	N 04	54.9 -01.1	196 07.9 -35.8	S 21	52.3 +07.4				
05	258 48.7 +00.1	S 10	29.9 +00.9	292 20.0 -00.4	N 04	53.8 -01.1	210 32.1 -35.7	S 21	59.7 +07.1				
06	273 48.8 +00.1	S 10	30.8 +00.9	307 19.6 -00.3	N 04	52.7 -01.1	224 56.4 -35.8	S 22	06.8 +07.0				
07	288 48.9 +00.1	S 10	31.7 +00.9	322 19.3 -00.4	N 04	51.6 -01.1	239 20.6 -35.8	S 22	13.8 +06.9				
08	303 49.0 +00.1	S 10	32.6 +00.9	337 18.9 -00.3	N 04	50.5 -01.1	253 44.8 -35.8	S 22	20.7 +06.7				
09	318 49.1 +00.1	S 10	33.5 +00.9	352 18.6 -00.3	N 04	49.4 -01.1	268 09.0 -35.9	S 22	27.4 +06.5				
10	333 49.2 +00.1	S 10	34.4 +00.8	7 18.3 -00.4	N 04	48.3 -01.1	282 33.1 -35.8	S 22	33.9 +06.4				
11	348 49.3 +00.1	S 10	35.2 +00.9	22 17.9 -00.3	N 04	47.2 -01.1	296 57.3 -35.9	S 22	40.3 +06.2				
12	3 49.4 +00.1	S 10	36.1 +00.9	37 17.6 -00.4	N 04	46.1 -01.1	311 21.4 -35.8	S 22	46.5 +06.0				
13	18 49.5 +00.1	S 10	37.0 +00.9	52 17.2 -00.3	N 04	45.0 -01.0	325 45.6 -35.9	S 22	52.5 +05.9				
14	33 49.6 +00.1	S 10	37.9 +00.9	67 16.9 -00.3	N 04	44.0 -01.1	340 09.7 -35.9	S 22	58.4 +05.7				
15	48 49.7 +00.1	S 10	38.8 +00.9	82 16.6 -00.4	N 04	42.9 -01.1	354 33.8 -35.8	S 23	04.1 +05.6				
16	63 49.8 +00.1	S 10	39.7 +00.9	97 16.2 -00.3	N 04	41.8 -01.1	8 58.0 -35.9	S 23	09.7 +05.4				
17	78 49.9 +00.1	S 10	40.6 +00.9	112 15.9 -00.4	N 04	40.7 -01.1	23 22.1 -35.9	S 23	15.1 +05.2				
18	93 50.0 +00.1	S 10	41.5 +00.9	127 15.5 -00.3	N 04	39.6 -01.1	37 46.2 -35.8	S 23	20.3 +05.1				
19	108 50.1 +00.1	S 10	42.4 +00.9	142 15.2 -00.3	N 04	38.5 -01.1	52 10.4 -35.9	S 23	25.4 +04.9				
20	123 50.2 +00.1	S 10	43.3 +00.9	157 14.9 -00.4	N 04	37.4 -01.1	66 34.5 -35.9	S 23	30.3 +04.8				
21	138 50.3 +00.1	S 10	44.2 +00.8	172 14.5 -00.3	N 04	36.3 -01.1	80 58.6 -35.8	S 23	35.1 +04.6				
22	153 50.4 +00.1	S 10	45.0 +00.9	187 14.2 -00.4	N 04	35.2 -01.1	95 22.8 -35.9	S 23	39.7 +04.4				
23	168 50.5 +00.1	S 10	45.9 +00.9	202 13.8 -00.3	N 04	34.1 -01.1	109 46.9 -35.8	S 23	44.1 +04.3				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'1 16'1 16'1 16'1 16'1 16'1			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'3 16'3 16'3 16'2 16'2 16'1						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 59'9 59'8 59'7 59'5 59'4 59'2						
	SHA 155° 155° 154° 154° 154° 154°			SHA 188° 188° 188° 188° 188° 187°			SHA 108° 106° 103° 101° 098° 096°						
	Greenwich Culmination Time: 11:44			Greenwich Culmination Time: 09:30			Greenwich Culmination Time: 15:22						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	10 11.3 +03.2	N 05	07.5 -00.1	97 42.3 +02.2	S 22	27.2 -00.1	91 10.4 +02.4	S 21	19.6 -00.1				
01	25 14.5 +03.2	N 05	07.4 -00.1	112 44.5 +02.2	S 22	27.1 +00.0	106 12.8 +02.4	S 21	19.5 +00.0				
02	40 17.7 +03.2	N 05	07.3 -00.2	127 46.7 +02.1	S 22	27.1 -00.1	121 15.2 +02.3	S 21	19.5 +00.0				
03	55 20.9 +03.2	N 05	07.1 -00.1	142 48.8 +02.2	S 22	27.0 +00.0	136 17.5 +02.4	S 21	19.5 +00.0				
04	70 24.1 +03.2	N 05	07.0 -00.1	157 51.0 +02.2	S 22	27.0 +00.0	151 19.9 +02.4	S 21	19.5 +00.0				
05	85 27.3 +03.2	N 05	06.9 -00.1	172 53.2 +02.1	S 22	27.0 -00.1	166 22.3 +02.4	S 21	19.5 +00.0				
06	100 30.5 +03.2	N 05	06.8 -00.1	187 55.3 +02.2	S 22	26.9 +00.0	181 24.7 +02.3	S 21	19.5 +00.0				
07	115 33.7 +03.2	N 05	06.7 -00.1	202 57.5 +02.2	S 22	26.9 -00.1	196 27.0 +02.4	S 21	19.5 +00.0				
08	130 36.9 +03.3	N 05	06.6 -00.1	217 59.7 +02.1	S 22	26.8 +00.0	211 29.4 +02.4	S 21	19.5 -00.1				
09	145 40.2 +03.2	N 05	06.5 -00.2	233 01.8 +02.2	S 22	26.8 +00.0	226 31.8 +02.3	S 21	19.4 +00.0				
10	160 43.4 +03.2	N 05	06.3 -00.1	248 04.0 +02.2	S 22	26.8 -00.1	241 34.1 +02.4	S 21	19.4 +00.0				
11	175 46.6 +03.2	N 05	06.2 -00.1	263 06.2 +02.1	S 22	26.7 +00.0	256 36.5 +02.4	S 21	19.4 +00.0				
12	190 49.8 +03.2	N 05	06.1 -00.1	278 08.3 +02.2	S 22	26.7 +00.0	271 38.9 +02.4	S 21	19.4 +00.0				
13	205 53.0 +03.2	N 05	06.0 -00.1	293 10.5 +02.1	S 22	26.7 -00.1	286 41.3 +02.3	S 21	19.4 +00.0				
14	220 56.2 +03.2	N 05	05.9 -00.1	308 12.6 +02.2	S 22	26.6 +00.0	301 43.6 +02.4	S 21	19.4 -00.1				
15	235 59.4 +03.2	N 05	05.8 -00.1	323 14.8 +02.2	S 22	26.6 -00.1	316 46.0 +02.4	S 21	19.3 +00.0				
16	251 02.6 +03.2	N 05	05.7 -00.1	338 17.0 +02.1	S 22	26.5 +00.0	331 48.4 +02.3	S 21	19.3 +00.0				
17	266 05.8 +03.2	N 05	05.6 -00.1	353 19.1 +02.2	S 22	26.5 +00.0	346 50.7 +02.4	S 21	19.3 +00.0				
18	281 09.0 +03.2	N 05	05.5 -00.2	8 21.3 +02.2	S 22	26.5 -00.1	1 53.1 +02.4	S 21	19.3 +00.0				
19	296 12.2 +03.2	N 05	05.3 -00.1	23 23.5 +02.1	S 22	26.4 +00.0	16 55.5 +02.4	S 21	19.3 +00.0				
20	311 15.4 +03.1	N 05	05.2 -00.1	38 25.6 +02.2	S 22	26.4 -00.1	31 57.9 +02.3	S 21	19.3 +00.0				
21	326 18.5 +03.2	N 05	05.1 -00.1	53 27.8 +02.1	S 22	26.3 +00.0	47 00.2 +02.4	S 21	19.3 -00.1				
22	341 21.7 +03.2	N 05	05.0 -00.1	68 29.9 +02.2	S 22	26.3 +00.0	62 02.6 +02.4	S 21	19.2 +00.0				
23	356 24.9 +03.2	N 05	04.9 -00.1	83 32.1 +02.2	S 22	26.3 -00.1	77 05.0 +02.3	S 21	19.2 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 341° 341° 341° 341° 341° 342°			SHA 069° 069° 069° 069° 069° 069°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 23:14			Greenwich Culmination Time: 17:26			Greenwich Culmination Time: 17:52						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 50.6 +00.1	S	10 46.8 +00.9	217 13.5 -00.3	N	04 33.0 -01.1	124 11.1 -35.8	S	23 48.4 +04.1				
01	198 50.7 +00.1	S	10 47.7 +00.9	232 13.2 -00.4	N	04 31.9 -01.1	138 35.3 -35.8	S	23 52.5 +03.9				
02	213 50.8 +00.1	S	10 48.6 +00.9	247 12.8 -00.3	N	04 30.8 -01.1	152 59.5 -35.8	S	23 56.4 +03.8				
03	228 50.9 +00.1	S	10 49.5 +00.9	262 12.5 -00.4	N	04 29.7 -01.1	167 23.7 -35.8	S	24 00.2 +03.6				
04	243 51.0 +00.1	S	10 50.4 +00.9	277 12.1 -00.3	N	04 28.6 -01.1	181 47.9 -35.8	S	24 03.8 +03.5				
05	258 51.1 +00.1	S	10 51.3 +00.8	292 11.8 -00.3	N	04 27.5 -01.1	196 12.1 -35.7	S	24 07.3 +03.2				
06	273 51.2 +00.1	S	10 52.1 +00.9	307 11.5 -00.4	N	04 26.4 -01.1	210 36.4 -35.7	S	24 10.5 +03.2				
07	288 51.3 +00.1	S	10 53.0 +00.9	322 11.1 -00.3	N	04 25.3 -01.1	225 00.7 -35.7	S	24 13.7 +02.9				
08	303 51.4 +00.1	S	10 53.9 +00.9	337 10.8 -00.4	N	04 24.2 -01.1	239 25.0 -35.7	S	24 16.6 +02.8				
09	318 51.5 +00.1	S	10 54.8 +00.9	352 10.4 -00.3	N	04 23.1 -01.1	253 49.3 -35.7	S	24 19.4 +02.7				
10	333 51.6 +00.1	S	10 55.7 +00.9	7 10.1 -00.3	N	04 22.0 -01.1	268 13.6 -35.6	S	24 22.1 +02.4				
11	348 51.7 +00.1	S	10 56.6 +00.9	22 09.8 -00.4	N	04 20.9 -01.1	282 38.0 -35.6	S	24 24.5 +02.4				
12	3 51.8 +00.1	S	10 57.5 +00.8	37 09.4 -00.3	N	04 19.8 -01.1	297 02.4 -35.5	S	24 26.9 +02.1				
13	18 51.9 +00.1	S	10 58.3 +00.9	52 09.1 -00.3	N	04 18.7 -01.1	311 26.9 -35.6	S	24 29.0 +02.0				
14	33 52.0 +00.1	S	10 59.2 +00.9	67 08.8 -00.4	N	04 17.6 -01.1	325 51.3 -35.5	S	24 31.0 +01.8				
15	48 52.1 +00.1	S	11 00.1 +00.9	82 08.4 -00.3	N	04 16.5 -01.1	340 15.8 -35.4	S	24 32.8 +01.7				
16	63 52.2 +00.1	S	11 01.0 +00.9	97 08.1 -00.4	N	04 15.4 -01.1	354 40.4 -35.5	S	24 34.5 +01.5				
17	78 52.3 +00.1	S	11 01.9 +00.9	112 07.7 -00.3	N	04 14.3 -01.1	9 04.9 -35.3	S	24 36.0 +01.4				
18	93 52.4 +00.1	S	11 02.8 +00.9	127 07.4 -00.3	N	04 13.2 -01.1	23 29.6 -35.4	S	24 37.4 +01.1				
19	108 52.5 +00.1	S	11 03.7 +00.8	142 07.1 -00.4	N	04 12.1 -01.1	37 54.2 -35.3	S	24 38.5 +01.1				
20	123 52.6 +00.0	S	11 04.5 +00.9	157 06.7 -00.3	N	04 11.0 -01.1	52 18.9 -35.2	S	24 39.6 +00.8				
21	138 52.6 +00.1	S	11 05.4 +00.9	172 06.4 -00.4	N	04 09.9 -01.1	66 43.7 -35.3	S	24 40.4 +00.8				
22	153 52.7 +00.1	S	11 06.3 +00.9	187 06.0 -00.3	N	04 08.8 -01.1	81 08.4 -35.1	S	24 41.2 +00.5				
23	168 52.8 +00.1	S	11 07.2 +00.9	202 05.7 -00.3	N	04 07.7 -01.1	95 33.3 -35.2	S	24 41.7 +00.4				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 16'1 16'1 16'1 16'1 16'1 16'1			SD 00'1 00'1 00'1 00'1 00'1 00'1				SD 16'1 16'0 16'0 16'0 15'9 15'9					
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 59'1 58'9 58'7 58'6 58'4 58'3					
	SHA 154° 154° 154° 153° 153° 153°			SHA 187° 187° 187° 187° 186° 186°				SHA 093° 090° 088° 085° 083° 080°					
	Greenwich Culmination Time: 11:44			Greenwich Culmination Time: 09:31				Greenwich Culmination Time: 16:22					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	11 28.1 +03.2	N	05 04.8 -00.1	98 34.3 +02.1	S	22 26.2 +00.0	92 07.3 +02.4	S	21 19.2 +00.0				
01	26 31.3 +03.2	N	05 04.7 -00.1	113 36.4 +02.2	S	22 26.2 -00.1	107 09.7 +02.4	S	21 19.2 +00.0				
02	41 34.5 +03.2	N	05 04.6 -00.1	128 38.6 +02.1	S	22 26.1 +00.0	122 12.1 +02.3	S	21 19.2 +00.0				
03	56 37.7 +03.2	N	05 04.5 -00.1	143 40.7 +02.2	S	22 26.1 +00.0	137 14.4 +02.4	S	21 19.2 +00.0				
04	71 40.9 +03.2	N	05 04.4 -00.1	158 42.9 +02.2	S	22 26.1 -00.1	152 16.8 +02.4	S	21 19.2 -00.1				
05	86 44.1 +03.2	N	05 04.3 -00.1	173 45.1 +02.1	S	22 26.0 +00.0	167 19.2 +02.3	S	21 19.1 +00.0				
06	101 47.3 +03.2	N	05 04.2 -00.1	188 47.2 +02.2	S	22 26.0 -00.1	182 21.5 +02.4	S	21 19.1 +00.0				
07	116 50.5 +03.2	N	05 04.1 -00.1	203 49.4 +02.1	S	22 25.9 +00.0	197 23.9 +02.4	S	21 19.1 +00.0				
08	131 53.7 +03.1	N	05 04.0 -00.2	218 51.5 +02.2	S	22 25.9 +00.0	212 26.3 +02.3	S	21 19.1 +00.0				
09	146 56.8 +03.2	N	05 03.8 -00.1	233 53.7 +02.1	S	22 25.9 -00.1	227 28.6 +02.4	S	21 19.1 +00.0				
10	162 00.0 +03.2	N	05 03.7 -00.1	248 55.8 +02.2	S	22 25.8 +00.0	242 31.0 +02.4	S	21 19.1 +00.0				
11	177 03.2 +03.2	N	05 03.6 -00.1	263 58.0 +02.2	S	22 25.8 -00.1	257 33.4 +02.3	S	21 19.1 -00.1				
12	192 06.4 +03.2	N	05 03.5 -00.1	279 00.2 +02.1	S	22 25.7 +00.0	272 35.7 +02.4	S	21 19.0 +00.0				
13	207 09.6 +03.2	N	05 03.4 -00.1	294 02.3 +02.2	S	22 25.7 +00.0	287 38.1 +02.4	S	21 19.0 +00.0				
14	222 12.8 +03.2	N	05 03.3 -00.1	309 04.5 +02.1	S	22 25.7 -00.1	302 40.5 +02.3	S	21 19.0 +00.0				
15	237 16.0 +03.1	N	05 03.2 -00.1	324 06.6 +02.2	S	22 25.6 +00.0	317 42.8 +02.4	S	21 19.0 +00.0				
16	252 19.1 +03.2	N	05 03.1 -00.1	339 08.8 +02.1	S	22 25.6 -00.1	332 45.2 +02.4	S	21 19.0 +00.0				
17	267 22.3 +03.2	N	05 03.0 -00.1	354 10.9 +02.2	S	22 25.5 +00.0	347 47.6 +02.3	S	21 19.0 -00.1				
18	282 25.5 +03.2	N	05 02.9 -00.1	9 13.1 +02.1	S	22 25.5 -00.1	2 49.9 +02.4	S	21 18.9 +00.0				
19	297 28.7 +03.2	N	05 02.8 -00.1	24 15.2 +02.2	S	22 25.4 +00.0	17 52.3 +02.4	S	21 18.9 +00.0				
20	312 31.9 +03.1	N	05 02.7 -00.1	39 17.4 +02.2	S	22 25.4 +00.0	32 54.7 +02.3	S	21 18.9 +00.0				
21	327 35.0 +03.2	N	05 02.6 -00.1	54 19.6 +02.1	S	22 25.4 -00.1	47 57.0 +02.4	S	21 18.9 +00.0				
22	342 38.2 +03.2	N	05 02.5 -00.1	69 21.7 +02.2	S	22 25.3 +00.0	62 59.4 +02.4	S	21 18.9 +00.0				
23	357 41.4 +03.2	N	05 02.4 -00.1	84 23.9 +02.1	S	22 25.3 -00.1	78 01.8 +02.3	S	21 18.9 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3				SD 00'1 00'1 00'1 00'1 00'1 00'1					
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0					
	SHA 342° 342° 342° 342° 342° 342°			SHA 069° 069° 069° 069° 069° 069°				SHA 062° 062° 062° 062° 062° 062°					
	Greenwich Culmination Time: 23:09			Greenwich Culmination Time: 17:23				Greenwich Culmination Time: 17:48					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 52.9 +00.1	S	11 08.1 +00.8	217 05.4 -00.4	N	04 06.6 -01.1	109 58.1 -35.0	S	24 42.1 +00.3				
01	198 53.0 +00.1	S	11 08.9 +00.9	232 05.0 -00.3	N	04 05.5 -01.1	124 23.1 -35.0	S	24 42.4 +00.1				
02	213 53.1 +00.1	S	11 09.8 +00.9	247 04.7 -00.3	N	04 04.4 -01.1	138 48.1 -35.0	S	24 42.5 -00.1				
03	228 53.2 +00.1	S	11 10.7 +00.9	262 04.4 -00.4	N	04 03.3 -01.1	153 13.1 -34.9	S	24 42.4 -00.2				
04	243 53.3 +00.1	S	11 11.6 +00.9	277 04.0 -00.3	N	04 02.2 -01.1	167 38.2 -34.9	S	24 42.2 -00.4				
05	258 53.4 +00.1	S	11 12.5 +00.9	292 03.7 -00.4	N	04 01.1 -01.1	182 03.3 -34.8	S	24 41.8 -00.5				
06	273 53.5 +00.1	S	11 13.4 +00.8	307 03.3 -00.3	N	03 60.0 -01.2	196 28.5 -34.7	S	24 41.3 -00.7				
07	288 53.6 +00.1	S	11 14.2 +00.9	322 03.0 -00.3	N	03 58.8 -01.1	210 53.8 -34.7	S	24 40.6 -00.8				
08	303 53.7 +00.1	S	11 15.1 +00.9	337 02.7 -00.4	N	03 57.7 -01.1	225 19.1 -34.7	S	24 39.8 -01.0				
09	318 53.8 +00.0	S	11 16.0 +00.9	352 02.3 -00.3	N	03 56.6 -01.1	239 44.4 -34.5	S	24 38.8 -01.2				
10	333 53.8 +00.1	S	11 16.9 +00.8	7 02.0 -00.4	N	03 55.5 -01.1	254 09.9 -34.5	S	24 37.6 -01.2				
11	348 53.9 +00.1	S	11 17.7 +00.9	22 01.6 -00.3	N	03 54.4 -01.1	268 35.4 -34.5	S	24 36.4 -01.5				
12	3 54.0 +00.1	S	11 18.6 +00.9	37 01.3 -00.3	N	03 53.3 -01.1	283 00.9 -34.4	S	24 34.9 -01.5				
13	18 54.1 +00.1	S	11 19.5 +00.9	52 01.0 -00.4	N	03 52.2 -01.1	297 26.5 -34.3	S	24 33.4 -01.8				
14	33 54.2 +00.1	S	11 20.4 +00.9	67 00.6 -00.3	N	03 51.1 -01.1	311 52.2 -34.2	S	24 31.6 -01.8				
15	48 54.3 +00.1	S	11 21.3 +00.8	82 00.3 -00.3	N	03 50.0 -01.1	326 18.0 -34.2	S	24 29.8 -02.0				
16	63 54.4 +00.1	S	11 22.1 +00.9	96 60.0 -00.4	N	03 48.9 -01.1	340 43.8 -34.1	S	24 27.8 -02.2				
17	78 54.5 +00.1	S	11 23.0 +00.9	111 59.6 -00.3	N	03 47.8 -01.1	355 09.7 -34.0	S	24 25.6 -02.3				
18	93 54.6 +00.0	S	11 23.9 +00.9	126 59.3 -00.4	N	03 46.7 -01.2	9 35.7 -34.0	S	24 23.3 -02.4				
19	108 54.6 +00.1	S	11 24.8 +00.8	141 58.9 -00.3	N	03 45.5 -01.1	24 01.7 -33.9	S	24 20.9 -02.6				
20	123 54.7 +00.1	S	11 25.6 +00.9	156 58.6 -00.3	N	03 44.4 -01.1	38 27.8 -33.8	S	24 18.3 -02.7				
21	138 54.8 +00.1	S	11 26.5 +00.9	171 58.3 -00.4	N	03 43.3 -01.1	52 54.0 -33.7	S	24 15.6 -02.9				
22	153 54.9 +00.1	S	11 27.4 +00.9	186 57.9 -00.3	N	03 42.2 -01.1	67 20.3 -33.7	S	24 12.7 -03.0				
23	168 55.0 +00.1	S	11 28.3 +00.8	201 57.6 -00.4	N	03 41.1 -01.1	81 46.6 -33.6	S	24 09.7 -03.2				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'1 16'1 16'1 16'1 16'1 16'1			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'8 15'8 15'8 15'7 15'7 15'6						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 58'1 58'0 57'8 57'7 57'5 57'4						
	SHA 153° 153° 153° 152° 152° 152°			SHA 186° 186° 186° 186° 185° 185°			SHA 078° 075° 073° 070° 068° 066°						
	Greenwich Culmination Time: 11:44			Greenwich Culmination Time: 09:31			Greenwich Culmination Time: 17:20						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	12 44.6 +03.1	N	05 02.3 -00.1	99 26.0 +02.2	S	22 25.2 +00.0	93 04.1 +02.4	S	21 18.9 -00.1				
01	27 47.7 +03.2	N	05 02.2 -00.1	114 28.2 +02.1	S	22 25.2 +00.0	108 06.5 +02.4	S	21 18.8 +00.0				
02	42 50.9 +03.2	N	05 02.1 -00.1	129 30.3 +02.2	S	22 25.2 -00.1	123 08.9 +02.3	S	21 18.8 +00.0				
03	57 54.1 +03.2	N	05 02.0 -00.1	144 32.5 +02.1	S	22 25.1 +00.0	138 11.2 +02.4	S	21 18.8 +00.0				
04	72 57.3 +03.1	N	05 01.9 -00.1	159 34.6 +02.2	S	22 25.1 -00.1	153 13.6 +02.4	S	21 18.8 +00.0				
05	88 00.4 +03.2	N	05 01.8 -00.1	174 36.8 +02.1	S	22 25.0 +00.0	168 16.0 +02.3	S	21 18.8 +00.0				
06	103 03.6 +03.2	N	05 01.7 -00.1	189 38.9 +02.2	S	22 25.0 +00.0	183 18.3 +02.4	S	21 18.8 -00.1				
07	118 06.8 +03.1	N	05 01.6 -00.1	204 41.1 +02.1	S	22 25.0 -00.1	198 20.7 +02.4	S	21 18.7 +00.0				
08	133 09.9 +03.2	N	05 01.5 -00.1	219 43.2 +02.2	S	22 24.9 +00.0	213 23.1 +02.3	S	21 18.7 +00.0				
09	148 13.1 +03.2	N	05 01.4 -00.1	234 45.4 +02.1	S	22 24.9 -00.1	228 25.4 +02.4	S	21 18.7 +00.0				
10	163 16.3 +03.2	N	05 01.3 -00.1	249 47.5 +02.2	S	22 24.8 +00.0	243 27.8 +02.3	S	21 18.7 +00.0				
11	178 19.5 +03.1	N	05 01.2 -00.1	264 49.7 +02.1	S	22 24.8 -00.1	258 30.1 +02.4	S	21 18.7 +00.0				
12	193 22.6 +03.2	N	05 01.1 -00.1	279 51.8 +02.2	S	22 24.7 +00.0	273 32.5 +02.4	S	21 18.7 +00.0				
13	208 25.8 +03.2	N	05 01.0 -00.1	294 54.0 +02.1	S	22 24.7 +00.0	288 34.9 +02.3	S	21 18.7 -00.1				
14	223 29.0 +03.1	N	05 00.9 -00.1	309 56.1 +02.2	S	22 24.7 -00.1	303 37.2 +02.4	S	21 18.6 +00.0				
15	238 32.1 +03.2	N	05 00.8 +00.0	324 58.3 +02.1	S	22 24.6 +00.0	318 39.6 +02.4	S	21 18.6 +00.0				
16	253 35.3 +03.1	N	05 00.8 -00.1	340 00.4 +02.2	S	22 24.6 -00.1	333 42.0 +02.3	S	21 18.6 +00.0				
17	268 38.4 +03.2	N	05 00.7 -00.1	355 02.6 +02.1	S	22 24.5 +00.0	348 44.3 +02.4	S	21 18.6 +00.0				
18	283 41.6 +03.2	N	05 00.6 -00.1	10 04.7 +02.2	S	22 24.5 +00.0	3 46.7 +02.3	S	21 18.6 +00.0				
19	298 44.8 +03.1	N	05 00.5 -00.1	25 06.9 +02.1	S	22 24.5 -00.1	18 49.0 +02.4	S	21 18.6 -00.1				
20	313 47.9 +03.2	N	05 00.4 -00.1	40 09.0 +02.2	S	22 24.4 +00.0	33 51.4 +02.4	S	21 18.5 +00.0				
21	328 51.1 +03.1	N	05 00.3 -00.1	55 11.2 +02.1	S	22 24.4 -00.1	48 53.8 +02.3	S	21 18.5 +00.0				
22	343 54.2 +03.2	N	05 00.2 -00.1	70 13.3 +02.2	S	22 24.3 +00.0	63 56.1 +02.4	S	21 18.5 +00.0				
23	358 57.4 +03.2	N	05 00.1 -00.1	85 15.5 +02.1	S	22 24.3 -00.1	78 58.5 +02.4	S	21 18.5 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 342° 342° 342° 342° 342° 342°			SHA 069° 069° 068° 068° 068° 068°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 23:04			Greenwich Culmination Time: 17:19			Greenwich Culmination Time: 17:44						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 55.1 +00.1	S	11 29.1 +00.9	216 57.2 -00.3	N 03 40.0 -01.1	96 13.0 -33.5	S 24 06.5 -03.2	00					
01	198 55.2 +00.1	S	11 30.0 +00.9	231 56.9 -00.3	N 03 38.9 -01.1	110 39.5 -33.4	S 24 03.3 -03.4	01					
02	213 55.3 +00.0	S	11 30.9 +00.9	246 56.6 -00.4	N 03 37.8 -01.1	125 06.1 -33.4	S 23 59.9 -03.6	02					
03	228 55.3 +00.1	S	11 31.8 +00.8	261 56.2 -00.3	N 03 36.7 -01.2	139 32.7 -33.3	S 23 56.3 -03.7	03					
04	243 55.4 +00.1	S	11 32.6 +00.9	276 55.9 -00.3	N 03 35.5 -01.1	153 59.4 -33.2	S 23 52.6 -03.8	04					
05	258 55.5 +00.1	S	11 33.5 +00.9	291 55.6 -00.4	N 03 34.4 -01.1	168 26.2 -33.1	S 23 48.8 -03.9	05					
06	273 55.6 +00.1	S	11 34.4 +00.9	306 55.2 -00.3	N 03 33.3 -01.1	182 53.1 -33.0	S 23 44.9 -04.1	06					
07	288 55.7 +00.1	S	11 35.3 +00.8	321 54.9 -00.4	N 03 32.2 -01.1	197 20.1 -33.0	S 23 40.8 -04.2	07					
08	303 55.8 +00.0	S	11 36.1 +00.9	336 54.5 -00.3	N 03 31.1 -01.1	211 47.1 -32.8	S 23 36.6 -04.3	08					
09	318 55.8 +00.1	S	11 37.0 +00.9	351 54.2 -00.3	N 03 30.0 -01.1	226 14.3 -32.8	S 23 32.3 -04.5	09					
10	333 55.9 +00.1	S	11 37.9 +00.8	6 53.9 -00.4	N 03 28.9 -01.2	240 41.5 -32.7	S 23 27.8 -04.6	10					
11	348 56.0 +00.1	S	11 38.7 +00.9	21 53.5 -00.3	N 03 27.7 -01.1	255 08.8 -32.6	S 23 23.2 -04.7	11					
12	3 56.1 +00.1	S	11 39.6 +00.9	36 53.2 -00.3	N 03 26.6 -01.1	269 36.2 -32.5	S 23 18.5 -04.8	12					
13	18 56.2 +00.1	S	11 40.5 +00.9	51 52.9 -00.4	N 03 25.5 -01.1	284 03.7 -32.5	S 23 13.7 -05.0	13					
14	33 56.3 +00.0	S	11 41.4 +00.8	66 52.5 -00.3	N 03 24.4 -01.1	298 31.2 -32.3	S 23 08.7 -05.0	14					
15	48 56.3 +00.1	S	11 42.2 +00.9	81 52.2 -00.4	N 03 23.3 -01.1	312 58.9 -32.3	S 23 03.7 -05.2	15					
16	63 56.4 +00.1	S	11 43.1 +00.9	96 51.8 -00.3	N 03 22.2 -01.1	327 26.6 -32.2	S 22 58.5 -05.3	16					
17	78 56.5 +00.1	S	11 44.0 +00.8	111 51.5 -00.3	N 03 21.1 -01.2	341 54.4 -32.1	S 22 53.2 -05.5	17					
18	93 56.6 +00.1	S	11 44.8 +00.9	126 51.2 -00.4	N 03 19.9 -01.1	356 22.3 -32.0	S 22 47.7 -05.5	18					
19	108 56.7 +00.0	S	11 45.7 +00.9	141 50.8 -00.3	N 03 18.8 -01.1	10 50.3 -31.9	S 22 42.2 -05.7	19					
20	123 56.7 +00.1	S	11 46.6 +00.8	156 50.5 -00.4	N 03 17.7 -01.1	25 18.4 -31.9	S 22 36.5 -05.8	20					
21	138 56.8 +00.1	S	11 47.4 +00.9	171 50.1 -00.3	N 03 16.6 -01.1	39 46.5 -31.7	S 22 30.7 -05.9	21					
22	153 56.9 +00.1	S	11 48.3 +00.9	186 49.5 -00.3	N 03 15.5 -01.1	54 14.8 -31.7	S 22 24.8 -06.0	22					
23	168 57.0 +00.1	S	11 49.2 +00.8	201 49.8 -00.4	N 03 14.4 -01.2	68 43.1 -31.5	S 22 18.8 -06.1	23					
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 16'1 16'1 16'1 16'1 16'1 16'1			SD 00'1 00'1 00'1 00'1 00'1 00'1				SD 15'6 15'5 15'5 15'5 15'4 15'4					
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 57'2 57'1 56'9 56'8 56'6 56'5					
	SHA 152° 152° 152° 151° 151° 151°			SHA 185° 185° 185° 184° 184° 184°				SHA 063° 061° 058° 056° 054° 051°					
	Greenwich Culmination Time: 11:44			Greenwich Culmination Time: 09:32				Greenwich Culmination Time: 18:15					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	14 00.6 +03.1	N 05 00.0 -00.1	100 17.6 +02.2	S 22 24.2 +00.0	94 00.9 +02.3	S 21 18.5 +00.0	00						
01	29 03.7 +03.2	N 04 59.9 -00.1	115 19.8 +02.1	S 22 24.2 +00.0	109 03.2 +02.4	S 21 18.5 -00.1	01						
02	44 06.9 +03.1	N 04 59.8 -00.1	130 21.9 +02.1	S 22 24.2 -00.1	124 05.6 +02.3	S 21 18.4 +00.0	02						
03	59 10.0 +03.2	N 04 59.7 -00.1	145 24.0 +02.2	S 22 24.1 +00.0	139 07.9 +02.4	S 21 18.4 +00.0	03						
04	74 13.2 +03.1	N 04 59.6 +00.0	160 26.2 +02.1	S 22 24.1 -00.1	154 10.3 +02.4	S 21 18.4 +00.0	04						
05	89 16.3 +03.2	N 04 59.6 -00.1	175 28.3 +02.2	S 22 24.0 +00.0	169 12.7 +02.3	S 21 18.4 +00.0	05						
06	104 19.5 +03.1	N 04 59.5 -00.1	190 30.5 +02.1	S 22 24.0 -00.1	184 15.0 +02.4	S 21 18.4 +00.0	06						
07	119 22.6 +03.2	N 04 59.4 -00.1	205 32.6 +02.2	S 22 23.9 +00.0	199 17.4 +02.3	S 21 18.4 -00.1	07						
08	134 25.8 +03.1	N 04 59.3 -00.1	220 34.8 +02.1	S 22 23.9 +00.0	214 19.7 +02.4	S 21 18.3 +00.0	08						
09	149 28.9 +03.2	N 04 59.2 -00.1	235 36.9 +02.2	S 22 23.9 -00.1	229 22.1 +02.4	S 21 18.3 +00.0	09						
10	164 32.1 +03.1	N 04 59.1 -00.1	250 39.1 +02.1	S 22 23.8 +00.0	244 24.5 +02.3	S 21 18.3 +00.0	10						
11	179 35.2 +03.2	N 04 59.0 -00.1	265 41.2 +02.1	S 22 23.8 -00.1	259 26.8 +02.4	S 21 18.3 +00.0	11						
12	194 38.4 +03.1	N 04 58.9 -00.1	280 43.3 +02.2	S 22 23.7 +00.0	274 29.2 +02.3	S 21 18.3 +00.0	12						
13	209 41.5 +03.2	N 04 58.8 +00.0	295 45.5 +02.1	S 22 23.7 -00.1	289 31.5 +02.4	S 21 18.3 -00.1	13						
14	224 44.7 +03.1	N 04 58.8 -00.1	310 47.6 +02.2	S 22 23.6 +00.0	304 33.9 +02.3	S 21 18.2 +00.0	14						
15	239 47.8 +03.1	N 04 58.7 -00.1	325 49.8 +02.1	S 22 23.6 +00.0	319 36.2 +02.4	S 21 18.2 +00.0	15						
16	254 50.9 +03.2	N 04 58.6 -00.1	340 51.9 +02.2	S 22 23.6 -00.1	334 38.6 +02.4	S 21 18.2 +00.0	16						
17	269 54.1 +03.1	N 04 58.5 -00.1	355 54.1 +02.1	S 22 23.5 +00.0	349 41.0 +02.3	S 21 18.2 +00.0	17						
18	284 57.2 +03.2	N 04 58.4 -00.1	10 56.2 +02.1	S 22 23.5 -00.1	4 43.3 +02.4	S 21 18.2 +00.0	18						
19	300 00.4 +03.1	N 04 58.3 -00.1	25 58.3 +02.2	S 22 23.4 +00.0	19 45.7 +02.3	S 21 18.2 -00.1	19						
20	315 03.5 +03.1	N 04 58.2 +00.0	41 00.5 +02.1	S 22 23.4 -00.1	34 48.0 +02.4	S 21 18.1 +00.0	20						
21	330 06.6 +03.2	N 04 58.2 -00.1	56 02.6 +02.2	S 22 23.3 +00.0	49 50.4 +02.3	S 21 18.1 +00.0	21						
22	345 09.8 +03.1	N 04 58.1 -00.1	71 04.8 +02.1	S 22 23.3 +00.0	64 52.7 +02.4	S 21 18.1 +00.0	22						
23	0 12.9 +03.2	N 04 58.0 -00.1	86 06.9 +02.1	S 22 23.3 -00.1	79 55.1 +02.4	S 21 18.1 +00.0	23						
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3				SD 00'1 00'1 00'1 00'1 00'1 00'1					
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0					
	SHA 342° 342° 342° 342° 342° 342°			SHA 068° 068° 068° 068° 068° 068°				SHA 062° 062° 062° 062° 062° 062°					
	Greenwich Culmination Time: 22:59			Greenwich Culmination Time: 17:16				Greenwich Culmination Time: 17:41					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	183 57.1 +00.0	S	11 50.0 +00.9	216 49.1 -00.3	N 03 13.2 -01.1	83 11.6 -31.5	S 22 12.7 -06.2	00												
01	198 57.1 +00.1	S	11 50.9 +00.9	231 48.8 -00.3	N 03 12.1 -01.1	97 40.1 -31.4	S 22 06.5 -06.4	01												
02	213 57.2 +00.1	S	11 51.8 +00.8	246 48.5 -00.4	N 03 11.0 -01.1	112 08.7 -31.3	S 22 00.1 -06.4	02												
03	228 57.3 +00.1	S	11 52.6 +00.9	261 48.1 -00.3	N 03 09.9 -01.1	126 37.4 -31.2	S 21 53.7 -06.6	03												
04	243 57.4 +00.1	S	11 53.5 +00.9	276 47.8 -00.4	N 03 08.8 -01.2	141 06.2 -31.1	S 21 47.1 -06.7	04												
05	258 57.5 +00.0	S	11 54.4 +00.8	291 47.4 -00.3	N 03 07.6 -01.1	155 35.1 -31.0	S 21 40.4 -06.7	05												
06	273 57.5 +00.1	S	11 55.2 +00.9	306 47.1 -00.3	N 03 06.5 -01.1	170 04.1 -31.0	S 21 33.7 -06.9	06												
07	288 57.6 +00.1	S	11 56.1 +00.9	321 46.8 -00.4	N 03 05.4 -01.1	184 33.1 -30.8	S 21 26.8 -07.0	07												
08	303 57.7 +00.1	S	11 57.0 +00.8	336 46.4 -00.3	N 03 04.3 -01.1	199 02.3 -30.8	S 21 19.8 -07.0	08												
09	318 57.8 +00.0	S	11 57.8 +00.9	351 46.1 -00.3	N 03 03.2 -01.2	213 31.5 -30.7	S 21 12.8 -07.2	09												
10	333 57.8 +00.1	S	11 58.7 +00.9	6 45.8 -00.4	N 03 02.0 -01.1	228 00.8 -30.6	S 21 05.6 -07.3	10												
11	348 57.9 +00.1	S	11 59.6 +00.8	21 45.4 -00.3	N 03 00.9 -01.1	242 30.2 -30.5	S 20 58.3 -07.4	11												
12	3 58.0 +00.1	S	12 00.4 +00.9	36 45.1 -00.4	N 02 59.8 -01.1	256 59.7 -30.4	S 20 50.9 -07.4	12												
13	18 58.1 +00.0	S	12 01.3 +00.9	51 44.7 -00.3	N 02 58.7 -01.1	271 29.3 -30.3	S 20 43.5 -07.6	13												
14	33 58.1 +00.1	S	12 02.2 +00.8	66 44.4 -00.3	N 02 57.6 -01.2	285 59.0 -30.2	S 20 35.9 -07.7	14												
15	48 58.2 +00.1	S	12 03.0 +00.9	81 44.1 -00.4	N 02 56.4 -01.1	300 28.8 -30.2	S 20 28.2 -07.7	15												
16	63 58.3 +00.1	S	12 03.9 +00.8	96 43.7 -00.3	N 02 55.3 -01.1	314 58.6 -30.0	S 20 20.5 -07.9	16												
17	78 58.4 +00.0	S	12 04.7 +00.9	111 43.4 -00.4	N 02 54.2 -01.1	329 28.6 -30.0	S 20 12.6 -07.9	17												
18	93 58.4 +00.1	S	12 05.6 +00.9	126 43.0 -00.3	N 02 53.1 -01.1	343 58.6 -29.9	S 20 04.7 -08.0	18												
19	108 58.5 +00.1	S	12 06.5 +00.8	141 42.7 -00.3	N 02 52.0 -01.2	358 28.7 -29.7	S 19 56.7 -08.2	19												
20	123 58.6 +00.1	S	12 07.3 +00.9	156 42.4 -00.4	N 02 50.8 -01.1	12 59.0 -29.8	S 19 48.5 -08.2	20												
21	138 58.7 +00.0	S	12 08.2 +00.8	171 42.0 -00.3	N 02 49.7 -01.1	27 29.2 -29.6	S 19 40.3 -08.3	21												
22	153 58.7 +00.1	S	12 09.0 +00.9	186 41.7 -00.3	N 02 48.6 -01.1	41 59.6 -29.5	S 19 32.0 -08.3	22												
23	168 58.8 +00.1	S	12 09.9 +00.9	201 41.4 -00.4	N 02 47.5 -01.2	56 30.1 -29.4	S 19 23.7 -08.5	23												
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	16°1	16°1	16°1	16°1	16°1	16°1	SD	00°1	00°1	00°1	00°1	00°1	00°1	SD	15°4	15°3	15°3	15°3	15°2	15°2
HP	00°1	00°1	00°1	00°1	00°1	00°1	HP	00°1	00°1	00°1	00°1	00°1	00°1	HP	56°4	56°2	56°1	56°0	55°9	55°8
SHA	151°	151°	151°	151°	150°	150°	SHA	184°	184°	183°	183°	183°	183°	SHA	049°	047°	045°	043°	040°	038°
Greenwich Culmination Time: 11:44							Greenwich Culmination Time: 09:32							Greenwich Culmination Time: 19:06						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	15 16.1 +03.1	N 04 57.9 -00.1	101 09.0 +02.2	S 22 23.2 +00.0	94 57.5 +02.3	S 21 18.1 +00.0	00													
01	30 19.2 +03.1	N 04 57.8 -00.1	116 11.2 +02.1	S 22 23.2 -00.1	109 59.8 +02.4	S 21 18.1 -00.1	01													
02	45 22.3 +03.2	N 04 57.7 +00.0	131 13.3 +02.2	S 22 23.1 +00.0	125 02.2 +02.3	S 21 18.0 +00.0	02													
03	60 25.5 +03.1	N 04 57.7 -00.1	146 15.5 +02.1	S 22 23.1 -00.1	140 04.5 +02.4	S 21 18.0 +00.0	03													
04	75 28.6 +03.1	N 04 57.6 -00.1	161 17.6 +02.1	S 22 23.0 +00.0	155 06.9 +02.3	S 21 18.0 +00.0	04													
05	90 31.7 +03.2	N 04 57.5 -00.1	176 19.7 +02.2	S 22 23.0 +00.0	170 09.2 +02.4	S 21 18.0 +00.0	05													
06	105 34.9 +03.1	N 04 57.4 -00.1	191 21.9 +02.1	S 22 23.0 -00.1	185 11.6 +02.4	S 21 18.0 +00.0	06													
07	120 38.0 +03.1	N 04 57.3 +00.0	206 24.0 +02.2	S 22 22.9 +00.0	200 14.0 +02.3	S 21 18.0 -00.1	07													
08	135 41.1 +03.1	N 04 57.3 -00.1	221 26.2 +02.1	S 22 22.9 -00.1	215 16.3 +02.4	S 21 17.9 +00.0	08													
09	150 44.2 +03.2	N 04 57.2 -00.1	236 28.3 +02.1	S 22 22.8 +00.0	230 18.7 +02.3	S 21 17.9 +00.0	09													
10	165 47.4 +03.1	N 04 57.1 -00.1	251 30.4 +02.2	S 22 22.8 -00.1	245 21.0 +02.4	S 21 17.9 +00.0	10													
11	180 50.5 +03.1	N 04 57.0 -00.1	266 32.6 +02.1	S 22 22.7 +00.0	260 23.4 +02.3	S 21 17.9 +00.0	11													
12	195 53.6 +03.1	N 04 56.9 +00.0	281 34.7 +02.1	S 22 22.7 +00.0	275 25.7 +02.4	S 21 17.9 +00.0	12													
13	210 56.7 +03.2	N 04 56.9 -00.1	296 36.8 +02.2	S 22 22.7 -00.1	290 28.1 +02.3	S 21 17.9 -00.1	13													
14	225 59.9 +03.1	N 04 56.8 -00.1	311 39.0 +02.1	S 22 22.6 +00.0	305 30.4 +02.4	S 21 17.8 +00.0	14													
15	241 03.0 +03.1	N 04 56.7 -00.1	326 41.1 +02.1	S 22 22.6 -00.1	320 32.8 +02.3	S 21 17.8 +00.0	15													
16	256 06.1 +03.1	N 04 56.6 -00.1	341 43.2 +02.2	S 22 22.5 +00.0	335 35.1 +02.4	S 21 17.8 +00.0	16													
17	271 09.2 +03.2	N 04 56.5 +00.0	356 45.4 +02.1	S 22 22.5 -00.1	350 37.5 +02.4	S 21 17.8 +00.0	17													
18	286 12.4 +03.1	N 04 56.5 -00.1	11 47.5 +02.1	S 22 22.4 +00.0	5 39.9 +02.3	S 21 17.8 -00.1	18													
19	301 15.5 +03.1	N 04 56.4 -00.1	26 49.6 +02.2	S 22 22.4 -00.1	20 42.2 +02.4	S 21 17.7 +00.0	19													
20	316 18.6 +03.1	N 04 56.3 -00.1	41 51.8 +02.1	S 22 22.3 +00.0	35 44.6 +02.3	S 21 17.7 +00.0	20													
21	331 21.7 +03.1	N 04 56.2 +00.0	56 53.9 +02.2	S 22 22.3 +00.0	50 46.9 +02.4	S 21 17.7 +00.0	21													
22	346 24.8 +03.1	N 04 56.2 -00.1	71 56.1 +02.1	S 22 22.3 -00.1	65 49.3 +02.3	S 21 17.7 +00.0	22													
23	1 27.9 +03.1	N 04 56.1 -00.1	86 58.2 +02.1	S 22 22.2 +00.0	80 51.6 +02.4	S 21 17.7 +00.0	23													
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	00°2	00°2	00°2	00°2	00°2	00°2	SD	00°3	00°3	00°3	00°3	00°3	00°3	SD	00°1	00°1	00°1	00°1	00°1	00°1
HP	00°3	00°3	00°3	00°3	00°3	00°3	HP	00°0	00°0	00°0	00°0	00°0	00°0	HP	00°0	00°0	00°0	00°0	00°0	00°0
SHA	342°	342°	343°	343°	343°	343°	SHA	068°	068°	068°	068°	068°	068°	SHA	062°	062°	062°	062°	062°	062°
Greenwich Culmination Time: 22:54							Greenwich Culmination Time: 17:12							Greenwich Culmination Time: 17:37						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 58.9 +00.0	S	12 10.8 +00.8	216 41.0 -00.3	N 02 46.3 -01.1	71 00.7 -29.4	S	19 15.2 -08.6	00				
01	198 58.9 +00.1	S	12 11.6 +00.9	231 40.7 -00.4	N 02 45.2 -01.1	85 31.3 -29.3	S	19 06.6 -08.6	01				
02	213 59.0 +00.1	S	12 12.5 +00.8	246 40.3 -00.3	N 02 44.1 -01.1	100 02.0 -29.2	S	18 58.0 -08.7	02				
03	228 59.1 +00.1	S	12 13.3 +00.9	261 40.0 -00.3	N 02 43.0 -01.2	114 32.8 -29.1	S	18 49.3 -08.8	03				
04	243 59.2 +00.0	S	12 14.2 +00.9	276 39.7 -00.4	N 02 41.8 -01.1	129 03.7 -29.0	S	18 40.5 -08.9	04				
05	258 59.2 +00.1	S	12 15.1 +00.8	291 39.3 -00.3	N 02 40.7 -01.1	143 34.7 -28.9	S	18 31.6 -08.9	05				
06	273 59.3 +00.1	S	12 15.9 +00.9	306 39.0 -00.4	N 02 39.6 -01.1	158 05.8 -28.9	S	18 22.7 -09.1	06				
07	288 59.4 +00.0	S	12 16.8 +00.8	321 38.6 -00.3	N 02 38.5 -01.2	172 36.9 -28.8	S	18 13.6 -09.1	07				
08	303 59.4 +00.1	S	12 17.6 +00.9	336 38.3 -00.3	N 02 37.3 -01.1	187 08.1 -28.7	S	18 04.5 -09.1	08				
09	318 59.5 +00.1	S	12 18.5 +00.8	351 38.0 -00.4	N 02 36.2 -01.1	201 39.4 -28.6	S	17 55.4 -09.3	09				
10	333 59.6 +00.0	S	12 19.3 +00.9	6 37.6 -00.3	N 02 35.1 -01.1	216 10.8 -28.5	S	17 46.1 -09.3	10				
11	348 59.6 +00.1	S	12 20.2 +00.9	21 37.3 -00.3	N 02 34.0 -01.2	230 42.3 -28.5	S	17 36.8 -09.4	11				
12	3 59.7 +00.1	S	12 21.1 +00.8	36 37.0 -00.4	N 02 32.8 -01.1	245 13.8 -28.3	S	17 27.4 -09.5	12				
13	18 59.8 +00.0	S	12 21.9 +00.9	51 36.6 -00.3	N 02 31.7 -01.1	259 45.5 -28.3	S	17 17.9 -09.6	13				
14	33 59.8 +00.1	S	12 22.8 +00.8	66 36.3 -00.4	N 02 30.6 -01.2	274 17.2 -28.3	S	17 08.3 -09.6	14				
15	48 59.9 +00.1	S	12 23.6 +00.9	81 35.9 -00.3	N 02 29.4 -01.1	288 48.9 -28.1	S	16 58.7 -09.7	15				
16	63 60.0 +00.0	S	12 24.5 +00.8	96 35.6 -00.3	N 02 28.3 -01.1	303 20.8 -28.1	S	16 49.0 -09.7	16				
17	79 00.0 +00.1	S	12 25.3 +00.9	111 35.3 -00.4	N 02 27.2 -01.1	317 52.7 -27.9	S	16 39.3 -09.8	17				
18	94 00.1 +00.1	S	12 26.2 +00.8	126 34.9 -00.3	N 02 26.1 -01.2	332 24.8 -28.0	S	16 29.5 -09.9	18				
19	109 00.2 +00.0	S	12 27.0 +00.9	141 34.6 -00.4	N 02 24.9 -01.1	346 56.8 -27.8	S	16 19.6 -10.0	19				
20	124 00.2 +00.1	S	12 27.9 +00.8	156 34.2 -00.3	N 02 23.8 -01.1	1 29.0 -27.7	S	16 09.6 -10.0	20				
21	139 00.3 +00.1	S	12 28.7 +00.9	171 33.9 -00.3	N 02 22.7 -01.1	16 01.3 -27.7	S	15 59.6 -10.1	21				
22	154 00.4 +00.0	S	12 29.6 +00.8	186 33.6 -00.4	N 02 21.6 -01.2	30 33.6 -27.6	S	15 49.5 -10.1	22				
23	169 00.4 +00.1	S	12 30.4 +00.9	201 33.2 -00.3	N 02 20.4 -01.1	45 06.0 -27.6	S	15 39.4 -10.2	23				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 16'1 16'1 16'1 16'1 16'1 16'1			SD 00'1 00'1 00'1 00'1 00'1 00'1				SD 15'2 15'1 15'1 15'1 15'1 15'0					
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 55'7 55'5 55'4 55'3 55'2 55'2					
	SHA 150° 150° 150° 150° 149° 149°			SHA 183° 183° 182° 182° 182° 182°				SHA 036° 034° 032° 030° 028° 026°					
	Greenwich Culmination Time: 11:44			Greenwich Culmination Time: 09:33				Greenwich Culmination Time: 19:53					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	16 31.0 +03.2	N 04 56.0 -00.1	102 00.3 +02.2	S 22 22.2 -00.1	95 54.0 +02.3	S 21 17.7 -00.1	00						
01	31 34.2 +03.1	N 04 55.9 +00.0	117 02.5 +02.1	S 22 22.1 +00.0	110 56.3 +02.4	S 21 17.6 +00.0	01						
02	46 37.3 +03.1	N 04 55.9 -00.1	132 04.6 +02.1	S 22 22.1 -00.1	125 58.7 +02.3	S 21 17.6 +00.0	02						
03	61 40.4 +03.1	N 04 55.8 -00.1	147 06.7 +02.1	S 22 22.0 +00.0	141 01.0 +02.4	S 21 17.6 +00.0	03						
04	76 43.5 +03.1	N 04 55.7 +00.0	162 08.8 +02.2	S 22 22.0 -00.1	156 03.4 +02.3	S 21 17.6 +00.0	04						
05	91 46.6 +03.1	N 04 55.7 -00.1	177 11.0 +02.1	S 22 21.9 +00.0	171 05.7 +02.4	S 21 17.6 +00.0	05						
06	106 49.7 +03.1	N 04 55.6 -00.1	192 13.1 +02.1	S 22 21.9 +00.0	186 08.1 +02.3	S 21 17.6 -00.1	06						
07	121 52.8 +03.1	N 04 55.5 -00.1	207 15.2 +02.2	S 22 21.9 -00.1	201 10.4 +02.4	S 21 17.5 +00.0	07						
08	136 55.9 +03.1	N 04 55.4 +00.0	222 17.4 +02.1	S 22 21.8 +00.0	216 12.8 +02.3	S 21 17.5 +00.0	08						
09	151 59.0 +03.1	N 04 55.4 -00.1	237 19.5 +02.1	S 22 21.8 -00.1	231 15.1 +02.4	S 21 17.5 +00.0	09						
10	167 02.1 +03.1	N 04 55.3 -00.1	252 21.6 +02.2	S 22 21.7 +00.0	246 17.5 +02.3	S 21 17.5 +00.0	10						
11	182 05.2 +03.1	N 04 55.2 +00.0	267 23.8 +02.1	S 22 21.7 -00.1	261 19.8 +02.4	S 21 17.5 -00.1	11						
12	197 08.3 +03.1	N 04 55.2 -00.1	282 25.9 +02.1	S 22 21.6 +00.0	276 22.2 +02.3	S 21 17.4 +00.0	12						
13	212 11.4 +03.1	N 04 55.1 -00.1	297 28.0 +02.2	S 22 21.6 -00.1	291 24.5 +02.4	S 21 17.4 +00.0	13						
14	227 14.5 +03.1	N 04 55.0 +00.0	312 30.2 +02.1	S 22 21.5 +00.0	306 26.9 +02.3	S 21 17.4 +00.0	14						
15	242 17.6 +03.1	N 04 55.0 -00.1	327 32.3 +02.1	S 22 21.5 -00.1	321 29.2 +02.4	S 21 17.4 +00.0	15						
16	257 20.7 +03.1	N 04 54.9 -00.1	342 34.4 +02.1	S 22 21.4 +00.0	336 31.6 +02.3	S 21 17.4 +00.0	16						
17	272 23.8 +03.1	N 04 54.8 -00.1	357 36.5 +02.2	S 22 21.4 +00.0	351 33.9 +02.4	S 21 17.4 -00.1	17						
18	287 26.9 +03.1	N 04 54.7 +00.0	12 38.7 +02.1	S 22 21.4 -00.1	6 36.3 +02.3	S 21 17.3 +00.0	18						
19	302 30.0 +03.1	N 04 54.7 -00.1	27 40.8 +02.1	S 22 21.3 +00.0	21 38.6 +02.4	S 21 17.3 +00.0	19						
20	317 33.1 +03.1	N 04 54.6 -00.1	42 42.9 +02.2	S 22 21.3 -00.1	36 41.0 +02.3	S 21 17.3 +00.0	20						
21	332 36.2 +03.1	N 04 54.5 +00.0	57 45.1 +02.1	S 22 21.2 +00.0	51 43.3 +02.4	S 21 17.3 +00.0	21						
22	347 39.3 +03.1	N 04 54.5 -00.1	72 47.2 +02.1	S 22 21.2 -00.1	66 45.7 +02.3	S 21 17.3 -00.1	22						
23	2 42.4 +03.1	N 04 54.4 +00.0	87 49.3 +02.1	S 22 21.1 +00.0	81 48.0 +02.4	S 21 17.2 +00.0	23						
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3				SD 00'1 00'1 00'1 00'1 00'1 00'1					
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0					
	SHA 343° 343° 343° 343° 343° 343°			SHA 068° 068° 068° 068° 068° 068°				SHA 062° 062° 062° 062° 062° 062°					
	Greenwich Culmination Time: 22:49			Greenwich Culmination Time: 17:09				Greenwich Culmination Time: 17:33					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	184 00.5 +00.1	S	12 31.3 +00.9	216 32.9 -00.3	N	02 19.3 -01.1	59 38.4 -27.5	S	15 29.2 -10.3	00			
01	199 00.6 +00.0	S	12 32.2 +00.8	231 32.6 -00.4	N	02 18.2 -01.2	74 10.9 -27.4	S	15 18.9 -10.3	01			
02	214 00.6 +00.1	S	12 33.0 +00.9	246 32.2 -00.3	N	02 17.0 -01.1	88 43.5 -27.3	S	15 08.6 -10.3	02			
03	229 00.7 +00.1	S	12 33.9 +00.8	261 31.9 -00.4	N	02 15.9 -01.1	103 16.2 -27.3	S	14 58.3 -10.5	03			
04	244 00.8 +00.0	S	12 34.7 +00.9	276 31.5 -00.3	N	02 14.8 -01.2	117 48.9 -27.1	S	14 47.8 -10.5	04			
05	259 00.8 +00.1	S	12 35.6 +00.8	291 31.2 -00.3	N	02 13.6 -01.1	132 21.8 -27.2	S	14 37.3 -10.5	05			
06	274 00.9 +00.0	S	12 36.4 +00.9	306 30.9 -00.4	N	02 12.5 -01.1	146 54.6 -27.0	S	14 26.8 -10.6	06			
07	289 00.9 +00.1	S	12 37.3 +00.8	321 30.5 -00.3	N	02 11.4 -01.2	161 27.6 -27.0	S	14 16.2 -10.7	07			
08	304 01.0 +00.1	S	12 38.1 +00.8	336 30.2 -00.4	N	02 10.2 -01.1	176 00.6 -26.9	S	14 05.5 -10.7	08			
09	319 01.1 +00.0	S	12 38.9 +00.9	351 29.8 -00.3	N	02 09.1 -01.1	190 33.7 -26.9	S	13 54.8 -10.7	09			
10	334 01.1 +00.1	S	12 39.8 +00.8	6 29.5 -00.3	N	02 08.0 -01.1	205 06.8 -26.8	S	13 44.1 -10.8	10			
11	349 01.2 +00.1	S	12 40.6 +00.9	21 29.2 -00.4	N	02 06.9 -01.2	219 40.0 -26.7	S	13 33.3 -10.9	11			
12	4 01.3 +00.0	S	12 41.5 +00.8	36 28.8 -00.3	N	02 05.7 -01.1	234 13.3 -26.7	S	13 22.4 -10.9	12			
13	19 01.3 +00.1	S	12 42.3 +00.9	51 28.5 -00.4	N	02 04.6 -01.1	248 46.6 -26.6	S	13 11.5 -10.9	13			
14	34 01.4 +00.0	S	12 43.2 +00.8	66 28.1 -00.3	N	02 03.5 -01.2	263 20.0 -26.6	S	13 00.6 -11.0	14			
15	49 01.4 +00.1	S	12 44.0 +00.9	81 27.8 -00.3	N	02 02.3 -01.1	277 53.4 -26.5	S	12 49.6 -11.1	15			
16	64 01.5 +00.1	S	12 44.9 +00.8	96 27.5 -00.4	N	02 01.2 -01.1	292 26.9 -26.4	S	12 38.5 -11.1	16			
17	79 01.6 +00.0	S	12 45.7 +00.9	111 27.1 -00.3	N	02 00.1 -01.2	307 00.5 -26.4	S	12 27.4 -11.1	17			
18	94 01.6 +00.1	S	12 46.6 +00.8	126 26.8 -00.3	N	01 58.9 -01.1	321 34.1 -26.3	S	12 16.3 -11.2	18			
19	109 01.7 +00.0	S	12 47.4 +00.9	141 26.5 -00.4	N	01 57.8 -01.1	336 07.8 -26.2	S	12 05.1 -11.2	19			
20	124 01.7 +00.1	S	12 48.3 +00.8	156 26.1 -00.3	N	01 56.7 -01.2	350 41.6 -26.2	S	11 53.9 -11.3	20			
21	139 01.8 +00.0	S	12 49.1 +00.8	171 25.8 -00.4	N	01 55.5 -01.1	5 15.4 -26.2	S	11 42.6 -11.3	21			
22	154 01.8 +00.1	S	12 49.9 +00.9	186 25.4 -00.3	N	01 54.4 -01.1	19 49.2 -26.1	S	11 31.3 -11.3	22			
23	169 01.9 +00.1	S	12 50.8 +00.8	201 25.1 -00.3	N	01 53.3 -01.2	34 23.1 -26.0	S	11 20.0 -11.4	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16°1 16°1 16°1 16°1 16°1 16°1			SD 00°1 00°1 00°1 00°1 00°1 00°1			SD 15°0 15°0 15°0 14°9 14°9 14°9						
	HP 00°1 00°1 00°1 00°1 00°1 00°1			HP 00°1 00°1 00°1 00°1 00°1 00°1			HP 55°1 55°0 54°9 54°8 54°7 54°7						
	SHA 149° 149° 149° 149° 148° 148°			SHA 182° 181° 181° 181° 181° 181°			SHA 024° 022° 020° 018° 016° 014°						
	Greenwich Culmination Time: 11:43			Greenwich Culmination Time: 09:34			Greenwich Culmination Time: 20:38						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	17 45.5 +03.1	N	04 54.4 -00.1	102 51.4 +02.2	S	22 21.1 -00.1	96 50.4 +02.3	S	21 17.2 +00.0	00			
01	32 48.6 +03.1	N	04 54.3 -00.1	117 53.6 +02.1	S	22 21.0 +00.0	111 52.7 +02.4	S	21 17.2 +00.0	01			
02	47 51.7 +03.1	N	04 54.2 +00.0	132 55.7 +02.1	S	22 21.0 -00.1	126 55.1 +02.3	S	21 17.2 +00.0	02			
03	62 54.8 +03.0	N	04 54.2 -00.1	147 57.8 +02.1	S	22 20.9 +00.0	141 57.4 +02.4	S	21 17.2 -00.1	03			
04	77 57.8 +03.1	N	04 54.1 -00.1	162 59.9 +02.2	S	22 20.9 +00.0	156 59.8 +02.3	S	21 17.1 +00.0	04			
05	93 00.9 +03.1	N	04 54.0 +00.0	178 02.1 +02.1	S	22 20.9 -00.1	172 02.1 +02.4	S	21 17.1 +00.0	05			
06	108 04.0 +03.1	N	04 54.0 -00.1	193 04.2 +02.1	S	22 20.8 +00.0	187 04.5 +02.3	S	21 17.1 +00.0	06			
07	123 07.1 +03.1	N	04 53.9 -00.1	208 06.3 +02.1	S	22 20.8 -00.1	202 06.8 +02.4	S	21 17.1 +00.0	07			
08	138 10.2 +03.1	N	04 53.8 +00.0	223 08.4 +02.2	S	22 20.7 +00.0	217 09.2 +02.3	S	21 17.1 +00.0	08			
09	153 13.3 +03.0	N	04 53.8 -00.1	238 10.6 +02.1	S	22 20.7 -00.1	232 11.5 +02.4	S	21 17.1 -00.1	09			
10	168 16.3 +03.1	N	04 53.7 +00.0	253 12.7 +02.1	S	22 20.6 +00.0	247 13.9 +02.3	S	21 17.0 +00.0	10			
11	183 19.4 +03.1	N	04 53.7 -00.1	268 14.8 +02.1	S	22 20.6 -00.1	262 16.2 +02.4	S	21 17.0 +00.0	11			
12	198 22.5 +03.1	N	04 53.6 -00.1	283 16.9 +02.2	S	22 20.5 +00.0	277 18.6 +02.3	S	21 17.0 +00.0	12			
13	213 25.6 +03.0	N	04 53.5 +00.0	298 19.1 +02.1	S	22 20.5 -00.1	292 20.9 +02.4	S	21 17.0 +00.0	13			
14	228 28.6 +03.1	N	04 53.5 -00.1	313 21.2 +02.1	S	22 20.4 +00.0	307 23.3 +02.3	S	21 17.0 -00.1	14			
15	243 31.7 +03.1	N	04 53.4 +00.0	328 23.3 +02.1	S	22 20.4 -00.1	322 25.6 +02.3	S	21 16.9 +00.0	15			
16	258 34.8 +03.1	N	04 53.4 -00.1	343 25.4 +02.2	S	22 20.3 +00.0	337 27.9 +02.4	S	21 16.9 +00.0	16			
17	273 37.9 +03.0	N	04 53.3 -00.1	358 27.6 +02.1	S	22 20.3 +00.0	352 30.3 +02.3	S	21 16.9 +00.0	17			
18	288 40.9 +03.1	N	04 53.2 +00.0	13 29.7 +02.1	S	22 20.3 -00.1	7 32.6 +02.4	S	21 16.9 +00.0	18			
19	303 44.0 +03.1	N	04 53.2 -00.1	28 31.8 +02.1	S	22 20.2 +00.0	22 35.0 +02.3	S	21 16.9 -00.1	19			
20	318 47.1 +03.1	N	04 53.1 +00.0	43 33.9 +02.1	S	22 20.2 -00.1	37 37.3 +02.4	S	21 16.8 +00.0	20			
21	333 50.2 +03.0	N	04 53.1 -00.1	58 36.0 +02.2	S	22 20.1 +00.0	52 39.7 +02.3	S	21 16.8 +00.0	21			
22	348 53.2 +03.1	N	04 53.0 +00.0	73 38.2 +02.1	S	22 20.1 -00.1	67 42.0 +02.4	S	21 16.8 +00.0	22			
23	3 56.3 +03.1	N	04 53.0 -00.1	88 40.3 +02.1	S	22 20.0 +00.0	82 44.4 +02.3	S	21 16.8 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00°2 00°2 00°2 00°2 00°2 00°2			SD 00°3 00°3 00°3 00°3 00°3 00°3			SD 00°1 00°1 00°1 00°1 00°1 00°1						
	HP 00°3 00°3 00°3 00°3 00°3 00°3			HP 00°0 00°0 00°0 00°0 00°0 00°0			HP 00°0 00°0 00°0 00°0 00°0 00°0						
	SHA 343° 343° 343° 343° 343° 343°			SHA 068° 068° 068° 068° 068° 068°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 22:44			Greenwich Culmination Time: 17:06			Greenwich Culmination Time: 17:29						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	184 02.0 +00.0	S	12 51.6 +00.9	216 24.8 -00.4	N 01 52.1 -01.1	48 57.1 -26.0	S 11 08.6 -11.5	00					
01	199 02.0 +00.1	S	12 52.5 +00.8	231 24.4 -00.3	N 01 51.0 -01.2	63 31.1 -25.9	S 10 57.1 -11.4	01					
02	214 02.1 +00.0	S	12 53.3 +00.9	246 24.1 -00.4	N 01 49.8 -01.1	78 05.2 -25.9	S 10 45.7 -11.5	02					
03	229 02.1 +00.1	S	12 54.2 +00.8	261 23.7 -00.3	N 01 48.7 -01.1	92 39.3 -25.9	S 10 34.2 -11.6	03					
04	244 02.2 +00.0	S	12 55.0 +00.8	276 23.4 -00.3	N 01 47.6 -01.2	107 13.4 -25.7	S 10 22.6 -11.5	04					
05	259 02.2 +00.1	S	12 55.8 +00.9	291 23.1 -00.4	N 01 46.4 -01.1	121 47.7 -25.8	S 10 11.1 -11.7	05					
06	274 02.3 +00.0	S	12 56.7 +00.8	306 22.7 -00.3	N 01 45.3 -01.1	136 21.9 -25.7	S 09 59.4 -11.6	06					
07	289 02.3 +00.1	S	12 57.5 +00.9	321 22.4 -00.4	N 01 44.2 -01.2	150 56.2 -25.6	S 09 47.8 -11.7	07					
08	304 02.4 +00.1	S	12 58.4 +00.8	336 22.0 -00.3	N 01 43.0 -01.1	165 30.6 -25.6	S 09 36.1 -11.7	08					
09	319 02.5 +00.0	S	12 59.2 +00.8	351 21.7 -00.3	N 01 41.9 -01.1	180 05.0 -25.6	S 09 24.4 -11.7	09					
10	334 02.5 +00.1	S	13 00.0 +00.9	6 21.4 -00.4	N 01 40.8 -01.2	194 39.4 -25.5	S 09 12.7 -11.8	10					
11	349 02.6 +00.0	S	13 00.9 +00.8	21 21.0 -00.3	N 01 39.6 -01.1	209 13.9 -25.5	S 09 00.9 -11.8	11					
12	4 02.6 +00.1	S	13 01.7 +00.9	36 20.7 -00.4	N 01 38.5 -01.1	223 48.4 -25.4	S 08 49.1 -11.8	12					
13	19 02.7 +00.0	S	13 02.6 +00.8	51 20.3 -00.3	N 01 37.4 -01.2	238 23.0 -25.4	S 08 37.3 -11.9	13					
14	34 02.7 +00.1	S	13 03.4 +00.8	66 20.0 -00.3	N 01 36.2 -01.1	252 57.6 -25.3	S 08 25.4 -11.9	14					
15	49 02.8 +00.0	S	13 04.2 +00.9	81 19.7 -00.4	N 01 35.1 -01.2	267 32.3 -25.3	S 08 13.5 -11.9	15					
16	64 02.8 +00.1	S	13 05.1 +00.8	96 19.3 -00.3	N 01 33.9 -01.1	282 07.0 -25.3	S 08 01.6 -11.9	16					
17	79 02.9 +00.0	S	13 05.9 +00.9	111 19.0 -00.4	N 01 32.8 -01.1	296 41.7 -25.2	S 07 49.7 -12.0	17					
18	94 02.9 +00.1	S	13 06.8 +00.8	126 18.6 -00.3	N 01 31.7 -01.2	311 16.5 -25.2	S 07 37.7 -12.0	18					
19	109 03.0 +00.0	S	13 07.6 +00.8	141 18.3 -00.3	N 01 30.5 -01.1	325 51.3 -25.2	S 07 25.7 -12.0	19					
20	124 03.0 +00.1	S	13 08.4 +00.9	156 18.0 -00.4	N 01 29.4 -01.2	340 26.1 -25.1	S 07 13.7 -12.1	20					
21	139 03.1 +00.0	S	13 09.3 +00.8	171 17.6 -00.3	N 01 28.2 -01.1	355 01.0 -25.1	S 07 01.6 -12.0	21					
22	154 03.1 +00.1	S	13 10.1 +00.8	186 17.3 -00.4	N 01 27.1 -01.1	9 35.9 -25.1	S 06 49.6 -12.1	22					
23	169 03.2 +00.0	S	13 10.9 +00.9	201 16.9 -00.3	N 01 26.0 -01.2	24 10.8 -25.0	S 06 37.5 -12.1	23					
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 16'1 16'1 16'1 16'1 16'1 16'1			SD 00'1 00'1 00'1 00'1 00'1 00'1				SD 14'9 14'9 14'8 14'8 14'8 14'8					
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 54'6 54'5 54'5 54'4 54'4 54'3					
	SHA 148° 148° 148° 148° 147° 147°			SHA 181° 180° 180° 180° 180° 180°				SHA 012° 010° 008° 007° 005° 003°					
	Greenwich Culmination Time: 11:43			Greenwich Culmination Time: 09:34				Greenwich Culmination Time: 21:20					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	18 59.4 +03.0	N 04 52.9 +00.0	103 42.4 +02.1	S 22 20.0 -00.1	97 46.7 +02.4	S 21 16.8 -00.1	00						
01	34 02.4 +03.1	N 04 52.9 -00.1	118 44.5 +02.1	S 22 19.9 +00.0	112 49.1 +02.3	S 21 16.7 +00.0	01						
02	49 05.5 +03.0	N 04 52.8 -00.1	133 46.6 +02.2	S 22 19.9 -00.1	127 51.4 +02.3	S 21 16.7 +00.0	02						
03	64 08.5 +03.1	N 04 52.7 +00.0	148 48.8 +02.1	S 22 19.8 +00.0	142 53.7 +02.4	S 21 16.7 +00.0	03						
04	79 11.6 +03.1	N 04 52.7 -00.1	163 50.9 +02.1	S 22 19.8 -00.1	157 56.1 +02.3	S 21 16.7 +00.0	04						
05	94 14.7 +03.0	N 04 52.6 +00.0	178 53.0 +02.1	S 22 19.7 +00.0	172 58.4 +02.4	S 21 16.7 +00.0	05						
06	109 17.7 +03.1	N 04 52.6 -00.1	193 55.1 +02.1	S 22 19.7 -00.1	188 00.8 +02.3	S 21 16.7 -00.1	06						
07	124 20.8 +03.0	N 04 52.5 +00.0	208 57.2 +02.2	S 22 19.6 +00.0	203 03.1 +02.4	S 21 16.6 +00.0	07						
08	139 23.8 +03.1	N 04 52.5 -00.1	223 59.4 +02.1	S 22 19.6 -00.1	218 05.5 +02.3	S 21 16.6 +00.0	08						
09	154 26.9 +03.1	N 04 52.4 +00.0	239 01.5 +02.1	S 22 19.5 +00.0	233 07.8 +02.3	S 21 16.6 +00.0	09						
10	169 30.0 +03.0	N 04 52.4 -00.1	254 03.6 +02.1	S 22 19.5 +00.0	248 10.1 +02.4	S 21 16.6 +00.0	10						
11	184 33.0 +03.1	N 04 52.3 +00.0	269 05.7 +02.1	S 22 19.5 -00.1	263 12.5 +02.3	S 21 16.6 -00.1	11						
12	199 36.1 +03.0	N 04 52.3 -00.1	284 07.8 +02.1	S 22 19.4 +00.0	278 14.8 +02.4	S 21 16.5 +00.0	12						
13	214 39.1 +03.1	N 04 52.2 +00.0	299 09.9 +02.2	S 22 19.4 -00.1	293 17.2 +02.3	S 21 16.5 +00.0	13						
14	229 42.2 +03.0	N 04 52.2 -00.1	314 12.1 +02.1	S 22 19.3 +00.0	308 19.5 +02.4	S 21 16.5 +00.0	14						
15	244 45.2 +03.1	N 04 52.1 +00.0	329 14.2 +02.1	S 22 19.3 -00.1	323 21.9 +02.3	S 21 16.5 +00.0	15						
16	259 48.3 +03.0	N 04 52.1 -00.1	344 16.3 +02.1	S 22 19.2 +00.0	338 24.2 +02.3	S 21 16.5 -00.1	16						
17	274 51.3 +03.1	N 04 52.0 +00.0	359 18.4 +02.1	S 22 19.2 -00.1	353 26.5 +02.4	S 21 16.4 +00.0	17						
18	289 54.4 +03.0	N 04 52.0 -00.1	14 20.5 +02.1	S 22 19.1 +00.0	8 28.9 +02.3	S 21 16.4 +00.0	18						
19	304 57.4 +03.0	N 04 51.9 +00.0	29 22.6 +02.2	S 22 19.1 -00.1	23 31.2 +02.4	S 21 16.4 +00.0	19						
20	320 00.4 +03.1	N 04 51.9 -00.1	44 24.8 +02.1	S 22 19.0 +00.0	38 33.6 +02.3	S 21 16.4 +00.0	20						
21	335 03.5 +03.0	N 04 51.8 +00.0	59 26.9 +02.1	S 22 19.0 -00.1	53 35.9 +02.3	S 21 16.4 -00.1	21						
22	350 06.5 +03.1	N 04 51.8 -00.1	74 29.0 +02.1	S 22 18.9 +00.0	68 38.2 +02.4	S 21 16.3 +00.0	22						
23	5 09.6 +03.0	N 04 51.7 +00.0	89 31.1 +02.1	S 22 18.9 -00.1	83 40.6 +02.3	S 21 16.3 +00.0	23						
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3				SD 00'1 00'1 00'1 00'1 00'1 00'1					
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0					
	SHA 343° 343° 343° 343° 343° 343°			SHA 068° 068° 068° 068° 068° 068°				SHA 062° 062° 062° 062° 062° 062°					
	Greenwich Culmination Time: 22:39			Greenwich Culmination Time: 17:02				Greenwich Culmination Time: 17:26					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 41%				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	184 03.2 +00.1	S 13 11.8 +00.8	216 16.6 -00.3	N 01 24.8 -01.1	38 45.8 -25.0	S 06 25.4 -12.1	00						
01	199 03.3 +00.0	S 13 12.6 +00.8	231 16.3 -00.4	N 01 23.7 -01.1	53 20.8 -24.9	S 06 13.3 -12.2	01						
02	214 03.3 +00.1	S 13 13.4 +00.9	246 15.9 -00.3	N 01 22.6 -01.2	67 55.9 -25.0	S 06 01.1 -12.2	02						
03	229 03.4 +00.0	S 13 14.3 +00.8	261 15.6 -00.4	N 01 21.4 -01.1	82 30.9 -24.9	S 05 48.9 -12.1	03						
04	244 03.4 +00.1	S 13 15.1 +00.8	276 15.2 -00.3	N 01 20.3 -01.2	97 06.0 -24.9	S 05 36.8 -12.2	04						
05	259 03.5 +00.0	S 13 15.9 +00.9	291 14.9 -00.3	N 01 19.1 -01.1	111 41.1 -24.8	S 05 24.6 -12.3	05						
06	274 03.5 +00.1	S 13 16.8 +00.8	306 14.6 -00.4	N 01 18.0 -01.1	126 16.3 -24.8	S 05 12.3 -12.2	06						
07	289 03.6 +00.0	S 13 17.6 +00.8	321 14.2 -00.3	N 01 16.9 -01.2	140 51.5 -24.8	S 05 00.1 -12.2	07						
08	304 03.6 +00.1	S 13 18.4 +00.9	336 13.9 -00.4	N 01 15.7 -01.1	155 26.7 -24.8	S 04 47.9 -12.3	08						
09	319 03.7 +00.0	S 13 19.3 +00.8	351 13.5 -00.3	N 01 14.6 -01.2	170 01.9 -24.7	S 04 35.6 -12.3	09						
10	334 03.7 +00.0	S 13 20.1 +00.8	6 13.2 -00.4	N 01 13.4 -01.1	184 37.2 -24.8	S 04 23.3 -12.3	10						
11	349 03.7 +00.1	S 13 20.9 +00.9	21 12.8 -00.3	N 01 12.3 -01.2	199 12.4 -24.7	S 04 11.0 -12.3	11						
12	4 03.8 +00.0	S 13 21.8 +00.8	36 12.5 -00.3	N 01 11.1 -01.1	213 47.7 -24.7	S 03 58.7 -12.3	12						
13	19 03.8 +00.1	S 13 22.6 +00.8	51 12.2 -00.4	N 01 10.0 -01.1	228 23.0 -24.6	S 03 46.4 -12.3	13						
14	34 03.9 +00.0	S 13 23.4 +00.8	66 11.8 -00.3	N 01 08.9 -01.2	242 58.4 -24.7	S 03 34.1 -12.4	14						
15	49 03.9 +00.1	S 13 24.2 +00.9	81 11.5 -00.4	N 01 07.7 -01.1	257 33.7 -24.6	S 03 21.7 -12.3	15						
16	64 04.0 +00.0	S 13 25.1 +00.8	96 11.1 -00.3	N 01 06.6 -01.2	272 09.1 -24.6	S 03 09.4 -12.4	16						
17	79 04.0 +00.1	S 13 25.9 +00.8	111 10.8 -00.3	N 01 05.4 -01.1	286 44.5 -24.6	S 02 57.0 -12.3	17						
18	94 04.1 +00.0	S 13 26.7 +00.9	126 10.5 -00.4	N 01 04.3 -01.1	301 19.9 -24.6	S 02 44.7 -12.4	18						
19	109 04.1 +00.0	S 13 27.6 +00.8	141 10.1 -00.3	N 01 03.2 -01.2	315 55.3 -24.6	S 02 32.3 -12.4	19						
20	124 04.1 +00.1	S 13 28.4 +00.8	156 09.8 -00.4	N 01 02.0 -01.1	330 30.7 -24.5	S 02 19.9 -12.4	20						
21	139 04.2 +00.0	S 13 29.2 +00.8	171 09.4 -00.3	N 01 00.9 -01.2	345 06.2 -24.6	S 02 07.5 -12.4	21						
22	154 04.2 +00.1	S 13 30.0 +00.9	186 09.1 -00.4	N 00 59.7 -01.1	359 41.6 -24.5	S 01 55.1 -12.4	22						
23	169 04.3 +00.0	S 13 30.9 +00.8	201 08.7 -00.3	N 00 58.6 -01.2	14 17.1 -24.5	S 01 42.7 -12.4	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 16'1 16'1 16'1 16'1 16'1 16'1		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'8 14'8 14'8 14'8 14'7 14'7								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'3 54'2 54'2 54'2 54'1 54'1								
	SHA 147° 147° 147° 147° 147° 146°		SHA 179° 179° 179° 179° 179° 178°		SHA 001° 359° 357° 356° 354° 352°								
	Greenwich Culmination Time: 11:43		Greenwich Culmination Time: 09:35		Greenwich Culmination Time: 22:01								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	20 12.6 +03.1	N 04 51.7 +00.0	104 33.2 +02.1	S 22 18.8 +00.0	98 42.9 +02.4	S 21 16.3 +00.0	00						
01	35 15.7 +03.0	N 04 51.7 -00.1	119 35.3 +02.1	S 22 18.8 -00.1	113 45.3 +02.3	S 21 16.3 +00.0	01						
02	50 18.7 +03.0	N 04 51.6 +00.0	134 37.4 +02.2	S 22 18.7 +00.0	128 47.6 +02.4	S 21 16.3 -00.1	02						
03	65 21.7 +03.1	N 04 51.6 -00.1	149 39.6 +02.1	S 22 18.7 -00.1	143 50.0 +02.3	S 21 16.2 +00.0	03						
04	80 24.8 +03.0	N 04 51.5 +00.0	164 41.7 +02.1	S 22 18.6 +00.0	158 52.3 +02.3	S 21 16.2 +00.0	04						
05	95 27.8 +03.0	N 04 51.5 -00.1	179 43.8 +02.1	S 22 18.6 -00.1	173 54.6 +02.4	S 21 16.2 +00.0	05						
06	110 30.8 +03.1	N 04 51.4 +00.0	194 45.9 +02.1	S 22 18.5 +00.0	188 57.0 +02.3	S 21 16.2 +00.0	06						
07	125 33.9 +03.0	N 04 51.4 -00.1	209 48.0 +02.1	S 22 18.5 -00.1	203 59.3 +02.3	S 21 16.2 -00.1	07						
08	140 36.9 +03.0	N 04 51.3 +00.0	224 50.1 +02.1	S 22 18.4 +00.0	219 01.6 +02.4	S 21 16.1 +00.0	08						
09	155 39.9 +03.1	N 04 51.3 +00.0	239 52.2 +02.1	S 22 18.4 -00.1	234 04.0 +02.3	S 21 16.1 +00.0	09						
10	170 43.0 +03.0	N 04 51.3 -00.1	254 54.3 +02.2	S 22 18.3 +00.0	249 06.3 +02.4	S 21 16.1 +00.0	10						
11	185 46.0 +03.0	N 04 51.2 +00.0	269 56.5 +02.1	S 22 18.3 +00.0	264 08.7 +02.3	S 21 16.1 +00.0	11						
12	200 49.0 +03.0	N 04 51.2 -00.1	284 58.6 +02.1	S 22 18.3 -00.1	279 11.0 +02.3	S 21 16.1 -00.1	12						
13	215 52.0 +03.1	N 04 51.1 +00.0	300 00.7 +02.1	S 22 18.2 +00.0	294 13.3 +02.4	S 21 16.0 +00.0	13						
14	230 55.1 +03.0	N 04 51.1 +00.0	315 02.8 +02.1	S 22 18.2 -00.1	309 15.7 +02.3	S 21 16.0 +00.0	14						
15	245 58.1 +03.0	N 04 51.1 -00.1	330 04.9 +02.1	S 22 18.1 +00.0	324 18.0 +02.4	S 21 16.0 +00.0	15						
16	261 01.1 +03.0	N 04 51.0 +00.0	345 07.0 +02.1	S 22 18.1 -00.1	339 20.4 +02.3	S 21 16.0 +00.0	16						
17	276 04.1 +03.0	N 04 51.0 -00.1	0 09.1 +02.1	S 22 18.0 +00.0	354 22.7 +02.3	S 21 16.0 -00.1	17						
18	291 07.1 +03.1	N 04 50.9 +00.0	15 11.2 +02.1	S 22 18.0 -00.1	9 25.0 +02.4	S 21 15.9 +00.0	18						
19	306 10.2 +03.0	N 04 50.9 +00.0	30 13.3 +02.2	S 22 17.9 +00.0	24 27.4 +02.3	S 21 15.9 +00.0	19						
20	321 13.2 +03.0	N 04 50.9 -00.1	45 15.5 +02.1	S 22 17.9 -00.1	39 29.7 +02.3	S 21 15.9 +00.0	20						
21	336 16.2 +03.0	N 04 50.8 +00.0	60 17.6 +02.1	S 22 17.8 +00.0	54 32.0 +02.4	S 21 15.9 -00.1	21						
22	351 19.2 +03.0	N 04 50.8 +00.0	75 19.7 +02.1	S 22 17.8 -00.1	69 34.4 +02.3	S 21 15.8 +00.0	22						
23	6 22.2 +03.0	N 04 50.8 -00.1	90 21.8 +02.1	S 22 17.7 +00.0	84 36.7 +02.4	S 21 15.8 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 00'1 00'1 00'1 00'1 00'1 00'1								
	HP 00'3 00'3 00'3 00'3 00'3 00'3		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0								
	SHA 343° 343° 344° 344° 344° 344°		SHA 068° 068° 068° 068° 068° 068°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 22:34		Greenwich Culmination Time: 16:59		Greenwich Culmination Time: 17:22								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	184 04.3 +00.1	S	13 31.7 +00.8	216 08.4 -00.3	N 00 57.4 -01.1	28 52.6 -24.5	S 01 30.3 -12.4	00					
01	199 04.4 +00.0	S	13 32.5 +00.8	231 08.1 -00.4	N 00 56.3 -01.2	43 28.1 -24.5	S 01 17.9 -12.4	01					
02	214 04.4 +00.0	S	13 33.3 +00.9	246 07.7 -00.3	N 00 55.1 -01.1	58 03.6 -24.5	S 01 05.5 -12.4	02					
03	229 04.4 +00.1	S	13 34.2 +00.8	261 07.4 -00.4	N 00 54.0 -01.1	72 39.1 -24.5	S 00 53.1 -12.4	03					
04	244 04.5 +00.0	S	13 35.0 +00.8	276 07.0 -00.3	N 00 52.9 -01.2	87 14.6 -24.4	S 00 40.7 -12.4	04					
05	259 04.5 +00.1	S	13 35.8 +00.8	291 06.7 -00.3	N 00 51.7 -01.1	101 50.2 -24.5	S 00 28.3 -12.4	05					
06	274 04.6 +00.0	S	13 36.6 +00.9	306 06.4 -00.4	N 00 50.6 -01.2	116 25.7 -24.5	S 00 15.9 -12.4	06					
07	289 04.6 +00.0	S	13 37.5 +00.8	321 06.0 -00.3	N 00 49.4 -01.1	131 01.2 -24.4	S 00 03.5 -12.5	07					
08	304 04.6 +00.1	S	13 38.3 +00.8	336 05.7 -00.4	N 00 48.3 -01.2	145 36.8 -24.5	N 00 09.0 +12.4	08					
09	319 04.7 +00.0	S	13 39.1 +00.8	351 05.3 -00.3	N 00 47.1 -01.1	160 12.3 -24.4	N 00 21.4 +12.4	09					
10	334 04.7 +00.0	S	13 39.9 +00.9	6 05.0 -00.4	N 00 46.0 -01.2	174 47.9 -24.5	N 00 33.8 +12.4	10					
11	349 04.7 +00.1	S	13 40.8 +00.8	21 04.6 -00.3	N 00 44.8 -01.1	189 23.4 -24.4	N 00 46.2 +12.4	11					
12	4 04.8 +00.0	S	13 41.6 +00.8	36 04.3 -00.3	N 00 43.7 -01.1	203 59.0 -24.5	N 00 58.6 +12.4	12					
13	19 04.8 +00.1	S	13 42.4 +00.8	51 04.0 -00.4	N 00 42.6 -01.2	218 34.5 -24.4	N 01 11.0 +12.3	13					
14	34 04.9 +00.0	S	13 43.2 +00.8	66 03.6 -00.3	N 00 41.4 -01.1	233 10.1 -24.5	N 01 23.3 +12.4	14					
15	49 04.9 +00.0	S	13 44.0 +00.9	81 03.3 -00.4	N 00 40.3 -01.2	247 45.6 -24.5	N 01 35.7 +12.4	15					
16	64 04.9 +00.1	S	13 44.9 +00.8	96 02.9 -00.3	N 00 39.1 -01.1	262 21.1 -24.4	N 01 48.1 +12.4	16					
17	79 05.0 +00.0	S	13 45.7 +00.8	111 02.6 -00.4	N 00 38.0 -01.2	276 56.7 -24.5	N 02 00.5 +12.3	17					
18	94 05.0 +00.0	S	13 46.5 +00.8	126 02.2 -00.3	N 00 36.8 -01.1	291 32.2 -24.4	N 02 12.8 +12.4	18					
19	109 05.0 +00.1	S	13 47.3 +00.8	141 01.9 -00.3	N 00 35.7 -01.2	306 07.8 -24.5	N 02 25.2 +12.3	19					
20	124 05.1 +00.0	S	13 48.1 +00.9	156 01.6 -00.4	N 00 34.5 -01.1	320 43.3 -24.5	N 02 37.5 +12.4	20					
21	139 05.1 +00.0	S	13 49.0 +00.8	171 01.2 -00.3	N 00 33.4 -01.2	335 18.8 -24.5	N 02 49.9 +12.3	21					
22	154 05.1 +00.1	S	13 49.8 +00.8	186 00.9 -00.4	N 00 32.2 -01.1	349 54.3 -24.5	N 03 02.2 +12.3	22					
23	169 05.2 +00.0	S	13 50.6 +00.8	201 00.5 -00.3	N 00 31.1 -01.2	4 29.8 -24.5	N 03 14.5 +12.3	23					
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 16'1 16'1 16'1 16'1 16'1 16'1			SD 00'1 00'1 00'1 00'1 00'1 00'1				SD 14'7 14'7 14'7 14'7 14'7 14'7					
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 54'1 54'0 54'0 54'0 54'0 54'0					
	SHA 146° 146° 146° 146° 146° 145°			SHA 178° 178° 178° 178° 178° 177°				SHA 350° 348° 347° 345° 343° 341°					
	Greenwich Culmination Time: 11:43			Greenwich Culmination Time: 09:35				Greenwich Culmination Time: 22:41					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	21 25.2 +03.1	N 04 50.7 +00.0	105 23.9 +02.1	S 22 17.7 -00.1	99 39.1 +02.3	S 21 15.8 +00.0	00						
01	36 28.3 +03.0	N 04 50.7 +00.0	120 26.0 +02.1	S 22 17.6 +00.0	114 41.4 +02.3	S 21 15.8 +00.0	01						
02	51 31.3 +03.0	N 04 50.7 -00.1	135 28.1 +02.1	S 22 17.6 -00.1	129 43.7 +02.4	S 21 15.8 -00.1	02						
03	66 34.3 +03.0	N 04 50.6 +00.0	150 30.2 +02.1	S 22 17.5 +00.0	144 46.1 +02.3	S 21 15.7 +00.0	03						
04	81 37.3 +03.0	N 04 50.6 +00.0	165 32.3 +02.1	S 22 17.5 -00.1	159 48.4 +02.3	S 21 15.7 +00.0	04						
05	96 40.3 +03.0	N 04 50.6 -00.1	180 34.4 +02.1	S 22 17.4 +00.0	174 50.7 +02.4	S 21 15.7 +00.0	05						
06	111 43.3 +03.0	N 04 50.5 +00.0	195 36.5 +02.1	S 22 17.4 -00.1	189 53.1 +02.3	S 21 15.7 +00.0	06						
07	126 46.3 +03.0	N 04 50.5 +00.0	210 38.6 +02.1	S 22 17.3 +00.0	204 55.4 +02.3	S 21 15.7 -00.1	07						
08	141 49.3 +03.0	N 04 50.5 -00.1	225 40.7 +02.1	S 22 17.3 -00.1	219 57.7 +02.4	S 21 15.6 +00.0	08						
09	156 52.3 +03.0	N 04 50.4 +00.0	240 42.8 +02.2	S 22 17.2 +00.0	235 00.1 +02.3	S 21 15.6 +00.0	09						
10	171 55.3 +03.0	N 04 50.4 +00.0	255 45.0 +02.1	S 22 17.2 -00.1	250 02.4 +02.3	S 21 15.6 +00.0	10						
11	186 58.3 +03.0	N 04 50.4 -00.1	270 47.1 +02.1	S 22 17.1 +00.0	265 04.7 +02.4	S 21 15.6 +00.0	11						
12	202 01.3 +03.0	N 04 50.3 +00.0	285 49.2 +02.1	S 22 17.1 -00.1	280 07.1 +02.3	S 21 15.6 -00.1	12						
13	217 04.3 +03.0	N 04 50.3 +00.0	300 51.3 +02.1	S 22 17.0 +00.0	295 09.4 +02.4	S 21 15.5 +00.0	13						
14	232 07.3 +03.0	N 04 50.3 -00.1	315 53.4 +02.1	S 22 17.0 -00.1	310 11.8 +02.3	S 21 15.5 +00.0	14						
15	247 10.3 +03.0	N 04 50.2 +00.0	330 55.5 +02.1	S 22 16.9 +00.0	325 14.1 +02.3	S 21 15.5 +00.0	15						
16	262 13.3 +03.0	N 04 50.2 +00.0	345 57.6 +02.1	S 22 16.9 -00.1	340 16.4 +02.4	S 21 15.5 -00.1	16						
17	277 16.3 +03.0	N 04 50.2 +00.0	0 59.7 +02.1	S 22 16.8 +00.0	355 18.8 +02.3	S 21 15.4 +00.0	17						
18	292 19.3 +03.0	N 04 50.2 -00.1	16 01.8 +02.1	S 22 16.8 -00.1	10 21.1 +02.3	S 21 15.4 +00.0	18						
19	307 22.3 +03.0	N 04 50.1 +00.0	31 03.9 +02.1	S 22 16.7 +00.0	25 23.4 +02.4	S 21 15.4 +00.0	19						
20	322 25.3 +03.0	N 04 50.1 +00.0	46 06.0 +02.1	S 22 16.7 -00.1	40 25.8 +02.3	S 21 15.4 +00.0	20						
21	337 28.3 +03.0	N 04 50.1 +00.0	61 08.1 +02.1	S 22 16.6 +00.0	55 28.1 +02.3	S 21 15.4 -00.1	21						
22	352 31.3 +02.9	N 04 50.1 -00.1	76 10.2 +02.1	S 22 16.6 -00.1	70 30.4 +02.4	S 21 15.3 +00.0	22						
23	7 34.2 +03.0	N 04 50.0 +00.0	91 12.3 +02.1	S 22 16.5 +00.0	85 32.8 +02.3	S 21 15.3 +00.0	23						
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3				SD 00'1 00'1 00'1 00'1 00'1 00'1					
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0					
	SHA 344° 344° 344° 344° 344° 344°			SHA 068° 068° 068° 068° 068° 067°				SHA 062° 062° 062° 062° 062° 062°					
	Greenwich Culmination Time: 22:29			Greenwich Culmination Time: 16:56				Greenwich Culmination Time: 17:18					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	184 05.2 +00.0	S 13 51.4 +00.8	216 00.2 -00.4	N 00 29.9 -01.1	19 05.3 -24.5	N 03 26.8 +12.3	00						
01	199 05.2 +00.1	S 13 52.2 +00.8	230 59.8 -00.3	N 00 28.8 -01.2	33 40.8 -24.5	N 03 39.1 +12.2	01						
02	214 05.3 +00.0	S 13 53.0 +00.9	245 59.5 -00.4	N 00 27.6 -01.1	48 16.3 -24.6	N 03 51.3 +12.3	02						
03	229 05.3 +00.0	S 13 53.9 +00.8	260 59.1 -00.3	N 00 26.5 -01.1	62 51.7 -24.5	N 04 03.6 +12.2	03						
04	244 05.3 +00.1	S 13 54.7 +00.8	275 58.8 -00.3	N 00 25.4 -01.2	77 27.2 -24.6	N 04 15.8 +12.2	04						
05	259 05.4 +00.0	S 13 55.5 +00.8	290 58.5 -00.4	N 00 24.2 -01.1	92 02.6 -24.5	N 04 28.0 +12.2	05						
06	274 05.4 +00.0	S 13 56.3 +00.8	305 58.1 -00.3	N 00 23.1 -01.2	106 38.1 -24.6	N 04 40.2 +12.2	06						
07	289 05.4 +00.1	S 13 57.1 +00.8	320 57.8 -00.4	N 00 21.9 -01.1	121 13.5 -24.6	N 04 52.4 +12.2	07						
08	304 05.5 +00.0	S 13 57.9 +00.8	335 57.4 -00.3	N 00 20.8 -01.2	135 48.9 -24.7	N 05 04.6 +12.2	08						
09	319 05.5 +00.0	S 13 58.7 +00.9	350 57.1 -00.4	N 00 19.6 -01.1	150 24.2 -24.6	N 05 16.8 +12.1	09						
10	334 05.5 +00.0	S 13 59.6 +00.8	5 56.7 -00.3	N 00 18.5 -01.2	164 59.6 -24.7	N 05 28.9 +12.1	10						
11	349 05.5 +00.1	S 14 00.4 +00.8	20 56.4 -00.4	N 00 17.3 -01.1	179 34.9 -24.6	N 05 41.0 +12.1	11						
12	4 05.6 +00.0	S 14 01.2 +00.8	35 56.0 -00.3	N 00 16.2 -01.2	194 10.3 -24.7	N 05 53.1 +12.1	12						
13	19 05.6 +00.0	S 14 02.0 +00.8	50 55.7 -00.3	N 00 15.0 -01.1	208 45.6 -24.8	N 06 05.2 +12.0	13						
14	34 05.6 +00.1	S 14 02.8 +00.8	65 55.4 -00.4	N 00 13.9 -01.2	223 20.8 -24.7	N 06 17.2 +12.0	14						
15	49 05.7 +00.0	S 14 03.6 +00.8	80 55.0 -00.3	N 00 12.7 -01.1	237 56.1 -24.8	N 06 29.2 +12.0	15						
16	64 05.7 +00.0	S 14 04.4 +00.8	95 54.7 -00.4	N 00 11.6 -01.2	252 31.3 -24.7	N 06 41.2 +12.0	16						
17	79 05.7 +00.0	S 14 05.2 +00.8	110 54.3 -00.3	N 00 10.4 -01.1	267 06.6 -24.8	N 06 53.2 +12.0	17						
18	94 05.7 +00.1	S 14 06.0 +00.9	125 54.0 -00.4	N 00 09.3 -01.2	281 41.8 -24.9	N 07 05.2 +11.9	18						
19	109 05.8 +00.0	S 14 06.9 +00.8	140 53.6 -00.3	N 00 08.1 -01.1	296 16.9 -24.8	N 07 17.1 +11.9	19						
20	124 05.8 +00.0	S 14 07.7 +00.8	155 53.3 -00.4	N 00 07.0 -01.2	310 52.1 -24.9	N 07 29.0 +11.9	20						
21	139 05.8 +00.1	S 14 08.5 +00.8	170 52.9 -00.3	N 00 05.8 -01.1	325 27.2 -24.9	N 07 40.9 +11.8	21						
22	154 05.9 +00.0	S 14 09.3 +00.8	185 52.6 -00.3	N 00 04.7 -01.2	340 02.3 -24.9	N 07 52.7 +11.8	22						
23	169 05.9 +00.0	S 14 10.1 +00.8	200 52.3 -00.4	N 00 03.5 -01.1	354 37.4 -25.0	N 08 04.5 +11.8	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 16'1 16'1 16'1 16'1 16'1 16'1		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'7 14'7 14'7 14'7 14'7 14'7								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'0 53'9 53'9 53'9 53'9 53'9								
	SHA 145° 145° 145° 145° 145° 144°		SHA 177° 177° 177° 177° 176° 176°		SHA 339° 338° 336° 334° 332° 330°								
	Greenwich Culmination Time: 11:43		Greenwich Culmination Time: 09:36		Greenwich Culmination Time: 23:22								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	22 37.2 +03.0	N 04 50.0 +00.0	106 14.4 +02.1	S 22 16.5 -00.1	100 35.1 +02.3	S 21 15.3 +00.0	00						
01	37 40.2 +03.0	N 04 50.0 +00.0	121 16.5 +02.1	S 22 16.4 +00.0	115 37.4 +02.4	S 21 15.3 +00.0	01						
02	52 43.2 +03.0	N 04 50.0 -00.1	136 18.6 +02.1	S 22 16.4 -00.1	130 39.8 +02.3	S 21 15.3 -00.1	02						
03	67 46.2 +03.0	N 04 49.9 +00.0	151 20.7 +02.1	S 22 16.3 +00.0	145 42.1 +02.3	S 21 15.2 +00.0	03						
04	82 49.2 +02.9	N 04 49.9 +00.0	166 22.8 +02.1	S 22 16.3 -00.1	160 44.4 +02.3	S 21 15.2 +00.0	04						
05	97 52.1 +03.0	N 04 49.9 +00.0	181 24.9 +02.1	S 22 16.2 +00.0	175 46.7 +02.4	S 21 15.2 +00.0	05						
06	112 55.1 +03.0	N 04 49.9 -00.1	196 27.0 +02.1	S 22 16.2 -00.1	190 49.1 +02.3	S 21 15.2 -00.1	06						
07	127 58.1 +03.0	N 04 49.8 +00.0	211 29.1 +02.1	S 22 16.1 +00.0	205 51.4 +02.3	S 21 15.1 +00.0	07						
08	143 01.1 +03.0	N 04 49.8 +00.0	226 31.2 +02.1	S 22 16.1 -00.1	220 53.7 +02.4	S 21 15.1 +00.0	08						
09	158 04.1 +02.9	N 04 49.8 +00.0	241 33.3 +02.1	S 22 16.0 +00.0	235 56.1 +02.3	S 21 15.1 +00.0	09						
10	173 07.0 +03.0	N 04 49.8 +00.0	256 35.4 +02.1	S 22 16.0 -00.1	250 58.4 +02.3	S 21 15.1 +00.0	10						
11	188 10.0 +03.0	N 04 49.8 -00.1	271 37.5 +02.1	S 22 15.9 +00.0	266 00.7 +02.4	S 21 15.1 -00.1	11						
12	203 13.0 +03.0	N 04 49.7 +00.0	286 39.6 +02.1	S 22 15.9 -00.1	281 03.1 +02.3	S 21 15.0 +00.0	12						
13	218 16.0 +02.9	N 04 49.7 +00.0	301 41.7 +02.1	S 22 15.8 +00.0	296 05.4 +02.3	S 21 15.0 +00.0	13						
14	233 18.9 +03.0	N 04 49.7 +00.0	316 43.8 +02.1	S 22 15.8 -00.1	311 07.7 +02.4	S 21 15.0 +00.0	14						
15	248 21.9 +03.0	N 04 49.7 +00.0	331 45.9 +02.1	S 22 15.7 +00.0	326 10.1 +02.3	S 21 15.0 +00.0	15						
16	263 24.9 +02.9	N 04 49.7 -00.1	346 48.0 +02.1	S 22 15.7 -00.1	341 12.4 +02.3	S 21 15.0 -00.1	16						
17	278 27.8 +03.0	N 04 49.6 +00.0	1 50.1 +02.1	S 22 15.6 -00.1	356 14.7 +02.3	S 21 14.9 +00.0	17						
18	293 30.8 +03.0	N 04 49.6 +00.0	16 52.2 +02.1	S 22 15.5 +00.0	11 17.0 +02.4	S 21 14.9 +00.0	18						
19	308 33.8 +02.9	N 04 49.6 +00.0	31 54.3 +02.1	S 22 15.5 -00.1	26 19.4 +02.3	S 21 14.9 +00.0	19						
20	323 36.7 +03.0	N 04 49.6 +00.0	46 56.4 +02.1	S 22 15.4 +00.0	41 21.7 +02.3	S 21 14.9 -00.1	20						
21	338 39.7 +02.9	N 04 49.6 +00.0	61 58.5 +02.1	S 22 15.4 -00.1	56 24.0 +02.4	S 21 14.8 +00.0	21						
22	353 42.6 +03.0	N 04 49.6 -00.1	77 00.6 +02.1	S 22 15.3 +00.0	71 26.4 +02.3	S 21 14.8 +00.0	22						
23	8 45.6 +03.0	N 04 49.5 +00.0	92 02.7 +02.1	S 22 15.3 -00.1	86 28.7 +02.3	S 21 14.8 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 00'1 00'1 00'1 00'1 00'1 00'1								
	HP 00'3 00'3 00'3 00'3 00'3 00'3		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0								
	SHA 344° 344° 344° 344° 344° 344°		SHA 067° 067° 067° 067° 067° 067°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 22:25		Greenwich Culmination Time: 16:52		Greenwich Culmination Time: 17:14								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	184 05.9 +00.0	S 14 10.9 +00.8	215 51.9 -00.3	N 00 02.4 -01.2	9 12.4 -25.0	N 08 16.3 +11.8	00						
01	199 05.9 +00.1	S 14 11.7 +00.8	230 51.6 -00.4	N 00 01.2 -01.1	23 47.4 -25.0	N 08 28.1 +11.7	01						
02	214 06.0 +00.0	S 14 12.5 +00.8	245 51.2 -00.3	N 00 00.1 -01.2	38 22.4 -25.1	N 08 39.8 +11.7	02						
03	229 06.0 +00.0	S 14 13.3 +00.8	260 50.9 -00.4	S 00 01.1 +01.1	52 57.3 -25.0	N 08 51.5 +11.6	03						
04	244 06.0 +00.0	S 14 14.1 +00.8	275 50.5 -00.3	S 00 02.2 +01.2	67 32.3 -25.2	N 09 03.1 +11.7	04						
05	259 06.0 +00.0	S 14 14.9 +00.8	290 50.2 -00.4	S 00 03.4 +01.1	82 07.1 -25.1	N 09 14.8 +11.5	05						
06	274 06.0 +00.1	S 14 15.7 +00.8	305 49.8 -00.3	S 00 04.5 +01.2	96 42.0 -25.2	N 09 26.3 +11.6	06						
07	289 06.1 +00.0	S 14 16.5 +00.8	320 49.5 -00.4	S 00 05.7 +01.1	111 16.8 -25.2	N 09 37.9 +11.5	07						
08	304 06.1 +00.0	S 14 17.3 +00.9	335 49.1 -00.3	S 00 06.8 +01.2	125 51.6 -25.2	N 09 49.4 +11.5	08						
09	319 06.1 +00.0	S 14 18.2 +00.8	350 48.8 -00.4	S 00 08.0 +01.1	140 26.4 -25.3	N 10 00.9 +11.5	09						
10	334 06.1 +00.1	S 14 19.0 +00.8	5 48.4 -00.3	S 00 09.1 +01.2	155 01.1 -25.3	N 10 12.4 +11.4	10						
11	349 06.2 +00.0	S 14 19.8 +00.8	20 48.1 -00.3	S 00 10.3 +01.1	169 35.8 -25.4	N 10 23.8 +11.3	11						
12	4 06.2 +00.0	S 14 20.6 +00.8	35 47.8 -00.4	S 00 11.4 +01.2	184 10.4 -25.4	N 10 35.1 +11.4	12						
13	19 06.2 +00.0	S 14 21.4 +00.8	50 47.4 -00.3	S 00 12.6 +01.1	198 45.0 -25.4	N 10 46.5 +11.3	13						
14	34 06.2 +00.0	S 14 22.2 +00.8	65 47.1 -00.4	S 00 13.7 +01.2	213 19.6 -25.5	N 10 57.8 +11.2	14						
15	49 06.2 +00.1	S 14 23.0 +00.8	80 46.7 -00.3	S 00 14.9 +01.2	227 54.1 -25.5	N 11 09.0 +11.2	15						
16	64 06.3 +00.0	S 14 23.8 +00.8	95 46.4 -00.4	S 00 16.1 +01.1	242 28.6 -25.5	N 11 20.2 +11.2	16						
17	79 06.3 +00.0	S 14 24.6 +00.8	110 46.0 -00.3	S 00 17.2 +01.2	257 03.1 -25.6	N 11 31.4 +11.1	17						
18	94 06.3 +00.0	S 14 25.4 +00.8	125 45.7 -00.4	S 00 18.4 +01.1	271 37.5 -25.6	N 11 42.5 +11.1	18						
19	109 06.3 +00.0	S 14 26.2 +00.8	140 45.3 -00.3	S 00 19.5 +01.2	286 11.9 -25.7	N 11 53.6 +11.0	19						
20	124 06.3 +00.1	S 14 27.0 +00.8	155 45.0 -00.4	S 00 20.7 +01.1	300 46.2 -25.7	N 12 04.6 +11.0	20						
21	139 06.4 +00.0	S 14 27.8 +00.8	170 44.6 -00.3	S 00 21.8 +01.2	315 20.5 -25.7	N 12 15.6 +11.0	21						
22	154 06.4 +00.0	S 14 28.6 +00.8	185 44.3 -00.4	S 00 23.0 +01.1	329 54.8 -25.8	N 12 26.6 +10.9	22						
23	169 06.4 +00.0	S 14 29.4 +00.8	200 43.9 -00.3	S 00 24.1 +01.2	344 29.0 -25.9	N 12 37.5 +10.8	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 16'1 16'1 16'1 16'1 16'1 16'1		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'7 14'7 14'7 14'7 14'7 14'7								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 53'9 53'9 53'9 54'0 54'0 54'0								
	SHA 144° 144° 144° 144° 144° 143°		SHA 176° 176° 176° 175° 175° 175°		SHA 329° 327° 325° 323° 321° 319°								
	Greenwich Culmination Time: 11:43		Greenwich Culmination Time: 09:36		Greenwich Culmination Time: -1:00								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	23 48.6 +02.9	N 04 49.5 +00.0	107 04.8 +02.1	S 22 15.2 +00.0	101 31.0 +02.4	S 21 14.8 +00.0	00						
01	38 51.5 +03.0	N 04 49.5 +00.0	122 06.9 +02.1	S 22 15.2 -00.1	116 33.4 +02.3	S 21 14.8 -00.1	01						
02	53 54.5 +02.9	N 04 49.5 +00.0	137 09.0 +02.1	S 22 15.1 +00.0	131 35.7 +02.3	S 21 14.7 +00.0	02						
03	68 57.4 +03.0	N 04 49.5 +00.0	152 11.1 +02.1	S 22 15.1 -00.1	146 38.0 +02.3	S 21 14.7 +00.0	03						
04	84 00.4 +02.9	N 04 49.5 +00.0	167 13.2 +02.0	S 22 15.0 +00.0	161 40.3 +02.4	S 21 14.7 +00.0	04						
05	99 03.3 +03.0	N 04 49.5 -00.1	182 15.2 +02.1	S 22 15.0 -00.1	176 42.7 +02.3	S 21 14.7 -00.1	05						
06	114 06.3 +02.9	N 04 49.4 +00.0	197 17.3 +02.1	S 22 14.9 +00.0	191 45.0 +02.3	S 21 14.6 +00.0	06						
07	129 09.2 +03.0	N 04 49.4 +00.0	212 19.4 +02.1	S 22 14.9 -00.1	206 47.3 +02.3	S 21 14.6 +00.0	07						
08	144 12.2 +02.9	N 04 49.4 +00.0	227 21.5 +02.1	S 22 14.8 +00.0	221 49.6 +02.4	S 21 14.6 +00.0	08						
09	159 15.1 +03.0	N 04 49.4 +00.0	242 23.6 +02.1	S 22 14.8 -00.1	236 52.0 +02.3	S 21 14.6 -00.1	09						
10	174 18.1 +02.9	N 04 49.4 +00.0	257 25.7 +02.1	S 22 14.7 +00.0	251 54.3 +02.3	S 21 14.5 +00.0	10						
11	189 21.0 +03.0	N 04 49.4 +00.0	272 27.8 +02.1	S 22 14.7 -00.1	266 56.6 +02.4	S 21 14.5 +00.0	11						
12	204 24.0 +02.9	N 04 49.4 +00.0	287 29.9 +02.1	S 22 14.6 +00.0	281 59.0 +02.3	S 21 14.5 +00.0	12						
13	219 26.9 +02.9	N 04 49.4 +00.0	302 32.0 +02.1	S 22 14.6 -00.1	297 01.3 +02.3	S 21 14.5 +00.0	13						
14	234 29.8 +03.0	N 04 49.4 +00.0	317 34.1 +02.1	S 22 14.5 +00.0	312 03.6 +02.3	S 21 14.5 -00.1	14						
15	249 32.8 +02.9	N 04 49.4 -00.1	332 36.2 +02.1	S 22 14.5 -00.1	327 05.9 +02.4	S 21 14.4 +00.0	15						
16	264 35.7 +03.0	N 04 49.3 +00.0	347 38.3 +02.1	S 22 14.4 +00.0	342 08.3 +02.3	S 21 14.4 +00.0	16						
17	279 38.7 +02.9	N 04 49.3 +00.0	2 40.4 +02.1	S 22 14.4 -00.1	357 10.6 +02.3	S 21 14.4 +00.0	17						
18	294 41.6 +02.9	N 04 49.3 +00.0	17 42.5 +02.0	S 22 14.3 -00.1	12 12.9 +02.3	S 21 14.4 -00.1	18						
19	309 44.5 +03.0	N 04 49.3 +00.0	32 44.5 +02.1	S 22 14.2 +00.0	27 15.2 +02.4	S 21 14.3 +00.0	19						
20	324 47.5 +02.9	N 04 49.3 +00.0	47 46.6 +02.1	S 22 14.2 -00.1	42 17.6 +02.3	S 21 14.3 +00.0	20						
21	339 50.4 +02.9	N 04 49.3 +00.0	62 48.7 +02.1	S 22 14.1 +00.0	57 19.9 +02.3	S 21 14.3 +00.0	21						
22	354 53.3 +03.0	N 04 49.3 +00.0	77 50.8 +02.1	S 22 14.1 -00.1	72 22.2 +02.3	S 21 14.3 +00.0	22						
23	9 56.3 +02.9	N 04 49.3 +00.0	92 52.9 +02.1	S 22 14.0 +00.0	87 24.5 +02.4	S 21 14.3 -00.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 00'1 00'1 00'1 00'1 00'1 00'1								
	HP 00'3 00'3 00'3 00'3 00'3 00'3		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0								
	SHA 344° 344° 344° 344° 344° 344°		SHA 067° 067° 067° 067° 067° 067°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 22:20		Greenwich Culmination Time: 16:49		Greenwich Culmination Time: 17:11								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	184 06.4 +00.0	S 14 30.2 +00.8	215 43.6 -00.4	S 00 25.3 +01.1	359 03.1 -25.9	N 12 48.3 +10.8	00						
01	199 06.4 +00.0	S 14 31.0 +00.8	230 43.2 -00.3	S 00 26.4 +01.2	13 37.2 -25.9	N 12 59.1 +10.8	01						
02	214 06.4 +00.1	S 14 31.8 +00.8	245 42.9 -00.4	S 00 27.6 +01.1	28 11.3 -26.0	N 13 09.9 +10.7	02						
03	229 06.5 +00.0	S 14 32.6 +00.8	260 42.5 -00.3	S 00 28.7 +01.2	42 45.3 -26.0	N 13 20.6 +10.6	03						
04	244 06.5 +00.0	S 14 33.4 +00.8	275 42.2 -00.4	S 00 29.9 +01.1	57 19.3 -26.1	N 13 31.2 +10.6	04						
05	259 06.5 +00.0	S 14 34.2 +00.7	290 41.8 -00.3	S 00 31.0 +01.2	71 53.2 -26.1	N 13 41.8 +10.6	05						
06	274 06.5 +00.0	S 14 34.9 +00.8	305 41.5 -00.4	S 00 32.2 +01.1	86 27.1 -26.1	N 13 52.4 +10.5	06						
07	289 06.5 +00.0	S 14 35.7 +00.8	320 41.1 -00.3	S 00 33.3 +01.2	101 01.0 -26.2	N 14 02.9 +10.4	07						
08	304 06.5 +00.0	S 14 36.5 +00.8	335 40.8 -00.4	S 00 34.5 +01.2	115 34.8 -26.3	N 14 13.3 +10.4	08						
09	319 06.5 +00.1	S 14 37.3 +00.8	350 40.4 -00.3	S 00 35.7 +01.1	130 08.5 -26.3	N 14 23.7 +10.3	09						
10	334 06.6 +00.0	S 14 38.1 +00.8	5 40.1 -00.4	S 00 36.8 +01.2	144 42.2 -26.4	N 14 34.0 +10.3	10						
11	349 06.6 +00.0	S 14 38.9 +00.8	20 39.7 -00.3	S 00 38.0 +01.1	159 15.8 -26.4	N 14 44.3 +10.2	11						
12	4 06.6 +00.0	S 14 39.7 +00.8	35 39.4 -00.4	S 00 39.1 +01.2	173 49.4 -26.5	N 14 54.5 +10.2	12						
13	19 06.6 +00.0	S 14 40.5 +00.8	50 39.0 -00.3	S 00 40.3 +01.1	188 22.9 -26.5	N 15 04.7 +10.1	13						
14	34 06.6 +00.0	S 14 41.3 +00.8	65 38.7 -00.4	S 00 41.4 +01.2	202 56.4 -26.5	N 15 14.8 +10.0	14						
15	49 06.6 +00.0	S 14 42.1 +00.8	80 38.3 -00.3	S 00 42.6 +01.1	217 29.9 -26.7	N 15 24.8 +10.0	15						
16	64 06.6 +00.0	S 14 42.9 +00.8	95 38.0 -00.4	S 00 43.7 +01.2	232 03.2 -26.6	N 15 34.8 +09.9	16						
17	79 06.6 +00.0	S 14 43.7 +00.8	110 37.6 -00.3	S 00 44.9 +01.1	246 36.6 -26.8	N 15 44.7 +09.9	17						
18	94 06.6 +00.1	S 14 44.5 +00.8	125 37.3 -00.4	S 00 46.0 +01.2	261 09.8 -26.7	N 15 54.6 +09.8	18						
19	109 06.7 +00.0	S 14 45.3 +00.7	140 36.9 -00.3	S 00 47.2 +01.2	275 43.1 -26.9	N 16 04.4 +09.7	19						
20	124 06.7 +00.0	S 14 46.0 +00.8	155 36.6 -00.4	S 00 48.4 +01.1	290 16.2 -26.9	N 16 14.1 +09.6	20						
21	139 06.7 +00.0	S 14 46.8 +00.8	170 36.2 -00.3	S 00 49.5 +01.2	304 49.3 -26.9	N 16 23.7 +09.6	21						
22	154 06.7 +00.0	S 14 47.6 +00.8	185 35.9 -00.4	S 00 50.7 +01.1	319 22.4 -27.0	N 16 33.3 +09.6	22						
23	169 06.7 +00.0	S 14 48.4 +00.8	200 35.5 -00.3	S 00 51.8 +01.2	333 55.4 -27.1	N 16 42.9 +09.4	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 16°1 16°1 16°1 16°1 16°1 16°1		SD 00°1 00°1 00°1 00°1 00°1 00°1		SD 14°7 14°7 14°7 14°7 14°7 14°7								
	HP 00°1 00°1 00°1 00°1 00°1 00°1		HP 00°1 00°1 00°1 00°1 00°1 00°1		HP 54°0 54°0 54°0 54°1 54°1 54°1								
	SHA 143° 143° 143° 143° 143° 142°		SHA 175° 175° 175° 174° 174° 174°		SHA 317° 315° 314° 312° 310° 308°								
	Greenwich Culmination Time: 11:43		Greenwich Culmination Time: 09:37		Greenwich Culmination Time: 00:03								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	24 59.2 +02.9	N 04 49.3 +00.0	107 55.0 +02.1	S 22 14.0 -00.1	102 26.9 +02.3	S 21 14.2 +00.0	00						
01	40 02.1 +02.9	N 04 49.3 +00.0	122 57.1 +02.1	S 22 13.9 +00.0	117 29.2 +02.3	S 21 14.2 +00.0	01						
02	55 05.0 +03.0	N 04 49.3 +00.0	137 59.2 +02.1	S 22 13.9 -00.1	132 31.5 +02.3	S 21 14.2 +00.0	02						
03	70 08.0 +02.9	N 04 49.3 +00.0	153 01.3 +02.1	S 22 13.8 +00.0	147 33.8 +02.4	S 21 14.2 -00.1	03						
04	85 10.9 +02.9	N 04 49.3 +00.0	168 03.4 +02.0	S 22 13.8 -00.1	162 36.2 +02.3	S 21 14.1 +00.0	04						
05	100 13.8 +02.9	N 04 49.3 +00.0	183 05.4 +02.1	S 22 13.7 +00.0	177 38.5 +02.3	S 21 14.1 +00.0	05						
06	115 16.7 +03.0	N 04 49.3 +00.0	198 07.5 +02.1	S 22 13.7 -00.1	192 40.8 +02.3	S 21 14.1 +00.0	06						
07	130 19.7 +02.9	N 04 49.3 +00.0	213 09.6 +02.1	S 22 13.6 +00.0	207 43.1 +02.4	S 21 14.1 -00.1	07						
08	145 22.6 +02.9	N 04 49.3 +00.0	228 11.7 +02.1	S 22 13.6 -00.1	222 45.5 +02.3	S 21 14.0 +00.0	08						
09	160 25.5 +02.9	N 04 49.3 +00.0	243 13.8 +02.1	S 22 13.5 +00.0	237 47.8 +02.3	S 21 14.0 +00.0	09						
10	175 28.4 +02.9	N 04 49.3 +00.0	258 15.9 +02.1	S 22 13.5 -00.1	252 50.1 +02.3	S 21 14.0 +00.0	10						
11	190 31.3 +02.9	N 04 49.3 +00.0	273 18.0 +02.1	S 22 13.4 -00.1	267 52.4 +02.4	S 21 14.0 -00.1	11						
12	205 34.2 +03.0	N 04 49.3 +00.0	288 20.1 +02.0	S 22 13.3 +00.0	282 54.8 +02.3	S 21 13.9 +00.0	12						
13	220 37.2 +02.9	N 04 49.3 +00.0	303 22.1 +02.1	S 22 13.3 -00.1	297 57.1 +02.3	S 21 13.9 +00.0	13						
14	235 40.1 +02.9	N 04 49.3 +00.0	318 24.2 +02.1	S 22 13.2 +00.0	312 59.4 +02.3	S 21 13.9 +00.0	14						
15	250 43.0 +02.9	N 04 49.3 +00.0	333 26.3 +02.1	S 22 13.2 -00.1	328 01.7 +02.3	S 21 13.9 +00.0	15						
16	265 45.9 +02.9	N 04 49.3 +00.0	348 28.4 +02.1	S 22 13.1 +00.0	343 04.0 +02.4	S 21 13.9 -00.1	16						
17	280 48.8 +02.9	N 04 49.3 +00.0	3 30.5 +02.1	S 22 13.1 -00.1	358 06.4 +02.3	S 21 13.8 +00.0	17						
18	295 51.7 +02.9	N 04 49.3 +00.0	18 32.6 +02.1	S 22 13.0 +00.0	13 08.7 +02.3	S 21 13.8 +00.0	18						
19	310 54.6 +02.9	N 04 49.3 +00.0	33 34.7 +02.0	S 22 13.0 -00.1	28 11.0 +02.3	S 21 13.8 +00.0	19						
20	325 57.5 +02.9	N 04 49.3 +00.0	48 36.7 +02.1	S 22 12.9 +00.0	43 13.3 +02.4	S 21 13.8 -00.1	20						
21	341 00.4 +02.9	N 04 49.3 +00.0	63 38.8 +02.1	S 22 12.9 -00.1	58 15.7 +02.3	S 21 13.7 +00.0	21						
22	356 03.3 +02.9	N 04 49.3 +00.0	78 40.9 +02.1	S 22 12.8 +00.0	73 18.0 +02.3	S 21 13.7 +00.0	22						
23	11 06.2 +02.9	N 04 49.3 +00.0	93 43.0 +02.1	S 22 12.8 -00.1	88 20.3 +02.3	S 21 13.7 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00°2 00°2 00°2 00°2 00°2 00°2		SD 00°3 00°3 00°3 00°3 00°3 00°3		SD 00°1 00°1 00°1 00°1 00°1 00°1								
	HP 00°3 00°3 00°3 00°3 00°3 00°3		HP 00°0 00°0 00°0 00°0 00°0 00°0		HP 00°0 00°0 00°0 00°0 00°0 00°0								
	SHA 344° 344° 344° 344° 344° 344°		SHA 067° 067° 067° 067° 067° 067°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 22:15		Greenwich Culmination Time: 16:45		Greenwich Culmination Time: 17:07								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 55%				UT							
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "								
00	184 06.7 +00.0	S 14 49.2 +00.8	215 35.2 -00.4	S 00 53.0 +01.1	348 28.3 -27.1	N 16 52.3 +09.4														
01	199 06.7 +00.0	S 14 50.0 +00.8	230 34.8 -00.3	S 00 54.1 +01.2	3 01.2 -27.1	N 17 01.7 +09.4														
02	214 06.7 +00.0	S 14 50.8 +00.8	245 34.5 -00.4	S 00 55.3 +01.1	17 34.1 -27.3	N 17 11.1 +09.2														
03	229 06.7 +00.0	S 14 51.6 +00.7	260 34.1 -00.3	S 00 56.4 +01.2	32 06.8 -27.2	N 17 20.3 +09.2														
04	244 06.7 +00.0	S 14 52.3 +00.8	275 33.8 -00.4	S 00 57.6 +01.2	46 39.6 -27.4	N 17 29.5 +09.1														
05	259 06.7 +00.0	S 14 53.1 +00.8	290 33.4 -00.3	S 00 58.8 +01.1	61 12.2 -27.4	N 17 38.6 +09.1														
06	274 06.7 +00.1	S 14 53.9 +00.8	305 33.1 -00.4	S 00 59.9 +01.2	75 44.8 -27.4	N 17 47.7 +08.9														
07	289 06.8 +00.0	S 14 54.7 +00.8	320 32.7 -00.3	S 01 01.1 +01.1	90 17.4 -27.6	N 17 56.6 +08.9														
08	304 06.8 +00.0	S 14 55.5 +00.8	335 32.4 -00.4	S 01 02.2 +01.2	104 49.8 -27.5	N 18 05.5 +08.9														
09	319 06.8 +00.0	S 14 56.3 +00.8	350 32.0 -00.3	S 01 03.4 +01.1	119 22.3 -27.7	N 18 14.4 +08.7														
10	334 06.8 +00.0	S 14 57.1 +00.7	5 31.7 -00.4	S 01 04.5 +01.2	133 54.6 -27.7	N 18 23.1 +08.7														
11	349 06.8 +00.0	S 14 57.8 +00.8	20 31.3 -00.3	S 01 05.7 +01.2	148 26.9 -27.7	N 18 31.8 +08.6														
12	4 06.8 +00.0	S 14 58.6 +00.8	35 31.0 -00.4	S 01 06.9 +01.1	162 59.2 -27.8	N 18 40.4 +08.5														
13	19 06.8 +00.0	S 14 59.4 +00.8	50 30.6 -00.3	S 01 08.0 +01.2	177 31.4 -27.9	N 18 48.9 +08.4														
14	34 06.8 +00.0	S 15 00.2 +00.8	65 30.3 -00.4	S 01 09.2 +01.1	192 03.5 -27.9	N 18 57.3 +08.4														
15	49 06.8 +00.0	S 15 01.0 +00.8	80 29.9 -00.3	S 01 10.3 +01.2	206 35.6 -28.0	N 19 05.7 +08.3														
16	64 06.8 +00.0	S 15 01.8 +00.7	95 29.6 -00.4	S 01 11.5 +01.1	221 07.6 -28.1	N 19 14.0 +08.2														
17	79 06.8 +00.0	S 15 02.5 +00.8	110 29.2 -00.3	S 01 12.6 +01.2	235 39.5 -28.1	N 19 22.2 +08.1														
18	94 06.8 +00.0	S 15 03.3 +00.8	125 28.9 -00.4	S 01 13.8 +01.1	250 11.4 -28.2	N 19 30.3 +08.0														
19	109 06.8 +00.0	S 15 04.1 +00.8	140 28.5 -00.3	S 01 14.9 +01.2	264 43.2 -28.2	N 19 38.3 +08.0														
20	124 06.8 +00.0	S 15 04.9 +00.8	155 28.2 -00.4	S 01 16.1 +01.2	279 15.0 -28.3	N 19 46.3 +07.8														
21	139 06.8 +00.0	S 15 05.7 +00.7	170 27.8 -00.4	S 01 17.3 +01.1	293 46.7 -28.3	N 19 54.1 +07.8														
22	154 06.8 +00.0	S 15 06.4 +00.8	185 27.4 -00.3	S 01 18.4 +01.2	308 18.4 -28.5	N 20 01.9 +07.7														
23	169 06.8 +00.0	S 15 07.2 +00.8	200 27.1 -00.4	S 01 19.6 +01.1	322 49.9 -28.4	N 20 09.6 +07.6														
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT	02	06	10	14	18	22
SD	16'1	16'1	16'1	16'1	16'1	16'1	SD	00'1	00'1	00'1	00'1	00'1	00'1	SD	14'8	14'8	14'8	14'8	14'8	14'8
HP	00'1	00'1	00'1	00'1	00'1	00'1	HP	00'1	00'1	00'1	00'1	00'1	00'1	HP	54'2	54'2	54'2	54'3	54'3	54'3
SHA	142°	142°	142°	142°	142°	141°	SHA	174°	174°	173°	173°	173°	173°	SHA	306°	304°	302°	300°	298°	296°
Greenwich Culmination Time: 11:43							Greenwich Culmination Time: 09:37							Greenwich Culmination Time: 00:47						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "								
00	26 09.1 +02.9	N 04 49.3 +00.0	108 45.1 +02.1	S 22 12.7 -00.1	103 22.6 +02.3	S 21 13.7 -00.1														
01	41 12.0 +02.9	N 04 49.3 +00.0	123 47.2 +02.1	S 22 12.6 +00.0	118 24.9 +02.4	S 21 13.6 +00.0														
02	56 14.9 +02.9	N 04 49.3 +00.0	138 49.3 +02.0	S 22 12.6 -00.1	133 27.3 +02.3	S 21 13.6 +00.0														
03	71 17.8 +02.9	N 04 49.3 +00.0	153 51.3 +02.1	S 22 12.5 +00.0	148 29.6 +02.3	S 21 13.6 +00.0														
04	86 20.7 +02.9	N 04 49.3 +00.1	168 53.4 +02.1	S 22 12.5 -00.1	163 31.9 +02.3	S 21 13.6 -00.1														
05	101 23.6 +02.9	N 04 49.4 +00.0	183 55.5 +02.1	S 22 12.4 +00.0	178 34.2 +02.3	S 21 13.5 +00.0														
06	116 26.5 +02.9	N 04 49.4 +00.0	198 57.6 +02.1	S 22 12.4 -00.1	193 36.5 +02.4	S 21 13.5 +00.0														
07	131 29.4 +02.9	N 04 49.4 +00.0	213 59.7 +02.0	S 22 12.3 +00.0	208 38.9 +02.3	S 21 13.5 +00.0														
08	146 32.3 +02.9	N 04 49.4 +00.0	229 01.7 +02.1	S 22 12.3 -00.1	223 41.2 +02.3	S 21 13.5 +00.0														
09	161 35.2 +02.9	N 04 49.4 +00.0	244 03.8 +02.1	S 22 12.2 +00.0	238 43.5 +02.3	S 21 13.5 -00.1														
10	176 38.1 +02.8	N 04 49.4 +00.0	259 05.9 +02.1	S 22 12.2 -00.1	253 45.8 +02.3	S 21 13.4 +00.0														
11	191 40.9 +02.9	N 04 49.4 +00.0	274 08.0 +02.1	S 22 12.1 -00.1	268 48.1 +02.4	S 21 13.4 +00.0														
12	206 43.8 +02.9	N 04 49.4 +00.0	289 10.1 +02.1	S 22 12.0 +00.0	283 50.5 +02.3	S 21 13.4 +00.0														
13	221 46.7 +02.9	N 04 49.4 +00.1	304 12.2 +02.0	S 22 12.0 -00.1	298 52.8 +02.3	S 21 13.4 -00.1														
14	236 49.6 +02.9	N 04 49.5 +00.0	319 14.2 +02.1	S 22 11.9 +00.0	313 55.1 +02.3	S 21 13.3 +00.0														
15	251 52.5 +02.9	N 04 49.5 +00.0	334 16.3 +02.1	S 22 11.9 -00.1	328 57.4 +02.3	S 21 13.3 +00.0														
16	266 55.4 +02.8	N 04 49.5 +00.0	349 18.4 +02.1	S 22 11.8 +00.0	343 59.7 +02.4	S 21 13.3 +00.0														
17	281 58.2 +02.9	N 04 49.5 +00.0	4 20.5 +02.1	S 22 11.8 -00.1	359 02.1 +02.3	S 21 13.3 -00.1														
18	297 01.1 +02.9	N 04 49.5 +00.0	19 22.6 +02.0	S 22 11.7 +00.0	14 04.4 +02.3	S 21 13.2 +00.0														
19	312 04.0 +02.9	N 04 49.5 +00.0	34 24.6 +02.1	S 22 11.7 -00.1	29 06.7 +02.3	S 21 13.2 +00.0														
20	327 06.9 +02.8	N 04 49.5 +00.1	49 26.7 +02.1	S 22 11.6 +00.0	44 09.0 +02.3	S 21 13.2 +00.0														
21	342 09.7 +02.9	N 04 49.6 +00.0	64 28.8 +02.1	S 22 11.6 -00.1	59 11.3 +02.3	S 21 13.2 -00.1														
22	357 12.6 +02.9	N 04 49.6 +00.0	79 30.9 +02.1	S 22 11.5 -00.1	74 13.6 +02.4	S 21 13.1 +00.0														
23	12 15.5 +02.9	N 04 49.6 +00.0	94 33.0 +02.0	S 22 11.4 +00.0	89 16.0 +02.3	S 21 13.1 +00.0														
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT	02	06	10	14	18	22
SD	00'2	00'2	00'2	00'2	00'2	00'2	SD	00'3	00'3	00'3	00'3	00'3	00'3	SD	00'1	00'1	00'1	00'1	00'1	00'1
HP	00'3	00'3	00'3	00'3	00'3	00'3	HP	00'0	00'0	00'0	00'0	00'0	00'0	HP	00'0	00'0	00'0	00'0	00'0	00'0
SHA	344°	344°	344°	345°	345°	345°	SHA	067°	067°	067°	067°	067°	067°	SHA	062°	062°	062°	062°	062°	062°
Greenwich Culmination Time: 22:11							Greenwich Culmination Time: 16:42							Greenwich Culmination Time: 17:03						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	184 06.8 +00.0	S	15 08.0 +00.8	215 26.7 -00.3	S	01 20.7 +01.2	337 21.5 -28.6	N	20 17.2 +07.5	00										
01	199 06.8 +00.0	S	15 08.8 +00.7	230 26.4 -00.4	S	01 21.9 +01.1	351 52.9 -28.6	N	20 24.7 +07.4	01										
02	214 06.8 +00.0	S	15 09.5 +00.8	245 26.0 -00.3	S	01 23.0 +01.2	6 24.3 -28.7	N	20 32.1 +07.4	02										
03	229 06.8 +00.0	S	15 10.3 +00.8	260 25.7 -00.4	S	01 24.2 +01.2	20 55.6 -28.7	N	20 39.5 +07.2	03										
04	244 06.8 +00.0	S	15 11.1 +00.8	275 25.3 -00.3	S	01 25.4 +01.1	35 26.9 -28.8	N	20 46.7 +07.2	04										
05	259 06.8 +00.0	S	15 11.9 +00.7	290 25.0 -00.4	S	01 26.5 +01.2	49 58.1 -28.8	N	20 53.9 +07.1	05										
06	274 06.8 +00.0	S	15 12.6 +00.8	305 24.6 -00.3	S	01 27.7 +01.1	64 29.3 -28.9	N	21 01.0 +06.9	06										
07	289 06.8 +00.0	S	15 13.4 +00.8	320 24.3 -00.4	S	01 28.8 +01.2	79 00.4 -29.0	N	21 07.9 +06.9	07										
08	304 06.8 +00.0	S	15 14.2 +00.8	335 23.9 -00.3	S	01 30.0 +01.2	93 31.4 -29.0	N	21 14.8 +06.8	08										
09	319 06.8 +00.0	S	15 15.0 +00.7	350 23.6 -00.4	S	01 31.2 +01.1	108 02.4 -29.1	N	21 21.6 +06.7	09										
10	334 06.8 +00.0	S	15 15.7 +00.8	5 23.2 -00.4	S	01 32.3 +01.2	122 33.3 -29.2	N	21 28.3 +06.6	10										
11	349 06.8 +00.0	S	15 16.5 +00.8	20 22.8 -00.3	S	01 33.5 +01.1	137 04.1 -29.2	N	21 34.9 +06.5	11										
12	4 06.8 +00.0	S	15 17.3 +00.8	35 22.5 -00.4	S	01 34.6 +01.2	151 34.9 -29.2	N	21 41.4 +06.4	12										
13	19 06.8 +00.0	S	15 18.1 +00.7	50 22.1 -00.3	S	01 35.8 +01.1	166 05.7 -29.4	N	21 47.8 +06.3	13										
14	34 06.8 +00.0	S	15 18.8 +00.8	65 21.8 -00.4	S	01 36.9 +01.2	180 36.3 -29.4	N	21 54.1 +06.2	14										
15	49 06.8 +00.0	S	15 19.6 +00.8	80 21.4 -00.3	S	01 38.1 +01.2	195 06.9 -29.4	N	22 00.3 +06.1	15										
16	64 06.8 -00.1	S	15 20.4 +00.8	95 21.1 -00.4	S	01 39.3 +01.1	209 37.5 -29.5	N	22 06.4 +06.0	16										
17	79 06.7 +00.0	S	15 21.2 +00.7	110 20.7 -00.3	S	01 40.4 +01.2	224 08.0 -29.6	N	22 12.4 +05.9	17										
18	94 06.7 +00.0	S	15 21.9 +00.8	125 20.4 -00.4	S	01 41.6 +01.1	238 38.4 -29.6	N	22 18.3 +05.8	18										
19	109 06.7 +00.0	S	15 22.7 +00.8	140 20.0 -00.4	S	01 42.7 +01.2	253 08.8 -29.7	N	22 24.1 +05.7	19										
20	124 06.7 +00.0	S	15 23.5 +00.7	155 19.6 -00.3	S	01 43.9 +01.1	267 39.1 -29.8	N	22 29.8 +05.6	20										
21	139 06.7 +00.0	S	15 24.2 +00.8	170 19.3 -00.4	S	01 45.0 +01.2	282 09.3 -29.8	N	22 35.4 +05.5	21										
22	154 06.7 +00.0	S	15 25.0 +00.8	185 18.9 -00.3	S	01 46.2 +01.2	296 39.5 -29.9	N	22 40.9 +05.3	22										
23	169 06.7 +00.0	S	15 25.8 +00.7	200 18.6 -00.4	S	01 47.4 +01.1	311 09.6 -29.9	N	22 46.2 +05.3	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	16'1	16'1	16'1	16'1	16'1	16'1	SD	00'1	00'1	00'1	00'1	00'1	00'1	SD						
HP	00'1	00'1	00'1	00'1	00'1	00'1	HP	00'1	00'1	00'1	00'1	00'1	00'1	HP						
SHA	141°	141°	141°	141°	141°	140°	SHA	173°	172°	172°	172°	172°	172°	SHA						
Greenwich Culmination Time: 11:43							Greenwich Culmination Time: 09:38							Greenwich Culmination Time: 01:33						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	27 18.4 +02.8	N	04 49.6 +00.0	109 35.0 +02.1	S	22 11.4 -00.1	104 18.3 +02.3	S	21 13.1 +00.0	00										
01	42 21.2 +02.9	N	04 49.6 +00.0	124 37.1 +02.1	S	22 11.3 +00.0	119 20.6 +02.3	S	21 13.1 -00.1	01										
02	57 24.1 +02.9	N	04 49.6 +00.1	139 39.2 +02.1	S	22 11.3 -00.1	134 22.9 +02.3	S	21 13.0 +00.0	02										
03	72 27.0 +02.8	N	04 49.7 +00.0	154 41.3 +02.0	S	22 11.2 +00.0	149 25.2 +02.3	S	21 13.0 +00.0	03										
04	87 29.8 +02.9	N	04 49.7 +00.0	169 43.3 +02.1	S	22 11.2 -00.1	164 27.5 +02.4	S	21 13.0 +00.0	04										
05	102 32.7 +02.8	N	04 49.7 +00.0	184 45.4 +02.1	S	22 11.1 +00.0	179 29.9 +02.3	S	21 13.0 -00.1	05										
06	117 35.5 +02.9	N	04 49.7 +00.0	199 47.5 +02.1	S	22 11.1 -00.1	194 32.2 +02.3	S	21 12.9 +00.0	06										
07	132 38.4 +02.9	N	04 49.7 +00.1	214 49.6 +02.0	S	22 11.0 -00.1	209 34.5 +02.3	S	21 12.9 +00.0	07										
08	147 41.3 +02.8	N	04 49.8 +00.0	229 51.6 +02.1	S	22 10.9 +00.0	224 36.8 +02.3	S	21 12.9 +00.0	08										
09	162 44.1 +02.9	N	04 49.8 +00.0	244 53.7 +02.1	S	22 10.9 -00.1	239 39.1 +02.3	S	21 12.9 -00.1	09										
10	177 47.0 +02.8	N	04 49.8 +00.0	259 55.8 +02.1	S	22 10.8 +00.0	254 41.4 +02.4	S	21 12.8 +00.0	10										
11	192 49.8 +02.9	N	04 49.8 +00.0	274 57.9 +02.0	S	22 10.8 -00.1	269 43.8 +02.3	S	21 12.8 +00.0	11										
12	207 52.7 +02.8	N	04 49.8 +00.1	289 59.9 +02.1	S	22 10.7 +00.0	284 46.1 +02.3	S	21 12.8 +00.0	12										
13	222 55.5 +02.9	N	04 49.9 +00.0	305 02.0 +02.1	S	22 10.7 -00.1	299 48.4 +02.3	S	21 12.8 -00.1	13										
14	237 58.4 +02.9	N	04 49.9 +00.0	320 04.1 +02.1	S	22 10.6 -00.1	314 50.7 +02.3	S	21 12.7 +00.0	14										
15	253 01.3 +02.8	N	04 49.9 +00.0	335 06.2 +02.0	S	22 10.5 +00.0	329 53.0 +02.3	S	21 12.7 +00.0	15										
16	268 04.1 +02.8	N	04 49.9 +00.1	350 08.2 +02.1	S	22 10.5 -00.1	344 55.3 +02.3	S	21 12.7 +00.0	16										
17	283 06.9 +02.9	N	04 50.0 +00.0	5 10.3 +02.1	S	22 10.4 +00.0	359 57.6 +02.4	S	21 12.7 -00.1	17										
18	298 09.8 +02.8	N	04 50.0 +00.0	20 12.4 +02.1	S	22 10.4 -00.1	14 60.0 +02.3	S	21 12.6 +00.0	18										
19	313 12.6 +02.9	N	04 50.0 +00.0	35 14.5 +02.0	S	22 10.3 +00.0	30 02.3 +02.3	S	21 12.6 +00.0	19										
20	328 15.5 +02.8	N	04 50.0 +00.1	50 16.5 +02.1	S	22 10.3 -00.1	45 04.6 +02.3	S	21 12.6 +00.0	20										
21	343 18.3 +02.9	N	04 50.1 +00.0	65 18.6 +02.1	S	22 10.2 +00.0	60 06.9 +02.3	S	21 12.6 -00.1	21										
22	358 21.2 +02.8	N	04 50.1 +00.0	80 20.7 +02.1	S	22 10.2 -00.1	75 09.2 +02.3	S	21 12.5 +00.0	22										
23	13 24.0 +02.9	N	04 50.1 +00.0	95 22.8 +02.0	S	22 10.1 -00.1	90 11.5 +02.3	S	21 12.5 +00.0	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	00'2	00'2	00'2	00'2	00'2	00'2	SD	00'3	00'3	00'3	00'3	00'3	00'3	SD						
HP	00'3	00'3	00'3	00'3	00'3	00'3	HP	00'0	00'0	00'0	00'0	00'0	00'0	HP						
SHA	345°	345°	345°	345°	345°	345°	SHA	067°	067°	067°	067°	067°	067°	SHA						
Greenwich Culmination Time: 22:06							Greenwich Culmination Time: 16:39							Greenwich Culmination Time: 17:00						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 62%				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	184 06.7 +00.0	S 15 26.5 +00.8	215 18.2 -00.3	S 01 48.5 +01.2	325 39.7 -30.0	N 22 51.5 +05.2	00						
01	199 06.7 +00.0	S 15 27.3 +00.8	230 17.9 -00.4	S 01 49.7 +01.1	340 09.7 -30.0	N 22 56.7 +05.1	01						
02	214 06.7 +00.0	S 15 28.1 +00.7	245 17.5 -00.4	S 01 50.8 +01.2	354 39.7 -30.1	N 23 01.8 +04.9	02						
03	229 06.7 +00.0	S 15 28.8 +00.8	260 17.1 -00.3	S 01 52.0 +01.2	9 09.6 -30.1	N 23 06.7 +04.9	03						
04	244 06.7 -00.1	S 15 29.6 +00.8	275 16.8 -00.4	S 01 53.2 +01.1	23 39.5 -30.2	N 23 11.6 +04.7	04						
05	259 06.6 +00.0	S 15 30.4 +00.7	290 16.4 -00.3	S 01 54.3 +01.2	38 09.3 -30.3	N 23 16.3 +04.6	05						
06	274 06.6 +00.0	S 15 31.1 +00.8	305 16.1 -00.4	S 01 55.5 +01.1	52 39.0 -30.3	N 23 20.9 +04.5	06						
07	289 06.6 +00.0	S 15 31.9 +00.8	320 15.7 -00.4	S 01 56.6 +01.2	67 08.7 -30.4	N 23 25.4 +04.4	07						
08	304 06.6 +00.0	S 15 32.7 +00.7	335 15.3 -00.3	S 01 57.8 +01.2	81 38.3 -30.4	N 23 29.8 +04.3	08						
09	319 06.6 +00.0	S 15 33.4 +00.8	350 15.0 -00.4	S 01 59.0 +01.1	96 07.9 -30.5	N 23 34.1 +04.2	09						
10	334 06.6 +00.0	S 15 34.2 +00.8	5 14.6 -00.3	S 02 00.1 +01.2	110 37.4 -30.5	N 23 38.3 +04.1	10						
11	349 06.6 +00.0	S 15 35.0 +00.7	20 14.3 -00.4	S 02 01.3 +01.1	125 06.9 -30.6	N 23 42.4 +03.9	11						
12	4 06.6 -00.1	S 15 35.7 +00.8	35 13.9 -00.3	S 02 02.4 +01.2	139 36.3 -30.6	N 23 46.3 +03.9	12						
13	19 06.5 +00.0	S 15 36.5 +00.7	50 13.6 -00.4	S 02 03.6 +01.1	154 05.7 -30.7	N 23 50.2 +03.7	13						
14	34 06.5 +00.0	S 15 37.2 +00.8	65 13.2 -00.4	S 02 04.7 +01.2	168 35.0 -30.7	N 23 53.9 +03.6	14						
15	49 06.5 +00.0	S 15 38.0 +00.8	80 12.8 -00.3	S 02 05.9 +01.2	183 04.3 -30.8	N 23 57.5 +03.5	15						
16	64 06.5 +00.0	S 15 38.8 +00.7	95 12.5 -00.4	S 02 07.1 +01.1	197 33.5 -30.8	N 24 01.0 +03.3	16						
17	79 06.5 +00.0	S 15 39.5 +00.8	110 12.1 -00.3	S 02 08.2 +01.2	212 02.7 -30.9	N 24 04.3 +03.3	17						
18	94 06.5 +00.0	S 15 40.3 +00.7	125 11.8 -00.4	S 02 09.4 +01.1	226 31.8 -30.9	N 24 07.6 +03.1	18						
19	109 06.5 -00.1	S 15 41.0 +00.8	140 11.4 -00.4	S 02 10.5 +01.2	241 00.9 -31.0	N 24 10.7 +03.0	19						
20	124 06.4 +00.0	S 15 41.8 +00.8	155 11.0 -00.3	S 02 11.7 +01.2	255 29.9 -31.0	N 24 13.7 +02.9	20						
21	139 06.4 +00.0	S 15 42.6 +00.7	170 10.7 -00.4	S 02 12.9 +01.1	269 58.9 -31.1	N 24 16.6 +02.8	21						
22	154 06.4 +00.0	S 15 43.3 +00.8	185 10.3 -00.3	S 02 14.0 +01.2	284 27.8 -31.1	N 24 19.4 +02.6	22						
23	169 06.4 +00.0	S 15 44.1 +00.7	200 10.0 -00.4	S 02 15.2 +01.1	298 56.7 -31.1	N 24 22.0 +02.6	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 16'1 16'1 16'1 16'1 16'1 16'1		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'9 14'9 14'9 15'0 15'0 15'0								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'7 54'8 54'9 54'9 55'0 55'1								
	SHA 140° 140° 140° 140° 140° 140°		SHA 172° 171° 171° 171° 171° 171°		SHA 281° 279° 277° 274° 272° 270°								
	Greenwich Culmination Time: 11:43		Greenwich Culmination Time: 09:39		Greenwich Culmination Time: 02:22								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	28 26.9 +02.8	N 04 50.1 +00.1	110 24.8 +02.1	S 22 10.0 +00.0	105 13.8 +02.4	S 21 12.5 +00.0	00						
01	43 29.7 +02.8	N 04 50.2 +00.0	125 26.9 +02.1	S 22 10.0 -00.1	120 16.2 +02.3	S 21 12.5 -00.1	01						
02	58 32.5 +02.9	N 04 50.2 +00.0	140 29.0 +02.1	S 22 09.9 +00.0	135 18.5 +02.3	S 21 12.4 +00.0	02						
03	73 35.4 +02.8	N 04 50.2 +00.1	155 31.1 +02.0	S 22 09.9 -00.1	150 20.8 +02.3	S 21 12.4 +00.0	03						
04	88 38.2 +02.8	N 04 50.3 +00.0	170 33.1 +02.1	S 22 09.8 +00.0	165 23.1 +02.3	S 21 12.4 +00.0	04						
05	103 41.0 +02.9	N 04 50.3 +00.0	185 35.2 +02.1	S 22 09.8 -00.1	180 25.4 +02.3	S 21 12.4 -00.1	05						
06	118 43.9 +02.8	N 04 50.3 +00.0	200 37.3 +02.0	S 22 09.7 -00.1	195 27.7 +02.3	S 21 12.3 +00.0	06						
07	133 46.7 +02.8	N 04 50.3 +00.1	215 39.3 +02.1	S 22 09.6 +00.0	210 30.0 +02.3	S 21 12.3 +00.0	07						
08	148 49.5 +02.9	N 04 50.4 +00.0	230 41.4 +02.1	S 22 09.6 -00.1	225 32.3 +02.4	S 21 12.3 +00.0	08						
09	163 52.4 +02.8	N 04 50.4 +00.0	245 43.5 +02.0	S 22 09.5 +00.0	240 34.7 +02.3	S 21 12.3 -00.1	09						
10	178 55.2 +02.8	N 04 50.4 +00.1	260 45.5 +02.1	S 22 09.5 -00.1	255 37.0 +02.3	S 21 12.2 +00.0	10						
11	193 58.0 +02.8	N 04 50.5 +00.0	275 47.6 +02.1	S 22 09.4 +00.0	270 39.3 +02.3	S 21 12.2 +00.0	11						
12	209 00.8 +02.9	N 04 50.5 +00.0	290 49.7 +02.1	S 22 09.4 -00.1	285 41.6 +02.3	S 21 12.2 +00.0	12						
13	224 03.7 +02.8	N 04 50.5 +00.1	305 51.8 +02.0	S 22 09.3 -00.1	300 43.9 +02.3	S 21 12.2 -00.1	13						
14	239 06.5 +02.8	N 04 50.6 +00.0	320 53.8 +02.1	S 22 09.2 +00.0	315 46.2 +02.3	S 21 12.1 +00.0	14						
15	254 09.3 +02.8	N 04 50.6 +00.0	335 55.9 +02.1	S 22 09.2 -00.1	330 48.5 +02.3	S 21 12.1 +00.0	15						
16	269 12.1 +02.8	N 04 50.6 +00.1	350 58.0 +02.0	S 22 09.1 +00.0	345 50.8 +02.3	S 21 12.1 +00.0	16						
17	284 14.9 +02.8	N 04 50.7 +00.0	6 00.0 +02.1	S 22 09.1 -00.1	0 53.1 +02.4	S 21 12.1 -00.1	17						
18	299 17.7 +02.9	N 04 50.7 +00.1	21 02.1 +02.1	S 22 09.0 +00.0	15 55.5 +02.3	S 21 12.0 +00.0	18						
19	314 20.6 +02.8	N 04 50.8 +00.0	36 04.2 +02.0	S 22 09.0 -00.1	30 57.8 +02.3	S 21 12.0 +00.0	19						
20	329 23.4 +02.8	N 04 50.8 +00.0	51 06.2 +02.1	S 22 08.9 -00.1	46 00.1 +02.3	S 21 12.0 +00.0	20						
21	344 26.2 +02.8	N 04 50.8 +00.1	66 08.3 +02.1	S 22 08.8 +00.0	61 02.4 +02.3	S 21 12.0 -00.1	21						
22	359 29.0 +02.8	N 04 50.9 +00.0	81 10.4 +02.0	S 22 08.8 -00.1	76 04.7 +02.3	S 21 11.9 +00.0	22						
23	14 31.8 +02.8	N 04 50.9 +00.0	96 12.4 +02.1	S 22 08.7 +00.0	91 07.0 +02.3	S 21 11.9 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 00'1 00'1 00'1 00'1 00'1 00'1								
	HP 00'3 00'3 00'3 00'3 00'3 00'3		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0								
	SHA 345° 345° 345° 345° 345° 345°		SHA 067° 067° 067° 067° 067° 067°		SHA 062° 062° 062° 061° 061° 061°								
	Greenwich Culmination Time: 22:02		Greenwich Culmination Time: 16:36		Greenwich Culmination Time: 16:56								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	184 06.4 +00.0	S 15 44.8 +00.8	215 09.6 -00.4	S 02 16.3 +01.2	313 25.6 -31.2	N 24 24.6 +02.4	00													
01	199 06.4 -00.1	S 15 45.6 +00.7	230 09.2 -00.3	S 02 17.5 +01.2	327 54.4 -31.3	N 24 27.0 +02.3	01													
02	214 06.3 +00.0	S 15 46.3 +00.8	245 08.9 -00.4	S 02 18.7 +01.1	342 23.1 -31.2	N 24 29.3 +02.1	02													
03	229 06.3 +00.0	S 15 47.1 +00.8	260 08.5 -00.4	S 02 19.8 +01.2	356 51.9 -31.4	N 24 31.4 +02.1	03													
04	244 06.3 +00.0	S 15 47.9 +00.7	275 08.1 -00.3	S 02 21.0 +01.1	11 20.5 -31.3	N 24 33.5 +01.9	04													
05	259 06.3 +00.0	S 15 48.6 +00.8	290 07.8 -00.4	S 02 22.1 +01.2	25 49.2 -31.4	N 24 35.4 +01.8	05													
06	274 06.3 -00.1	S 15 49.4 +00.7	305 07.4 -00.3	S 02 23.3 +01.2	40 17.8 -31.4	N 24 37.2 +01.6	06													
07	289 06.2 +00.0	S 15 50.1 +00.8	320 07.1 -00.4	S 02 24.5 +01.1	54 46.4 -31.5	N 24 38.8 +01.6	07													
08	304 06.2 +00.0	S 15 50.9 +00.7	335 06.7 -00.4	S 02 25.6 +01.2	69 14.9 -31.5	N 24 40.4 +01.4	08													
09	319 06.2 +00.0	S 15 51.6 +00.8	350 06.3 -00.3	S 02 26.8 +01.1	83 43.4 -31.6	N 24 41.8 +01.3	09													
10	334 06.2 +00.0	S 15 52.4 +00.7	5 06.0 -00.4	S 02 27.9 +01.2	98 11.8 -31.6	N 24 43.1 +01.1	10													
11	349 06.2 -00.1	S 15 53.1 +00.8	20 05.6 -00.3	S 02 29.1 +01.2	112 40.2 -31.6	N 24 44.2 +01.1	11													
12	4 06.1 +00.0	S 15 53.9 +00.7	35 05.3 -00.4	S 02 30.3 +01.1	127 08.6 -31.6	N 24 45.3 +00.9	12													
13	19 06.1 +00.0	S 15 54.6 +00.8	50 04.9 -00.4	S 02 31.4 +01.2	141 37.0 -31.7	N 24 46.2 +00.7	13													
14	34 06.1 +00.0	S 15 55.4 +00.7	65 04.5 -00.3	S 02 32.6 +01.1	156 05.3 -31.7	N 24 46.9 +00.7	14													
15	49 06.1 -00.1	S 15 56.1 +00.8	80 04.2 -00.4	S 02 33.7 +01.2	170 33.6 -31.8	N 24 47.6 +00.5	15													
16	64 06.0 +00.0	S 15 56.9 +00.7	95 03.8 -00.4	S 02 34.9 +01.1	185 01.8 -31.7	N 24 48.1 +00.4	16													
17	79 06.0 +00.0	S 15 57.6 +00.8	110 03.4 -00.3	S 02 36.0 +01.2	199 30.1 -31.8	N 24 48.5 +00.3	17													
18	94 06.0 +00.0	S 15 58.4 +00.7	125 03.1 -00.4	S 02 37.2 +01.2	213 58.3 -31.9	N 24 48.8 +00.1	18													
19	109 06.0 +00.0	S 15 59.1 +00.8	140 02.7 -00.4	S 02 38.4 +01.1	228 26.4 -31.8	N 24 48.9 +00.0	19													
20	124 06.0 -00.1	S 15 59.9 +00.7	155 02.3 -00.3	S 02 39.5 +01.2	242 54.6 -31.9	N 24 48.9 -00.1	20													
21	139 05.9 +00.0	S 16 00.6 +00.8	170 02.0 -00.4	S 02 40.7 +01.1	257 22.7 -31.9	N 24 48.8 -00.3	21													
22	154 05.9 +00.0	S 16 01.4 +00.7	185 01.6 -00.4	S 02 41.8 +01.2	271 50.8 -31.9	N 24 48.5 -00.4	22													
23	169 05.9 -00.1	S 16 02.1 +00.8	200 01.2 -00.3	S 02 43.0 +01.2	286 18.9 -32.0	N 24 48.1 -00.5	23													
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	16°1	16°1	16°1	16°1	16°1	16°1	SD	00°1	00°1	00°1	00°1	00°1	00°1	SD						
HP	00°1	00°1	00°1	00°1	00°1	00°1	HP	00°1	00°1	00°1	00°1	00°1	00°1	HP						
SHA	139°	139°	139°	139°	139°	139°	SHA	170°	170°	170°	170°	170°	169°	SHA						
Greenwich Culmination Time: 11:43							Greenwich Culmination Time: 09:39							Greenwich Culmination Time: 03:12						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	29 34.6 +02.8	N 04 50.9 +00.1	111 14.5 +02.1	S 22 08.7 -00.1	106 09.3 +02.3	S 21 11.9 -00.1	00													
01	44 37.4 +02.8	N 04 51.0 +00.0	126 16.6 +02.0	S 22 08.6 +00.0	121 11.6 +02.3	S 21 11.8 +00.0	01													
02	59 40.2 +02.8	N 04 51.0 +00.1	141 18.6 +02.1	S 22 08.6 -00.1	136 13.9 +02.3	S 21 11.8 +00.0	02													
03	74 43.0 +02.8	N 04 51.1 +00.0	156 20.7 +02.1	S 22 08.5 -00.1	151 16.2 +02.4	S 21 11.8 +00.0	03													
04	89 45.8 +02.8	N 04 51.1 +00.0	171 22.8 +02.0	S 22 08.4 +00.0	166 18.6 +02.3	S 21 11.8 -00.1	04													
05	104 48.6 +02.8	N 04 51.1 +00.1	186 24.8 +02.1	S 22 08.4 -00.1	181 20.9 +02.3	S 21 11.7 +00.0	05													
06	119 51.4 +02.8	N 04 51.2 +00.0	201 26.9 +02.1	S 22 08.3 +00.0	196 23.2 +02.3	S 21 11.7 +00.0	06													
07	134 54.2 +02.8	N 04 51.2 +00.1	216 29.0 +02.0	S 22 08.3 -00.1	211 25.5 +02.3	S 21 11.7 +00.0	07													
08	149 57.0 +02.8	N 04 51.3 +00.0	231 31.0 +02.1	S 22 08.2 -00.1	226 27.8 +02.3	S 21 11.7 -00.1	08													
09	164 59.8 +02.8	N 04 51.3 +00.1	246 33.1 +02.1	S 22 08.1 +00.0	241 30.1 +02.3	S 21 11.6 +00.0	09													
10	180 02.6 +02.8	N 04 51.4 +00.0	261 35.2 +02.0	S 22 08.1 -00.1	256 32.4 +02.3	S 21 11.6 +00.0	10													
11	195 05.4 +02.8	N 04 51.4 +00.0	276 37.2 +02.1	S 22 08.0 +00.0	271 34.7 +02.3	S 21 11.6 +00.0	11													
12	210 08.2 +02.8	N 04 51.4 +00.1	291 39.3 +02.0	S 22 08.0 -00.1	286 37.0 +02.3	S 21 11.6 -00.1	12													
13	225 11.0 +02.8	N 04 51.5 +00.0	306 41.3 +02.1	S 22 07.9 +00.0	301 39.3 +02.3	S 21 11.5 +00.0	13													
14	240 13.8 +02.8	N 04 51.5 +00.1	321 43.4 +02.1	S 22 07.9 -00.1	316 41.6 +02.3	S 21 11.5 +00.0	14													
15	255 16.6 +02.8	N 04 51.6 +00.0	336 45.5 +02.0	S 22 07.8 -00.1	331 43.9 +02.4	S 21 11.5 +00.0	15													
16	270 19.4 +02.8	N 04 51.6 +00.1	351 47.5 +02.1	S 22 07.7 +00.0	346 46.3 +02.3	S 21 11.5 -00.1	16													
17	285 22.2 +02.8	N 04 51.7 +00.0	6 49.6 +02.1	S 22 07.7 -00.1	1 48.6 +02.3	S 21 11.4 +00.0	17													
18	300 25.0 +02.7	N 04 51.7 +00.1	21 51.7 +02.0	S 22 07.6 +00.0	16 50.9 +02.3	S 21 11.4 +00.0	18													
19	315 27.7 +02.8	N 04 51.8 +00.0	36 53.7 +02.1	S 22 07.6 -00.1	31 53.2 +02.3	S 21 11.4 -00.1	19													
20	330 30.5 +02.8	N 04 51.8 +00.1	51 55.8 +02.1	S 22 07.5 -00.1	46 55.5 +02.3	S 21 11.3 +00.0	20													
21	345 33.3 +02.8	N 04 51.9 +00.0	66 57.9 +02.0	S 22 07.4 +00.0	61 57.8 +02.3	S 21 11.3 +00.0	21													
22	0 36.1 +02.8	N 04 51.9 +00.1	81 59.9 +02.1	S 22 07.4 -00.1	77 00.1 +02.3	S 21 11.3 +00.0	22													
23	15 38.9 +02.7	N 04 52.0 +00.0	97 02.0 +02.0	S 22 07.3 +00.0	92 02.4 +02.3	S 21 11.3 -00.1	23													
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	00°2	00°2	00°2	00°2	00°2	00°2	SD	00°1	00°1	00°1	00°1	00°1	00°1	SD						
HP	00°3	00°3	00°3	00°3	00°3	00°3	HP	00°0	00°0	00°0	00°0	00°0	00°0	HP						
SHA	345°	345°	345°	345°	345°	345°	SHA	061°	061°	061°	061°	061°	061°	SHA						
Greenwich Culmination Time: 21:57							Greenwich Culmination Time: 16:32							Greenwich Culmination Time: 16:52						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	184 05.8 +00.0	S 16 02.9 +00.7	215 00.9 -00.4	S 02 44.2 +01.1	300 46.9 -32.0	N 24 47.6 -00.7	00						
01	199 05.8 +00.0	S 16 03.6 +00.8	230 00.5 -00.3	S 02 45.3 +01.2	315 14.9 -32.0	N 24 46.9 -00.8	01						
02	214 05.8 +00.0	S 16 04.4 +00.7	245 00.2 -00.4	S 02 46.5 +01.1	329 42.9 -32.0	N 24 46.1 -00.9	02						
03	229 05.8 -00.1	S 16 05.1 +00.7	259 59.8 -00.4	S 02 47.6 +01.2	344 10.9 -32.0	N 24 45.2 -01.0	03						
04	244 05.7 +00.0	S 16 05.8 +00.8	274 59.4 -00.3	S 02 48.8 +01.2	358 38.9 -32.1	N 24 44.2 -01.2	04						
05	259 05.7 +00.0	S 16 06.6 +00.7	289 59.1 -00.4	S 02 50.0 +01.1	13 06.8 -32.0	N 24 43.0 -01.3	05						
06	274 05.7 +00.0	S 16 07.3 +00.8	304 58.7 -00.4	S 02 51.1 +01.2	27 34.8 -32.1	N 24 41.7 -01.5	06						
07	289 05.7 -00.1	S 16 08.1 +00.7	319 58.3 -00.3	S 02 52.3 +01.1	42 02.7 -32.1	N 24 40.2 -01.6	07						
08	304 05.6 +00.0	S 16 08.8 +00.8	334 58.0 -00.4	S 02 53.4 +01.2	56 30.6 -32.1	N 24 38.6 -01.7	08						
09	319 05.6 +00.0	S 16 09.6 +00.7	349 57.6 -00.4	S 02 54.6 +01.2	70 58.5 -32.2	N 24 36.9 -01.8	09						
10	334 05.6 -00.1	S 16 10.3 +00.7	4 57.2 -00.3	S 02 55.8 +01.1	85 26.3 -32.1	N 24 35.1 -02.0	10						
11	349 05.5 +00.0	S 16 11.0 +00.8	19 56.9 -00.4	S 02 56.9 +01.2	99 54.2 -32.2	N 24 33.1 -02.1	11						
12	4 05.5 +00.0	S 16 11.8 +00.7	34 56.5 -00.4	S 02 58.1 +01.1	114 22.0 -32.1	N 24 31.0 -02.3	12						
13	19 05.5 -00.1	S 16 12.5 +00.8	49 56.1 -00.3	S 02 59.2 +01.2	128 49.9 -32.2	N 24 28.7 -02.3	13						
14	34 05.4 +00.0	S 16 13.3 +00.7	64 55.8 -00.4	S 03 00.4 +01.2	143 17.7 -32.2	N 24 26.4 -02.6	14						
15	49 05.4 +00.0	S 16 14.0 +00.7	79 55.4 -00.4	S 03 01.6 +01.1	157 45.5 -32.2	N 24 23.8 -02.6	15						
16	64 05.4 -00.1	S 16 14.7 +00.8	94 55.0 -00.3	S 03 02.7 +01.2	172 13.3 -32.2	N 24 21.2 -02.8	16						
17	79 05.3 +00.0	S 16 15.5 +00.7	109 54.7 -00.4	S 03 03.9 +01.1	186 41.1 -32.2	N 24 18.4 -02.9	17						
18	94 05.3 +00.0	S 16 16.2 +00.8	124 54.3 -00.4	S 03 05.0 +01.2	201 08.9 -32.2	N 24 15.5 -03.1	18						
19	109 05.3 -00.1	S 16 17.0 +00.7	139 53.9 -00.3	S 03 06.2 +01.2	215 36.7 -32.2	N 24 12.4 -03.1	19						
20	124 05.2 +00.0	S 16 17.7 +00.7	154 53.6 -00.4	S 03 07.4 +01.1	230 04.5 -32.2	N 24 09.3 -03.4	20						
21	139 05.2 +00.0	S 16 18.4 +00.8	169 53.2 -00.4	S 03 08.5 +01.2	244 32.3 -32.2	N 24 05.9 -03.4	21						
22	154 05.2 -00.1	S 16 19.2 +00.7	184 52.8 -00.4	S 03 09.7 +01.1	259 00.1 -32.3	N 24 02.5 -03.6	22						
23	169 05.1 +00.0	S 16 19.9 +00.7	199 52.4 -00.3	S 03 10.8 +01.2	273 27.8 -32.2	N 23 58.9 -03.7	23						
	UT 02 06 10 14 18 22	UT 02 06 10 14 18 22	UT 02 06 10 14 18 22	UT 02 06 10 14 18 22	SD 16°1 16°1 16°1 16°1 16°1 16°1	SD 00°1 00°1 00°1 00°1 00°1 00°1	SD 15°2 15°2 15°2 15°3 15°3 15°3						
	HP 00°1 00°1 00°1 00°1 00°1 00°1	HP 00°1 00°1 00°1 00°1 00°1 00°1	HP 00°1 00°1 00°1 00°1 00°1 00°1	HP 55°7 55°8 55°9 56°0 56°1 56°2									
	SHA 138° 138° 138° 138° 138° 138°	SHA 169° 169° 169° 169° 168° 168°	SHA 169° 169° 169° 169° 168° 168°	SHA 254° 252° 249° 247° 245° 242°									
	Greenwich Culmination Time: 11:43	Greenwich Culmination Time: 09:40	Greenwich Culmination Time: 04:05										

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	30 41.6 +02.8	N 04 52.0 +00.1	112 04.0 +02.1	S 22 07.3 -00.1	107 04.7 +02.3	S 21 11.2 +00.0	00						
01	45 44.4 +02.8	N 04 52.1 +00.0	127 06.1 +02.1	S 22 07.2 +00.0	122 07.0 +02.3	S 21 11.2 +00.0	01						
02	60 47.2 +02.8	N 04 52.1 +00.1	142 08.2 +02.0	S 22 07.2 -00.1	137 09.3 +02.3	S 21 11.2 +00.0	02						
03	75 50.0 +02.7	N 04 52.2 +00.0	157 10.2 +02.1	S 22 07.1 -00.1	152 11.6 +02.3	S 21 11.2 -00.1	03						
04	90 52.7 +02.8	N 04 52.2 +00.1	172 12.3 +02.0	S 22 07.0 +00.0	167 13.9 +02.3	S 21 11.1 +00.0	04						
05	105 55.5 +02.8	N 04 52.3 +00.0	187 14.3 +02.1	S 22 07.0 -00.1	182 16.2 +02.3	S 21 11.1 +00.0	05						
06	120 58.3 +02.7	N 04 52.3 +00.1	202 16.4 +02.1	S 22 06.9 +00.0	197 18.5 +02.3	S 21 11.1 +00.0	06						
07	136 01.0 +02.8	N 04 52.4 +00.0	217 18.5 +02.0	S 22 06.9 -00.1	212 20.8 +02.3	S 21 11.1 -00.1	07						
08	151 03.8 +02.8	N 04 52.4 +00.1	232 20.5 +02.1	S 22 06.8 -00.1	227 23.1 +02.4	S 21 11.0 +00.0	08						
09	166 06.6 +02.7	N 04 52.5 +00.0	247 22.6 +02.0	S 22 06.7 +00.0	242 25.5 +02.3	S 21 11.0 +00.0	09						
10	181 09.3 +02.8	N 04 52.5 +00.1	262 24.6 +02.1	S 22 06.7 -00.1	257 27.8 +02.3	S 21 11.0 -00.1	10						
11	196 12.1 +02.8	N 04 52.6 +00.0	277 26.7 +02.1	S 22 06.6 +00.0	272 30.1 +02.3	S 21 10.9 +00.0	11						
12	211 14.9 +02.7	N 04 52.6 +00.1	292 28.8 +02.0	S 22 06.6 -00.1	287 32.4 +02.3	S 21 10.9 +00.0	12						
13	226 17.6 +02.8	N 04 52.7 +00.0	307 30.8 +02.1	S 22 06.5 -00.1	302 34.7 +02.3	S 21 10.9 +00.0	13						
14	241 20.4 +02.7	N 04 52.7 +00.1	322 32.9 +02.0	S 22 06.4 +00.0	317 37.0 +02.3	S 21 10.9 -00.1	14						
15	256 23.1 +02.8	N 04 52.8 +00.1	337 34.9 +02.1	S 22 06.4 -00.1	332 39.3 +02.3	S 21 10.8 +00.0	15						
16	271 25.9 +02.8	N 04 52.9 +00.0	352 37.0 +02.0	S 22 06.3 +00.0	347 41.6 +02.3	S 21 10.8 +00.0	16						
17	286 28.7 +02.7	N 04 52.9 +00.1	7 39.0 +02.1	S 22 06.3 -00.1	2 43.9 +02.3	S 21 10.8 +00.0	17						
18	301 31.4 +02.8	N 04 53.0 +00.0	22 41.1 +02.1	S 22 06.2 -00.1	17 46.2 +02.3	S 21 10.8 -00.1	18						
19	316 34.2 +02.7	N 04 53.0 +00.1	37 43.2 +02.0	S 22 06.1 +00.0	32 48.5 +02.3	S 21 10.7 +00.0	19						
20	331 36.9 +02.8	N 04 53.1 +00.0	52 45.2 +02.1	S 22 06.1 -00.1	47 50.8 +02.3	S 21 10.7 +00.0	20						
21	346 39.7 +02.7	N 04 53.1 +00.1	67 47.3 +02.0	S 22 06.0 +00.0	62 53.1 +02.3	S 21 10.7 -00.1	21						
22	1 42.4 +02.8	N 04 53.2 +00.1	82 49.3 +02.1	S 22 06.0 -00.1	77 55.4 +02.3	S 21 10.6 +00.0	22						
23	16 45.2 +02.7	N 04 53.3 +00.0	97 51.4 +02.0	S 22 05.9 -00.1	92 57.7 +02.3	S 21 10.6 +00.0	23						
	UT 02 06 10 14 18 22	UT 02 06 10 14 18 22	UT 02 06 10 14 18 22	UT 02 06 10 14 18 22	SD 00°2 00°2 00°2 00°2 00°2 00°2	SD 00°3 00°3 00°3 00°3 00°3 00°3	SD 00°1 00°1 00°1 00°1 00°1 00°1						
	HP 00°3 00°3 00°3 00°3 00°3 00°3	HP 00°0 00°0 00°0 00°0 00°0 00°0	HP 00°0 00°0 00°0 00°0 00°0 00°0	HP 061° 061° 061° 061° 061° 061°									
	SHA 345° 345° 345° 345° 345° 345°	SHA 066° 066° 066° 066° 066° 066°	SHA 066° 066° 066° 066° 066° 066°	SHA 061° 061° 061° 061° 061° 061°									
	Greenwich Culmination Time: 21:53	Greenwich Culmination Time: 16:29	Greenwich Culmination Time: 16:49										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	184 05.1 +00.0	S 16 20.6 +00.8	214 52.1 -00.4	S 03 12.0 +01.2	287 55.6 -32.2	N 23 55.2 -03.9	00						
01	199 05.1 -00.1	S 16 21.4 +00.7	229 51.7 -00.4	S 03 13.2 +01.1	302 23.4 -32.2	N 23 51.3 -03.9	01						
02	214 05.0 +00.0	S 16 22.1 +00.7	244 51.3 -00.3	S 03 14.3 +01.2	316 51.2 -32.3	N 23 47.4 -04.2	02						
03	229 05.0 +00.0	S 16 22.8 +00.8	259 51.0 -00.4	S 03 15.5 +01.1	331 18.9 -32.2	N 23 43.2 -04.2	03						
04	244 05.0 -00.1	S 16 23.6 +00.7	274 50.6 -00.4	S 03 16.6 +01.2	345 46.7 -32.2	N 23 39.0 -04.4	04						
05	259 04.9 +00.0	S 16 24.3 +00.7	289 50.2 -00.3	S 03 17.8 +01.1	0 14.5 -32.2	N 23 34.6 -04.5	05						
06	274 04.9 +00.0	S 16 25.0 +00.8	304 49.9 -00.4	S 03 18.9 +01.2	14 42.3 -32.2	N 23 30.1 -04.7	06						
07	289 04.9 -00.1	S 16 25.8 +00.7	319 49.5 -00.4	S 03 20.1 +01.2	29 10.1 -32.2	N 23 25.4 -04.7	07						
08	304 04.8 +00.0	S 16 26.5 +00.7	334 49.1 -00.4	S 03 21.3 +01.1	43 37.9 -32.2	N 23 20.7 -04.9	08						
09	319 04.8 -00.1	S 16 27.2 +00.8	349 48.7 -00.3	S 03 22.4 +01.2	58 05.7 -32.2	N 23 15.8 -05.1	09						
10	334 04.7 +00.0	S 16 28.0 +00.7	4 48.4 -00.4	S 03 23.6 +01.1	72 33.5 -32.1	N 23 10.7 -05.2	10						
11	349 04.7 +00.0	S 16 28.7 +00.7	19 48.0 -00.4	S 03 24.7 +01.2	87 01.4 -32.2	N 23 05.5 -05.3	11						
12	4 04.7 -00.1	S 16 29.4 +00.7	34 47.6 -00.3	S 03 25.9 +01.2	101 29.2 -32.2	N 23 00.2 -05.4	12						
13	19 04.6 +00.0	S 16 30.1 +00.8	49 47.3 -00.4	S 03 27.1 +01.1	115 57.0 -32.1	N 22 54.8 -05.6	13						
14	34 04.6 -00.1	S 16 30.9 +00.7	64 46.9 -00.4	S 03 28.2 +01.2	130 24.9 -32.2	N 22 49.2 -05.7	14						
15	49 04.5 +00.0	S 16 31.6 +00.7	79 46.5 -00.4	S 03 29.4 +01.1	144 52.7 -32.1	N 22 43.5 -05.8	15						
16	64 04.5 +00.0	S 16 32.3 +00.8	94 46.1 -00.3	S 03 30.5 +01.2	159 20.6 -32.1	N 22 37.7 -06.0	16						
17	79 04.5 -00.1	S 16 33.1 +00.7	109 45.8 -00.4	S 03 31.7 +01.2	173 48.5 -32.1	N 22 31.7 -06.1	17						
18	94 04.4 +00.0	S 16 33.8 +00.7	124 45.4 -00.4	S 03 32.9 +01.1	188 16.4 -32.1	N 22 25.6 -06.2	18						
19	109 04.4 -00.1	S 16 34.5 +00.7	139 45.0 -00.3	S 03 34.0 +01.2	202 44.3 -32.1	N 22 19.4 -06.3	19						
20	124 04.3 +00.0	S 16 35.2 +00.8	154 44.7 -00.4	S 03 35.2 +01.1	217 12.2 -32.0	N 22 13.1 -06.5	20						
21	139 04.3 -00.1	S 16 36.0 +00.7	169 44.3 -00.4	S 03 36.3 +01.2	231 40.2 -32.1	N 22 06.6 -06.6	21						
22	154 04.2 +00.0	S 16 36.7 +00.7	184 43.9 -00.4	S 03 37.5 +01.2	246 08.1 -32.0	N 21 60.0 -06.7	22						
23	169 04.2 +00.0	S 16 37.4 +00.7	199 43.5 -00.3	S 03 38.7 +01.1	260 36.1 -32.0	N 21 53.3 -06.9	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	16'1 16'1 16'1 16'1 16'1 16'1		SD	00'1 00'1 00'1 00'1 00'1 00'1		SD	15'4 15'4 15'4 15'5 15'5 15'5						
HP	00'1 00'1 00'1 00'1 00'1 00'1		HP	00'1 00'1 00'1 00'1 00'1 00'1		HP	56'3 56'5 56'6 56'7 56'8 57'0						
SHA	137° 137° 137° 137° 137° 137°		SHA	168° 168° 168° 168° 167° 167°		SHA	240° 238° 235° 233° 231° 229°						
Greenwich Culmination Time: 11:43			Greenwich Culmination Time: 09:40			Greenwich Culmination Time: 04:58							

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	31 47.9 +02.8	N 04 53.3 +00.1	112 53.4 +02.1	S 22 05.8 +00.0	108 00.0 +02.3	S 21 10.6 +00.0	00						
01	46 50.7 +02.7	N 04 53.4 +00.0	127 55.5 +02.0	S 22 05.8 -00.1	123 02.3 +02.3	S 21 10.6 -00.1	01						
02	61 53.4 +02.7	N 04 53.4 +00.1	142 57.5 +02.1	S 22 05.7 +00.0	138 04.6 +02.3	S 21 10.5 +00.0	02						
03	76 56.1 +02.8	N 04 53.5 +00.1	157 59.6 +02.1	S 22 05.7 -00.1	153 06.9 +02.3	S 21 10.5 +00.0	03						
04	91 58.9 +02.7	N 04 53.6 +00.0	173 01.7 +02.0	S 22 05.6 -00.1	168 09.2 +02.3	S 21 10.5 +00.0	04						
05	107 01.6 +02.8	N 04 53.6 +00.1	188 03.7 +02.1	S 22 05.5 +00.0	183 11.5 +02.3	S 21 10.5 -00.1	05						
06	122 04.4 +02.7	N 04 53.7 +00.1	203 05.8 +02.0	S 22 05.5 -00.1	198 13.8 +02.3	S 21 10.4 +00.0	06						
07	137 07.1 +02.7	N 04 53.8 +00.0	218 07.8 +02.1	S 22 05.4 +00.0	213 16.1 +02.3	S 21 10.4 +00.0	07						
08	152 09.8 +02.8	N 04 53.8 +00.1	233 09.9 +02.0	S 22 05.4 -00.1	228 18.4 +02.3	S 21 10.4 -00.1	08						
09	167 12.6 +02.7	N 04 53.9 +00.0	248 11.9 +02.1	S 22 05.3 -00.1	243 20.7 +02.3	S 21 10.3 +00.0	09						
10	182 15.3 +02.7	N 04 53.9 +00.1	263 14.0 +02.0	S 22 05.2 +00.0	258 23.0 +02.3	S 21 10.3 +00.0	10						
11	197 18.0 +02.8	N 04 54.0 +00.1	278 16.0 +02.1	S 22 05.2 -00.1	273 25.3 +02.3	S 21 10.3 +00.0	11						
12	212 20.8 +02.7	N 04 54.1 +00.0	293 18.1 +02.0	S 22 05.1 +00.0	288 27.6 +02.3	S 21 10.3 -00.1	12						
13	227 23.5 +02.7	N 04 54.1 +00.1	308 20.1 +02.1	S 22 05.1 -00.1	303 29.9 +02.3	S 21 10.2 +00.0	13						
14	242 26.2 +02.7	N 04 54.2 +00.1	323 22.2 +02.0	S 22 05.0 -00.1	318 32.2 +02.3	S 21 10.2 +00.0	14						
15	257 28.9 +02.8	N 04 54.3 +00.0	338 24.2 +02.1	S 22 04.9 +00.0	333 34.5 +02.3	S 21 10.2 -00.1	15						
16	272 31.7 +02.7	N 04 54.3 +00.1	353 26.3 +02.0	S 22 04.9 -00.1	348 36.8 +02.3	S 21 10.1 +00.0	16						
17	287 34.4 +02.7	N 04 54.4 +00.1	8 28.3 +02.1	S 22 04.8 -00.1	3 39.1 +02.3	S 21 10.1 +00.0	17						
18	302 37.1 +02.7	N 04 54.5 +00.1	23 30.4 +02.1	S 22 04.7 +00.0	18 41.4 +02.3	S 21 10.1 +00.0	18						
19	317 39.8 +02.8	N 04 54.6 +00.0	38 32.5 +02.0	S 22 04.7 -00.1	33 43.7 +02.3	S 21 10.1 -00.1	19						
20	332 42.6 +02.7	N 04 54.6 +00.1	53 34.5 +02.1	S 22 04.6 +00.0	48 46.0 +02.3	S 21 10.0 +00.0	20						
21	347 45.3 +02.7	N 04 54.7 +00.1	68 36.6 +02.0	S 22 04.6 -00.1	63 48.3 +02.3	S 21 10.0 +00.0	21						
22	2 48.0 +02.7	N 04 54.8 +00.0	83 38.6 +02.1	S 22 04.5 -00.1	78 50.6 +02.3	S 21 10.0 +00.0	22						
23	17 50.7 +02.7	N 04 54.8 +00.1	98 40.7 +02.0	S 22 04.4 +00.0	93 52.9 +02.3	S 21 10.0 -00.1	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	00'2 00'2 00'2 00'2 00'2 00'2		SD	00'3 00'3 00'3 00'3 00'3 00'3		SD	00'1 00'1 00'1 00'1 00'1 00'1						
HP	00'3 00'3 00'3 00'3 00'3 00'3		HP	00'0 00'0 00'0 00'0 00'0 00'0		HP	00'0 00'0 00'0 00'0 00'0 00'0						
SHA	345° 345° 345° 345° 345° 345°		SHA	066° 066° 066° 066° 066° 066°		SHA	061° 061° 061° 061° 061° 061°						
Greenwich Culmination Time: 21:48			Greenwich Culmination Time: 16:26			Greenwich Culmination Time: 16:45							

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	184 04.2 -00.1	S 16 38.1 +00.8	214 43.2 -00.4	S 03 39.8 +01.2	275 04.1 -32.0	N 21 46.4 -07.0	00						
01	199 04.1 +00.0	S 16 38.9 +00.7	229 42.8 -00.4	S 03 41.0 +01.1	289 32.1 -32.0	N 21 39.4 -07.1	01						
02	214 04.1 -00.1	S 16 39.6 +00.7	244 42.4 -00.4	S 03 42.1 +01.2	304 00.1 -31.9	N 21 32.3 -07.2	02						
03	229 04.0 +00.0	S 16 40.3 +00.7	259 42.0 -00.3	S 03 43.3 +01.1	318 28.2 -32.0	N 21 25.1 -07.4	03						
04	244 04.0 -00.1	S 16 41.0 +00.7	274 41.7 -00.4	S 03 44.4 +01.2	332 56.2 -31.9	N 21 17.7 -07.5	04						
05	259 03.9 +00.0	S 16 41.7 +00.8	289 41.3 -00.4	S 03 45.6 +01.2	347 24.3 -31.9	N 21 10.2 -07.6	05						
06	274 03.9 -00.1	S 16 42.5 +00.7	304 40.9 -00.4	S 03 46.8 +01.1	1 52.4 -31.9	N 21 02.6 -07.7	06						
07	289 03.8 +00.0	S 16 43.2 +00.7	319 40.5 -00.3	S 03 47.9 +01.2	16 20.5 -31.9	N 20 54.9 -07.9	07						
08	304 03.8 -00.1	S 16 43.9 +00.7	334 40.2 -00.4	S 03 49.1 +01.1	30 48.6 -31.8	N 20 47.0 -08.0	08						
09	319 03.7 +00.0	S 16 44.6 +00.7	349 39.8 -00.4	S 03 50.2 +01.2	45 16.8 -31.8	N 20 39.0 -08.1	09						
10	334 03.7 -00.1	S 16 45.3 +00.8	4 39.4 -00.4	S 03 51.4 +01.2	59 45.0 -31.9	N 20 30.9 -08.2	10						
11	349 03.6 +00.0	S 16 46.1 +00.7	19 39.0 -00.3	S 03 52.6 +01.1	74 13.1 -31.7	N 20 22.7 -08.3	11						
12	4 03.6 -00.1	S 16 46.8 +00.7	34 38.7 -00.4	S 03 53.7 +01.2	88 41.4 -31.8	N 20 14.4 -08.5	12						
13	19 03.5 +00.0	S 16 47.5 +00.7	49 38.3 -00.4	S 03 54.9 +01.1	103 09.6 -31.8	N 20 05.9 -08.6	13						
14	34 03.5 -00.1	S 16 48.2 +00.7	64 37.9 -00.4	S 03 56.0 +01.2	117 37.8 -31.7	N 19 57.3 -08.7	14						
15	49 03.4 +00.0	S 16 48.9 +00.7	79 37.5 -00.4	S 03 57.2 +01.1	132 06.1 -31.7	N 19 48.6 -08.8	15						
16	64 03.4 -00.1	S 16 49.6 +00.8	94 37.1 -00.3	S 03 58.3 +01.2	146 34.4 -31.7	N 19 39.8 -09.0	16						
17	79 03.3 +00.0	S 16 50.4 +00.7	109 36.8 -00.4	S 03 59.5 +01.2	161 02.7 -31.6	N 19 30.8 -09.1	17						
18	94 03.3 -00.1	S 16 51.1 +00.7	124 36.4 -00.4	S 04 00.7 +01.1	175 31.1 -31.7	N 19 21.7 -09.1	18						
19	109 03.2 +00.0	S 16 51.8 +00.7	139 36.0 -00.4	S 04 01.8 +01.2	189 59.4 -31.6	N 19 12.6 -09.3	19						
20	124 03.2 -00.1	S 16 52.5 +00.7	154 35.6 -00.3	S 04 03.0 +01.1	204 27.8 -31.6	N 19 03.3 -09.4	20						
21	139 03.1 +00.0	S 16 53.2 +00.7	169 35.3 -00.4	S 04 04.1 +01.2	218 56.2 -31.5	N 18 53.9 -09.6	21						
22	154 03.1 -00.1	S 16 53.9 +00.7	184 34.9 -00.4	S 04 05.3 +01.1	233 24.7 -31.6	N 18 44.3 -09.6	22						
23	169 03.0 +00.0	S 16 54.6 +00.7	199 34.5 -00.4	S 04 06.4 +01.2	247 53.1 -31.5	N 18 34.7 -09.8	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 16'1 16'1 16'1 16'1 16'1 16'1		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'6 15'6 15'6 15'7 15'7 15'7								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 57'1 57'2 57'4 57'5 57'6 57'8								
	SHA 136° 136° 136° 136° 136° 136°		SHA 167° 167° 167° 166° 166° 166°		SHA 226° 224° 222° 219° 217° 215°								
	Greenwich Culmination Time: 11:43		Greenwich Culmination Time: 09:41		Greenwich Culmination Time: 05:52								

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	32 53.4 +02.7	N 04 54.9 +00.1	113 42.7 +02.1	S 22 04.4 -00.1	108 55.2 +02.3	S 21 09.9 +00.0	00						
01	47 56.1 +02.8	N 04 55.0 +00.0	128 44.8 +02.0	S 22 04.3 +00.0	123 57.5 +02.3	S 21 09.9 +00.0	01						
02	62 58.9 +02.7	N 04 55.0 +00.1	143 46.8 +02.1	S 22 04.3 -00.1	138 59.8 +02.3	S 21 09.9 -00.1	02						
03	78 01.6 +02.7	N 04 55.1 +00.1	158 48.9 +02.0	S 22 04.2 -00.1	154 02.1 +02.3	S 21 09.8 +00.0	03						
04	93 04.3 +02.7	N 04 55.2 +00.1	173 50.9 +02.1	S 22 04.1 +00.0	169 04.4 +02.3	S 21 09.8 +00.0	04						
05	108 07.0 +02.7	N 04 55.3 +00.0	188 53.0 +02.0	S 22 04.1 -00.1	184 06.7 +02.3	S 21 09.8 +00.0	05						
06	123 09.7 +02.7	N 04 55.3 +00.1	203 55.0 +02.1	S 22 04.0 +00.0	199 09.0 +02.3	S 21 09.8 -00.1	06						
07	138 12.4 +02.7	N 04 55.4 +00.1	218 57.1 +02.0	S 22 04.0 -00.1	214 11.3 +02.3	S 21 09.7 +00.0	07						
08	153 15.1 +02.7	N 04 55.5 +00.1	233 59.1 +02.0	S 22 03.9 -00.1	229 13.6 +02.3	S 21 09.7 +00.0	08						
09	168 17.8 +02.7	N 04 55.6 +00.0	249 01.1 +02.1	S 22 03.8 +00.0	244 15.9 +02.3	S 21 09.7 -00.1	09						
10	183 20.5 +02.7	N 04 55.6 +00.1	264 03.2 +02.0	S 22 03.8 -00.1	259 18.2 +02.3	S 21 09.6 +00.0	10						
11	198 23.2 +02.7	N 04 55.7 +00.1	279 05.2 +02.1	S 22 03.7 -00.1	274 20.5 +02.3	S 21 09.6 +00.0	11						
12	213 25.9 +02.7	N 04 55.8 +00.1	294 07.3 +02.0	S 22 03.6 +00.0	289 22.8 +02.3	S 21 09.6 +00.0	12						
13	228 28.6 +02.7	N 04 55.9 +00.0	309 09.3 +02.1	S 22 03.6 -00.1	304 25.1 +02.3	S 21 09.6 -00.1	13						
14	243 31.3 +02.7	N 04 55.9 +00.1	324 11.4 +02.0	S 22 03.5 +00.0	319 27.4 +02.3	S 21 09.5 +00.0	14						
15	258 34.0 +02.7	N 04 56.0 +00.1	339 13.4 +02.1	S 22 03.5 -00.1	334 29.7 +02.3	S 21 09.5 +00.0	15						
16	273 36.7 +02.7	N 04 56.1 +00.1	354 15.5 +02.0	S 22 03.4 -00.1	349 32.0 +02.3	S 21 09.5 -00.1	16						
17	288 39.4 +02.7	N 04 56.2 +00.1	9 17.5 +02.1	S 22 03.3 +00.0	4 34.3 +02.3	S 21 09.4 +00.0	17						
18	303 42.1 +02.7	N 04 56.3 +00.0	24 19.6 +02.0	S 22 03.3 -00.1	19 36.6 +02.3	S 21 09.4 +00.0	18						
19	318 44.8 +02.6	N 04 56.3 +00.1	39 21.6 +02.1	S 22 03.2 -00.1	34 38.9 +02.3	S 21 09.4 +00.0	19						
20	333 47.4 +02.7	N 04 56.4 +00.1	54 23.7 +02.0	S 22 03.1 +00.0	49 41.2 +02.3	S 21 09.4 -00.1	20						
21	348 50.1 +02.7	N 04 56.5 +00.1	69 25.7 +02.1	S 22 03.1 -00.1	64 43.5 +02.2	S 21 09.3 +00.0	21						
22	3 52.8 +02.7	N 04 56.6 +00.1	84 27.8 +02.0	S 22 03.0 +00.0	79 45.7 +02.3	S 21 09.3 +00.0	22						
23	18 55.5 +02.7	N 04 56.7 +00.0	99 29.8 +02.0	S 22 03.0 -00.1	94 48.0 +02.3	S 21 09.3 -00.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 00'1 00'1 00'1 00'1 00'1 00'1								
	HP 00'3 00'3 00'3 00'3 00'3 00'3		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0								
	SHA 345° 345° 345° 345° 345° 345°		SHA 066° 066° 066° 066° 066° 066°		SHA 061° 061° 061° 061° 061° 061°								
	Greenwich Culmination Time: 21:44		Greenwich Culmination Time: 16:22		Greenwich Culmination Time: 16:41								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	184 03.0 -00.1	S	16 55.3 +00.8	214 34.1 -00.4	S	04 07.6 +01.2	262 21.6 -31.5	N	18 24.9 -09.8	00			
01	199 02.9 +00.0	S	16 56.1 +00.7	229 33.7 -00.3	S	04 08.8 +01.1	276 50.1 -31.5	N	18 15.1 -10.0	01			
02	214 02.9 -00.1	S	16 56.8 +00.7	244 33.4 -00.4	S	04 09.9 +01.2	291 18.6 -31.5	N	18 05.1 -10.1	02			
03	229 02.8 +00.0	S	16 57.5 +00.7	259 33.0 -00.4	S	04 11.1 +01.1	305 47.1 -31.4	N	17 55.0 -10.2	03			
04	244 02.8 -00.1	S	16 58.2 +00.7	274 32.6 -00.4	S	04 12.2 +01.2	320 15.7 -31.4	N	17 44.8 -10.3	04			
05	259 02.7 +00.0	S	16 58.9 +00.7	289 32.2 -00.4	S	04 13.4 +01.1	334 44.3 -31.4	N	17 34.5 -10.4	05			
06	274 02.7 -00.1	S	16 59.6 +00.7	304 31.8 -00.3	S	04 14.5 +01.2	349 12.9 -31.4	N	17 24.1 -10.6	06			
07	289 02.6 -00.1	S	17 00.3 +00.7	319 31.5 -00.4	S	04 15.7 +01.2	3 41.5 -31.3	N	17 13.5 -10.6	07			
08	304 02.5 +00.0	S	17 01.0 +00.7	334 31.1 -00.4	S	04 16.9 +01.1	18 10.2 -31.3	N	17 02.9 -10.8	08			
09	319 02.5 -00.1	S	17 01.7 +00.7	349 30.7 -00.4	S	04 18.0 +01.2	32 38.9 -31.3	N	16 52.1 -10.8	09			
10	334 02.4 +00.0	S	17 02.4 +00.7	4 30.3 -00.4	S	04 19.2 +01.1	47 07.6 -31.3	N	16 41.3 -11.0	10			
11	349 02.4 -00.1	S	17 03.1 +00.7	19 29.9 -00.3	S	04 20.3 +01.2	61 36.3 -31.3	N	16 30.3 -11.0	11			
12	4 02.3 +00.0	S	17 03.8 +00.8	34 29.6 -00.4	S	04 21.5 +01.1	76 05.0 -31.2	N	16 19.3 -11.2	12			
13	19 02.3 -00.1	S	17 04.6 +00.7	49 29.2 -00.4	S	04 22.6 +01.2	90 33.8 -31.3	N	16 08.1 -11.3	13			
14	34 02.2 -00.1	S	17 05.3 +00.7	64 28.8 -00.4	S	04 23.8 +01.2	105 02.5 -31.2	N	15 56.8 -11.3	14			
15	49 02.1 +00.0	S	17 06.0 +00.7	79 28.4 -00.4	S	04 25.0 +01.1	119 31.3 -31.1	N	15 45.5 -11.5	15			
16	64 02.1 -00.1	S	17 06.7 +00.7	94 28.0 -00.4	S	04 26.1 +01.2	134 00.2 -31.2	N	15 34.0 -11.6	16			
17	79 02.0 +00.0	S	17 07.4 +00.7	109 27.6 -00.3	S	04 27.3 +01.1	148 29.0 -31.1	N	15 22.4 -11.6	17			
18	94 02.0 -00.1	S	17 08.1 +00.7	124 27.3 -00.4	S	04 28.4 +01.2	162 57.9 -31.2	N	15 10.8 -11.8	18			
19	109 01.9 -00.1	S	17 08.8 +00.7	139 26.9 -00.4	S	04 29.6 +01.1	177 26.7 -31.1	N	14 59.0 -11.8	19			
20	124 01.8 +00.0	S	17 09.5 +00.7	154 26.5 -00.4	S	04 30.7 +01.2	191 55.6 -31.1	N	14 47.2 -12.0	20			
21	139 01.8 -00.1	S	17 10.2 +00.7	169 26.1 -00.4	S	04 31.9 +01.1	206 24.5 -31.0	N	14 35.2 -12.1	21			
22	154 01.7 +00.0	S	17 10.9 +00.7	184 25.7 -00.4	S	04 33.0 +01.2	220 53.5 -31.1	N	14 23.1 -12.1	22			
23	169 01.7 -00.1	S	17 11.6 +00.7	199 25.3 -00.3	S	04 34.2 +01.2	235 22.4 -31.0	N	14 11.0 -12.2	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'1 16'1 16'1 16'1 16'1 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'8 15'8 15'9 15'9 15'9 16'0						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 57'9 58'1 58'2 58'4 58'5 58'6						
	SHA 135° 135° 135° 135° 135° 135°			SHA 166° 166° 165° 165° 165° 165°			SHA 213° 210° 208° 206° 204° 201°						
	Greenwich Culmination Time: 11:43			Greenwich Culmination Time: 09:41			Greenwich Culmination Time: 06:44						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	33 58.2 +02.7	N	04 56.7 +00.1	114 31.8 +02.1	S	22 02.9 -00.1	109 50.3 +02.3	S	21 09.2 +00.0	00			
01	49 00.9 +02.6	N	04 56.8 +00.1	129 33.9 +02.0	S	22 02.8 +00.0	124 52.6 +02.3	S	21 09.2 +00.0	01			
02	64 03.5 +02.7	N	04 56.9 +00.1	144 35.9 +02.1	S	22 02.8 -00.1	139 54.9 +02.3	S	21 09.2 +00.0	02			
03	79 06.2 +02.7	N	04 57.0 +00.1	159 38.0 +02.0	S	22 02.7 -00.1	154 57.2 +02.3	S	21 09.2 -00.1	03			
04	94 08.9 +02.7	N	04 57.1 +00.1	174 40.0 +02.1	S	22 02.6 +00.0	169 59.5 +02.3	S	21 09.1 +00.0	04			
05	109 11.6 +02.7	N	04 57.2 +00.0	189 42.1 +02.0	S	22 02.6 -00.1	185 01.8 +02.3	S	21 09.1 +00.0	05			
06	124 14.3 +02.6	N	04 57.2 +00.1	204 44.1 +02.1	S	22 02.5 +00.0	200 04.1 +02.3	S	21 09.1 -00.1	06			
07	139 16.9 +02.7	N	04 57.3 +00.1	219 46.2 +02.0	S	22 02.5 -00.1	215 06.4 +02.3	S	21 09.0 +00.0	07			
08	154 19.6 +02.7	N	04 57.4 +00.1	234 48.2 +02.0	S	22 02.4 -00.1	230 08.7 +02.3	S	21 09.0 +00.0	08			
09	169 22.3 +02.6	N	04 57.5 +00.1	249 50.2 +02.1	S	22 02.3 +00.0	245 11.0 +02.3	S	21 09.0 -00.1	09			
10	184 24.9 +02.7	N	04 57.6 +00.1	264 52.3 +02.0	S	22 02.3 -00.1	260 13.3 +02.3	S	21 08.9 +00.0	10			
11	199 27.6 +02.7	N	04 57.7 +00.1	279 54.3 +02.1	S	22 02.2 -00.1	275 15.6 +02.3	S	21 08.9 +00.0	11			
12	214 30.3 +02.6	N	04 57.8 +00.0	294 56.4 +02.0	S	22 02.1 +00.0	290 17.9 +02.3	S	21 08.9 +00.0	12			
13	229 32.9 +02.7	N	04 57.8 +00.1	309 58.4 +02.0	S	22 02.1 -00.1	305 20.2 +02.3	S	21 08.9 -00.1	13			
14	244 35.6 +02.7	N	04 57.9 +00.1	325 00.4 +02.1	S	22 02.0 -00.1	320 22.5 +02.2	S	21 08.8 +00.0	14			
15	259 38.3 +02.6	N	04 58.0 +00.1	340 02.5 +02.0	S	22 01.9 +00.0	335 24.7 +02.3	S	21 08.8 +00.0	15			
16	274 40.9 +02.7	N	04 58.1 +00.1	355 04.5 +02.1	S	22 01.9 -00.1	350 27.0 +02.3	S	21 08.8 -00.1	16			
17	289 43.6 +02.6	N	04 58.2 +00.1	10 06.6 +02.0	S	22 01.8 +00.0	5 29.3 +02.3	S	21 08.7 +00.0	17			
18	304 46.2 +02.7	N	04 58.3 +00.1	25 08.6 +02.1	S	22 01.8 -00.1	20 31.6 +02.3	S	21 08.7 +00.0	18			
19	319 48.9 +02.7	N	04 58.4 +00.1	40 10.7 +02.0	S	22 01.7 -00.1	35 33.9 +02.3	S	21 08.7 +00.0	19			
20	334 51.6 +02.6	N	04 58.5 +00.1	55 12.7 +02.0	S	22 01.6 +00.0	50 36.2 +02.3	S	21 08.7 -00.1	20			
21	349 54.2 +02.7	N	04 58.6 +00.1	70 14.7 +02.1	S	22 01.6 -00.1	65 38.5 +02.3	S	21 08.6 +00.0	21			
22	4 56.9 +02.6	N	04 58.7 +00.0	85 16.8 +02.0	S	22 01.5 -00.1	80 40.8 +02.3	S	21 08.6 +00.0	22			
23	19 59.5 +02.7	N	04 58.7 +00.1	100 18.8 +02.1	S	22 01.4 +00.0	95 43.1 +02.3	S	21 08.6 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 345° 345° 345° 345° 345° 345°			SHA 066° 066° 066° 066° 066° 066°			SHA 061° 061° 061° 061° 061° 061°						
	Greenwich Culmination Time: 21:40			Greenwich Culmination Time: 16:19			Greenwich Culmination Time: 16:38						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	184 01.6 -00.1	S	17 12.3 +00.7	214 25.0 -00.4	S	04 35.4 +01.1	249 51.4 -31.0	N	13 58.8 -12.4				
01	199 01.5 +00.0	S	17 13.0 +00.7	229 24.6 -00.4	S	04 36.5 +01.2	264 20.4 -31.0	N	13 46.4 -12.4				
02	214 01.5 -00.1	S	17 13.7 +00.7	244 24.2 -00.4	S	04 37.7 +01.1	278 49.4 -31.0	N	13 34.0 -12.5				
03	229 01.4 -00.1	S	17 14.4 +00.7	259 23.8 -00.4	S	04 38.8 +01.2	293 18.4 -31.0	N	13 21.5 -12.6				
04	244 01.3 +00.0	S	17 15.1 +00.7	274 23.4 -00.4	S	04 40.0 +01.1	307 47.4 -30.9	N	13 08.9 -12.7				
05	259 01.3 -00.1	S	17 15.8 +00.7	289 23.0 -00.3	S	04 41.1 +01.2	322 16.5 -31.0	N	12 56.2 -12.8				
06	274 01.2 +00.0	S	17 16.5 +00.7	304 22.7 -00.4	S	04 42.3 +01.1	336 45.5 -30.9	N	12 43.4 -12.9				
07	289 01.2 -00.1	S	17 17.2 +00.7	319 22.3 -00.4	S	04 43.4 +01.2	351 14.6 -30.9	N	12 30.5 -12.9				
08	304 01.1 -00.1	S	17 17.9 +00.7	334 21.9 -00.4	S	04 44.6 +01.1	5 43.7 -30.9	N	12 17.6 -13.0				
09	319 01.0 +00.0	S	17 18.6 +00.6	349 21.5 -00.4	S	04 45.7 +01.2	20 12.8 -30.9	N	12 04.6 -13.2				
10	334 01.0 -00.1	S	17 19.2 +00.7	4 21.1 -00.4	S	04 46.9 +01.2	34 41.9 -30.9	N	11 51.4 -13.2				
11	349 00.9 -00.1	S	17 19.9 +00.7	19 20.7 -00.4	S	04 48.1 +01.1	49 11.0 -30.8	N	11 38.2 -13.2				
12	4 00.8 +00.0	S	17 20.6 +00.7	34 20.3 -00.4	S	04 49.2 +01.2	63 40.2 -30.9	N	11 25.0 -13.4				
13	19 00.8 -00.1	S	17 21.3 +00.7	49 19.9 -00.3	S	04 50.4 +01.1	78 09.3 -30.8	N	11 11.6 -13.4				
14	34 00.7 -00.1	S	17 22.0 +00.7	64 19.6 -00.4	S	04 51.5 +01.2	92 38.5 -30.9	N	10 58.2 -13.6				
15	49 00.6 +00.0	S	17 22.7 +00.7	79 19.2 -00.4	S	04 52.7 +01.1	107 07.6 -30.8	N	10 44.6 -13.5				
16	64 00.6 -00.1	S	17 23.4 +00.7	94 18.8 -00.4	S	04 53.8 +01.2	121 36.8 -30.8	N	10 31.1 -13.7				
17	79 00.5 -00.1	S	17 24.1 +00.7	109 18.4 -00.4	S	04 55.0 +01.1	136 06.0 -30.8	N	10 17.4 -13.7				
18	94 00.4 -00.1	S	17 24.8 +00.7	124 18.0 -00.4	S	04 56.1 +01.2	150 35.2 -30.8	N	10 03.7 -13.9				
19	109 00.3 +00.0	S	17 25.5 +00.7	139 17.6 -00.4	S	04 57.3 +01.1	165 04.4 -30.8	N	09 49.8 -13.8				
20	124 00.3 -00.1	S	17 26.2 +00.7	154 17.2 -00.4	S	04 58.4 +01.2	179 33.6 -30.8	N	09 36.0 -14.0				
21	139 00.2 -00.1	S	17 26.9 +00.6	169 16.8 -00.3	S	04 59.6 +01.2	194 02.8 -30.8	N	09 22.0 -14.0				
22	154 00.1 +00.0	S	17 27.5 +00.7	184 16.5 -00.4	S	05 00.8 +01.1	208 32.0 -30.8	N	09 08.0 -14.1				
23	169 00.1 -00.1	S	17 28.2 +00.7	199 16.1 -00.4	S	05 01.9 +01.2	223 01.2 -30.8	N	08 53.9 -14.2				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1				SD 16'0 16'1 16'1 16'1 16'2 16'2					
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 58'8 58'9 59'1 59'2 59'4 59'5					
	SHA 134° 134° 134° 134° 134° 133°			SHA 165° 165° 164° 164° 164° 164°				SHA 199° 197° 195° 192° 190° 188°					
	Greenwich Culmination Time: 11:43			Greenwich Culmination Time: 09:42				Greenwich Culmination Time: 07:36					
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	35 02.2 +02.6	N	04 58.8 +00.1	115 20.9 +02.0	S	22 01.4 -00.1	110 45.4 +02.3	S	21 08.5 +00.0				
01	50 04.8 +02.7	N	04 58.9 +00.1	130 22.9 +02.0	S	22 01.3 -00.1	125 47.7 +02.3	S	21 08.5 +00.0				
02	65 07.5 +02.6	N	04 59.0 +00.1	145 24.9 +02.1	S	22 01.2 +00.0	140 50.0 +02.2	S	21 08.5 -00.1				
03	80 10.1 +02.7	N	04 59.1 +00.1	160 27.0 +02.0	S	22 01.2 -00.1	155 52.2 +02.3	S	21 08.4 +00.0				
04	95 12.8 +02.6	N	04 59.2 +00.1	175 29.0 +02.1	S	22 01.1 +00.0	170 54.5 +02.3	S	21 08.4 +00.0				
05	110 15.4 +02.7	N	04 59.3 +00.1	190 31.1 +02.0	S	22 01.1 -00.1	185 56.8 +02.3	S	21 08.4 +00.0				
06	125 18.1 +02.6	N	04 59.4 +00.1	205 33.1 +02.0	S	22 01.0 -00.1	200 59.1 +02.3	S	21 08.4 -00.1				
07	140 20.7 +02.6	N	04 59.5 +00.1	220 35.1 +02.1	S	22 00.9 +00.0	216 01.4 +02.3	S	21 08.3 +00.0				
08	155 23.3 +02.7	N	04 59.6 +00.1	235 37.2 +02.0	S	22 00.9 -00.1	231 03.7 +02.3	S	21 08.3 +00.0				
09	170 26.0 +02.6	N	04 59.7 +00.1	250 39.2 +02.0	S	22 00.8 -00.1	246 06.0 +02.3	S	21 08.3 -00.1				
10	185 28.6 +02.6	N	04 59.8 +00.1	265 41.2 +02.1	S	22 00.7 +00.0	261 08.3 +02.3	S	21 08.2 +00.0				
11	200 31.2 +02.7	N	04 59.9 +00.1	280 43.3 +02.0	S	22 00.7 -00.1	276 10.6 +02.3	S	21 08.2 +00.0				
12	215 33.9 +02.6	N	04 60.0 +00.1	295 45.3 +02.1	S	22 00.6 -00.1	291 12.9 +02.2	S	21 08.2 +00.0				
13	230 36.5 +02.6	N	05 00.1 +00.1	310 47.4 +02.0	S	22 00.5 +00.0	306 15.1 +02.3	S	21 08.2 -00.1				
14	245 39.1 +02.7	N	05 00.2 +00.1	325 49.4 +02.0	S	22 00.5 -00.1	321 17.4 +02.3	S	21 08.1 +00.0				
15	260 41.8 +02.6	N	05 00.3 +00.1	340 51.4 +02.1	S	22 00.4 -00.1	336 19.7 +02.3	S	21 08.1 +00.0				
16	275 44.4 +02.6	N	05 00.4 +00.1	355 53.5 +02.0	S	22 00.3 +00.0	351 22.0 +02.3	S	21 08.1 -00.1				
17	290 47.0 +02.7	N	05 00.5 +00.1	10 55.5 +02.0	S	22 00.3 -00.1	6 24.3 +02.3	S	21 08.0 +00.0				
18	305 49.7 +02.6	N	05 00.6 +00.1	25 57.5 +02.1	S	22 00.2 +00.0	21 26.6 +02.3	S	21 08.0 +00.0				
19	320 52.3 +02.6	N	05 00.7 +00.1	40 59.6 +02.0	S	22 00.2 -00.1	36 28.9 +02.3	S	21 08.0 -00.1				
20	335 54.9 +02.6	N	05 00.8 +00.1	56 01.6 +02.0	S	22 00.1 -00.1	51 31.2 +02.3	S	21 07.9 +00.0				
21	350 57.5 +02.7	N	05 00.9 +00.1	71 03.6 +02.1	S	22 00.0 +00.0	66 33.5 +02.2	S	21 07.9 +00.0				
22	6 00.2 +02.6	N	05 01.0 +00.1	86 05.7 +02.0	S	21 60.0 -00.1	81 35.7 +02.3	S	21 07.9 -00.1				
23	21 02.8 +02.6	N	05 01.1 +00.1	101 07.7 +02.0	S	21 59.9 -00.1	96 38.0 +02.3	S	21 07.8 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22				UT 02 06 10 14 18 22					
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3				SD 00'1 00'1 00'1 00'1 00'1 00'1					
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0					
	SHA 345° 345° 345° 345° 345° 345°			SHA 066° 066° 066° 066° 066° 066°				SHA 061° 061° 061° 061° 061° 061°					
	Greenwich Culmination Time: 21:36			Greenwich Culmination Time: 16:16				Greenwich Culmination Time: 16:34					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 86%				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 60.0 -00.1	S	17 28.9 +00.7	214 15.7 -00.4	S	05 03.1 +01.1	237 30.4 -30.8	N	08 39.7 -14.2	00			
01	198 59.9 -00.1	S	17 29.6 +00.7	229 15.3 -00.4	S	05 04.2 +01.2	251 59.6 -30.8	N	08 25.5 -14.3	01			
02	213 59.8 +00.0	S	17 30.3 +00.7	244 14.9 -00.4	S	05 05.4 +01.1	266 28.8 -30.8	N	08 11.2 -14.3	02			
03	228 59.8 -00.1	S	17 31.0 +00.7	259 14.5 -00.4	S	05 06.5 +01.2	280 58.0 -30.7	N	07 56.9 -14.4	03			
04	243 59.7 -00.1	S	17 31.7 +00.6	274 14.1 -00.4	S	05 07.7 +01.1	295 27.3 -30.8	N	07 42.5 -14.5	04			
05	258 59.6 +00.0	S	17 32.3 +00.7	289 13.7 -00.4	S	05 08.8 +01.2	309 56.5 -30.8	N	07 28.0 -14.5	05			
06	273 59.6 -00.1	S	17 33.0 +00.7	304 13.3 -00.4	S	05 10.0 +01.1	324 25.7 -30.8	N	07 13.5 -14.6	06			
07	288 59.5 -00.1	S	17 33.7 +00.7	319 12.9 -00.4	S	05 11.1 +01.2	338 54.9 -30.8	N	06 58.9 -14.7	07			
08	303 59.4 -00.1	S	17 34.4 +00.7	334 12.5 -00.3	S	05 12.3 +01.1	353 24.1 -30.8	N	06 44.2 -14.7	08			
09	318 59.3 +00.0	S	17 35.1 +00.7	349 12.2 -00.4	S	05 13.4 +01.2	7 53.3 -30.8	N	06 29.5 -14.7	09			
10	333 59.3 -00.1	S	17 35.8 +00.6	4 11.8 -00.4	S	05 14.6 +01.1	22 22.5 -30.8	N	06 14.8 -14.8	10			
11	348 59.2 -00.1	S	17 36.4 +00.7	19 11.4 -00.4	S	05 15.7 +01.2	36 51.7 -30.9	N	05 60.0 -14.9	11			
12	3 59.1 -00.1	S	17 37.1 +00.7	34 11.0 -00.4	S	05 16.9 +01.1	51 20.8 -30.8	N	05 45.1 -14.9	12			
13	18 59.0 +00.0	S	17 37.8 +00.7	49 10.6 -00.4	S	05 18.0 +01.2	65 50.0 -30.8	N	05 30.2 -14.9	13			
14	33 59.0 -00.1	S	17 38.5 +00.7	64 10.2 -00.4	S	05 19.2 +01.1	80 19.2 -30.9	N	05 15.3 -15.0	14			
15	48 58.9 -00.1	S	17 39.2 +00.6	79 09.8 -00.4	S	05 20.3 +01.2	94 48.3 -30.8	N	05 00.3 -15.0	15			
16	63 58.8 -00.1	S	17 39.8 +00.7	94 09.4 -00.4	S	05 21.5 +01.1	109 17.5 -30.9	N	04 45.3 -15.1	16			
17	78 58.7 -00.1	S	17 40.5 +00.7	109 09.0 -00.4	S	05 22.6 +01.2	123 46.6 -30.9	N	04 30.2 -15.2	17			
18	93 58.6 +00.0	S	17 41.2 +00.7	124 08.6 -00.4	S	05 23.8 +01.1	138 15.7 -30.9	N	04 15.0 -15.1	18			
19	108 58.6 -00.1	S	17 41.9 +00.7	139 08.2 -00.4	S	05 24.9 +01.2	152 44.8 -30.9	N	03 59.9 -15.2	19			
20	123 58.5 -00.1	S	17 42.6 +00.6	154 07.8 -00.4	S	05 26.1 +01.1	167 13.9 -31.0	N	03 44.7 -15.3	20			
21	138 58.4 -00.1	S	17 43.2 +00.7	169 07.4 -00.4	S	05 27.2 +01.2	181 42.9 -30.9	N	03 29.4 -15.2	21			
22	153 58.3 +00.0	S	17 43.9 +00.7	184 07.0 -00.4	S	05 28.4 +01.1	196 12.0 -31.0	N	03 14.2 -15.4	22			
23	168 58.3 -00.1	S	17 44.6 +00.7	199 06.6 -00.4	S	05 29.5 +01.2	210 41.0 -31.0	N	02 58.8 -15.3	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'2 16'3 16'3 16'4 16'4 16'4						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 59'6 59'8 59'9 60'0 60'1 60'3						
	SHA 133° 133° 133° 133° 133° 132°			SHA 164° 163° 163° 163° 163° 163°			SHA 186° 184° 181° 179° 177° 175°						
	Greenwich Culmination Time: 11:44			Greenwich Culmination Time: 09:43			Greenwich Culmination Time: 08:27						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	36 05.4 +02.6	N	05 01.2 +00.1	116 09.7 +02.1	S	21 59.8 +00.0	111 40.3 +02.3	S	21 07.8 +00.0	00			
01	51 08.0 +02.6	N	05 01.3 +00.1	131 11.8 +02.0	S	21 59.8 -00.1	126 42.6 +02.3	S	21 07.8 +00.0	01			
02	66 10.6 +02.6	N	05 01.4 +00.1	146 13.8 +02.0	S	21 59.7 -00.1	141 44.9 +02.3	S	21 07.8 -00.1	02			
03	81 13.2 +02.7	N	05 01.5 +00.1	161 15.8 +02.1	S	21 59.6 +00.0	156 47.2 +02.3	S	21 07.7 +00.0	03			
04	96 15.9 +02.6	N	05 01.6 +00.1	176 17.9 +02.0	S	21 59.6 -00.1	171 49.5 +02.3	S	21 07.7 +00.0	04			
05	111 18.5 +02.6	N	05 01.7 +00.1	191 19.9 +02.0	S	21 59.5 -00.1	186 51.8 +02.2	S	21 07.7 -00.1	05			
06	126 21.1 +02.6	N	05 01.8 +00.1	206 21.9 +02.1	S	21 59.4 +00.0	201 54.0 +02.3	S	21 07.6 +00.0	06			
07	141 23.7 +02.6	N	05 01.9 +00.1	221 24.0 +02.0	S	21 59.4 -00.1	216 56.3 +02.3	S	21 07.6 +00.0	07			
08	156 26.3 +02.6	N	05 02.0 +00.2	236 26.0 +02.0	S	21 59.3 -00.1	231 58.6 +02.3	S	21 07.6 -00.1	08			
09	171 28.9 +02.6	N	05 02.2 +00.1	251 28.0 +02.1	S	21 59.2 +00.0	247 00.9 +02.3	S	21 07.5 +00.0	09			
10	186 31.5 +02.6	N	05 02.3 +00.1	266 30.1 +02.0	S	21 59.2 -00.1	262 03.2 +02.3	S	21 07.5 +00.0	10			
11	201 34.1 +02.6	N	05 02.4 +00.1	281 32.1 +02.0	S	21 59.1 -00.1	277 05.5 +02.3	S	21 07.5 +00.0	11			
12	216 36.7 +02.6	N	05 02.5 +00.1	296 34.1 +02.1	S	21 59.0 +00.0	292 07.8 +02.3	S	21 07.5 -00.1	12			
13	231 39.3 +02.6	N	05 02.6 +00.1	311 36.2 +02.0	S	21 59.0 -00.1	307 10.1 +02.2	S	21 07.4 +00.0	13			
14	246 41.9 +02.6	N	05 02.7 +00.1	326 38.2 +02.0	S	21 58.9 -00.1	322 12.3 +02.3	S	21 07.4 +00.0	14			
15	261 44.5 +02.6	N	05 02.8 +00.1	341 40.2 +02.1	S	21 58.8 +00.0	337 14.6 +02.3	S	21 07.4 -00.1	15			
16	276 47.1 +02.6	N	05 02.9 +00.1	356 42.3 +02.0	S	21 58.8 -00.1	352 16.9 +02.3	S	21 07.3 +00.0	16			
17	291 49.7 +02.6	N	05 03.0 +00.1	11 44.3 +02.0	S	21 58.7 -00.1	7 19.2 +02.3	S	21 07.3 +00.0	17			
18	306 52.3 +02.6	N	05 03.1 +00.2	26 46.3 +02.1	S	21 58.6 +00.0	22 21.5 +02.3	S	21 07.3 -00.1	18			
19	321 54.9 +02.6	N	05 03.3 +00.1	41 48.4 +02.0	S	21 58.6 -00.1	37 23.8 +02.2	S	21 07.2 +00.0	19			
20	336 57.5 +02.6	N	05 03.4 +00.1	56 50.4 +02.0	S	21 58.5 -00.1	52 26.0 +02.3	S	21 07.2 +00.0	20			
21	352 00.1 +02.6	N	05 03.5 +00.1	71 52.4 +02.0	S	21 58.4 +00.0	67 28.3 +02.3	S	21 07.2 -00.1	21			
22	7 02.7 +02.6	N	05 03.6 +00.1	86 54.4 +02.1	S	21 58.4 -00.1	82 30.6 +02.3	S	21 07.1 +00.0	22			
23	22 05.3 +02.5	N	05 03.7 +00.1	101 56.5 +02.0	S	21 58.3 -00.1	97 32.9 +02.3	S	21 07.1 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 345° 346° 346° 346° 346° 346°			SHA 066° 066° 065° 065° 065° 065°			SHA 061° 061° 061° 061° 061° 061°						
	Greenwich Culmination Time: 21:31			Greenwich Culmination Time: 16:13			Greenwich Culmination Time: 16:30						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 58.2 -00.1	S	17 45.3 +00.6	214 06.2 -00.4	S	05 30.7 +01.1	225 10.0 -31.0	N	02 43.5 -15.4	00			
01	198 58.1 -00.1	S	17 45.9 +00.7	229 05.8 -00.4	S	05 31.8 +01.2	239 39.0 -31.0	N	02 28.1 -15.4	01			
02	213 58.0 -00.1	S	17 46.6 +00.7	244 05.4 -00.3	S	05 33.0 +01.1	254 08.0 -31.0	N	02 12.7 -15.4	02			
03	228 57.9 -00.1	S	17 47.3 +00.6	259 05.1 -00.4	S	05 34.1 +01.2	268 37.0 -31.1	N	01 57.3 -15.5	03			
04	243 57.8 +00.0	S	17 47.9 +00.7	274 04.7 -00.4	S	05 35.3 +01.1	283 05.9 -31.1	N	01 41.8 -15.5	04			
05	258 57.8 -00.1	S	17 48.6 +00.7	289 04.3 -00.4	S	05 36.4 +01.2	297 34.8 -31.1	N	01 26.3 -15.5	05			
06	273 57.7 -00.1	S	17 49.3 +00.7	304 03.9 -00.4	S	05 37.6 +01.1	312 03.7 -31.2	N	01 10.8 -15.5	06			
07	288 57.6 -00.1	S	17 50.0 +00.6	319 03.5 -00.4	S	05 38.7 +01.2	326 32.5 -31.1	N	00 55.3 -15.5	07			
08	303 57.5 -00.1	S	17 50.6 +00.7	334 03.1 -00.4	S	05 39.9 +01.1	341 01.4 -31.2	N	00 39.8 -15.6	08			
09	318 57.4 -00.1	S	17 51.3 +00.7	349 02.7 -00.4	S	05 41.0 +01.2	355 30.2 -31.2	N	00 24.2 -15.6	09			
10	333 57.3 +00.0	S	17 52.0 +00.6	4 02.3 -00.4	S	05 42.2 +01.1	9 59.0 -31.3	N	00 08.6 -15.6	10			
11	348 57.3 -00.1	S	17 52.6 +00.7	19 01.9 -00.4	S	05 43.3 +01.2	24 27.7 -31.3	S	00 07.0 +15.6	11			
12	3 57.2 -00.1	S	17 53.3 +00.7	34 01.5 -00.4	S	05 44.5 +01.1	38 56.4 -31.3	S	00 22.6 +15.6	12			
13	18 57.1 -00.1	S	17 54.0 +00.6	49 01.1 -00.4	S	05 45.6 +01.2	53 25.1 -31.3	S	00 38.2 +15.7	13			
14	33 57.0 -00.1	S	17 54.6 +00.7	64 00.7 -00.4	S	05 46.8 +01.1	67 53.8 -31.4	S	00 53.9 +15.6	14			
15	48 56.9 -00.1	S	17 55.3 +00.7	79 00.3 -00.4	S	05 47.9 +01.2	82 22.4 -31.4	S	01 09.5 +15.7	15			
16	63 56.8 -00.1	S	17 56.0 +00.6	93 59.9 -00.4	S	05 49.1 +01.1	96 51.0 -31.5	S	01 25.2 +15.6	16			
17	78 56.7 +00.0	S	17 56.6 +00.7	108 59.5 -00.4	S	05 50.2 +01.2	111 19.5 -31.5	S	01 40.8 +15.7	17			
18	93 56.7 -00.1	S	17 57.3 +00.7	123 59.1 -00.4	S	05 51.4 +01.1	125 48.0 -31.5	S	01 56.5 +15.6	18			
19	108 56.6 -00.1	S	17 58.0 +00.6	138 58.7 -00.4	S	05 52.5 +01.2	140 16.5 -31.6	S	02 12.1 +15.7	19			
20	123 56.5 -00.1	S	17 58.6 +00.7	153 58.3 -00.4	S	05 53.7 +01.1	154 44.9 -31.6	S	02 27.8 +15.6	20			
21	138 56.4 -00.1	S	17 59.3 +00.7	168 57.9 -00.4	S	05 54.8 +01.2	169 13.3 -31.6	S	02 43.4 +15.7	21			
22	153 56.3 -00.1	S	17 60.0 +00.6	183 57.5 -00.4	S	05 56.0 +01.1	183 41.7 -31.7	S	02 59.1 +15.6	22			
23	168 56.2 -00.1	S	18 00.6 +00.7	198 57.1 -00.4	S	05 57.1 +01.2	198 10.0 -31.7	S	03 14.7 +15.7	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'5 16'5 16'5 16'5 16'6 16'6						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 60'4 60'5 60'6 60'7 60'8 60'9						
	SHA 132° 132° 132° 132° 132° 131°			SHA 162° 162° 162° 162° 162° 161°			SHA 172° 170° 168° 166° 163° 161°						
	Greenwich Culmination Time: 11:44			Greenwich Culmination Time: 09:43			Greenwich Culmination Time: 09:18						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	37 07.8 +02.6	N	05 03.8 +00.1	116 58.5 +02.0	S	21 58.2 +00.0	112 35.2 +02.3	S	21 07.1 +00.0	00			
01	52 10.4 +02.6	N	05 03.9 +00.1	132 00.5 +02.1	S	21 58.2 -00.1	127 37.5 +02.3	S	21 07.1 -00.1	01			
02	67 13.0 +02.6	N	05 04.0 +00.2	147 02.6 +02.0	S	21 58.1 -00.1	142 39.8 +02.2	S	21 07.0 +00.0	02			
03	82 15.6 +02.6	N	05 04.2 +00.1	162 04.6 +02.0	S	21 58.0 +00.0	157 42.0 +02.3	S	21 07.0 +00.0	03			
04	97 18.2 +02.6	N	05 04.3 +00.1	177 06.6 +02.0	S	21 58.0 -00.1	172 44.3 +02.3	S	21 07.0 -00.1	04			
05	112 20.8 +02.5	N	05 04.4 +00.1	192 08.6 +02.1	S	21 57.9 -00.1	187 46.6 +02.3	S	21 06.9 +00.0	05			
06	127 23.3 +02.6	N	05 04.5 +00.1	207 10.7 +02.0	S	21 57.8 +00.0	202 48.9 +02.3	S	21 06.9 +00.0	06			
07	142 25.9 +02.6	N	05 04.6 +00.1	222 12.7 +02.0	S	21 57.8 -00.1	217 51.2 +02.3	S	21 06.9 -00.1	07			
08	157 28.5 +02.6	N	05 04.7 +00.2	237 14.7 +02.1	S	21 57.7 -00.1	232 53.5 +02.2	S	21 06.8 +00.0	08			
09	172 31.1 +02.5	N	05 04.9 +00.1	252 16.8 +02.0	S	21 57.6 +00.0	247 55.7 +02.3	S	21 06.8 +00.0	09			
10	187 33.6 +02.6	N	05 05.0 +00.1	267 18.8 +02.0	S	21 57.6 -00.1	262 58.0 +02.3	S	21 06.8 -00.1	10			
11	202 36.2 +02.6	N	05 05.1 +00.1	282 20.8 +02.0	S	21 57.5 -00.1	278 00.3 +02.3	S	21 06.7 +00.0	11			
12	217 38.8 +02.6	N	05 05.2 +00.1	297 22.8 +02.1	S	21 57.4 +00.0	293 02.6 +02.3	S	21 06.7 +00.0	12			
13	232 41.4 +02.5	N	05 05.3 +00.2	312 24.9 +02.0	S	21 57.4 -00.1	308 04.9 +02.3	S	21 06.7 -00.1	13			
14	247 43.9 +02.6	N	05 05.5 +00.1	327 26.9 +02.0	S	21 57.3 -00.1	323 07.2 +02.2	S	21 06.6 +00.0	14			
15	262 46.5 +02.6	N	05 05.6 +00.1	342 28.9 +02.0	S	21 57.2 +00.0	338 09.4 +02.3	S	21 06.6 +00.0	15			
16	277 49.1 +02.5	N	05 05.7 +00.1	357 30.9 +02.1	S	21 57.2 -00.1	353 11.7 +02.3	S	21 06.6 +00.0	16			
17	292 51.6 +02.6	N	05 05.8 +00.1	12 33.0 +02.0	S	21 57.1 -00.1	8 14.0 +02.3	S	21 06.6 -00.1	17			
18	307 54.2 +02.5	N	05 05.9 +00.2	27 35.0 +02.0	S	21 57.0 +00.0	23 16.3 +02.3	S	21 06.5 +00.0	18			
19	322 56.7 +02.6	N	05 06.1 +00.1	42 37.0 +02.0	S	21 57.0 -00.1	38 18.6 +02.2	S	21 06.5 +00.0	19			
20	337 59.3 +02.6	N	05 06.2 +00.1	57 39.0 +02.1	S	21 56.9 -00.1	53 20.8 +02.3	S	21 06.5 -00.1	20			
21	353 01.9 +02.5	N	05 06.3 +00.1	72 41.1 +02.0	S	21 56.8 +00.0	68 23.1 +02.3	S	21 06.4 +00.0	21			
22	8 04.4 +02.6	N	05 06.4 +00.2	87 43.1 +02.0	S	21 56.8 -00.1	83 25.4 +02.3	S	21 06.4 +00.0	22			
23	23 07.0 +02.5	N	05 06.6 +00.1	102 45.1 +02.0	S	21 56.7 -00.1	98 27.7 +02.3	S	21 06.4 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'2 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 346° 346° 346° 346° 346° 346°			SHA 065° 065° 065° 065° 065° 065°			SHA 061° 061° 061° 061° 061° 061°						
	Greenwich Culmination Time: 21:27			Greenwich Culmination Time: 16:09			Greenwich Culmination Time: 16:27						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 56.1 -00.1	S 18 01.3 +00.7	213 56.7 -00.4	S 05 58.3 +01.1	212 38.3 -31.8	S 03 30.4 +15.6	00						
01	198 56.0 +00.0	S 18 02.0 +00.6	228 56.3 -00.4	S 05 59.4 +01.2	227 06.5 -31.8	S 03 46.0 +15.6	01						
02	213 56.0 -00.1	S 18 02.6 +00.7	243 55.9 -00.4	S 06 00.6 +01.1	241 34.7 -31.8	S 04 01.6 +15.6	02						
03	228 55.9 -00.1	S 18 03.3 +00.6	258 55.5 -00.4	S 06 01.7 +01.2	256 02.9 -31.9	S 04 17.2 +15.6	03						
04	243 55.8 -00.1	S 18 03.9 +00.7	273 55.1 -00.5	S 06 02.9 +01.1	270 31.0 -31.9	S 04 32.8 +15.5	04						
05	258 55.7 -00.1	S 18 04.6 +00.6	288 54.6 -00.4	S 06 04.0 +01.1	284 59.1 -32.0	S 04 48.3 +15.6	05						
06	273 55.6 -00.1	S 18 05.2 +00.7	303 54.2 -00.4	S 06 05.1 +01.2	299 27.1 -32.1	S 05 03.9 +15.5	06						
07	288 55.5 -00.1	S 18 05.9 +00.7	318 53.8 -00.4	S 06 06.3 +01.1	313 55.0 -32.1	S 05 19.4 +15.5	07						
08	303 55.4 -00.1	S 18 06.6 +00.6	333 53.4 -00.4	S 06 07.4 +01.2	328 22.9 -32.1	S 05 34.9 +15.5	08						
09	318 55.3 -00.1	S 18 07.2 +00.7	348 53.0 -00.4	S 06 08.6 +01.1	342 50.8 -32.2	S 05 50.4 +15.5	09						
10	333 55.2 -00.1	S 18 07.9 +00.6	3 52.6 -00.4	S 06 09.7 +01.2	357 18.6 -32.2	S 06 05.9 +15.4	10						
11	348 55.1 -00.1	S 18 08.5 +00.7	18 52.2 -00.4	S 06 10.9 +01.1	11 46.4 -32.3	S 06 21.3 +15.4	11						
12	3 55.0 -00.1	S 18 09.2 +00.6	33 51.8 -00.4	S 06 12.0 +01.2	26 14.1 -32.3	S 06 36.7 +15.3	12						
13	18 54.9 -00.1	S 18 09.8 +00.7	48 51.4 -00.4	S 06 13.2 +01.1	40 41.8 -32.4	S 06 52.0 +15.4	13						
14	33 54.8 -00.1	S 18 10.5 +00.7	63 51.0 -00.4	S 06 14.3 +01.1	55 09.4 -32.5	S 07 07.4 +15.2	14						
15	48 54.7 +00.0	S 18 11.2 +00.6	78 50.6 -00.4	S 06 15.4 +01.2	69 36.9 -32.5	S 07 22.6 +15.3	15						
16	63 54.7 -00.1	S 18 11.8 +00.7	93 50.2 -00.4	S 06 16.6 +01.1	84 04.4 -32.5	S 07 37.9 +15.2	16						
17	78 54.6 -00.1	S 18 12.5 +00.6	108 49.8 -00.4	S 06 17.7 +01.2	98 31.9 -32.7	S 07 53.1 +15.2	17						
18	93 54.5 -00.1	S 18 13.1 +00.7	123 49.4 -00.4	S 06 18.9 +01.1	112 59.2 -32.6	S 08 08.3 +15.1	18						
19	108 54.4 -00.1	S 18 13.8 +00.6	138 49.0 -00.4	S 06 20.0 +01.2	127 26.6 -32.8	S 08 23.4 +15.1	19						
20	123 54.3 -00.1	S 18 14.4 +00.7	153 48.6 -00.4	S 06 21.2 +01.1	141 53.8 -32.8	S 08 38.5 +15.0	20						
21	138 54.2 -00.1	S 18 15.1 +00.6	168 48.2 -00.5	S 06 22.3 +01.2	156 21.0 -32.8	S 08 53.5 +15.0	21						
22	153 54.1 -00.1	S 18 15.7 +00.7	183 47.7 -00.4	S 06 23.5 +01.1	170 48.2 -32.9	S 09 08.5 +14.9	22						
23	168 54.0 -00.1	S 18 16.4 +00.6	198 47.3 -00.4	S 06 24.6 +01.1	185 15.3 -33.0	S 09 23.4 +14.9	23						
UT	02 06 10 14 18 22	SD 16'2 16'2 16'2 16'2 16'2 16'2	UT	02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT	02 06 10 14 18 22	SD 16'6 16'6 16'6 16'7 16'7 16'7					
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 60'9 61'0 61'1 61'1 61'2 61'2						
	SHA 131° 131° 131° 131° 131° 130°			SHA 161° 161° 161° 161° 161° 160°			SHA 159° 157° 154° 152° 150° 147°						
	Greenwich Culmination Time: 11:44			Greenwich Culmination Time: 09:44			Greenwich Culmination Time: 10:11						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	38 09.5 +02.6	N 05 06.7 +00.1	117 47.1 +02.1	S 21 56.6 +00.0	113 30.0 +02.2	S 21 06.3 +00.0	00						
01	53 12.1 +02.5	N 05 06.8 +00.1	132 49.2 +02.0	S 21 56.6 -00.1	128 32.2 +02.3	S 21 06.3 +00.0	01						
02	68 14.6 +02.6	N 05 06.9 +00.2	147 51.2 +02.0	S 21 56.5 -00.1	143 34.5 +02.3	S 21 06.3 -00.1	02						
03	83 17.2 +02.5	N 05 07.1 +00.1	162 53.2 +02.0	S 21 56.4 +00.0	158 36.8 +02.3	S 21 06.2 +00.0	03						
04	98 19.7 +02.6	N 05 07.2 +00.1	177 55.2 +02.1	S 21 56.4 -00.1	173 39.1 +02.3	S 21 06.2 +00.0	04						
05	113 22.3 +02.5	N 05 07.3 +00.2	192 57.3 +02.0	S 21 56.3 -00.1	188 41.4 +02.2	S 21 06.2 -00.1	05						
06	128 24.8 +02.6	N 05 07.5 +00.1	207 59.3 +02.0	S 21 56.2 +00.0	203 43.6 +02.3	S 21 06.1 +00.0	06						
07	143 27.4 +02.5	N 05 07.6 +00.1	223 01.3 +02.0	S 21 56.2 -00.1	218 45.9 +02.3	S 21 06.1 +00.0	07						
08	158 29.9 +02.6	N 05 07.7 +00.1	238 03.3 +02.0	S 21 56.1 -00.1	233 48.2 +02.3	S 21 06.1 -00.1	08						
09	173 32.5 +02.5	N 05 07.8 +00.2	253 05.3 +02.1	S 21 56.0 +00.0	248 50.5 +02.3	S 21 06.0 +00.0	09						
10	188 35.0 +02.5	N 05 08.0 +00.1	268 07.4 +02.0	S 21 56.0 -00.1	263 52.8 +02.2	S 21 06.0 +00.0	10						
11	203 37.5 +02.6	N 05 08.1 +00.1	283 09.4 +02.0	S 21 55.9 -00.1	278 55.0 +02.3	S 21 06.0 -00.1	11						
12	218 40.1 +02.5	N 05 08.2 +00.2	298 11.4 +02.0	S 21 55.8 +00.0	293 57.3 +02.3	S 21 05.9 +00.0	12						
13	233 42.6 +02.6	N 05 08.4 +00.1	313 13.4 +02.1	S 21 55.8 -00.1	308 59.6 +02.3	S 21 05.9 +00.0	13						
14	248 45.2 +02.5	N 05 08.5 +00.1	328 15.5 +02.0	S 21 55.7 -00.1	324 01.9 +02.3	S 21 05.9 -00.1	14						
15	263 47.7 +02.5	N 05 08.6 +00.2	343 17.5 +02.0	S 21 55.6 -00.1	339 04.2 +02.2	S 21 05.8 +00.0	15						
16	278 50.2 +02.6	N 05 08.8 +00.1	358 19.5 +02.0	S 21 55.5 +00.0	354 06.4 +02.3	S 21 05.8 +00.0	16						
17	293 52.8 +02.5	N 05 08.9 +00.1	13 21.5 +02.0	S 21 55.5 -00.1	9 08.7 +02.3	S 21 05.8 +00.0	17						
18	308 55.3 +02.5	N 05 09.0 +00.1	28 23.5 +02.1	S 21 55.4 -00.1	24 11.0 +02.3	S 21 05.8 -00.1	18						
19	323 57.8 +02.5	N 05 09.1 +00.2	43 25.6 +02.0	S 21 55.3 +00.0	39 13.3 +02.3	S 21 05.7 +00.0	19						
20	339 00.3 +02.6	N 05 09.3 +00.1	58 27.6 +02.0	S 21 55.3 -00.1	54 15.6 +02.2	S 21 05.7 +00.0	20						
21	354 02.9 +02.5	N 05 09.4 +00.2	73 29.6 +02.0	S 21 55.2 -00.1	69 17.8 +02.3	S 21 05.7 -00.1	21						
22	9 05.4 +02.5	N 05 09.6 +00.1	88 31.6 +02.0	S 21 55.1 +00.0	84 20.1 +02.3	S 21 05.6 +00.0	22						
23	24 07.9 +02.5	N 05 09.7 +00.1	103 33.6 +02.1	S 21 55.1 -00.1	99 22.4 +02.3	S 21 05.6 +00.0	23						
UT	02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT	02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT	02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1					
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 346° 346° 346° 346° 346° 346°			SHA 065° 065° 065° 065° 065° 065°			SHA 061° 061° 061° 061° 061° 061°						
	Greenwich Culmination Time: 21:23			Greenwich Culmination Time: 16:06			Greenwich Culmination Time: 16:23						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT	
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec		
00	183 53.9 -00.1	S 18 17.0 +00.7	213 46.9 -00.4	S 06 25.7 +01.2	199 42.3 -33.0	S 09 38.3 +14.8	00							
01	198 53.8 -00.1	S 18 17.7 +00.6	228 46.5 -00.4	S 06 26.9 +01.1	214 09.3 -33.1	S 09 53.1 +14.7	01							
02	213 53.7 -00.1	S 18 18.3 +00.7	243 46.1 -00.4	S 06 28.0 +01.2	228 36.2 -33.2	S 10 07.8 +14.7	02							
03	228 53.6 -00.1	S 18 19.0 +00.6	258 45.7 -00.4	S 06 29.2 +01.1	243 03.0 -33.2	S 10 22.5 +14.7	03							
04	243 53.5 -00.1	S 18 19.6 +00.6	273 45.3 -00.4	S 06 30.3 +01.2	257 29.8 -33.3	S 10 37.2 +14.5	04							
05	258 53.4 -00.1	S 18 20.2 +00.7	288 44.9 -00.4	S 06 31.5 +01.1	271 56.5 -33.3	S 10 51.7 +14.6	05							
06	273 53.3 -00.1	S 18 20.9 +00.6	303 44.5 -00.4	S 06 32.6 +01.1	286 23.2 -33.4	S 11 06.3 +14.4	06							
07	288 53.2 -00.1	S 18 21.5 +00.7	318 44.1 -00.4	S 06 33.7 +01.2	300 49.8 -33.5	S 11 20.7 +14.3	07							
08	303 53.1 -00.1	S 18 22.2 +00.6	333 43.7 -00.5	S 06 34.9 +01.1	315 16.3 -33.5	S 11 35.0 +14.3	08							
09	318 53.0 -00.1	S 18 22.8 +00.7	348 43.2 -00.4	S 06 36.0 +01.2	329 42.8 -33.6	S 11 49.3 +14.3	09							
10	333 52.9 -00.1	S 18 23.5 +00.6	3 42.8 -00.4	S 06 37.2 +01.1	344 09.2 -33.7	S 12 03.6 +14.1	10							
11	348 52.8 -00.1	S 18 24.1 +00.7	18 42.4 -00.4	S 06 38.3 +01.1	358 35.5 -33.7	S 12 17.7 +14.1	11							
12	3 52.7 -00.1	S 18 24.8 +00.6	33 42.0 -00.4	S 06 39.4 +01.2	13 01.8 -33.8	S 12 31.8 +13.9	12							
13	18 52.6 -00.1	S 18 25.4 +00.6	48 41.6 -00.4	S 06 40.6 +01.1	27 28.0 -33.9	S 12 45.7 +13.9	13							
14	33 52.5 -00.1	S 18 26.0 +00.7	63 41.2 -00.4	S 06 41.7 +01.2	41 54.1 -33.9	S 12 59.6 +13.9	14							
15	48 52.4 -00.1	S 18 26.7 +00.6	78 40.8 -00.4	S 06 42.9 +01.1	56 20.2 -34.0	S 13 13.5 +13.7	15							
16	63 52.3 -00.1	S 18 27.3 +00.7	93 40.4 -00.5	S 06 44.0 +01.1	70 46.2 -34.1	S 13 27.2 +13.6	16							
17	78 52.2 -00.2	S 18 28.0 +00.6	108 39.9 -00.4	S 06 45.1 +01.2	85 12.1 -34.1	S 13 40.8 +13.6	17							
18	93 52.0 -00.1	S 18 28.6 +00.6	123 39.5 -00.4	S 06 46.3 +01.1	99 38.0 -34.2	S 13 54.4 +13.4	18							
19	108 51.9 -00.1	S 18 29.2 +00.7	138 39.1 -00.4	S 06 47.4 +01.2	114 03.8 -34.3	S 14 07.8 +13.4	19							
20	123 51.8 -00.1	S 18 29.9 +00.6	153 38.7 -00.4	S 06 48.6 +01.1	128 29.5 -34.4	S 14 21.2 +13.3	20							
21	138 51.7 -00.1	S 18 30.5 +00.6	168 38.3 -00.4	S 06 49.7 +01.1	142 55.1 -34.4	S 14 34.5 +13.1	21							
22	153 51.6 -00.1	S 18 31.1 +00.7	183 37.9 -00.4	S 06 50.8 +01.2	157 20.7 -34.4	S 14 47.6 +13.1	22							
23	168 51.5 -00.1	S 18 31.8 +00.6	198 37.5 -00.5	S 06 52.0 +01.1	171 46.3 -34.6	S 15 00.7 +13.0	23							
UT 02 06 10 14 18 22	SD 16'2 16'2 16'2 16'2 16'2 16'2	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 130° 130° 130° 130° 130° 129°	Greenwich Culmination Time: 11:44	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 160° 160° 160° 160° 159° 159°	Greenwich Culmination Time: 09:45	UT 02 06 10 14 18 22	SD 16'7 16'7 16'7 16'7 16'7 16'7	HP 61'2 61'2 61'2 61'2 61'2 61'2	SHA 145° 143° 140° 138° 135° 133°	Greenwich Culmination Time: 11:05

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT	
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec		
00	39 10.4 +02.6	N 05 09.8 +00.2	118 35.7 +02.0	S 21 55.0 -00.1	114 24.7 +02.2	S 21 05.6 -00.1	00							
01	54 13.0 +02.5	N 05 10.0 +00.1	133 37.7 +02.0	S 21 54.9 +00.0	129 26.9 +02.3	S 21 05.5 +00.0	01							
02	69 15.5 +02.5	N 05 10.1 +00.1	148 39.7 +02.0	S 21 54.9 -00.1	144 29.2 +02.3	S 21 05.5 +00.0	02							
03	84 18.0 +02.5	N 05 10.2 +00.2	163 41.7 +02.0	S 21 54.8 -00.1	159 31.5 +02.3	S 21 05.5 -00.1	03							
04	99 20.5 +02.5	N 05 10.4 +00.1	178 43.7 +02.0	S 21 54.7 +00.0	174 33.8 +02.2	S 21 05.4 +00.0	04							
05	114 23.0 +02.5	N 05 10.5 +00.1	193 45.7 +02.1	S 21 54.7 -00.1	189 36.0 +02.3	S 21 05.4 +00.0	05							
06	129 25.5 +02.6	N 05 10.6 +00.2	208 47.8 +02.0	S 21 54.6 -00.1	204 38.3 +02.3	S 21 05.4 -00.1	06							
07	144 28.1 +02.5	N 05 10.8 +00.1	223 49.8 +02.0	S 21 54.5 -00.1	219 40.6 +02.3	S 21 05.3 +00.0	07							
08	159 30.6 +02.5	N 05 10.9 +00.2	238 51.8 +02.0	S 21 54.4 +00.0	234 42.9 +02.3	S 21 05.3 +00.0	08							
09	174 33.1 +02.5	N 05 11.1 +00.1	253 53.8 +02.0	S 21 54.4 -00.1	249 45.2 +02.2	S 21 05.3 -00.1	09							
10	189 35.6 +02.5	N 05 11.2 +00.1	268 55.8 +02.1	S 21 54.3 -00.1	264 47.4 +02.3	S 21 05.2 +00.0	10							
11	204 38.1 +02.5	N 05 11.3 +00.2	283 57.9 +02.0	S 21 54.2 +00.0	279 49.7 +02.3	S 21 05.2 +00.0	11							
12	219 40.6 +02.5	N 05 11.5 +00.1	298 59.9 +02.0	S 21 54.2 -00.1	294 52.0 +02.3	S 21 05.2 -00.1	12							
13	234 43.1 +02.5	N 05 11.6 +00.2	314 01.9 +02.0	S 21 54.1 -00.1	309 54.3 +02.2	S 21 05.1 +00.0	13							
14	249 45.6 +02.5	N 05 11.8 +00.1	329 03.9 +02.0	S 21 54.0 +00.0	324 56.5 +02.3	S 21 05.1 +00.0	14							
15	264 48.1 +02.5	N 05 11.9 +00.2	344 05.9 +02.0	S 21 54.0 -00.1	339 58.8 +02.3	S 21 05.1 -00.1	15							
16	279 50.6 +02.5	N 05 12.1 +00.1	359 07.9 +02.1	S 21 53.9 -00.1	355 01.1 +02.3	S 21 05.0 +00.0	16							
17	294 53.1 +02.5	N 05 12.2 +00.1	14 10.0 +02.0	S 21 53.8 +00.0	10 03.4 +02.2	S 21 05.0 +00.0	17							
18	309 55.6 +02.5	N 05 12.3 +00.2	29 12.0 +02.0	S 21 53.8 -00.1	25 05.6 +02.3	S 21 05.0 -00.1	18							
19	324 58.1 +02.5	N 05 12.5 +00.1	44 14.0 +02.0	S 21 53.7 -00.1	40 07.9 +02.3	S 21 04.9 +00.0	19							
20	340 00.6 +02.5	N 05 12.6 +00.2	59 16.0 +02.0	S 21 53.6 -00.1	55 10.2 +02.3	S 21 04.9 +00.0	20							
21	355 03.1 +02.5	N 05 12.8 +00.1	74 18.0 +02.0	S 21 53.5 +00.0	70 12.5 +02.2	S 21 04.9 -00.1	21							
22	10 05.6 +02.5	N 05 12.9 +00.2	89 20.0 +02.0	S 21 53.5 -00.1	85 14.7 +02.3	S 21 04.8 +00.0	22							
23	25 08.1 +02.5	N 05 13.1 +00.1	104 22.0 +02.1	S 21 53.4 -00.1	100 17.0 +02.3	S 21 04.8 +00.0	23							
UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'3 00'3 00'3 00'3 00'3 00'3	SHA 346° 346° 346° 346° 346° 346°	Greenwich Culmination Time: 21:19	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 065° 065° 065° 065° 065° 065°	Greenwich Culmination Time: 16:03	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 061° 061° 061° 061° 061° 061°	Greenwich Culmination Time: 16:19

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 51.4 -00.1	S 18 32.4 +00.6	213 37.0 -00.4	S 06 53.1 +01.2	186 11.7 -34.6	S 15 13.7 +12.8	00						
01	198 51.3 -00.1	S 18 33.0 +00.7	228 36.6 -00.4	S 06 54.3 +01.1	200 37.1 -34.7	S 15 26.5 +12.8	01						
02	213 51.2 -00.1	S 18 33.7 +00.6	243 36.2 -00.4	S 06 55.4 +01.1	215 02.4 -34.7	S 15 39.3 +12.7	02						
03	228 51.1 -00.1	S 18 34.3 +00.6	258 35.8 -00.4	S 06 56.5 +01.2	229 27.7 -34.8	S 15 52.0 +12.5	03						
04	243 51.0 -00.1	S 18 34.9 +00.7	273 35.4 -00.4	S 06 57.7 +01.1	243 52.9 -34.9	S 16 04.5 +12.4	04						
05	258 50.9 -00.1	S 18 35.6 +00.6	288 35.0 -00.5	S 06 58.8 +01.1	258 18.0 -34.9	S 16 16.9 +12.3	05						
06	273 50.8 -00.1	S 18 36.2 +00.6	303 34.5 -00.4	S 06 59.9 +01.2	272 43.1 -35.0	S 16 29.2 +12.2	06						
07	288 50.7 -00.2	S 18 36.8 +00.7	318 34.1 -00.4	S 07 01.1 +01.1	287 08.1 -35.1	S 16 41.4 +12.1	07						
08	303 50.5 -00.1	S 18 37.5 +00.6	333 33.7 -00.4	S 07 02.2 +01.2	301 33.0 -35.2	S 16 53.5 +12.0	08						
09	318 50.4 -00.1	S 18 38.1 +00.6	348 33.3 -00.4	S 07 03.4 +01.1	315 57.8 -35.2	S 17 05.5 +11.8	09						
10	333 50.3 -00.1	S 18 38.7 +00.7	3 32.9 -00.4	S 07 04.5 +01.1	330 22.6 -35.2	S 17 17.3 +11.8	10						
11	348 50.2 -00.1	S 18 39.4 +00.6	18 32.5 -00.5	S 07 05.6 +01.2	344 47.4 -35.4	S 17 29.1 +11.6	11						
12	3 50.1 -00.1	S 18 40.0 +00.6	33 32.0 -00.4	S 07 06.8 +01.1	359 12.0 -35.4	S 17 40.7 +11.4	12						
13	18 50.0 -00.1	S 18 40.6 +00.6	48 31.6 -00.4	S 07 07.9 +01.1	13 36.6 -35.4	S 17 52.1 +11.4	13						
14	33 49.9 -00.1	S 18 41.2 +00.7	63 31.2 -00.4	S 07 09.0 +01.2	28 01.2 -35.6	S 18 03.5 +11.2	14						
15	48 49.8 -00.1	S 18 41.9 +00.6	78 30.8 -00.4	S 07 10.2 +01.1	42 25.6 -35.5	S 18 14.7 +11.1	15						
16	63 49.7 -00.2	S 18 42.5 +00.6	93 30.4 -00.5	S 07 11.3 +01.1	56 50.1 -35.7	S 18 25.8 +11.0	16						
17	78 49.5 -00.1	S 18 43.1 +00.6	108 29.9 -00.4	S 07 12.4 +01.2	71 14.4 -35.7	S 18 36.8 +10.8	17						
18	93 49.4 -00.1	S 18 43.7 +00.7	123 29.5 -00.4	S 07 13.6 +01.1	85 38.7 -35.7	S 18 47.6 +10.7	18						
19	108 49.3 -00.1	S 18 44.4 +00.6	138 29.1 -00.4	S 07 14.7 +01.1	100 03.0 -35.9	S 18 58.3 +10.5	19						
20	123 49.2 -00.1	S 18 45.0 +00.6	153 28.7 -00.5	S 07 15.8 +01.2	114 27.1 -35.9	S 19 08.8 +10.4	20						
21	138 49.1 -00.1	S 18 45.6 +00.6	168 28.2 -00.4	S 07 17.0 +01.1	128 51.2 -35.9	S 19 19.2 +10.3	21						
22	153 49.0 -00.1	S 18 46.2 +00.7	183 27.8 -00.4	S 07 18.1 +01.1	143 15.3 -36.0	S 19 29.5 +10.1	22						
23	168 48.9 -00.2	S 18 46.9 +00.6	198 27.4 -00.4	S 07 19.2 +01.2	157 39.3 -36.0	S 19 39.6 +10.0	23						
UT	02 06 10 14 18 22	SD 16'2 16'2 16'2 16'2 16'2 16'2	UT	02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT	02 06 10 14 18 22	SD 16'7 16'7 16'6 16'6 16'6 16'6					
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 61'2 61'2 61'1 61'1 61'0 60'9		HP 00'1 00'1 00'1 00'1 00'1 00'1						
	SHA 129° 129° 129° 129° 129° 128°		SHA 159° 159° 159° 158° 158° 158°		SHA 130° 128° 125° 123° 120° 118°		SHA 130° 128° 125° 123° 120° 118°						
	Greenwich Culmination Time: 11:44		Greenwich Culmination Time: 09:45		Greenwich Culmination Time: 12:03								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	40 10.6 +02.5	N 05 13.2 +00.2	119 24.1 +02.0	S 21 53.3 +00.0	115 19.3 +02.3	S 21 04.8 -00.1	00						
01	55 13.1 +02.5	N 05 13.4 +00.1	134 26.1 +02.0	S 21 53.3 -00.1	130 21.6 +02.2	S 21 04.7 +00.0	01						
02	70 15.6 +02.4	N 05 13.5 +00.2	149 28.1 +02.0	S 21 53.2 -00.1	145 23.8 +02.3	S 21 04.7 +00.0	02						
03	85 18.0 +02.5	N 05 13.7 +00.1	164 30.1 +02.0	S 21 53.1 -00.1	160 26.1 +02.3	S 21 04.7 -00.1	03						
04	100 20.5 +02.5	N 05 13.8 +00.1	179 32.1 +02.0	S 21 53.0 +00.0	175 28.4 +02.2	S 21 04.6 +00.0	04						
05	115 23.0 +02.5	N 05 13.9 +00.2	194 34.1 +02.0	S 21 53.0 -00.1	190 30.6 +02.3	S 21 04.6 +00.0	05						
06	130 25.5 +02.5	N 05 14.1 +00.1	209 36.1 +02.0	S 21 52.9 -00.1	205 32.9 +02.3	S 21 04.6 -00.1	06						
07	145 28.0 +02.5	N 05 14.2 +00.2	224 38.1 +02.1	S 21 52.8 +00.0	220 35.2 +02.3	S 21 04.5 +00.0	07						
08	160 30.5 +02.4	N 05 14.4 +00.1	239 40.2 +02.0	S 21 52.8 -00.1	235 37.5 +02.2	S 21 04.5 +00.0	08						
09	175 32.9 +02.5	N 05 14.5 +00.2	254 42.2 +02.0	S 21 52.7 -00.1	250 39.7 +02.3	S 21 04.5 -00.1	09						
10	190 35.4 +02.5	N 05 14.7 +00.1	269 44.2 +02.0	S 21 52.6 +00.0	265 42.0 +02.3	S 21 04.4 +00.0	10						
11	205 37.9 +02.5	N 05 14.8 +00.2	284 46.2 +02.0	S 21 52.6 -00.1	280 44.3 +02.3	S 21 04.4 +00.0	11						
12	220 40.4 +02.4	N 05 15.0 +00.2	299 48.2 +02.0	S 21 52.5 -00.1	295 46.6 +02.2	S 21 04.4 -00.1	12						
13	235 42.8 +02.5	N 05 15.2 +00.1	314 50.2 +02.0	S 21 52.4 -00.1	310 48.8 +02.3	S 21 04.3 +00.0	13						
14	250 45.3 +02.5	N 05 15.3 +00.2	329 52.2 +02.0	S 21 52.3 +00.0	325 51.1 +02.3	S 21 04.3 +00.0	14						
15	265 47.8 +02.5	N 05 15.5 +00.1	344 54.2 +02.1	S 21 52.3 -00.1	340 53.4 +02.2	S 21 04.3 -00.1	15						
16	280 50.3 +02.4	N 05 15.6 +00.2	359 56.3 +02.0	S 21 52.2 -00.1	355 55.6 +02.3	S 21 04.2 +00.0	16						
17	295 52.7 +02.5	N 05 15.8 +00.1	14 58.3 +02.0	S 21 52.1 +00.0	10 57.9 +02.3	S 21 04.2 +00.0	17						
18	310 55.2 +02.5	N 05 15.9 +00.2	30 00.3 +02.0	S 21 52.1 -00.1	26 00.2 +02.3	S 21 04.2 -00.1	18						
19	325 57.7 +02.4	N 05 16.1 +00.1	45 02.3 +02.0	S 21 52.0 -00.1	41 02.5 +02.2	S 21 04.1 +00.0	19						
20	341 00.1 +02.5	N 05 16.2 +00.2	60 04.3 +02.0	S 21 51.9 -00.1	56 04.7 +02.3	S 21 04.1 +00.0	20						
21	356 02.6 +02.4	N 05 16.4 +00.1	75 06.3 +02.0	S 21 51.8 +00.0	71 07.0 +02.3	S 21 04.1 -00.1	21						
22	11 05.0 +02.5	N 05 16.5 +00.2	90 08.3 +02.0	S 21 51.8 -00.1	86 09.3 +02.2	S 21 04.0 +00.0	22						
23	26 07.5 +02.5	N 05 16.7 +00.2	105 10.3 +02.0	S 21 51.7 -00.1	101 11.5 +02.3	S 21 04.0 +00.0	23						
UT	02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT	02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT	02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1					
	HP 00'3 00'3 00'3 00'3 00'3 00'3		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'1 00'1 00'1 00'1 00'1 00'1						
	SHA 346° 346° 346° 346° 346° 346°		SHA 065° 065° 065° 065° 065° 065°		SHA 061° 061° 061° 061° 061° 061°		SHA 061° 061° 061° 061° 061° 061°						
	Greenwich Culmination Time: 21:15		Greenwich Culmination Time: 16:00		Greenwich Culmination Time: 16:16								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 48.7 -00.1	S	18 47.5 +00.6	213 27.0 -00.4	S	07 20.4 +01.1	172 03.3 -36.1	S	19 49.6 +09.9	00			
01	198 48.6 -00.1	S	18 48.1 +00.6	228 26.6 -00.5	S	07 21.5 +01.1	186 27.2 -36.2	S	19 59.5 +09.7	01			
02	213 48.5 -00.1	S	18 48.7 +00.6	243 26.1 -00.4	S	07 22.6 +01.2	200 51.0 -36.2	S	20 09.2 +09.5	02			
03	228 48.4 -00.1	S	18 49.3 +00.7	258 25.7 -00.4	S	07 23.8 +01.1	215 14.8 -36.2	S	20 18.7 +09.4	03			
04	243 48.3 -00.1	S	18 50.0 +00.6	273 25.3 -00.4	S	07 24.9 +01.1	229 38.6 -36.3	S	20 28.1 +09.3	04			
05	258 48.2 -00.2	S	18 50.6 +00.6	288 24.9 -00.5	S	07 26.0 +01.2	244 02.3 -36.4	S	20 37.4 +09.1	05			
06	273 48.0 -00.1	S	18 51.2 +00.6	303 24.4 -00.4	S	07 27.2 +01.1	258 25.9 -36.4	S	20 46.5 +08.9	06			
07	288 47.9 -00.1	S	18 51.8 +00.6	318 24.0 -00.4	S	07 28.3 +01.1	272 49.5 -36.4	S	20 55.4 +08.8	07			
08	303 47.8 -00.1	S	18 52.4 +00.7	333 23.6 -00.4	S	07 29.4 +01.2	287 13.1 -36.5	S	21 04.2 +08.6	08			
09	318 47.7 -00.1	S	18 53.1 +00.6	348 23.2 -00.5	S	07 30.6 +01.1	301 36.6 -36.6	S	21 12.8 +08.5	09			
10	333 47.6 -00.2	S	18 53.7 +00.6	3 22.7 -00.4	S	07 31.7 +01.1	316 00.0 -36.5	S	21 21.3 +08.3	10			
11	348 47.4 -00.1	S	18 54.3 +00.6	18 22.3 -00.4	S	07 32.8 +01.2	330 23.5 -36.6	S	21 29.6 +08.2	11			
12	3 47.3 -00.1	S	18 54.9 +00.6	33 21.9 -00.4	S	07 34.0 +01.1	344 46.9 -36.7	S	21 37.8 +08.0	12			
13	18 47.2 -00.1	S	18 55.5 +00.6	48 21.5 -00.5	S	07 35.1 +01.1	359 10.2 -36.7	S	21 45.8 +07.9	13			
14	33 47.1 -00.1	S	18 56.1 +00.6	63 21.0 -00.4	S	07 36.2 +01.2	13 33.5 -36.7	S	21 53.7 +07.6	14			
15	48 47.0 -00.2	S	18 56.7 +00.6	78 20.6 -00.4	S	07 37.4 +01.1	27 56.8 -36.7	S	22 01.3 +07.6	15			
16	63 46.8 -00.1	S	18 57.3 +00.7	93 20.2 -00.4	S	07 38.5 +01.1	42 20.1 -36.8	S	22 08.9 +07.3	16			
17	78 46.7 -00.1	S	18 58.0 +00.6	108 19.8 -00.5	S	07 39.6 +01.1	56 43.3 -36.8	S	22 16.2 +07.2	17			
18	93 46.6 -00.1	S	18 58.6 +00.6	123 19.3 -00.4	S	07 40.7 +01.2	71 06.5 -36.9	S	22 23.4 +07.1	18			
19	108 46.5 -00.2	S	18 59.2 +00.6	138 18.9 -00.4	S	07 41.9 +01.1	85 29.6 -36.8	S	22 30.5 +06.8	19			
20	123 46.3 -00.1	S	18 59.8 +00.6	153 18.5 -00.5	S	07 43.0 +01.1	99 52.8 -36.9	S	22 37.3 +06.7	20			
21	138 46.2 -00.1	S	19 00.4 +00.6	168 18.0 -00.4	S	07 44.1 +01.2	114 15.9 -36.9	S	22 44.0 +06.6	21			
22	153 46.1 -00.1	S	19 01.0 +00.6	183 17.6 -00.4	S	07 45.3 +01.1	128 39.0 -37.0	S	22 50.6 +06.3	22			
23	168 46.0 -00.2	S	19 01.6 +00.6	198 17.2 -00.5	S	07 46.4 +01.1	143 02.0 -36.9	S	22 56.9 +06.2	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'6 16'6 16'5 16'5 16'5 16'4						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 60'8 60'7 60'6 60'5 60'4 60'3						
	SHA 128° 128° 128° 128° 128° 127°			SHA 158° 158° 157° 157° 157° 157°			SHA 115° 113° 110° 107° 105° 102°						
	Greenwich Culmination Time: 11:44			Greenwich Culmination Time: 09:46			Greenwich Culmination Time: 13:03						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	41 10.0 +02.4	N	05 16.9 +00.1	120 12.3 +02.0	S	21 51.6 +00.0	116 13.8 +02.3	S	21 04.0 -00.1	00			
01	56 12.4 +02.5	N	05 17.0 +00.2	135 14.3 +02.1	S	21 51.6 -00.1	131 16.1 +02.3	S	21 03.9 +00.0	01			
02	71 14.9 +02.4	N	05 17.2 +00.1	150 16.4 +02.0	S	21 51.5 -00.1	146 18.4 +02.2	S	21 03.9 +00.0	02			
03	86 17.3 +02.5	N	05 17.3 +00.2	165 18.4 +02.0	S	21 51.4 -00.1	161 20.6 +02.3	S	21 03.9 -00.1	03			
04	101 19.8 +02.4	N	05 17.5 +00.1	180 20.4 +02.0	S	21 51.3 +00.0	176 22.9 +02.3	S	21 03.8 +00.0	04			
05	116 22.2 +02.5	N	05 17.6 +00.2	195 22.4 +02.0	S	21 51.3 -00.1	191 25.2 +02.2	S	21 03.8 +00.0	05			
06	131 24.7 +02.4	N	05 17.8 +00.2	210 24.4 +02.0	S	21 51.2 -00.1	206 27.4 +02.3	S	21 03.8 -00.1	06			
07	146 27.1 +02.5	N	05 18.0 +00.1	225 26.4 +02.0	S	21 51.1 +00.0	221 29.7 +02.3	S	21 03.7 +00.0	07			
08	161 29.6 +02.4	N	05 18.1 +00.2	240 28.4 +02.0	S	21 51.1 -00.1	236 32.0 +02.2	S	21 03.7 +00.0	08			
09	176 32.0 +02.5	N	05 18.3 +00.1	255 30.4 +02.0	S	21 51.0 -00.1	251 34.2 +02.3	S	21 03.7 -00.1	09			
10	191 34.5 +02.4	N	05 18.4 +00.2	270 32.4 +02.0	S	21 50.9 -00.1	266 36.5 +02.3	S	21 03.6 +00.0	10			
11	206 36.9 +02.5	N	05 18.6 +00.2	285 34.4 +02.0	S	21 50.8 +00.0	281 38.8 +02.2	S	21 03.6 +00.0	11			
12	221 39.4 +02.4	N	05 18.8 +00.1	300 36.4 +02.0	S	21 50.8 -00.1	296 41.0 +02.3	S	21 03.6 -00.1	12			
13	236 41.8 +02.4	N	05 18.9 +00.2	315 38.4 +02.0	S	21 50.7 -00.1	311 43.3 +02.3	S	21 03.5 +00.0	13			
14	251 44.2 +02.5	N	05 19.1 +00.2	330 40.4 +02.1	S	21 50.6 +00.0	326 45.6 +02.3	S	21 03.5 -00.1	14			
15	266 46.7 +02.4	N	05 19.3 +00.1	345 42.5 +02.0	S	21 50.6 -00.1	341 47.9 +02.2	S	21 03.4 +00.0	15			
16	281 49.1 +02.5	N	05 19.4 +00.2	0 44.5 +02.0	S	21 50.5 -00.1	356 50.1 +02.3	S	21 03.4 +00.0	16			
17	296 51.6 +02.4	N	05 19.6 +00.1	15 46.5 +02.0	S	21 50.4 -00.1	11 52.4 +02.3	S	21 03.4 -00.1	17			
18	311 54.0 +02.4	N	05 19.7 +00.2	30 48.5 +02.0	S	21 50.3 +00.0	26 54.7 +02.2	S	21 03.3 +00.0	18			
19	326 56.4 +02.5	N	05 19.9 +00.2	45 50.5 +02.0	S	21 50.3 -00.1	41 56.9 +02.3	S	21 03.3 +00.0	19			
20	341 58.9 +02.4	N	05 20.1 +00.1	60 52.5 +02.0	S	21 50.2 -00.1	56 59.2 +02.3	S	21 03.3 -00.1	20			
21	357 01.3 +02.4	N	05 20.2 +00.2	75 54.5 +02.0	S	21 50.1 -00.1	72 01.5 +02.2	S	21 03.2 +00.0	21			
22	12 03.7 +02.4	N	05 20.4 +00.2	90 56.5 +02.0	S	21 50.0 +00.0	87 03.7 +02.3	S	21 03.2 +00.0	22			
23	27 06.1 +02.5	N	05 20.6 +00.1	105 58.5 +02.0	S	21 50.0 -00.1	102 06.0 +02.3	S	21 03.2 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 346° 346° 346° 346° 346° 346°			SHA 065° 065° 065° 065° 065° 065°			SHA 061° 061° 061° 061° 061° 061°						
	Greenwich Culmination Time: 21:11			Greenwich Culmination Time: 15:57			Greenwich Culmination Time: 16:12						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 45.8 -00.1	S	19 02.2 +00.6	213 16.7 -00.4	S	07 47.5 +01.1	157 25.1 -37.0	S	23 03.1 +06.0	00			
01	198 45.7 -00.1	S	19 02.8 +00.6	228 16.3 -00.4	S	07 48.6 +01.2	171 48.1 -37.0	S	23 09.1 +05.9	01			
02	213 45.6 -00.1	S	19 03.4 +00.6	243 15.9 -00.4	S	07 49.8 +01.1	186 11.1 -37.0	S	23 15.0 +05.7	02			
03	228 45.5 -00.2	S	19 04.0 +00.6	258 15.5 -00.5	S	07 50.9 +01.1	200 34.1 -37.0	S	23 20.7 +05.5	03			
04	243 45.3 -00.1	S	19 04.6 +00.7	273 15.0 -00.4	S	07 52.0 +01.1	214 57.1 -37.0	S	23 26.2 +05.3	04			
05	258 45.2 -00.1	S	19 05.3 +00.6	288 14.6 -00.4	S	07 53.1 +01.2	229 20.1 -37.1	S	23 31.5 +05.2	05			
06	273 45.1 -00.1	S	19 05.9 +00.6	303 14.2 -00.5	S	07 54.3 +01.1	243 43.0 -37.0	S	23 36.7 +05.0	06			
07	288 45.0 -00.2	S	19 06.5 +00.6	318 13.7 -00.4	S	07 55.4 +01.1	258 06.0 -37.0	S	23 41.7 +04.8	07			
08	303 44.8 -00.1	S	19 07.1 +00.6	333 13.3 -00.4	S	07 56.5 +01.2	272 29.0 -37.1	S	23 46.5 +04.7	08			
09	318 44.7 -00.1	S	19 07.7 +00.6	348 12.9 -00.5	S	07 57.7 +01.1	286 51.9 -37.0	S	23 51.2 +04.5	09			
10	333 44.6 -00.1	S	19 08.3 +00.6	3 12.4 -00.4	S	07 58.8 +01.1	301 14.9 -37.0	S	23 55.7 +04.3	10			
11	348 44.5 -00.2	S	19 08.9 +00.6	18 12.0 -00.4	S	07 59.9 +01.1	315 37.9 -37.1	S	23 60.0 +04.1	11			
12	3 44.3 -00.1	S	19 09.5 +00.6	33 11.6 -00.5	S	08 01.0 +01.2	330 00.8 -37.0	S	24 04.1 +04.0	12			
13	18 44.2 -00.1	S	19 10.1 +00.6	48 11.1 -00.4	S	08 02.2 +01.1	344 23.8 -37.0	S	24 08.1 +03.7	13			
14	33 44.1 -00.2	S	19 10.7 +00.6	63 10.7 -00.4	S	08 03.3 +01.1	358 46.8 -37.0	S	24 11.8 +03.7	14			
15	48 43.9 -00.1	S	19 11.3 +00.6	78 10.3 -00.5	S	08 04.4 +01.1	13 09.8 -37.0	S	24 15.5 +03.4	15			
16	63 43.8 -00.1	S	19 11.9 +00.6	93 09.8 -00.4	S	08 05.5 +01.1	27 32.8 -37.0	S	24 18.9 +03.3	16			
17	78 43.7 -00.2	S	19 12.5 +00.6	108 09.4 -00.4	S	08 06.6 +01.2	41 55.8 -37.0	S	24 22.2 +03.1	17			
18	93 43.5 -00.1	S	19 13.1 +00.6	123 09.0 -00.5	S	08 07.8 +01.1	56 18.8 -36.9	S	24 25.3 +02.9	18			
19	108 43.4 -00.1	S	19 13.7 +00.5	138 08.5 -00.4	S	08 08.9 +01.1	70 41.9 -36.9	S	24 28.2 +02.7	19			
20	123 43.3 -00.1	S	19 14.2 +00.6	153 08.1 -00.5	S	08 10.0 +01.1	85 05.0 -36.9	S	24 30.9 +02.6	20			
21	138 43.2 -00.2	S	19 14.8 +00.6	168 07.6 -00.4	S	08 11.1 +01.2	99 28.1 -36.9	S	24 33.5 +02.4	21			
22	153 43.0 -00.1	S	19 15.4 +00.6	183 07.2 -00.4	S	08 12.3 +01.1	113 51.2 -36.8	S	24 35.9 +02.2	22			
23	168 42.9 -00.1	S	19 16.0 +00.6	198 06.8 -00.5	S	08 13.4 +01.1	128 14.4 -36.8	S	24 38.1 +02.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'4 16'4 16'3 16'3 16'3 16'2						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 60'2 60'1 59'9 59'8 59'7 59'5						
	SHA 127° 127° 127° 127° 126° 126°			SHA 157° 156° 156° 156° 156° 156°			SHA 100° 097° 094° 092° 089° 086°						
	Greenwich Culmination Time: 11:45			Greenwich Culmination Time: 09:47			Greenwich Culmination Time: 14:05						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	42 08.6 +02.4	N	05 20.7 +00.2	121 00.5 +02.0	S	21 49.9 -00.1	117 08.3 +02.2	S	21 03.1 +00.0	00			
01	57 11.0 +02.4	N	05 20.9 +00.2	136 02.5 +02.0	S	21 49.8 +00.0	132 10.5 +02.3	S	21 03.1 +00.0	01			
02	72 13.4 +02.4	N	05 21.1 +00.1	151 04.5 +02.0	S	21 49.8 -00.1	147 12.8 +02.3	S	21 03.1 -00.1	02			
03	87 15.8 +02.5	N	05 21.2 +00.2	166 06.5 +02.0	S	21 49.7 -00.1	162 15.1 +02.2	S	21 03.0 +00.0	03			
04	102 18.3 +02.4	N	05 21.4 +00.2	181 08.5 +02.0	S	21 49.6 -00.1	177 17.3 +02.3	S	21 03.0 +00.0	04			
05	117 20.7 +02.4	N	05 21.6 +00.2	196 10.5 +02.0	S	21 49.5 +00.0	192 19.6 +02.3	S	21 03.0 -00.1	05			
06	132 23.1 +02.4	N	05 21.8 +00.1	211 12.5 +02.0	S	21 49.5 -00.1	207 21.9 +02.2	S	21 02.9 +00.0	06			
07	147 25.5 +02.4	N	05 21.9 +00.2	226 14.5 +02.0	S	21 49.4 -00.1	222 24.1 +02.3	S	21 02.9 +00.0	07			
08	162 27.9 +02.5	N	05 22.1 +00.2	241 16.5 +02.0	S	21 49.3 -00.1	237 26.4 +02.3	S	21 02.9 -00.1	08			
09	177 30.4 +02.4	N	05 22.3 +00.1	256 18.5 +02.0	S	21 49.2 +00.0	252 28.7 +02.2	S	21 02.8 +00.0	09			
10	192 32.8 +02.4	N	05 22.4 +00.2	271 20.5 +02.0	S	21 49.2 -00.1	267 30.9 +02.3	S	21 02.8 +00.0	10			
11	207 35.2 +02.4	N	05 22.6 +00.2	286 22.5 +02.0	S	21 49.1 -00.1	282 33.2 +02.3	S	21 02.8 -00.1	11			
12	222 37.6 +02.4	N	05 22.8 +00.2	301 24.5 +02.0	S	21 49.0 -00.1	297 35.5 +02.2	S	21 02.7 +00.0	12			
13	237 40.0 +02.4	N	05 23.0 +00.1	316 26.5 +02.0	S	21 48.9 +00.0	312 37.7 +02.3	S	21 02.7 -00.1	13			
14	252 42.4 +02.4	N	05 23.1 +00.2	331 28.5 +02.0	S	21 48.9 -00.1	327 40.0 +02.3	S	21 02.6 +00.0	14			
15	267 44.8 +02.4	N	05 23.3 +00.2	346 30.5 +02.0	S	21 48.8 -00.1	342 42.3 +02.2	S	21 02.6 +00.0	15			
16	282 47.2 +02.4	N	05 23.5 +00.2	1 32.5 +02.1	S	21 48.7 +00.0	357 44.5 +02.3	S	21 02.6 -00.1	16			
17	297 49.6 +02.4	N	05 23.7 +00.1	16 34.6 +02.0	S	21 48.7 -00.1	12 46.8 +02.3	S	21 02.5 +00.0	17			
18	312 52.0 +02.4	N	05 23.8 +00.2	31 36.6 +02.0	S	21 48.6 -00.1	27 49.1 +02.2	S	21 02.5 +00.0	18			
19	327 54.4 +02.4	N	05 24.0 +00.2	46 38.6 +02.0	S	21 48.5 -00.1	42 51.3 +02.3	S	21 02.5 -00.1	19			
20	342 56.8 +02.4	N	05 24.2 +00.2	61 40.6 +02.0	S	21 48.4 +00.0	57 53.6 +02.2	S	21 02.4 +00.0	20			
21	357 59.2 +02.4	N	05 24.4 +00.1	76 42.6 +02.0	S	21 48.4 -00.1	72 55.8 +02.3	S	21 02.4 +00.0	21			
22	13 01.6 +02.4	N	05 24.5 +00.2	91 44.6 +02.0	S	21 48.3 -00.1	87 58.1 +02.3	S	21 02.4 -00.1	22			
23	28 04.0 +02.4	N	05 24.7 +00.2	106 46.6 +02.0	S	21 48.2 -00.1	103 00.4 +02.2	S	21 02.3 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 346° 346° 346° 346° 346° 346°			SHA 064° 064° 064° 064° 064° 064°			SHA 061° 061° 061° 061° 061° 061°						
	Greenwich Culmination Time: 21:08			Greenwich Culmination Time: 15:53			Greenwich Culmination Time: 16:09						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 42.8 -00.2	S	19 16.6 +00.6	213 06.3 -00.4	S	08 14.5 +01.1	142 37.6 -36.8	S	24 40.1 +01.9	00			
01	198 42.6 -00.1	S	19 17.2 +00.6	228 05.9 -00.4	S	08 15.6 +01.1	157 00.8 -36.8	S	24 42.0 +01.7	01			
02	213 42.5 -00.1	S	19 17.8 +00.6	243 05.5 -00.5	S	08 16.7 +01.2	171 24.0 -36.7	S	24 43.7 +01.6	02			
03	228 42.4 -00.2	S	19 18.4 +00.6	258 05.0 -00.4	S	08 17.9 +01.1	185 47.3 -36.6	S	24 45.3 +01.3	03			
04	243 42.2 -00.1	S	19 19.0 +00.6	273 04.6 -00.5	S	08 19.0 +01.1	200 10.7 -36.7	S	24 46.6 +01.2	04			
05	258 42.1 -00.2	S	19 19.6 +00.6	288 04.1 -00.4	S	08 20.1 +01.1	214 34.0 -36.6	S	24 47.8 +01.0	05			
06	273 41.9 -00.1	S	19 20.2 +00.6	303 03.7 -00.4	S	08 21.2 +01.2	228 57.4 -36.5	S	24 48.8 +00.9	06			
07	288 41.8 -00.1	S	19 20.8 +00.5	318 03.3 -00.5	S	08 22.4 +01.1	243 20.9 -36.5	S	24 49.7 +00.7	07			
08	303 41.7 -00.2	S	19 21.3 +00.6	333 02.8 -00.4	S	08 23.5 +01.1	257 44.4 -36.5	S	24 50.4 +00.5	08			
09	318 41.5 -00.1	S	19 21.9 +00.6	348 02.4 -00.5	S	08 24.6 +01.1	272 07.9 -36.4	S	24 50.9 +00.3	09			
10	333 41.4 -00.1	S	19 22.5 +00.6	3 01.9 -00.4	S	08 25.7 +01.1	286 31.5 -36.3	S	24 51.2 +00.2	10			
11	348 41.3 -00.2	S	19 23.1 +00.6	18 01.5 -00.4	S	08 26.8 +01.1	300 55.2 -36.3	S	24 51.4 +00.0	11			
12	3 41.1 -00.1	S	19 23.7 +00.6	33 01.1 -00.5	S	08 27.9 +01.2	315 18.9 -36.3	S	24 51.4 -00.1	12			
13	18 41.0 -00.1	S	19 24.3 +00.6	48 00.6 -00.4	S	08 29.1 +01.1	329 42.6 -36.1	S	24 51.3 -00.4	13			
14	33 40.9 -00.2	S	19 24.9 +00.6	63 00.2 -00.5	S	08 30.2 +01.1	344 06.5 -36.2	S	24 50.9 -00.5	14			
15	48 40.7 -00.1	S	19 25.5 +00.5	77 59.7 -00.4	S	08 31.3 +01.1	358 30.3 -36.0	S	24 50.4 -00.6	15			
16	63 40.6 -00.2	S	19 26.0 +00.6	92 59.3 -00.5	S	08 32.4 +01.1	12 54.3 -36.0	S	24 49.8 -00.8	16			
17	78 40.4 -00.1	S	19 26.6 +00.6	107 58.8 -00.4	S	08 33.5 +01.2	27 18.3 -36.0	S	24 49.0 -01.0	17			
18	93 40.3 -00.1	S	19 27.2 +00.6	122 58.4 -00.4	S	08 34.7 +01.1	41 42.3 -35.8	S	24 48.0 -01.1	18			
19	108 40.2 -00.2	S	19 27.8 +00.6	137 58.0 -00.5	S	08 35.8 +01.1	56 06.5 -35.8	S	24 46.9 -01.3	19			
20	123 40.0 -00.1	S	19 28.4 +00.5	152 57.5 -00.4	S	08 36.9 +01.1	70 30.7 -35.8	S	24 45.6 -01.5	20			
21	138 39.9 -00.2	S	19 28.9 +00.6	167 57.1 -00.5	S	08 38.0 +01.1	84 54.9 -35.6	S	24 44.1 -01.6	21			
22	153 39.7 -00.1	S	19 29.5 +00.6	182 56.6 -00.4	S	08 39.1 +01.1	99 19.3 -35.6	S	24 42.5 -01.8	22			
23	168 39.6 -00.1	S	19 30.1 +00.6	197 56.2 -00.5	S	08 40.2 +01.1	113 43.7 -35.5	S	24 40.7 -01.9	23			
UT	02 06 10 14 18 22			UT	02 06 10 14 18 22			UT	02 06 10 14 18 22				
SD	16'2 16'2 16'2 16'2 16'2 16'2			SD	00'1 00'1 00'1 00'1 00'1 00'1			SD	16'2 16'1 16'1 16'0 16'0 16'0				
HP	00'1 00'1 00'1 00'1 00'1 00'1			HP	00'1 00'1 00'1 00'1 00'1 00'1			HP	59'4 59'2 59'0 58'9 58'7 58'6				
SHA	126° 126° 126° 126° 125° 125°			SHA	156° 155° 155° 155° 155° 155°			SHA	084° 081° 079° 076° 073° 071°				
Greenwich Culmination Time: 11:45				Greenwich Culmination Time: 09:47				Greenwich Culmination Time: 15:06					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	43 06.4 +02.4	N	05 24.9 +00.2	121 48.6 +02.0	S	21 48.1 +00.0	118 02.6 +02.3	S	21 02.3 +00.0	00			
01	58 08.8 +02.4	N	05 25.1 +00.1	136 50.6 +02.0	S	21 48.1 -00.1	133 04.9 +02.3	S	21 02.3 -00.1	01			
02	73 11.2 +02.4	N	05 25.2 +00.2	151 52.6 +02.0	S	21 48.0 -00.1	148 07.2 +02.2	S	21 02.2 +00.0	02			
03	88 13.6 +02.4	N	05 25.4 +00.2	166 54.6 +02.0	S	21 47.9 -00.1	163 09.4 +02.3	S	21 02.2 +00.0	03			
04	103 16.0 +02.4	N	05 25.6 +00.2	181 56.6 +02.0	S	21 47.8 +00.0	178 11.7 +02.3	S	21 02.2 -00.1	04			
05	118 18.4 +02.4	N	05 25.8 +00.2	196 58.6 +02.0	S	21 47.8 -00.1	193 14.0 +02.2	S	21 02.1 +00.0	05			
06	133 20.8 +02.4	N	05 26.0 +00.1	212 00.6 +01.9	S	21 47.7 -00.1	208 16.2 +02.3	S	21 02.1 -00.1	06			
07	148 23.2 +02.3	N	05 26.1 +00.2	227 02.5 +02.0	S	21 47.6 -00.1	223 18.5 +02.2	S	21 02.0 +00.0	07			
08	163 25.5 +02.4	N	05 26.3 +00.2	242 04.5 +02.0	S	21 47.5 +00.0	238 20.7 +02.3	S	21 02.0 +00.0	08			
09	178 27.9 +02.4	N	05 26.5 +00.2	257 06.5 +02.0	S	21 47.5 -00.1	253 23.0 +02.3	S	21 02.0 -00.1	09			
10	193 30.3 +02.4	N	05 26.7 +00.2	272 08.5 +02.0	S	21 47.4 -00.1	268 25.3 +02.2	S	21 01.9 +00.0	10			
11	208 32.7 +02.4	N	05 26.9 +00.1	287 10.5 +02.0	S	21 47.3 -00.1	283 27.5 +02.3	S	21 01.9 +00.0	11			
12	223 35.1 +02.4	N	05 27.0 +00.2	302 12.5 +02.0	S	21 47.2 +00.0	298 29.8 +02.3	S	21 01.9 -00.1	12			
13	238 37.5 +02.3	N	05 27.2 +00.2	317 14.5 +02.0	S	21 47.2 -00.1	313 32.1 +02.2	S	21 01.8 +00.0	13			
14	253 39.8 +02.4	N	05 27.4 +00.2	332 16.5 +02.0	S	21 47.1 -00.1	328 34.3 +02.3	S	21 01.8 +00.0	14			
15	268 42.2 +02.4	N	05 27.6 +00.2	347 18.5 +02.0	S	21 47.0 -00.1	343 36.6 +02.2	S	21 01.8 -00.1	15			
16	283 44.6 +02.4	N	05 27.8 +00.2	2 20.5 +02.0	S	21 46.9 +00.0	358 38.8 +02.3	S	21 01.7 +00.0	16			
17	298 47.0 +02.3	N	05 28.0 +00.2	17 22.5 +02.0	S	21 46.9 -00.1	13 41.1 +02.3	S	21 01.7 +00.0	17			
18	313 49.3 +02.4	N	05 28.2 +00.1	32 24.5 +02.0	S	21 46.8 -00.1	28 43.4 +02.2	S	21 01.7 -00.1	18			
19	328 51.7 +02.4	N	05 28.3 +00.2	47 26.5 +02.0	S	21 46.7 -00.1	43 45.6 +02.3	S	21 01.6 +00.0	19			
20	343 54.1 +02.3	N	05 28.5 +00.2	62 28.5 +02.0	S	21 46.6 +00.0	58 47.9 +02.3	S	21 01.6 -00.1	20			
21	358 56.4 +02.4	N	05 28.7 +00.2	77 30.5 +02.0	S	21 46.6 -00.1	73 50.2 +02.2	S	21 01.5 +00.0	21			
22	13 58.8 +02.4	N	05 28.9 +00.2	92 32.5 +02.0	S	21 46.5 -00.1	88 52.4 +02.3	S	21 01.5 +00.0	22			
23	29 01.2 +02.3	N	05 29.1 +00.2	107 34.5 +02.0	S	21 46.4 -00.1	103 54.7 +02.2	S	21 01.5 -00.1	23			
UT	02 06 10 14 18 22			UT	02 06 10 14 18 22			UT	02 06 10 14 18 22				
SD	00'1 00'1 00'1 00'1 00'1 00'1			SD	00'3 00'3 00'3 00'3 00'3 00'3			SD	00'1 00'1 00'1 00'1 00'1 00'1				
HP	00'3 00'3 00'3 00'3 00'3 00'3			HP	00'0 00'0 00'0 00'0 00'0 00'0			HP	00'0 00'0 00'0 00'0 00'0 00'0				
SHA	346° 346° 346° 346° 346° 346°			SHA	064° 064° 064° 064° 064° 064°			SHA	061° 061° 061° 061° 060° 060°				
Greenwich Culmination Time: 21:04				Greenwich Culmination Time: 15:50				Greenwich Culmination Time: 16:05					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 17%				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	183 39.5 -00.2	S 19 30.7 +00.6	212 55.7 -00.4	S 08 41.3 +01.2	128 08.2 -35.5	S 24 38.8 -02.1	00						
01	198 39.3 -00.1	S 19 31.3 +00.5	227 55.3 -00.5	S 08 42.5 +01.1	142 32.7 -35.3	S 24 36.7 -02.2	01						
02	213 39.2 -00.2	S 19 31.8 +00.6	242 54.8 -00.4	S 08 43.6 +01.1	156 57.4 -35.3	S 24 34.5 -02.4	02						
03	228 39.0 -00.1	S 19 32.4 +00.6	257 54.4 -00.5	S 08 44.7 +01.1	171 22.1 -35.2	S 24 32.1 -02.6	03						
04	243 38.9 -00.2	S 19 33.0 +00.6	272 53.9 -00.4	S 08 45.8 +01.1	185 46.9 -35.1	S 24 29.5 -02.7	04						
05	258 38.7 -00.1	S 19 33.6 +00.5	287 53.5 -00.5	S 08 46.9 +01.1	200 11.8 -35.1	S 24 26.8 -02.8	05						
06	273 38.6 -00.1	S 19 34.1 +00.6	302 53.0 -00.4	S 08 48.0 +01.1	214 36.7 -34.9	S 24 24.0 -03.0	06						
07	288 38.5 -00.2	S 19 34.7 +00.6	317 52.6 -00.5	S 08 49.1 +01.2	229 01.8 -34.9	S 24 21.0 -03.2	07						
08	303 38.3 -00.1	S 19 35.3 +00.6	332 52.1 -00.4	S 08 50.3 +01.1	243 26.9 -34.8	S 24 17.8 -03.3	08						
09	318 38.2 -00.2	S 19 35.9 +00.5	347 51.7 -00.5	S 08 51.4 +01.1	257 52.1 -34.7	S 24 14.5 -03.4	09						
10	333 38.0 -00.1	S 19 36.4 +00.6	2 51.2 -00.4	S 08 52.5 +01.1	272 17.4 -34.6	S 24 11.1 -03.6	10						
11	348 37.9 -00.2	S 19 37.0 +00.6	17 50.8 -00.4	S 08 53.6 +01.1	286 42.8 -34.5	S 24 07.5 -03.7	11						
12	3 37.7 -00.1	S 19 37.6 +00.5	32 50.4 -00.5	S 08 54.7 +01.1	301 08.3 -34.4	S 24 03.8 -03.9	12						
13	18 37.6 -00.2	S 19 38.1 +00.6	47 49.9 -00.5	S 08 55.8 +01.1	315 33.9 -34.4	S 23 59.9 -04.0	13						
14	33 37.4 -00.1	S 19 38.7 +00.6	62 49.4 -00.4	S 08 56.9 +01.1	329 59.5 -34.2	S 23 55.9 -04.1	14						
15	48 37.3 -00.2	S 19 39.3 +00.6	77 49.0 -00.5	S 08 58.0 +01.1	344 25.3 -34.2	S 23 51.8 -04.3	15						
16	63 37.1 -00.1	S 19 39.9 +00.5	92 48.5 -00.4	S 08 59.1 +01.2	358 51.1 -34.0	S 23 47.5 -04.5	16						
17	78 37.0 -00.1	S 19 40.4 +00.6	107 48.1 -00.5	S 09 00.3 +01.1	13 17.1 -34.0	S 23 43.0 -04.5	17						
18	93 36.9 -00.2	S 19 41.0 +00.6	122 47.6 -00.4	S 09 01.4 +01.1	27 43.1 -33.8	S 23 38.5 -04.7	18						
19	108 36.7 -00.1	S 19 41.6 +00.5	137 47.2 -00.5	S 09 02.5 +01.1	42 09.3 -33.8	S 23 33.8 -04.8	19						
20	123 36.6 -00.2	S 19 42.1 +00.6	152 46.7 -00.4	S 09 03.6 +01.1	56 35.5 -33.7	S 23 29.0 -05.0	20						
21	138 36.4 -00.1	S 19 42.7 +00.6	167 46.3 -00.5	S 09 04.7 +01.1	71 01.8 -33.5	S 23 24.0 -05.1	21						
22	153 36.3 -00.2	S 19 43.3 +00.5	182 45.8 -00.4	S 09 05.8 +01.1	85 28.3 -33.5	S 23 18.9 -05.2	22						
23	168 36.1 -00.1	S 19 43.8 +00.6	197 45.4 -00.5	S 09 06.9 +01.1	99 54.8 -33.4	S 23 13.7 -05.4	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 16'2 16'2 16'2 16'2 16'2 16'2		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'9 15'9 15'8 15'8 15'7 15'7								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 58'4 58'2 58'1 57'9 57'8 57'6								
	SHA 125° 125° 125° 125° 124° 124°		SHA 154° 154° 154° 154° 154° 153°		SHA 068° 066° 063° 061° 058° 056°								
	Greenwich Culmination Time: 11:45		Greenwich Culmination Time: 09:48		Greenwich Culmination Time: 16:04								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	44 03.5 +02.4	N 05 29.3 +00.2	122 36.5 +02.0	S 21 46.3 +00.0	118 56.9 +02.3	S 21 01.4 +00.0	00						
01	59 05.9 +02.4	N 05 29.5 +00.1	137 38.5 +02.0	S 21 46.3 -00.1	133 59.2 +02.3	S 21 01.4 +00.0	01						
02	74 08.3 +02.3	N 05 29.6 +00.2	152 40.5 +02.0	S 21 46.2 -00.1	149 01.5 +02.2	S 21 01.4 -00.1	02						
03	89 10.6 +02.4	N 05 29.8 +00.2	167 42.5 +02.0	S 21 46.1 -00.1	164 03.7 +02.3	S 21 01.3 +00.0	03						
04	104 13.0 +02.3	N 05 30.0 +00.2	182 44.5 +02.0	S 21 46.0 +00.0	179 06.0 +02.2	S 21 01.3 +00.0	04						
05	119 15.3 +02.4	N 05 30.2 +00.2	197 46.5 +02.0	S 21 46.0 -00.1	194 08.2 +02.3	S 21 01.3 -00.1	05						
06	134 17.7 +02.4	N 05 30.4 +00.2	212 48.5 +02.0	S 21 45.9 -00.1	209 10.5 +02.3	S 21 01.2 +00.0	06						
07	149 20.1 +02.3	N 05 30.6 +00.2	227 50.5 +02.0	S 21 45.8 -00.1	224 12.8 +02.2	S 21 01.2 +00.0	07						
08	164 22.4 +02.4	N 05 30.8 +00.2	242 52.5 +01.9	S 21 45.7 +00.0	239 15.0 +02.3	S 21 01.2 -00.1	08						
09	179 24.8 +02.3	N 05 31.0 +00.2	257 54.4 +02.0	S 21 45.7 -00.1	254 17.3 +02.2	S 21 01.1 +00.0	09						
10	194 27.1 +02.4	N 05 31.2 +00.2	272 56.4 +02.0	S 21 45.6 -00.1	269 19.5 +02.3	S 21 01.1 -00.1	10						
11	209 29.5 +02.3	N 05 31.4 +00.2	287 58.4 +02.0	S 21 45.5 -00.1	284 21.8 +02.3	S 21 01.0 +00.0	11						
12	224 31.8 +02.4	N 05 31.6 +00.1	303 00.4 +02.0	S 21 45.4 +00.0	299 24.1 +02.2	S 21 01.0 +00.0	12						
13	239 34.2 +02.3	N 05 31.7 +00.2	318 02.4 +02.0	S 21 45.4 -00.1	314 26.3 +02.3	S 21 01.0 -00.1	13						
14	254 36.5 +02.4	N 05 31.9 +00.2	333 04.4 +02.0	S 21 45.3 -00.1	329 28.6 +02.2	S 21 00.9 +00.0	14						
15	269 38.9 +02.3	N 05 32.1 +00.2	348 06.4 +02.0	S 21 45.2 -00.1	344 30.8 +02.3	S 21 00.9 +00.0	15						
16	284 41.2 +02.3	N 05 32.3 +00.2	3 08.4 +02.0	S 21 45.1 +00.0	359 33.1 +02.2	S 21 00.9 -00.1	16						
17	299 43.5 +02.4	N 05 32.5 +00.2	18 10.4 +02.0	S 21 45.1 -00.1	14 35.3 +02.3	S 21 00.8 +00.0	17						
18	314 45.9 +02.3	N 05 32.7 +00.2	33 12.4 +02.0	S 21 45.0 -00.1	29 37.6 +02.3	S 21 00.8 +00.0	18						
19	329 48.2 +02.4	N 05 32.9 +00.2	48 14.4 +02.0	S 21 44.9 -00.1	44 39.9 +02.2	S 21 00.8 -00.1	19						
20	344 50.6 +02.3	N 05 33.1 +00.2	63 16.4 +02.0	S 21 44.8 +00.0	59 42.1 +02.3	S 21 00.7 +00.0	20						
21	359 52.9 +02.3	N 05 33.3 +00.2	78 18.4 +02.0	S 21 44.8 -00.1	74 44.4 +02.2	S 21 00.7 -00.1	21						
22	14 55.2 +02.4	N 05 33.5 +00.2	93 20.4 +01.9	S 21 44.7 -00.1	89 46.6 +02.3	S 21 00.6 +00.0	22						
23	29 57.6 +02.3	N 05 33.7 +00.2	108 22.3 +02.0	S 21 44.6 -00.1	104 48.9 +02.3	S 21 00.6 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 00'1 00'1 00'1 00'1 00'1 00'1								
	HP 00'3 00'3 00'3 00'3 00'3 00'3		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0								
	SHA 346° 346° 346° 346° 346° 346°		SHA 064° 064° 064° 064° 064° 064°		SHA 060° 060° 060° 060° 060° 060°								
	Greenwich Culmination Time: 21:00		Greenwich Culmination Time: 15:47		Greenwich Culmination Time: 16:01								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 36.0 -00.2	S	19 44.4 +00.5	212 44.9 -00.4	S	09 08.0 +01.1	114 21.4 -33.3	S	23 08.3 -05.4	00			
01	198 35.8 -00.1	S	19 44.9 +00.6	227 44.5 -00.5	S	09 09.1 +01.1	128 48.1 -33.1	S	23 02.9 -05.6	01			
02	213 35.7 -00.2	S	19 45.5 +00.6	242 44.0 -00.4	S	09 10.2 +01.1	143 15.0 -33.1	S	22 57.3 -05.8	02			
03	228 35.5 -00.1	S	19 46.1 +00.5	257 43.6 -00.5	S	09 11.3 +01.1	157 41.9 -33.0	S	22 51.5 -05.8	03			
04	243 35.4 -00.2	S	19 46.6 +00.6	272 43.1 -00.5	S	09 12.4 +01.2	172 08.9 -32.9	S	22 45.7 -06.0	04			
05	258 35.2 -00.1	S	19 47.2 +00.6	287 42.6 -00.4	S	09 13.6 +01.1	186 36.0 -32.7	S	22 39.7 -06.1	05			
06	273 35.1 -00.2	S	19 47.8 +00.5	302 42.2 -00.5	S	09 14.7 +01.1	201 03.3 -32.7	S	22 33.6 -06.2	06			
07	288 34.9 -00.2	S	19 48.3 +00.6	317 41.7 -00.4	S	09 15.8 +01.1	215 30.6 -32.5	S	22 27.4 -06.3	07			
08	303 34.7 -00.1	S	19 48.9 +00.5	332 41.3 -00.5	S	09 16.9 +01.1	229 58.1 -32.5	S	22 21.1 -06.4	08			
09	318 34.6 -00.2	S	19 49.4 +00.6	347 40.8 -00.4	S	09 18.0 +01.1	244 25.6 -32.4	S	22 14.7 -06.6	09			
10	333 34.4 -00.1	S	19 50.0 +00.5	2 40.4 -00.5	S	09 19.1 +01.1	258 53.2 -32.2	S	22 08.1 -06.6	10			
11	348 34.3 -00.2	S	19 50.5 +00.6	17 39.9 -00.5	S	09 20.2 +01.1	273 21.0 -32.2	S	22 01.5 -06.8	11			
12	3 34.1 -00.1	S	19 51.1 +00.6	32 39.4 -00.4	S	09 21.3 +01.1	287 48.8 -32.0	S	21 54.7 -06.9	12			
13	18 34.0 -00.2	S	19 51.7 +00.5	47 39.0 -00.5	S	09 22.4 +01.1	302 16.8 -32.0	S	21 47.8 -07.0	13			
14	33 33.8 -00.1	S	19 52.2 +00.6	62 38.5 -00.4	S	09 23.5 +01.1	316 44.8 -31.8	S	21 40.8 -07.1	14			
15	48 33.7 -00.2	S	19 52.8 +00.5	77 38.1 -00.5	S	09 24.6 +01.1	331 13.0 -31.7	S	21 33.7 -07.2	15			
16	63 33.5 -00.1	S	19 53.3 +00.6	92 37.6 -00.5	S	09 25.7 +01.1	345 41.3 -31.7	S	21 26.5 -07.4	16			
17	78 33.4 -00.2	S	19 53.9 +00.5	107 37.1 -00.4	S	09 26.8 +01.1	0 09.6 -31.5	S	21 19.1 -07.4	17			
18	93 33.2 -00.2	S	19 54.4 +00.6	122 36.7 -00.5	S	09 27.9 +01.1	14 38.1 -31.4	S	21 11.7 -07.5	18			
19	108 33.0 -00.1	S	19 55.0 +00.5	137 36.2 -00.4	S	09 29.0 +01.1	29 06.7 -31.3	S	21 04.2 -07.6	19			
20	123 32.9 -00.2	S	19 55.5 +00.6	152 35.8 -00.5	S	09 30.1 +01.1	43 35.4 -31.3	S	20 56.6 -07.8	20			
21	138 32.7 -00.1	S	19 56.1 +00.5	167 35.3 -00.5	S	09 31.2 +01.1	58 04.1 -31.1	S	20 48.8 -07.8	21			
22	153 32.6 -00.2	S	19 56.6 +00.6	182 34.8 -00.4	S	09 32.3 +01.1	72 33.0 -31.0	S	20 41.0 -07.9	22			
23	168 32.4 -00.1	S	19 57.2 +00.5	197 34.4 -00.5	S	09 33.4 +01.1	87 02.0 -30.9	S	20 33.1 -08.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'7 15'6 15'6 15'5 15'5 15'4						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 57'4 57'3 57'1 57'0 56'8 56'7						
	SHA 124° 124° 124° 124° 123° 123°			SHA 153° 153° 153° 153° 152° 152°			SHA 054° 051° 049° 047° 044° 042°						
	Greenwich Culmination Time: 11:45			Greenwich Culmination Time: 09:49			Greenwich Culmination Time: 16:59						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	44 59.9 +02.3	N	05 33.9 +00.2	123 24.3 +02.0	S	21 44.5 -00.1	119 51.2 +02.2	S	21 00.6 -00.1	00			
01	60 02.2 +02.4	N	05 34.1 +00.2	138 26.3 +02.0	S	21 44.4 +00.0	134 53.4 +02.3	S	21 00.5 +00.0	01			
02	75 04.6 +02.3	N	05 34.3 +00.2	153 28.3 +02.0	S	21 44.4 -00.1	149 55.7 +02.2	S	21 00.5 +00.0	02			
03	90 06.9 +02.3	N	05 34.5 +00.2	168 30.3 +02.0	S	21 44.3 -00.1	164 57.9 +02.3	S	21 00.5 -00.1	03			
04	105 09.2 +02.4	N	05 34.7 +00.2	183 32.3 +02.0	S	21 44.2 -00.1	180 00.2 +02.2	S	21 00.4 +00.0	04			
05	120 11.6 +02.3	N	05 34.9 +00.2	198 34.3 +02.0	S	21 44.1 +00.0	195 02.4 +02.3	S	21 00.4 -00.1	05			
06	135 13.9 +02.3	N	05 35.1 +00.2	213 36.3 +02.0	S	21 44.1 -00.1	210 04.7 +02.3	S	21 00.3 +00.0	06			
07	150 16.2 +02.3	N	05 35.3 +00.2	228 38.3 +02.0	S	21 44.0 -00.1	225 07.0 +02.2	S	21 00.3 +00.0	07			
08	165 18.5 +02.4	N	05 35.5 +00.2	243 40.3 +01.9	S	21 43.9 -00.1	240 09.2 +02.3	S	21 00.3 -00.1	08			
09	180 20.9 +02.3	N	05 35.7 +00.2	258 42.2 +02.0	S	21 43.8 +00.0	255 11.5 +02.2	S	21 00.2 +00.0	09			
10	195 23.2 +02.3	N	05 35.9 +00.2	273 44.2 +02.0	S	21 43.8 -00.1	270 13.7 +02.3	S	21 00.2 +00.0	10			
11	210 25.5 +02.3	N	05 36.1 +00.2	288 46.2 +02.0	S	21 43.7 -00.1	285 16.0 +02.2	S	21 00.2 -00.1	11			
12	225 27.8 +02.3	N	05 36.3 +00.2	303 48.2 +02.0	S	21 43.6 -00.1	300 18.2 +02.3	S	21 00.1 +00.0	12			
13	240 30.1 +02.3	N	05 36.5 +00.2	318 50.2 +02.0	S	21 43.5 -00.1	315 20.5 +02.2	S	21 00.1 +00.0	13			
14	255 32.4 +02.4	N	05 36.7 +00.2	333 52.2 +02.0	S	21 43.4 +00.0	330 22.7 +02.3	S	21 00.1 -00.1	14			
15	270 34.8 +02.3	N	05 36.9 +00.2	348 54.2 +02.0	S	21 43.4 -00.1	345 25.0 +02.3	S	21 00.0 +00.0	15			
16	285 37.1 +02.3	N	05 37.1 +00.2	3 56.2 +02.0	S	21 43.3 -00.1	0 27.3 +02.2	S	20 60.0 -00.1	16			
17	300 39.4 +02.3	N	05 37.3 +00.2	18 58.2 +01.9	S	21 43.2 -00.1	15 29.5 +02.3	S	20 59.9 +00.0	17			
18	315 41.7 +02.3	N	05 37.5 +00.2	34 00.1 +02.0	S	21 43.1 +00.0	30 31.8 +02.2	S	20 59.9 +00.0	18			
19	330 44.0 +02.3	N	05 37.7 +00.2	49 02.1 +02.0	S	21 43.1 -00.1	45 34.0 +02.3	S	20 59.9 -00.1	19			
20	345 46.3 +02.3	N	05 37.9 +00.2	64 04.1 +02.0	S	21 43.0 -00.1	60 36.3 +02.2	S	20 59.8 +00.0	20			
21	0 48.6 +02.3	N	05 38.1 +00.2	79 06.1 +02.0	S	21 42.9 -00.1	75 38.5 +02.3	S	20 59.8 +00.0	21			
22	15 50.9 +02.3	N	05 38.3 +00.3	94 08.1 +02.0	S	21 42.8 -00.1	90 40.8 +02.2	S	20 59.8 -00.1	22			
23	30 53.2 +02.3	N	05 38.6 +00.2	109 10.1 +02.0	S	21 42.7 +00.0	105 43.0 +02.3	S	20 59.7 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 346° 346° 346° 345° 345° 345°			SHA 064° 064° 064° 064° 064° 064°			SHA 060° 060° 060° 060° 060° 060°						
	Greenwich Culmination Time: 20:56			Greenwich Culmination Time: 15:44			Greenwich Culmination Time: 15:58						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	183 32.3 -00.2	S	19 57.7 +00.6	212 33.9 -00.4	S	09 34.5 +01.1	101 31.1 -30.8	S	20 25.0 -08.1	00										
01	198 32.1 -00.2	S	19 58.3 +00.5	227 33.5 -00.5	S	09 35.6 +01.1	116 00.3 -30.7	S	20 16.9 -08.2	01										
02	213 31.9 -00.1	S	19 58.8 +00.6	242 33.0 -00.5	S	09 36.7 +01.1	130 29.6 -30.6	S	20 08.7 -08.3	02										
03	228 31.8 -00.2	S	19 59.4 +00.5	257 32.5 -00.4	S	09 37.8 +01.1	144 59.0 -30.5	S	20 00.4 -08.4	03										
04	243 31.6 -00.1	S	19 59.9 +00.6	272 32.1 -00.5	S	09 38.9 +01.1	159 28.5 -30.4	S	19 52.0 -08.5	04										
05	258 31.5 -00.2	S	20 00.5 +00.5	287 31.6 -00.5	S	09 40.0 +01.1	173 58.1 -30.3	S	19 43.5 -08.5	05										
06	273 31.3 -00.2	S	20 01.0 +00.5	302 31.1 -00.4	S	09 41.1 +01.1	188 27.8 -30.2	S	19 35.0 -08.7	06										
07	288 31.1 -00.1	S	20 01.5 +00.6	317 30.7 -00.5	S	09 42.2 +01.1	202 57.6 -30.1	S	19 26.3 -08.7	07										
08	303 31.0 -00.2	S	20 02.1 +00.5	332 30.2 -00.5	S	09 43.3 +01.1	217 27.5 -30.0	S	19 17.6 -08.9	08										
09	318 30.8 -00.1	S	20 02.6 +00.6	347 29.7 -00.4	S	09 44.4 +01.1	231 57.5 -29.9	S	19 08.7 -08.9	09										
10	333 30.7 -00.2	S	20 03.2 +00.5	2 29.3 -00.5	S	09 45.5 +01.1	246 27.6 -29.9	S	18 59.8 -09.0	10										
11	348 30.5 -00.2	S	20 03.7 +00.6	17 28.8 -00.5	S	09 46.6 +01.1	260 57.7 -29.7	S	18 50.8 -09.1	11										
12	3 30.3 -00.1	S	20 04.3 +00.5	32 28.3 -00.4	S	09 47.7 +01.1	275 28.0 -29.6	S	18 41.7 -09.1	12										
13	18 30.2 -00.2	S	20 04.8 +00.5	47 27.9 -00.5	S	09 48.8 +01.1	289 58.4 -29.5	S	18 32.6 -09.2	13										
14	33 30.0 -00.1	S	20 05.3 +00.6	62 27.4 -00.5	S	09 49.9 +01.1	304 28.9 -29.4	S	18 23.4 -09.4	14										
15	48 29.9 -00.2	S	20 05.9 +00.5	77 26.9 -00.4	S	09 51.0 +01.1	318 59.5 -29.3	S	18 14.0 -09.4	15										
16	63 29.7 -00.2	S	20 06.4 +00.6	92 26.5 -00.5	S	09 52.1 +01.1	333 30.2 -29.3	S	18 04.6 -09.4	16										
17	78 29.5 -00.1	S	20 07.0 +00.5	107 26.0 -00.5	S	09 53.2 +01.1	348 00.9 -29.1	S	17 55.2 -09.6	17										
18	93 29.4 -00.2	S	20 07.5 +00.5	122 25.5 -00.4	S	09 54.3 +01.0	2 31.8 -29.0	S	17 45.6 -09.6	18										
19	108 29.2 -00.2	S	20 08.0 +00.6	137 25.1 -00.5	S	09 55.3 +01.1	17 02.8 -29.0	S	17 36.0 -09.7	19										
20	123 29.0 -00.1	S	20 08.6 +00.5	152 24.6 -00.5	S	09 56.4 +01.1	31 33.8 -28.9	S	17 26.3 -09.7	20										
21	138 28.9 -00.2	S	20 09.1 +00.5	167 24.1 -00.5	S	09 57.5 +01.1	46 04.9 -28.7	S	17 16.6 -09.8	21										
22	153 28.7 -00.2	S	20 09.6 +00.6	182 23.6 -00.4	S	09 58.6 +01.1	60 36.2 -28.7	S	17 06.8 -09.9	22										
23	168 28.5 -00.1	S	20 10.2 +00.5	197 23.2 -00.5	S	09 59.7 +01.1	75 07.5 -28.6	S	16 56.9 -10.0	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	16'2	16'2	16'2	16'2	16'2	16'2	SD	00'1	00'1	00'1	00'1	00'1	00'1	SD						
HP	00'1	00'1	00'1	00'1	00'1	00'1	HP	00'1	00'1	00'1	00'1	00'1	00'1	HP						
SHA	123°	123°	123°	122°	122°	122°	SHA	152°	152°	152°	151°	151°	151°	SHA						
Greenwich Culmination Time: 11:45							Greenwich Culmination Time: 09:50							Greenwich Culmination Time: 17:49						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	45 55.5 +02.3	N	05 38.8 +00.2	124 12.1 +01.9	S	21 42.7 -00.1	120 45.3 +02.3	S	20 59.7 -00.1	00										
01	60 57.8 +02.3	N	05 39.0 +00.2	139 14.0 +02.0	S	21 42.6 -00.1	135 47.6 +02.2	S	20 59.6 +00.0	01										
02	76 00.1 +02.3	N	05 39.2 +00.2	154 16.0 +02.0	S	21 42.5 -00.1	150 49.8 +02.3	S	20 59.6 +00.0	02										
03	91 02.4 +02.3	N	05 39.4 +00.2	169 18.0 +02.0	S	21 42.4 +00.0	165 52.1 +02.2	S	20 59.6 -00.1	03										
04	106 04.7 +02.3	N	05 39.6 +00.2	184 20.0 +02.0	S	21 42.4 -00.1	180 54.3 +02.3	S	20 59.5 +00.0	04										
05	121 07.0 +02.3	N	05 39.8 +00.2	199 22.0 +02.0	S	21 42.3 -00.1	195 56.6 +02.2	S	20 59.5 +00.0	05										
06	136 09.3 +02.3	N	05 40.0 +00.2	214 24.0 +02.0	S	21 42.2 -00.1	210 58.8 +02.3	S	20 59.5 -00.1	06										
07	151 11.6 +02.3	N	05 40.2 +00.2	229 26.0 +02.0	S	21 42.1 -00.1	226 01.1 +02.2	S	20 59.4 +00.0	07										
08	166 13.9 +02.3	N	05 40.4 +00.2	244 28.0 +01.9	S	21 42.0 +00.0	241 03.3 +02.3	S	20 59.4 -00.1	08										
09	181 16.2 +02.3	N	05 40.6 +00.3	259 29.9 +02.0	S	21 42.0 -00.1	256 05.6 +02.2	S	20 59.3 +00.0	09										
10	196 18.5 +02.3	N	05 40.9 +00.2	274 31.9 +02.0	S	21 41.9 -00.1	271 07.8 +02.3	S	20 59.3 +00.0	10										
11	211 20.8 +02.3	N	05 41.1 +00.2	289 33.9 +02.0	S	21 41.8 -00.1	286 10.1 +02.2	S	20 59.3 -00.1	11										
12	226 23.1 +02.3	N	05 41.3 +00.2	304 35.9 +02.0	S	21 41.7 +00.0	301 12.3 +02.3	S	20 59.2 +00.0	12										
13	241 25.4 +02.3	N	05 41.5 +00.2	319 37.9 +02.0	S	21 41.7 -00.1	316 14.6 +02.2	S	20 59.2 +00.0	13										
14	256 27.7 +02.3	N	05 41.7 +00.2	334 39.9 +01.9	S	21 41.6 -00.1	331 16.8 +02.3	S	20 59.2 -00.1	14										
15	271 30.0 +02.2	N	05 41.9 +00.2	349 41.8 +02.0	S	21 41.5 -00.1	346 19.1 +02.3	S	20 59.1 +00.0	15										
16	286 32.2 +02.3	N	05 42.1 +00.2	4 43.8 +02.0	S	21 41.4 -00.1	1 21.4 +02.2	S	20 59.1 -00.1	16										
17	301 34.5 +02.3	N	05 42.3 +00.3	19 45.8 +02.0	S	21 41.3 +00.0	16 23.6 +02.3	S	20 59.0 +00.0	17										
18	316 36.8 +02.3	N	05 42.6 +00.2	34 47.8 +02.0	S	21 41.3 -00.1	31 25.9 +02.2	S	20 59.0 +00.0	18										
19	331 39.1 +02.3	N	05 42.8 +00.2	49 49.8 +02.0	S	21 41.2 -00.1	46 28.1 +02.3	S	20 59.0 -00.1	19										
20	346 41.4 +02.2	N	05 43.0 +00.2	64 51.8 +01.9	S	21 41.1 -00.1	61 30.4 +02.2	S	20 58.9 +00.0	20										
21	1 43.6 +02.3	N	05 43.2 +00.2	79 53.7 +02.0	S	21 41.0 -00.1	76 32.6 +02.3	S	20 58.9 +00.0	21										
22	16 45.9 +02.3	N	05 43.4 +00.2	94 55.7 +02.0	S	21 40.9 +00.0	91 34.9 +02.2	S	20 58.9 -00.1	22										
23	31 48.2 +02.3	N	05 43.6 +00.3	109 57.7 +02.0	S	21 40.9 -00.1	106 37.1 +02.3	S	20 58.8 +00.0	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	00'1	00'1	00'1	00'1	00'1	00'1	SD	00'3	00'3	00'3	00'3	00'3	00'3	SD						
HP	00'3	00'3	00'3	00'3	00'3	00'3	HP	00'0	00'0	00'0	00'0	00'0	00'0	HP						
SHA	345°	345°	345°	345°	345°	345°	SHA	064°	064°	064°	064°	064°	064°	SHA						
Greenwich Culmination Time: 20:53							Greenwich Culmination Time: 15:41							Greenwich Culmination Time: 15:54						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 28.4 -00.2	S	20 10.7 +00.5	212 22.7 -00.5	S	10 00.8 +01.1	89 38.9 -28.5	S	16 46.9 -10.0	00			
01	198 28.2 -00.2	S	20 11.2 +00.6	227 22.2 -00.4	S	10 01.9 +01.1	104 10.4 -28.4	S	16 36.9 -10.1	01			
02	213 28.0 -00.1	S	20 11.8 +00.5	242 21.8 -00.5	S	10 03.0 +01.1	118 42.0 -28.3	S	16 26.8 -10.2	02			
03	228 27.9 -00.2	S	20 12.3 +00.5	257 21.3 -00.5	S	10 04.1 +01.1	133 13.7 -28.2	S	16 16.6 -10.2	03			
04	243 27.7 -00.2	S	20 12.8 +00.6	272 20.8 -00.5	S	10 05.2 +01.1	147 45.5 -28.2	S	16 06.4 -10.2	04			
05	258 27.5 -00.1	S	20 13.4 +00.5	287 20.3 -00.4	S	10 06.3 +01.0	162 17.3 -28.1	S	15 56.2 -10.4	05			
06	273 27.4 -00.2	S	20 13.9 +00.5	302 19.9 -00.5	S	10 07.3 +01.1	176 49.2 -27.9	S	15 45.8 -10.4	06			
07	288 27.2 -00.2	S	20 14.4 +00.5	317 19.4 -00.5	S	10 08.4 +01.1	191 21.3 -27.9	S	15 35.4 -10.4	07			
08	303 27.0 -00.1	S	20 14.9 +00.6	332 18.9 -00.5	S	10 09.5 +01.1	205 53.4 -27.9	S	15 25.0 -10.6	08			
09	318 26.9 -00.2	S	20 15.5 +00.5	347 18.4 -00.4	S	10 10.6 +01.1	220 25.5 -27.7	S	15 14.4 -10.5	09			
10	333 26.7 -00.2	S	20 16.0 +00.5	2 18.0 -00.5	S	10 11.7 +01.1	234 57.8 -27.6	S	15 03.9 -10.7	10			
11	348 26.5 -00.1	S	20 16.5 +00.5	17 17.5 -00.5	S	10 12.8 +01.1	249 30.2 -27.6	S	14 53.2 -10.6	11			
12	3 26.4 -00.2	S	20 17.0 +00.6	32 17.0 -00.5	S	10 13.9 +01.1	264 02.6 -27.5	S	14 42.6 -10.8	12			
13	18 26.2 -00.2	S	20 17.6 +00.5	47 16.5 -00.4	S	10 15.0 +01.1	278 35.1 -27.4	S	14 31.8 -10.8	13			
14	33 26.0 -00.2	S	20 18.1 +00.5	62 16.1 -00.5	S	10 16.1 +01.0	293 07.7 -27.4	S	14 21.0 -10.8	14			
15	48 25.8 -00.1	S	20 18.6 +00.5	77 15.6 -00.5	S	10 17.1 +01.1	307 40.3 -27.2	S	14 10.2 -10.9	15			
16	63 25.7 -00.2	S	20 19.1 +00.6	92 15.1 -00.5	S	10 18.2 +01.1	322 13.1 -27.2	S	13 59.3 -10.9	16			
17	78 25.5 -00.2	S	20 19.7 +00.5	107 14.6 -00.5	S	10 19.3 +01.1	336 45.9 -27.1	S	13 48.4 -11.0	17			
18	93 25.3 -00.1	S	20 20.2 +00.5	122 14.1 -00.4	S	10 20.4 +01.1	351 18.8 -27.1	S	13 37.4 -11.1	18			
19	108 25.2 -00.2	S	20 20.7 +00.5	137 13.7 -00.5	S	10 21.5 +01.1	5 51.7 -26.9	S	13 26.3 -11.1	19			
20	123 25.0 -00.2	S	20 21.2 +00.5	152 13.2 -00.5	S	10 22.6 +01.0	20 24.8 -26.9	S	13 15.2 -11.1	20			
21	138 24.8 -00.2	S	20 21.7 +00.6	167 12.7 -00.5	S	10 23.6 +01.1	34 57.9 -26.8	S	13 04.1 -11.2	21			
22	153 24.6 -00.1	S	20 22.3 +00.5	182 12.2 -00.5	S	10 24.7 +01.1	49 31.1 -26.8	S	12 52.9 -11.2	22			
23	168 24.5 -00.2	S	20 22.8 +00.5	197 11.7 -00.4	S	10 25.8 +01.1	64 04.3 -26.7	S	12 41.7 -11.3	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'2 15'2 15'1 15'1 15'1 15'0						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 55'7 55'6 55'5 55'4 55'3 55'2						
	SHA 122° 122° 122° 121° 121° 121°			SHA 151° 151° 150° 150° 150° 150°			SHA 027° 025° 023° 021° 019° 017°						
	Greenwich Culmination Time: 11:46			Greenwich Culmination Time: 09:50			Greenwich Culmination Time: 18:35						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	46 50.5 +02.2	N	05 43.9 +00.2	124 59.7 +02.0	S	21 40.8 -00.1	121 39.4 +02.2	S	20 58.8 -00.1	00			
01	61 52.7 +02.3	N	05 44.1 +00.2	140 01.7 +02.0	S	21 40.7 -00.1	136 41.6 +02.3	S	20 58.7 +00.0	01			
02	76 55.0 +02.3	N	05 44.3 +00.2	155 03.7 +01.9	S	21 40.6 +00.0	151 43.9 +02.2	S	20 58.7 +00.0	02			
03	91 57.3 +02.2	N	05 44.5 +00.2	170 05.6 +02.0	S	21 40.6 -00.1	166 46.1 +02.3	S	20 58.7 -00.1	03			
04	106 59.5 +02.3	N	05 44.7 +00.2	185 07.6 +02.0	S	21 40.5 -00.1	181 48.4 +02.2	S	20 58.6 +00.0	04			
05	122 01.8 +02.3	N	05 44.9 +00.3	200 09.6 +02.0	S	21 40.4 -00.1	196 50.6 +02.3	S	20 58.6 -00.1	05			
06	137 04.1 +02.2	N	05 45.2 +00.2	215 11.6 +02.0	S	21 40.3 -00.1	211 52.9 +02.2	S	20 58.5 +00.0	06			
07	152 06.3 +02.3	N	05 45.4 +00.2	230 13.6 +01.9	S	21 40.2 +00.0	226 55.1 +02.3	S	20 58.5 +00.0	07			
08	167 08.6 +02.3	N	05 45.6 +00.2	245 15.5 +02.0	S	21 40.2 -00.1	241 57.4 +02.2	S	20 58.5 -00.1	08			
09	182 10.9 +02.2	N	05 45.8 +00.2	260 17.5 +02.0	S	21 40.1 -00.1	256 59.6 +02.3	S	20 58.4 +00.0	09			
10	197 13.1 +02.3	N	05 46.0 +00.3	275 19.5 +02.0	S	21 40.0 -00.1	272 01.9 +02.2	S	20 58.4 +00.0	10			
11	212 15.4 +02.3	N	05 46.3 +00.2	290 21.5 +02.0	S	21 39.9 -00.1	287 04.1 +02.3	S	20 58.4 -00.1	11			
12	227 17.7 +02.2	N	05 46.5 +00.2	305 23.5 +01.9	S	21 39.8 +00.0	302 06.4 +02.2	S	20 58.3 +00.0	12			
13	242 19.9 +02.3	N	05 46.7 +00.2	320 25.4 +02.0	S	21 39.8 -00.1	317 08.6 +02.3	S	20 58.3 -00.1	13			
14	257 22.2 +02.2	N	05 46.9 +00.3	335 27.4 +02.0	S	21 39.7 -00.1	332 10.9 +02.2	S	20 58.2 +00.0	14			
15	272 24.4 +02.3	N	05 47.2 +00.2	350 29.4 +02.0	S	21 39.6 -00.1	347 13.1 +02.3	S	20 58.2 +00.0	15			
16	287 26.7 +02.2	N	05 47.4 +00.2	5 31.4 +02.0	S	21 39.5 -00.1	2 15.4 +02.2	S	20 58.2 -00.1	16			
17	302 28.9 +02.3	N	05 47.6 +00.2	20 33.4 +01.9	S	21 39.4 +00.0	17 17.6 +02.3	S	20 58.1 +00.0	17			
18	317 31.2 +02.2	N	05 47.8 +00.2	35 35.3 +02.0	S	21 39.4 -00.1	32 19.9 +02.2	S	20 58.1 -00.1	18			
19	332 33.4 +02.3	N	05 48.0 +00.3	50 37.3 +02.0	S	21 39.3 -00.1	47 22.1 +02.3	S	20 58.0 +00.0	19			
20	347 35.7 +02.2	N	05 48.3 +00.2	65 39.3 +02.0	S	21 39.2 -00.1	62 24.4 +02.2	S	20 58.0 +00.0	20			
21	2 37.9 +02.3	N	05 48.5 +00.2	80 41.3 +02.0	S	21 39.1 -00.1	77 26.6 +02.3	S	20 58.0 -00.1	21			
22	17 40.2 +02.2	N	05 48.7 +00.2	95 43.3 +01.9	S	21 39.0 +00.0	92 28.9 +02.2	S	20 57.9 +00.0	22			
23	32 42.4 +02.3	N	05 48.9 +00.3	110 45.2 +02.0	S	21 39.0 -00.1	107 31.1 +02.3	S	20 57.9 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 345° 345° 345° 345° 345° 345°			SHA 064° 064° 063° 063° 063° 063°			SHA 060° 060° 060° 060° 060° 060°						
	Greenwich Culmination Time: 20:49			Greenwich Culmination Time: 15:37			Greenwich Culmination Time: 15:50						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	183 24.3 -00.2	S	20 23.3 +00.5	212 11.3 -00.5	S	10 26.9 +01.1	78 37.6 -26.6	S	12 30.4 -11.3	00										
01	198 24.1 -00.2	S	20 23.8 +00.5	227 10.8 -00.5	S	10 28.0 +01.1	93 11.0 -26.6	S	12 19.1 -11.3	01										
02	213 23.9 -00.1	S	20 24.3 +00.5	242 10.3 -00.5	S	10 29.1 +01.0	107 44.4 -26.4	S	12 07.8 -11.4	02										
03	228 23.8 -00.2	S	20 24.8 +00.6	257 09.8 -00.5	S	10 30.1 +01.1	122 18.0 -26.5	S	11 56.4 -11.4	03										
04	243 23.6 -00.2	S	20 25.4 +00.5	272 09.3 -00.4	S	10 31.2 +01.1	136 51.5 -26.3	S	11 45.0 -11.5	04										
05	258 23.4 -00.2	S	20 25.9 +00.5	287 08.9 -00.5	S	10 32.3 +01.1	151 25.2 -26.3	S	11 33.5 -11.5	05										
06	273 23.2 -00.1	S	20 26.4 +00.5	302 08.4 -00.5	S	10 33.4 +01.1	165 58.9 -26.3	S	11 22.0 -11.5	06										
07	288 23.1 -00.2	S	20 26.9 +00.5	317 07.9 -00.5	S	10 34.5 +01.0	180 32.6 -26.1	S	11 10.5 -11.6	07										
08	303 22.9 -00.2	S	20 27.4 +00.5	332 07.4 -00.5	S	10 35.5 +01.1	195 06.5 -26.1	S	10 58.9 -11.6	08										
09	318 22.7 -00.2	S	20 27.9 +00.5	347 06.9 -00.5	S	10 36.6 +01.1	209 40.4 -26.1	S	10 47.3 -11.7	09										
10	333 22.5 -00.1	S	20 28.4 +00.6	2 06.4 -00.5	S	10 37.7 +01.1	224 14.3 -26.0	S	10 35.6 -11.7	10										
11	348 22.4 -00.2	S	20 29.0 +00.5	17 05.9 -00.4	S	10 38.8 +01.1	238 48.3 -25.9	S	10 23.9 -11.7	11										
12	3 22.2 -00.2	S	20 29.5 +00.5	32 05.5 -00.5	S	10 39.9 +01.0	253 22.4 -25.9	S	10 12.2 -11.7	12										
13	18 22.0 -00.2	S	20 30.0 +00.5	47 05.0 -00.5	S	10 40.9 +01.1	267 56.5 -25.8	S	10 00.5 -11.8	13										
14	33 21.8 -00.2	S	20 30.5 +00.5	62 04.5 -00.5	S	10 42.0 +01.1	282 30.7 -25.8	S	09 48.7 -11.8	14										
15	48 21.6 -00.1	S	20 31.0 +00.5	77 04.0 -00.5	S	10 43.1 +01.1	297 04.9 -25.7	S	09 36.9 -11.8	15										
16	63 21.5 -00.2	S	20 31.5 +00.5	92 03.5 -00.5	S	10 44.2 +01.0	311 39.2 -25.7	S	09 25.1 -11.9	16										
17	78 21.3 -00.2	S	20 32.0 +00.5	107 03.0 -00.5	S	10 45.2 +01.1	326 13.5 -25.6	S	09 13.2 -11.9	17										
18	93 21.1 -00.2	S	20 32.5 +00.5	122 02.5 -00.5	S	10 46.3 +01.1	340 47.9 -25.6	S	09 01.3 -11.9	18										
19	108 20.9 -00.2	S	20 33.0 +00.5	137 02.0 -00.4	S	10 47.4 +01.1	355 22.3 -25.5	S	08 49.4 -12.0	19										
20	123 20.7 -00.1	S	20 33.5 +00.5	152 01.6 -00.5	S	10 48.5 +01.0	9 56.8 -25.5	S	08 37.4 -12.0	20										
21	138 20.6 -00.2	S	20 34.0 +00.5	167 01.1 -00.5	S	10 49.5 +01.1	24 31.3 -25.4	S	08 25.4 -12.0	21										
22	153 20.4 -00.2	S	20 34.5 +00.5	182 00.6 -00.5	S	10 50.6 +01.1	39 05.9 -25.4	S	08 13.4 -12.0	22										
23	168 20.2 -00.2	S	20 35.0 +00.5	197 00.1 -00.5	S	10 51.7 +01.1	53 40.5 -25.4	S	08 01.4 -12.1	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	16'2	16'2	16'2	16'2	16'2	16'2	SD	00'1	00'1	00'1	00'1	00'1	00'1	SD						
HP	00'1	00'1	00'1	00'1	00'1	00'1	HP	00'1	00'1	00'1	00'1	00'1	00'1	HP						
SHA	121°	121°	121°	120°	120°	120°	SHA	150°	149°	149°	149°	149°	149°	SHA						
Greenwich Culmination Time: 11:46							Greenwich Culmination Time: 09:51							Greenwich Culmination Time: 19:19						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	47 44.7 +02.2	N	05 49.2 +00.2	125 47.2 +02.0	S	21 38.9 -00.1	122 33.4 +02.2	S	20 57.9 -00.1	00										
01	62 46.9 +02.3	N	05 49.4 +00.2	140 49.2 +02.0	S	21 38.8 -00.1	137 35.6 +02.3	S	20 57.8 +00.0	01										
02	77 49.2 +02.2	N	05 49.6 +00.3	155 51.2 +01.9	S	21 38.7 -00.1	152 37.9 +02.2	S	20 57.8 -00.1	02										
03	92 51.4 +02.2	N	05 49.9 +00.2	170 53.1 +02.0	S	21 38.6 +00.0	167 40.1 +02.3	S	20 57.7 +00.0	03										
04	107 53.6 +02.3	N	05 50.1 +00.2	185 55.1 +02.0	S	21 38.6 -00.1	182 42.4 +02.2	S	20 57.7 +00.0	04										
05	122 55.9 +02.2	N	05 50.3 +00.2	200 57.1 +02.0	S	21 38.5 -00.1	197 44.6 +02.3	S	20 57.7 -00.1	05										
06	137 58.1 +02.2	N	05 50.5 +00.3	215 59.1 +02.0	S	21 38.4 -00.1	212 46.9 +02.2	S	20 57.6 +00.0	06										
07	153 00.3 +02.3	N	05 50.8 +00.2	231 01.1 +01.9	S	21 38.3 -00.1	227 49.1 +02.2	S	20 57.6 -00.1	07										
08	168 02.6 +02.2	N	05 51.0 +00.2	246 03.0 +02.0	S	21 38.2 +00.0	242 51.3 +02.3	S	20 57.5 +00.0	08										
09	183 04.8 +02.3	N	05 51.2 +00.3	261 05.0 +02.0	S	21 38.2 -00.1	257 53.6 +02.2	S	20 57.5 +00.0	09										
10	198 07.1 +02.2	N	05 51.5 +00.2	276 07.0 +02.0	S	21 38.1 -00.1	272 55.8 +02.3	S	20 57.5 -00.1	10										
11	213 09.3 +02.2	N	05 51.7 +00.2	291 09.0 +01.9	S	21 38.0 -00.1	287 58.1 +02.2	S	20 57.4 +00.0	11										
12	228 11.5 +02.2	N	05 51.9 +00.2	306 10.9 +02.0	S	21 37.9 -00.1	303 00.3 +02.3	S	20 57.4 -00.1	12										
13	243 13.7 +02.3	N	05 52.1 +00.3	321 12.9 +02.0	S	21 37.8 -00.1	318 02.6 +02.2	S	20 57.3 +00.0	13										
14	258 16.0 +02.2	N	05 52.4 +00.2	336 14.9 +02.0	S	21 37.7 +00.0	333 04.8 +02.3	S	20 57.3 +00.0	14										
15	273 18.2 +02.2	N	05 52.6 +00.2	351 16.9 +01.9	S	21 37.7 -00.1	348 07.1 +02.2	S	20 57.3 -00.1	15										
16	288 20.4 +02.2	N	05 52.8 +00.3	6 18.8 +02.0	S	21 37.6 -00.1	3 09.3 +02.3	S	20 57.2 +00.0	16										
17	303 22.6 +02.3	N	05 53.1 +00.2	21 20.8 +02.0	S	21 37.5 -00.1	18 11.6 +02.2	S	20 57.2 +00.0	17										
18	318 24.9 +02.2	N	05 53.3 +00.2	36 22.8 +02.0	S	21 37.4 -00.1	33 13.8 +02.3	S	20 57.2 -00.1	18										
19	333 27.1 +02.2	N	05 53.5 +00.3	51 24.8 +01.9	S	21 37.3 +00.0	48 16.1 +02.2	S	20 57.1 +00.0	19										
20	348 29.3 +02.2	N	05 53.8 +00.2	66 26.7 +02.0	S	21 37.3 -00.1	63 18.3 +02.3	S	20 57.1 -00.1	20										
21	3 31.5 +02.2	N	05 54.0 +00.2	81 28.7 +02.0	S	21 37.2 -00.1	78 20.6 +02.2	S	20 57.0 +00.0	21										
22	18 33.7 +02.3	N	05 54.2 +00.3	96 30.7 +02.0	S	21 37.1 -00.1	93 22.8 +02.2	S	20 57.0 +00.0	22										
23	33 36.0 +02.2	N	05 54.5 +00.2	111 32.7 +01.9	S	21 37.0 -00.1	108 25.0 +02.3	S	20 57.0 -00.1	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	00'1	00'1	00'1	00'1	00'1	00'1	SD	00'3	00'3	00'3	00'3	00'3	00'3	SD						
HP	00'2	00'2	00'2	00'2	00'2	00'2	HP	00'0	00'0	00'0	00'0	00'0	00'0	HP						
SHA	345°	345°	345°	345°	345°	345°	SHA	063°	063°	063°	063°	063°	063°	SHA						
Greenwich Culmination Time: 20:45							Greenwich Culmination Time: 15:34							Greenwich Culmination Time: 15:47						

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 20.0 -00.2	S	20 35.5 +00.5	211 59.6 -00.5	S	10 52.8 +01.0	68 15.1 -25.3	S	07 49.3 -12.0	00			
01	198 19.8 -00.2	S	20 36.0 +00.5	226 59.1 -00.5	S	10 53.8 +01.1	82 49.8 -25.2	S	07 37.3 -12.1	01			
02	213 19.6 -00.1	S	20 36.5 +00.5	241 58.6 -00.5	S	10 54.9 +01.1	97 24.6 -25.2	S	07 25.2 -12.1	02			
03	228 19.5 -00.2	S	20 37.0 +00.5	256 58.1 -00.5	S	10 56.0 +01.1	111 59.4 -25.2	S	07 13.1 -12.2	03			
04	243 19.3 -00.2	S	20 37.5 +00.5	271 57.6 -00.5	S	10 57.1 +01.0	126 34.2 -25.1	S	07 00.9 -12.1	04			
05	258 19.1 -00.2	S	20 38.0 +00.5	286 57.1 -00.5	S	10 58.1 +01.1	141 09.1 -25.1	S	06 48.8 -12.2	05			
06	273 18.9 -00.2	S	20 38.5 +00.5	301 56.6 -00.4	S	10 59.2 +01.1	155 44.0 -25.1	S	06 36.6 -12.2	06			
07	288 18.7 -00.2	S	20 39.0 +00.5	316 56.2 -00.5	S	11 00.3 +01.0	170 18.9 -25.0	S	06 24.4 -12.2	07			
08	303 18.5 -00.1	S	20 39.5 +00.5	331 55.7 -00.5	S	11 01.3 +01.1	184 53.9 -25.0	S	06 12.2 -12.3	08			
09	318 18.4 -00.2	S	20 40.0 +00.5	346 55.2 -00.5	S	11 02.4 +01.1	199 28.9 -24.9	S	05 59.9 -12.2	09			
10	333 18.2 -00.2	S	20 40.5 +00.5	1 54.7 -00.5	S	11 03.5 +01.1	214 04.0 -24.9	S	05 47.7 -12.3	10			
11	348 18.0 -00.2	S	20 41.0 +00.5	16 54.2 -00.5	S	11 04.6 +01.0	228 39.1 -24.9	S	05 35.4 -12.3	11			
12	3 17.8 -00.2	S	20 41.5 +00.5	31 53.7 -00.5	S	11 05.6 +01.1	243 14.2 -24.9	S	05 23.1 -12.3	12			
13	18 17.6 -00.2	S	20 42.0 +00.5	46 53.2 -00.5	S	11 06.7 +01.1	257 49.3 -24.8	S	05 10.8 -12.3	13			
14	33 17.4 -00.2	S	20 42.5 +00.5	61 52.7 -00.5	S	11 07.8 +01.0	272 24.5 -24.8	S	04 58.5 -12.3	14			
15	48 17.2 -00.1	S	20 43.0 +00.5	76 52.2 -00.5	S	11 08.8 +01.1	286 59.7 -24.8	S	04 46.2 -12.3	15			
16	63 17.1 -00.2	S	20 43.5 +00.5	91 51.7 -00.5	S	11 09.9 +01.1	301 34.9 -24.7	S	04 33.9 -12.4	16			
17	78 16.9 -00.2	S	20 44.0 +00.4	106 51.2 -00.5	S	11 11.0 +01.0	316 10.2 -24.7	S	04 21.5 -12.3	17			
18	93 16.7 -00.2	S	20 44.4 +00.5	121 50.7 -00.5	S	11 12.0 +01.1	330 45.5 -24.7	S	04 09.2 -12.4	18			
19	108 16.5 -00.2	S	20 44.9 +00.5	136 50.2 -00.5	S	11 13.1 +01.1	345 20.8 -24.7	S	03 56.8 -12.4	19			
20	123 16.3 -00.2	S	20 45.4 +00.5	151 49.7 -00.5	S	11 14.2 +01.0	359 56.1 -24.6	S	03 44.4 -12.4	20			
21	138 16.1 -00.2	S	20 45.9 +00.5	166 49.2 -00.5	S	11 15.2 +01.1	14 31.5 -24.6	S	03 32.0 -12.4	21			
22	153 15.9 -00.2	S	20 46.4 +00.5	181 48.7 -00.5	S	11 16.3 +01.0	29 06.9 -24.6	S	03 19.6 -12.4	22			
23	168 15.7 -00.1	S	20 46.9 +00.5	196 48.2 -00.5	S	11 17.3 +01.1	43 42.3 -24.6	S	03 07.2 -12.4	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 14'9 14'9 14'8 14'8 14'8 14'8						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'6 54'5 54'4 54'4 54'3 54'3						
	SHA 120° 120° 119° 119° 119° 119°			SHA 148° 148° 148° 148° 148° 147°			SHA 004° 002° 000° 358° 357° 355°						
	Greenwich Culmination Time: 11:46			Greenwich Culmination Time: 09:52			Greenwich Culmination Time: 20:00						
UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	48 38.2 +02.2	N	05 54.7 +00.3	126 34.6 +02.0	S	21 36.9 +00.0	123 27.3 +02.2	S	20 56.9 +00.0	00			
01	63 40.4 +02.2	N	05 55.0 +00.2	141 36.6 +02.0	S	21 36.9 -00.1	138 29.5 +02.3	S	20 56.9 -00.1	01			
02	78 42.6 +02.2	N	05 55.2 +00.2	156 38.6 +02.0	S	21 36.8 -00.1	153 31.8 +02.2	S	20 56.8 +00.0	02			
03	93 44.8 +02.2	N	05 55.4 +00.3	171 40.6 +01.9	S	21 36.7 -00.1	168 34.0 +02.3	S	20 56.8 +00.0	03			
04	108 47.0 +02.2	N	05 55.7 +00.2	186 42.5 +02.0	S	21 36.6 -00.1	183 36.3 +02.2	S	20 56.8 -00.1	04			
05	123 49.2 +02.3	N	05 55.9 +00.2	201 44.5 +02.0	S	21 36.5 -00.1	198 38.5 +02.3	S	20 56.7 +00.0	05			
06	138 51.5 +02.2	N	05 56.1 +00.3	216 46.5 +02.0	S	21 36.4 +00.0	213 40.8 +02.2	S	20 56.7 -00.1	06			
07	153 53.7 +02.2	N	05 56.4 +00.2	231 48.5 +01.9	S	21 36.4 -00.1	228 43.0 +02.3	S	20 56.6 +00.0	07			
08	168 55.9 +02.2	N	05 56.6 +00.2	246 50.4 +02.0	S	21 36.3 -00.1	243 45.3 +02.2	S	20 56.6 +00.0	08			
09	183 58.1 +02.2	N	05 56.8 +00.3	261 52.4 +02.0	S	21 36.2 -00.1	258 47.5 +02.2	S	20 56.6 -00.1	09			
10	199 00.3 +02.2	N	05 57.1 +00.2	276 54.4 +01.9	S	21 36.1 -00.1	273 49.7 +02.3	S	20 56.5 +00.0	10			
11	214 02.5 +02.2	N	05 57.3 +00.3	291 56.3 +02.0	S	21 36.0 +00.0	288 52.0 +02.2	S	20 56.5 -00.1	11			
12	229 04.7 +02.2	N	05 57.6 +00.2	306 58.3 +02.0	S	21 36.0 -00.1	303 54.2 +02.3	S	20 56.4 +00.0	12			
13	244 06.9 +02.2	N	05 57.8 +00.2	322 00.3 +02.0	S	21 35.9 -00.1	318 56.5 +02.2	S	20 56.4 +00.0	13			
14	259 09.1 +02.2	N	05 58.0 +00.3	337 02.3 +01.9	S	21 35.8 -00.1	333 58.7 +02.3	S	20 56.4 -00.1	14			
15	274 11.3 +02.2	N	05 58.3 +00.2	352 04.2 +02.0	S	21 35.7 -00.1	349 01.0 +02.2	S	20 56.3 +00.0	15			
16	289 13.5 +02.2	N	05 58.5 +00.3	7 06.2 +02.0	S	21 35.6 -00.1	4 03.2 +02.2	S	20 56.3 -00.1	16			
17	304 15.7 +02.2	N	05 58.8 +00.2	22 08.2 +01.9	S	21 35.5 +00.0	19 05.4 +02.3	S	20 56.2 +00.0	17			
18	319 17.9 +02.2	N	05 59.0 +00.3	37 10.1 +02.0	S	21 35.5 -00.1	34 07.7 +02.2	S	20 56.2 +00.0	18			
19	334 20.1 +02.2	N	05 59.3 +00.2	52 12.1 +02.0	S	21 35.4 -00.1	49 09.9 +02.3	S	20 56.2 -00.1	19			
20	349 22.3 +02.1	N	05 59.5 +00.2	67 14.1 +02.0	S	21 35.3 -00.1	64 12.2 +02.2	S	20 56.1 +00.0	20			
21	4 24.4 +02.2	N	05 59.7 +00.3	82 16.1 +01.9	S	21 35.2 -00.1	79 14.4 +02.3	S	20 56.1 -00.1	21			
22	19 26.6 +02.2	N	05 60.0 +00.2	97 18.0 +02.0	S	21 35.1 -00.1	94 16.7 +02.2	S	20 56.0 +00.0	22			
23	34 28.8 +02.2	N	06 00.2 +00.3	112 20.0 +02.0	S	21 35.0 +00.0	109 18.9 +02.2	S	20 56.0 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 345° 345° 345° 345° 345° 345°			SHA 063° 063° 063° 063° 063° 063°			SHA 060° 060° 060° 060° 060° 060°						
	Greenwich Culmination Time: 20:42			Greenwich Culmination Time: 15:31			Greenwich Culmination Time: 15:43						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 15.6 -00.2	S	20 47.4 +00.5	211 47.7 -00.5	S	11 18.4 +01.1	58 17.7 -24.6	S	02 54.8 -12.4	00			
01	198 15.4 -00.2	S	20 47.9 +00.4	226 47.2 -00.5	S	11 19.5 +01.0	72 53.1 -24.5	S	02 42.4 -12.4	01			
02	213 15.2 -00.2	S	20 48.3 +00.5	241 46.7 -00.5	S	11 20.5 +01.1	87 28.6 -24.5	S	02 30.0 -12.5	02			
03	228 15.0 -00.2	S	20 48.8 +00.5	256 46.2 -00.5	S	11 21.6 +01.1	102 04.1 -24.5	S	02 17.5 -12.4	03			
04	243 14.8 -00.2	S	20 49.3 +00.5	271 45.7 -00.5	S	11 22.7 +01.0	116 39.6 -24.5	S	02 05.1 -12.4	04			
05	258 14.6 -00.2	S	20 49.8 +00.5	286 45.2 -00.5	S	11 23.7 +01.1	131 15.1 -24.5	S	01 52.7 -12.5	05			
06	273 14.4 -00.2	S	20 50.3 +00.4	301 44.7 -00.5	S	11 24.8 +01.0	145 50.6 -24.5	S	01 40.2 -12.4	06			
07	288 14.2 -00.2	S	20 50.7 +00.5	316 44.2 -00.5	S	11 25.8 +01.1	160 26.1 -24.4	S	01 27.8 -12.5	07			
08	303 14.0 -00.2	S	20 51.2 +00.5	331 43.7 -00.5	S	11 26.9 +01.1	175 01.7 -24.4	S	01 15.3 -12.4	08			
09	318 13.8 -00.2	S	20 51.7 +00.5	346 43.2 -00.5	S	11 28.0 +01.0	189 37.3 -24.5	S	01 02.9 -12.5	09			
10	333 13.6 -00.2	S	20 52.2 +00.5	1 42.7 -00.5	S	11 29.0 +01.1	204 12.8 -24.4	S	00 50.4 -12.4	10			
11	348 13.4 -00.1	S	20 52.7 +00.4	16 42.2 -00.5	S	11 30.1 +01.0	218 48.4 -24.4	S	00 38.0 -12.5	11			
12	3 13.3 -00.2	S	20 53.1 +00.5	31 41.7 -00.5	S	11 31.1 +01.1	233 24.0 -24.4	S	00 25.5 -12.4	12			
13	18 13.1 -00.2	S	20 53.6 +00.5	46 41.2 -00.5	S	11 32.2 +01.1	247 59.6 -24.4	S	00 13.1 -12.5	13			
14	33 12.9 -00.2	S	20 54.1 +00.5	61 40.7 -00.6	S	11 33.3 +01.0	262 35.2 -24.4	S	00 00.6 -12.4	14			
15	48 12.7 -00.2	S	20 54.6 +00.4	76 40.1 -00.5	S	11 34.3 +01.1	277 10.8 -24.4	N	00 11.8 +12.4	15			
16	63 12.5 -00.2	S	20 55.0 +00.5	91 39.6 -00.5	S	11 35.4 +01.0	291 46.4 -24.4	N	00 24.2 +12.5	16			
17	78 12.3 -00.2	S	20 55.5 +00.5	106 39.1 -00.5	S	11 36.4 +01.1	306 22.0 -24.3	N	00 36.7 +12.4	17			
18	93 12.1 -00.2	S	20 56.0 +00.5	121 38.6 -00.5	S	11 37.5 +01.0	320 57.7 -24.4	N	00 49.1 +12.4	18			
19	108 11.9 -00.2	S	20 56.5 +00.4	136 38.1 -00.5	S	11 38.5 +01.1	335 33.3 -24.4	N	01 01.5 +12.5	19			
20	123 11.7 -00.2	S	20 56.9 +00.5	151 37.6 -00.5	S	11 39.6 +01.0	350 08.9 -24.4	N	01 14.0 +12.4	20			
21	138 11.5 -00.2	S	20 57.4 +00.5	166 37.1 -00.5	S	11 40.6 +01.1	4 44.5 -24.4	N	01 26.4 +12.4	21			
22	153 11.3 -00.2	S	20 57.9 +00.5	181 36.6 -00.5	S	11 41.7 +01.1	19 20.1 -24.3	N	01 38.8 +12.4	22			
23	168 11.1 -00.2	S	20 58.4 +00.4	196 36.1 -00.5	S	11 42.8 +01.0	33 55.8 -24.4	N	01 51.2 +12.4	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 14'8 14'8 14'8 14'7 14'7 14'7						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'2 54'2 54'2 54'1 54'1 54'1						
	SHA 119° 119° 118° 118° 118° 118°			SHA 147° 147° 147° 147° 147° 146°			SHA 353° 351° 349° 348° 346° 344°						
	Greenwich Culmination Time: 11:47			Greenwich Culmination Time: 09:53			Greenwich Culmination Time: 20:40						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	49 31.0 +02.2	N	06 00.5 +00.2	127 22.0 +01.9	S	21 35.0 -00.1	124 21.1 +02.3	S	20 56.0 -00.1	00			
01	64 33.2 +02.2	N	06 00.7 +00.3	142 23.9 +02.0	S	21 34.9 -00.1	139 23.4 +02.2	S	20 55.9 +00.0	01			
02	79 35.4 +02.2	N	06 01.0 +00.2	157 25.9 +02.0	S	21 34.8 -00.1	154 25.6 +02.3	S	20 55.9 -00.1	02			
03	94 37.6 +02.2	N	06 01.2 +00.3	172 27.9 +01.9	S	21 34.7 -00.1	169 27.9 +02.2	S	20 55.8 +00.0	03			
04	109 39.8 +02.1	N	06 01.5 +00.2	187 29.8 +02.0	S	21 34.6 -00.1	184 30.1 +02.3	S	20 55.8 +00.0	04			
05	124 41.9 +02.2	N	06 01.7 +00.2	202 31.8 +02.0	S	21 34.5 +00.0	199 32.4 +02.2	S	20 55.8 -00.1	05			
06	139 44.1 +02.2	N	06 01.9 +00.3	217 33.8 +02.0	S	21 34.5 -00.1	214 34.6 +02.2	S	20 55.7 +00.0	06			
07	154 46.3 +02.2	N	06 02.2 +00.2	232 35.8 +01.9	S	21 34.4 -00.1	229 36.8 +02.3	S	20 55.7 -00.1	07			
08	169 48.5 +02.1	N	06 02.4 +00.3	247 37.7 +02.0	S	21 34.3 -00.1	244 39.1 +02.2	S	20 55.6 +00.0	08			
09	184 50.6 +02.2	N	06 02.7 +00.2	262 39.7 +02.0	S	21 34.2 -00.1	259 41.3 +02.3	S	20 55.6 +00.0	09			
10	199 52.8 +02.2	N	06 02.9 +00.3	277 41.7 +01.9	S	21 34.1 -00.1	274 43.6 +02.2	S	20 55.6 -00.1	10			
11	214 55.0 +02.2	N	06 03.2 +00.2	292 43.6 +02.0	S	21 34.0 +00.0	289 45.8 +02.2	S	20 55.5 +00.0	11			
12	229 57.2 +02.1	N	06 03.4 +00.3	307 45.6 +02.0	S	21 34.0 -00.1	304 48.0 +02.3	S	20 55.5 -00.1	12			
13	244 59.3 +02.2	N	06 03.7 +00.2	322 47.6 +01.9	S	21 33.9 -00.1	319 50.3 +02.2	S	20 55.4 +00.0	13			
14	260 01.5 +02.2	N	06 03.9 +00.3	337 49.5 +02.0	S	21 33.8 -00.1	334 52.5 +02.3	S	20 55.4 +00.0	14			
15	275 03.7 +02.2	N	06 04.2 +00.2	352 51.5 +02.0	S	21 33.7 -00.1	349 54.8 +02.2	S	20 55.4 -00.1	15			
16	290 05.9 +02.1	N	06 04.4 +00.3	7 53.5 +01.9	S	21 33.6 -00.1	4 57.0 +02.3	S	20 55.3 +00.0	16			
17	305 08.0 +02.2	N	06 04.7 +00.2	22 55.4 +02.0	S	21 33.5 +00.0	19 59.3 +02.2	S	20 55.3 -00.1	17			
18	320 10.2 +02.2	N	06 04.9 +00.3	37 57.4 +02.0	S	21 33.5 -00.1	35 01.5 +02.2	S	20 55.2 +00.0	18			
19	335 12.4 +02.1	N	06 05.2 +00.2	52 59.4 +01.9	S	21 33.4 -00.1	50 03.7 +02.3	S	20 55.2 +00.0	19			
20	350 14.5 +02.2	N	06 05.4 +00.3	68 01.3 +02.0	S	21 33.3 -00.1	65 06.0 +02.2	S	20 55.2 -00.1	20			
21	5 16.7 +02.1	N	06 05.7 +00.2	83 03.3 +02.0	S	21 33.2 -00.1	80 08.2 +02.3	S	20 55.1 +00.0	21			
22	20 18.8 +02.2	N	06 05.9 +00.3	98 05.3 +01.9	S	21 33.1 -00.1	95 10.5 +02.2	S	20 55.1 -00.1	22			
23	35 21.0 +02.2	N	06 06.2 +00.2	113 07.2 +02.0	S	21 33.0 +00.0	110 12.7 +02.2	S	20 55.0 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 345° 345° 345° 345° 345° 345°			SHA 063° 063° 063° 063° 063° 063°			SHA 060° 060° 060° 060° 060° 060°						
	Greenwich Culmination Time: 20:38			Greenwich Culmination Time: 15:28			Greenwich Culmination Time: 15:40						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 38%				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	183 10.9 -00.2	S 20 58.8 +00.5	211 35.6 -00.5	S 11 43.8 +01.1	48 31.4 -24.4	N 02 03.6 +12.4	00						
01	198 10.7 -00.2	S 20 59.3 +00.5	226 35.1 -00.6	S 11 44.9 +01.0	63 07.0 -24.4	N 02 16.0 +12.3	01						
02	213 10.5 -00.2	S 20 59.8 +00.4	241 34.5 -00.5	S 11 45.9 +01.1	77 42.6 -24.4	N 02 28.3 +12.4	02						
03	228 10.3 -00.2	S 21 00.2 +00.5	256 34.0 -00.5	S 11 47.0 +01.0	92 18.2 -24.4	N 02 40.7 +12.4	03						
04	243 10.1 -00.2	S 21 00.7 +00.5	271 33.5 -00.5	S 11 48.0 +01.1	106 53.8 -24.4	N 02 53.1 +12.3	04						
05	258 09.9 -00.2	S 21 01.2 +00.4	286 33.0 -00.5	S 11 49.1 +01.0	121 29.4 -24.5	N 03 05.4 +12.3	05						
06	273 09.7 -00.2	S 21 01.6 +00.5	301 32.5 -00.5	S 11 50.1 +01.1	136 04.9 -24.4	N 03 17.7 +12.4	06						
07	288 09.5 -00.2	S 21 02.1 +00.5	316 32.0 -00.5	S 11 51.2 +01.0	150 40.5 -24.4	N 03 30.1 +12.3	07						
08	303 09.3 -00.2	S 21 02.6 +00.4	331 31.5 -00.5	S 11 52.2 +01.1	165 16.1 -24.5	N 03 42.4 +12.3	08						
09	318 09.1 -00.2	S 21 03.0 +00.5	346 31.0 -00.6	S 11 53.3 +01.0	179 51.6 -24.4	N 03 54.7 +12.2	09						
10	333 08.9 -00.2	S 21 03.5 +00.4	1 30.4 -00.5	S 11 54.3 +01.1	194 27.2 -24.5	N 04 06.9 +12.3	10						
11	348 08.7 -00.2	S 21 03.9 +00.5	16 29.9 -00.5	S 11 55.4 +01.0	209 02.7 -24.5	N 04 19.2 +12.2	11						
12	3 08.5 -00.2	S 21 04.4 +00.5	31 29.4 -00.5	S 11 56.4 +01.1	223 38.2 -24.5	N 04 31.4 +12.3	12						
13	18 08.3 -00.2	S 21 04.9 +00.4	46 28.9 -00.5	S 11 57.5 +01.0	238 13.7 -24.6	N 04 43.7 +12.2	13						
14	33 08.1 -00.2	S 21 05.3 +00.5	61 28.4 -00.5	S 11 58.5 +01.0	252 49.1 -24.5	N 04 55.9 +12.2	14						
15	48 07.9 -00.2	S 21 05.8 +00.4	76 27.9 -00.6	S 11 59.5 +01.1	267 24.6 -24.6	N 05 08.1 +12.1	15						
16	63 07.7 -00.2	S 21 06.2 +00.5	91 27.3 -00.5	S 12 00.6 +01.0	282 00.0 -24.5	N 05 20.2 +12.2	16						
17	78 07.5 -00.2	S 21 06.7 +00.5	106 26.8 -00.5	S 12 01.6 +01.1	296 35.5 -24.6	N 05 32.4 +12.1	17						
18	93 07.3 -00.2	S 21 07.2 +00.4	121 26.3 -00.5	S 12 02.7 +01.0	311 10.9 -24.6	N 05 44.5 +12.1	18						
19	108 07.1 -00.2	S 21 07.6 +00.5	136 25.8 -00.5	S 12 03.7 +01.1	325 46.3 -24.7	N 05 56.6 +12.1	19						
20	123 06.9 -00.2	S 21 08.1 +00.4	151 25.3 -00.6	S 12 04.8 +01.0	340 21.6 -24.6	N 06 08.7 +12.1	20						
21	138 06.7 -00.2	S 21 08.5 +00.5	166 24.7 -00.5	S 12 05.8 +01.1	354 57.0 -24.7	N 06 20.8 +12.1	21						
22	153 06.5 -00.2	S 21 09.0 +00.4	181 24.2 -00.5	S 12 06.9 +01.0	9 32.3 -24.7	N 06 32.9 +12.0	22						
23	168 06.3 -00.2	S 21 09.4 +00.5	196 23.7 -00.5	S 12 07.9 +01.0	24 07.6 -24.8	N 06 44.9 +12.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 16'2 16'2 16'2 16'2 16'2 16'2		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'7 14'7 14'7 14'7 14'7 14'7								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'1 54'0 54'0 54'0 54'0 54'0								
	SHA 118° 118° 117° 117° 117° 117°		SHA 146° 146° 146° 146° 145° 145°		SHA 342° 340° 339° 337° 335° 333°								
	Greenwich Culmination Time: 11:47		Greenwich Culmination Time: 09:53		Greenwich Culmination Time: 21:20								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	50 23.2 +02.1	N 06 06.4 +00.3	128 09.2 +02.0	S 21 33.0 -00.1	125 14.9 +02.3	S 20 55.0 +00.0	00						
01	65 25.3 +02.2	N 06 06.7 +00.2	143 11.2 +01.9	S 21 32.9 -00.1	140 17.2 +02.2	S 20 55.0 -00.1	01						
02	80 27.5 +02.1	N 06 06.9 +00.3	158 13.1 +02.0	S 21 32.8 -00.1	155 19.4 +02.2	S 20 54.9 +00.0	02						
03	95 29.6 +02.2	N 06 07.2 +00.3	173 15.1 +02.0	S 21 32.7 -00.1	170 21.6 +02.3	S 20 54.9 -00.1	03						
04	110 31.8 +02.2	N 06 07.5 +00.2	188 17.1 +01.9	S 21 32.6 -00.1	185 23.9 +02.2	S 20 54.8 +00.0	04						
05	125 34.0 +02.1	N 06 07.7 +00.3	203 19.0 +02.0	S 21 32.5 -00.1	200 26.1 +02.3	S 20 54.8 -00.1	05						
06	140 36.1 +02.2	N 06 08.0 +00.2	218 21.0 +02.0	S 21 32.4 +00.0	215 28.4 +02.2	S 20 54.7 +00.0	06						
07	155 38.3 +02.1	N 06 08.2 +00.3	233 23.0 +01.9	S 21 32.4 -00.1	230 30.6 +02.2	S 20 54.7 +00.0	07						
08	170 40.4 +02.2	N 06 08.5 +00.2	248 24.9 +02.0	S 21 32.3 -00.1	245 32.8 +02.3	S 20 54.7 -00.1	08						
09	185 42.6 +02.1	N 06 08.7 +00.3	263 26.9 +02.0	S 21 32.2 -00.1	260 35.1 +02.2	S 20 54.6 +00.0	09						
10	200 44.7 +02.2	N 06 09.0 +00.2	278 28.9 +01.9	S 21 32.1 -00.1	275 37.3 +02.3	S 20 54.6 -00.1	10						
11	215 46.9 +02.1	N 06 09.2 +00.3	293 30.8 +02.0	S 21 32.0 -00.1	290 39.6 +02.2	S 20 54.5 +00.0	11						
12	230 49.0 +02.1	N 06 09.5 +00.3	308 32.8 +01.9	S 21 31.9 +00.0	305 41.8 +02.2	S 20 54.5 +00.0	12						
13	245 51.1 +02.2	N 06 09.8 +00.2	323 34.7 +02.0	S 21 31.9 -00.1	320 44.0 +02.3	S 20 54.5 -00.1	13						
14	260 53.3 +02.1	N 06 10.0 +00.3	338 36.7 +02.0	S 21 31.8 -00.1	335 46.3 +02.2	S 20 54.4 +00.0	14						
15	275 55.4 +02.2	N 06 10.3 +00.2	353 38.7 +01.9	S 21 31.7 -00.1	350 48.5 +02.2	S 20 54.4 -00.1	15						
16	290 57.6 +02.1	N 06 10.5 +00.3	8 40.6 +02.0	S 21 31.6 -00.1	5 50.7 +02.3	S 20 54.3 +00.0	16						
17	305 59.7 +02.2	N 06 10.8 +00.3	23 42.6 +02.0	S 21 31.5 -00.1	20 53.0 +02.2	S 20 54.3 +00.0	17						
18	321 01.9 +02.1	N 06 11.1 +00.2	38 44.6 +01.9	S 21 31.4 -00.1	35 55.2 +02.3	S 20 54.3 -00.1	18						
19	336 04.0 +02.1	N 06 11.3 +00.3	53 46.5 +02.0	S 21 31.3 +00.0	50 57.5 +02.2	S 20 54.2 +00.0	19						
20	351 06.1 +02.2	N 06 11.6 +00.2	68 48.5 +01.9	S 21 31.3 -00.1	65 59.7 +02.2	S 20 54.2 -00.1	20						
21	6 08.3 +02.1	N 06 11.8 +00.3	83 50.4 +02.0	S 21 31.2 -00.1	81 01.9 +02.3	S 20 54.1 +00.0	21						
22	21 10.4 +02.1	N 06 12.1 +00.3	98 52.4 +02.0	S 21 31.1 -00.1	96 04.2 +02.2	S 20 54.1 -00.1	22						
23	36 12.5 +02.2	N 06 12.4 +00.2	113 54.4 +01.9	S 21 31.0 -00.1	111 06.4 +02.2	S 20 54.0 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 00'1 00'1 00'1 00'1 00'1 00'1								
	HP 00'2 00'2 00'2 00'2 00'2 00'2		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0								
	SHA 345° 345° 345° 345° 345° 345°		SHA 063° 063° 063° 063° 063° 063°		SHA 060° 060° 060° 060° 060° 060°								
	Greenwich Culmination Time: 20:35		Greenwich Culmination Time: 15:25		Greenwich Culmination Time: 15:36								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	183 06.1 -00.2	S	21 09.9 +00.4	211 23.2 -00.5	S	12 08.9 +01.1	38 42.8 -24.7	N	06 56.9 +12.0	00										
01	198 05.9 -00.2	S	21 10.3 +00.5	226 22.7 -00.6	S	12 10.0 +01.0	53 18.1 -24.8	N	07 08.9 +11.9	01										
02	213 05.7 -00.2	S	21 10.8 +00.4	241 22.1 -00.5	S	12 11.0 +01.1	67 53.3 -24.8	N	07 20.8 +11.9	02										
03	228 05.5 -00.2	S	21 11.2 +00.5	256 21.6 -00.5	S	12 12.1 +01.0	82 28.5 -24.9	N	07 32.7 +11.9	03										
04	243 05.3 -00.2	S	21 11.7 +00.4	271 21.1 -00.5	S	12 13.1 +01.0	97 03.6 -24.8	N	07 44.6 +11.9	04										
05	258 05.1 -00.3	S	21 12.1 +00.5	286 20.6 -00.6	S	12 14.1 +01.1	111 38.8 -24.9	N	07 56.5 +11.8	05										
06	273 04.8 -00.2	S	21 12.6 +00.4	301 20.0 -00.5	S	12 15.2 +01.0	126 13.9 -24.9	N	08 08.3 +11.9	06										
07	288 04.6 -00.2	S	21 13.0 +00.5	316 19.5 -00.5	S	12 16.2 +01.1	140 49.0 -25.0	N	08 20.2 +11.7	07										
08	303 04.4 -00.2	S	21 13.5 +00.4	331 19.0 -00.5	S	12 17.3 +01.0	155 24.0 -25.0	N	08 31.9 +11.8	08										
09	318 04.2 -00.2	S	21 13.9 +00.5	346 18.5 -00.6	S	12 18.3 +01.0	169 59.0 -25.0	N	08 43.7 +11.7	09										
10	333 04.0 -00.2	S	21 14.4 +00.4	1 17.9 -00.5	S	12 19.3 +01.1	184 34.0 -25.1	N	08 55.4 +11.7	10										
11	348 03.8 -00.2	S	21 14.8 +00.5	16 17.4 -00.5	S	12 20.4 +01.0	199 08.9 -25.1	N	09 07.1 +11.7	11										
12	3 03.6 -00.2	S	21 15.3 +00.4	31 16.9 -00.5	S	12 21.4 +01.0	213 43.8 -25.1	N	09 18.8 +11.6	12										
13	18 03.4 -00.2	S	21 15.7 +00.4	46 16.4 -00.6	S	12 22.4 +01.1	228 18.7 -25.1	N	09 30.4 +11.6	13										
14	33 03.2 -00.2	S	21 16.1 +00.5	61 15.8 -00.5	S	12 23.5 +01.0	242 53.6 -25.2	N	09 42.0 +11.5	14										
15	48 03.0 -00.2	S	21 16.6 +00.4	76 15.3 -00.5	S	12 24.5 +01.0	257 28.4 -25.3	N	09 53.5 +11.6	15										
16	63 02.8 -00.2	S	21 17.0 +00.5	91 14.8 -00.5	S	12 25.5 +01.1	272 03.1 -25.3	N	10 05.1 +11.4	16										
17	78 02.6 -00.3	S	21 17.5 +00.4	106 14.3 -00.6	S	12 26.6 +01.0	286 37.8 -25.3	N	10 16.5 +11.5	17										
18	93 02.3 -00.2	S	21 17.9 +00.5	121 13.7 -00.5	S	12 27.6 +01.0	301 12.5 -25.3	N	10 28.0 +11.4	18										
19	108 02.1 -00.2	S	21 18.4 +00.4	136 13.2 -00.5	S	12 28.6 +01.1	315 47.2 -25.4	N	10 39.4 +11.4	19										
20	123 01.9 -00.2	S	21 18.8 +00.4	151 12.7 -00.6	S	12 29.7 +01.0	330 21.8 -25.5	N	10 50.8 +11.3	20										
21	138 01.7 -00.2	S	21 19.2 +00.5	166 12.1 -00.5	S	12 30.7 +01.0	344 56.3 -25.4	N	11 02.1 +11.3	21										
22	153 01.5 -00.2	S	21 19.7 +00.4	181 11.6 -00.5	S	12 31.7 +01.1	359 30.9 -25.6	N	11 13.4 +11.2	22										
23	168 01.3 -00.2	S	21 20.1 +00.4	196 11.1 -00.6	S	12 32.8 +01.0	14 05.3 -25.5	N	11 24.6 +11.3	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	16'2	16'2	16'2	16'2	16'2	16'2	SD	00'1	00'1	00'1	00'1	00'1	00'1	SD						
HP	00'1	00'1	00'1	00'1	00'1	00'1	HP	00'1	00'1	00'1	00'1	00'1	00'1	HP						
SHA	117°	116°	116°	116°	116°	116°	SHA	145°	145°	145°	144°	144°	144°	SHA						
Greenwich Culmination Time: 11:47							Greenwich Culmination Time: 09:54							Greenwich Culmination Time: 22:01						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	51 14.7 +02.1	N	06 12.6 +00.3	128 56.3 +02.0	S	21 30.9 -00.1	126 08.6 +02.3	S	20 54.0 +00.0	00										
01	66 16.8 +02.1	N	06 12.9 +00.2	143 58.3 +02.0	S	21 30.8 -00.1	141 10.9 +02.2	S	20 54.0 -00.1	01										
02	81 18.9 +02.2	N	06 13.1 +00.3	159 00.3 +01.9	S	21 30.7 +00.0	156 13.1 +02.3	S	20 53.9 +00.0	02										
03	96 21.1 +02.1	N	06 13.4 +00.3	174 02.2 +02.0	S	21 30.7 -00.1	171 15.4 +02.2	S	20 53.9 -00.1	03										
04	111 23.2 +02.1	N	06 13.7 +00.2	189 04.2 +01.9	S	21 30.6 -00.1	186 17.6 +02.2	S	20 53.8 +00.0	04										
05	126 25.3 +02.1	N	06 13.9 +00.3	204 06.1 +02.0	S	21 30.5 -00.1	201 19.8 +02.3	S	20 53.8 +00.0	05										
06	141 27.4 +02.2	N	06 14.2 +00.3	219 08.1 +02.0	S	21 30.4 -00.1	216 22.1 +02.2	S	20 53.8 -00.1	06										
07	156 29.6 +02.1	N	06 14.5 +00.2	234 10.1 +01.9	S	21 30.3 -00.1	231 24.3 +02.2	S	20 53.7 +00.0	07										
08	171 31.7 +02.1	N	06 14.7 +00.3	249 12.0 +02.0	S	21 30.2 -00.1	246 26.5 +02.3	S	20 53.7 -00.1	08										
09	186 33.8 +02.1	N	06 15.0 +00.2	264 14.0 +02.0	S	21 30.1 +00.0	261 28.8 +02.2	S	20 53.6 +00.0	09										
10	201 35.9 +02.2	N	06 15.2 +00.3	279 16.0 +01.9	S	21 30.1 -00.1	276 31.0 +02.2	S	20 53.6 -00.1	10										
11	216 38.1 +02.1	N	06 15.5 +00.3	294 17.9 +02.0	S	21 30.0 -00.1	291 33.2 +02.3	S	20 53.5 +00.0	11										
12	231 40.2 +02.1	N	06 15.8 +00.2	309 19.9 +01.9	S	21 29.9 -00.1	306 35.5 +02.2	S	20 53.5 +00.0	12										
13	246 42.3 +02.1	N	06 16.0 +00.3	324 21.8 +02.0	S	21 29.8 -00.1	321 37.7 +02.2	S	20 53.5 -00.1	13										
14	261 44.4 +02.1	N	06 16.3 +00.3	339 23.8 +02.0	S	21 29.7 -00.1	336 39.9 +02.3	S	20 53.4 +00.0	14										
15	276 46.5 +02.1	N	06 16.6 +00.2	354 25.8 +01.9	S	21 29.6 -00.1	351 42.2 +02.2	S	20 53.4 -00.1	15										
16	291 48.6 +02.1	N	06 16.8 +00.3	9 27.7 +02.0	S	21 29.5 +00.0	6 44.4 +02.3	S	20 53.3 +00.0	16										
17	306 50.7 +02.2	N	06 17.1 +00.3	24 29.7 +01.9	S	21 29.5 -00.1	21 46.7 +02.2	S	20 53.3 +00.0	17										
18	321 52.9 +02.1	N	06 17.4 +00.2	39 31.6 +02.0	S	21 29.4 -00.1	36 48.9 +02.2	S	20 53.3 -00.1	18										
19	336 55.0 +02.1	N	06 17.6 +00.3	54 33.6 +01.9	S	21 29.3 -00.1	51 51.1 +02.3	S	20 53.2 +00.0	19										
20	351 57.1 +02.1	N	06 17.9 +00.3	69 35.5 +02.0	S	21 29.2 -00.1	66 53.4 +02.2	S	20 53.2 -00.1	20										
21	6 59.2 +02.1	N	06 18.2 +00.3	84 37.5 +02.0	S	21 29.1 -00.1	81 55.6 +02.2	S	20 53.1 +00.0	21										
22	22 01.3 +02.1	N	06 18.5 +00.2	99 39.5 +01.9	S	21 29.0 -00.1	96 57.8 +02.3	S	20 53.1 -00.1	22										
23	37 03.4 +02.1	N	06 18.7 +00.3	114 41.4 +02.0	S	21 28.9 +00.0	112 00.1 +02.2	S	20 53.0 +00.0	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	00'1	00'1	00'1	00'1	00'1	00'1	SD	00'3	00'3	00'3	00'3	00'3	00'3	SD						
HP	00'2	00'2	00'2	00'2	00'2	00'2	HP	00'0	00'0	00'0	00'0	00'0	00'0	HP						
SHA	345°	345°	345°	345°	345°	345°	SHA	063°	063°	062°	062°	062°	062°	SHA						
Greenwich Culmination Time: 20:32							Greenwich Culmination Time: 15:22							Greenwich Culmination Time: 15:33						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	183 01.1 -00.2	S 21 20.5 +00.5	211 10.5 -00.5	S 12 33.8 +01.0	28 39.8 -25.6	N 11 35.9 +11.1	00						
01	198 00.9 -00.2	S 21 21.0 +00.4	226 10.0 -00.5	S 12 34.8 +01.1	43 14.2 -25.7	N 11 47.0 +11.2	01						
02	213 00.7 -00.3	S 21 21.4 +00.4	241 09.5 -00.6	S 12 35.9 +01.0	57 48.5 -25.7	N 11 58.2 +11.0	02						
03	228 00.4 -00.2	S 21 21.8 +00.5	256 08.9 -00.5	S 12 36.9 +01.0	72 22.8 -25.7	N 12 09.2 +11.1	03						
04	243 00.2 -00.2	S 21 22.3 +00.4	271 08.4 -00.5	S 12 37.9 +01.0	86 57.1 -25.8	N 12 20.3 +11.0	04						
05	258 00.0 -00.2	S 21 22.7 +00.4	286 07.9 -00.6	S 12 38.9 +01.1	101 31.3 -25.9	N 12 31.3 +10.9	05						
06	272 59.8 -00.2	S 21 23.1 +00.5	301 07.3 -00.5	S 12 40.0 +01.0	116 05.4 -25.8	N 12 42.2 +10.9	06						
07	287 59.6 -00.2	S 21 23.6 +00.4	316 06.8 -00.5	S 12 41.0 +01.0	130 39.6 -26.0	N 12 53.1 +10.8	07						
08	302 59.4 -00.2	S 21 24.0 +00.4	331 06.3 -00.6	S 12 42.0 +01.1	145 13.6 -26.0	N 13 03.9 +10.8	08						
09	317 59.2 -00.3	S 21 24.4 +00.5	346 05.7 -00.5	S 12 43.1 +01.0	159 47.6 -26.0	N 13 14.7 +10.8	09						
10	332 58.9 -00.2	S 21 24.9 +00.4	1 05.2 -00.5	S 12 44.1 +01.0	174 21.6 -26.1	N 13 25.5 +10.7	10						
11	347 58.7 -00.2	S 21 25.3 +00.4	16 04.7 -00.6	S 12 45.1 +01.0	188 55.5 -26.1	N 13 36.2 +10.7	11						
12	2 58.5 -00.2	S 21 25.7 +00.4	31 04.1 -00.5	S 12 46.1 +01.1	203 29.4 -26.2	N 13 46.9 +10.5	12						
13	17 58.3 -00.2	S 21 26.1 +00.5	46 03.6 -00.5	S 12 47.2 +01.0	218 03.2 -26.2	N 13 57.4 +10.6	13						
14	32 58.1 -00.2	S 21 26.6 +00.4	61 03.1 -00.6	S 12 48.2 +01.0	232 37.0 -26.3	N 14 08.0 +10.5	14						
15	47 57.9 -00.3	S 21 27.0 +00.4	76 02.5 -00.5	S 12 49.2 +01.0	247 10.7 -26.4	N 14 18.5 +10.4	15						
16	62 57.6 -00.2	S 21 27.4 +00.4	91 02.0 -00.6	S 12 50.2 +01.0	261 44.3 -26.4	N 14 28.9 +10.4	16						
17	77 57.4 -00.2	S 21 27.8 +00.5	106 01.4 -00.5	S 12 51.2 +01.1	276 17.9 -26.5	N 14 39.3 +10.3	17						
18	92 57.2 -00.2	S 21 28.3 +00.4	121 00.9 -00.5	S 12 52.3 +01.0	290 51.4 -26.5	N 14 49.6 +10.3	18						
19	107 57.0 -00.2	S 21 28.7 +00.4	136 00.4 -00.6	S 12 53.3 +01.0	305 24.9 -26.5	N 14 59.9 +10.2	19						
20	122 56.8 -00.2	S 21 29.1 +00.4	150 59.8 -00.5	S 12 54.3 +01.0	319 58.4 -26.7	N 15 10.1 +10.2	20						
21	137 56.6 -00.3	S 21 29.5 +00.5	165 59.3 -00.6	S 12 55.3 +01.0	334 31.7 -26.6	N 15 20.3 +10.1	21						
22	152 56.3 -00.2	S 21 30.0 +00.4	180 58.7 -00.5	S 12 56.3 +01.1	349 05.1 -26.8	N 15 30.4 +10.0	22						
23	167 56.1 -00.2	S 21 30.4 +00.4	195 58.2 -00.6	S 12 57.4 +01.0	3 38.3 -26.8	N 15 40.4 +10.0	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	16'2 16'2 16'2 16'2 16'2 16'2		SD	00'1 00'1 00'1 00'1 00'1 00'1		SD	14'7 14'7 14'7 14'7 14'8 14'8						
HP	00'1 00'1 00'1 00'1 00'1 00'1		HP	00'1 00'1 00'1 00'1 00'1 00'1		HP	54'1 54'1 54'1 54'1 54'2 54'2						
SHA	116° 115° 115° 115° 115° 115°		SHA	144° 144° 143° 143° 143° 143°		SHA	320° 318° 317° 315° 313° 311°						
Greenwich Culmination Time: 11:48			Greenwich Culmination Time: 09:55			Greenwich Culmination Time: 22:45							

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	52 05.5 +02.1	N 06 19.0 +00.3	129 43.4 +01.9	S 21 28.9 -00.1	127 02.3 +02.2	S 20 53.0 +00.0	00						
01	67 07.6 +02.1	N 06 19.3 +00.2	144 45.3 +02.0	S 21 28.8 -00.1	142 04.5 +02.3	S 20 53.0 -00.1	01						
02	82 09.7 +02.1	N 06 19.5 +00.3	159 47.3 +02.0	S 21 28.7 -00.1	157 06.8 +02.2	S 20 52.9 +00.0	02						
03	97 11.8 +02.1	N 06 19.8 +00.3	174 49.3 +01.9	S 21 28.6 -00.1	172 09.0 +02.2	S 20 52.9 -00.1	03						
04	112 13.9 +02.1	N 06 20.1 +00.2	189 51.2 +02.0	S 21 28.5 -00.1	187 11.2 +02.3	S 20 52.8 +00.0	04						
05	127 16.0 +02.1	N 06 20.3 +00.3	204 53.2 +01.9	S 21 28.4 -00.1	202 13.5 +02.2	S 20 52.8 +00.0	05						
06	142 18.1 +02.1	N 06 20.6 +00.3	219 55.1 +02.0	S 21 28.3 -00.1	217 15.7 +02.2	S 20 52.8 -00.1	06						
07	157 20.2 +02.1	N 06 20.9 +00.3	234 57.1 +01.9	S 21 28.2 +00.0	232 17.9 +02.3	S 20 52.7 +00.0	07						
08	172 22.3 +02.1	N 06 21.2 +00.2	249 59.0 +02.0	S 21 28.2 -00.1	247 20.2 +02.2	S 20 52.7 -00.1	08						
09	187 24.4 +02.1	N 06 21.4 +00.3	265 01.0 +02.0	S 21 28.1 -00.1	262 22.4 +02.2	S 20 52.6 +00.0	09						
10	202 26.5 +02.1	N 06 21.7 +00.3	280 03.0 +01.9	S 21 28.0 -00.1	277 24.6 +02.3	S 20 52.6 -00.1	10						
11	217 28.6 +02.1	N 06 22.0 +00.2	295 04.9 +02.0	S 21 27.9 -00.1	292 26.9 +02.2	S 20 52.5 +00.0	11						
12	232 30.7 +02.1	N 06 22.2 +00.3	310 06.9 +01.9	S 21 27.8 -00.1	307 29.1 +02.2	S 20 52.5 +00.0	12						
13	247 32.8 +02.1	N 06 22.5 +00.3	325 08.8 +02.0	S 21 27.7 -00.1	322 31.3 +02.3	S 20 52.5 -00.1	13						
14	262 34.9 +02.1	N 06 22.8 +00.3	340 10.8 +01.9	S 21 27.6 -00.1	337 33.6 +02.2	S 20 52.4 +00.0	14						
15	277 37.0 +02.1	N 06 23.1 +00.2	355 12.7 +02.0	S 21 27.5 +00.0	352 35.8 +02.2	S 20 52.4 -00.1	15						
16	292 39.1 +02.0	N 06 23.3 +00.3	10 14.7 +02.0	S 21 27.5 -00.1	7 38.0 +02.3	S 20 52.3 +00.0	16						
17	307 41.1 +02.1	N 06 23.6 +00.3	25 16.7 +01.9	S 21 27.4 -00.1	22 40.3 +02.2	S 20 52.3 -00.1	17						
18	322 43.2 +02.1	N 06 23.9 +00.3	40 18.6 +02.0	S 21 27.3 -00.1	37 42.5 +02.2	S 20 52.2 +00.0	18						
19	337 45.3 +02.1	N 06 24.2 +00.3	55 20.6 +01.9	S 21 27.2 -00.1	52 44.7 +02.3	S 20 52.2 +00.0	19						
20	352 47.4 +02.1	N 06 24.5 +00.2	70 22.5 +02.0	S 21 27.1 -00.1	67 47.0 +02.2	S 20 52.2 -00.1	20						
21	7 49.5 +02.1	N 06 24.7 +00.3	85 24.5 +01.9	S 21 27.0 -00.1	82 49.2 +02.2	S 20 52.1 +00.0	21						
22	22 51.6 +02.1	N 06 25.0 +00.3	100 26.4 +02.0	S 21 26.9 -00.1	97 51.4 +02.2	S 20 52.1 -00.1	22						
23	37 53.7 +02.0	N 06 25.3 +00.3	115 28.4 +01.9	S 21 26.8 +00.0	112 53.6 +02.3	S 20 52.0 +00.0	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	00'1 00'1 00'1 00'1 00'1 00'1		SD	00'3 00'3 00'3 00'3 00'3 00'3		SD	00'1 00'1 00'1 00'1 00'1 00'1						
HP	00'2 00'2 00'2 00'2 00'2 00'2		HP	00'0 00'0 00'0 00'0 00'0 00'0		HP	00'0 00'0 00'0 00'0 00'0 00'0						
SHA	345° 345° 345° 345° 345° 345°		SHA	062° 062° 062° 062° 062° 062°		SHA	060° 060° 060° 060° 060° 060°						
Greenwich Culmination Time: 20:28			Greenwich Culmination Time: 15:19			Greenwich Culmination Time: 15:29							

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 55.9 -00.2	S	21 30.8 +00.4	210 57.6 -00.5	S	12 58.4 +01.0	18 11.5 -26.8	N	15 50.4 +09.9				
01	197 55.7 -00.2	S	21 31.2 +00.4	225 57.1 -00.5	S	12 59.4 +01.0	32 44.7 -27.0	N	16 00.3 +09.8				
02	212 55.5 -00.3	S	21 31.6 +00.5	240 56.6 -00.6	S	13 00.4 +01.0	47 17.7 -26.9	N	16 10.1 +09.8				
03	227 55.2 -00.2	S	21 32.1 +00.4	255 56.0 -00.5	S	13 01.4 +01.1	61 50.8 -27.1	N	16 19.9 +09.7				
04	242 55.0 -00.2	S	21 32.5 +00.4	270 55.5 -00.6	S	13 02.5 +01.0	76 23.7 -27.1	N	16 29.6 +09.7				
05	257 54.8 -00.2	S	21 32.9 +00.4	285 54.9 -00.5	S	13 03.5 +01.0	90 56.6 -27.1	N	16 39.3 +09.6				
06	272 54.6 -00.2	S	21 33.3 +00.4	300 54.4 -00.6	S	13 04.5 +01.0	105 29.5 -27.2	N	16 48.9 +09.5				
07	287 54.4 -00.3	S	21 33.7 +00.4	315 53.8 -00.5	S	13 05.5 +01.0	120 02.3 -27.3	N	16 58.4 +09.5				
08	302 54.1 -00.2	S	21 34.1 +00.4	330 53.3 -00.6	S	13 06.5 +01.0	134 35.0 -27.3	N	17 07.9 +09.3				
09	317 53.9 -00.2	S	21 34.5 +00.5	345 52.7 -00.5	S	13 07.5 +01.0	149 07.7 -27.4	N	17 17.2 +09.3				
10	332 53.7 -00.2	S	21 35.0 +00.4	0 52.2 -00.5	S	13 08.5 +01.1	163 40.3 -27.5	N	17 26.5 +09.3				
11	347 53.5 -00.3	S	21 35.4 +00.4	15 51.7 -00.6	S	13 09.6 +01.0	178 12.8 -27.5	N	17 35.8 +09.2				
12	2 53.2 -00.2	S	21 35.8 +00.4	30 51.1 -00.5	S	13 10.6 +01.0	192 45.3 -27.6	N	17 45.0 +09.1				
13	17 53.0 -00.2	S	21 36.2 +00.4	45 50.6 -00.6	S	13 11.6 +01.0	207 17.7 -27.7	N	17 54.1 +09.0				
14	32 52.8 -00.2	S	21 36.6 +00.4	60 50.0 -00.5	S	13 12.6 +01.0	221 50.0 -27.7	N	18 03.1 +08.9				
15	47 52.6 -00.2	S	21 37.0 +00.4	75 49.5 -00.6	S	13 13.6 +01.0	236 22.3 -27.8	N	18 12.0 +08.9				
16	62 52.4 -00.3	S	21 37.4 +00.4	90 48.9 -00.5	S	13 14.6 +01.0	250 54.5 -27.8	N	18 20.9 +08.8				
17	77 52.1 -00.2	S	21 37.8 +00.4	105 48.4 -00.6	S	13 15.6 +01.0	265 26.7 -27.9	N	18 29.7 +08.7				
18	92 51.9 -00.2	S	21 38.2 +00.4	120 47.8 -00.5	S	13 16.6 +01.0	279 58.8 -28.0	N	18 38.4 +08.7				
19	107 51.7 -00.2	S	21 38.6 +00.4	135 47.3 -00.6	S	13 17.6 +01.0	294 30.8 -28.0	N	18 47.1 +08.6				
20	122 51.5 -00.3	S	21 39.0 +00.4	150 46.7 -00.6	S	13 18.6 +01.0	309 02.8 -28.1	N	18 55.7 +08.5				
21	137 51.2 -00.2	S	21 39.4 +00.4	165 46.1 -00.5	S	13 19.6 +01.1	323 34.7 -28.2	N	19 04.2 +08.4				
22	152 51.0 -00.2	S	21 39.8 +00.4	180 45.6 -00.6	S	13 20.7 +01.0	338 06.5 -28.2	N	19 12.6 +08.3				
23	167 50.8 -00.2	S	21 40.2 +00.4	195 45.0 -00.5	S	13 21.7 +01.0	352 38.3 -28.3	N	19 20.9 +08.2				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 14'8 14'8 14'8 14'8 14'8 14'8						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'2 54'3 54'3 54'3 54'4 54'4						
	SHA 115° 114° 114° 114° 114° 114°			SHA 143° 142° 142° 142° 142° 142°			SHA 309° 307° 305° 303° 301° 299°						
	Greenwich Culmination Time: 11:48			Greenwich Culmination Time: 09:56			Greenwich Culmination Time: 23:30						

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	52 55.7 +02.1	N	06 25.6 +00.2	130 30.3 +02.0	S	21 26.8 -00.1	127 55.9 +02.2	S	20 52.0 -00.1				
01	67 57.8 +02.1	N	06 25.8 +00.3	145 32.3 +01.9	S	21 26.7 -00.1	142 58.1 +02.2	S	20 51.9 +00.0				
02	82 59.9 +02.1	N	06 26.1 +00.3	160 34.2 +02.0	S	21 26.6 -00.1	158 00.3 +02.3	S	20 51.9 +00.0				
03	98 02.0 +02.0	N	06 26.4 +00.3	175 36.2 +02.0	S	21 26.5 -00.1	173 02.6 +02.2	S	20 51.9 -00.1				
04	113 04.0 +02.1	N	06 26.7 +00.3	190 38.2 +01.9	S	21 26.4 -00.1	188 04.8 +02.2	S	20 51.8 +00.0				
05	128 06.1 +02.1	N	06 27.0 +00.2	205 40.1 +02.0	S	21 26.3 -00.1	203 07.0 +02.3	S	20 51.8 -00.1				
06	143 08.2 +02.1	N	06 27.2 +00.3	220 42.1 +01.9	S	21 26.2 -00.1	218 09.3 +02.2	S	20 51.7 +00.0				
07	158 10.3 +02.0	N	06 27.5 +00.3	235 44.0 +02.0	S	21 26.1 -00.1	233 11.5 +02.2	S	20 51.7 -00.1				
08	173 12.3 +02.1	N	06 27.8 +00.3	250 46.0 +01.9	S	21 26.0 +00.0	248 13.7 +02.3	S	20 51.6 +00.0				
09	188 14.4 +02.1	N	06 28.1 +00.3	265 47.9 +02.0	S	21 26.0 -00.1	263 16.0 +02.2	S	20 51.6 +00.0				
10	203 16.5 +02.0	N	06 28.4 +00.2	280 49.9 +01.9	S	21 25.9 -00.1	278 18.2 +02.2	S	20 51.6 -00.1				
11	218 18.5 +02.1	N	06 28.6 +00.3	295 51.8 +02.0	S	21 25.8 -00.1	293 20.4 +02.2	S	20 51.5 +00.0				
12	233 20.6 +02.1	N	06 28.9 +00.3	310 53.8 +01.9	S	21 25.7 -00.1	308 22.6 +02.3	S	20 51.5 -00.1				
13	248 22.7 +02.0	N	06 29.2 +00.3	325 55.7 +02.0	S	21 25.6 -00.1	323 24.9 +02.2	S	20 51.4 +00.0				
14	263 24.7 +02.1	N	06 29.5 +00.3	340 57.7 +01.9	S	21 25.5 -00.1	338 27.1 +02.2	S	20 51.4 -00.1				
15	278 26.8 +02.1	N	06 29.8 +00.2	355 59.6 +02.0	S	21 25.4 -00.1	353 29.3 +02.3	S	20 51.3 +00.0				
16	293 28.9 +02.0	N	06 30.0 +00.3	11 01.6 +01.9	S	21 25.3 +00.0	8 31.6 +02.2	S	20 51.3 +00.0				
17	308 30.9 +02.1	N	06 30.3 +00.3	26 03.5 +02.0	S	21 25.3 -00.1	23 33.8 +02.2	S	20 51.3 -00.1				
18	323 33.0 +02.0	N	06 30.6 +00.3	41 05.5 +02.0	S	21 25.2 -00.1	38 36.0 +02.3	S	20 51.2 +00.0				
19	338 35.0 +02.1	N	06 30.9 +00.3	56 07.5 +01.9	S	21 25.1 -00.1	53 38.3 +02.2	S	20 51.2 -00.1				
20	353 37.1 +02.1	N	06 31.2 +00.3	71 09.4 +02.0	S	21 25.0 -00.1	68 40.5 +02.2	S	20 51.1 +00.0				
21	8 39.2 +02.0	N	06 31.5 +00.2	86 11.4 +01.9	S	21 24.9 -00.1	83 42.7 +02.2	S	20 51.1 -00.1				
22	23 41.2 +02.1	N	06 31.7 +00.3	101 13.3 +02.0	S	21 24.8 -00.1	98 44.9 +02.3	S	20 51.0 +00.0				
23	38 43.3 +02.0	N	06 32.0 +00.3	116 15.3 +01.9	S	21 24.7 -00.1	113 47.2 +02.2	S	20 51.0 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 345° 345° 345° 344° 344° 344°			SHA 062° 062° 062° 062° 062° 062°			SHA 060° 060° 060° 060° 060° 060°						
	Greenwich Culmination Time: 20:25			Greenwich Culmination Time: 15:15			Greenwich Culmination Time: 15:25						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 50.6 -00.3	S	21 40.6 +00.4	210 44.5 -00.6	S	13 22.7 +01.0	7 10.0 -28.4	N	19 29.1 +08.2	00			
01	197 50.3 -00.2	S	21 41.0 +00.5	225 43.9 -00.5	S	13 23.7 +01.0	21 41.6 -28.4	N	19 37.3 +08.1	01			
02	212 50.1 -00.2	S	21 41.5 +00.4	240 43.4 -00.6	S	13 24.7 +01.0	36 13.2 -28.5	N	19 45.4 +08.0	02			
03	227 49.9 -00.3	S	21 41.9 +00.3	255 42.8 -00.5	S	13 25.7 +01.0	50 44.7 -28.6	N	19 53.4 +07.9	03			
04	242 49.6 -00.2	S	21 42.2 +00.4	270 42.3 -00.6	S	13 26.7 +01.0	65 16.1 -28.6	N	20 01.3 +07.8	04			
05	257 49.4 -00.2	S	21 42.6 +00.4	285 41.7 -00.5	S	13 27.7 +01.0	79 47.5 -28.7	N	20 09.1 +07.7	05			
06	272 49.2 -00.2	S	21 43.0 +00.4	300 41.2 -00.6	S	13 28.7 +01.0	94 18.8 -28.7	N	20 16.8 +07.7	06			
07	287 49.0 -00.3	S	21 43.4 +00.4	315 40.6 -00.6	S	13 29.7 +01.0	108 50.1 -28.9	N	20 24.5 +07.5	07			
08	302 48.7 -00.2	S	21 43.8 +00.4	330 40.0 -00.5	S	13 30.7 +01.0	123 21.2 -28.8	N	20 32.0 +07.5	08			
09	317 48.5 -00.2	S	21 44.2 +00.4	345 39.5 -00.6	S	13 31.7 +01.0	137 52.4 -29.0	N	20 39.5 +07.4	09			
10	332 48.3 -00.3	S	21 44.6 +00.4	0 38.9 -00.5	S	13 32.7 +01.0	152 23.4 -29.0	N	20 46.9 +07.3	10			
11	347 48.0 -00.2	S	21 45.0 +00.4	15 38.4 -00.6	S	13 33.7 +01.0	166 54.4 -29.1	N	20 54.2 +07.1	11			
12	2 47.8 -00.2	S	21 45.4 +00.4	30 37.8 -00.6	S	13 34.7 +01.0	181 25.3 -29.1	N	21 01.3 +07.1	12			
13	17 47.6 -00.2	S	21 45.8 +00.4	45 37.2 -00.5	S	13 35.7 +01.0	195 56.2 -29.3	N	21 08.4 +07.0	13			
14	32 47.4 -00.3	S	21 46.2 +00.4	60 36.7 -00.6	S	13 36.7 +01.0	210 26.9 -29.2	N	21 15.4 +06.9	14			
15	47 47.1 -00.2	S	21 46.6 +00.4	75 36.1 -00.5	S	13 37.7 +01.0	224 57.7 -29.4	N	21 22.3 +06.9	15			
16	62 46.9 -00.2	S	21 47.0 +00.4	90 35.6 -00.6	S	13 38.7 +01.0	239 28.3 -29.4	N	21 29.2 +06.7	16			
17	77 46.7 -00.3	S	21 47.4 +00.4	105 35.0 -00.6	S	13 39.7 +01.0	253 58.9 -29.4	N	21 35.9 +06.6	17			
18	92 46.4 -00.2	S	21 47.8 +00.4	120 34.4 -00.5	S	13 40.7 +01.0	268 29.5 -29.6	N	21 42.5 +06.5	18			
19	107 46.2 -00.2	S	21 48.2 +00.3	135 33.9 -00.6	S	13 41.7 +01.0	282 59.9 -29.6	N	21 49.0 +06.4	19			
20	122 46.0 -00.3	S	21 48.5 +00.4	150 33.3 -00.5	S	13 42.7 +01.0	297 30.3 -29.6	N	21 55.4 +06.3	20			
21	137 45.7 -00.2	S	21 48.9 +00.4	165 32.8 -00.6	S	13 43.7 +01.0	312 00.7 -29.8	N	22 01.7 +06.2	21			
22	152 45.5 -00.2	S	21 49.3 +00.4	180 32.2 -00.6	S	13 44.7 +00.9	326 30.9 -29.7	N	22 07.9 +06.1	22			
23	167 45.3 -00.3	S	21 49.7 +00.4	195 31.6 -00.5	S	13 45.6 +01.0	341 01.2 -29.9	N	22 14.0 +06.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 14'8 14'9 14'9 14'9 14'9 14'9						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'5 54'5 54'6 54'6 54'7 54'7						
	SHA 113° 113° 113° 113° 113° 113°			SHA 141° 141° 141° 141° 141° 140°			SHA 297° 295° 293° 291° 288° 286°						
	Greenwich Culmination Time: 11:48			Greenwich Culmination Time: 09:57			Greenwich Culmination Time: -1:00						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	53 45.3 +02.1	N	06 32.3 +00.3	131 17.2 +02.0	S	21 24.6 -00.1	128 49.4 +02.2	S	20 51.0 -00.1	00			
01	68 47.4 +02.0	N	06 32.6 +00.3	146 19.2 +01.9	S	21 24.5 -00.1	143 51.6 +02.3	S	20 50.9 +00.0	01			
02	83 49.4 +02.1	N	06 32.9 +00.3	161 21.1 +02.0	S	21 24.4 +00.0	158 53.9 +02.2	S	20 50.9 -00.1	02			
03	98 51.5 +02.0	N	06 33.2 +00.3	176 23.1 +01.9	S	21 24.4 -00.1	173 56.1 +02.2	S	20 50.8 +00.0	03			
04	113 53.5 +02.1	N	06 33.5 +00.2	191 25.0 +02.0	S	21 24.3 -00.1	188 58.3 +02.2	S	20 50.8 -00.1	04			
05	128 55.6 +02.0	N	06 33.7 +00.3	206 27.0 +01.9	S	21 24.2 -00.1	204 00.5 +02.3	S	20 50.7 +00.0	05			
06	143 57.6 +02.1	N	06 34.0 +00.3	221 28.9 +02.0	S	21 24.1 -00.1	219 02.8 +02.2	S	20 50.7 -00.1	06			
07	158 59.7 +02.0	N	06 34.3 +00.3	236 30.9 +01.9	S	21 24.0 -00.1	234 05.0 +02.2	S	20 50.6 +00.0	07			
08	174 01.7 +02.1	N	06 34.6 +00.3	251 32.8 +02.0	S	21 23.9 -00.1	249 07.2 +02.2	S	20 50.6 +00.0	08			
09	189 03.8 +02.0	N	06 34.9 +00.3	266 34.8 +01.9	S	21 23.8 -00.1	264 09.4 +02.3	S	20 50.6 -00.1	09			
10	204 05.8 +02.1	N	06 35.2 +00.3	281 36.7 +02.0	S	21 23.7 -00.1	279 11.7 +02.2	S	20 50.5 +00.0	10			
11	219 07.9 +02.0	N	06 35.5 +00.3	296 38.7 +01.9	S	21 23.6 +00.0	294 13.9 +02.2	S	20 50.5 -00.1	11			
12	234 09.9 +02.0	N	06 35.8 +00.3	311 40.6 +02.0	S	21 23.6 -00.1	309 16.1 +02.3	S	20 50.4 +00.0	12			
13	249 11.9 +02.1	N	06 36.1 +00.2	326 42.6 +01.9	S	21 23.5 -00.1	324 18.4 +02.2	S	20 50.4 -00.1	13			
14	264 14.0 +02.0	N	06 36.3 +00.3	341 44.5 +02.0	S	21 23.4 -00.1	339 20.6 +02.2	S	20 50.3 +00.0	14			
15	279 16.0 +02.1	N	06 36.6 +00.3	356 46.5 +01.9	S	21 23.3 -00.1	354 22.8 +02.2	S	20 50.3 +00.0	15			
16	294 18.1 +02.0	N	06 36.9 +00.3	11 48.4 +02.0	S	21 23.2 -00.1	9 25.0 +02.3	S	20 50.3 -00.1	16			
17	309 20.1 +02.0	N	06 37.2 +00.3	26 50.4 +01.9	S	21 23.1 -00.1	24 27.3 +02.2	S	20 50.2 +00.0	17			
18	324 22.1 +02.1	N	06 37.5 +00.3	41 52.3 +02.0	S	21 23.0 -00.1	39 29.5 +02.2	S	20 50.2 -00.1	18			
19	339 24.2 +02.0	N	06 37.8 +00.3	56 54.3 +01.9	S	21 22.9 -00.1	54 31.7 +02.2	S	20 50.1 +00.0	19			
20	354 26.2 +02.0	N	06 38.1 +00.3	71 56.2 +01.9	S	21 22.8 -00.1	69 33.9 +02.3	S	20 50.1 -00.1	20			
21	9 28.2 +02.1	N	06 38.4 +00.3	86 58.1 +02.0	S	21 22.7 +00.0	84 36.2 +02.2	S	20 50.0 +00.0	21			
22	24 30.3 +02.0	N	06 38.7 +00.3	102 00.1 +01.9	S	21 22.7 -00.1	99 38.4 +02.2	S	20 50.0 -00.1	22			
23	39 32.3 +02.0	N	06 39.0 +00.3	117 02.0 +02.0	S	21 22.6 -00.1	114 40.6 +02.2	S	20 49.9 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 344° 344° 344° 344° 344° 344°			SHA 062° 062° 062° 062° 062° 062°			SHA 059° 059° 059° 059° 059° 059°						
	Greenwich Culmination Time: 20:22			Greenwich Culmination Time: 15:12			Greenwich Culmination Time: 15:22						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 45.0 -00.2	S 21 50.1 +00.4	210 31.1 -00.6	S 13 46.6 +01.0	355 31.3 -29.9	N 22 20.1 +05.9	00						
01	197 44.8 -00.2	S 21 50.5 +00.4	225 30.5 -00.6	S 13 47.6 +01.0	10 01.4 -30.0	N 22 26.0 +05.8	01						
02	212 44.6 -00.3	S 21 50.9 +00.3	240 29.9 -00.5	S 13 48.6 +01.0	24 31.4 -30.0	N 22 31.8 +05.7	02						
03	227 44.3 -00.2	S 21 51.2 +00.4	255 29.4 -00.6	S 13 49.6 +01.0	39 01.4 -30.1	N 22 37.5 +05.5	03						
04	242 44.1 -00.2	S 21 51.6 +00.4	270 28.8 -00.6	S 13 50.6 +01.0	53 31.3 -30.2	N 22 43.0 +05.5	04						
05	257 43.9 -00.3	S 21 52.0 +00.4	285 28.2 -00.5	S 13 51.6 +01.0	68 01.1 -30.2	N 22 48.5 +05.4	05						
06	272 43.6 -00.2	S 21 52.4 +00.4	300 27.7 -00.6	S 13 52.6 +01.0	82 30.9 -30.3	N 22 53.9 +05.3	06						
07	287 43.4 -00.2	S 21 52.8 +00.3	315 27.1 -00.6	S 13 53.6 +01.0	97 00.6 -30.3	N 22 59.2 +05.1	07						
08	302 43.2 -00.3	S 21 53.1 +00.4	330 26.5 -00.5	S 13 54.6 +00.9	111 30.3 -30.4	N 23 04.3 +05.1	08						
09	317 42.9 -00.2	S 21 53.5 +00.4	345 26.0 -00.6	S 13 55.5 +01.0	125 59.9 -30.4	N 23 09.4 +04.9	09						
10	332 42.7 -00.2	S 21 53.9 +00.4	0 25.4 -00.6	S 13 56.5 +01.0	140 29.5 -30.5	N 23 14.3 +04.8	10						
11	347 42.5 -00.3	S 21 54.3 +00.3	15 24.8 -00.6	S 13 57.5 +01.0	154 59.0 -30.6	N 23 19.1 +04.7	11						
12	2 42.2 -00.2	S 21 54.6 +00.4	30 24.2 -00.5	S 13 58.5 +01.0	169 28.4 -30.6	N 23 23.8 +04.6	12						
13	17 42.0 -00.2	S 21 55.0 +00.4	45 23.7 -00.6	S 13 59.5 +01.0	183 57.8 -30.7	N 23 28.4 +04.5	13						
14	32 41.8 -00.3	S 21 55.4 +00.4	60 23.1 -00.6	S 14 00.5 +01.0	198 27.1 -30.7	N 23 32.9 +04.4	14						
15	47 41.5 -00.2	S 21 55.8 +00.3	75 22.5 -00.5	S 14 01.5 +00.9	212 56.4 -30.8	N 23 37.3 +04.2	15						
16	62 41.3 -00.3	S 21 56.1 +00.4	90 22.0 -00.6	S 14 02.4 +01.0	227 25.6 -30.8	N 23 41.5 +04.1	16						
17	77 41.0 -00.2	S 21 56.5 +00.4	105 21.4 -00.6	S 14 03.4 +01.0	241 54.8 -30.9	N 23 45.6 +04.1	17						
18	92 40.8 -00.2	S 21 56.9 +00.4	120 20.8 -00.6	S 14 04.4 +01.0	256 23.9 -31.0	N 23 49.7 +03.9	18						
19	107 40.6 -00.3	S 21 57.3 +00.3	135 20.2 -00.5	S 14 05.4 +01.0	270 52.9 -30.9	N 23 53.6 +03.7	19						
20	122 40.3 -00.2	S 21 57.6 +00.4	150 19.7 -00.6	S 14 06.4 +01.0	285 22.0 -31.1	N 23 57.3 +03.7	20						
21	137 40.1 -00.3	S 21 58.0 +00.4	165 19.1 -00.6	S 14 07.4 +00.9	299 50.9 -31.1	N 24 01.0 +03.5	21						
22	152 39.8 -00.2	S 21 58.4 +00.3	180 18.5 -00.6	S 14 08.3 +01.0	314 19.8 -31.1	N 24 04.5 +03.5	22						
23	167 39.6 -00.2	S 21 58.7 +00.4	195 17.9 -00.5	S 14 09.3 +01.0	328 48.7 -31.2	N 24 08.0 +03.3	23						
UT	02 06 10 14 18 22	SD 16'2 16'2 16'2 16'2 16'2 16'2	UT	02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT	02 06 10 14 18 22	SD 14'9 14'9 15'0 15'0 15'0 15'0					
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'8 54'8 54'9 55'0 55'0 55'1		HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 112° 112° 112° 112° 112° 111°		SHA 140° 140° 140° 140° 139° 139°		SHA 284° 282° 280° 278° 275° 273°		SHA 059° 059° 059° 059° 059° 059°						
	Greenwich Culmination Time: 11:49		Greenwich Culmination Time: 09:58		Greenwich Culmination Time: 00:18								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	54 34.3 +02.0	N 06 39.3 +00.3	132 04.0 +01.9	S 21 22.5 -00.1	129 42.8 +02.3	S 20 49.9 +00.0	00						
01	69 36.3 +02.1	N 06 39.6 +00.2	147 05.9 +02.0	S 21 22.4 -00.1	144 45.1 +02.2	S 20 49.9 -00.1	01						
02	84 38.4 +02.0	N 06 39.8 +00.3	162 07.9 +01.9	S 21 22.3 -00.1	159 47.3 +02.2	S 20 49.8 +00.0	02						
03	99 40.4 +02.0	N 06 40.1 +00.3	177 09.8 +02.0	S 21 22.2 -00.1	174 49.5 +02.2	S 20 49.8 -00.1	03						
04	114 42.4 +02.0	N 06 40.4 +00.3	192 11.8 +01.9	S 21 22.1 -00.1	189 51.7 +02.3	S 20 49.7 +00.0	04						
05	129 44.4 +02.1	N 06 40.7 +00.3	207 13.7 +02.0	S 21 22.0 -00.1	204 54.0 +02.2	S 20 49.7 -00.1	05						
06	144 46.5 +02.0	N 06 41.0 +00.3	222 15.7 +01.9	S 21 21.9 -00.1	219 56.2 +02.2	S 20 49.6 +00.0	06						
07	159 48.5 +02.0	N 06 41.3 +00.3	237 17.6 +02.0	S 21 21.8 -00.1	234 58.4 +02.3	S 20 49.6 +00.0	07						
08	174 50.5 +02.0	N 06 41.6 +00.3	252 19.6 +01.9	S 21 21.7 +00.0	250 00.7 +02.2	S 20 49.6 -00.1	08						
09	189 52.5 +02.0	N 06 41.9 +00.3	267 21.5 +02.0	S 21 21.7 -00.1	265 02.9 +02.2	S 20 49.5 +00.0	09						
10	204 54.5 +02.1	N 06 42.2 +00.3	282 23.5 +01.9	S 21 21.6 -00.1	280 05.1 +02.2	S 20 49.5 -00.1	10						
11	219 56.6 +02.0	N 06 42.5 +00.3	297 25.4 +01.9	S 21 21.5 -00.1	295 07.3 +02.2	S 20 49.4 +00.0	11						
12	234 58.6 +02.0	N 06 42.8 +00.3	312 27.3 +02.0	S 21 21.4 -00.1	310 09.5 +02.3	S 20 49.4 -00.1	12						
13	250 00.6 +02.0	N 06 43.1 +00.3	327 29.3 +01.9	S 21 21.3 -00.1	325 11.8 +02.2	S 20 49.3 +00.0	13						
14	265 02.6 +02.0	N 06 43.4 +00.3	342 31.2 +02.0	S 21 21.2 -00.1	340 14.0 +02.2	S 20 49.3 -00.1	14						
15	280 04.6 +02.0	N 06 43.7 +00.3	357 33.2 +01.9	S 21 21.1 -00.1	355 16.2 +02.2	S 20 49.2 +00.0	15						
16	295 06.6 +02.1	N 06 44.0 +00.3	12 35.1 +02.0	S 21 21.0 -00.1	10 18.4 +02.3	S 20 49.2 +00.0	16						
17	310 08.7 +02.0	N 06 44.3 +00.3	27 37.1 +01.9	S 21 20.9 -00.1	25 20.7 +02.2	S 20 49.2 -00.1	17						
18	325 10.7 +02.0	N 06 44.6 +00.3	42 39.0 +02.0	S 21 20.8 -00.1	40 22.9 +02.2	S 20 49.1 +00.0	18						
19	340 12.7 +02.0	N 06 44.9 +00.3	57 41.0 +01.9	S 21 20.7 -00.1	55 25.1 +02.2	S 20 49.1 -00.1	19						
20	355 14.7 +02.0	N 06 45.2 +00.3	72 42.9 +02.0	S 21 20.6 +00.0	70 27.3 +02.3	S 20 49.0 +00.0	20						
21	10 16.7 +02.0	N 06 45.5 +00.3	87 44.9 +01.9	S 21 20.6 -00.1	85 29.6 +02.2	S 20 49.0 -00.1	21						
22	25 18.7 +02.0	N 06 45.8 +00.3	102 46.8 +01.9	S 21 20.5 -00.1	100 31.8 +02.2	S 20 48.9 +00.0	22						
23	40 20.7 +02.0	N 06 46.1 +00.3	117 48.7 +02.0	S 21 20.4 -00.1	115 34.0 +02.2	S 20 48.9 -00.1	23						
UT	02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT	02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT	02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1					
	HP 00'2 00'2 00'2 00'2 00'2 00'2		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 344° 344° 344° 344° 344° 344°		SHA 062° 062° 062° 062° 062° 062°		SHA 059° 059° 059° 059° 059° 059°								
	Greenwich Culmination Time: 20:18		Greenwich Culmination Time: 15:09		Greenwich Culmination Time: 15:18								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 39.4 -00.3	S	21 59.1 +00.4	210 17.4 -00.6	S	14 10.3 +01.0	343 17.5 -31.2	N	24 11.3 +03.1	00			
01	197 39.1 -00.2	S	21 59.5 +00.3	225 16.8 -00.6	S	14 11.3 +00.9	357 46.3 -31.3	N	24 14.4 +03.1	01			
02	212 38.9 -00.3	S	21 59.8 +00.4	240 16.2 -00.6	S	14 12.2 +01.0	12 15.0 -31.3	N	24 17.5 +02.9	02			
03	227 38.6 -00.2	S	22 00.2 +00.4	255 15.6 -00.6	S	14 13.2 +01.0	26 43.7 -31.4	N	24 20.4 +02.9	03			
04	242 38.4 -00.2	S	22 00.6 +00.3	270 15.0 -00.5	S	14 14.2 +01.0	41 12.3 -31.4	N	24 23.3 +02.6	04			
05	257 38.2 -00.3	S	22 00.9 +00.4	285 14.5 -00.6	S	14 15.2 +01.0	55 40.9 -31.5	N	24 25.9 +02.6	05			
06	272 37.9 -00.2	S	22 01.3 +00.4	300 13.9 -00.6	S	14 16.2 +00.9	70 09.4 -31.4	N	24 28.5 +02.5	06			
07	287 37.7 -00.3	S	22 01.7 +00.3	315 13.3 -00.6	S	14 17.1 +01.0	84 38.0 -31.6	N	24 31.0 +02.3	07			
08	302 37.4 -00.2	S	22 02.0 +00.4	330 12.7 -00.6	S	14 18.1 +01.0	99 06.4 -31.6	N	24 33.3 +02.2	08			
09	317 37.2 -00.2	S	22 02.4 +00.3	345 12.1 -00.5	S	14 19.1 +00.9	113 34.8 -31.6	N	24 35.5 +02.0	09			
10	332 37.0 -00.3	S	22 02.7 +00.4	0 11.6 -00.6	S	14 20.0 +01.0	128 03.2 -31.6	N	24 37.5 +02.0	10			
11	347 36.7 -00.2	S	22 03.1 +00.4	15 11.0 -00.6	S	14 21.0 +01.0	142 31.6 -31.7	N	24 39.5 +01.8	11			
12	2 36.5 -00.3	S	22 03.5 +00.3	30 10.4 -00.6	S	14 22.0 +01.0	156 59.9 -31.7	N	24 41.3 +01.6	12			
13	17 36.2 -00.2	S	22 03.8 +00.4	45 09.8 -00.6	S	14 23.0 +00.9	171 28.2 -31.8	N	24 42.9 +01.6	13			
14	32 36.0 -00.3	S	22 04.2 +00.3	60 09.2 -00.6	S	14 23.9 +01.0	185 56.4 -31.8	N	24 44.5 +01.4	14			
15	47 35.7 -00.2	S	22 04.5 +00.4	75 08.6 -00.5	S	14 24.9 +01.0	200 24.6 -31.8	N	24 45.9 +01.3	15			
16	62 35.5 -00.2	S	22 04.9 +00.3	90 08.1 -00.6	S	14 25.9 +00.9	214 52.8 -31.8	N	24 47.2 +01.2	16			
17	77 35.3 -00.3	S	22 05.2 +00.4	105 07.5 -00.6	S	14 26.8 +01.0	229 21.0 -31.9	N	24 48.4 +01.0	17			
18	92 35.0 -00.2	S	22 05.6 +00.3	120 06.9 -00.6	S	14 27.8 +01.0	243 49.1 -31.9	N	24 49.4 +00.9	18			
19	107 34.8 -00.3	S	22 05.9 +00.4	135 06.3 -00.6	S	14 28.8 +00.9	258 17.2 -32.0	N	24 50.3 +00.8	19			
20	122 34.5 -00.2	S	22 06.3 +00.3	150 05.7 -00.6	S	14 29.7 +01.0	272 45.2 -31.9	N	24 51.1 +00.6	20			
21	137 34.3 -00.3	S	22 06.6 +00.4	165 05.1 -00.6	S	14 30.7 +01.0	287 13.3 -32.0	N	24 51.7 +00.5	21			
22	152 34.0 -00.2	S	22 07.0 +00.3	180 04.5 -00.5	S	14 31.7 +00.9	301 41.3 -32.0	N	24 52.2 +00.4	22			
23	167 33.8 -00.3	S	22 07.3 +00.4	195 04.0 -00.6	S	14 32.6 +01.0	316 09.3 -32.1	N	24 52.6 +00.3	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'0 15'0 15'1 15'1 15'1 15'1						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 55'1 55'2 55'3 55'4 55'4 55'5						
	SHA 111° 111° 111° 111° 111° 110°			SHA 139° 139° 138° 138° 138° 138°			SHA 271° 269° 266° 264° 262° 259°						
	Greenwich Culmination Time: 11:49			Greenwich Culmination Time: 09:59			Greenwich Culmination Time: 01:09						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	55 22.7 +02.0	N	06 46.4 +00.3	132 50.7 +01.9	S	21 20.3 -00.1	130 36.2 +02.3	S	20 48.8 +00.0	00			
01	70 24.7 +02.0	N	06 46.7 +00.3	147 52.6 +02.0	S	21 20.2 -00.1	145 38.5 +02.2	S	20 48.8 +00.0	01			
02	85 26.7 +02.0	N	06 47.0 +00.3	162 54.6 +01.9	S	21 20.1 -00.1	160 40.7 +02.2	S	20 48.8 -00.1	02			
03	100 28.7 +02.0	N	06 47.3 +00.3	177 56.5 +02.0	S	21 20.0 -00.1	175 42.9 +02.2	S	20 48.7 +00.0	03			
04	115 30.7 +02.0	N	06 47.6 +00.3	192 58.5 +01.9	S	21 19.9 -00.1	190 45.1 +02.3	S	20 48.7 -00.1	04			
05	130 32.7 +02.0	N	06 47.9 +00.3	208 00.4 +01.9	S	21 19.8 -00.1	205 47.4 +02.2	S	20 48.6 +00.0	05			
06	145 34.7 +02.0	N	06 48.2 +00.3	223 02.3 +02.0	S	21 19.7 -00.1	220 49.6 +02.2	S	20 48.6 -00.1	06			
07	160 36.7 +02.0	N	06 48.5 +00.3	238 04.3 +01.9	S	21 19.6 -00.1	235 51.8 +02.2	S	20 48.5 +00.0	07			
08	175 38.7 +02.0	N	06 48.8 +00.3	253 06.2 +02.0	S	21 19.5 +00.0	250 54.0 +02.2	S	20 48.5 -00.1	08			
09	190 40.7 +02.0	N	06 49.1 +00.3	268 08.2 +01.9	S	21 19.5 -00.1	265 56.2 +02.3	S	20 48.4 +00.0	09			
10	205 42.7 +02.0	N	06 49.4 +00.3	283 10.1 +02.0	S	21 19.4 -00.1	280 58.5 +02.2	S	20 48.4 -00.1	10			
11	220 44.7 +02.0	N	06 49.7 +00.3	298 12.1 +01.9	S	21 19.3 -00.1	296 00.7 +02.2	S	20 48.3 +00.0	11			
12	235 46.7 +02.0	N	06 50.0 +00.3	313 14.0 +01.9	S	21 19.2 -00.1	311 02.9 +02.2	S	20 48.3 +00.0	12			
13	250 48.7 +02.0	N	06 50.3 +00.3	328 15.9 +02.0	S	21 19.1 -00.1	326 05.1 +02.3	S	20 48.3 -00.1	13			
14	265 50.7 +01.9	N	06 50.6 +00.3	343 17.9 +01.9	S	21 19.0 -00.1	341 07.4 +02.2	S	20 48.2 +00.0	14			
15	280 52.6 +02.0	N	06 50.9 +00.3	358 19.8 +02.0	S	21 18.9 -00.1	356 09.6 +02.2	S	20 48.2 -00.1	15			
16	295 54.6 +02.0	N	06 51.2 +00.3	13 21.8 +01.9	S	21 18.8 -00.1	11 11.8 +02.2	S	20 48.1 +00.0	16			
17	310 56.6 +02.0	N	06 51.5 +00.3	28 23.7 +02.0	S	21 18.7 -00.1	26 14.0 +02.2	S	20 48.1 -00.1	17			
18	325 58.6 +02.0	N	06 51.8 +00.3	43 25.7 +01.9	S	21 18.6 -00.1	41 16.2 +02.3	S	20 48.0 +00.0	18			
19	341 00.6 +02.0	N	06 52.1 +00.3	58 27.6 +01.9	S	21 18.5 -00.1	56 18.5 +02.2	S	20 48.0 -00.1	19			
20	356 02.6 +02.0	N	06 52.4 +00.4	73 29.5 +02.0	S	21 18.4 -00.1	71 20.7 +02.2	S	20 47.9 +00.0	20			
21	11 04.6 +01.9	N	06 52.8 +00.3	88 31.5 +01.9	S	21 18.3 -00.1	86 22.9 +02.2	S	20 47.9 +00.0	21			
22	26 06.5 +02.0	N	06 53.1 +00.3	103 33.4 +02.0	S	21 18.2 +00.0	101 25.1 +02.2	S	20 47.9 -00.1	22			
23	41 08.5 +02.0	N	06 53.4 +00.3	118 35.4 +01.9	S	21 18.2 -00.1	116 27.3 +02.3	S	20 47.8 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 344° 344° 344° 344° 344° 344°			SHA 062° 061° 061° 061° 061° 061°			SHA 059° 059° 059° 059° 059° 059°						
	Greenwich Culmination Time: 20:15			Greenwich Culmination Time: 15:06			Greenwich Culmination Time: 15:15						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 33.5 -00.2	S	22 07.7 +00.3	210 03.4 -00.6	S	14 33.6 +01.0	330 37.2 -32.0	N	24 52.9 +00.1	00			
01	197 33.3 -00.3	S	22 08.0 +00.4	225 02.8 -00.6	S	14 34.6 +00.9	345 05.2 -32.1	N	24 53.0 +00.0	01			
02	212 33.0 -00.2	S	22 08.4 +00.3	240 02.2 -00.6	S	14 35.5 +01.0	359 33.1 -32.1	N	24 53.0 -00.2	02			
03	227 32.8 -00.2	S	22 08.7 +00.4	255 01.6 -00.6	S	14 36.5 +01.0	14 01.0 -32.1	N	24 52.8 -00.3	03			
04	242 32.6 -00.3	S	22 09.1 +00.3	270 01.0 -00.6	S	14 37.5 +00.9	28 28.9 -32.2	N	24 52.5 -00.4	04			
05	257 32.3 -00.2	S	22 09.4 +00.4	285 00.4 -00.6	S	14 38.4 +01.0	42 56.7 -32.1	N	24 52.1 -00.5	05			
06	272 32.1 -00.3	S	22 09.8 +00.3	299 59.8 -00.6	S	14 39.4 +00.9	57 24.6 -32.2	N	24 51.6 -00.7	06			
07	287 31.8 -00.2	S	22 10.1 +00.4	314 59.2 -00.6	S	14 40.3 +01.0	71 52.4 -32.2	N	24 50.9 -00.8	07			
08	302 31.6 -00.3	S	22 10.5 +00.3	329 58.6 -00.6	S	14 41.3 +01.0	86 20.2 -32.2	N	24 50.1 -01.0	08			
09	317 31.3 -00.2	S	22 10.8 +00.4	344 58.0 -00.5	S	14 42.3 +00.9	100 48.0 -32.2	N	24 49.1 -01.0	09			
10	332 31.1 -00.3	S	22 11.2 +00.3	359 57.5 -00.6	S	14 43.2 +01.0	115 15.8 -32.2	N	24 48.1 -01.3	10			
11	347 30.8 -00.2	S	22 11.5 +00.3	14 56.9 -00.6	S	14 44.2 +00.9	129 43.6 -32.2	N	24 46.8 -01.3	11			
12	2 30.6 -00.3	S	22 11.8 +00.4	29 56.3 -00.6	S	14 45.1 +01.0	144 11.4 -32.3	N	24 45.5 -01.5	12			
13	17 30.3 -00.2	S	22 12.2 +00.3	44 55.7 -00.6	S	14 46.1 +00.9	158 39.1 -32.2	N	24 44.0 -01.6	13			
14	32 30.1 -00.3	S	22 12.5 +00.4	59 55.1 -00.6	S	14 47.0 +01.0	173 06.9 -32.3	N	24 42.4 -01.8	14			
15	47 29.8 -00.2	S	22 12.9 +00.3	74 54.5 -00.6	S	14 48.0 +01.0	187 34.6 -32.2	N	24 40.6 -01.9	15			
16	62 29.6 -00.3	S	22 13.2 +00.3	89 53.9 -00.6	S	14 49.0 +00.9	202 02.4 -32.3	N	24 38.7 -02.0	16			
17	77 29.3 -00.2	S	22 13.5 +00.4	104 53.3 -00.6	S	14 49.9 +01.0	216 30.1 -32.3	N	24 36.7 -02.1	17			
18	92 29.1 -00.3	S	22 13.9 +00.3	119 52.7 -00.6	S	14 50.9 +00.9	230 57.8 -32.2	N	24 34.6 -02.3	18			
19	107 28.8 -00.2	S	22 14.2 +00.3	134 52.1 -00.6	S	14 51.8 +01.0	245 25.6 -32.3	N	24 32.3 -02.4	19			
20	122 28.6 -00.3	S	22 14.5 +00.4	149 51.5 -00.6	S	14 52.8 +00.9	259 53.3 -32.3	N	24 29.9 -02.6	20			
21	137 28.3 -00.2	S	22 14.9 +00.3	164 50.9 -00.6	S	14 53.7 +01.0	274 21.0 -32.2	N	24 27.3 -02.7	21			
22	152 28.1 -00.3	S	22 15.2 +00.3	179 50.3 -00.6	S	14 54.7 +00.9	288 48.8 -32.3	N	24 24.6 -02.8	22			
23	167 27.8 -00.2	S	22 15.5 +00.4	194 49.7 -00.6	S	14 55.6 +01.0	303 16.5 -32.3	N	24 21.8 -03.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'1 15'2 15'2 15'2 15'2 15'2						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 55'6 55'6 55'7 55'8 55'9 56'0						
	SHA 110° 110° 110° 110° 109° 109°			SHA 138° 137° 137° 137° 137° 137°			SHA 257° 255° 253° 250° 248° 246°						
	Greenwich Culmination Time: 11:49			Greenwich Culmination Time: 10:00			Greenwich Culmination Time: 02:01						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	56 10.5 +02.0	N	06 53.7 +00.3	133 37.3 +01.9	S	21 18.1 -00.1	131 29.6 +02.2	S	20 47.8 -00.1	00			
01	71 12.5 +02.0	N	06 54.0 +00.3	148 39.2 +02.0	S	21 18.0 -00.1	146 31.8 +02.2	S	20 47.7 +00.0	01			
02	86 14.5 +01.9	N	06 54.3 +00.3	163 41.2 +01.9	S	21 17.9 -00.1	161 34.0 +02.2	S	20 47.7 -00.1	02			
03	101 16.4 +02.0	N	06 54.6 +00.3	178 43.1 +02.0	S	21 17.8 -00.1	176 36.2 +02.2	S	20 47.6 +00.0	03			
04	116 18.4 +02.0	N	06 54.9 +00.3	193 45.1 +01.9	S	21 17.7 -00.1	191 38.4 +02.3	S	20 47.6 -00.1	04			
05	131 20.4 +02.0	N	06 55.2 +00.3	208 47.0 +01.9	S	21 17.6 -00.1	206 40.7 +02.2	S	20 47.5 +00.0	05			
06	146 22.4 +01.9	N	06 55.5 +00.3	223 48.9 +02.0	S	21 17.5 -00.1	221 42.9 +02.2	S	20 47.5 -00.1	06			
07	161 24.3 +02.0	N	06 55.8 +00.3	238 50.9 +01.9	S	21 17.4 -00.1	236 45.1 +02.2	S	20 47.4 +00.0	07			
08	176 26.3 +02.0	N	06 56.1 +00.4	253 52.8 +02.0	S	21 17.3 -00.1	251 47.3 +02.2	S	20 47.4 +00.0	08			
09	191 28.3 +02.0	N	06 56.5 +00.3	268 54.8 +01.9	S	21 17.2 -00.1	266 49.5 +02.3	S	20 47.4 -00.1	09			
10	206 30.3 +01.9	N	06 56.8 +00.3	283 56.7 +01.9	S	21 17.1 -00.1	281 51.8 +02.2	S	20 47.3 +00.0	10			
11	221 32.2 +02.0	N	06 57.1 +00.3	298 58.6 +02.0	S	21 17.0 -00.1	296 54.0 +02.2	S	20 47.3 -00.1	11			
12	236 34.2 +02.0	N	06 57.4 +00.3	314 00.6 +01.9	S	21 16.9 -00.1	311 56.2 +02.2	S	20 47.2 +00.0	12			
13	251 36.2 +01.9	N	06 57.7 +00.3	329 02.5 +02.0	S	21 16.8 +00.0	326 58.4 +02.2	S	20 47.2 -00.1	13			
14	266 38.1 +02.0	N	06 58.0 +00.3	344 04.5 +01.9	S	21 16.8 -00.1	342 00.6 +02.3	S	20 47.1 +00.0	14			
15	281 40.1 +02.0	N	06 58.3 +00.3	359 06.4 +01.9	S	21 16.7 -00.1	357 02.9 +02.2	S	20 47.1 -00.1	15			
16	296 42.1 +01.9	N	06 58.6 +00.3	14 08.3 +02.0	S	21 16.6 -00.1	12 05.1 +02.2	S	20 47.0 +00.0	16			
17	311 44.0 +02.0	N	06 58.9 +00.4	29 10.3 +01.9	S	21 16.5 -00.1	27 07.3 +02.2	S	20 47.0 -00.1	17			
18	326 46.0 +01.9	N	06 59.3 +00.3	44 12.2 +01.9	S	21 16.4 -00.1	42 09.5 +02.2	S	20 46.9 +00.0	18			
19	341 47.9 +02.0	N	06 59.6 +00.3	59 14.1 +02.0	S	21 16.3 -00.1	57 11.7 +02.3	S	20 46.9 -00.1	19			
20	356 49.9 +02.0	N	06 59.9 +00.3	74 16.1 +01.9	S	21 16.2 -00.1	72 14.0 +02.2	S	20 46.8 +00.0	20			
21	11 51.9 +01.9	N	07 00.2 +00.3	89 18.0 +02.0	S	21 16.1 -00.1	87 16.2 +02.2	S	20 46.8 +00.0	21			
22	26 53.8 +02.0	N	07 00.5 +00.3	104 20.0 +01.9	S	21 16.0 -00.1	102 18.4 +02.2	S	20 46.8 -00.1	22			
23	41 55.8 +01.9	N	07 00.8 +00.3	119 21.9 +01.9	S	21 15.9 -00.1	117 20.6 +02.2	S	20 46.7 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 344° 344° 344° 344° 344° 344°			SHA 061° 061° 061° 061° 061° 061°			SHA 059° 059° 059° 059° 059° 059°						
	Greenwich Culmination Time: 20:12			Greenwich Culmination Time: 15:03			Greenwich Culmination Time: 15:11						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	182 27.6 -00.3	S	22 15.9 +00.3	209 49.1 -00.6	S	14 56.6 +00.9	317 44.2 -32.2	N	24 18.8 -03.1	00										
01	197 27.3 -00.2	S	22 16.2 +00.3	224 48.5 -00.6	S	14 57.5 +01.0	332 12.0 -32.3	N	24 15.7 -03.2	01										
02	212 27.1 -00.3	S	22 16.5 +00.4	239 47.9 -00.6	S	14 58.5 +00.9	346 39.7 -32.2	N	24 12.5 -03.3	02										
03	227 26.8 -00.3	S	22 16.9 +00.3	254 47.3 -00.6	S	14 59.4 +01.0	1 07.5 -32.2	N	24 09.2 -03.5	03										
04	242 26.5 -00.2	S	22 17.2 +00.3	269 46.7 -00.6	S	15 00.4 +00.9	15 35.3 -32.3	N	24 05.7 -03.7	04										
05	257 26.3 -00.3	S	22 17.5 +00.3	284 46.1 -00.6	S	15 01.3 +01.0	30 03.0 -32.2	N	24 02.0 -03.7	05										
06	272 26.0 -00.2	S	22 17.8 +00.4	299 45.5 -00.6	S	15 02.3 +00.9	44 30.8 -32.2	N	23 58.3 -03.9	06										
07	287 25.8 -00.3	S	22 18.2 +00.3	314 44.9 -00.6	S	15 03.2 +00.9	58 58.6 -32.2	N	23 54.4 -04.0	07										
08	302 25.5 -00.2	S	22 18.5 +00.3	329 44.3 -00.6	S	15 04.1 +01.0	73 26.4 -32.2	N	23 50.4 -04.2	08										
09	317 25.3 -00.3	S	22 18.8 +00.3	344 43.7 -00.6	S	15 05.1 +00.9	87 54.2 -32.1	N	23 46.2 -04.3	09										
10	332 25.0 -00.2	S	22 19.1 +00.4	359 43.1 -00.6	S	15 06.0 +01.0	102 22.1 -32.2	N	23 41.9 -04.4	10										
11	347 24.8 -00.3	S	22 19.5 +00.3	14 42.5 -00.6	S	15 07.0 +00.9	116 49.9 -32.1	N	23 37.5 -04.5	11										
12	2 24.5 -00.2	S	22 19.8 +00.3	29 41.9 -00.7	S	15 07.9 +01.0	131 17.8 -32.1	N	23 33.0 -04.7	12										
13	17 24.3 -00.3	S	22 20.1 +00.3	44 41.2 -00.6	S	15 08.9 +00.9	145 45.7 -32.1	N	23 28.3 -04.8	13										
14	32 24.0 -00.3	S	22 20.4 +00.4	59 40.6 -00.6	S	15 09.8 +00.9	160 13.6 -32.1	N	23 23.5 -04.9	14										
15	47 23.7 -00.2	S	22 20.8 +00.3	74 40.0 -00.6	S	15 10.7 +01.0	174 41.5 -32.1	N	23 18.6 -05.1	15										
16	62 23.5 -00.3	S	22 21.1 +00.3	89 39.4 -00.6	S	15 11.7 +00.9	189 09.4 -32.0	N	23 13.5 -05.2	16										
17	77 23.2 -00.2	S	22 21.4 +00.3	104 38.8 -00.6	S	15 12.6 +01.0	203 37.4 -32.0	N	23 08.3 -05.3	17										
18	92 23.0 -00.3	S	22 21.7 +00.3	119 38.2 -00.6	S	15 13.6 +00.9	218 05.4 -32.1	N	23 03.0 -05.5	18										
19	107 22.7 -00.2	S	22 22.0 +00.3	134 37.6 -00.6	S	15 14.5 +00.9	232 33.3 -31.9	N	22 57.5 -05.6	19										
20	122 22.5 -00.3	S	22 22.3 +00.4	149 37.0 -00.6	S	15 15.4 +01.0	247 01.4 -32.0	N	22 51.9 -05.7	20										
21	137 22.2 -00.3	S	22 22.7 +00.3	164 36.4 -00.6	S	15 16.4 +00.9	261 29.4 -31.9	N	22 46.2 -05.8	21										
22	152 21.9 -00.2	S	22 23.0 +00.3	179 35.8 -00.6	S	15 17.3 +00.9	275 57.5 -31.9	N	22 40.4 -06.0	22										
23	167 21.7 -00.3	S	22 23.3 +00.3	194 35.2 -00.7	S	15 18.2 +01.0	290 25.6 -31.9	N	22 34.4 -06.1	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	16'2	16'2	16'2	16'2	16'2	16'2	SD	00'1	00'1	00'1	00'1	00'1	00'1	SD						
HP	00'1	00'1	00'1	00'1	00'1	00'1	HP	00'1	00'1	00'1	00'1	00'1	00'1	HP						
SHA	109°	109°	109°	109°	108°	108°	SHA	136°	136°	136°	136°	136°	135°	SHA						
Greenwich Culmination Time: 11:50							Greenwich Culmination Time: 10:01							Greenwich Culmination Time: 02:55						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	56 57.7 +02.0	N	07 01.1 +00.3	134 23.8 +02.0	S	21 15.8 -00.1	132 22.8 +02.2	S	20 46.7 -00.1	00										
01	71 59.7 +02.0	N	07 01.4 +00.4	149 25.8 +01.9	S	21 15.7 -00.1	147 25.0 +02.3	S	20 46.6 +00.0	01										
02	87 01.7 +01.9	N	07 01.8 +00.3	164 27.7 +01.9	S	21 15.6 -00.1	162 27.3 +02.2	S	20 46.6 -00.1	02										
03	102 03.6 +02.0	N	07 02.1 +00.3	179 29.6 +02.0	S	21 15.5 -00.1	177 29.5 +02.2	S	20 46.5 +00.0	03										
04	117 05.6 +01.9	N	07 02.4 +00.3	194 31.6 +01.9	S	21 15.4 -00.1	192 31.7 +02.2	S	20 46.5 -00.1	04										
05	132 07.5 +02.0	N	07 02.7 +00.3	209 33.5 +02.0	S	21 15.3 -00.1	207 33.9 +02.2	S	20 46.4 +00.0	05										
06	147 09.5 +01.9	N	07 03.0 +00.3	224 35.5 +01.9	S	21 15.2 +00.0	222 36.1 +02.3	S	20 46.4 -00.1	06										
07	162 11.4 +02.0	N	07 03.3 +00.4	239 37.4 +01.9	S	21 15.2 -00.1	237 38.4 +02.2	S	20 46.3 +00.0	07										
08	177 13.4 +01.9	N	07 03.7 +00.3	254 39.3 +02.0	S	21 15.1 -00.1	252 40.6 +02.2	S	20 46.3 +00.0	08										
09	192 15.3 +02.0	N	07 04.0 +00.3	269 41.3 +01.9	S	21 15.0 -00.1	267 42.8 +02.2	S	20 46.3 -00.1	09										
10	207 17.3 +01.9	N	07 04.3 +00.3	284 43.2 +01.9	S	21 14.9 -00.1	282 45.0 +02.2	S	20 46.2 +00.0	10										
11	222 19.2 +01.9	N	07 04.6 +00.3	299 45.1 +02.0	S	21 14.8 -00.1	297 47.2 +02.2	S	20 46.2 -00.1	11										
12	237 21.1 +02.0	N	07 04.9 +00.3	314 47.1 +01.9	S	21 14.7 -00.1	312 49.4 +02.3	S	20 46.1 +00.0	12										
13	252 23.1 +01.9	N	07 05.2 +00.4	329 49.0 +01.9	S	21 14.6 -00.1	327 51.7 +02.2	S	20 46.1 -00.1	13										
14	267 25.0 +02.0	N	07 05.6 +00.3	344 50.9 +02.0	S	21 14.5 -00.1	342 53.9 +02.2	S	20 46.0 +00.0	14										
15	282 27.0 +01.9	N	07 05.9 +00.3	359 52.9 +01.9	S	21 14.4 -00.1	357 56.1 +02.2	S	20 46.0 -00.1	15										
16	297 28.9 +02.0	N	07 06.2 +00.3	14 54.8 +01.9	S	21 14.3 -00.1	12 58.3 +02.2	S	20 45.9 +00.0	16										
17	312 30.9 +01.9	N	07 06.5 +00.3	29 56.7 +02.0	S	21 14.2 -00.1	28 00.5 +02.2	S	20 45.9 -00.1	17										
18	327 32.8 +01.9	N	07 06.8 +00.4	44 58.7 +01.9	S	21 14.1 -00.1	43 02.7 +02.3	S	20 45.8 +00.0	18										
19	342 34.7 +02.0	N	07 07.2 +00.3	60 00.6 +01.9	S	21 14.0 -00.1	58 05.0 +02.2	S	20 45.8 -00.1	19										
20	357 36.7 +01.9	N	07 07.5 +00.3	75 02.5 +02.0	S	21 13.9 -00.1	73 07.2 +02.2	S	20 45.7 +00.0	20										
21	12 38.6 +01.9	N	07 07.8 +00.3	90 04.5 +01.9	S	21 13.8 -00.1	88 09.4 +02.2	S	20 45.7 +00.0	21										
22	27 40.5 +02.0	N	07 08.1 +00.3	105 06.4 +02.0	S	21 13.7 -00.1	103 11.6 +02.2	S	20 45.7 -00.1	22										
23	42 42.5 +01.9	N	07 08.4 +00.4	120 08.4 +01.9	S	21 13.6 -00.1	118 13.8 +02.2	S	20 45.6 +00.0	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	00'1	00'1	00'1	00'1	00'1	00'1	SD	00'3	00'3	00'3	00'3	00'3	00'3	SD						
HP	00'2	00'2	00'2	00'2	00'2	00'2	HP	00'0	00'0	00'0	00'0	00'0	00'0	HP						
SHA	344°	344°	344°	344°	344°	344°	SHA	061°	061°	061°	061°	061°	061°	SHA						
Greenwich Culmination Time: 20:09							Greenwich Culmination Time: 15:00							Greenwich Culmination Time: 15:08						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 21.4 -00.2	S	22 23.6 +00.3	209 34.5 -00.6	S	15 19.2 +00.9	304 53.7 -31.9	N	22 28.3 -06.2	00			
01	197 21.2 -00.3	S	22 23.9 +00.3	224 33.9 -00.6	S	15 20.1 +00.9	319 21.8 -31.8	N	22 22.1 -06.3	01			
02	212 20.9 -00.2	S	22 24.2 +00.3	239 33.3 -00.6	S	15 21.0 +01.0	333 50.0 -31.8	N	22 15.8 -06.5	02			
03	227 20.7 -00.3	S	22 24.5 +00.4	254 32.7 -00.6	S	15 22.0 +00.9	348 18.2 -31.8	N	22 09.3 -06.6	03			
04	242 20.4 -00.3	S	22 24.9 +00.3	269 32.1 -00.6	S	15 22.9 +00.9	2 46.4 -31.8	N	22 02.7 -06.7	04			
05	257 20.1 -00.2	S	22 25.2 +00.3	284 31.5 -00.6	S	15 23.8 +01.0	17 14.6 -31.7	N	21 56.0 -06.8	05			
06	272 19.9 -00.3	S	22 25.5 +00.3	299 30.9 -00.7	S	15 24.8 +00.9	31 42.9 -31.7	N	21 49.2 -07.0	06			
07	287 19.6 -00.2	S	22 25.8 +00.3	314 30.2 -00.6	S	15 25.7 +00.9	46 11.2 -31.6	N	21 42.2 -07.0	07			
08	302 19.4 -00.3	S	22 26.1 +00.3	329 29.6 -00.6	S	15 26.6 +00.9	60 39.6 -31.7	N	21 35.2 -07.2	08			
09	317 19.1 -00.3	S	22 26.4 +00.3	344 29.0 -00.6	S	15 27.5 +01.0	75 07.9 -31.6	N	21 28.0 -07.4	09			
10	332 18.8 -00.2	S	22 26.7 +00.3	359 28.4 -00.6	S	15 28.5 +00.9	89 36.3 -31.6	N	21 20.6 -07.4	10			
11	347 18.6 -00.3	S	22 27.0 +00.3	14 27.8 -00.6	S	15 29.4 +00.9	104 04.7 -31.5	N	21 13.2 -07.6	11			
12	2 18.3 -00.2	S	22 27.3 +00.3	29 27.2 -00.7	S	15 30.3 +01.0	118 33.2 -31.5	N	21 05.6 -07.6	12			
13	17 18.1 -00.3	S	22 27.6 +00.3	44 26.5 -00.6	S	15 31.3 +00.9	133 01.7 -31.5	N	20 58.0 -07.8	13			
14	32 17.8 -00.3	S	22 27.9 +00.3	59 25.9 -00.6	S	15 32.2 +00.9	147 30.2 -31.4	N	20 50.2 -08.0	14			
15	47 17.5 -00.2	S	22 28.2 +00.3	74 25.3 -00.6	S	15 33.1 +00.9	161 58.8 -31.5	N	20 42.2 -08.0	15			
16	62 17.3 -00.3	S	22 28.5 +00.3	89 24.7 -00.6	S	15 34.0 +00.9	176 27.3 -31.3	N	20 34.2 -08.1	16			
17	77 17.0 -00.3	S	22 28.8 +00.3	104 24.1 -00.7	S	15 34.9 +01.0	190 56.0 -31.4	N	20 26.1 -08.3	17			
18	92 16.7 -00.2	S	22 29.1 +00.3	119 23.4 -00.6	S	15 35.9 +00.9	205 24.6 -31.3	N	20 17.8 -08.4	18			
19	107 16.5 -00.3	S	22 29.4 +00.3	134 22.8 -00.6	S	15 36.8 +00.9	219 53.3 -31.3	N	20 09.4 -08.5	19			
20	122 16.2 -00.2	S	22 29.7 +00.3	149 22.2 -00.6	S	15 37.7 +00.9	234 22.0 -31.2	N	20 00.9 -08.6	20			
21	137 16.0 -00.3	S	22 30.0 +00.3	164 21.6 -00.7	S	15 38.6 +01.0	248 50.8 -31.2	N	19 52.3 -08.7	21			
22	152 15.7 -00.3	S	22 30.3 +00.3	179 20.9 -00.6	S	15 39.6 +00.9	263 19.6 -31.2	N	19 43.6 -08.8	22			
23	167 15.4 -00.2	S	22 30.6 +00.3	194 20.3 -00.6	S	15 40.5 +00.9	277 48.4 -31.2	N	19 34.8 -09.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'4 15'4 15'5 15'5 15'5 15'5						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 56'6 56'7 56'8 56'9 57'0 57'1						
	SHA 108° 108° 108° 107° 107° 107°			SHA 135° 135° 135° 135° 134° 134°			SHA 229° 227° 225° 223° 220° 218°						
	Greenwich Culmination Time: 11:50			Greenwich Culmination Time: 10:02			Greenwich Culmination Time: 03:48						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	57 44.4 +01.9	N	07 08.8 +00.3	135 10.3 +01.9	S	21 13.5 -00.1	133 16.0 +02.3	S	20 45.6 -00.1	00			
01	72 46.3 +02.0	N	07 09.1 +00.3	150 12.2 +02.0	S	21 13.4 -00.1	148 18.3 +02.2	S	20 45.5 +00.0	01			
02	87 48.3 +01.9	N	07 09.4 +00.3	165 14.2 +01.9	S	21 13.3 -00.1	163 20.5 +02.2	S	20 45.5 -00.1	02			
03	102 50.2 +01.9	N	07 09.7 +00.3	180 16.1 +01.9	S	21 13.2 -00.1	178 22.7 +02.2	S	20 45.4 +00.0	03			
04	117 52.1 +02.0	N	07 10.0 +00.4	195 18.0 +02.0	S	21 13.1 +00.0	193 24.9 +02.2	S	20 45.4 -00.1	04			
05	132 54.1 +01.9	N	07 10.4 +00.3	210 20.0 +01.9	S	21 13.1 -00.1	208 27.1 +02.2	S	20 45.3 +00.0	05			
06	147 56.0 +01.9	N	07 10.7 +00.3	225 21.9 +01.9	S	21 13.0 -00.1	223 29.3 +02.2	S	20 45.3 -00.1	06			
07	162 57.9 +01.9	N	07 11.0 +00.3	240 23.8 +02.0	S	21 12.9 -00.1	238 31.5 +02.3	S	20 45.2 +00.0	07			
08	177 59.8 +02.0	N	07 11.3 +00.4	255 25.8 +01.9	S	21 12.8 -00.1	253 33.8 +02.2	S	20 45.2 -00.1	08			
09	193 01.8 +01.9	N	07 11.7 +00.3	270 27.7 +01.9	S	21 12.7 -00.1	268 36.0 +02.2	S	20 45.1 +00.0	09			
10	208 03.7 +01.9	N	07 12.0 +00.3	285 29.6 +02.0	S	21 12.6 -00.1	283 38.2 +02.2	S	20 45.1 -00.1	10			
11	223 05.6 +01.9	N	07 12.3 +00.3	300 31.6 +01.9	S	21 12.5 -00.1	298 40.4 +02.2	S	20 45.0 +00.0	11			
12	238 07.5 +02.0	N	07 12.6 +00.4	315 33.5 +01.9	S	21 12.4 -00.1	313 42.6 +02.2	S	20 45.0 +00.0	12			
13	253 09.5 +01.9	N	07 13.0 +00.3	330 35.4 +01.9	S	21 12.3 -00.1	328 44.8 +02.2	S	20 45.0 -00.1	13			
14	268 11.4 +01.9	N	07 13.3 +00.3	345 37.3 +02.0	S	21 12.2 -00.1	343 47.0 +02.3	S	20 44.9 +00.0	14			
15	283 13.3 +01.9	N	07 13.6 +00.3	0 39.3 +01.9	S	21 12.1 -00.1	358 49.3 +02.2	S	20 44.9 -00.1	15			
16	298 15.2 +01.9	N	07 13.9 +00.4	15 41.2 +01.9	S	21 12.0 -00.1	13 51.5 +02.2	S	20 44.8 +00.0	16			
17	313 17.1 +02.0	N	07 14.3 +00.3	30 43.1 +02.0	S	21 11.9 -00.1	28 53.7 +02.2	S	20 44.8 -00.1	17			
18	328 19.1 +01.9	N	07 14.6 +00.3	45 45.1 +01.9	S	21 11.8 -00.1	43 55.9 +02.2	S	20 44.7 +00.0	18			
19	343 21.0 +01.9	N	07 14.9 +00.3	60 47.0 +01.9	S	21 11.7 -00.1	58 58.1 +02.2	S	20 44.7 -00.1	19			
20	358 22.9 +01.9	N	07 15.2 +00.4	75 48.9 +02.0	S	21 11.6 -00.1	74 00.3 +02.2	S	20 44.6 +00.0	20			
21	13 24.8 +01.9	N	07 15.6 +00.3	90 50.9 +01.9	S	21 11.5 -00.1	89 02.5 +02.3	S	20 44.6 -00.1	21			
22	28 26.7 +01.9	N	07 15.9 +00.3	105 52.8 +01.9	S	21 11.4 -00.1	104 04.8 +02.2	S	20 44.5 +00.0	22			
23	43 28.6 +01.9	N	07 16.2 +00.3	120 54.7 +02.0	S	21 11.3 -00.1	119 07.0 +02.2	S	20 44.5 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 343° 343° 343° 343° 343° 343°			SHA 061° 061° 061° 061° 061° 061°			SHA 059° 059° 059° 059° 059° 059°						
	Greenwich Culmination Time: 20:06			Greenwich Culmination Time: 14:57			Greenwich Culmination Time: 15:04						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 71%				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 15.2 -00.3	S	22 30.9 +00.3	209 19.7 -00.6	S	15 41.4 +00.9	292 17.2 -31.1	N	19 25.8 -09.0				
01	197 14.9 -00.3	S	22 31.2 +00.3	224 19.1 -00.7	S	15 42.3 +00.9	306 46.1 -31.1	N	19 16.8 -09.2				
02	212 14.6 -00.2	S	22 31.5 +00.3	239 18.4 -00.6	S	15 43.2 +00.9	321 15.0 -31.0	N	19 07.6 -09.2				
03	227 14.4 -00.3	S	22 31.8 +00.3	254 17.8 -00.6	S	15 44.1 +01.0	335 44.0 -31.0	N	18 58.4 -09.4				
04	242 14.1 -00.3	S	22 32.1 +00.3	269 17.2 -00.6	S	15 45.1 +00.9	350 13.0 -31.0	N	18 49.0 -09.5				
05	257 13.8 -00.2	S	22 32.4 +00.3	284 16.6 -00.7	S	15 46.0 +00.9	4 42.0 -30.9	N	18 39.5 -09.6				
06	272 13.6 -00.3	S	22 32.7 +00.3	299 15.9 -00.6	S	15 46.9 +00.9	19 11.1 -30.9	N	18 29.9 -09.7				
07	287 13.3 -00.3	S	22 33.0 +00.3	314 15.3 -00.6	S	15 47.8 +00.9	33 40.2 -30.9	N	18 20.2 -09.8				
08	302 13.0 -00.2	S	22 33.3 +00.2	329 14.7 -00.7	S	15 48.7 +00.9	48 09.3 -30.8	N	18 10.4 -09.9				
09	317 12.8 -00.3	S	22 33.5 +00.3	344 14.0 -00.6	S	15 49.6 +00.9	62 38.5 -30.8	N	18 00.5 -10.0				
10	332 12.5 -00.3	S	22 33.8 +00.3	359 13.4 -00.6	S	15 50.5 +00.9	77 07.7 -30.8	N	17 50.5 -10.1				
11	347 12.2 -00.2	S	22 34.1 +00.3	14 12.8 -00.6	S	15 51.4 +01.0	91 36.9 -30.7	N	17 40.4 -10.2				
12	2 12.0 -00.3	S	22 34.4 +00.3	29 12.2 -00.7	S	15 52.4 +00.9	106 06.2 -30.7	N	17 30.2 -10.3				
13	17 11.7 -00.3	S	22 34.7 +00.3	44 11.5 -00.6	S	15 53.3 +00.9	120 35.5 -30.7	N	17 19.9 -10.4				
14	32 11.4 -00.2	S	22 35.0 +00.3	59 10.9 -00.6	S	15 54.2 +00.9	135 04.8 -30.6	N	17 09.5 -10.6				
15	47 11.2 -00.3	S	22 35.3 +00.2	74 10.3 -00.7	S	15 55.1 +00.9	149 34.2 -30.6	N	16 58.9 -10.6				
16	62 10.9 -00.3	S	22 35.5 +00.3	89 09.6 -00.6	S	15 56.0 +00.9	164 03.6 -30.6	N	16 48.3 -10.7				
17	77 10.6 -00.2	S	22 35.8 +00.3	104 09.0 -00.6	S	15 56.9 +00.9	178 33.0 -30.5	N	16 37.6 -10.8				
18	92 10.4 -00.3	S	22 36.1 +00.3	119 08.4 -00.7	S	15 57.8 +00.9	193 02.5 -30.5	N	16 26.8 -10.9				
19	107 10.1 -00.3	S	22 36.4 +00.3	134 07.7 -00.6	S	15 58.7 +00.9	207 32.0 -30.4	N	16 15.9 -11.0				
20	122 09.8 -00.2	S	22 36.7 +00.2	149 07.1 -00.6	S	15 59.6 +00.9	222 01.6 -30.5	N	16 04.9 -11.1				
21	137 09.6 -00.3	S	22 36.9 +00.3	164 06.5 -00.7	S	16 00.5 +00.9	236 31.1 -30.4	N	15 53.8 -11.1				
22	152 09.3 -00.3	S	22 37.2 +00.3	179 05.8 -00.6	S	16 01.4 +00.9	251 00.7 -30.4	N	15 42.7 -11.3				
23	167 09.0 -00.2	S	22 37.5 +00.3	194 05.2 -00.7	S	16 02.3 +00.9	265 30.3 -30.3	N	15 31.4 -11.4				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'6 15'6 15'6 15'7 15'7 15'7						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 57'2 57'3 57'4 57'5 57'6 57'7						
	SHA 107° 107° 107° 106° 106° 106°			SHA 134° 134° 134° 133° 133° 133°			SHA 216° 214° 211° 209° 207° 205°						
	Greenwich Culmination Time: 11:51			Greenwich Culmination Time: 10:03			Greenwich Culmination Time: 04:40						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	58 30.5 +01.9	N	07 16.5 +00.4	135 56.7 +01.9	S	21 11.2 -00.1	134 09.2 +02.2	S	20 44.4 +00.0				
01	73 32.4 +02.0	N	07 16.9 +00.3	150 58.6 +01.9	S	21 11.1 -00.1	149 11.4 +02.2	S	20 44.4 -00.1				
02	88 34.4 +01.9	N	07 17.2 +00.3	166 00.5 +02.0	S	21 11.0 -00.1	164 13.6 +02.2	S	20 44.3 +00.0				
03	103 36.3 +01.9	N	07 17.5 +00.4	181 02.5 +01.9	S	21 10.9 -00.1	179 15.8 +02.2	S	20 44.3 -00.1				
04	118 38.2 +01.9	N	07 17.9 +00.3	196 04.4 +01.9	S	21 10.8 -00.1	194 18.0 +02.3	S	20 44.2 +00.0				
05	133 40.1 +01.9	N	07 18.2 +00.3	211 06.3 +01.9	S	21 10.7 -00.1	209 20.3 +02.2	S	20 44.2 +00.0				
06	148 42.0 +01.9	N	07 18.5 +00.3	226 08.2 +02.0	S	21 10.6 -00.1	224 22.5 +02.2	S	20 44.2 -00.1				
07	163 43.9 +01.9	N	07 18.8 +00.4	241 10.2 +01.9	S	21 10.5 -00.1	239 24.7 +02.2	S	20 44.1 +00.0				
08	178 45.8 +01.9	N	07 19.2 +00.3	256 12.1 +01.9	S	21 10.4 -00.1	254 26.9 +02.2	S	20 44.1 -00.1				
09	193 47.7 +01.9	N	07 19.5 +00.3	271 14.0 +02.0	S	21 10.3 +00.0	269 29.1 +02.2	S	20 44.0 +00.0				
10	208 49.6 +01.9	N	07 19.8 +00.4	286 16.0 +01.9	S	21 10.3 -00.1	284 31.3 +02.2	S	20 44.0 -00.1				
11	223 51.5 +01.9	N	07 20.2 +00.3	301 17.9 +01.9	S	21 10.2 -00.1	299 33.5 +02.2	S	20 43.9 +00.0				
12	238 53.4 +01.9	N	07 20.5 +00.3	316 19.8 +01.9	S	21 10.1 -00.1	314 35.7 +02.3	S	20 43.9 -00.1				
13	253 55.3 +01.9	N	07 20.8 +00.4	331 21.7 +02.0	S	21 10.0 -00.1	329 38.0 +02.2	S	20 43.8 +00.0				
14	268 57.2 +01.9	N	07 21.2 +00.3	346 23.7 +01.9	S	21 09.9 -00.1	344 40.2 +02.2	S	20 43.8 -00.1				
15	283 59.1 +01.9	N	07 21.5 +00.3	1 25.6 +01.9	S	21 09.8 -00.1	359 42.4 +02.2	S	20 43.7 +00.0				
16	299 01.0 +01.9	N	07 21.8 +00.3	16 27.5 +02.0	S	21 09.7 -00.1	14 44.6 +02.2	S	20 43.7 -00.1				
17	314 02.9 +01.9	N	07 22.1 +00.4	31 29.5 +01.9	S	21 09.6 -00.1	29 46.8 +02.2	S	20 43.6 +00.0				
18	329 04.8 +01.9	N	07 22.5 +00.3	46 31.4 +01.9	S	21 09.5 -00.1	44 49.0 +02.2	S	20 43.6 -00.1				
19	344 06.7 +01.9	N	07 22.8 +00.3	61 33.3 +01.9	S	21 09.4 -00.1	59 51.2 +02.2	S	20 43.5 +00.0				
20	359 08.6 +01.8	N	07 23.1 +00.4	76 35.2 +02.0	S	21 09.3 -00.1	74 53.4 +02.2	S	20 43.5 -00.1				
21	14 10.4 +01.9	N	07 23.5 +00.3	91 37.2 +01.9	S	21 09.2 -00.1	89 55.6 +02.3	S	20 43.4 +00.0				
22	29 12.3 +01.9	N	07 23.8 +00.3	106 39.1 +01.9	S	21 09.1 -00.1	104 57.9 +02.2	S	20 43.4 -00.1				
23	44 14.2 +01.9	N	07 24.1 +00.4	121 41.0 +02.0	S	21 09.0 -00.1	120 00.1 +02.2	S	20 43.3 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 343° 343° 343° 343° 343° 343°			SHA 061° 061° 061° 061° 061° 061°			SHA 059° 059° 059° 059° 059° 059°						
	Greenwich Culmination Time: 20:03			Greenwich Culmination Time: 14:54			Greenwich Culmination Time: 15:01						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 74%				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	182 08.8 -00.3	S	22 37.8 +00.3	209 04.5 -00.6	S	16 03.2 +00.9	280 00.0 -30.3	N	15 20.0 -11.4	00			
01	197 08.5 -00.3	S	22 38.1 +00.2	224 03.9 -00.6	S	16 04.1 +00.9	294 29.7 -30.3	N	15 08.6 -11.6	01			
02	212 08.2 -00.2	S	22 38.3 +00.3	239 03.3 -00.7	S	16 05.0 +00.9	308 59.4 -30.2	N	14 57.0 -11.6	02			
03	227 08.0 -00.3	S	22 38.6 +00.3	254 02.6 -00.6	S	16 05.9 +00.9	323 29.2 -30.3	N	14 45.4 -11.7	03			
04	242 07.7 -00.3	S	22 38.9 +00.3	269 02.0 -00.6	S	16 06.8 +00.9	337 58.9 -30.2	N	14 33.7 -11.8	04			
05	257 07.4 -00.3	S	22 39.2 +00.2	284 01.4 -00.7	S	16 07.7 +00.9	352 28.7 -30.1	N	14 21.9 -11.9	05			
06	272 07.1 -00.2	S	22 39.4 +00.3	299 00.7 -00.6	S	16 08.6 +00.9	6 58.6 -30.2	N	14 10.0 -12.0	06			
07	287 06.9 -00.3	S	22 39.7 +00.3	314 00.1 -00.7	S	16 09.5 +00.9	21 28.4 -30.1	N	13 58.0 -12.0	07			
08	302 06.6 -00.3	S	22 40.0 +00.2	328 59.4 -00.6	S	16 10.4 +00.9	35 58.3 -30.1	N	13 46.0 -12.2	08			
09	317 06.3 -00.2	S	22 40.2 +00.3	343 58.8 -00.6	S	16 11.3 +00.9	50 28.2 -30.0	N	13 33.8 -12.2	09			
10	332 06.1 -00.3	S	22 40.5 +00.3	358 58.2 -00.7	S	16 12.2 +00.9	64 58.2 -30.1	N	13 21.6 -12.3	10			
11	347 05.8 -00.3	S	22 40.8 +00.3	13 57.5 -00.6	S	16 13.1 +00.9	79 28.1 -30.0	N	13 09.3 -12.4	11			
12	2 05.5 -00.3	S	22 41.1 +00.2	28 56.9 -00.7	S	16 14.0 +00.9	93 58.1 -30.0	N	12 56.9 -12.4	12			
13	17 05.2 -00.2	S	22 41.3 +00.3	43 56.2 -00.6	S	16 14.9 +00.9	108 28.1 -29.9	N	12 44.5 -12.6	13			
14	32 05.0 -00.3	S	22 41.6 +00.3	58 55.6 -00.7	S	16 15.8 +00.9	122 58.2 -30.0	N	12 31.9 -12.6	14			
15	47 04.7 -00.3	S	22 41.9 +00.2	73 54.9 -00.6	S	16 16.7 +00.9	137 28.2 -29.9	N	12 19.3 -12.7	15			
16	62 04.4 -00.3	S	22 42.1 +00.3	88 54.3 -00.7	S	16 17.6 +00.8	151 58.3 -29.9	N	12 06.6 -12.7	16			
17	77 04.1 -00.2	S	22 42.4 +00.2	103 53.6 -00.6	S	16 18.4 +00.9	166 28.4 -29.9	N	11 53.9 -12.9	17			
18	92 03.9 -00.3	S	22 42.6 +00.3	118 53.0 -00.7	S	16 19.3 +00.9	180 58.5 -29.8	N	11 41.0 -12.9	18			
19	107 03.6 -00.3	S	22 42.9 +00.3	133 52.3 -00.6	S	16 20.2 +00.9	195 28.7 -29.9	N	11 28.1 -12.9	19			
20	122 03.3 -00.2	S	22 43.2 +00.2	148 51.7 -00.6	S	16 21.1 +00.9	209 58.8 -29.8	N	11 15.2 -13.1	20			
21	137 03.1 -00.3	S	22 43.4 +00.3	163 51.1 -00.7	S	16 22.0 +00.9	224 29.0 -29.8	N	11 02.1 -13.1	21			
22	152 02.8 -00.3	S	22 43.7 +00.2	178 50.4 -00.6	S	16 22.9 +00.9	238 59.2 -29.8	N	10 49.0 -13.2	22			
23	167 02.5 -00.3	S	22 43.9 +00.3	193 49.8 -00.7	S	16 23.8 +00.9	253 29.4 -29.7	N	10 35.8 -13.2	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'7 15'8 15'8 15'8 15'9 15'9						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 57'8 57'9 58'0 58'1 58'2 58'3						
	SHA 106° 106° 105° 105° 105° 105°			SHA 133° 133° 132° 132° 132° 132°			SHA 203° 201° 198° 196° 194° 192°						
	Greenwich Culmination Time: 11:51			Greenwich Culmination Time: 10:04			Greenwich Culmination Time: 05:31						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	59 16.1 +01.9	N	07 24.5 +00.3	136 43.0 +01.9	S	21 08.9 -00.1	135 02.3 +02.2	S	20 43.3 -00.1	00			
01	74 18.0 +01.9	N	07 24.8 +00.3	151 44.9 +01.9	S	21 08.8 -00.1	150 04.5 +02.2	S	20 43.2 +00.0	01			
02	89 19.9 +01.9	N	07 25.1 +00.4	166 46.8 +01.9	S	21 08.7 -00.1	165 06.7 +02.2	S	20 43.2 +00.0	02			
03	104 21.8 +01.9	N	07 25.5 +00.3	181 48.7 +02.0	S	21 08.6 -00.1	180 08.9 +02.2	S	20 43.2 -00.1	03			
04	119 23.7 +01.8	N	07 25.8 +00.4	196 50.7 +01.9	S	21 08.5 -00.1	195 11.1 +02.2	S	20 43.1 +00.0	04			
05	134 25.5 +01.9	N	07 26.2 +00.3	211 52.6 +01.9	S	21 08.4 -00.1	210 13.3 +02.2	S	20 43.1 -00.1	05			
06	149 27.4 +01.9	N	07 26.5 +00.3	226 54.5 +01.9	S	21 08.3 -00.1	225 15.5 +02.2	S	20 43.0 +00.0	06			
07	164 29.3 +01.9	N	07 26.8 +00.4	241 56.4 +02.0	S	21 08.2 -00.1	240 17.7 +02.3	S	20 43.0 -00.1	07			
08	179 31.2 +01.9	N	07 27.2 +00.3	256 58.4 +01.9	S	21 08.1 -00.1	255 20.0 +02.2	S	20 42.9 +00.0	08			
09	194 33.1 +01.9	N	07 27.5 +00.3	272 00.3 +01.9	S	21 08.0 -00.1	270 22.2 +02.2	S	20 42.9 -00.1	09			
10	209 35.0 +01.8	N	07 27.8 +00.4	287 02.2 +02.0	S	21 07.9 -00.1	285 24.4 +02.2	S	20 42.8 +00.0	10			
11	224 36.8 +01.9	N	07 28.2 +00.3	302 04.2 +01.9	S	21 07.8 -00.1	300 26.6 +02.2	S	20 42.8 -00.1	11			
12	239 38.7 +01.9	N	07 28.5 +00.3	317 06.1 +01.9	S	21 07.7 -00.1	315 28.8 +02.2	S	20 42.7 +00.0	12			
13	254 40.6 +01.9	N	07 28.8 +00.4	332 08.0 +01.9	S	21 07.6 -00.1	330 31.0 +02.2	S	20 42.7 -00.1	13			
14	269 42.5 +01.8	N	07 29.2 +00.3	347 09.9 +02.0	S	21 07.5 -00.1	345 33.2 +02.2	S	20 42.6 +00.0	14			
15	284 44.3 +01.9	N	07 29.5 +00.4	2 11.9 +01.9	S	21 07.4 -00.1	0 35.4 +02.2	S	20 42.6 -00.1	15			
16	299 46.2 +01.9	N	07 29.9 +00.3	17 13.8 +01.9	S	21 07.3 -00.1	15 37.6 +02.2	S	20 42.5 +00.0	16			
17	314 48.1 +01.9	N	07 30.2 +00.3	32 15.7 +01.9	S	21 07.2 -00.1	30 39.8 +02.3	S	20 42.5 -00.1	17			
18	329 50.0 +01.8	N	07 30.5 +00.4	47 17.6 +02.0	S	21 07.1 -00.1	45 42.1 +02.2	S	20 42.4 +00.0	18			
19	344 51.8 +01.9	N	07 30.9 +00.3	62 19.6 +01.9	S	21 07.0 -00.1	60 44.3 +02.2	S	20 42.4 -00.1	19			
20	359 53.7 +01.9	N	07 31.2 +00.3	77 21.5 +01.9	S	21 06.9 -00.1	75 46.5 +02.2	S	20 42.3 +00.0	20			
21	14 55.6 +01.8	N	07 31.5 +00.4	92 23.4 +01.9	S	21 06.8 -00.1	90 48.7 +02.2	S	20 42.3 -00.1	21			
22	29 57.4 +01.9	N	07 31.9 +00.3	107 25.3 +02.0	S	21 06.7 -00.1	105 50.9 +02.2	S	20 42.2 +00.0	22			
23	44 59.3 +01.9	N	07 32.2 +00.4	122 27.3 +01.9	S	21 06.6 -00.1	120 53.1 +02.2	S	20 42.2 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 343° 343° 343° 343° 343° 343°			SHA 060° 060° 060° 060° 060° 060°			SHA 059° 059° 059° 059° 059° 059°						
	Greenwich Culmination Time: 20:00			Greenwich Culmination Time: 14:51			Greenwich Culmination Time: 14:57						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 02.2 -00.2	S	22 44.2 +00.3	208 49.1 -00.6	S	16 24.7 +00.8	267 59.7 -29.8	N	10 22.6 -13.4				
01	197 02.0 -00.3	S	22 44.5 +00.2	223 48.5 -00.7	S	16 25.5 +00.9	282 29.9 -29.7	N	10 09.2 -13.3				
02	212 01.7 -00.3	S	22 44.7 +00.3	238 47.8 -00.6	S	16 26.4 +00.9	297 00.2 -29.8	N	09 55.9 -13.5				
03	227 01.4 -00.3	S	22 45.0 +00.2	253 47.2 -00.7	S	16 27.3 +00.9	311 30.4 -29.7	N	09 42.4 -13.5				
04	242 01.1 -00.2	S	22 45.2 +00.3	268 46.5 -00.6	S	16 28.2 +00.9	326 00.7 -29.7	N	09 28.9 -13.6				
05	257 00.9 -00.3	S	22 45.5 +00.2	283 45.9 -00.7	S	16 29.1 +00.9	340 31.0 -29.7	N	09 15.3 -13.6				
06	272 00.6 -00.3	S	22 45.7 +00.3	298 45.2 -00.7	S	16 30.0 +00.8	355 01.3 -29.6	N	09 01.7 -13.7				
07	287 00.3 -00.3	S	22 46.0 +00.3	313 44.5 -00.6	S	16 30.8 +00.9	9 31.7 -29.7	N	08 48.0 -13.8				
08	302 00.0 -00.3	S	22 46.3 +00.2	328 43.9 -00.7	S	16 31.7 +00.9	24 02.0 -29.7	N	08 34.2 -13.8				
09	316 59.7 -00.2	S	22 46.5 +00.3	343 43.2 -00.6	S	16 32.6 +00.9	38 32.3 -29.6	N	08 20.4 -13.8				
10	331 59.5 -00.3	S	22 46.8 +00.2	358 42.6 -00.7	S	16 33.5 +00.8	53 02.7 -29.7	N	08 06.6 -14.0				
11	346 59.2 -00.3	S	22 47.0 +00.3	13 41.9 -00.6	S	16 34.3 +00.9	67 33.0 -29.6	N	07 52.6 -13.9				
12	1 58.9 -00.3	S	22 47.3 +00.2	28 41.3 -00.7	S	16 35.2 +00.9	82 03.4 -29.7	N	07 38.7 -14.1				
13	16 58.6 -00.2	S	22 47.5 +00.3	43 40.6 -00.6	S	16 36.1 +00.9	96 33.7 -29.6	N	07 24.6 -14.0				
14	31 58.4 -00.3	S	22 47.8 +00.2	58 40.0 -00.7	S	16 37.0 +00.8	111 04.1 -29.6	N	07 10.6 -14.2				
15	46 58.1 -00.3	S	22 48.0 +00.2	73 39.3 -00.6	S	16 37.8 +00.9	125 34.5 -29.7	N	06 56.4 -14.1				
16	61 57.8 -00.3	S	22 48.2 +00.3	88 38.7 -00.7	S	16 38.7 +00.9	140 04.8 -29.6	N	06 42.3 -14.3				
17	76 57.5 -00.2	S	22 48.5 +00.2	103 38.0 -00.7	S	16 39.6 +00.9	154 35.2 -29.6	N	06 28.0 -14.2				
18	91 57.3 -00.3	S	22 48.7 +00.3	118 37.3 -00.6	S	16 40.5 +00.8	169 05.6 -29.7	N	06 13.8 -14.4				
19	106 57.0 -00.3	S	22 49.0 +00.2	133 36.7 -00.7	S	16 41.3 +00.9	183 35.9 -29.6	N	05 59.4 -14.3				
20	121 56.7 -00.3	S	22 49.2 +00.3	148 36.0 -00.6	S	16 42.2 +00.9	198 06.3 -29.7	N	05 45.1 -14.4				
21	136 56.4 -00.3	S	22 49.5 +00.2	163 35.4 -00.7	S	16 43.1 +00.8	212 36.6 -29.6	N	05 30.7 -14.5				
22	151 56.1 -00.2	S	22 49.7 +00.2	178 34.7 -00.7	S	16 43.9 +00.9	227 07.0 -29.6	N	05 16.2 -14.5				
23	166 55.9 -00.3	S	22 49.9 +00.3	193 34.0 -00.6	S	16 44.8 +00.9	241 37.4 -29.7	N	05 01.7 -14.5				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'9 16'0 16'0 16'0 16'0 16'1						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 58'5 58'6 58'7 58'8 58'9 59'0						
	SHA 105° 105° 104° 104° 104° 104°			SHA 132° 131° 131° 131° 131° 130°			SHA 190° 188° 185° 183° 181° 179°						
	Greenwich Culmination Time: 11:52			Greenwich Culmination Time: 10:05			Greenwich Culmination Time: 06:20						
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	60 01.2 +01.8	N	07 32.6 +00.3	137 29.2 +01.9	S	21 06.5 -00.1	135 55.3 +02.2	S	20 42.1 +00.0				
01	75 03.0 +01.9	N	07 32.9 +00.3	152 31.1 +01.9	S	21 06.4 -00.1	150 57.5 +02.2	S	20 42.1 -00.1				
02	90 04.9 +01.9	N	07 33.2 +00.4	167 33.0 +02.0	S	21 06.3 -00.1	165 59.7 +02.2	S	20 42.0 +00.0				
03	105 06.8 +01.8	N	07 33.6 +00.3	182 35.0 +01.9	S	21 06.2 -00.1	181 01.9 +02.2	S	20 42.0 +00.0				
04	120 08.6 +01.9	N	07 33.9 +00.4	197 36.9 +01.9	S	21 06.1 -00.1	196 04.1 +02.3	S	20 42.0 -00.1				
05	135 10.5 +01.8	N	07 34.3 +00.3	212 38.8 +01.9	S	21 06.0 -00.1	211 06.4 +02.2	S	20 41.9 +00.0				
06	150 12.3 +01.9	N	07 34.6 +00.4	227 40.7 +02.0	S	21 05.9 -00.1	226 08.6 +02.2	S	20 41.9 -00.1				
07	165 14.2 +01.9	N	07 35.0 +00.3	242 42.7 +01.9	S	21 05.8 -00.1	241 10.8 +02.2	S	20 41.8 +00.0				
08	180 16.1 +01.8	N	07 35.3 +00.3	257 44.6 +01.9	S	21 05.7 -00.1	256 13.0 +02.2	S	20 41.8 -00.1				
09	195 17.9 +01.9	N	07 35.6 +00.4	272 46.5 +01.9	S	21 05.6 -00.1	271 15.2 +02.2	S	20 41.7 +00.0				
10	210 19.8 +01.8	N	07 36.0 +00.3	287 48.4 +01.9	S	21 05.5 -00.1	286 17.4 +02.2	S	20 41.7 -00.1				
11	225 21.6 +01.9	N	07 36.3 +00.4	302 50.3 +02.0	S	21 05.4 -00.1	301 19.6 +02.2	S	20 41.6 +00.0				
12	240 23.5 +01.9	N	07 36.7 +00.3	317 52.3 +01.9	S	21 05.3 -00.1	316 21.8 +02.2	S	20 41.6 -00.1				
13	255 25.4 +01.8	N	07 37.0 +00.3	332 54.2 +01.9	S	21 05.2 -00.1	331 24.0 +02.2	S	20 41.5 +00.0				
14	270 27.2 +01.9	N	07 37.3 +00.4	347 56.1 +01.9	S	21 05.1 -00.1	346 26.2 +02.2	S	20 41.5 -00.1				
15	285 29.1 +01.8	N	07 37.7 +00.3	2 58.0 +02.0	S	21 05.0 -00.1	1 28.4 +02.2	S	20 41.4 +00.0				
16	300 30.9 +01.9	N	07 38.0 +00.4	17 60.0 +01.9	S	21 04.9 -00.1	16 30.6 +02.2	S	20 41.4 -00.1				
17	315 32.8 +01.8	N	07 38.4 +00.3	33 01.9 +01.9	S	21 04.8 -00.1	31 32.8 +02.2	S	20 41.3 +00.0				
18	330 34.6 +01.9	N	07 38.7 +00.4	48 03.8 +01.9	S	21 04.7 -00.1	46 35.0 +02.3	S	20 41.3 -00.1				
19	345 36.5 +01.8	N	07 39.1 +00.3	63 05.7 +01.9	S	21 04.6 -00.1	61 37.3 +02.2	S	20 41.2 +00.0				
20	0 38.3 +01.9	N	07 39.4 +00.4	78 07.6 +02.0	S	21 04.5 -00.1	76 39.5 +02.2	S	20 41.2 -00.1				
21	15 40.2 +01.8	N	07 39.8 +00.3	93 09.6 +01.9	S	21 04.4 -00.1	91 41.7 +02.2	S	20 41.1 +00.0				
22	30 42.0 +01.9	N	07 40.1 +00.3	108 11.5 +01.9	S	21 04.3 -00.1	106 43.9 +02.2	S	20 41.1 -00.1				
23	45 43.9 +01.8	N	07 40.4 +00.4	123 13.4 +01.9	S	21 04.2 -00.1	121 46.1 +02.2	S	20 41.0 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 343° 343° 343° 343° 343° 343°			SHA 060° 060° 060° 060° 060° 060°			SHA 059° 059° 059° 059° 059° 059°						
	Greenwich Culmination Time: 19:57			Greenwich Culmination Time: 14:48			Greenwich Culmination Time: 14:54						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 55.6 -00.3	S	22 50.2 +00.2	208 33.4 -00.7	S	16 45.7 +00.8	256 07.7 -29.7	N	04 47.2 -14.6	00			
01	196 55.3 -00.3	S	22 50.4 +00.3	223 32.7 -00.7	S	16 46.5 +00.9	270 38.0 -29.6	N	04 32.6 -14.6	01			
02	211 55.0 -00.3	S	22 50.7 +00.2	238 32.0 -00.6	S	16 47.4 +00.9	285 08.4 -29.7	N	04 18.0 -14.6	02			
03	226 54.7 -00.2	S	22 50.9 +00.2	253 31.4 -00.7	S	16 48.3 +00.8	299 38.7 -29.7	N	04 03.4 -14.7	03			
04	241 54.5 -00.3	S	22 51.1 +00.3	268 30.7 -00.6	S	16 49.1 +00.9	314 09.0 -29.7	N	03 48.7 -14.7	04			
05	256 54.2 -00.3	S	22 51.4 +00.2	283 30.1 -00.7	S	16 50.0 +00.9	328 39.3 -29.7	N	03 34.0 -14.8	05			
06	271 53.9 -00.3	S	22 51.6 +00.2	298 29.4 -00.7	S	16 50.9 +00.8	343 09.6 -29.7	N	03 19.2 -14.7	06			
07	286 53.6 -00.3	S	22 51.8 +00.3	313 28.7 -00.6	S	16 51.7 +00.9	357 39.9 -29.8	N	03 04.5 -14.8	07			
08	301 53.3 -00.2	S	22 52.1 +00.2	328 28.1 -00.7	S	16 52.6 +00.8	12 10.1 -29.7	N	02 49.7 -14.9	08			
09	316 53.1 -00.3	S	22 52.3 +00.2	343 27.4 -00.7	S	16 53.4 +00.9	26 40.4 -29.8	N	02 34.8 -14.8	09			
10	331 52.8 -00.3	S	22 52.5 +00.3	358 26.7 -00.6	S	16 54.3 +00.9	41 10.6 -29.8	N	02 20.0 -14.9	10			
11	346 52.5 -00.3	S	22 52.8 +00.2	13 26.1 -00.7	S	16 55.2 +00.8	55 40.8 -29.8	N	02 05.1 -14.9	11			
12	1 52.2 -00.3	S	22 53.0 +00.2	28 25.4 -00.7	S	16 56.0 +00.9	70 11.0 -29.8	N	01 50.2 -15.0	12			
13	16 51.9 -00.3	S	22 53.2 +00.3	43 24.7 -00.6	S	16 56.9 +00.8	84 41.2 -29.9	N	01 35.2 -14.9	13			
14	31 51.6 -00.2	S	22 53.5 +00.2	58 24.1 -00.7	S	16 57.7 +00.9	99 11.3 -29.9	N	01 20.3 -15.0	14			
15	46 51.4 -00.3	S	22 53.7 +00.2	73 23.4 -00.7	S	16 58.6 +00.8	113 41.4 -29.9	N	01 05.3 -15.0	15			
16	61 51.1 -00.3	S	22 53.9 +00.3	88 22.7 -00.7	S	16 59.4 +00.9	128 11.5 -29.9	N	00 50.3 -15.0	16			
17	76 50.8 -00.3	S	22 54.2 +00.2	103 22.0 -00.6	S	17 00.3 +00.9	142 41.6 -29.9	N	00 35.3 -15.0	17			
18	91 50.5 -00.3	S	22 54.4 +00.2	118 21.4 -00.7	S	17 01.2 +00.8	157 11.7 -30.0	N	00 20.3 -15.1	18			
19	106 50.2 -00.3	S	22 54.6 +00.2	133 20.7 -00.7	S	17 02.0 +00.9	171 41.7 -30.0	N	00 05.2 -15.0	19			
20	121 49.9 -00.2	S	22 54.8 +00.3	148 20.0 -00.6	S	17 02.9 +00.8	186 11.7 -30.1	S	00 09.8 +15.1	20			
21	136 49.7 -00.3	S	22 55.1 +00.2	163 19.4 -00.7	S	17 03.7 +00.9	200 41.6 -30.0	S	00 24.9 +15.1	21			
22	151 49.4 -00.3	S	22 55.3 +00.2	178 18.7 -00.7	S	17 04.6 +00.8	215 11.6 -30.1	S	00 40.0 +15.1	22			
23	166 49.1 -00.3	S	22 55.5 +00.2	193 18.0 -00.7	S	17 05.4 +00.9	229 41.5 -30.1	S	00 55.1 +15.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'1 16'1 16'2 16'2 16'2 16'2						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 59'1 59'2 59'3 59'4 59'5 59'6						
	SHA 104° 103° 103° 103° 103° 103°			SHA 130° 130° 130° 130° 129° 129°			SHA 177° 175° 173° 170° 168° 166°						
	Greenwich Culmination Time: 11:52			Greenwich Culmination Time: 10:06			Greenwich Culmination Time: 07:09						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	60 45.7 +01.8	N	07 40.8 +00.3	138 15.3 +02.0	S	21 04.1 -00.1	136 48.3 +02.2	S	20 41.0 -00.1	00			
01	75 47.5 +01.9	N	07 41.1 +00.4	153 17.3 +01.9	S	21 04.0 -00.1	151 50.5 +02.2	S	20 40.9 +00.0	01			
02	90 49.4 +01.8	N	07 41.5 +00.3	168 19.2 +01.9	S	21 03.9 -00.1	166 52.7 +02.2	S	20 40.9 -00.1	02			
03	105 51.2 +01.9	N	07 41.8 +00.4	183 21.1 +01.9	S	21 03.8 -00.1	181 54.9 +02.2	S	20 40.8 +00.0	03			
04	120 53.1 +01.8	N	07 42.2 +00.3	198 23.0 +01.9	S	21 03.7 -00.1	196 57.1 +02.2	S	20 40.8 -00.1	04			
05	135 54.9 +01.8	N	07 42.5 +00.4	213 24.9 +02.0	S	21 03.6 -00.1	211 59.3 +02.2	S	20 40.7 +00.0	05			
06	150 56.7 +01.9	N	07 42.9 +00.3	228 26.9 +01.9	S	21 03.5 -00.1	227 01.5 +02.2	S	20 40.7 -00.1	06			
07	165 58.6 +01.8	N	07 43.2 +00.4	243 28.8 +01.9	S	21 03.4 -00.1	242 03.7 +02.2	S	20 40.6 +00.0	07			
08	181 00.4 +01.9	N	07 43.6 +00.3	258 30.7 +01.9	S	21 03.3 -00.1	257 05.9 +02.2	S	20 40.6 -00.1	08			
09	196 02.3 +01.8	N	07 43.9 +00.4	273 32.6 +01.9	S	21 03.2 -00.1	272 08.1 +02.2	S	20 40.5 +00.0	09			
10	211 04.1 +01.8	N	07 44.3 +00.3	288 34.5 +02.0	S	21 03.1 -00.1	287 10.3 +02.3	S	20 40.5 -00.1	10			
11	226 05.9 +01.9	N	07 44.6 +00.4	303 36.5 +01.9	S	21 03.0 -00.1	302 12.6 +02.2	S	20 40.4 +00.0	11			
12	241 07.8 +01.8	N	07 45.0 +00.3	318 38.4 +01.9	S	21 02.9 -00.1	317 14.8 +02.2	S	20 40.4 -00.1	12			
13	256 09.6 +01.8	N	07 45.3 +00.4	333 40.3 +01.9	S	21 02.8 -00.1	332 17.0 +02.2	S	20 40.3 +00.0	13			
14	271 11.4 +01.9	N	07 45.7 +00.3	348 42.2 +01.9	S	21 02.7 -00.1	347 19.2 +02.2	S	20 40.3 -00.1	14			
15	286 13.3 +01.8	N	07 46.0 +00.4	3 44.1 +02.0	S	21 02.6 -00.1	2 21.4 +02.2	S	20 40.2 +00.0	15			
16	301 15.1 +01.8	N	07 46.4 +00.3	18 46.1 +01.9	S	21 02.5 -00.1	17 23.6 +02.2	S	20 40.2 -00.1	16			
17	316 16.9 +01.9	N	07 46.7 +00.4	33 48.0 +01.9	S	21 02.4 -00.1	32 25.8 +02.2	S	20 40.1 +00.0	17			
18	331 18.8 +01.8	N	07 47.1 +00.3	48 49.9 +01.9	S	21 02.3 -00.1	47 28.0 +02.2	S	20 40.1 -00.1	18			
19	346 20.6 +01.8	N	07 47.4 +00.4	63 51.8 +01.9	S	21 02.2 -00.1	62 30.2 +02.2	S	20 40.0 +00.0	19			
20	1 22.4 +01.8	N	07 47.8 +00.3	78 53.7 +02.0	S	21 02.1 -00.1	77 32.4 +02.2	S	20 40.0 -00.1	20			
21	16 24.2 +01.9	N	07 48.1 +00.4	93 55.7 +01.9	S	21 02.0 -00.1	92 34.6 +02.2	S	20 39.9 +00.0	21			
22	31 26.1 +01.8	N	07 48.5 +00.3	108 57.6 +01.9	S	21 01.9 -00.1	107 36.8 +02.2	S	20 39.9 -00.1	22			
23	46 27.9 +01.8	N	07 48.8 +00.4	123 59.5 +01.9	S	21 01.8 -00.1	122 39.0 +02.2	S	20 39.8 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 343° 343° 342° 342° 342° 342°			SHA 060° 060° 060° 060° 060° 060°			SHA 059° 059° 059° 059° 059° 059°						
	Greenwich Culmination Time: 19:54			Greenwich Culmination Time: 14:45			Greenwich Culmination Time: 14:50						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 48.8 -00.3	S	22 55.7 +00.2	208 17.3 -00.6	S	17 06.3 +00.8	244 11.4 -30.2	S	01 10.2 +15.1	00			
01	196 48.5 -00.3	S	22 55.9 +00.3	223 16.7 -00.7	S	17 07.1 +00.9	258 41.2 -30.2	S	01 25.3 +15.1	01			
02	211 48.2 -00.2	S	22 56.2 +00.2	238 16.0 -00.7	S	17 08.0 +00.8	273 11.0 -30.2	S	01 40.4 +15.1	02			
03	226 48.0 -00.3	S	22 56.4 +00.2	253 15.3 -00.7	S	17 08.8 +00.8	287 40.8 -30.3	S	01 55.5 +15.1	03			
04	241 47.7 -00.3	S	22 56.6 +00.2	268 14.6 -00.6	S	17 09.6 +00.9	302 10.5 -30.3	S	02 10.6 +15.2	04			
05	256 47.4 -00.3	S	22 56.8 +00.2	283 14.0 -00.7	S	17 10.5 +00.8	316 40.2 -30.3	S	02 25.8 +15.1	05			
06	271 47.1 -00.3	S	22 57.0 +00.2	298 13.3 -00.7	S	17 11.3 +00.9	331 09.9 -30.4	S	02 40.9 +15.1	06			
07	286 46.8 -00.3	S	22 57.2 +00.3	313 12.6 -00.7	S	17 12.2 +00.8	345 39.5 -30.5	S	02 56.0 +15.1	07			
08	301 46.5 -00.3	S	22 57.5 +00.2	328 11.9 -00.7	S	17 13.0 +00.9	0 09.0 -30.4	S	03 11.1 +15.1	08			
09	316 46.2 -00.2	S	22 57.7 +00.2	343 11.2 -00.6	S	17 13.9 +00.8	14 38.6 -30.5	S	03 26.2 +15.1	09			
10	331 46.0 -00.3	S	22 57.9 +00.2	358 10.6 -00.7	S	17 14.7 +00.8	29 08.1 -30.6	S	03 41.3 +15.1	10			
11	346 45.7 -00.3	S	22 58.1 +00.2	13 09.9 -00.7	S	17 15.5 +00.9	43 37.5 -30.6	S	03 56.4 +15.1	11			
12	1 45.4 -00.3	S	22 58.3 +00.2	28 09.2 -00.7	S	17 16.4 +00.8	58 06.9 -30.6	S	04 11.5 +15.0	12			
13	16 45.1 -00.3	S	22 58.5 +00.2	43 08.5 -00.7	S	17 17.2 +00.9	72 36.3 -30.7	S	04 26.5 +15.1	13			
14	31 44.8 -00.3	S	22 58.7 +00.2	58 07.8 -00.6	S	17 18.1 +00.8	87 05.6 -30.8	S	04 41.6 +15.0	14			
15	46 44.5 -00.3	S	22 58.9 +00.3	73 07.2 -00.7	S	17 18.9 +00.8	101 34.8 -30.8	S	04 56.6 +15.0	15			
16	61 44.2 -00.3	S	22 59.2 +00.2	88 06.5 -00.7	S	17 19.7 +00.9	116 04.0 -30.8	S	05 11.6 +15.0	16			
17	76 43.9 -00.2	S	22 59.4 +00.2	103 05.8 -00.7	S	17 20.6 +00.8	130 33.2 -30.9	S	05 26.6 +15.0	17			
18	91 43.7 -00.3	S	22 59.6 +00.2	118 05.1 -00.7	S	17 21.4 +00.8	145 02.3 -31.0	S	05 41.6 +15.0	18			
19	106 43.4 -00.3	S	22 59.8 +00.2	133 04.4 -00.7	S	17 22.2 +00.9	159 31.3 -31.0	S	05 56.6 +14.9	19			
20	121 43.1 -00.3	S	22 60.0 +00.2	148 03.7 -00.6	S	17 23.1 +00.8	174 00.3 -31.0	S	06 11.5 +14.9	20			
21	136 42.8 -00.3	S	23 00.2 +00.2	163 03.1 -00.7	S	17 23.9 +00.8	188 29.3 -31.1	S	06 26.4 +14.9	21			
22	151 42.5 -00.3	S	23 00.4 +00.2	178 02.4 -00.7	S	17 24.7 +00.9	202 58.2 -31.2	S	06 41.3 +14.9	22			
23	166 42.2 -00.3	S	23 00.6 +00.2	193 01.7 -00.7	S	17 25.6 +00.8	217 27.0 -31.2	S	06 56.2 +14.8	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'3 16'3 16'3 16'3 16'4 16'4						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 59'7 59'8 59'9 60'0 60'1 60'1						
	SHA 103° 102° 102° 102° 102° 102°			SHA 129° 129° 129° 128° 128° 128°			SHA 164° 162° 160° 157° 155° 153°						
	Greenwich Culmination Time: 11:52			Greenwich Culmination Time: 10:07			Greenwich Culmination Time: 07:59						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	61 29.7 +01.8	N	07 49.2 +00.3	139 01.4 +01.9	S	21 01.7 -00.1	137 41.2 +02.2	S	20 39.8 -00.1	00			
01	76 31.5 +01.9	N	07 49.5 +00.4	154 03.3 +01.9	S	21 01.6 -00.1	152 43.4 +02.2	S	20 39.7 +00.0	01			
02	91 33.4 +01.8	N	07 49.9 +00.3	169 05.2 +02.0	S	21 01.5 -00.1	167 45.6 +02.2	S	20 39.7 -00.1	02			
03	106 35.2 +01.8	N	07 50.2 +00.4	184 07.2 +01.9	S	21 01.4 -00.1	182 47.8 +02.2	S	20 39.6 +00.0	03			
04	121 37.0 +01.8	N	07 50.6 +00.3	199 09.1 +01.9	S	21 01.3 -00.1	197 50.0 +02.2	S	20 39.6 -00.1	04			
05	136 38.8 +01.8	N	07 50.9 +00.4	214 11.0 +01.9	S	21 01.2 -00.1	212 52.2 +02.2	S	20 39.5 +00.0	05			
06	151 40.6 +01.9	N	07 51.3 +00.3	229 12.9 +01.9	S	21 01.1 -00.1	227 54.4 +02.2	S	20 39.5 -00.1	06			
07	166 42.5 +01.8	N	07 51.6 +00.4	244 14.8 +02.0	S	21 01.0 -00.1	242 56.6 +02.2	S	20 39.4 +00.0	07			
08	181 44.3 +01.8	N	07 52.0 +00.3	259 16.8 +01.9	S	21 00.9 -00.1	257 58.8 +02.2	S	20 39.4 -00.1	08			
09	196 46.1 +01.8	N	07 52.3 +00.4	274 18.7 +01.9	S	21 00.8 -00.1	273 01.0 +02.2	S	20 39.3 +00.0	09			
10	211 47.9 +01.8	N	07 52.7 +00.3	289 20.6 +01.9	S	21 00.7 -00.1	288 03.2 +02.3	S	20 39.3 -00.1	10			
11	226 49.7 +01.8	N	07 53.0 +00.4	304 22.5 +01.9	S	21 00.6 -00.1	303 05.5 +02.2	S	20 39.2 +00.0	11			
12	241 51.5 +01.8	N	07 53.4 +00.4	319 24.4 +01.9	S	21 00.5 -00.2	318 07.7 +02.2	S	20 39.2 -00.1	12			
13	256 53.3 +01.9	N	07 53.8 +00.3	334 26.3 +02.0	S	21 00.3 -00.1	333 09.9 +02.2	S	20 39.1 +00.0	13			
14	271 55.2 +01.8	N	07 54.1 +00.4	349 28.3 +01.9	S	21 00.2 -00.1	348 12.1 +02.2	S	20 39.1 -00.1	14			
15	286 57.0 +01.8	N	07 54.5 +00.3	4 30.2 +01.9	S	21 00.1 -00.1	3 14.3 +02.2	S	20 39.0 +00.0	15			
16	301 58.8 +01.8	N	07 54.8 +00.4	19 32.1 +01.9	S	21 00.0 -00.1	18 16.5 +02.2	S	20 39.0 -00.1	16			
17	317 00.6 +01.8	N	07 55.2 +00.3	34 34.0 +01.9	S	20 59.9 -00.1	33 18.7 +02.2	S	20 38.9 +00.0	17			
18	332 02.4 +01.8	N	07 55.5 +00.4	49 35.9 +01.9	S	20 59.8 -00.1	48 20.9 +02.2	S	20 38.9 -00.1	18			
19	347 04.2 +01.8	N	07 55.9 +00.3	64 37.8 +02.0	S	20 59.7 -00.1	63 23.1 +02.2	S	20 38.8 +00.0	19			
20	2 06.0 +01.8	N	07 56.2 +00.4	79 39.8 +01.9	S	20 59.6 -00.1	78 25.3 +02.2	S	20 38.8 -00.1	20			
21	17 07.8 +01.8	N	07 56.6 +00.4	94 41.7 +01.9	S	20 59.5 -00.1	93 27.5 +02.2	S	20 38.7 +00.0	21			
22	32 09.6 +01.8	N	07 57.0 +00.3	109 43.6 +01.9	S	20 59.4 -00.1	108 29.7 +02.2	S	20 38.7 -00.1	22			
23	47 11.4 +01.8	N	07 57.3 +00.4	124 45.5 +01.9	S	20 59.3 -00.1	123 31.9 +02.2	S	20 38.6 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 342° 342° 342° 342° 342° 342°			SHA 060° 060° 060° 060° 060° 060°			SHA 058° 058° 058° 058° 058° 058°						
	Greenwich Culmination Time: 19:51			Greenwich Culmination Time: 14:42			Greenwich Culmination Time: 14:47						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	
00	181	41.9 -00.3	S 23	00.8 +00.2	208	01.0 -00.7	S 17	26.4 +00.8	231	55.8 -31.3	S 07	11.0 +14.8	00
01	196	41.6 -00.2	S 23	01.0 +00.2	223	00.3 -00.7	S 17	27.2 +00.9	246	24.5 -31.4	S 07	25.8 +14.8	01
02	211	41.4 -00.3	S 23	01.2 +00.2	237	59.6 -00.7	S 17	28.1 +00.8	260	53.1 -31.4	S 07	40.6 +14.7	02
03	226	41.1 -00.3	S 23	01.4 +00.2	252	58.9 -00.6	S 17	28.9 +00.8	275	21.7 -31.4	S 07	55.3 +14.7	03
04	241	40.8 -00.3	S 23	01.6 +00.2	267	58.3 -00.7	S 17	29.7 +00.8	289	50.3 -31.6	S 08	10.0 +14.7	04
05	256	40.5 -00.3	S 23	01.8 +00.2	282	57.6 -00.7	S 17	30.5 +00.9	304	18.7 -31.6	S 08	24.7 +14.6	05
06	271	40.2 -00.3	S 23	02.0 +00.2	297	56.9 -00.7	S 17	31.4 +00.8	318	47.1 -31.6	S 08	39.3 +14.6	06
07	286	39.9 -00.3	S 23	02.2 +00.2	312	56.2 -00.7	S 17	32.2 +00.8	333	15.5 -31.7	S 08	53.9 +14.5	07
08	301	39.6 -00.3	S 23	02.4 +00.2	327	55.5 -00.7	S 17	33.0 +00.8	347	43.8 -31.8	S 09	08.4 +14.5	08
09	316	39.3 -00.3	S 23	02.6 +00.2	342	54.8 -00.7	S 17	33.8 +00.9	2	12.0 -31.9	S 09	22.9 +14.4	09
10	331	39.0 -00.3	S 23	02.8 +00.2	357	54.1 -00.7	S 17	34.7 +00.8	16	40.1 -31.9	S 09	37.3 +14.4	10
11	346	38.7 -00.2	S 23	03.0 +00.2	12	53.4 -00.7	S 17	35.5 +00.8	31	08.2 -32.0	S 09	51.7 +14.4	11
12	1	38.5 -00.3	S 23	03.2 +00.2	27	52.7 -00.7	S 17	36.3 +00.8	45	36.2 -32.1	S 10	06.1 +14.2	12
13	16	38.2 -00.3	S 23	03.4 +00.2	42	52.0 -00.7	S 17	37.1 +00.8	60	04.1 -32.1	S 10	20.3 +14.3	13
14	31	37.9 -00.3	S 23	03.6 +00.1	57	51.3 -00.7	S 17	37.9 +00.9	74	32.0 -32.2	S 10	34.6 +14.2	14
15	46	37.6 -00.3	S 23	03.7 +00.2	72	50.6 -00.7	S 17	38.8 +00.8	88	59.8 -32.3	S 10	48.8 +14.1	15
16	61	37.3 -00.3	S 23	03.9 +00.2	87	49.9 -00.6	S 17	39.6 +00.8	103	27.5 -32.3	S 11	02.9 +14.0	16
17	76	37.0 -00.3	S 23	04.1 +00.2	102	49.3 -00.7	S 17	40.4 +00.8	117	55.2 -32.4	S 11	16.9 +14.0	17
18	91	36.7 -00.3	S 23	04.3 +00.2	117	48.6 -00.7	S 17	41.2 +00.8	132	22.8 -32.5	S 11	30.9 +14.0	18
19	106	36.4 -00.3	S 23	04.5 +00.2	132	47.9 -00.7	S 17	42.0 +00.8	146	50.3 -32.6	S 11	44.9 +13.9	19
20	121	36.1 -00.3	S 23	04.7 +00.2	147	47.2 -00.7	S 17	42.8 +00.9	161	17.7 -32.6	S 11	58.8 +13.8	20
21	136	35.8 -00.3	S 23	04.9 +00.2	162	46.5 -00.7	S 17	43.7 +00.8	175	45.1 -32.8	S 12	12.6 +13.7	21
22	151	35.5 -00.3	S 23	05.1 +00.1	177	45.8 -00.7	S 17	44.5 +00.8	190	12.3 -32.8	S 12	26.3 +13.7	22
23	166	35.2 -00.2	S 23	05.2 +00.2	192	45.1 -00.7	S 17	45.3 +00.8	204	39.5 -32.8	S 12	40.0 +13.6	23
	UT 02 06 10 14 18 22												
	SD 16'2 16'2 16'2 16'2 16'2 16'2												
	HP 00'1 00'1 00'1 00'1 00'1 00'1												
	SHA 101° 101° 101° 101° 101° 101°												
	Greenwich Culmination Time: 11:53												
	UT 02 06 10 14 18 22												
	SD 00'1 00'1 00'1 00'1 00'1 00'1												
	HP 00'1 00'1 00'1 00'1 00'1 00'1												
	SHA 128° 128° 127° 127° 127° 127°												
	Greenwich Culmination Time: 10:08												
	UT 02 06 10 14 18 22												
	SD 16'4 16'4 16'4 16'5 16'5 16'5												
	HP 60'2 60'3 60'3 60'4 60'4 60'5												
	SHA 151° 148° 146° 144° 141° 139°												
	Greenwich Culmination Time: 08:50												

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	° ' "	' "	
00	62	13.2 +01.8	N 07	57.7 +00.3	139	47.4 +01.9	S 20	59.2 -00.1	138	34.1 +02.2	S 20	38.6 -00.1	00
01	77	15.0 +01.8	N 07	58.0 +00.4	154	49.3 +02.0	S 20	59.1 -00.1	153	36.3 +02.2	S 20	38.5 +00.0	01
02	92	16.8 +01.8	N 07	58.4 +00.3	169	51.3 +01.9	S 20	59.0 -00.1	168	38.5 +02.2	S 20	38.5 -00.1	02
03	107	18.6 +01.8	N 07	58.7 +00.4	184	53.2 +01.9	S 20	58.9 -00.1	183	40.7 +02.2	S 20	38.4 +00.0	03
04	122	20.4 +01.8	N 07	59.1 +00.4	199	55.1 +01.9	S 20	58.8 -00.1	198	42.9 +02.2	S 20	38.4 -00.1	04
05	137	22.2 +01.8	N 07	59.5 +00.3	214	57.0 +01.9	S 20	58.7 -00.1	213	45.1 +02.2	S 20	38.3 +00.0	05
06	152	24.0 +01.8	N 07	59.8 +00.4	229	58.9 +01.9	S 20	58.6 -00.1	228	47.3 +02.2	S 20	38.3 -00.1	06
07	167	25.8 +01.8	N 08	00.2 +00.3	245	00.8 +01.9	S 20	58.5 -00.1	243	49.5 +02.2	S 20	38.2 +00.0	07
08	182	27.6 +01.8	N 08	00.5 +00.4	260	02.7 +02.0	S 20	58.4 -00.1	258	51.7 +02.2	S 20	38.2 -00.1	08
09	197	29.4 +01.8	N 08	00.9 +00.4	275	04.7 +01.9	S 20	58.3 -00.1	273	53.9 +02.2	S 20	38.1 +00.0	09
10	212	31.2 +01.8	N 08	01.3 +00.3	290	06.6 +01.9	S 20	58.2 -00.1	288	56.1 +02.2	S 20	38.1 -00.1	10
11	227	33.0 +01.8	N 08	01.6 +00.4	305	08.5 +01.9	S 20	58.1 -00.1	303	58.3 +02.2	S 20	38.0 +00.0	11
12	242	34.8 +01.8	N 08	02.0 +00.3	320	10.4 +01.9	S 20	58.0 -00.1	319	00.5 +02.2	S 20	38.0 -00.1	12
13	257	36.6 +01.8	N 08	02.3 +00.4	335	12.3 +01.9	S 20	57.9 -00.1	334	02.7 +02.2	S 20	37.9 +00.0	13
14	272	38.4 +01.8	N 08	02.7 +00.4	350	14.2 +01.9	S 20	57.8 -00.1	349	04.9 +02.2	S 20	37.9 -00.1	14
15	287	40.2 +01.8	N 08	03.1 +00.3	5	16.1 +02.0	S 20	57.7 -00.1	4	07.1 +02.2	S 20	37.8 +00.0	15
16	302	42.0 +01.8	N 08	03.4 +00.4	20	18.1 +01.9	S 20	57.6 -00.1	19	09.3 +02.2	S 20	37.8 -00.1	16
17	317	43.8 +01.7	N 08	03.8 +00.3	35	20.0 +01.9	S 20	57.5 -00.1	34	11.5 +02.2	S 20	37.7 +00.0	17
18	332	45.5 +01.8	N 08	04.1 +00.4	50	21.9 +01.9	S 20	57.4 -00.2	49	13.7 +02.2	S 20	37.7 -00.1	18
19	347	47.3 +01.8	N 08	04.5 +00.4	65	23.8 +01.9	S 20	57.2 -00.1	64	15.9 +02.2	S 20	37.6 +00.0	19
20	2	49.1 +01.8	N 08	04.9 +00.3	80	25.7 +01.9	S 20	57.1 -00.1	79	18.1 +02.2	S 20	37.6 -00.1	20
21	17	50.9 +01.8	N 08	05.2 +00.4	95	27.6 +01.9	S 20	57.0 -00.1	94	20.3 +02.2	S 20	37.5 +00.0	21
22	32	52.7 +01.8	N 08	05.6 +00.4	110	29.5 +01.9	S 20	56.9 -00.1	109	22.5 +02.2	S 20	37.5 -00.1	22
23	47	54.5 +01.8	N 08	06.0 +00.3	125	31.4 +02.0	S 20	56.8 -00.1	124	24.7 +02.2	S 20	37.4 +00.0	23
	UT 02 06 10 14 18 22												
	SD 00'1 00'1 00'1 00'1 00'1 00'1												
	HP 00'2 00'2 00'2 00'2 00'2 00'2												
	SHA 342° 342° 342° 342° 342° 342°												
	Greenwich Culmination Time: 19:48												
	UT 02 06 10 14 18 22												
	SD 00'3 00'3 00'3 00'3 00'3 00'3												
	HP 00'0 00'0 00'0 00'0 00'0 00'0												
	SHA 060° 060° 060° 059° 059° 059°												
	Greenwich Culmination Time: 14:38												
	UT 02 06 10 14 18 22												
	SD 00'1 00'1 00'1 00'1 00'1 00'1												
	HP 00'0 00'0 00'0 00'0 00'0 00'0												
	SHA 058° 058° 058° 058° 058° 058°												
	Greenwich Culmination Time: 14:43												

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 35.0 -00.3	S	23 05.4 +00.2	207 44.4 -00.7	S	17 46.1 +00.8	219 06.7 -33.0	S	12 53.6 +13.5	00			
01	196 34.7 -00.3	S	23 05.6 +00.2	222 43.7 -00.7	S	17 46.9 +00.8	233 33.7 -33.0	S	13 07.1 +13.4	01			
02	211 34.4 -00.3	S	23 05.8 +00.2	237 43.0 -00.7	S	17 47.7 +00.8	248 00.7 -33.1	S	13 20.5 +13.4	02			
03	226 34.1 -00.3	S	23 06.0 +00.1	252 42.3 -00.7	S	17 48.5 +00.8	262 27.6 -33.2	S	13 33.9 +13.3	03			
04	241 33.8 -00.3	S	23 06.1 +00.2	267 41.6 -00.7	S	17 49.3 +00.8	276 54.4 -33.2	S	13 47.2 +13.2	04			
05	256 33.5 -00.3	S	23 06.3 +00.2	282 40.9 -00.7	S	17 50.1 +00.8	291 21.2 -33.4	S	14 00.4 +13.1	05			
06	271 33.2 -00.3	S	23 06.5 +00.2	297 40.2 -00.7	S	17 50.9 +00.8	305 47.8 -33.4	S	14 13.5 +13.0	06			
07	286 32.9 -00.3	S	23 06.7 +00.2	312 39.5 -00.7	S	17 51.7 +00.8	320 14.4 -33.5	S	14 26.5 +13.0	07			
08	301 32.6 -00.3	S	23 06.9 +00.1	327 38.8 -00.7	S	17 52.5 +00.9	334 40.9 -33.6	S	14 39.5 +12.9	08			
09	316 32.3 -00.3	S	23 07.0 +00.2	342 38.1 -00.7	S	17 53.4 +00.8	349 07.3 -33.6	S	14 52.4 +12.7	09			
10	331 32.0 -00.3	S	23 07.2 +00.2	357 37.4 -00.8	S	17 54.2 +00.8	3 33.7 -33.8	S	15 05.1 +12.7	10			
11	346 31.7 -00.3	S	23 07.4 +00.2	12 36.6 -00.7	S	17 55.0 +00.8	17 59.9 -33.8	S	15 17.8 +12.6	11			
12	1 31.4 -00.3	S	23 07.6 +00.1	27 35.9 -00.7	S	17 55.8 +00.8	32 26.1 -33.9	S	15 30.4 +12.5	12			
13	16 31.1 -00.3	S	23 07.7 +00.2	42 35.2 -00.7	S	17 56.6 +00.8	46 52.2 -34.0	S	15 42.9 +12.4	13			
14	31 30.8 -00.3	S	23 07.9 +00.2	57 34.5 -00.7	S	17 57.4 +00.8	61 18.2 -34.0	S	15 55.3 +12.2	14			
15	46 30.5 -00.2	S	23 08.1 +00.2	72 33.8 -00.7	S	17 58.2 +00.8	75 44.2 -34.1	S	16 07.5 +12.2	15			
16	61 30.3 -00.3	S	23 08.3 +00.1	87 33.1 -00.7	S	17 59.0 +00.8	90 10.1 -34.3	S	16 19.7 +12.1	16			
17	76 30.0 -00.3	S	23 08.4 +00.2	102 32.4 -00.7	S	17 59.8 +00.7	104 35.8 -34.3	S	16 31.8 +12.0	17			
18	91 29.7 -00.3	S	23 08.6 +00.2	117 31.7 -00.7	S	18 00.5 +00.8	119 01.5 -34.4	S	16 43.8 +11.9	18			
19	106 29.4 -00.3	S	23 08.8 +00.1	132 31.0 -00.7	S	18 01.3 +00.8	133 27.1 -34.4	S	16 55.7 +11.7	19			
20	121 29.1 -00.3	S	23 08.9 +00.2	147 30.3 -00.7	S	18 02.1 +00.8	147 52.7 -34.6	S	17 07.4 +11.7	20			
21	136 28.8 -00.3	S	23 09.1 +00.2	162 29.6 -00.7	S	18 02.9 +00.8	162 18.1 -34.6	S	17 19.1 +11.5	21			
22	151 28.5 -00.3	S	23 09.3 +00.1	177 28.9 -00.7	S	18 03.7 +00.8	176 43.5 -34.7	S	17 30.6 +11.4	22			
23	166 28.2 -00.3	S	23 09.4 +00.2	192 28.2 -00.8	S	18 04.5 +00.8	191 08.8 -34.8	S	17 42.0 +11.3	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'5 16'5 16'5 16'5 16'5 16'5						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 60'5 60'5 60'6 60'6 60'6 60'6						
	SHA 100° 100° 100° 100° 100° 099°			SHA 126° 126° 126° 126° 126° 125°			SHA 137° 134° 132° 130° 127° 125°						
	Greenwich Culmination Time: 11:53			Greenwich Culmination Time: 10:09			Greenwich Culmination Time: 09:45						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	62 56.3 +01.7	N	08 06.3 +00.4	140 33.4 +01.9	S	20 56.7 -00.1	139 26.9 +02.2	S	20 37.4 -00.1	00			
01	77 58.0 +01.8	N	08 06.7 +00.3	155 35.3 +01.9	S	20 56.6 -00.1	154 29.1 +02.2	S	20 37.3 +00.0	01			
02	92 59.8 +01.8	N	08 07.0 +00.4	170 37.2 +01.9	S	20 56.5 -00.1	169 31.3 +02.2	S	20 37.3 -00.1	02			
03	108 01.6 +01.8	N	08 07.4 +00.4	185 39.1 +01.9	S	20 56.4 -00.1	184 33.5 +02.2	S	20 37.2 +00.0	03			
04	123 03.4 +01.8	N	08 07.8 +00.3	200 41.0 +01.9	S	20 56.3 -00.1	199 35.7 +02.2	S	20 37.2 -00.1	04			
05	138 05.2 +01.7	N	08 08.1 +00.4	215 42.9 +01.9	S	20 56.2 -00.1	214 37.9 +02.2	S	20 37.1 +00.0	05			
06	153 06.9 +01.8	N	08 08.5 +00.4	230 44.8 +01.9	S	20 56.1 -00.1	229 40.1 +02.2	S	20 37.1 -00.1	06			
07	168 08.7 +01.8	N	08 08.9 +00.3	245 46.7 +02.0	S	20 56.0 -00.1	244 42.3 +02.2	S	20 37.0 +00.0	07			
08	183 10.5 +01.8	N	08 09.2 +00.4	260 48.7 +01.9	S	20 55.9 -00.1	259 44.5 +02.2	S	20 37.0 -00.1	08			
09	198 12.3 +01.7	N	08 09.6 +00.4	275 50.6 +01.9	S	20 55.8 -00.1	274 46.7 +02.2	S	20 36.9 +00.0	09			
10	213 14.0 +01.8	N	08 10.0 +00.3	290 52.5 +01.9	S	20 55.7 -00.1	289 48.9 +02.2	S	20 36.9 -00.1	10			
11	228 15.8 +01.8	N	08 10.3 +00.4	305 54.4 +01.9	S	20 55.6 -00.1	304 51.1 +02.2	S	20 36.8 +00.0	11			
12	243 17.6 +01.8	N	08 10.7 +00.4	320 56.3 +01.9	S	20 55.5 -00.1	319 53.3 +02.2	S	20 36.8 -00.1	12			
13	258 19.4 +01.7	N	08 11.1 +00.3	335 58.2 +01.9	S	20 55.4 -00.1	334 55.5 +02.2	S	20 36.7 +00.0	13			
14	273 21.1 +01.8	N	08 11.4 +00.4	351 00.1 +01.9	S	20 55.3 -00.1	349 57.7 +02.2	S	20 36.7 -00.1	14			
15	288 22.9 +01.8	N	08 11.8 +00.3	6 02.0 +02.0	S	20 55.2 -00.2	4 59.9 +02.2	S	20 36.6 +00.0	15			
16	303 24.7 +01.7	N	08 12.1 +00.4	21 04.0 +01.9	S	20 55.0 -00.1	20 02.1 +02.2	S	20 36.6 -00.1	16			
17	318 26.4 +01.8	N	08 12.5 +00.4	36 05.9 +01.9	S	20 54.9 -00.1	35 04.3 +02.2	S	20 36.5 +00.0	17			
18	333 28.2 +01.8	N	08 12.9 +00.3	51 07.8 +01.9	S	20 54.8 -00.1	50 06.5 +02.2	S	20 36.5 -00.1	18			
19	348 30.0 +01.7	N	08 13.2 +00.4	66 09.7 +01.9	S	20 54.7 -00.1	65 08.7 +02.2	S	20 36.4 +00.0	19			
20	3 31.7 +01.8	N	08 13.6 +00.4	81 11.6 +01.9	S	20 54.6 -00.1	80 10.9 +02.2	S	20 36.4 -00.1	20			
21	18 33.5 +01.8	N	08 14.0 +00.4	96 13.5 +01.9	S	20 54.5 -00.1	95 13.1 +02.2	S	20 36.3 +00.0	21			
22	33 35.3 +01.7	N	08 14.4 +00.3	111 15.4 +01.9	S	20 54.4 -00.1	110 15.3 +02.2	S	20 36.3 -00.1	22			
23	48 37.0 +01.8	N	08 14.7 +00.4	126 17.3 +01.9	S	20 54.3 -00.1	125 17.5 +02.2	S	20 36.2 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 342° 342° 342° 342° 342° 342°			SHA 059° 059° 059° 059° 059° 059°			SHA 058° 058° 058° 058° 058° 058°						
	Greenwich Culmination Time: 19:45			Greenwich Culmination Time: 14:35			Greenwich Culmination Time: 14:40						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 27.9 -00.3	S	23 09.6 +00.2	207 27.4 -00.7	S	18 05.3 +00.8	205 34.0 -34.8	S	17 53.3 +11.2	00			
01	196 27.6 -00.3	S	23 09.8 +00.1	222 26.7 -00.7	S	18 06.1 +00.8	219 59.2 -35.0	S	18 04.5 +11.1	01			
02	211 27.3 -00.3	S	23 09.9 +00.2	237 26.0 -00.7	S	18 06.9 +00.8	234 24.2 -35.0	S	18 15.6 +10.9	02			
03	226 27.0 -00.3	S	23 10.1 +00.1	252 25.3 -00.7	S	18 07.7 +00.8	248 49.2 -35.1	S	18 26.5 +10.8	03			
04	241 26.7 -00.3	S	23 10.2 +00.2	267 24.6 -00.7	S	18 08.5 +00.8	263 14.1 -35.1	S	18 37.3 +10.7	04			
05	256 26.4 -00.3	S	23 10.4 +00.2	282 23.9 -00.7	S	18 09.3 +00.7	277 39.0 -35.3	S	18 48.0 +10.6	05			
06	271 26.1 -00.3	S	23 10.6 +00.1	297 23.2 -00.8	S	18 10.0 +00.8	292 03.7 -35.3	S	18 58.6 +10.5	06			
07	286 25.8 -00.3	S	23 10.7 +00.2	312 22.4 -00.7	S	18 10.8 +00.8	306 28.4 -35.4	S	19 09.1 +10.3	07			
08	301 25.5 -00.3	S	23 10.9 +00.1	327 21.7 -00.7	S	18 11.6 +00.8	320 53.0 -35.5	S	19 19.4 +10.1	08			
09	316 25.2 -00.3	S	23 11.0 +00.2	342 21.0 -00.7	S	18 12.4 +00.8	335 17.5 -35.5	S	19 29.5 +10.1	09			
10	331 24.9 -00.3	S	23 11.2 +00.1	357 20.3 -00.7	S	18 13.2 +00.8	349 42.0 -35.6	S	19 39.6 +09.9	10			
11	346 24.6 -00.3	S	23 11.3 +00.2	12 19.6 -00.7	S	18 14.0 +00.7	4 06.4 -35.7	S	19 49.5 +09.8	11			
12	1 24.3 -00.3	S	23 11.5 +00.2	27 18.9 -00.8	S	18 14.7 +00.8	18 30.7 -35.8	S	19 59.3 +09.6	12			
13	16 24.0 -00.3	S	23 11.7 +00.1	42 18.1 -00.7	S	18 15.5 +00.8	32 54.9 -35.8	S	20 08.9 +09.5	13			
14	31 23.7 -00.3	S	23 11.8 +00.2	57 17.4 -00.7	S	18 16.3 +00.8	47 19.1 -35.9	S	20 18.4 +09.4	14			
15	46 23.4 -00.3	S	23 12.0 +00.1	72 16.7 -00.7	S	18 17.1 +00.8	61 43.2 -36.0	S	20 27.8 +09.2	15			
16	61 23.1 -00.3	S	23 12.1 +00.2	87 16.0 -00.7	S	18 17.9 +00.7	76 07.2 -36.0	S	20 37.0 +09.0	16			
17	76 22.8 -00.3	S	23 12.3 +00.1	102 15.3 -00.7	S	18 18.6 +00.8	90 31.2 -36.1	S	20 46.0 +09.0	17			
18	91 22.5 -00.3	S	23 12.4 +00.2	117 14.6 -00.8	S	18 19.4 +00.8	104 55.1 -36.2	S	20 55.0 +08.7	18			
19	106 22.2 -00.3	S	23 12.6 +00.1	132 13.8 -00.7	S	18 20.2 +00.8	119 18.9 -36.2	S	21 03.7 +08.7	19			
20	121 21.9 -00.3	S	23 12.7 +00.2	147 13.1 -00.7	S	18 21.0 +00.7	133 42.7 -36.3	S	21 12.4 +08.4	20			
21	136 21.6 -00.3	S	23 12.9 +00.1	162 12.4 -00.7	S	18 21.7 +00.8	148 06.4 -36.4	S	21 20.8 +08.4	21			
22	151 21.3 -00.3	S	23 13.0 +00.1	177 11.7 -00.8	S	18 22.5 +00.8	162 30.0 -36.4	S	21 29.2 +08.1	22			
23	166 21.0 -00.3	S	23 13.1 +00.2	192 10.9 -00.7	S	18 23.3 +00.7	176 53.6 -36.4	S	21 37.3 +08.1	23			
UT	02 06 10 14 18 22			UT	02 06 10 14 18 22			UT	02 06 10 14 18 22				
SD	16'2 16'2 16'2 16'2 16'2 16'2			SD	00'1 00'1 00'1 00'1 00'1 00'1			SD	16'5 16'5 16'5 16'5 16'5 16'5				
HP	00'1 00'1 00'1 00'1 00'1 00'1			HP	00'1 00'1 00'1 00'1 00'1 00'1			HP	60'6 60'6 60'5 60'5 60'5 60'4				
SHA	099° 099° 099° 099° 098° 098°			SHA	125° 125° 125° 125° 124° 124°			SHA	122° 120° 117° 115° 112° 109°				
Greenwich Culmination Time: 11:54				Greenwich Culmination Time: 10:10				Greenwich Culmination Time: 10:42					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	63 38.8 +01.8	N	08 15.1 +00.4	141 19.2 +01.9	S	20 54.2 -00.1	140 19.7 +02.2	S	20 36.2 -00.1	00			
01	78 40.6 +01.7	N	08 15.5 +00.3	156 21.1 +02.0	S	20 54.1 -00.1	155 21.9 +02.2	S	20 36.1 +00.0	01			
02	93 42.3 +01.8	N	08 15.8 +00.4	171 23.1 +01.9	S	20 54.0 -00.1	170 24.1 +02.2	S	20 36.1 -00.1	02			
03	108 44.1 +01.7	N	08 16.2 +00.4	186 25.0 +01.9	S	20 53.9 -00.1	185 26.3 +02.2	S	20 36.0 +00.0	03			
04	123 45.8 +01.8	N	08 16.6 +00.3	201 26.9 +01.9	S	20 53.8 -00.1	200 28.5 +02.2	S	20 36.0 -00.1	04			
05	138 47.6 +01.8	N	08 16.9 +00.4	216 28.8 +01.9	S	20 53.7 -00.1	215 30.7 +02.2	S	20 35.9 +00.0	05			
06	153 49.4 +01.7	N	08 17.3 +00.4	231 30.7 +01.9	S	20 53.6 -00.1	230 32.9 +02.1	S	20 35.9 -00.1	06			
07	168 51.1 +01.8	N	08 17.7 +00.3	246 32.6 +01.9	S	20 53.5 -00.1	245 35.0 +02.2	S	20 35.8 +00.0	07			
08	183 52.9 +01.7	N	08 18.0 +00.4	261 34.5 +01.9	S	20 53.4 -00.2	260 37.2 +02.2	S	20 35.8 -00.1	08			
09	198 54.6 +01.8	N	08 18.4 +00.4	276 36.4 +01.9	S	20 53.2 -00.1	275 39.4 +02.2	S	20 35.7 -00.1	09			
10	213 56.4 +01.7	N	08 18.8 +00.3	291 38.3 +01.9	S	20 53.1 -00.1	290 41.6 +02.2	S	20 35.6 +00.0	10			
11	228 58.1 +01.8	N	08 19.1 +00.4	306 40.2 +01.9	S	20 53.0 -00.1	305 43.8 +02.2	S	20 35.6 -00.1	11			
12	243 59.9 +01.7	N	08 19.5 +00.4	321 42.1 +02.0	S	20 52.9 -00.1	320 46.0 +02.2	S	20 35.5 +00.0	12			
13	259 01.6 +01.8	N	08 19.9 +00.4	336 44.1 +01.9	S	20 52.8 -00.1	335 48.2 +02.2	S	20 35.5 -00.1	13			
14	274 03.4 +01.7	N	08 20.3 +00.3	351 46.0 +01.9	S	20 52.7 -00.1	350 50.4 +02.2	S	20 35.4 +00.0	14			
15	289 05.1 +01.8	N	08 20.6 +00.4	6 47.9 +01.9	S	20 52.6 -00.1	5 52.6 +02.2	S	20 35.4 -00.1	15			
16	304 06.9 +01.7	N	08 21.0 +00.4	21 49.8 +01.9	S	20 52.5 -00.1	20 54.8 +02.2	S	20 35.3 +00.0	16			
17	319 08.6 +01.8	N	08 21.4 +00.3	36 51.7 +01.9	S	20 52.4 -00.1	35 57.0 +02.2	S	20 35.3 -00.1	17			
18	334 10.4 +01.7	N	08 21.7 +00.4	51 53.6 +01.9	S	20 52.3 -00.1	50 59.2 +02.2	S	20 35.2 +00.0	18			
19	349 12.1 +01.8	N	08 22.1 +00.4	66 55.5 +01.9	S	20 52.2 -00.1	66 01.4 +02.2	S	20 35.2 -00.1	19			
20	4 13.9 +01.7	N	08 22.5 +00.4	81 57.4 +01.9	S	20 52.1 -00.1	81 03.6 +02.2	S	20 35.1 +00.0	20			
21	19 15.6 +01.8	N	08 22.9 +00.3	96 59.3 +01.9	S	20 52.0 -00.1	96 05.8 +02.2	S	20 35.1 -00.1	21			
22	34 17.4 +01.7	N	08 23.2 +00.4	112 01.2 +01.9	S	20 51.9 -00.1	111 08.0 +02.2	S	20 35.0 +00.0	22			
23	49 19.1 +01.8	N	08 23.6 +00.4	127 03.1 +01.9	S	20 51.8 -00.2	126 10.2 +02.2	S	20 35.0 -00.1	23			
UT	02 06 10 14 18 22			UT	02 06 10 14 18 22			UT	02 06 10 14 18 22				
SD	00'1 00'1 00'1 00'1 00'1 00'1			SD	00'3 00'3 00'3 00'3 00'3 00'3			SD	00'1 00'1 00'1 00'1 00'1 00'1				
HP	00'2 00'2 00'2 00'2 00'2 00'2			HP	00'0 00'0 00'0 00'0 00'0 00'0			HP	00'0 00'0 00'0 00'0 00'0 00'0				
SHA	341° 341° 341° 341° 341° 341°			SHA	059° 059° 059° 059° 059° 059°			SHA	058° 058° 058° 058° 058° 058°				
Greenwich Culmination Time: 19:43				Greenwich Culmination Time: 14:32				Greenwich Culmination Time: 14:36					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 20.7 -00.3	S	23 13.3 +00.1	207 10.2 -00.7	S	18 24.0 +00.8	191 17.2 -36.6	S	21 45.4 +07.8				
01	196 20.4 -00.3	S	23 13.4 +00.2	222 09.5 -00.7	S	18 24.8 +00.8	205 40.6 -36.5	S	21 53.2 +07.7				
02	211 20.1 -00.3	S	23 13.6 +00.1	237 08.8 -00.8	S	18 25.6 +00.8	220 04.1 -36.7	S	22 00.9 +07.6				
03	226 19.8 -00.3	S	23 13.7 +00.2	252 08.0 -00.7	S	18 26.4 +00.7	234 27.4 -36.7	S	22 08.5 +07.4				
04	241 19.5 -00.3	S	23 13.9 +00.1	267 07.3 -00.7	S	18 27.1 +00.8	248 50.7 -36.7	S	22 15.9 +07.2				
05	256 19.2 -00.3	S	23 14.0 +00.1	282 06.6 -00.7	S	18 27.9 +00.8	263 14.0 -36.8	S	22 23.1 +07.1				
06	271 18.9 -00.3	S	23 14.1 +00.2	297 05.9 -00.8	S	18 28.7 +00.7	277 37.2 -36.8	S	22 30.2 +06.9				
07	286 18.6 -00.3	S	23 14.3 +00.1	312 05.1 -00.7	S	18 29.4 +00.8	292 00.4 -36.9	S	22 37.1 +06.7				
08	301 18.3 -00.3	S	23 14.4 +00.2	327 04.4 -00.7	S	18 30.2 +00.7	306 23.5 -36.9	S	22 43.8 +06.6				
09	316 18.0 -00.3	S	23 14.6 +00.1	342 03.7 -00.7	S	18 30.9 +00.8	320 46.6 -37.0	S	22 50.4 +06.4				
10	331 17.7 -00.3	S	23 14.7 +00.1	357 03.0 -00.8	S	18 31.7 +00.8	335 09.6 -37.0	S	22 56.8 +06.3				
11	346 17.4 -00.3	S	23 14.8 +00.2	12 02.2 -00.7	S	18 32.5 +00.7	349 32.6 -37.0	S	23 03.1 +06.0				
12	1 17.1 -00.3	S	23 15.0 +00.1	27 01.5 -00.7	S	18 33.2 +00.8	3 55.6 -37.1	S	23 09.1 +06.0				
13	16 16.8 -00.3	S	23 15.1 +00.1	42 00.8 -00.8	S	18 34.0 +00.8	18 18.5 -37.1	S	23 15.1 +05.7				
14	31 16.5 -00.3	S	23 15.2 +00.2	57 00.0 -00.7	S	18 34.8 +00.7	32 41.4 -37.1	S	23 20.8 +05.6				
15	46 16.2 -00.3	S	23 15.4 +00.1	71 59.3 -00.7	S	18 35.5 +00.8	47 04.3 -37.2	S	23 26.4 +05.4				
16	61 15.9 -00.3	S	23 15.5 +00.1	86 58.6 -00.8	S	18 36.3 +00.7	61 27.1 -37.2	S	23 31.8 +05.2				
17	76 15.6 -00.3	S	23 15.6 +00.2	101 57.8 -00.7	S	18 37.0 +00.8	75 49.9 -37.2	S	23 37.0 +05.1				
18	91 15.3 -00.3	S	23 15.8 +00.1	116 57.1 -00.7	S	18 37.8 +00.7	90 12.7 -37.2	S	23 42.1 +04.9				
19	106 15.0 -00.3	S	23 15.9 +00.1	131 56.4 -00.8	S	18 38.5 +00.8	104 35.5 -37.3	S	23 47.0 +04.7				
20	121 14.7 -00.3	S	23 16.0 +00.2	146 55.6 -00.7	S	18 39.3 +00.7	118 58.2 -37.3	S	23 51.7 +04.5				
21	136 14.4 -00.3	S	23 16.2 +00.1	161 54.9 -00.7	S	18 40.0 +00.8	133 20.9 -37.3	S	23 56.2 +04.4				
22	151 14.1 -00.3	S	23 16.3 +00.1	176 54.2 -00.8	S	18 40.8 +00.7	147 43.6 -37.3	S	24 00.6 +04.2				
23	166 13.8 -00.3	S	23 16.4 +00.1	191 53.4 -00.7	S	18 41.5 +00.8	162 06.3 -37.3	S	24 04.8 +04.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'2 16'2 16'2 16'2 16'2			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'5 16'4 16'4 16'4 16'4 16'4						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 60'4 60'3 60'3 60'2 60'1 60'0						
	SHA 098° 098° 098° 098° 097° 097°			SHA 124° 124° 124° 123° 123° 123°			SHA 107° 104° 102° 099° 096° 094°						
	Greenwich Culmination Time: 11:54			Greenwich Culmination Time: 10:11			Greenwich Culmination Time: 11:43						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	64 20.9 +01.7	N	08 24.0 +00.4	142 05.0 +02.0	S	20 51.6 -00.1	141 12.4 +02.2	S	20 34.9 +00.0				
01	79 22.6 +01.7	N	08 24.4 +00.3	157 07.0 +01.9	S	20 51.5 -00.1	156 14.6 +02.2	S	20 34.9 -00.1				
02	94 24.3 +01.8	N	08 24.7 +00.4	172 08.9 +01.9	S	20 51.4 -00.1	171 16.8 +02.2	S	20 34.8 +00.0				
03	109 26.1 +01.7	N	08 25.1 +00.4	187 10.8 +01.9	S	20 51.3 -00.1	186 19.0 +02.2	S	20 34.8 -00.1				
04	124 27.8 +01.8	N	08 25.5 +00.4	202 12.7 +01.9	S	20 51.2 -00.1	201 21.2 +02.2	S	20 34.7 +00.0				
05	139 29.6 +01.7	N	08 25.9 +00.3	217 14.6 +01.9	S	20 51.1 -00.1	216 23.4 +02.2	S	20 34.7 -00.1				
06	154 31.3 +01.7	N	08 26.2 +00.4	232 16.5 +01.9	S	20 51.0 -00.1	231 25.6 +02.1	S	20 34.6 +00.0				
07	169 33.0 +01.8	N	08 26.6 +00.4	247 18.4 +01.9	S	20 50.9 -00.1	246 27.7 +02.2	S	20 34.6 -00.1				
08	184 34.8 +01.7	N	08 27.0 +00.4	262 20.3 +01.9	S	20 50.8 -00.1	261 29.9 +02.2	S	20 34.5 +00.0				
09	199 36.5 +01.7	N	08 27.4 +00.3	277 22.2 +01.9	S	20 50.7 -00.1	276 32.1 +02.2	S	20 34.5 -00.1				
10	214 38.2 +01.8	N	08 27.7 +00.4	292 24.1 +01.9	S	20 50.6 -00.1	291 34.3 +02.2	S	20 34.4 +00.0				
11	229 40.0 +01.7	N	08 28.1 +00.4	307 26.0 +01.9	S	20 50.5 -00.1	306 36.5 +02.2	S	20 34.4 -00.1				
12	244 41.7 +01.7	N	08 28.5 +00.4	322 27.9 +01.9	S	20 50.4 -00.1	321 38.7 +02.2	S	20 34.3 -00.1				
13	259 43.4 +01.8	N	08 28.9 +00.3	337 29.8 +01.9	S	20 50.3 -00.2	336 40.9 +02.2	S	20 34.2 +00.0				
14	274 45.2 +01.7	N	08 29.2 +00.4	352 31.7 +01.9	S	20 50.1 -00.1	351 43.1 +02.2	S	20 34.2 -00.1				
15	289 46.9 +01.7	N	08 29.6 +00.4	7 33.6 +02.0	S	20 50.0 -00.1	6 45.3 +02.2	S	20 34.1 +00.0				
16	304 48.6 +01.8	N	08 30.0 +00.4	22 35.6 +01.9	S	20 49.9 -00.1	21 47.5 +02.2	S	20 34.1 -00.1				
17	319 50.4 +01.7	N	08 30.4 +00.3	37 37.5 +01.9	S	20 49.8 -00.1	36 49.7 +02.2	S	20 34.0 +00.0				
18	334 52.1 +01.7	N	08 30.7 +00.4	52 39.4 +01.9	S	20 49.7 -00.1	51 51.9 +02.2	S	20 34.0 -00.1				
19	349 53.8 +01.8	N	08 31.1 +00.4	67 41.3 +01.9	S	20 49.6 -00.1	66 54.1 +02.2	S	20 33.9 +00.0				
20	4 55.6 +01.7	N	08 31.5 +00.4	82 43.2 +01.9	S	20 49.5 -00.1	81 56.3 +02.2	S	20 33.9 -00.1				
21	19 57.3 +01.7	N	08 31.9 +00.3	97 45.1 +01.9	S	20 49.4 -00.1	96 58.5 +02.2	S	20 33.8 +00.0				
22	34 59.0 +01.7	N	08 32.2 +00.4	112 47.0 +01.9	S	20 49.3 -00.1	112 00.7 +02.2	S	20 33.8 -00.1				
23	50 00.7 +01.8	N	08 32.6 +00.4	127 48.9 +01.9	S	20 49.2 -00.1	127 02.9 +02.2	S	20 33.7 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 341° 341° 341° 341° 341° 341°			SHA 059° 059° 059° 059° 059° 059°			SHA 058° 058° 058° 058° 058° 058°						
	Greenwich Culmination Time: 19:40			Greenwich Culmination Time: 14:29			Greenwich Culmination Time: 14:33						

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 13.5 -00.3	S	23 16.5 +00.2	206 52.7 -00.7	S	18 42.3 +00.7	176 29.0 -37.4	S	24 08.8 +03.9	00			
01	196 13.2 -00.3	S	23 16.7 +00.1	221 52.0 -00.8	S	18 43.0 +00.8	190 51.6 -37.3	S	24 12.7 +03.7	01			
02	211 12.9 -00.3	S	23 16.8 +00.1	236 51.2 -00.7	S	18 43.8 +00.7	205 14.3 -37.3	S	24 16.4 +03.5	02			
03	226 12.6 -00.3	S	23 16.9 +00.1	251 50.5 -00.7	S	18 44.5 +00.8	219 37.0 -37.4	S	24 19.9 +03.3	03			
04	241 12.3 -00.3	S	23 17.0 +00.2	266 49.8 -00.8	S	18 45.3 +00.7	233 59.6 -37.3	S	24 23.2 +03.1	04			
05	256 12.0 -00.3	S	23 17.2 +00.1	281 49.0 -00.7	S	18 46.0 +00.8	248 22.3 -37.4	S	24 26.3 +03.0	05			
06	271 11.7 -00.3	S	23 17.3 +00.1	296 48.3 -00.8	S	18 46.8 +00.7	262 44.9 -37.3	S	24 29.3 +02.8	06			
07	286 11.4 -00.3	S	23 17.4 +00.1	311 47.5 -00.7	S	18 47.5 +00.8	277 07.6 -37.4	S	24 32.1 +02.6	07			
08	301 11.1 -00.3	S	23 17.5 +00.1	326 46.8 -00.7	S	18 48.3 +00.7	291 30.2 -37.3	S	24 34.7 +02.4	08			
09	316 10.8 -00.3	S	23 17.6 +00.2	341 46.1 -00.8	S	18 49.0 +00.7	305 52.9 -37.3	S	24 37.1 +02.3	09			
10	331 10.5 -00.3	S	23 17.8 +00.1	356 45.3 -00.7	S	18 49.7 +00.8	320 15.6 -37.3	S	24 39.4 +02.1	10			
11	346 10.2 -00.3	S	23 17.9 +00.1	11 44.6 -00.8	S	18 50.5 +00.7	334 38.3 -37.3	S	24 41.5 +01.9	11			
12	1 09.9 -00.3	S	23 18.0 +00.1	26 43.8 -00.7	S	18 51.2 +00.8	349 01.0 -37.3	S	24 43.4 +01.7	12			
13	16 09.6 -00.3	S	23 18.1 +00.1	41 43.1 -00.8	S	18 52.0 +00.7	3 23.7 -37.3	S	24 45.1 +01.6	13			
14	31 09.3 -00.3	S	23 18.2 +00.1	56 42.3 -00.7	S	18 52.7 +00.7	17 46.4 -37.2	S	24 46.7 +01.4	14			
15	46 09.0 -00.3	S	23 18.3 +00.1	71 41.6 -00.7	S	18 53.4 +00.8	32 09.2 -37.2	S	24 48.1 +01.2	15			
16	61 08.7 -00.3	S	23 18.4 +00.2	86 40.9 -00.8	S	18 54.2 +00.7	46 32.0 -37.2	S	24 49.3 +01.0	16			
17	76 08.4 -00.3	S	23 18.6 +00.1	101 40.1 -00.7	S	18 54.9 +00.7	60 54.8 -37.1	S	24 50.3 +00.8	17			
18	91 08.1 -00.3	S	23 18.7 +00.1	116 39.4 -00.8	S	18 55.6 +00.8	75 17.7 -37.1	S	24 51.1 +00.7	18			
19	106 07.8 -00.4	S	23 18.8 +00.1	131 38.6 -00.7	S	18 56.4 +00.7	89 40.6 -37.1	S	24 51.8 +00.5	19			
20	121 07.4 -00.3	S	23 18.9 +00.1	146 37.9 -00.8	S	18 57.1 +00.7	104 03.5 -37.0	S	24 52.3 +00.4	20			
21	136 07.1 -00.3	S	23 19.0 +00.1	161 37.1 -00.7	S	18 57.8 +00.8	118 26.5 -37.1	S	24 52.7 +00.1	21			
22	151 06.8 -00.3	S	23 19.1 +00.1	176 36.4 -00.8	S	18 58.6 +00.7	132 49.4 -36.9	S	24 52.8 +00.0	22			
23	166 06.5 -00.3	S	23 19.2 +00.1	191 35.6 -00.7	S	18 59.3 +00.7	147 12.5 -36.9	S	24 52.8 -00.2	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'2 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'3 16'3 16'3 16'2 16'2 16'2						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 59'9 59'8 59'7 59'6 59'5 59'4						
	SHA 097° 097° 097° 096° 096° 096°			SHA 123° 122° 122° 122° 122° 122°			SHA 091° 088° 086° 083° 080° 078°						
	Greenwich Culmination Time: 11:55			Greenwich Culmination Time: 10:12			Greenwich Culmination Time: 12:45						

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	65 02.5 +01.7	N	08 33.0 +00.4	142 50.8 +01.9	S	20 49.1 -00.1	142 05.1 +02.1	S	20 33.7 -00.1	00			
01	80 04.2 +01.7	N	08 33.4 +00.4	157 52.7 +01.9	S	20 49.0 -00.2	157 07.2 +02.2	S	20 33.6 +00.0	01			
02	95 05.9 +01.7	N	08 33.8 +00.3	172 54.6 +01.9	S	20 48.8 -00.1	172 09.4 +02.2	S	20 33.6 -00.1	02			
03	110 07.6 +01.7	N	08 34.1 +00.4	187 56.5 +01.9	S	20 48.7 -00.1	187 11.6 +02.2	S	20 33.5 +00.0	03			
04	125 09.3 +01.8	N	08 34.5 +00.4	202 58.4 +01.9	S	20 48.6 -00.1	202 13.8 +02.2	S	20 33.5 -00.1	04			
05	140 11.1 +01.7	N	08 34.9 +00.4	218 00.3 +01.9	S	20 48.5 -00.1	217 16.0 +02.2	S	20 33.4 +00.0	05			
06	155 12.8 +01.7	N	08 35.3 +00.4	233 02.2 +01.9	S	20 48.4 -00.1	232 18.2 +02.2	S	20 33.4 -00.1	06			
07	170 14.5 +01.7	N	08 35.7 +00.3	248 04.1 +01.9	S	20 48.3 -00.1	247 20.4 +02.2	S	20 33.3 -00.1	07			
08	185 16.2 +01.7	N	08 36.0 +00.4	263 06.0 +01.9	S	20 48.2 -00.1	262 22.6 +02.2	S	20 33.2 +00.0	08			
09	200 17.9 +01.8	N	08 36.4 +00.4	278 07.9 +01.9	S	20 48.1 -00.1	277 24.8 +02.2	S	20 33.2 -00.1	09			
10	215 19.7 +01.7	N	08 36.8 +00.4	293 09.8 +01.9	S	20 48.0 -00.1	292 27.0 +02.2	S	20 33.1 +00.0	10			
11	230 21.4 +01.7	N	08 37.2 +00.4	308 11.7 +01.9	S	20 47.9 -00.1	307 29.2 +02.2	S	20 33.1 -00.1	11			
12	245 23.1 +01.7	N	08 37.6 +00.3	323 13.6 +01.9	S	20 47.8 -00.1	322 31.4 +02.2	S	20 33.0 +00.0	12			
13	260 24.8 +01.7	N	08 37.9 +00.4	338 15.5 +01.9	S	20 47.7 -00.2	337 33.6 +02.2	S	20 33.0 -00.1	13			
14	275 26.5 +01.7	N	08 38.3 +00.4	353 17.4 +02.0	S	20 47.5 -00.1	352 35.8 +02.1	S	20 32.9 +00.0	14			
15	290 28.2 +01.7	N	08 38.7 +00.4	8 19.4 +01.9	S	20 47.4 -00.1	7 37.9 +02.2	S	20 32.9 -00.1	15			
16	305 29.9 +01.7	N	08 39.1 +00.4	23 21.3 +01.9	S	20 47.3 -00.1	22 40.1 +02.2	S	20 32.8 +00.0	16			
17	320 31.6 +01.8	N	08 39.5 +00.3	38 23.2 +01.9	S	20 47.2 -00.1	37 42.3 +02.2	S	20 32.8 -00.1	17			
18	335 33.4 +01.7	N	08 39.8 +00.4	53 25.1 +01.9	S	20 47.1 -00.1	52 44.5 +02.2	S	20 32.7 +00.0	18			
19	350 35.1 +01.7	N	08 40.2 +00.4	68 27.0 +01.9	S	20 47.0 -00.1	67 46.7 +02.2	S	20 32.7 -00.1	19			
20	5 36.8 +01.7	N	08 40.6 +00.4	83 28.9 +01.9	S	20 46.9 -00.1	82 48.9 +02.2	S	20 32.6 +00.0	20			
21	20 38.5 +01.7	N	08 41.0 +00.4	98 30.8 +01.9	S	20 46.8 -00.1	97 51.1 +02.2	S	20 32.6 -00.1	21			
22	35 40.2 +01.7	N	08 41.4 +00.4	113 32.7 +01.9	S	20 46.7 -00.1	112 53.3 +02.2	S	20 32.5 +00.0	22			
23	50 41.9 +01.7	N	08 41.8 +00.3	128 34.6 +01.9	S	20 46.6 -00.1	127 55.5 +02.2	S	20 32.5 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 341° 341° 341° 341° 341° 341°			SHA 059° 059° 059° 059° 059° 059°			SHA 058° 058° 058° 058° 058° 058°						
	Greenwich Culmination Time: 19:37			Greenwich Culmination Time: 14:26			Greenwich Culmination Time: 14:29						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 06.2 -00.3	S	23 19.3 +00.1	206 34.9 -00.8	S	19 00.0 +00.8	161 35.6 -36.9	S	24 52.6 -00.3	00			
01	196 05.9 -00.3	S	23 19.4 +00.1	221 34.1 -00.7	S	19 00.8 +00.7	175 58.7 -36.8	S	24 52.3 -00.6	01			
02	211 05.6 -00.3	S	23 19.5 +00.1	236 33.4 -00.8	S	19 01.5 +00.7	190 21.9 -36.8	S	24 51.7 -00.7	02			
03	226 05.3 -00.3	S	23 19.6 +00.1	251 32.6 -00.7	S	19 02.2 +00.7	204 45.1 -36.7	S	24 51.0 -00.8	03			
04	241 05.0 -00.3	S	23 19.7 +00.1	266 31.9 -00.8	S	19 02.9 +00.8	219 08.4 -36.7	S	24 50.2 -01.1	04			
05	256 04.7 -00.3	S	23 19.8 +00.1	281 31.1 -00.7	S	19 03.7 +00.7	233 31.7 -36.6	S	24 49.1 -01.2	05			
06	271 04.4 -00.3	S	23 19.9 +00.1	296 30.4 -00.8	S	19 04.4 +00.7	247 55.1 -36.6	S	24 47.9 -01.4	06			
07	286 04.1 -00.3	S	23 20.0 +00.1	311 29.6 -00.7	S	19 05.1 +00.7	262 18.5 -36.5	S	24 46.5 -01.5	07			
08	301 03.8 -00.3	S	23 20.1 +00.1	326 28.9 -00.8	S	19 05.8 +00.8	276 42.0 -36.4	S	24 45.0 -01.7	08			
09	316 03.5 -00.3	S	23 20.2 +00.1	341 28.1 -00.7	S	19 06.6 +00.7	291 05.6 -36.3	S	24 43.3 -01.9	09			
10	331 03.2 -00.3	S	23 20.3 +00.1	356 27.4 -00.8	S	19 07.3 +00.7	305 29.3 -36.3	S	24 41.4 -02.0	10			
11	346 02.9 -00.3	S	23 20.4 +00.1	11 26.6 -00.7	S	19 08.0 +00.7	319 53.0 -36.3	S	24 39.4 -02.2	11			
12	1 02.6 -00.3	S	23 20.5 +00.1	26 25.9 -00.8	S	19 08.7 +00.7	334 16.7 -36.1	S	24 37.2 -02.4	12			
13	16 02.3 -00.3	S	23 20.6 +00.1	41 25.1 -00.7	S	19 09.4 +00.7	348 40.6 -36.1	S	24 34.8 -02.5	13			
14	31 02.0 -00.3	S	23 20.7 +00.1	56 24.4 -00.8	S	19 10.1 +00.8	3 04.5 -36.0	S	24 32.3 -02.7	14			
15	46 01.7 -00.4	S	23 20.8 +00.1	71 23.6 -00.7	S	19 10.9 +00.7	17 28.5 -36.0	S	24 29.6 -02.8	15			
16	61 01.3 -00.3	S	23 20.9 +00.1	86 22.9 -00.8	S	19 11.6 +00.7	31 52.5 -35.8	S	24 26.8 -03.0	16			
17	76 01.0 -00.3	S	23 21.0 +00.1	101 22.1 -00.7	S	19 12.3 +00.7	46 16.7 -35.8	S	24 23.8 -03.2	17			
18	91 00.7 -00.3	S	23 21.1 +00.1	116 21.4 -00.8	S	19 13.0 +00.7	60 40.9 -35.7	S	24 20.6 -03.3	18			
19	106 00.4 -00.3	S	23 21.2 +00.1	131 20.6 -00.8	S	19 13.7 +00.7	75 05.2 -35.6	S	24 17.3 -03.4	19			
20	121 00.1 -00.3	S	23 21.3 +00.1	146 19.8 -00.7	S	19 14.4 +00.7	89 29.6 -35.6	S	24 13.9 -03.7	20			
21	135 59.8 -00.3	S	23 21.4 +00.1	161 19.1 -00.8	S	19 15.1 +00.7	103 54.0 -35.4	S	24 10.2 -03.7	21			
22	150 59.5 -00.3	S	23 21.5 +00.0	176 18.3 -00.7	S	19 15.8 +00.8	118 18.6 -35.4	S	24 06.5 -03.9	22			
23	165 59.2 -00.3	S	23 21.5 +00.1	191 17.6 -00.8	S	19 16.6 +00.7	132 43.2 -35.3	S	24 02.6 -04.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'1 16'1 16'1 16'0 16'0 16'0						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 59'3 59'1 59'0 58'9 58'7 58'6						
	SHA 096° 096° 096° 095° 095° 095°			SHA 121° 121° 121° 121° 121° 120°			SHA 075° 073° 070° 067° 065° 062°						
	Greenwich Culmination Time: 11:55			Greenwich Culmination Time: 10:14			Greenwich Culmination Time: 13:47						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	65 43.6 +01.7	N	08 42.1 +00.4	143 36.5 +01.9	S	20 46.5 -00.2	142 57.7 +02.2	S	20 32.4 +00.0	00			
01	80 45.3 +01.7	N	08 42.5 +00.4	158 38.4 +01.9	S	20 46.3 -00.1	157 59.9 +02.2	S	20 32.4 -00.1	01			
02	95 47.0 +01.7	N	08 42.9 +00.4	173 40.3 +01.9	S	20 46.2 -00.1	173 02.1 +02.1	S	20 32.3 -00.1	02			
03	110 48.7 +01.7	N	08 43.3 +00.4	188 42.2 +01.9	S	20 46.1 -00.1	188 04.2 +02.2	S	20 32.2 +00.0	03			
04	125 50.4 +01.7	N	08 43.7 +00.4	203 44.1 +01.9	S	20 46.0 -00.1	203 06.4 +02.2	S	20 32.2 -00.1	04			
05	140 52.1 +01.7	N	08 44.1 +00.3	218 46.0 +01.9	S	20 45.9 -00.1	218 08.6 +02.2	S	20 32.1 +00.0	05			
06	155 53.8 +01.7	N	08 44.4 +00.4	233 47.9 +01.9	S	20 45.8 -00.1	233 10.8 +02.2	S	20 32.1 -00.1	06			
07	170 55.5 +01.7	N	08 44.8 +00.4	248 49.8 +01.9	S	20 45.7 -00.1	248 13.0 +02.2	S	20 32.0 +00.0	07			
08	185 57.2 +01.7	N	08 45.2 +00.4	263 51.7 +01.9	S	20 45.6 -00.1	263 15.2 +02.2	S	20 32.0 -00.1	08			
09	200 58.9 +01.7	N	08 45.6 +00.4	278 53.6 +01.9	S	20 45.5 -00.1	278 17.4 +02.2	S	20 31.9 +00.0	09			
10	216 00.6 +01.7	N	08 46.0 +00.4	293 55.5 +01.9	S	20 45.4 -00.2	293 19.6 +02.2	S	20 31.9 -00.1	10			
11	231 02.3 +01.7	N	08 46.4 +00.4	308 57.4 +01.9	S	20 45.2 -00.1	308 21.8 +02.2	S	20 31.8 +00.0	11			
12	246 04.0 +01.7	N	08 46.8 +00.3	323 59.3 +01.9	S	20 45.1 -00.1	323 24.0 +02.2	S	20 31.8 -00.1	12			
13	261 05.7 +01.7	N	08 47.1 +00.4	339 01.2 +01.9	S	20 45.0 -00.1	338 26.2 +02.1	S	20 31.7 +00.0	13			
14	276 07.4 +01.7	N	08 47.5 +00.4	354 03.1 +01.9	S	20 44.9 -00.1	353 28.3 +02.2	S	20 31.7 -00.1	14			
15	291 09.1 +01.7	N	08 47.9 +00.4	9 05.0 +01.9	S	20 44.8 -00.1	8 30.5 +02.2	S	20 31.6 +00.0	15			
16	306 10.8 +01.7	N	08 48.3 +00.4	24 06.9 +01.9	S	20 44.7 -00.1	23 32.7 +02.2	S	20 31.6 -00.1	16			
17	321 12.5 +01.7	N	08 48.7 +00.4	39 08.8 +01.9	S	20 44.6 -00.1	38 34.9 +02.2	S	20 31.5 -00.1	17			
18	336 14.2 +01.6	N	08 49.1 +00.4	54 10.7 +01.9	S	20 44.5 -00.1	53 37.1 +02.2	S	20 31.4 +00.0	18			
19	351 15.8 +01.7	N	08 49.5 +00.3	69 12.6 +01.9	S	20 44.4 -00.1	68 39.3 +02.2	S	20 31.4 -00.1	19			
20	6 17.5 +01.7	N	08 49.8 +00.4	84 14.5 +01.9	S	20 44.3 -00.2	83 41.5 +02.2	S	20 31.3 +00.0	20			
21	21 19.2 +01.7	N	08 50.2 +00.4	99 16.4 +01.9	S	20 44.1 -00.1	98 43.7 +02.2	S	20 31.3 -00.1	21			
22	36 20.9 +01.7	N	08 50.6 +00.4	114 18.3 +01.9	S	20 44.0 -00.1	113 45.9 +02.2	S	20 31.2 +00.0	22			
23	51 22.6 +01.7	N	08 51.0 +00.4	129 20.2 +01.9	S	20 43.9 -00.1	128 48.1 +02.1	S	20 31.2 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 341° 341° 341° 340° 340° 340°			SHA 058° 058° 058° 058° 058° 058°			SHA 058° 058° 058° 058° 058° 058°						
	Greenwich Culmination Time: 19:34			Greenwich Culmination Time: 14:23			Greenwich Culmination Time: 14:26						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 58.9 -00.3	S	23 21.6 +00.1	206 16.8 -00.8	S	19 17.3 +00.7	147 07.9 -35.2	S	23 58.5 -04.2	00			
01	195 58.6 -00.3	S	23 21.7 +00.1	221 16.0 -00.7	S	19 18.0 +00.7	161 32.7 -35.1	S	23 54.3 -04.4	01			
02	210 58.3 -00.3	S	23 21.8 +00.1	236 15.3 -00.8	S	19 18.7 +00.7	175 57.6 -35.0	S	23 49.9 -04.5	02			
03	225 58.0 -00.3	S	23 21.9 +00.1	251 14.5 -00.7	S	19 19.4 +00.7	190 22.6 -34.9	S	23 45.4 -04.7	03			
04	240 57.7 -00.3	S	23 22.0 +00.1	266 13.8 -00.8	S	19 20.1 +00.7	204 47.7 -34.8	S	23 40.7 -04.8	04			
05	255 57.4 -00.3	S	23 22.1 +00.0	281 13.0 -00.8	S	19 20.8 +00.7	219 12.9 -34.7	S	23 35.9 -04.9	05			
06	270 57.1 -00.4	S	23 22.1 +00.1	296 12.2 -00.7	S	19 21.5 +00.7	233 38.2 -34.7	S	23 31.0 -05.1	06			
07	285 56.7 -00.3	S	23 22.2 +00.1	311 11.5 -00.8	S	19 22.2 +00.7	248 03.5 -34.5	S	23 25.9 -05.2	07			
08	300 56.4 -00.3	S	23 22.3 +00.1	326 10.7 -00.8	S	19 22.9 +00.7	262 29.0 -34.4	S	23 20.7 -05.3	08			
09	315 56.1 -00.3	S	23 22.4 +00.1	341 09.9 -00.7	S	19 23.6 +00.7	276 54.6 -34.3	S	23 15.4 -05.5	09			
10	330 55.8 -00.3	S	23 22.5 +00.0	356 09.2 -00.8	S	19 24.3 +00.7	291 20.3 -34.3	S	23 09.9 -05.7	10			
11	345 55.5 -00.3	S	23 22.5 +00.1	11 08.4 -00.8	S	19 25.0 +00.7	305 46.0 -34.1	S	23 04.2 -05.7	11			
12	0 55.2 -00.3	S	23 22.6 +00.1	26 07.6 -00.7	S	19 25.7 +00.7	320 11.9 -34.0	S	22 58.5 -05.9	12			
13	15 54.9 -00.3	S	23 22.7 +00.1	41 06.9 -00.8	S	19 26.4 +00.7	334 37.9 -34.0	S	22 52.6 -06.0	13			
14	30 54.6 -00.3	S	23 22.8 +00.0	56 06.1 -00.8	S	19 27.1 +00.7	349 03.9 -33.8	S	22 46.6 -06.2	14			
15	45 54.3 -00.3	S	23 22.8 +00.1	71 05.3 -00.7	S	19 27.8 +00.6	3 30.1 -33.7	S	22 40.4 -06.3	15			
16	60 54.0 -00.3	S	23 22.9 +00.1	86 04.6 -00.8	S	19 28.4 +00.7	17 56.4 -33.6	S	22 34.1 -06.4	16			
17	75 53.7 -00.3	S	23 23.0 +00.1	101 03.8 -00.8	S	19 29.1 +00.7	32 22.8 -33.5	S	22 27.7 -06.5	17			
18	90 53.4 -00.3	S	23 23.1 +00.0	116 03.0 -00.7	S	19 29.8 +00.7	46 49.3 -33.4	S	22 21.2 -06.6	18			
19	105 53.1 -00.4	S	23 23.1 +00.1	131 02.3 -00.8	S	19 30.5 +00.7	61 15.9 -33.3	S	22 14.6 -06.8	19			
20	120 52.7 -00.3	S	23 23.2 +00.1	146 01.5 -00.8	S	19 31.2 +00.7	75 42.6 -33.2	S	22 07.8 -06.9	20			
21	135 52.4 -00.3	S	23 23.3 +00.0	161 00.7 -00.7	S	19 31.9 +00.7	90 09.4 -33.1	S	22 00.9 -07.0	21			
22	150 52.1 -00.3	S	23 23.3 +00.1	175 60.0 -00.8	S	19 32.6 +00.7	104 36.3 -33.0	S	21 53.9 -07.1	22			
23	165 51.8 -00.3	S	23 23.4 +00.1	190 59.2 -00.8	S	19 33.3 +00.7	119 03.3 -32.8	S	21 46.8 -07.3	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'9 15'9 15'8 15'8 15'8 15'7						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 58'4 58'3 58'2 58'0 57'9 57'7						
	SHA 095° 095° 094° 094° 094° 094°			SHA 120° 120° 120° 119° 119° 119°			SHA 060° 057° 055° 052° 050° 048°						
	Greenwich Culmination Time: 11:56			Greenwich Culmination Time: 10:15			Greenwich Culmination Time: 14:45						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	66 24.3 +01.7	N	08 51.4 +00.4	144 22.1 +01.9	S	20 43.8 -00.1	143 50.2 +02.2	S	20 31.1 +00.0	00			
01	81 26.0 +01.7	N	08 51.8 +00.4	159 24.0 +01.9	S	20 43.7 -00.1	158 52.4 +02.2	S	20 31.1 -00.1	01			
02	96 27.7 +01.6	N	08 52.2 +00.4	174 25.9 +01.9	S	20 43.6 -00.1	173 54.6 +02.2	S	20 31.0 +00.0	02			
03	111 29.3 +01.7	N	08 52.6 +00.3	189 27.8 +01.9	S	20 43.5 -00.1	188 56.8 +02.2	S	20 31.0 -00.1	03			
04	126 31.0 +01.7	N	08 52.9 +00.4	204 29.7 +01.9	S	20 43.4 -00.1	203 59.0 +02.2	S	20 30.9 +00.0	04			
05	141 32.7 +01.7	N	08 53.3 +00.4	219 31.6 +01.9	S	20 43.3 -00.2	219 01.2 +02.2	S	20 30.9 -00.1	05			
06	156 34.4 +01.7	N	08 53.7 +00.4	234 33.5 +01.9	S	20 43.1 -00.1	234 03.4 +02.2	S	20 30.8 +00.0	06			
07	171 36.1 +01.6	N	08 54.1 +00.4	249 35.4 +01.9	S	20 43.0 -00.1	249 05.6 +02.2	S	20 30.8 -00.1	07			
08	186 37.7 +01.7	N	08 54.5 +00.4	264 37.3 +01.9	S	20 42.9 -00.1	264 07.8 +02.2	S	20 30.7 -00.1	08			
09	201 39.4 +01.7	N	08 54.9 +00.4	279 39.2 +01.9	S	20 42.8 -00.1	279 10.0 +02.1	S	20 30.6 +00.0	09			
10	216 41.1 +01.7	N	08 55.3 +00.4	294 41.1 +01.9	S	20 42.7 -00.1	294 12.1 +02.2	S	20 30.6 -00.1	10			
11	231 42.8 +01.7	N	08 55.7 +00.4	309 43.0 +01.9	S	20 42.6 -00.1	309 14.3 +02.2	S	20 30.5 +00.0	11			
12	246 44.5 +01.6	N	08 56.1 +00.3	324 44.9 +01.9	S	20 42.5 -00.1	324 16.5 +02.2	S	20 30.5 -00.1	12			
13	261 46.1 +01.7	N	08 56.4 +00.4	339 46.8 +01.9	S	20 42.4 -00.1	339 18.7 +02.2	S	20 30.4 +00.0	13			
14	276 47.8 +01.7	N	08 56.8 +00.4	354 48.7 +01.9	S	20 42.3 -00.2	354 20.9 +02.2	S	20 30.4 -00.1	14			
15	291 49.5 +01.7	N	08 57.2 +00.4	9 50.6 +01.9	S	20 42.1 -00.1	9 23.1 +02.2	S	20 30.3 +00.0	15			
16	306 51.2 +01.6	N	08 57.6 +00.4	24 52.5 +01.9	S	20 42.0 -00.1	24 25.3 +02.2	S	20 30.3 -00.1	16			
17	321 52.8 +01.7	N	08 58.0 +00.4	39 54.4 +01.9	S	20 41.9 -00.1	39 27.5 +02.2	S	20 30.2 +00.0	17			
18	336 54.5 +01.7	N	08 58.4 +00.4	54 56.3 +01.9	S	20 41.8 -00.1	54 29.7 +02.1	S	20 30.2 -00.1	18			
19	351 56.2 +01.7	N	08 58.8 +00.4	69 58.2 +01.9	S	20 41.7 -00.1	69 31.8 +02.2	S	20 30.1 +00.0	19			
20	6 57.9 +01.6	N	08 59.2 +00.4	85 00.1 +01.9	S	20 41.6 -00.1	84 34.0 +02.2	S	20 30.1 -00.1	20			
21	21 59.5 +01.7	N	08 59.6 +00.4	100 02.0 +01.9	S	20 41.5 -00.1	99 36.2 +02.2	S	20 30.0 -00.1	21			
22	37 01.2 +01.7	N	08 60.0 +00.4	115 03.9 +01.9	S	20 41.4 -00.1	114 38.4 +02.2	S	20 29.9 +00.0	22			
23	52 02.9 +01.6	N	09 00.4 +00.4	130 05.8 +01.9	S	20 41.3 -00.2	129 40.6 +02.2	S	20 29.9 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 340° 340° 340° 340° 340° 340°			SHA 058° 058° 058° 058° 058° 058°			SHA 058° 058° 058° 058° 058° 058°						
	Greenwich Culmination Time: 19:32			Greenwich Culmination Time: 14:20			Greenwich Culmination Time: 14:22						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 51.5 -00.3	S	23 23.5 +00.0	205 58.4 -00.7	S	19 34.0 +00.6	133 30.5 -32.8	S	21 39.5 -07.4	00			
01	195 51.2 -00.3	S	23 23.5 +00.1	220 57.7 -00.8	S	19 34.6 +00.7	147 57.7 -32.7	S	21 32.1 -07.4	01			
02	210 50.9 -00.3	S	23 23.6 +00.1	235 56.9 -00.8	S	19 35.3 +00.7	162 25.0 -32.5	S	21 24.7 -07.6	02			
03	225 50.6 -00.3	S	23 23.7 +00.0	250 56.1 -00.8	S	19 36.0 +00.7	176 52.5 -32.4	S	21 17.1 -07.7	03			
04	240 50.3 -00.3	S	23 23.7 +00.1	265 55.3 -00.7	S	19 36.7 +00.7	191 20.1 -32.4	S	21 09.4 -07.8	04			
05	255 50.0 -00.3	S	23 23.8 +00.1	280 54.6 -00.8	S	19 37.4 +00.6	205 47.7 -32.2	S	21 01.6 -07.9	05			
06	270 49.7 -00.3	S	23 23.9 +00.0	295 53.8 -00.8	S	19 38.0 +00.7	220 15.5 -32.1	S	20 53.7 -08.0	06			
07	285 49.4 -00.4	S	23 23.9 +00.1	310 53.0 -00.8	S	19 38.7 +00.7	234 43.4 -32.0	S	20 45.7 -08.1	07			
08	300 49.0 -00.3	S	23 24.0 +00.0	325 52.2 -00.7	S	19 39.4 +00.7	249 11.4 -31.9	S	20 37.6 -08.2	08			
09	315 48.7 -00.3	S	23 24.0 +00.1	340 51.5 -00.8	S	19 40.1 +00.6	263 39.5 -31.8	S	20 29.4 -08.4	09			
10	330 48.4 -00.3	S	23 24.1 +00.1	355 50.7 -00.8	S	19 40.7 +00.7	278 07.7 -31.6	S	20 21.0 -08.4	10			
11	345 48.1 -00.3	S	23 24.2 +00.0	10 49.9 -00.8	S	19 41.4 +00.7	292 36.1 -31.6	S	20 12.6 -08.5	11			
12	0 47.8 -00.3	S	23 24.2 +00.1	25 49.1 -00.7	S	19 42.1 +00.7	307 04.5 -31.4	S	20 04.1 -08.6	12			
13	15 47.5 -00.3	S	23 24.3 +00.0	40 48.4 -00.8	S	19 42.8 +00.6	321 33.1 -31.4	S	19 55.5 -08.7	13			
14	30 47.2 -00.3	S	23 24.3 +00.1	55 47.6 -00.8	S	19 43.4 +00.7	336 01.7 -31.2	S	19 46.8 -08.8	14			
15	45 46.9 -00.3	S	23 24.4 +00.0	70 46.8 -00.8	S	19 44.1 +00.7	350 30.5 -31.2	S	19 38.0 -08.9	15			
16	60 46.6 -00.3	S	23 24.4 +00.1	85 46.0 -00.8	S	19 44.8 +00.7	4 59.3 -31.0	S	19 29.1 -09.0	16			
17	75 46.3 -00.3	S	23 24.5 +00.0	100 45.2 -00.7	S	19 45.5 +00.6	19 28.3 -30.9	S	19 20.1 -09.1	17			
18	90 46.0 -00.4	S	23 24.5 +00.1	115 44.5 -00.8	S	19 46.1 +00.7	33 57.4 -30.8	S	19 11.0 -09.1	18			
19	105 45.6 -00.3	S	23 24.6 +00.1	130 43.7 -00.8	S	19 46.8 +00.7	48 26.6 -30.7	S	19 01.9 -09.3	19			
20	120 45.3 -00.3	S	23 24.7 +00.0	145 42.9 -00.8	S	19 47.5 +00.6	62 55.9 -30.6	S	18 52.6 -09.3	20			
21	135 45.0 -00.3	S	23 24.7 +00.1	160 42.1 -00.8	S	19 48.1 +00.7	77 25.3 -30.5	S	18 43.3 -09.4	21			
22	150 44.7 -00.3	S	23 24.8 +00.0	175 41.3 -00.7	S	19 48.8 +00.6	91 54.8 -30.4	S	18 33.9 -09.5	22			
23	165 44.4 -00.3	S	23 24.8 +00.0	190 40.6 -00.8	S	19 49.4 +00.7	106 24.4 -30.3	S	18 24.4 -09.6	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'7 15'6 15'6 15'6 15'5 15'5						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 57'6 57'4 57'3 57'1 57'0 56'8						
	SHA 094° 094° 093° 093° 093° 093°			SHA 119° 119° 118° 118° 118° 118°			SHA 045° 043° 041° 038° 036° 034°						
	Greenwich Culmination Time: 11:56			Greenwich Culmination Time: 10:16			Greenwich Culmination Time: 15:39						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	67 04.5 +01.7	N	09 00.8 +00.3	145 07.7 +01.9	S	20 41.1 -00.1	144 42.8 +02.2	S	20 29.8 +00.0	00			
01	82 06.2 +01.7	N	09 01.1 +00.4	160 09.6 +01.9	S	20 41.0 -00.1	159 45.0 +02.2	S	20 29.8 -00.1	01			
02	97 07.9 +01.6	N	09 01.5 +00.4	175 11.5 +01.9	S	20 40.9 -00.1	174 47.2 +02.1	S	20 29.7 +00.0	02			
03	112 09.5 +01.7	N	09 01.9 +00.4	190 13.4 +01.9	S	20 40.8 -00.1	189 49.3 +02.2	S	20 29.7 -00.1	03			
04	127 11.2 +01.7	N	09 02.3 +00.4	205 15.3 +01.9	S	20 40.7 -00.1	204 51.5 +02.2	S	20 29.6 +00.0	04			
05	142 12.9 +01.6	N	09 02.7 +00.4	220 17.2 +01.9	S	20 40.6 -00.1	219 53.7 +02.2	S	20 29.6 -00.1	05			
06	157 14.5 +01.7	N	09 03.1 +00.4	235 19.1 +01.9	S	20 40.5 -00.1	234 55.9 +02.2	S	20 29.5 +00.0	06			
07	172 16.2 +01.7	N	09 03.5 +00.4	250 21.0 +01.9	S	20 40.4 -00.2	249 58.1 +02.2	S	20 29.5 -00.1	07			
08	187 17.9 +01.6	N	09 03.9 +00.4	265 22.9 +01.9	S	20 40.2 -00.1	265 00.3 +02.2	S	20 29.4 -00.1	08			
09	202 19.5 +01.7	N	09 04.3 +00.4	280 24.8 +01.8	S	20 40.1 -00.1	280 02.5 +02.2	S	20 29.3 +00.0	09			
10	217 21.2 +01.6	N	09 04.7 +00.4	295 26.6 +01.9	S	20 40.0 -00.1	295 04.7 +02.1	S	20 29.3 -00.1	10			
11	232 22.8 +01.7	N	09 05.1 +00.4	310 28.5 +01.9	S	20 39.9 -00.1	310 06.8 +02.2	S	20 29.2 +00.0	11			
12	247 24.5 +01.7	N	09 05.5 +00.4	325 30.4 +01.9	S	20 39.8 -00.1	325 09.0 +02.2	S	20 29.2 -00.1	12			
13	262 26.2 +01.6	N	09 05.9 +00.4	340 32.3 +01.9	S	20 39.7 -00.1	340 11.2 +02.2	S	20 29.1 +00.0	13			
14	277 27.8 +01.7	N	09 06.3 +00.4	355 34.2 +01.9	S	20 39.6 -00.1	355 13.4 +02.2	S	20 29.1 -00.1	14			
15	292 29.5 +01.6	N	09 06.7 +00.4	10 36.1 +01.9	S	20 39.5 -00.2	10 15.6 +02.2	S	20 29.0 +00.0	15			
16	307 31.1 +01.7	N	09 07.1 +00.3	25 38.0 +01.9	S	20 39.3 -00.1	25 17.8 +02.2	S	20 29.0 -00.1	16			
17	322 32.8 +01.6	N	09 07.4 +00.4	40 39.9 +01.9	S	20 39.2 -00.1	40 20.0 +02.1	S	20 28.9 +00.0	17			
18	337 34.4 +01.7	N	09 07.8 +00.4	55 41.8 +01.9	S	20 39.1 -00.1	55 22.1 +02.2	S	20 28.9 -00.1	18			
19	352 36.1 +01.7	N	09 08.2 +00.4	70 43.7 +01.9	S	20 39.0 -00.1	70 24.3 +02.2	S	20 28.8 -00.1	19			
20	7 37.8 +01.6	N	09 08.6 +00.4	85 45.6 +01.9	S	20 38.9 -00.1	85 26.5 +02.2	S	20 28.7 +00.0	20			
21	22 39.4 +01.7	N	09 09.0 +00.4	100 47.5 +01.9	S	20 38.8 -00.1	100 28.7 +02.2	S	20 28.7 -00.1	21			
22	37 41.1 +01.6	N	09 09.4 +00.4	115 49.4 +01.9	S	20 38.7 -00.1	115 30.9 +02.2	S	20 28.6 +00.0	22			
23	52 42.7 +01.7	N	09 09.8 +00.4	130 51.3 +01.9	S	20 38.6 -00.2	130 33.1 +02.2	S	20 28.6 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 340° 340° 340° 340° 340° 340°			SHA 058° 058° 058° 058° 058° 058°			SHA 058° 058° 058° 058° 058° 058°						
	Greenwich Culmination Time: 19:29			Greenwich Culmination Time: 14:17			Greenwich Culmination Time: 14:19						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 44.1 -00.3	S	23 24.8 +00.1	205 39.8 -00.8	S	19 50.1 +00.7	120 54.1 -30.2	S	18 14.8 -09.7	00			
01	195 43.8 -00.3	S	23 24.9 +00.0	220 39.0 -00.8	S	19 50.8 +00.6	135 23.9 -30.0	S	18 05.1 -09.7	01			
02	210 43.5 -00.3	S	23 24.9 +00.1	235 38.2 -00.8	S	19 51.4 +00.7	149 53.9 -30.0	S	17 55.4 -09.8	02			
03	225 43.2 -00.3	S	23 25.0 +00.0	250 37.4 -00.8	S	19 52.1 +00.6	164 23.9 -29.9	S	17 45.6 -09.9	03			
04	240 42.9 -00.4	S	23 25.0 +00.1	265 36.6 -00.7	S	19 52.7 +00.7	178 54.0 -29.8	S	17 35.7 -10.0	04			
05	255 42.5 -00.3	S	23 25.1 +00.0	280 35.9 -00.8	S	19 53.4 +00.7	193 24.2 -29.6	S	17 25.7 -10.0	05			
06	270 42.2 -00.3	S	23 25.1 +00.1	295 35.1 -00.8	S	19 54.1 +00.6	207 54.6 -29.6	S	17 15.7 -10.1	06			
07	285 41.9 -00.3	S	23 25.2 +00.0	310 34.3 -00.8	S	19 54.7 +00.7	222 25.0 -29.5	S	17 05.6 -10.2	07			
08	300 41.6 -00.3	S	23 25.2 +00.0	325 33.5 -00.8	S	19 55.4 +00.6	236 55.5 -29.3	S	16 55.4 -10.3	08			
09	315 41.3 -00.3	S	23 25.2 +00.1	340 32.7 -00.8	S	19 56.0 +00.7	251 26.2 -29.3	S	16 45.1 -10.3	09			
10	330 41.0 -00.3	S	23 25.3 +00.0	355 31.9 -00.8	S	19 56.7 +00.6	265 56.9 -29.2	S	16 34.8 -10.4	10			
11	345 40.7 -00.3	S	23 25.3 +00.1	10 31.1 -00.8	S	19 57.3 +00.7	280 27.7 -29.1	S	16 24.4 -10.4	11			
12	0 40.4 -00.3	S	23 25.4 +00.0	25 30.3 -00.7	S	19 58.0 +00.6	294 58.6 -28.9	S	16 14.0 -10.5	12			
13	15 40.1 -00.3	S	23 25.4 +00.0	40 29.6 -00.8	S	19 58.6 +00.7	309 29.7 -28.9	S	16 03.5 -10.6	13			
14	30 39.8 -00.3	S	23 25.4 +00.1	55 28.8 -00.8	S	19 59.3 +00.6	324 00.8 -28.8	S	15 52.9 -10.7	14			
15	45 39.5 -00.4	S	23 25.5 +00.0	70 28.0 -00.8	S	19 59.9 +00.7	338 32.0 -28.7	S	15 42.2 -10.7	15			
16	60 39.1 -00.3	S	23 25.5 +00.0	85 27.2 -00.8	S	20 00.6 +00.6	353 03.3 -28.6	S	15 31.5 -10.7	16			
17	75 38.8 -00.3	S	23 25.5 +00.1	100 26.4 -00.8	S	20 01.2 +00.7	7 34.7 -28.5	S	15 20.8 -10.8	17			
18	90 38.5 -00.3	S	23 25.6 +00.0	115 25.6 -00.8	S	20 01.9 +00.6	22 06.2 -28.5	S	15 10.0 -10.9	18			
19	105 38.2 -00.3	S	23 25.6 +00.0	130 24.8 -00.8	S	20 02.5 +00.6	36 37.7 -28.3	S	14 59.1 -10.9	19			
20	120 37.9 -00.3	S	23 25.6 +00.1	145 24.0 -00.8	S	20 03.1 +00.7	51 09.4 -28.2	S	14 48.2 -11.0	20			
21	135 37.6 -00.3	S	23 25.7 +00.0	160 23.2 -00.8	S	20 03.8 +00.6	65 41.2 -28.2	S	14 37.2 -11.1	21			
22	150 37.3 -00.3	S	23 25.7 +00.0	175 22.4 -00.8	S	20 04.4 +00.7	80 13.0 -28.0	S	14 26.1 -11.0	22			
23	165 37.0 -00.3	S	23 25.7 +00.1	190 21.6 -00.8	S	20 05.1 +00.6	94 45.0 -28.0	S	14 15.1 -11.2	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'4 15'4 15'4 15'3 15'3 15'3						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 56'7 56'5 56'4 56'3 56'1 56'0						
	SHA 093° 092° 092° 092° 092° 092°			SHA 118° 117° 117° 117° 117° 116°			SHA 032° 030° 027° 025° 023° 021°						
	Greenwich Culmination Time: 11:57			Greenwich Culmination Time: 10:17			Greenwich Culmination Time: 16:28						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	67 44.4 +01.6	N	09 10.2 +00.4	145 53.2 +01.9	S	20 38.4 -00.1	145 35.3 +02.2	S	20 28.5 +00.0	00			
01	82 46.0 +01.7	N	09 10.6 +00.4	160 55.1 +01.9	S	20 38.3 -00.1	160 37.5 +02.1	S	20 28.5 -00.1	01			
02	97 47.7 +01.6	N	09 11.0 +00.4	175 57.0 +01.9	S	20 38.2 -00.1	175 39.6 +02.2	S	20 28.4 +00.0	02			
03	112 49.3 +01.7	N	09 11.4 +00.4	190 58.9 +01.9	S	20 38.1 -00.1	190 41.8 +02.2	S	20 28.4 -00.1	03			
04	127 51.0 +01.6	N	09 11.8 +00.4	206 00.8 +01.9	S	20 38.0 -00.1	205 44.0 +02.2	S	20 28.3 +00.0	04			
05	142 52.6 +01.6	N	09 12.2 +00.4	221 02.7 +01.9	S	20 37.9 -00.1	220 46.2 +02.2	S	20 28.3 -00.1	05			
06	157 54.2 +01.7	N	09 12.6 +00.4	236 04.6 +01.9	S	20 37.8 -00.2	235 48.4 +02.2	S	20 28.2 -00.1	06			
07	172 55.9 +01.6	N	09 13.0 +00.4	251 06.5 +01.9	S	20 37.6 -00.1	250 50.6 +02.2	S	20 28.1 +00.0	07			
08	187 57.5 +01.7	N	09 13.4 +00.4	266 08.4 +01.8	S	20 37.5 -00.1	265 52.8 +02.1	S	20 28.1 -00.1	08			
09	202 59.2 +01.6	N	09 13.8 +00.4	281 10.2 +01.9	S	20 37.4 -00.1	280 54.9 +02.2	S	20 28.0 +00.0	09			
10	218 00.8 +01.7	N	09 14.2 +00.4	296 12.1 +01.9	S	20 37.3 -00.1	295 57.1 +02.2	S	20 28.0 -00.1	10			
11	233 02.5 +01.6	N	09 14.6 +00.4	311 14.0 +01.9	S	20 37.2 -00.1	310 59.3 +02.2	S	20 27.9 +00.0	11			
12	248 04.1 +01.7	N	09 15.0 +00.4	326 15.9 +01.9	S	20 37.1 -00.1	326 01.5 +02.2	S	20 27.9 -00.1	12			
13	263 05.8 +01.6	N	09 15.4 +00.4	341 17.8 +01.9	S	20 37.0 -00.2	341 03.7 +02.2	S	20 27.8 +00.0	13			
14	278 07.4 +01.6	N	09 15.8 +00.4	356 19.7 +01.9	S	20 36.8 -00.1	356 05.9 +02.2	S	20 27.8 -00.1	14			
15	293 09.0 +01.7	N	09 16.2 +00.4	11 21.6 +01.9	S	20 36.7 -00.1	11 08.1 +02.1	S	20 27.7 +00.0	15			
16	308 10.7 +01.6	N	09 16.6 +00.4	26 23.5 +01.9	S	20 36.6 -00.1	26 10.2 +02.2	S	20 27.7 -00.1	16			
17	323 12.3 +01.7	N	09 17.0 +00.4	41 25.4 +01.9	S	20 36.5 -00.1	41 12.4 +02.2	S	20 27.6 -00.1	17			
18	338 14.0 +01.6	N	09 17.4 +00.4	56 27.3 +01.9	S	20 36.4 -00.1	56 14.6 +02.2	S	20 27.5 +00.0	18			
19	353 15.6 +01.6	N	09 17.8 +00.4	71 29.2 +01.9	S	20 36.3 -00.1	71 16.8 +02.2	S	20 27.5 -00.1	19			
20	8 17.2 +01.7	N	09 18.2 +00.4	86 31.1 +01.9	S	20 36.2 -00.1	86 19.0 +02.2	S	20 27.4 +00.0	20			
21	23 18.9 +01.6	N	09 18.6 +00.4	101 33.0 +01.9	S	20 36.1 -00.2	101 21.2 +02.1	S	20 27.4 -00.1	21			
22	38 20.5 +01.6	N	09 19.0 +00.4	116 34.9 +01.9	S	20 35.9 -00.1	116 23.3 +02.2	S	20 27.3 +00.0	22			
23	53 22.1 +01.7	N	09 19.4 +00.4	131 36.8 +01.9	S	20 35.8 -00.1	131 25.5 +02.2	S	20 27.3 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 340° 340° 340° 339° 339° 339°			SHA 058° 058° 058° 058° 058° 058°			SHA 058° 058° 057° 057° 057° 057°						
	Greenwich Culmination Time: 19:26			Greenwich Culmination Time: 14:14			Greenwich Culmination Time: 14:15						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 36.7 -00.4	S	23 25.8 +00.0	205 20.8 -00.8	S	20 05.7 +00.6	109 17.0 -27.9	S	14 03.9 -11.2	00			
01	195 36.3 -00.3	S	23 25.8 +00.0	220 20.0 -00.7	S	20 06.3 +00.7	123 49.1 -27.8	S	13 52.7 -11.2	01			
02	210 36.0 -00.3	S	23 25.8 +00.0	235 19.3 -00.8	S	20 07.0 +00.6	138 21.3 -27.8	S	13 41.5 -11.3	02			
03	225 35.7 -00.3	S	23 25.8 +00.1	250 18.5 -00.8	S	20 07.6 +00.6	152 53.5 -27.6	S	13 30.2 -11.3	03			
04	240 35.4 -00.3	S	23 25.9 +00.0	265 17.7 -00.8	S	20 08.2 +00.7	167 25.9 -27.6	S	13 18.9 -11.4	04			
05	255 35.1 -00.3	S	23 25.9 +00.0	280 16.9 -00.8	S	20 08.9 +00.6	181 58.3 -27.4	S	13 07.5 -11.4	05			
06	270 34.8 -00.3	S	23 25.9 +00.0	295 16.1 -00.8	S	20 09.5 +00.6	196 30.9 -27.4	S	12 56.1 -11.5	06			
07	285 34.5 -00.3	S	23 25.9 +00.0	310 15.3 -00.8	S	20 10.1 +00.7	211 03.5 -27.4	S	12 44.6 -11.5	07			
08	300 34.2 -00.3	S	23 25.9 +00.1	325 14.5 -00.8	S	20 10.8 +00.6	225 36.1 -27.2	S	12 33.1 -11.6	08			
09	315 33.9 -00.3	S	23 26.0 +00.0	340 13.7 -00.8	S	20 11.4 +00.6	240 08.9 -27.2	S	12 21.5 -11.6	09			
10	330 33.6 -00.4	S	23 26.0 +00.0	355 12.9 -00.8	S	20 12.0 +00.7	254 41.7 -27.1	S	12 09.9 -11.6	10			
11	345 33.2 -00.3	S	23 26.0 +00.0	10 12.1 -00.8	S	20 12.7 +00.6	269 14.6 -27.0	S	11 58.3 -11.7	11			
12	0 32.9 -00.3	S	23 26.0 +00.0	25 11.3 -00.8	S	20 13.3 +00.6	283 47.6 -26.9	S	11 46.6 -11.7	12			
13	15 32.6 -00.3	S	23 26.0 +00.1	40 10.5 -00.8	S	20 13.9 +00.6	298 20.7 -26.9	S	11 34.9 -11.7	13			
14	30 32.3 -00.3	S	23 26.1 +00.0	55 09.7 -00.8	S	20 14.5 +00.7	312 53.8 -26.8	S	11 23.2 -11.8	14			
15	45 32.0 -00.3	S	23 26.1 +00.0	70 08.9 -00.8	S	20 15.2 +00.6	327 27.0 -26.7	S	11 11.4 -11.8	15			
16	60 31.7 -00.3	S	23 26.1 +00.0	85 08.1 -00.8	S	20 15.8 +00.6	342 00.3 -26.7	S	10 59.6 -11.9	16			
17	75 31.4 -00.3	S	23 26.1 +00.0	100 07.3 -00.8	S	20 16.4 +00.6	356 33.6 -26.6	S	10 47.7 -11.9	17			
18	90 31.1 -00.3	S	23 26.1 +00.0	115 06.5 -00.8	S	20 17.0 +00.7	11 07.0 -26.5	S	10 35.8 -11.9	18			
19	105 30.8 -00.4	S	23 26.1 +00.0	130 05.7 -00.8	S	20 17.7 +00.6	25 40.5 -26.4	S	10 23.9 -11.9	19			
20	120 30.4 -00.3	S	23 26.1 +00.1	145 04.9 -00.8	S	20 18.3 +00.6	40 14.1 -26.4	S	10 12.0 -12.0	20			
21	135 30.1 -00.3	S	23 26.2 +00.0	160 04.1 -00.8	S	20 18.9 +00.6	54 47.7 -26.4	S	09 60.0 -12.0	21			
22	150 29.8 -00.3	S	23 26.2 +00.0	175 03.3 -00.8	S	20 19.5 +00.6	69 21.3 -26.2	S	09 48.0 -12.1	22			
23	165 29.5 -00.3	S	23 26.2 +00.0	190 02.5 -00.9	S	20 20.1 +00.6	83 55.1 -26.2	S	09 35.9 -12.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'2 15'2 15'2 15'1 15'1 15'1						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 55'9 55'8 55'6 55'5 55'4 55'3						
	SHA 091° 091° 091° 091° 091° 091°			SHA 116° 116° 116° 116° 115° 115°			SHA 019° 017° 015° 013° 011° 009°						
	Greenwich Culmination Time: 11:57			Greenwich Culmination Time: 10:19			Greenwich Culmination Time: 17:14						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	68 23.8 +01.6	N	09 19.8 +00.4	146 38.7 +01.8	S	20 35.7 -00.1	146 27.7 +02.2	S	20 27.2 +00.0	00			
01	83 25.4 +01.6	N	09 20.2 +00.4	161 40.5 +01.9	S	20 35.6 -00.1	161 29.9 +02.2	S	20 27.2 -00.1	01			
02	98 27.0 +01.7	N	09 20.6 +00.4	176 42.4 +01.9	S	20 35.5 -00.1	176 32.1 +02.2	S	20 27.1 -00.1	02			
03	113 28.7 +01.6	N	09 21.0 +00.4	191 44.3 +01.9	S	20 35.4 -00.1	191 34.3 +02.1	S	20 27.0 +00.0	03			
04	128 30.3 +01.6	N	09 21.4 +00.4	206 46.2 +01.9	S	20 35.3 -00.2	206 36.4 +02.2	S	20 27.0 -00.1	04			
05	143 31.9 +01.6	N	09 21.8 +00.4	221 48.1 +01.9	S	20 35.1 -00.1	221 38.6 +02.2	S	20 26.9 +00.0	05			
06	158 33.5 +01.7	N	09 22.2 +00.4	236 50.0 +01.9	S	20 35.0 -00.1	236 40.8 +02.2	S	20 26.9 -00.1	06			
07	173 35.2 +01.6	N	09 22.6 +00.4	251 51.9 +01.9	S	20 34.9 -00.1	251 43.0 +02.2	S	20 26.8 +00.0	07			
08	188 36.8 +01.6	N	09 23.0 +00.4	266 53.8 +01.9	S	20 34.8 -00.1	266 45.2 +02.2	S	20 26.8 -00.1	08			
09	203 38.4 +01.7	N	09 23.4 +00.4	281 55.7 +01.9	S	20 34.7 -00.1	281 47.4 +02.2	S	20 26.7 +00.0	09			
10	218 40.1 +01.6	N	09 23.8 +00.4	296 57.6 +01.9	S	20 34.6 -00.2	296 49.6 +02.1	S	20 26.7 -00.1	10			
11	233 41.7 +01.6	N	09 24.2 +00.4	311 59.5 +01.9	S	20 34.4 -00.1	311 51.7 +02.2	S	20 26.6 +00.0	11			
12	248 43.3 +01.6	N	09 24.6 +00.4	327 01.4 +01.9	S	20 34.3 -00.1	326 53.9 +02.2	S	20 26.6 -00.1	12			
13	263 44.9 +01.7	N	09 25.0 +00.4	342 03.3 +01.9	S	20 34.2 -00.1	341 56.1 +02.2	S	20 26.5 -00.1	13			
14	278 46.6 +01.6	N	09 25.4 +00.4	357 05.2 +01.8	S	20 34.1 -00.1	356 58.3 +02.2	S	20 26.4 +00.0	14			
15	293 48.2 +01.6	N	09 25.8 +00.4	12 07.0 +01.9	S	20 34.0 -00.1	12 00.5 +02.2	S	20 26.4 -00.1	15			
16	308 49.8 +01.6	N	09 26.2 +00.4	27 08.9 +01.9	S	20 33.9 -00.1	27 02.7 +02.1	S	20 26.3 +00.0	16			
17	323 51.4 +01.6	N	09 26.6 +00.4	42 10.8 +01.9	S	20 33.8 -00.2	42 04.8 +02.2	S	20 26.3 -00.1	17			
18	338 53.0 +01.7	N	09 27.0 +00.4	57 12.7 +01.9	S	20 33.6 -00.1	57 07.0 +02.2	S	20 26.2 +00.0	18			
19	353 54.7 +01.6	N	09 27.4 +00.4	72 14.6 +01.9	S	20 33.5 -00.1	72 09.2 +02.2	S	20 26.2 -00.1	19			
20	8 56.3 +01.6	N	09 27.8 +00.4	87 16.5 +01.9	S	20 33.4 -00.1	87 11.4 +02.2	S	20 26.1 +00.0	20			
21	23 57.9 +01.6	N	09 28.2 +00.4	102 18.4 +01.9	S	20 33.3 -00.1	102 13.6 +02.2	S	20 26.1 -00.1	21			
22	38 59.5 +01.6	N	09 28.6 +00.4	117 20.3 +01.9	S	20 33.2 -00.1	117 15.8 +02.1	S	20 26.0 -00.1	22			
23	54 01.1 +01.7	N	09 29.0 +00.4	132 22.2 +01.9	S	20 33.1 -00.1	132 17.9 +02.2	S	20 25.9 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 339° 339° 339° 339° 339° 339°			SHA 058° 058° 058° 057° 057° 057°			SHA 057° 057° 057° 057° 057° 057°						
	Greenwich Culmination Time: 19:24			Greenwich Culmination Time: 14:11			Greenwich Culmination Time: 14:12						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 29.2 -00.3	S	23 26.2 +00.0	205 01.6 -00.8	S	20 20.7 +00.7	98 28.9 -26.2	S	09 23.9 -12.1	00			
01	195 28.9 -00.3	S	23 26.2 +00.0	220 00.8 -00.8	S	20 21.4 +00.6	113 02.7 -26.1	S	09 11.8 -12.1	01			
02	210 28.6 -00.3	S	23 26.2 +00.0	235 00.0 -00.8	S	20 22.0 +00.6	127 36.6 -26.0	S	08 59.7 -12.2	02			
03	225 28.3 -00.3	S	23 26.2 +00.0	249 59.2 -00.8	S	20 22.6 +00.6	142 10.6 -25.9	S	08 47.5 -12.1	03			
04	240 28.0 -00.4	S	23 26.2 +00.0	264 58.4 -00.8	S	20 23.2 +00.6	156 44.7 -25.9	S	08 35.4 -12.2	04			
05	255 27.6 -00.3	S	23 26.2 +00.0	279 57.6 -00.8	S	20 23.8 +00.6	171 18.8 -25.9	S	08 23.2 -12.2	05			
06	270 27.3 -00.3	S	23 26.2 +00.0	294 56.8 -00.8	S	20 24.4 +00.6	185 52.9 -25.8	S	08 11.0 -12.3	06			
07	285 27.0 -00.3	S	23 26.2 +00.0	309 56.0 -00.8	S	20 25.0 +00.6	200 27.1 -25.7	S	07 58.7 -12.2	07			
08	300 26.7 -00.3	S	23 26.2 +00.0	324 55.2 -00.8	S	20 25.6 +00.6	215 01.4 -25.7	S	07 46.5 -12.3	08			
09	315 26.4 -00.3	S	23 26.2 +00.0	339 54.4 -00.8	S	20 26.2 +00.6	229 35.7 -25.7	S	07 34.2 -12.3	09			
10	330 26.1 -00.3	S	23 26.2 +00.0	354 53.6 -00.8	S	20 26.8 +00.6	244 10.0 -25.6	S	07 21.9 -12.3	10			
11	345 25.8 -00.3	S	23 26.2 +00.0	9 52.8 -00.8	S	20 27.4 +00.6	258 44.4 -25.5	S	07 09.6 -12.4	11			
12	0 25.5 -00.3	S	23 26.2 +00.0	24 52.0 -00.9	S	20 28.0 +00.6	273 18.9 -25.5	S	06 57.2 -12.3	12			
13	15 25.2 -00.4	S	23 26.2 +00.0	39 51.1 -00.8	S	20 28.6 +00.6	287 53.4 -25.5	S	06 44.9 -12.4	13			
14	30 24.8 -00.3	S	23 26.2 +00.0	54 50.3 -00.8	S	20 29.2 +00.6	302 27.9 -25.4	S	06 32.5 -12.3	14			
15	45 24.5 -00.3	S	23 26.2 +00.0	69 49.5 -00.8	S	20 29.8 +00.6	317 02.5 -25.3	S	06 20.2 -12.4	15			
16	60 24.2 -00.3	S	23 26.2 +00.0	84 48.7 -00.8	S	20 30.4 +00.6	331 37.2 -25.3	S	06 07.8 -12.4	16			
17	75 23.9 -00.3	S	23 26.2 +00.0	99 47.9 -00.8	S	20 31.0 +00.6	346 11.9 -25.3	S	05 55.4 -12.5	17			
18	90 23.6 -00.3	S	23 26.2 +00.0	114 47.1 -00.8	S	20 31.6 +00.6	0 46.6 -25.2	S	05 42.9 -12.4	18			
19	105 23.3 -00.3	S	23 26.2 +00.0	129 46.3 -00.9	S	20 32.2 +00.6	15 21.4 -25.2	S	05 30.5 -12.5	19			
20	120 23.0 -00.3	S	23 26.2 +00.0	144 45.4 -00.8	S	20 32.8 +00.6	29 56.2 -25.2	S	05 18.0 -12.4	20			
21	135 22.7 -00.3	S	23 26.2 +00.0	159 44.6 -00.8	S	20 33.4 +00.6	44 31.0 -25.1	S	05 05.6 -12.5	21			
22	150 22.4 -00.4	S	23 26.2 +00.0	174 43.0 -00.8	S	20 34.0 +00.6	59 05.9 -25.1	S	04 53.1 -12.5	22			
23	165 22.0 -00.3	S	23 26.2 -00.1	189 43.0 -00.8	S	20 34.6 +00.6	73 40.8 -25.0	S	04 40.6 -12.4	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'0 15'0 15'0 15'0 14'9 14'9						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 55'2 55'1 55'0 54'9 54'8 54'8						
	SHA 090° 090° 090° 090° 090° 089°			SHA 115° 115° 114° 114° 114° 114°			SHA 008° 006° 004° 002° 000° 358°						
	Greenwich Culmination Time: 11:58			Greenwich Culmination Time: 10:20			Greenwich Culmination Time: 17:56						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	69 02.8 +01.6	N	09 29.4 +00.4	147 24.1 +01.9	S	20 33.0 -00.2	147 20.1 +02.2	S	20 25.9 -00.1	00			
01	84 04.4 +01.6	N	09 29.8 +00.4	162 26.0 +01.8	S	20 32.8 -00.1	162 22.3 +02.2	S	20 25.8 +00.0	01			
02	99 06.0 +01.6	N	09 30.2 +00.5	177 27.8 +01.9	S	20 32.7 -00.1	177 24.5 +02.2	S	20 25.8 -00.1	02			
03	114 07.6 +01.6	N	09 30.7 +00.4	192 29.7 +01.9	S	20 32.6 -00.1	192 26.7 +02.1	S	20 25.7 +00.0	03			
04	129 09.2 +01.6	N	09 31.1 +00.4	207 31.6 +01.9	S	20 32.5 -00.1	207 28.8 +02.2	S	20 25.7 -00.1	04			
05	144 10.8 +01.6	N	09 31.5 +00.4	222 33.5 +01.9	S	20 32.4 -00.1	222 31.0 +02.2	S	20 25.6 -00.1	05			
06	159 12.4 +01.7	N	09 31.9 +00.4	237 35.4 +01.9	S	20 32.3 -00.2	237 33.2 +02.2	S	20 25.5 +00.0	06			
07	174 14.1 +01.6	N	09 32.3 +00.4	252 37.3 +01.9	S	20 32.1 -00.1	252 35.4 +02.2	S	20 25.5 -00.1	07			
08	189 15.7 +01.6	N	09 32.7 +00.4	267 39.2 +01.9	S	20 32.0 -00.1	267 37.6 +02.2	S	20 25.4 +00.0	08			
09	204 17.3 +01.6	N	09 33.1 +00.4	282 41.1 +01.9	S	20 31.9 -00.1	282 39.8 +02.1	S	20 25.4 -00.1	09			
10	219 18.9 +01.6	N	09 33.5 +00.4	297 43.0 +01.9	S	20 31.8 -00.1	297 41.9 +02.2	S	20 25.3 +00.0	10			
11	234 20.5 +01.6	N	09 33.9 +00.4	312 44.9 +01.9	S	20 31.7 -00.1	312 44.1 +02.2	S	20 25.3 -00.1	11			
12	249 22.1 +01.6	N	09 34.3 +00.4	327 46.8 +01.8	S	20 31.6 -00.2	327 46.3 +02.2	S	20 25.2 +00.0	12			
13	264 23.7 +01.6	N	09 34.7 +00.4	342 48.6 +01.9	S	20 31.4 -00.1	342 48.5 +02.2	S	20 25.2 -00.1	13			
14	279 25.3 +01.6	N	09 35.1 +00.4	357 50.5 +01.9	S	20 31.3 -00.1	357 50.7 +02.2	S	20 25.1 -00.1	14			
15	294 26.9 +01.6	N	09 35.5 +00.4	12 52.4 +01.9	S	20 31.2 -00.1	12 52.9 +02.1	S	20 25.0 +00.0	15			
16	309 28.5 +01.6	N	09 35.9 +00.4	27 54.3 +01.9	S	20 31.1 -00.1	27 55.0 +02.2	S	20 25.0 -00.1	16			
17	324 30.1 +01.6	N	09 36.3 +00.4	42 56.2 +01.9	S	20 31.0 -00.1	42 57.2 +02.2	S	20 24.9 +00.0	17			
18	339 31.7 +01.6	N	09 36.7 +00.5	57 58.1 +01.9	S	20 30.9 -00.2	57 59.4 +02.2	S	20 24.9 -00.1	18			
19	354 33.3 +01.6	N	09 37.2 +00.4	72 60.0 +01.9	S	20 30.7 -00.1	73 01.6 +02.2	S	20 24.8 +00.0	19			
20	9 34.9 +01.7	N	09 37.6 +00.4	88 01.9 +01.9	S	20 30.6 -00.1	88 03.8 +02.1	S	20 24.8 -00.1	20			
21	24 36.6 +01.6	N	09 38.0 +00.4	103 03.8 +01.9	S	20 30.5 -00.1	103 05.9 +02.2	S	20 24.7 +00.0	21			
22	39 38.2 +01.6	N	09 38.4 +00.4	118 05.7 +01.8	S	20 30.4 -00.1	118 08.1 +02.2	S	20 24.7 -00.1	22			
23	54 39.8 +01.6	N	09 38.8 +00.4	133 07.5 +01.9	S	20 30.3 -00.1	133 10.3 +02.2	S	20 24.6 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 339° 339° 339° 339° 339° 339°			SHA 057° 057° 057° 057° 057° 057°			SHA 057° 057° 057° 057° 057° 057°						
	Greenwich Culmination Time: 19:21			Greenwich Culmination Time: 14:08			Greenwich Culmination Time: 14:08						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 21.7 -00.3	S	23 26.1 +00.0	204 42.2 -00.8	S	20 35.2 +00.6	88 15.8 -25.0	S	04 28.2 -12.5	00			
01	195 21.4 -00.3	S	23 26.1 +00.0	219 41.4 -00.8	S	20 35.8 +00.6	102 50.8 -25.0	S	04 15.7 -12.5	01			
02	210 21.1 -00.3	S	23 26.1 +00.0	234 40.6 -00.9	S	20 36.4 +00.6	117 25.8 -24.9	S	04 03.2 -12.6	02			
03	225 20.8 -00.3	S	23 26.1 +00.0	249 39.7 -00.8	S	20 37.0 +00.5	132 00.9 -24.9	S	03 50.6 -12.5	03			
04	240 20.5 -00.3	S	23 26.1 +00.0	264 38.9 -00.8	S	20 37.5 +00.6	146 36.0 -24.9	S	03 38.1 -12.5	04			
05	255 20.2 -00.3	S	23 26.1 +00.0	279 38.1 -00.8	S	20 38.1 +00.6	161 11.1 -24.9	S	03 25.6 -12.5	05			
06	270 19.9 -00.3	S	23 26.1 -00.1	294 37.3 -00.8	S	20 38.7 +00.6	175 46.2 -24.8	S	03 13.1 -12.6	06			
07	285 19.6 -00.4	S	23 26.0 +00.0	309 36.5 -00.9	S	20 39.3 +00.6	190 21.4 -24.8	S	03 00.5 -12.5	07			
08	300 19.2 -00.3	S	23 26.0 +00.0	324 35.6 -00.8	S	20 39.9 +00.6	204 56.6 -24.8	S	02 48.0 -12.5	08			
09	315 18.9 -00.3	S	23 26.0 +00.0	339 34.8 -00.8	S	20 40.5 +00.5	219 31.8 -24.7	S	02 35.5 -12.6	09			
10	330 18.6 -00.3	S	23 26.0 +00.0	354 34.0 -00.8	S	20 41.0 +00.6	234 07.1 -24.7	S	02 22.9 -12.5	10			
11	345 18.3 -00.3	S	23 26.0 +00.0	9 33.2 -00.8	S	20 41.6 +00.6	248 42.4 -24.7	S	02 10.4 -12.6	11			
12	0 18.0 -00.3	S	23 26.0 -00.1	24 32.4 -00.9	S	20 42.2 +00.6	263 17.7 -24.7	S	01 57.8 -12.5	12			
13	15 17.7 -00.3	S	23 25.9 +00.0	39 31.5 -00.8	S	20 42.8 +00.6	277 53.0 -24.7	S	01 45.3 -12.6	13			
14	30 17.4 -00.3	S	23 25.9 +00.0	54 30.7 -00.8	S	20 43.4 +00.5	292 28.3 -24.6	S	01 32.7 -12.5	14			
15	45 17.1 -00.3	S	23 25.9 +00.0	69 29.9 -00.8	S	20 43.9 +00.6	307 03.7 -24.6	S	01 20.2 -12.5	15			
16	60 16.8 -00.4	S	23 25.9 -00.1	84 29.1 -00.9	S	20 44.5 +00.6	321 39.1 -24.6	S	01 07.7 -12.6	16			
17	75 16.4 -00.3	S	23 25.8 +00.0	99 28.2 -00.8	S	20 45.1 +00.6	336 14.5 -24.6	S	00 55.1 -12.5	17			
18	90 16.1 -00.3	S	23 25.8 +00.0	114 27.4 -00.8	S	20 45.7 +00.5	350 49.9 -24.6	S	00 42.6 -12.6	18			
19	105 15.8 -00.3	S	23 25.8 +00.0	129 26.6 -00.8	S	20 46.2 +00.6	5 25.3 -24.5	S	00 30.0 -12.5	19			
20	120 15.5 -00.3	S	23 25.8 -00.1	144 25.8 -00.8	S	20 46.8 +00.6	20 00.8 -24.6	S	00 17.5 -12.5	20			
21	135 15.2 -00.3	S	23 25.7 +00.0	159 25.0 -00.9	S	20 47.4 +00.5	34 36.2 -24.5	S	00 05.0 -12.5	21			
22	150 14.9 -00.3	S	23 25.7 +00.0	174 24.1 -00.8	S	20 47.9 +00.6	49 11.7 -24.5	N	00 07.5 +12.6	22			
23	165 14.6 -00.3	S	23 25.7 -00.1	189 23.3 -00.8	S	20 48.5 +00.6	63 47.2 -24.5	N	00 20.1 +12.5	23			
UT	02 06 10 14 18 22			UT	02 06 10 14 18 22			UT	02 06 10 14 18 22				
SD	16'3 16'3 16'3 16'3 16'3 16'3			SD	00'1 00'1 00'1 00'1 00'1 00'1			SD	14'9 14'9 14'9 14'8 14'8 14'8				
HP	00'1 00'1 00'1 00'1 00'1 00'1			HP	00'1 00'1 00'1 00'1 00'1 00'1			HP	54'7 54'6 54'5 54'5 54'4 54'4				
SHA	089° 089° 089° 089° 089° 088°			SHA	114° 113° 113° 113° 113° 112°			SHA	356° 355° 353° 351° 349° 347°				
Greenwich Culmination Time: 11:58				Greenwich Culmination Time: 10:21				Greenwich Culmination Time: 18:37					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	69 41.4 +01.6	N	09 39.2 +00.4	148 09.4 +01.9	S	20 30.2 -00.2	148 12.5 +02.2	S	20 24.5 +00.0	00			
01	84 43.0 +01.6	N	09 39.6 +00.4	163 11.3 +01.9	S	20 30.0 -00.1	163 14.7 +02.1	S	20 24.5 -00.1	01			
02	99 44.6 +01.6	N	09 40.0 +00.4	178 13.2 +01.9	S	20 29.9 -00.1	178 16.8 +02.2	S	20 24.4 +00.0	02			
03	114 46.2 +01.6	N	09 40.4 +00.4	193 15.1 +01.9	S	20 29.8 -00.1	193 19.0 +02.2	S	20 24.4 -00.1	03			
04	129 47.8 +01.5	N	09 40.8 +00.4	208 17.0 +01.9	S	20 29.7 -00.1	208 21.2 +02.2	S	20 24.3 +00.0	04			
05	144 49.3 +01.6	N	09 41.2 +00.4	223 18.9 +01.9	S	20 29.6 -00.1	223 23.4 +02.2	S	20 24.3 -00.1	05			
06	159 50.9 +01.6	N	09 41.6 +00.4	238 20.8 +01.9	S	20 29.5 -00.2	238 25.6 +02.2	S	20 24.2 -00.1	06			
07	174 52.5 +01.6	N	09 42.0 +00.5	253 22.7 +01.8	S	20 29.3 -00.1	253 27.8 +02.1	S	20 24.1 +00.0	07			
08	189 54.1 +01.6	N	09 42.5 +00.4	268 24.5 +01.9	S	20 29.2 -00.1	268 29.9 +02.2	S	20 24.1 -00.1	08			
09	204 55.7 +01.6	N	09 42.9 +00.4	283 26.4 +01.9	S	20 29.1 -00.1	283 32.1 +02.2	S	20 24.0 +00.0	09			
10	219 57.3 +01.6	N	09 43.3 +00.4	298 28.3 +01.9	S	20 29.0 -00.1	298 34.3 +02.2	S	20 24.0 -00.1	10			
11	234 58.9 +01.6	N	09 43.7 +00.4	313 30.2 +01.9	S	20 28.9 -00.1	313 36.5 +02.2	S	20 23.9 +00.0	11			
12	250 00.5 +01.6	N	09 44.1 +00.4	328 32.1 +01.9	S	20 28.8 -00.2	328 38.7 +02.1	S	20 23.9 -00.1	12			
13	265 02.1 +01.6	N	09 44.5 +00.4	343 34.0 +01.9	S	20 28.6 -00.1	343 40.8 +02.2	S	20 23.8 +00.0	13			
14	280 03.7 +01.6	N	09 44.9 +00.4	358 35.9 +01.9	S	20 28.5 -00.1	358 43.0 +02.2	S	20 23.8 -00.1	14			
15	295 05.3 +01.6	N	09 45.3 +00.4	13 37.8 +01.8	S	20 28.4 -00.1	13 45.2 +02.2	S	20 23.7 -00.1	15			
16	310 06.9 +01.6	N	09 45.7 +00.4	28 39.6 +01.9	S	20 28.3 -00.1	28 47.4 +02.2	S	20 23.6 +00.0	16			
17	325 08.5 +01.5	N	09 46.1 +00.5	43 41.5 +01.9	S	20 28.2 -00.1	43 49.6 +02.1	S	20 23.6 -00.1	17			
18	340 10.0 +01.6	N	09 46.6 +00.4	58 43.4 +01.9	S	20 28.1 -00.2	58 51.7 +02.2	S	20 23.5 +00.0	18			
19	355 11.6 +01.6	N	09 47.0 +00.4	73 45.3 +01.9	S	20 27.9 -00.1	73 53.9 +02.2	S	20 23.5 -00.1	19			
20	10 13.2 +01.6	N	09 47.4 +00.4	88 47.2 +01.9	S	20 27.8 -00.1	88 56.1 +02.2	S	20 23.4 +00.0	20			
21	25 14.8 +01.6	N	09 47.8 +00.4	103 49.1 +01.9	S	20 27.7 -00.1	103 58.3 +02.2	S	20 23.4 -00.1	21			
22	40 16.4 +01.6	N	09 48.2 +00.4	118 51.0 +01.9	S	20 27.6 -00.1	119 00.5 +02.1	S	20 23.3 -00.1	22			
23	55 18.0 +01.6	N	09 48.6 +00.4	133 52.9 +01.8	S	20 27.5 -00.2	134 02.6 +02.2	S	20 23.2 +00.0	23			
UT	02 06 10 14 18 22			UT	02 06 10 14 18 22			UT	02 06 10 14 18 22				
SD	00'1 00'1 00'1 00'1 00'1 00'1			SD	00'3 00'3 00'3 00'3 00'3 00'3			SD	00'1 00'1 00'1 00'1 00'1 00'1				
HP	00'2 00'2 00'2 00'2 00'2 00'2			HP	00'0 00'0 00'0 00'0 00'0 00'0			HP	00'0 00'0 00'0 00'0 00'0 00'0				
SHA	339° 339° 339° 338° 338° 338°			SHA	057° 057° 057° 057° 057° 057°			SHA	057° 057° 057° 057° 057° 057°				
Greenwich Culmination Time: 19:19				Greenwich Culmination Time: 14:05				Greenwich Culmination Time: 14:05					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 14.3 -00.3	S	23 25.6 +00.0	204 22.5 -00.9	S	20 49.1 +00.5	78 22.7 -24.5	N	00 32.6 +12.5	00			
01	195 14.0 -00.3	S	23 25.6 +00.0	219 21.6 -00.8	S	20 49.6 +00.6	92 58.2 -24.5	N	00 45.1 +12.5	01			
02	210 13.7 -00.4	S	23 25.6 -00.1	234 20.8 -00.8	S	20 50.2 +00.6	107 33.7 -24.5	N	00 57.6 +12.4	02			
03	225 13.3 -00.3	S	23 25.5 +00.0	249 20.0 -00.8	S	20 50.8 +00.5	122 09.2 -24.5	N	01 10.0 +12.5	03			
04	240 13.0 -00.3	S	23 25.5 +00.0	264 19.2 -00.9	S	20 51.3 +00.6	136 44.7 -24.5	N	01 22.5 +12.5	04			
05	255 12.7 -00.3	S	23 25.5 -00.1	279 18.3 -00.8	S	20 51.9 +00.5	151 20.2 -24.4	N	01 35.0 +12.4	05			
06	270 12.4 -00.3	S	23 25.4 +00.0	294 17.5 -00.8	S	20 52.4 +00.6	165 55.8 -24.5	N	01 47.4 +12.5	06			
07	285 12.1 -00.3	S	23 25.4 +00.0	309 16.7 -00.9	S	20 53.0 +00.6	180 31.3 -24.5	N	01 59.9 +12.4	07			
08	300 11.8 -00.3	S	23 25.4 -00.1	324 15.8 -00.8	S	20 53.6 +00.5	195 06.8 -24.4	N	02 12.3 +12.5	08			
09	315 11.5 -00.3	S	23 25.3 +00.0	339 15.0 -00.8	S	20 54.1 +00.6	209 42.4 -24.5	N	02 24.8 +12.4	09			
10	330 11.2 -00.3	S	23 25.3 -00.1	354 14.2 -00.8	S	20 54.7 +00.5	224 17.9 -24.5	N	02 37.2 +12.4	10			
11	345 10.9 -00.4	S	23 25.2 +00.0	9 13.4 -00.9	S	20 55.2 +00.6	238 53.4 -24.4	N	02 49.6 +12.4	11			
12	0 10.5 -00.3	S	23 25.2 +00.0	24 12.5 -00.8	S	20 55.8 +00.5	253 29.0 -24.5	N	03 02.0 +12.3	12			
13	15 10.2 -00.3	S	23 25.2 -00.1	39 11.7 -00.8	S	20 56.3 +00.6	268 04.5 -24.5	N	03 14.3 +12.4	13			
14	30 09.9 -00.3	S	23 25.1 +00.0	54 10.9 -00.9	S	20 56.9 +00.5	282 40.0 -24.5	N	03 26.7 +12.3	14			
15	45 09.6 -00.3	S	23 25.1 -00.1	69 10.0 -00.8	S	20 57.4 +00.6	297 15.5 -24.5	N	03 39.0 +12.3	15			
16	60 09.3 -00.3	S	23 25.0 +00.0	84 09.2 -00.8	S	20 58.0 +00.5	311 51.0 -24.5	N	03 51.3 +12.4	16			
17	75 09.0 -00.3	S	23 25.0 -00.1	99 08.4 -00.9	S	20 58.5 +00.6	326 26.5 -24.5	N	04 03.7 +12.2	17			
18	90 08.7 -00.3	S	23 24.9 +00.0	114 07.5 -00.8	S	20 59.1 +00.5	341 02.0 -24.5	N	04 15.9 +12.3	18			
19	105 08.4 -00.3	S	23 24.9 +00.0	129 06.7 -00.8	S	20 59.6 +00.6	355 37.5 -24.5	N	04 28.2 +12.3	19			
20	120 08.1 -00.3	S	23 24.9 -00.1	144 05.9 -00.9	S	21 00.2 +00.5	10 13.0 -24.6	N	04 40.5 +12.2	20			
21	135 07.8 -00.4	S	23 24.8 +00.0	159 05.0 -00.8	S	21 00.7 +00.6	24 48.4 -24.5	N	04 52.7 +12.2	21			
22	150 07.4 -00.3	S	23 24.8 -00.1	174 04.2 -00.9	S	21 01.3 +00.5	39 23.9 -24.6	N	05 04.9 +12.2	22			
23	165 07.1 -00.3	S	23 24.7 +00.0	189 03.3 -00.8	S	21 01.8 +00.5	53 59.3 -24.6	N	05 17.1 +12.2	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 14'8 14'8 14'8 14'8 14'8 14'8						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'3 54'3 54'2 54'2 54'2 54'2						
	SHA 088° 088° 088° 088° 087° 087°			SHA 112° 112° 112° 112° 111° 111°			SHA 345° 344° 342° 340° 338° 337°						
	Greenwich Culmination Time: 11:59			Greenwich Culmination Time: 10:23			Greenwich Culmination Time: 19:17						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	70 19.6 +01.5	N	09 49.0 +00.4	148 54.7 +01.9	S	20 27.3 -00.1	149 04.8 +02.2	S	20 23.2 -00.1	00			
01	85 21.1 +01.6	N	09 49.4 +00.4	163 56.6 +01.9	S	20 27.2 -00.1	164 07.0 +02.2	S	20 23.1 +00.0	01			
02	100 22.7 +01.6	N	09 49.8 +00.5	178 58.5 +01.9	S	20 27.1 -00.1	179 09.2 +02.2	S	20 23.1 -00.1	02			
03	115 24.3 +01.6	N	09 50.3 +00.4	194 00.4 +01.9	S	20 27.0 -00.1	194 11.4 +02.1	S	20 23.0 +00.0	03			
04	130 25.9 +01.6	N	09 50.7 +00.4	209 02.3 +01.9	S	20 26.9 -00.1	209 13.5 +02.2	S	20 23.0 -00.1	04			
05	145 27.5 +01.6	N	09 51.1 +00.4	224 04.2 +01.9	S	20 26.8 -00.2	224 15.7 +02.2	S	20 22.9 -00.1	05			
06	160 29.1 +01.5	N	09 51.5 +00.4	239 06.1 +01.9	S	20 26.6 -00.1	239 17.9 +02.2	S	20 22.8 +00.0	06			
07	175 30.6 +01.6	N	09 51.9 +00.4	254 08.0 +01.8	S	20 26.5 -00.1	254 20.1 +02.1	S	20 22.8 -00.1	07			
08	190 32.2 +01.6	N	09 52.3 +00.4	269 09.8 +01.9	S	20 26.4 -00.1	269 22.2 +02.2	S	20 22.7 +00.0	08			
09	205 33.8 +01.6	N	09 52.7 +00.4	284 11.7 +01.9	S	20 26.3 -00.1	284 24.4 +02.2	S	20 22.7 -00.1	09			
10	220 35.4 +01.5	N	09 53.1 +00.5	299 13.6 +01.9	S	20 26.2 -00.2	299 26.6 +02.2	S	20 22.6 +00.0	10			
11	235 36.9 +01.6	N	09 53.6 +00.4	314 15.5 +01.9	S	20 26.0 -00.1	314 28.8 +02.2	S	20 22.6 -00.1	11			
12	250 38.5 +01.6	N	09 54.0 +00.4	329 17.4 +01.9	S	20 25.9 -00.1	329 31.0 +02.1	S	20 22.5 -00.1	12			
13	265 40.1 +01.6	N	09 54.4 +00.4	344 19.3 +01.9	S	20 25.8 -00.1	344 33.1 +02.2	S	20 22.4 +00.0	13			
14	280 41.7 +01.5	N	09 54.8 +00.4	359 21.2 +01.8	S	20 25.7 -00.1	359 35.3 +02.2	S	20 22.4 -00.1	14			
15	295 43.2 +01.6	N	09 55.2 +00.4	14 23.0 +01.9	S	20 25.6 -00.1	14 37.5 +02.2	S	20 22.3 +00.0	15			
16	310 44.8 +01.6	N	09 55.6 +00.4	29 24.9 +01.9	S	20 25.5 -00.2	29 39.7 +02.2	S	20 22.3 -00.1	16			
17	325 46.4 +01.6	N	09 56.0 +00.5	44 26.8 +01.9	S	20 25.3 -00.1	44 41.9 +02.1	S	20 22.2 +00.0	17			
18	340 48.0 +01.5	N	09 56.5 +00.4	59 28.7 +01.9	S	20 25.2 -00.1	59 44.0 +02.2	S	20 22.2 -00.1	18			
19	355 49.5 +01.6	N	09 56.9 +00.4	74 30.6 +01.9	S	20 25.1 -00.1	74 46.2 +02.2	S	20 22.1 +00.0	19			
20	10 51.1 +01.6	N	09 57.3 +00.4	89 32.5 +01.9	S	20 25.0 -00.1	89 48.4 +02.2	S	20 22.1 -00.1	20			
21	25 52.7 +01.6	N	09 57.7 +00.4	104 34.4 +01.8	S	20 24.9 -00.2	104 50.6 +02.2	S	20 22.0 -00.1	21			
22	40 54.3 +01.5	N	09 58.1 +00.4	119 36.2 +01.9	S	20 24.7 -00.1	119 52.8 +02.1	S	20 21.9 +00.0	22			
23	55 55.8 +01.6	N	09 58.5 +00.4	134 38.1 +01.9	S	20 24.6 -00.1	134 54.9 +02.2	S	20 21.9 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 338° 338° 338° 338° 338° 338°			SHA 057° 057° 057° 057° 057° 057°			SHA 057° 057° 057° 057° 057° 057°						
	Greenwich Culmination Time: 19:16			Greenwich Culmination Time: 14:02			Greenwich Culmination Time: 14:01						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 06.8 -00.3	S	23 24.7 -00.1	204 02.5 -00.8	S	21 02.3 +00.6	68 34.7 -24.6	N	05 29.3 +12.1	00			
01	195 06.5 -00.3	S	23 24.6 +00.0	219 01.7 -00.9	S	21 02.9 +00.5	83 10.1 -24.6	N	05 41.4 +12.2	01			
02	210 06.2 -00.3	S	23 24.6 -00.1	234 00.8 -00.8	S	21 03.4 +00.6	97 45.5 -24.6	N	05 53.6 +12.1	02			
03	225 05.9 -00.3	S	23 24.5 -00.1	248 60.0 -00.8	S	21 04.0 +00.5	112 20.9 -24.7	N	06 05.7 +12.1	03			
04	240 05.6 -00.3	S	23 24.4 +00.0	263 59.2 -00.9	S	21 04.5 +00.5	126 56.2 -24.6	N	06 17.8 +12.0	04			
05	255 05.3 -00.3	S	23 24.4 -00.1	278 58.3 -00.8	S	21 05.0 +00.6	141 31.6 -24.7	N	06 29.8 +12.1	05			
06	270 05.0 -00.4	S	23 24.3 +00.0	293 57.5 -00.9	S	21 05.6 +00.5	156 06.9 -24.7	N	06 41.9 +12.0	06			
07	285 04.6 -00.3	S	23 24.3 -00.1	308 56.6 -00.8	S	21 06.1 +00.5	170 42.2 -24.8	N	06 53.9 +12.0	07			
08	300 04.3 -00.3	S	23 24.2 +00.0	323 55.8 -00.8	S	21 06.6 +00.6	185 17.4 -24.7	N	07 05.9 +11.9	08			
09	315 04.0 -00.3	S	23 24.2 -00.1	338 55.0 -00.9	S	21 07.2 +00.5	199 52.7 -24.8	N	07 17.8 +11.9	09			
10	330 03.7 -00.3	S	23 24.1 -00.1	353 54.1 -00.8	S	21 07.7 +00.5	214 27.9 -24.8	N	07 29.7 +11.9	10			
11	345 03.4 -00.3	S	23 24.0 +00.0	8 53.3 -00.9	S	21 08.2 +00.6	229 03.1 -24.8	N	07 41.6 +11.9	11			
12	0 03.1 -00.3	S	23 24.0 -00.1	23 52.4 -00.8	S	21 08.8 +00.5	243 38.3 -24.9	N	07 53.5 +11.9	12			
13	15 02.8 -00.3	S	23 23.9 +00.0	38 51.6 -00.9	S	21 09.3 +00.5	258 13.4 -24.9	N	08 05.4 +11.8	13			
14	30 02.5 -00.3	S	23 23.9 -00.1	53 50.7 -00.8	S	21 09.8 +00.5	272 48.5 -24.9	N	08 17.2 +11.8	14			
15	45 02.2 -00.3	S	23 23.8 -00.1	68 49.9 -00.8	S	21 10.3 +00.6	287 23.6 -25.0	N	08 29.0 +11.7	15			
16	60 01.9 -00.4	S	23 23.7 +00.0	83 49.1 -00.9	S	21 10.9 +00.5	301 58.6 -24.9	N	08 40.7 +11.7	16			
17	75 01.5 -00.3	S	23 23.7 -00.1	98 48.2 -00.8	S	21 11.4 +00.5	316 33.7 -25.0	N	08 52.4 +11.7	17			
18	90 01.2 -00.3	S	23 23.6 -00.1	113 47.4 -00.9	S	21 11.9 +00.5	331 08.7 -25.1	N	09 04.1 +11.7	18			
19	105 00.9 -00.3	S	23 23.5 +00.0	128 46.5 -00.8	S	21 12.4 +00.5	345 43.6 -25.1	N	09 15.8 +11.6	19			
20	120 00.6 -00.3	S	23 23.5 -00.1	143 45.7 -00.9	S	21 12.9 +00.6	0 18.5 -25.1	N	09 27.4 +11.6	20			
21	135 00.3 -00.3	S	23 23.4 -00.1	158 44.8 -00.8	S	21 13.5 +00.5	14 53.4 -25.1	N	09 39.0 +11.5	21			
22	150 00.0 -00.3	S	23 23.3 +00.0	173 44.0 -00.9	S	21 14.0 +00.5	29 28.3 -25.2	N	09 50.5 +11.6	22			
23	164 59.7 -00.3	S	23 23.3 -00.1	188 43.1 -00.8	S	21 14.5 +00.5	44 03.1 -25.2	N	10 02.1 +11.4	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 14'8 14'7 14'7 14'7 14'7 14'7						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'1 54'1 54'1 54'1 54'1 54'1						
	SHA 087° 087° 087° 086° 086° 086°			SHA 111° 111° 111° 110° 110° 110°			SHA 335° 333° 331° 329° 327° 326°						
	Greenwich Culmination Time: 11:59			Greenwich Culmination Time: 10:24			Greenwich Culmination Time: 19:58						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	70 57.4 +01.6	N	09 58.9 +00.5	149 40.0 +01.9	S	20 24.5 -00.1	149 57.1 +02.2	S	20 21.8 +00.0	00			
01	85 59.0 +01.5	N	09 59.4 +00.4	164 41.9 +01.9	S	20 24.4 -00.1	164 59.3 +02.2	S	20 21.8 -00.1	01			
02	101 00.5 +01.6	N	09 59.8 +00.4	179 43.8 +01.9	S	20 24.3 -00.2	180 01.5 +02.1	S	20 21.7 -00.1	02			
03	116 02.1 +01.6	N	10 00.2 +00.4	194 45.7 +01.9	S	20 24.1 -00.1	195 03.6 +02.2	S	20 21.6 +00.0	03			
04	131 03.7 +01.5	N	10 00.6 +00.4	209 47.6 +01.8	S	20 24.0 -00.1	210 05.8 +02.2	S	20 21.6 -00.1	04			
05	146 05.2 +01.6	N	10 01.0 +00.4	224 49.4 +01.9	S	20 23.9 -00.1	225 08.0 +02.2	S	20 21.5 +00.0	05			
06	161 06.8 +01.6	N	10 01.4 +00.4	239 51.3 +01.9	S	20 23.8 -00.1	240 10.2 +02.2	S	20 21.5 -00.1	06			
07	176 08.4 +01.5	N	10 01.8 +00.5	254 53.2 +01.9	S	20 23.7 -00.2	255 12.4 +02.1	S	20 21.4 +00.0	07			
08	191 09.9 +01.6	N	10 02.3 +00.4	269 55.1 +01.9	S	20 23.5 -00.1	270 14.5 +02.2	S	20 21.4 -00.1	08			
09	206 11.5 +01.5	N	10 02.7 +00.4	284 57.0 +01.9	S	20 23.4 -00.1	285 16.7 +02.2	S	20 21.3 -00.1	09			
10	221 13.0 +01.6	N	10 03.1 +00.4	299 58.9 +01.8	S	20 23.3 -00.1	300 18.9 +02.2	S	20 21.2 +00.0	10			
11	236 14.6 +01.6	N	10 03.5 +00.4	315 00.7 +01.9	S	20 23.2 -00.1	315 21.1 +02.1	S	20 21.2 -00.1	11			
12	251 16.2 +01.5	N	10 03.9 +00.4	330 02.6 +01.9	S	20 23.1 -00.2	330 23.2 +02.2	S	20 21.1 +00.0	12			
13	266 17.7 +01.6	N	10 04.3 +00.5	345 04.5 +01.9	S	20 22.9 -00.1	345 25.4 +02.2	S	20 21.1 -00.1	13			
14	281 19.3 +01.5	N	10 04.8 +00.4	0 06.4 +01.9	S	20 22.8 -00.1	0 27.6 +02.2	S	20 21.0 +00.0	14			
15	296 20.8 +01.6	N	10 05.2 +00.4	15 08.3 +01.9	S	20 22.7 -00.1	15 29.8 +02.1	S	20 21.0 -00.1	15			
16	311 22.4 +01.6	N	10 05.6 +00.4	30 10.2 +01.9	S	20 22.6 -00.1	30 31.9 +02.2	S	20 20.9 -00.1	16			
17	326 24.0 +01.5	N	10 06.0 +00.4	45 12.1 +01.8	S	20 22.5 -00.2	45 34.1 +02.2	S	20 20.8 +00.0	17			
18	341 25.5 +01.6	N	10 06.4 +00.4	60 13.9 +01.9	S	20 22.3 -00.1	60 36.3 +02.2	S	20 20.8 -00.1	18			
19	356 27.1 +01.5	N	10 06.8 +00.5	75 15.8 +01.9	S	20 22.2 -00.1	75 38.5 +02.2	S	20 20.7 +00.0	19			
20	11 28.6 +01.6	N	10 07.3 +00.4	90 17.7 +01.9	S	20 22.1 -00.1	90 40.7 +02.1	S	20 20.7 -00.1	20			
21	26 30.2 +01.5	N	10 07.7 +00.4	105 19.6 +01.9	S	20 22.0 -00.1	105 42.8 +02.2	S	20 20.6 +00.0	21			
22	41 31.7 +01.6	N	10 08.1 +00.4	120 21.5 +01.9	S	20 21.9 -00.2	120 45.0 +02.2	S	20 20.6 -00.1	22			
23	56 33.3 +01.5	N	10 08.5 +00.4	135 23.4 +01.8	S	20 21.7 -00.1	135 47.2 +02.2	S	20 20.5 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 338° 338° 338° 338° 338° 338°			SHA 057° 057° 057° 057° 057° 056°			SHA 057° 057° 057° 057° 057° 057°						
	Greenwich Culmination Time: 19:14			Greenwich Culmination Time: 13:59			Greenwich Culmination Time: 13:58						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 35%				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	179 59.4 -00.3	S 23 23.2 -00.1	203 42.3 -00.8	S 21 15.0 +00.5	58 37.9 -25.3	N 10 13.5 +11.5							
01	194 59.1 -00.3	S 23 23.1 +00.0	218 41.5 -00.9	S 21 15.5 +00.5	73 12.6 -25.2	N 10 25.0 +11.4							
02	209 58.8 -00.3	S 23 23.1 -00.1	233 40.6 -00.8	S 21 16.0 +00.6	87 47.4 -25.4	N 10 36.4 +11.4							
03	224 58.5 -00.4	S 23 23.0 -00.1	248 39.8 -00.9	S 21 16.6 +00.5	102 22.0 -25.3	N 10 47.8 +11.3							
04	239 58.1 -00.3	S 23 22.9 -00.1	263 38.9 -00.8	S 21 17.1 +00.5	116 56.7 -25.5	N 10 59.1 +11.3							
05	254 57.8 -00.3	S 23 22.8 +00.0	278 38.1 -00.9	S 21 17.6 +00.5	131 31.2 -25.4	N 11 10.4 +11.2							
06	269 57.5 -00.3	S 23 22.8 -00.1	293 37.2 -00.8	S 21 18.1 +00.5	146 05.8 -25.5	N 11 21.6 +11.2							
07	284 57.2 -00.3	S 23 22.7 -00.1	308 36.4 -00.9	S 21 18.6 +00.5	160 40.3 -25.6	N 11 32.8 +11.2							
08	299 56.9 -00.3	S 23 22.6 -00.1	323 35.5 -00.8	S 21 19.1 +00.5	175 14.7 -25.5	N 11 44.0 +11.1							
09	314 56.6 -00.3	S 23 22.5 +00.0	338 34.7 -00.9	S 21 19.6 +00.5	189 49.2 -25.7	N 11 55.1 +11.1							
10	329 56.3 -00.3	S 23 22.5 -00.1	353 33.8 -00.8	S 21 20.1 +00.5	204 23.5 -25.6	N 12 06.2 +11.0							
11	344 56.0 -00.3	S 23 22.4 -00.1	8 33.0 -00.9	S 21 20.6 +00.5	218 57.9 -25.8	N 12 17.2 +11.0							
12	359 55.7 -00.3	S 23 22.3 -00.1	23 32.1 -00.8	S 21 21.1 +00.5	233 32.1 -25.7	N 12 28.2 +10.9							
13	14 55.4 -00.3	S 23 22.2 -00.1	38 31.3 -00.9	S 21 21.6 +00.5	248 06.4 -25.9	N 12 39.1 +10.9							
14	29 55.1 -00.4	S 23 22.1 +00.0	53 30.4 -00.9	S 21 22.1 +00.5	262 40.5 -25.8	N 12 50.0 +10.9							
15	44 54.7 -00.3	S 23 22.1 -00.1	68 29.5 -00.8	S 21 22.6 +00.5	277 14.7 -26.0	N 13 00.9 +10.8							
16	59 54.4 -00.3	S 23 22.0 -00.1	83 28.7 -00.9	S 21 23.1 +00.5	291 48.7 -25.9	N 13 11.7 +10.7							
17	74 54.1 -00.3	S 23 21.9 -00.1	98 27.8 -00.8	S 21 23.6 +00.5	306 22.8 -26.0	N 13 22.4 +10.7							
18	89 53.8 -00.3	S 23 21.8 -00.1	113 27.0 -00.9	S 21 24.1 +00.5	320 56.8 -26.1	N 13 33.1 +10.7							
19	104 53.5 -00.3	S 23 21.7 -00.1	128 26.1 -00.8	S 21 24.6 +00.5	335 30.7 -26.1	N 13 43.8 +10.6							
20	119 53.2 -00.3	S 23 21.6 -00.1	143 25.3 -00.9	S 21 25.1 +00.5	350 04.6 -26.2	N 13 54.4 +10.5							
21	134 52.9 -00.3	S 23 21.5 +00.0	158 24.4 -00.8	S 21 25.6 +00.5	4 38.4 -26.3	N 14 04.9 +10.5							
22	149 52.6 -00.3	S 23 21.5 -00.1	173 23.6 -00.9	S 21 26.1 +00.5	19 12.1 -26.2	N 14 15.4 +10.4							
23	164 52.3 -00.3	S 23 21.4 -00.1	188 22.7 -00.8	S 21 26.6 +00.5	33 45.9 -26.4	N 14 25.8 +10.4							
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 16'3 16'3 16'3 16'3 16'3 16'3		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'7 14'8 14'8 14'8 14'8 14'8								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'1 54'1 54'2 54'2 54'2 54'2								
	SHA 086° 086° 086° 085° 085° 085°		SHA 110° 109° 109° 109° 109° 109°		SHA 324° 322° 320° 318° 316° 314°								
	Greenwich Culmination Time: 12:00		Greenwich Culmination Time: 10:25		Greenwich Culmination Time: 20:40								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	71 34.8 +01.6	N 10 08.9 +00.5	150 25.2 +01.9	S 20 21.6 -00.1	150 49.4 +02.1	S 20 20.4 +00.0							
01	86 36.4 +01.6	N 10 09.4 +00.4	165 27.1 +01.9	S 20 21.5 -00.1	165 51.5 +02.2	S 20 20.4 -00.1							
02	101 38.0 +01.5	N 10 09.8 +00.4	180 29.0 +01.9	S 20 21.4 -00.1	180 53.7 +02.2	S 20 20.3 +00.0							
03	116 39.5 +01.6	N 10 10.2 +00.4	195 30.9 +01.9	S 20 21.3 -00.2	195 55.9 +02.2	S 20 20.3 -00.1							
04	131 41.1 +01.5	N 10 10.6 +00.4	210 32.8 +01.9	S 20 21.1 -00.1	210 58.1 +02.1	S 20 20.2 +00.0							
05	146 42.6 +01.6	N 10 11.0 +00.4	225 34.7 +01.8	S 20 21.0 -00.1	226 00.2 +02.2	S 20 20.2 -00.1							
06	161 44.2 +01.5	N 10 11.4 +00.5	240 36.5 +01.9	S 20 20.9 -00.1	241 02.4 +02.2	S 20 20.1 -00.1							
07	176 45.7 +01.6	N 10 11.9 +00.4	255 38.4 +01.9	S 20 20.8 -00.1	256 04.6 +02.2	S 20 20.0 +00.0							
08	191 47.3 +01.5	N 10 12.3 +00.4	270 40.3 +01.9	S 20 20.7 -00.2	271 06.8 +02.2	S 20 20.0 -00.1							
09	206 48.8 +01.5	N 10 12.7 +00.4	285 42.2 +01.9	S 20 20.5 -00.1	286 09.0 +02.1	S 20 19.9 +00.0							
10	221 50.3 +01.6	N 10 13.1 +00.4	300 44.1 +01.9	S 20 20.4 -00.1	301 11.1 +02.2	S 20 19.9 -00.1							
11	236 51.9 +01.5	N 10 13.5 +00.5	315 46.0 +01.8	S 20 20.3 -00.1	316 13.3 +02.2	S 20 19.8 -00.1							
12	251 53.4 +01.6	N 10 14.0 +00.4	330 47.8 +01.9	S 20 20.2 -00.1	331 15.5 +02.2	S 20 19.7 +00.0							
13	266 55.0 +01.5	N 10 14.4 +00.4	345 49.7 +01.9	S 20 20.1 -00.2	346 17.7 +02.1	S 20 19.7 -00.1							
14	281 56.5 +01.6	N 10 14.8 +00.4	0 51.6 +01.9	S 20 19.9 -00.1	1 19.8 +02.2	S 20 19.6 +00.0							
15	296 58.1 +01.5	N 10 15.2 +00.4	15 53.5 +01.9	S 20 19.8 -00.1	16 22.0 +02.2	S 20 19.6 -00.1							
16	311 59.6 +01.6	N 10 15.6 +00.5	30 55.4 +01.9	S 20 19.7 -00.1	31 24.2 +02.2	S 20 19.5 +00.0							
17	327 01.2 +01.5	N 10 16.1 +00.4	45 57.3 +01.8	S 20 19.6 -00.1	46 26.4 +02.1	S 20 19.5 -00.1							
18	342 02.7 +01.5	N 10 16.5 +00.4	60 59.1 +01.9	S 20 19.5 -00.2	61 28.5 +02.2	S 20 19.4 -00.1							
19	357 04.2 +01.6	N 10 16.9 +00.4	76 01.0 +01.9	S 20 19.3 -00.1	76 30.7 +02.2	S 20 19.3 +00.0							
20	12 05.8 +01.5	N 10 17.3 +00.4	91 02.9 +01.9	S 20 19.2 -00.1	91 32.9 +02.2	S 20 19.3 -00.1							
21	27 07.3 +01.6	N 10 17.7 +00.5	106 04.8 +01.9	S 20 19.1 -00.1	106 35.1 +02.1	S 20 19.2 +00.0							
22	42 08.9 +01.5	N 10 18.2 +00.4	121 06.7 +01.8	S 20 19.0 -00.2	121 37.2 +02.2	S 20 19.2 -00.1							
23	57 10.4 +01.5	N 10 18.6 +00.4	136 08.5 +01.9	S 20 18.8 -00.1	136 39.4 +02.2	S 20 19.1 +00.0							
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 00'1 00'1 00'1 00'1 00'1 00'1								
	HP 00'2 00'2 00'2 00'2 00'2 00'2		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0								
	SHA 338° 338° 337° 337° 337° 337°		SHA 056° 056° 056° 056° 056° 056°		SHA 057° 057° 057° 057° 057° 057°								
	Greenwich Culmination Time: 19:11		Greenwich Culmination Time: 13:56		Greenwich Culmination Time: 13:54								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 52.0 -00.3	S	23 21.3 -00.1	203 21.9 -00.9	S	21 27.1 +00.5	48 19.5 -26.4	N	14 36.2 +10.4				
01	194 51.7 -00.3	S	23 21.2 -00.1	218 21.0 -00.9	S	21 27.6 +00.5	62 53.1 -26.4	N	14 46.6 +10.2				
02	209 51.4 -00.4	S	23 21.1 -00.1	233 20.1 -00.8	S	21 28.1 +00.4	77 26.7 -26.6	N	14 56.8 +10.3				
03	224 51.0 -00.3	S	23 21.0 -00.1	248 19.3 -00.9	S	21 28.5 +00.5	92 00.1 -26.5	N	15 07.1 +10.1				
04	239 50.7 -00.3	S	23 20.9 -00.1	263 18.4 -00.8	S	21 29.0 +00.5	106 33.6 -26.7	N	15 17.2 +10.1				
05	254 50.4 -00.3	S	23 20.8 -00.1	278 17.6 -00.9	S	21 29.5 +00.5	121 06.9 -26.7	N	15 27.3 +10.1				
06	269 50.1 -00.3	S	23 20.7 -00.1	293 16.7 -00.9	S	21 30.0 +00.5	135 40.2 -26.7	N	15 37.4 +09.9				
07	284 49.8 -00.3	S	23 20.6 -00.1	308 15.8 -00.8	S	21 30.5 +00.5	150 13.5 -26.8	N	15 47.3 +10.0				
08	299 49.5 -00.3	S	23 20.5 -00.1	323 15.0 -00.9	S	21 31.0 +00.4	164 46.7 -26.9	N	15 57.3 +09.8				
09	314 49.2 -00.3	S	23 20.4 -00.1	338 14.1 -00.8	S	21 31.4 +00.5	179 19.8 -26.9	N	16 07.1 +09.8				
10	329 48.9 -00.3	S	23 20.3 -00.1	353 13.3 -00.9	S	21 31.9 +00.5	193 52.9 -27.0	N	16 16.9 +09.8				
11	344 48.6 -00.3	S	23 20.2 -00.1	8 12.4 -00.9	S	21 32.4 +00.5	208 25.9 -27.1	N	16 26.7 +09.6				
12	359 48.3 -00.3	S	23 20.1 -00.1	23 11.5 -00.8	S	21 32.9 +00.4	222 58.8 -27.1	N	16 36.3 +09.6				
13	14 48.0 -00.3	S	23 20.0 -00.1	38 10.7 -00.9	S	21 33.3 +00.5	237 31.7 -27.2	N	16 45.9 +09.6				
14	29 47.7 -00.3	S	23 19.9 -00.1	53 09.8 -00.8	S	21 33.8 +00.5	252 04.5 -27.3	N	16 55.5 +09.4				
15	44 47.4 -00.3	S	23 19.8 -00.1	68 09.0 -00.9	S	21 34.3 +00.5	266 37.2 -27.3	N	17 04.9 +09.4				
16	59 47.1 -00.4	S	23 19.7 -00.1	83 08.1 -00.9	S	21 34.8 +00.4	281 09.9 -27.4	N	17 14.3 +09.4				
17	74 46.7 -00.3	S	23 19.6 -00.1	98 07.2 -00.8	S	21 35.2 +00.5	295 42.5 -27.4	N	17 23.7 +09.2				
18	89 46.4 -00.3	S	23 19.5 -00.1	113 06.4 -00.9	S	21 35.7 +00.5	310 15.1 -27.5	N	17 32.9 +09.2				
19	104 46.1 -00.3	S	23 19.4 -00.1	128 05.5 -00.9	S	21 36.2 +00.4	324 47.6 -27.6	N	17 42.1 +09.2				
20	119 45.8 -00.3	S	23 19.3 -00.1	143 04.6 -00.8	S	21 36.6 +00.5	339 20.0 -27.7	N	17 51.3 +09.0				
21	134 45.5 -00.3	S	23 19.2 -00.1	158 03.8 -00.9	S	21 37.1 +00.5	353 52.3 -27.7	N	18 00.3 +09.0				
22	149 45.2 -00.3	S	23 19.1 -00.1	173 02.9 -00.9	S	21 37.6 +00.4	8 24.6 -27.8	N	18 09.3 +08.9				
23	164 44.9 -00.3	S	23 19.0 -00.1	188 02.0 -00.8	S	21 38.0 +00.5	22 56.8 -27.8	N	18 18.2 +08.8				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 14'8 14'8 14'8 14'8 14'8 14'8						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'3 54'3 54'3 54'4 54'4 54'5						
	SHA 085° 085° 084° 084° 084° 084°			SHA 108° 108° 108° 108° 107° 107°			SHA 312° 310° 309° 307° 305° 303°						
	Greenwich Culmination Time: 12:00			Greenwich Culmination Time: 10:27			Greenwich Culmination Time: 21:25						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	72 11.9 +01.6	N	10 19.0 +00.4	151 10.4 +01.9	S	20 18.7 -00.1	151 41.6 +02.2	S	20 19.1 -00.1				
01	87 13.5 +01.5	N	10 19.4 +00.4	166 12.3 +01.9	S	20 18.6 -00.1	166 43.8 +02.1	S	20 19.0 -00.1				
02	102 15.0 +01.6	N	10 19.8 +00.5	181 14.2 +01.9	S	20 18.5 -00.1	181 45.9 +02.2	S	20 18.9 +00.0				
03	117 16.6 +01.5	N	10 20.3 +00.4	196 16.1 +01.9	S	20 18.4 -00.2	196 48.1 +02.2	S	20 18.9 -00.1				
04	132 18.1 +01.5	N	10 20.7 +00.4	211 18.0 +01.8	S	20 18.2 -00.1	211 50.3 +02.2	S	20 18.8 +00.0				
05	147 19.6 +01.6	N	10 21.1 +00.4	226 19.8 +01.9	S	20 18.1 -00.1	226 52.5 +02.1	S	20 18.8 -00.1				
06	162 21.2 +01.5	N	10 21.5 +00.5	241 21.7 +01.9	S	20 18.0 -00.1	241 54.6 +02.2	S	20 18.7 -00.1				
07	177 22.7 +01.5	N	10 22.0 +00.4	256 23.6 +01.9	S	20 17.9 -00.1	256 56.8 +02.2	S	20 18.6 +00.0				
08	192 24.2 +01.6	N	10 22.4 +00.4	271 25.5 +01.9	S	20 17.8 -00.2	271 59.0 +02.2	S	20 18.6 -00.1				
09	207 25.8 +01.5	N	10 22.8 +00.4	286 27.4 +01.8	S	20 17.6 -00.1	287 01.2 +02.1	S	20 18.5 +00.0				
10	222 27.3 +01.5	N	10 23.2 +00.4	301 29.2 +01.9	S	20 17.5 -00.1	302 03.3 +02.2	S	20 18.5 -00.1				
11	237 28.8 +01.6	N	10 23.6 +00.5	316 31.1 +01.9	S	20 17.4 -00.1	317 05.5 +02.2	S	20 18.4 +00.0				
12	252 30.4 +01.5	N	10 24.1 +00.4	331 33.0 +01.9	S	20 17.3 -00.2	332 07.7 +02.2	S	20 18.4 -00.1				
13	267 31.9 +01.5	N	10 24.5 +00.4	346 34.9 +01.9	S	20 17.1 -00.1	347 09.9 +02.1	S	20 18.3 -00.1				
14	282 33.4 +01.5	N	10 24.9 +00.4	1 36.8 +01.8	S	20 17.0 -00.1	2 12.0 +02.2	S	20 18.2 +00.0				
15	297 34.9 +01.6	N	10 25.3 +00.5	16 38.6 +01.9	S	20 16.9 -00.1	17 14.2 +02.2	S	20 18.2 -00.1				
16	312 36.5 +01.5	N	10 25.8 +00.4	31 40.5 +01.9	S	20 16.8 -00.1	32 16.4 +02.2	S	20 18.1 +00.0				
17	327 38.0 +01.5	N	10 26.2 +00.4	46 42.4 +01.9	S	20 16.7 -00.2	47 18.6 +02.1	S	20 18.1 -00.1				
18	342 39.5 +01.6	N	10 26.6 +00.4	61 44.3 +01.9	S	20 16.5 -00.1	62 20.7 +02.2	S	20 18.0 -00.1				
19	357 41.1 +01.5	N	10 27.0 +00.4	76 46.2 +01.8	S	20 16.4 -00.1	77 22.9 +02.2	S	20 17.9 +00.0				
20	12 42.6 +01.5	N	10 27.4 +00.5	91 48.0 +01.9	S	20 16.3 -00.1	92 25.1 +02.2	S	20 17.9 -00.1				
21	27 44.1 +01.5	N	10 27.9 +00.4	106 49.9 +01.9	S	20 16.2 -00.2	107 27.3 +02.1	S	20 17.8 +00.0				
22	42 45.6 +01.6	N	10 28.3 +00.4	121 51.8 +01.9	S	20 16.0 -00.1	122 29.4 +02.2	S	20 17.8 -00.1				
23	57 47.2 +01.5	N	10 28.7 +00.4	136 53.7 +01.9	S	20 15.9 -00.1	137 31.6 +02.2	S	20 17.7 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 337° 337° 337° 337° 337° 337°			SHA 056° 056° 056° 056° 056° 056°			SHA 057° 057° 057° 057° 057° 057°						
	Greenwich Culmination Time: 19:09			Greenwich Culmination Time: 13:53			Greenwich Culmination Time: 13:51						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 44.6 -00.3	S	23 18.9 -00.1	203 01.2 -00.9	S	21 38.5 +00.5	37 29.0 -27.9	N	18 27.0 +08.8	00			
01	194 44.3 -00.3	S	23 18.8 -00.1	218 00.3 -00.8	S	21 39.0 +00.4	52 01.1 -28.0	N	18 35.8 +08.7	01			
02	209 44.0 -00.3	S	23 18.7 -00.1	232 59.5 -00.9	S	21 39.4 +00.5	66 33.1 -28.1	N	18 44.5 +08.6	02			
03	224 43.7 -00.3	S	23 18.6 -00.2	247 58.6 -00.9	S	21 39.9 +00.5	81 05.0 -28.1	N	18 53.1 +08.5	03			
04	239 43.4 -00.3	S	23 18.4 -00.1	262 57.7 -00.9	S	21 40.4 +00.4	95 36.9 -28.2	N	19 01.6 +08.4	04			
05	254 43.1 -00.3	S	23 18.3 -00.1	277 56.8 -00.8	S	21 40.8 +00.5	110 08.7 -28.3	N	19 10.0 +08.4	05			
06	269 42.8 -00.3	S	23 18.2 -00.1	292 56.0 -00.9	S	21 41.3 +00.4	124 40.4 -28.3	N	19 18.4 +08.3	06			
07	284 42.5 -00.4	S	23 18.1 -00.1	307 55.1 -00.9	S	21 41.7 +00.5	139 12.1 -28.4	N	19 26.7 +08.2	07			
08	299 42.1 -00.3	S	23 18.0 -00.1	322 54.2 -00.8	S	21 42.2 +00.4	153 43.7 -28.5	N	19 34.9 +08.1	08			
09	314 41.8 -00.3	S	23 17.9 -00.1	337 53.4 -00.9	S	21 42.6 +00.5	168 15.2 -28.6	N	19 43.0 +08.0	09			
10	329 41.5 -00.3	S	23 17.8 -00.2	352 52.5 -00.9	S	21 43.1 +00.4	182 46.6 -28.6	N	19 51.0 +08.0	10			
11	344 41.2 -00.3	S	23 17.6 -00.1	7 51.6 -00.8	S	21 43.5 +00.5	197 18.0 -28.7	N	19 59.0 +07.8	11			
12	359 40.9 -00.3	S	23 17.5 -00.1	22 50.8 -00.9	S	21 44.0 +00.4	211 49.3 -28.7	N	20 06.8 +07.8	12			
13	14 40.6 -00.3	S	23 17.4 -00.1	37 49.9 -00.9	S	21 44.4 +00.5	226 20.6 -28.9	N	20 14.6 +07.7	13			
14	29 40.3 -00.3	S	23 17.3 -00.1	52 49.0 -00.8	S	21 44.9 +00.4	240 51.7 -28.9	N	20 22.3 +07.6	14			
15	44 40.0 -00.3	S	23 17.2 -00.2	67 48.2 -00.9	S	21 45.3 +00.5	255 22.8 -29.0	N	20 29.9 +07.5	15			
16	59 39.7 -00.3	S	23 17.0 -00.1	82 47.3 -00.9	S	21 45.8 +00.4	269 53.8 -29.0	N	20 37.4 +07.4	16			
17	74 39.4 -00.3	S	23 16.9 -00.1	97 46.4 -00.9	S	21 46.2 +00.5	284 24.8 -29.1	N	20 44.8 +07.3	17			
18	89 39.1 -00.3	S	23 16.8 -00.1	112 45.5 -00.8	S	21 46.7 +00.4	298 55.7 -29.2	N	20 52.1 +07.3	18			
19	104 38.8 -00.3	S	23 16.7 -00.2	127 44.7 -00.9	S	21 47.1 +00.5	313 26.5 -29.3	N	20 59.4 +07.1	19			
20	119 38.5 -00.3	S	23 16.5 -00.1	142 43.8 -00.9	S	21 47.6 +00.4	327 57.2 -29.3	N	21 06.5 +07.1	20			
21	134 38.2 -00.3	S	23 16.4 -00.1	157 42.9 -00.9	S	21 48.0 +00.4	342 27.9 -29.4	N	21 13.6 +06.9	21			
22	149 37.9 -00.3	S	23 16.3 -00.1	172 42.0 -00.8	S	21 48.4 +00.5	356 58.5 -29.5	N	21 20.5 +06.9	22			
23	164 37.6 -00.3	S	23 16.2 -00.2	187 41.2 -00.9	S	21 48.9 +00.4	11 29.0 -29.5	N	21 27.4 +06.7	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 14'9 14'9 14'9 14'9 14'9 14'9						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'5 54'6 54'6 54'7 54'7 54'8						
	SHA 084° 084° 083° 083° 083° 083°			SHA 107° 107° 107° 106° 106° 106°			SHA 301° 298° 296° 294° 292° 290°						
	Greenwich Culmination Time: 12:01			Greenwich Culmination Time: 10:28			Greenwich Culmination Time: 22:12						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	72 48.7 +01.5	N	10 29.1 +00.5	151 55.6 +01.8	S	20 15.8 -00.1	152 33.8 +02.2	S	20 17.7 -00.1	00			
01	87 50.2 +01.5	N	10 29.6 +00.4	166 57.4 +01.9	S	20 15.7 -00.1	167 36.0 +02.1	S	20 17.6 -00.1	01			
02	102 51.7 +01.5	N	10 30.0 +00.4	181 59.3 +01.9	S	20 15.6 -00.2	182 38.1 +02.2	S	20 17.5 +00.0	02			
03	117 53.2 +01.6	N	10 30.4 +00.4	197 01.2 +01.9	S	20 15.4 -00.1	197 40.3 +02.2	S	20 17.5 -00.1	03			
04	132 54.8 +01.5	N	10 30.8 +00.5	212 03.1 +01.9	S	20 15.3 -00.1	212 42.5 +02.1	S	20 17.4 +00.0	04			
05	147 56.3 +01.5	N	10 31.3 +00.4	227 05.0 +01.8	S	20 15.2 -00.1	227 44.6 +02.2	S	20 17.4 -00.1	05			
06	162 57.8 +01.5	N	10 31.7 +00.4	242 06.8 +01.9	S	20 15.1 -00.2	242 46.8 +02.2	S	20 17.3 -00.1	06			
07	177 59.3 +01.5	N	10 32.1 +00.4	257 08.7 +01.9	S	20 14.9 -00.1	257 49.0 +02.2	S	20 17.2 +00.0	07			
08	193 00.8 +01.6	N	10 32.5 +00.5	272 10.6 +01.9	S	20 14.8 -00.1	272 51.2 +02.1	S	20 17.2 -00.1	08			
09	208 02.4 +01.5	N	10 33.0 +00.4	287 12.5 +01.9	S	20 14.7 -00.1	287 53.3 +02.2	S	20 17.1 +00.0	09			
10	223 03.9 +01.5	N	10 33.4 +00.4	302 14.4 +01.8	S	20 14.6 -00.2	302 55.5 +02.2	S	20 17.1 -00.1	10			
11	238 05.4 +01.5	N	10 33.8 +00.4	317 16.2 +01.9	S	20 14.4 -00.1	317 57.7 +02.2	S	20 17.0 -00.1	11			
12	253 06.9 +01.5	N	10 34.2 +00.5	332 18.1 +01.9	S	20 14.3 -00.1	332 59.9 +02.1	S	20 16.9 +00.0	12			
13	268 08.4 +01.6	N	10 34.7 +00.4	347 20.0 +01.9	S	20 14.2 -00.1	348 02.0 +02.2	S	20 16.9 -00.1	13			
14	283 10.0 +01.5	N	10 35.1 +00.4	2 21.9 +01.9	S	20 14.1 -00.1	3 04.2 +02.2	S	20 16.8 +00.0	14			
15	298 11.5 +01.5	N	10 35.5 +00.4	17 23.8 +01.8	S	20 14.0 -00.2	18 06.4 +02.2	S	20 16.8 -00.1	15			
16	313 13.0 +01.5	N	10 35.9 +00.5	32 25.6 +01.9	S	20 13.8 -00.1	33 08.6 +02.1	S	20 16.7 +00.0	16			
17	328 14.5 +01.5	N	10 36.4 +00.4	47 27.5 +01.9	S	20 13.7 -00.1	48 10.7 +02.2	S	20 16.7 -00.1	17			
18	343 16.0 +01.5	N	10 36.8 +00.4	62 29.4 +01.9	S	20 13.6 -00.1	63 12.9 +02.2	S	20 16.6 -00.1	18			
19	358 17.5 +01.5	N	10 37.2 +00.4	77 31.3 +01.9	S	20 13.5 -00.2	78 15.1 +02.1	S	20 16.5 +00.0	19			
20	13 19.0 +01.5	N	10 37.6 +00.5	92 33.2 +01.8	S	20 13.3 -00.1	93 17.2 +02.2	S	20 16.5 -00.1	20			
21	28 20.5 +01.6	N	10 38.1 +00.4	107 35.0 +01.9	S	20 13.2 -00.1	108 19.4 +02.2	S	20 16.4 +00.0	21			
22	43 22.1 +01.5	N	10 38.5 +00.4	122 36.9 +01.9	S	20 13.1 -00.1	123 21.6 +02.2	S	20 16.4 -00.1	22			
23	58 23.6 +01.5	N	10 38.9 +00.4	137 38.8 +01.9	S	20 13.0 -00.2	138 23.8 +02.1	S	20 16.3 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 337° 337° 337° 337° 337° 337°			SHA 056° 056° 056° 056° 056° 056°			SHA 057° 057° 057° 057° 057° 057°						
	Greenwich Culmination Time: 19:06			Greenwich Culmination Time: 13:50			Greenwich Culmination Time: 13:47						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	179 37.3 -00.3	S	23 16.0 -00.1	202 40.3 -00.9	S	21 49.3 +00.4	25 59.5 -29.7	N	21 34.1 +06.7	00										
01	194 37.0 -00.3	S	23 15.9 -00.1	217 39.4 -00.9	S	21 49.7 +00.5	40 29.8 -29.6	N	21 40.8 +06.6	01										
02	209 36.7 -00.4	S	23 15.8 -00.2	232 38.5 -00.8	S	21 50.2 +00.4	55 00.2 -29.8	N	21 47.4 +06.4	02										
03	224 36.3 -00.3	S	23 15.6 -00.1	247 37.7 -00.9	S	21 50.6 +00.4	69 30.4 -29.8	N	21 53.8 +06.4	03										
04	239 36.0 -00.3	S	23 15.5 -00.1	262 36.8 -00.9	S	21 51.0 +00.5	84 00.6 -29.9	N	22 00.2 +06.3	04										
05	254 35.7 -00.3	S	23 15.4 -00.2	277 35.9 -00.9	S	21 51.5 +00.4	98 30.7 -30.0	N	22 06.5 +06.1	05										
06	269 35.4 -00.3	S	23 15.2 -00.1	292 35.0 -00.8	S	21 51.9 +00.4	113 00.7 -30.0	N	22 12.6 +06.1	06										
07	284 35.1 -00.3	S	23 15.1 -00.1	307 34.2 -00.9	S	21 52.3 +00.5	127 30.7 -30.1	N	22 18.7 +05.9	07										
08	299 34.8 -00.3	S	23 15.0 -00.2	322 33.3 -00.9	S	21 52.8 +00.4	142 00.6 -30.2	N	22 24.6 +05.9	08										
09	314 34.5 -00.3	S	23 14.8 -00.1	337 32.4 -00.9	S	21 53.2 +00.4	156 30.4 -30.3	N	22 30.5 +05.7	09										
10	329 34.2 -00.3	S	23 14.7 -00.1	352 31.5 -00.8	S	21 53.6 +00.4	171 00.1 -30.3	N	22 36.2 +05.6	10										
11	344 33.9 -00.3	S	23 14.6 -00.2	7 30.7 -00.9	S	21 54.0 +00.5	185 29.8 -30.4	N	22 41.8 +05.6	11										
12	359 33.6 -00.3	S	23 14.4 -00.1	22 29.8 -00.9	S	21 54.5 +00.4	199 59.4 -30.4	N	22 47.4 +05.4	12										
13	14 33.3 -00.3	S	23 14.3 -00.2	37 28.9 -00.9	S	21 54.9 +00.4	214 29.0 -30.5	N	22 52.8 +05.3	13										
14	29 33.0 -00.3	S	23 14.1 -00.1	52 28.0 -00.9	S	21 55.3 +00.4	228 58.5 -30.6	N	22 58.1 +05.2	14										
15	44 32.7 -00.3	S	23 14.0 -00.1	67 27.1 -00.8	S	21 55.7 +00.5	243 27.9 -30.6	N	23 03.3 +05.1	15										
16	59 32.4 -00.3	S	23 13.9 -00.2	82 26.3 -00.9	S	21 56.2 +00.4	257 57.3 -30.7	N	23 08.4 +04.9	16										
17	74 32.1 -00.3	S	23 13.7 -00.1	97 25.4 -00.9	S	21 56.6 +00.4	272 26.6 -30.8	N	23 13.3 +04.9	17										
18	89 31.8 -00.3	S	23 13.6 -00.2	112 24.5 -00.9	S	21 57.0 +00.4	286 55.8 -30.8	N	23 18.2 +04.8	18										
19	104 31.5 -00.3	S	23 13.4 -00.1	127 23.6 -00.9	S	21 57.4 +00.4	301 25.0 -30.9	N	23 23.0 +04.6	19										
20	119 31.2 -00.3	S	23 13.3 -00.2	142 22.7 -00.9	S	21 57.8 +00.4	315 54.1 -31.0	N	23 27.6 +04.5	20										
21	134 30.9 -00.3	S	23 13.1 -00.1	157 21.8 -00.8	S	21 58.2 +00.4	330 23.1 -31.0	N	23 32.1 +04.4	21										
22	149 30.6 -00.3	S	23 13.0 -00.1	172 21.0 -00.9	S	21 58.6 +00.5	344 52.1 -31.1	N	23 36.5 +04.3	22										
23	164 30.3 -00.3	S	23 12.9 -00.2	187 20.1 -00.9	S	21 59.1 +00.4	359 21.0 -31.2	N	23 40.8 +04.2	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	16°3	16°3	16°3	16°3	16°3	16°3	SD	00°1	00°1	00°1	00°1	00°1	00°1	SD	15°0	15°0	15°0	15°0	15°0	15°0
HP	00°1	00°1	00°1	00°1	00°1	00°1	HP	00°1	00°1	00°1	00°1	00°1	00°1	HP	54°9	54°9	55°0	55°1	55°1	55°2
SHA	083°	082°	082°	082°	082°	082°	SHA	106°	105°	105°	105°	105°	105°	SHA	288°	286°	284°	281°	279°	277°
Greenwich Culmination Time: 12:01							Greenwich Culmination Time: 10:29							Greenwich Culmination Time: 23:02						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	73 25.1 +01.5	N	10 39.3 +00.5	152 40.7 +01.8	S	20 12.8 -00.1	153 25.9 +02.2	S	20 16.2 +00.0	00										
01	88 26.6 +01.5	N	10 39.8 +00.4	167 42.5 +01.9	S	20 12.7 -00.1	168 28.1 +02.2	S	20 16.2 -00.1	01										
02	103 28.1 +01.5	N	10 40.2 +00.4	182 44.4 +01.9	S	20 12.6 -00.1	183 30.3 +02.2	S	20 16.1 +00.0	02										
03	118 29.6 +01.5	N	10 40.6 +00.4	197 46.3 +01.9	S	20 12.5 -00.2	198 32.5 +02.1	S	20 16.1 -00.1	03										
04	133 31.1 +01.5	N	10 41.0 +00.5	212 48.2 +01.9	S	20 12.3 -00.1	213 34.6 +02.2	S	20 16.0 -00.1	04										
05	148 32.6 +01.5	N	10 41.5 +00.4	227 50.1 +01.8	S	20 12.2 -00.1	228 36.8 +02.2	S	20 15.9 +00.0	05										
06	163 34.1 +01.5	N	10 41.9 +00.4	242 51.9 +01.9	S	20 12.1 -00.1	243 39.0 +02.1	S	20 15.9 -00.1	06										
07	178 35.6 +01.5	N	10 42.3 +00.4	257 53.8 +01.9	S	20 12.0 -00.2	258 41.1 +02.2	S	20 15.8 +00.0	07										
08	193 37.1 +01.5	N	10 42.7 +00.5	272 55.7 +01.9	S	20 11.8 -00.1	273 43.3 +02.2	S	20 15.8 -00.1	08										
09	208 38.6 +01.5	N	10 43.2 +00.4	287 57.6 +01.9	S	20 11.7 -00.1	288 45.5 +02.2	S	20 15.7 -00.1	09										
10	223 40.1 +01.5	N	10 43.6 +00.4	302 59.5 +01.8	S	20 11.6 -00.1	303 47.7 +02.1	S	20 15.6 +00.0	10										
11	238 41.6 +01.5	N	10 44.0 +00.5	318 01.3 +01.9	S	20 11.5 -00.1	318 49.8 +02.2	S	20 15.6 -00.1	11										
12	253 43.1 +01.5	N	10 44.5 +00.4	333 03.2 +01.9	S	20 11.4 -00.2	333 52.0 +02.2	S	20 15.5 +00.0	12										
13	268 44.6 +01.5	N	10 44.9 +00.4	348 05.1 +01.9	S	20 11.2 -00.1	348 54.2 +02.1	S	20 15.5 -00.1	13										
14	283 46.1 +01.5	N	10 45.3 +00.4	3 07.0 +01.8	S	20 11.1 -00.1	3 56.3 +02.2	S	20 15.4 -00.1	14										
15	298 47.6 +01.5	N	10 45.7 +00.5	18 08.8 +01.9	S	20 11.0 -00.1	18 58.5 +02.2	S	20 15.3 +00.0	15										
16	313 49.1 +01.5	N	10 46.2 +00.4	33 10.7 +01.9	S	20 10.9 -00.2	34 00.7 +02.2	S	20 15.3 -00.1	16										
17	328 50.6 +01.5	N	10 46.6 +00.4	48 12.6 +01.9	S	20 10.7 -00.1	49 02.9 +02.1	S	20 15.2 +00.0	17										
18	343 52.1 +01.5	N	10 47.0 +00.5	63 14.5 +01.9	S	20 10.6 -00.1	64 05.0 +02.2	S	20 15.2 -00.1	18										
19	358 53.6 +01.5	N	10 47.5 +00.4	78 16.4 +01.8	S	20 10.5 -00.1	79 07.2 +02.2	S	20 15.1 +00.0	19										
20	13 55.1 +01.5	N	10 47.9 +00.4	93 18.2 +01.9	S	20 10.4 -00.2	94 09.4 +02.1	S	20 15.1 -00.1	20										
21	28 56.6 +01.5	N	10 48.3 +00.4	108 20.1 +01.9	S	20 10.2 -00.1	109 11.5 +02.2	S	20 15.0 -00.1	21										
22	43 58.1 +01.5	N	10 48.7 +00.5	123 22.0 +01.9	S	20 10.1 -00.1	124 13.7 +02.2	S	20 14.9 +00.0	22										
23	58 59.6 +01.5	N	10 49.2 +00.4	138 23.9 +01.8	S	20 10.0 -00.1	139 15.9 +02.2	S	20 14.9 -00.1	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	00°1	00°1	00°1	00°1	00°1	00°1	SD	00°3	00°3	00°3	00°3	00°3	00°3	SD	00°1	00°1	00°1	00°1	00°1	00°1
HP	00°2	00°2	00°2	00°2	00°2	00°2	HP	00°0	00°0	00°0	00°0	00°0	00°0	HP	00°0	00°0	00°0	00°0	00°0	00°0
SHA	336°	336°	336°	336°	336°	336°	SHA	056°	056°	056°	056°	056°	056°	SHA	057°	056°	056°	056°	056°	056°
Greenwich Culmination Time: 19:04							Greenwich Culmination Time: 13:47							Greenwich Culmination Time: 13:44						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 30.0 -00.3	S	23 12.7 -00.1	202 19.2 -00.9	S	21 59.5 +00.4	13 49.8 -31.2	N	23 45.0 +04.0				
01	194 29.7 -00.3	S	23 12.6 -00.2	217 18.3 -00.9	S	21 59.9 +00.4	28 18.6 -31.2	N	23 49.0 +03.9				
02	209 29.4 -00.3	S	23 12.4 -00.1	232 17.4 -00.9	S	22 00.3 +00.4	42 47.4 -31.3	N	23 52.9 +03.9				
03	224 29.1 -00.3	S	23 12.3 -00.2	247 16.5 -00.8	S	22 00.7 +00.4	57 16.1 -31.4	N	23 56.8 +03.6				
04	239 28.8 -00.3	S	23 12.1 -00.1	262 15.7 -00.9	S	22 01.1 +00.4	71 44.7 -31.5	N	24 00.4 +03.6				
05	254 28.5 -00.3	S	23 12.0 -00.2	277 14.8 -00.9	S	22 01.5 +00.4	86 13.2 -31.5	N	24 04.0 +03.5				
06	269 28.2 -00.3	S	23 11.8 -00.1	292 13.9 -00.9	S	22 01.9 +00.4	100 41.7 -31.5	N	24 07.5 +03.3				
07	284 27.9 -00.3	S	23 11.7 -00.2	307 13.0 -00.9	S	22 02.3 +00.4	115 10.2 -31.6	N	24 10.8 +03.2				
08	299 27.6 -00.3	S	23 11.5 -00.2	322 12.1 -00.9	S	22 02.7 +00.4	129 38.6 -31.6	N	24 14.0 +03.0				
09	314 27.3 -00.3	S	23 11.3 -00.1	337 11.2 -00.8	S	22 03.1 +00.4	144 07.0 -31.7	N	24 17.0 +03.0				
10	329 27.0 -00.3	S	23 11.2 -00.2	352 10.4 -00.9	S	22 03.5 +00.4	158 35.3 -31.8	N	24 20.0 +02.8				
11	344 26.7 -00.4	S	23 11.0 -00.1	7 09.5 -00.9	S	22 03.9 +00.4	173 03.5 -31.8	N	24 22.8 +02.7				
12	359 26.3 -00.3	S	23 10.9 -00.2	22 08.6 -00.9	S	22 04.3 +00.4	187 31.7 -31.9	N	24 25.5 +02.6				
13	14 26.0 -00.3	S	23 10.7 -00.1	37 07.7 -00.9	S	22 04.7 +00.4	201 59.8 -31.9	N	24 28.1 +02.4				
14	29 25.7 -00.3	S	23 10.6 -00.2	52 06.8 -00.9	S	22 05.1 +00.4	216 27.9 -31.9	N	24 30.5 +02.3				
15	44 25.4 -00.3	S	23 10.4 -00.2	67 05.9 -00.9	S	22 05.5 +00.4	230 56.0 -32.0	N	24 32.8 +02.2				
16	59 25.1 -00.3	S	23 10.2 -00.1	82 05.0 -00.9	S	22 05.9 +00.4	245 24.0 -32.0	N	24 35.0 +02.1				
17	74 24.8 -00.3	S	23 10.1 -00.2	97 04.1 -00.9	S	22 06.3 +00.4	259 52.0 -32.1	N	24 37.1 +01.9				
18	89 24.5 -00.3	S	23 09.9 -00.2	112 03.2 -00.8	S	22 06.7 +00.4	274 19.9 -32.1	N	24 39.0 +01.8				
19	104 24.2 -00.3	S	23 09.7 -00.1	127 02.4 -00.9	S	22 07.1 +00.3	288 47.8 -32.2	N	24 40.8 +01.7				
20	119 23.9 -00.3	S	23 09.6 -00.2	142 01.5 -00.9	S	22 07.4 +00.4	303 15.6 -32.2	N	24 42.5 +01.5				
21	134 23.6 -00.3	S	23 09.4 -00.1	157 00.6 -00.9	S	22 07.8 +00.4	317 43.4 -32.2	N	24 44.0 +01.4				
22	149 23.3 -00.3	S	23 09.3 -00.2	171 59.7 -00.9	S	22 08.2 +00.4	332 11.2 -32.3	N	24 45.4 +01.3				
23	164 23.0 -00.3	S	23 09.1 -00.2	186 58.8 -00.9	S	22 08.6 +00.4	346 38.9 -32.3	N	24 46.7 +01.1				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'1 15'1 15'1 15'1 15'2 15'2						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 55'3 55'4 55'5 55'5 55'6 55'7						
	SHA 081° 081° 081° 081° 081° 081°			SHA 104° 104° 104° 104° 103° 103°			SHA 275° 273° 270° 268° 266° 263°						
	Greenwich Culmination Time: 12:02			Greenwich Culmination Time: 10:31			Greenwich Culmination Time: 23:55						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	74 01.1 +01.5	N	10 49.6 +00.4	153 25.7 +01.9	S	20 09.9 -00.2	154 18.1 +02.1	S	20 14.8 +00.0				
01	89 02.6 +01.5	N	10 50.0 +00.5	168 27.6 +01.9	S	20 09.7 -00.1	169 20.2 +02.2	S	20 14.8 -00.1				
02	104 04.1 +01.5	N	10 50.5 +00.4	183 29.5 +01.9	S	20 09.6 -00.1	184 22.4 +02.2	S	20 14.7 -00.1				
03	119 05.6 +01.5	N	10 50.9 +00.4	198 31.4 +01.8	S	20 09.5 -00.1	199 24.6 +02.1	S	20 14.6 +00.0				
04	134 07.1 +01.5	N	10 51.3 +00.4	213 33.2 +01.9	S	20 09.4 -00.2	214 26.7 +02.2	S	20 14.6 -00.1				
05	149 08.6 +01.5	N	10 51.7 +00.5	228 35.1 +01.9	S	20 09.2 -00.1	229 28.9 +02.2	S	20 14.5 +00.0				
06	164 10.1 +01.5	N	10 52.2 +00.4	243 37.0 +01.9	S	20 09.1 -00.1	244 31.1 +02.2	S	20 14.5 -00.1				
07	179 11.6 +01.5	N	10 52.6 +00.4	258 38.9 +01.9	S	20 09.0 -00.1	259 33.3 +02.1	S	20 14.4 -00.1				
08	194 13.1 +01.5	N	10 53.0 +00.5	273 40.8 +01.8	S	20 08.9 -00.2	274 35.4 +02.2	S	20 14.3 +00.0				
09	209 14.6 +01.5	N	10 53.5 +00.4	288 42.6 +01.9	S	20 08.7 -00.1	289 37.6 +02.2	S	20 14.3 -00.1				
10	224 16.1 +01.4	N	10 53.9 +00.4	303 44.5 +01.9	S	20 08.6 -00.1	304 39.8 +02.1	S	20 14.2 +00.0				
11	239 17.5 +01.5	N	10 54.3 +00.4	318 46.4 +01.9	S	20 08.5 -00.1	319 41.9 +02.2	S	20 14.2 -00.1				
12	254 19.0 +01.5	N	10 54.7 +00.5	333 48.3 +01.8	S	20 08.4 -00.2	334 44.1 +02.2	S	20 14.1 -00.1				
13	269 20.5 +01.5	N	10 55.2 +00.4	348 50.1 +01.9	S	20 08.2 -00.1	349 46.3 +02.2	S	20 14.0 +00.0				
14	284 22.0 +01.5	N	10 55.6 +00.4	3 52.0 +01.9	S	20 08.1 -00.1	4 48.5 +02.1	S	20 14.0 -00.1				
15	299 23.5 +01.5	N	10 56.0 +00.5	18 53.9 +01.9	S	20 08.0 -00.2	19 50.6 +02.2	S	20 13.9 +00.0				
16	314 25.0 +01.5	N	10 56.5 +00.4	33 55.8 +01.8	S	20 07.8 -00.1	34 52.8 +02.2	S	20 13.9 -00.1				
17	329 26.5 +01.5	N	10 56.9 +00.4	48 57.6 +01.9	S	20 07.7 -00.1	49 55.0 +02.1	S	20 13.8 -00.1				
18	344 28.0 +01.4	N	10 57.3 +00.5	63 59.5 +01.9	S	20 07.6 -00.1	64 57.1 +02.2	S	20 13.7 +00.0				
19	359 29.4 +01.5	N	10 57.8 +00.4	79 01.4 +01.9	S	20 07.5 -00.2	79 59.3 +02.2	S	20 13.7 -00.1				
20	14 30.9 +01.5	N	10 58.2 +00.4	94 03.3 +01.8	S	20 07.3 -00.1	95 01.5 +02.2	S	20 13.6 +00.0				
21	29 32.4 +01.5	N	10 58.6 +00.4	109 05.1 +01.9	S	20 07.2 -00.1	110 03.7 +02.1	S	20 13.6 -00.1				
22	44 33.9 +01.5	N	10 59.0 +00.5	124 07.0 +01.9	S	20 07.1 -00.1	125 05.8 +02.2	S	20 13.5 -00.1				
23	59 35.4 +01.5	N	10 59.5 +00.4	139 08.9 +01.9	S	20 07.0 -00.2	140 08.0 +02.2	S	20 13.4 +00.0				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 336° 336° 336° 336° 336° 336°			SHA 056° 055° 055° 055° 055° 055°			SHA 056° 056° 056° 056° 056° 056°						
	Greenwich Culmination Time: 19:02			Greenwich Culmination Time: 13:44			Greenwich Culmination Time: 13:40						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 22.7 -00.3	S	23 08.9 -00.1	201 57.9 -00.9	S	22 09.0 +00.4	1 06.6 -32.4	N	24 47.8 +01.0	00			
01	194 22.4 -00.3	S	23 08.8 -00.2	216 57.0 -00.9	S	22 09.4 +00.3	15 34.2 -32.4	N	24 48.8 +00.9	01			
02	209 22.1 -00.3	S	23 08.6 -00.2	231 56.1 -00.9	S	22 09.7 +00.4	30 01.8 -32.4	N	24 49.7 +00.7	02			
03	224 21.8 -00.3	S	23 08.4 -00.2	246 55.2 -00.9	S	22 10.1 +00.4	44 29.4 -32.5	N	24 50.4 +00.6	03			
04	239 21.5 -00.3	S	23 08.2 -00.1	261 54.3 -00.9	S	22 10.5 +00.4	58 56.9 -32.4	N	24 51.0 +00.5	04			
05	254 21.2 -00.3	S	23 08.1 -00.2	276 53.4 -00.8	S	22 10.9 +00.4	73 24.5 -32.5	N	24 51.5 +00.3	05			
06	269 20.9 -00.3	S	23 07.9 -00.2	291 52.6 -00.9	S	22 11.3 +00.3	87 52.0 -32.6	N	24 51.8 +00.2	06			
07	284 20.6 -00.3	S	23 07.7 -00.1	306 51.7 -00.9	S	22 11.6 +00.4	102 19.4 -32.5	N	24 52.0 +00.0	07			
08	299 20.3 -00.3	S	23 07.6 -00.2	321 50.8 -00.9	S	22 12.0 +00.4	116 46.9 -32.6	N	24 52.0 -00.1	08			
09	314 20.0 -00.3	S	23 07.4 -00.2	336 49.9 -00.9	S	22 12.4 +00.3	131 14.3 -32.6	N	24 51.9 -00.2	09			
10	329 19.7 -00.3	S	23 07.2 -00.2	351 49.0 -00.9	S	22 12.7 +00.4	145 41.7 -32.7	N	24 51.7 -00.3	10			
11	344 19.4 -00.2	S	23 07.0 -00.2	6 48.1 -00.9	S	22 13.1 +00.4	160 09.0 -32.6	N	24 51.4 -00.5	11			
12	359 19.2 -00.3	S	23 06.8 -00.1	21 47.2 -00.9	S	22 13.5 +00.4	174 36.4 -32.7	N	24 50.9 -00.7	12			
13	14 18.9 -00.3	S	23 06.7 -00.2	36 46.3 -00.9	S	22 13.9 +00.3	189 03.7 -32.7	N	24 50.2 -00.7	13			
14	29 18.6 -00.3	S	23 06.5 -00.2	51 45.4 -00.9	S	22 14.2 +00.4	203 31.0 -32.7	N	24 49.5 -00.9	14			
15	44 18.3 -00.3	S	23 06.3 -00.2	66 44.5 -00.9	S	22 14.6 +00.4	217 58.3 -32.8	N	24 48.6 -01.1	15			
16	59 18.0 -00.3	S	23 06.1 -00.1	81 43.6 -00.9	S	22 15.0 +00.3	232 25.5 -32.7	N	24 47.5 -01.2	16			
17	74 17.7 -00.3	S	23 06.0 -00.2	96 42.7 -00.9	S	22 15.3 +00.4	246 52.8 -32.8	N	24 46.3 -01.3	17			
18	89 17.4 -00.3	S	23 05.8 -00.2	111 41.8 -00.9	S	22 15.7 +00.3	261 20.0 -32.7	N	24 45.0 -01.4	18			
19	104 17.1 -00.3	S	23 05.6 -00.2	126 40.9 -00.9	S	22 16.0 +00.4	275 47.3 -32.8	N	24 43.6 -01.6	19			
20	119 16.8 -00.3	S	23 05.4 -00.2	141 40.0 -00.9	S	22 16.4 +00.4	290 14.5 -32.8	N	24 42.0 -01.8	20			
21	134 16.5 -00.3	S	23 05.2 -00.2	156 39.1 -00.9	S	22 16.8 +00.3	304 41.7 -32.8	N	24 40.2 -01.8	21			
22	149 16.2 -00.3	S	23 05.0 -00.1	171 38.2 -00.9	S	22 17.1 +00.4	319 08.9 -32.8	N	24 38.4 -02.0	22			
23	164 15.9 -00.3	S	23 04.9 -00.2	186 37.3 -00.9	S	22 17.5 +00.3	333 36.1 -32.8	N	24 36.4 -02.2	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'2 15'2 15'2 15'3 15'3 15'3						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 55'8 55'9 55'9 56'0 56'1 56'2						
	SHA 080° 080° 080° 080° 080° 079°			SHA 103° 103° 103° 102° 102° 102°			SHA 261° 259° 256° 254° 252° 249°						
	Greenwich Culmination Time: 12:02			Greenwich Culmination Time: 10:32			Greenwich Culmination Time: -1:00						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	74 36.9 +01.4	N	10 59.9 +00.4	154 10.8 +01.8	S	20 06.8 -00.1	155 10.2 +02.1	S	20 13.4 -00.1	00			
01	89 38.3 +01.5	N	11 00.3 +00.5	169 12.6 +01.9	S	20 06.7 -00.1	170 12.3 +02.2	S	20 13.3 +00.0	01			
02	104 39.8 +01.5	N	11 00.8 +00.4	184 14.5 +01.9	S	20 06.6 -00.1	185 14.5 +02.2	S	20 13.3 -00.1	02			
03	119 41.3 +01.5	N	11 01.2 +00.4	199 16.4 +01.9	S	20 06.5 -00.2	200 16.7 +02.1	S	20 13.2 -00.1	03			
04	134 42.8 +01.5	N	11 01.6 +00.5	214 18.3 +01.8	S	20 06.3 -00.1	215 18.8 +02.2	S	20 13.1 +00.0	04			
05	149 44.3 +01.4	N	11 02.1 +00.4	229 20.1 +01.9	S	20 06.2 -00.1	230 21.0 +02.2	S	20 13.1 -00.1	05			
06	164 45.7 +01.5	N	11 02.5 +00.4	244 22.0 +01.9	S	20 06.1 -00.1	245 23.2 +02.2	S	20 13.0 +00.0	06			
07	179 47.2 +01.5	N	11 02.9 +00.5	259 23.9 +01.9	S	20 06.0 -00.2	260 25.4 +02.1	S	20 13.0 -00.1	07			
08	194 48.7 +01.5	N	11 03.4 +00.4	274 25.8 +01.8	S	20 05.8 -00.1	275 27.5 +02.2	S	20 12.9 -00.1	08			
09	209 50.2 +01.4	N	11 03.8 +00.4	289 27.6 +01.9	S	20 05.7 -00.1	290 29.7 +02.2	S	20 12.8 +00.0	09			
10	224 51.6 +01.5	N	11 04.2 +00.5	304 29.5 +01.9	S	20 05.6 -00.1	305 31.9 +02.1	S	20 12.8 -00.1	10			
11	239 53.1 +01.5	N	11 04.7 +00.4	319 31.4 +01.9	S	20 05.5 -00.2	320 34.0 +02.2	S	20 12.7 +00.0	11			
12	254 54.6 +01.5	N	11 05.1 +00.4	334 33.3 +01.8	S	20 05.3 -00.1	335 36.2 +02.2	S	20 12.7 -00.1	12			
13	269 56.1 +01.4	N	11 05.5 +00.4	349 35.1 +01.9	S	20 05.2 -00.1	350 38.4 +02.1	S	20 12.6 -00.1	13			
14	284 57.5 +01.5	N	11 05.9 +00.5	4 37.0 +01.9	S	20 05.1 -00.2	5 40.5 +02.2	S	20 12.5 +00.0	14			
15	299 59.0 +01.5	N	11 06.4 +00.4	19 38.9 +01.9	S	20 04.9 -00.1	20 42.7 +02.2	S	20 12.5 -00.1	15			
16	315 00.5 +01.5	N	11 06.8 +00.4	34 40.8 +01.8	S	20 04.8 -00.1	35 44.9 +02.1	S	20 12.4 +00.0	16			
17	330 02.0 +01.4	N	11 07.2 +00.5	49 42.6 +01.9	S	20 04.7 -00.1	50 47.0 +02.2	S	20 12.4 -00.1	17			
18	345 03.4 +01.5	N	11 07.7 +00.4	64 44.5 +01.9	S	20 04.6 -00.2	65 49.2 +02.2	S	20 12.3 -00.1	18			
19	0 04.9 +01.5	N	11 08.1 +00.4	79 46.4 +01.9	S	20 04.4 -00.1	80 51.4 +02.2	S	20 12.2 +00.0	19			
20	15 06.4 +01.4	N	11 08.5 +00.5	94 48.3 +01.8	S	20 04.3 -00.1	95 53.6 +02.1	S	20 12.2 -00.1	20			
21	30 07.8 +01.5	N	11 09.0 +00.4	109 50.1 +01.9	S	20 04.2 -00.1	110 55.7 +02.2	S	20 12.1 +00.0	21			
22	45 09.3 +01.5	N	11 09.4 +00.4	124 52.0 +01.9	S	20 04.1 -00.2	125 57.9 +02.2	S	20 12.1 -00.1	22			
23	60 10.8 +01.5	N	11 09.8 +00.5	139 53.9 +01.9	S	20 03.9 -00.1	141 00.1 +02.1	S	20 12.0 -00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 336° 336° 336° 335° 335° 335°			SHA 055° 055° 055° 055° 055° 055°			SHA 056° 056° 056° 056° 056° 056°						
	Greenwich Culmination Time: 18:59			Greenwich Culmination Time: 13:41			Greenwich Culmination Time: 13:37						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 15.6 -00.3	S	23 04.7 -00.2	201 36.4 -00.9	S	22 17.8 +00.4	348 03.3 -32.8	N	24 34.2 -02.3	00			
01	194 15.3 -00.3	S	23 04.5 -00.2	216 35.5 -00.9	S	22 18.2 +00.3	2 30.5 -32.8	N	24 31.9 -02.4	01			
02	209 15.0 -00.3	S	23 04.3 -00.2	231 34.6 -00.9	S	22 18.5 +00.4	16 57.7 -32.8	N	24 29.5 -02.6	02			
03	224 14.7 -00.3	S	23 04.1 -00.2	246 33.7 -00.9	S	22 18.9 +00.3	31 24.9 -32.8	N	24 26.9 -02.7	03			
04	239 14.4 -00.3	S	23 03.9 -00.2	261 32.8 -00.9	S	22 19.2 +00.4	45 52.1 -32.9	N	24 24.2 -02.8	04			
05	254 14.1 -00.3	S	23 03.7 -00.2	276 31.9 -00.9	S	22 19.6 +00.3	60 19.2 -32.8	N	24 21.4 -03.0	05			
06	269 13.8 -00.3	S	23 03.5 -00.2	291 31.0 -00.9	S	22 19.9 +00.4	74 46.4 -32.8	N	24 18.4 -03.1	06			
07	284 13.5 -00.3	S	23 03.3 -00.2	306 30.1 -00.9	S	22 20.3 +00.3	89 13.6 -32.8	N	24 15.3 -03.3	07			
08	299 13.2 -00.3	S	23 03.1 -00.1	321 29.2 -00.9	S	22 20.6 +00.4	103 40.8 -32.8	N	24 12.0 -03.4	08			
09	314 12.9 -00.3	S	23 03.0 -00.2	336 28.3 -00.9	S	22 21.0 +00.3	118 08.0 -32.8	N	24 08.6 -03.5	09			
10	329 12.6 -00.3	S	23 02.8 -00.2	351 27.4 -00.9	S	22 21.3 +00.4	132 35.2 -32.7	N	24 05.1 -03.7	10			
11	344 12.3 -00.3	S	23 02.6 -00.2	6 26.5 -00.9	S	22 21.7 +00.3	147 02.5 -32.8	N	24 01.4 -03.8	11			
12	359 12.0 -00.3	S	23 02.4 -00.2	21 25.6 -00.9	S	22 22.0 +00.4	161 29.7 -32.8	N	23 57.6 -03.9	12			
13	14 11.7 -00.3	S	23 02.2 -00.2	36 24.7 -00.9	S	22 22.4 +00.3	175 56.9 -32.7	N	23 53.7 -04.1	13			
14	29 11.4 -00.3	S	23 02.0 -00.2	51 23.8 -00.9	S	22 22.7 +00.3	190 24.2 -32.7	N	23 49.6 -04.2	14			
15	44 11.1 -00.3	S	23 01.8 -00.2	66 22.9 -00.9	S	22 23.0 +00.4	204 51.5 -32.7	N	23 45.4 -04.4	15			
16	59 10.8 -00.3	S	23 01.6 -00.2	81 22.0 -00.9	S	22 23.4 +00.3	219 18.8 -32.7	N	23 41.0 -04.5	16			
17	74 10.5 -00.3	S	23 01.4 -00.2	96 21.1 -00.9	S	22 23.7 +00.3	233 46.1 -32.7	N	23 36.5 -04.6	17			
18	89 10.2 -00.2	S	23 01.2 -00.2	111 20.2 -00.9	S	22 24.0 +00.4	248 13.4 -32.7	N	23 31.9 -04.8	18			
19	104 10.0 -00.3	S	23 01.0 -00.2	126 19.3 -00.9	S	22 24.4 +00.3	262 40.7 -32.6	N	23 27.1 -04.8	19			
20	119 09.7 -00.3	S	23 00.8 -00.2	141 18.4 -00.9	S	22 24.7 +00.3	277 08.1 -32.7	N	23 22.3 -05.1	20			
21	134 09.4 -00.3	S	23 00.6 -00.2	156 17.5 -00.9	S	22 25.0 +00.4	291 35.4 -32.6	N	23 17.2 -05.1	21			
22	149 09.1 -00.3	S	23 00.4 -00.2	171 16.6 -00.9	S	22 25.4 +00.3	306 02.8 -32.5	N	23 12.1 -05.3	22			
23	164 08.8 -00.3	S	23 00.2 -00.2	186 15.7 -00.9	S	22 25.7 +00.3	320 30.3 -32.6	N	23 06.8 -05.4	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'3 16'3 16'3 16'3 16'3 16'3			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'3 15'4 15'4 15'4 15'4 15'4						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 56'3 56'3 56'4 56'5 56'6 56'7						
	SHA 079° 079° 079° 079° 079° 078°			SHA 102° 101° 101° 101° 101° 100°			SHA 247° 245° 242° 240° 238° 235°						
	Greenwich Culmination Time: 12:03			Greenwich Culmination Time: 10:34			Greenwich Culmination Time: 00:49						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	75 12.3 +01.4	N	11 10.3 +00.4	154 55.8 +01.8	S	20 03.8 -00.1	156 02.2 +02.2	S	20 11.9 +00.0	00			
01	90 13.7 +01.5	N	11 10.7 +00.4	169 57.6 +01.9	S	20 03.7 -00.2	171 04.4 +02.2	S	20 11.9 -00.1	01			
02	105 15.2 +01.5	N	11 11.1 +00.5	184 59.5 +01.9	S	20 03.5 -00.1	186 06.6 +02.1	S	20 11.8 +00.0	02			
03	120 16.7 +01.4	N	11 11.6 +00.4	200 01.4 +01.9	S	20 03.4 -00.1	201 08.7 +02.2	S	20 11.8 -00.1	03			
04	135 18.1 +01.5	N	11 12.0 +00.4	215 03.3 +01.8	S	20 03.3 -00.1	216 10.9 +02.2	S	20 11.7 -00.1	04			
05	150 19.6 +01.5	N	11 12.4 +00.5	230 05.1 +01.9	S	20 03.2 -00.2	231 13.1 +02.1	S	20 11.6 +00.0	05			
06	165 21.1 +01.4	N	11 12.9 +00.4	245 07.0 +01.9	S	20 03.0 -00.1	246 15.2 +02.2	S	20 11.6 -00.1	06			
07	180 22.5 +01.5	N	11 13.3 +00.4	260 08.9 +01.9	S	20 02.9 -00.1	261 17.4 +02.2	S	20 11.5 -00.1	07			
08	195 24.0 +01.5	N	11 13.7 +00.5	275 10.8 +01.8	S	20 02.8 -00.1	276 19.6 +02.2	S	20 11.4 +00.0	08			
09	210 25.5 +01.4	N	11 14.2 +00.4	290 12.6 +01.9	S	20 02.7 -00.2	291 21.8 +02.1	S	20 11.4 -00.1	09			
10	225 26.9 +01.5	N	11 14.6 +00.4	305 14.5 +01.9	S	20 02.5 -00.1	306 23.9 +02.2	S	20 11.3 +00.0	10			
11	240 28.4 +01.4	N	11 15.0 +00.5	320 16.4 +01.8	S	20 02.4 -00.1	321 26.1 +02.2	S	20 11.3 -00.1	11			
12	255 29.8 +01.5	N	11 15.5 +00.4	335 18.2 +01.9	S	20 02.3 -00.2	336 28.3 +02.1	S	20 11.2 -00.1	12			
13	270 31.3 +01.5	N	11 15.9 +00.4	350 20.1 +01.9	S	20 02.1 -00.1	351 30.4 +02.2	S	20 11.1 +00.0	13			
14	285 32.8 +01.4	N	11 16.3 +00.5	5 22.0 +01.9	S	20 02.0 -00.1	6 32.6 +02.2	S	20 11.1 -00.1	14			
15	300 34.2 +01.5	N	11 16.8 +00.4	20 23.9 +01.8	S	20 01.9 -00.1	21 34.8 +02.1	S	20 11.0 +00.0	15			
16	315 35.7 +01.4	N	11 17.2 +00.4	35 25.7 +01.9	S	20 01.8 -00.2	36 36.9 +02.2	S	20 11.0 -00.1	16			
17	330 37.1 +01.5	N	11 17.6 +00.5	50 27.6 +01.9	S	20 01.6 -00.1	51 39.1 +02.2	S	20 10.9 -00.1	17			
18	345 38.6 +01.5	N	11 18.1 +00.4	65 29.5 +01.9	S	20 01.5 -00.1	66 41.3 +02.1	S	20 10.8 +00.0	18			
19	0 40.1 +01.4	N	11 18.5 +00.4	80 31.4 +01.8	S	20 01.4 -00.1	81 43.4 +02.2	S	20 10.8 -00.1	19			
20	15 41.5 +01.5	N	11 18.9 +00.5	95 33.2 +01.9	S	20 01.3 -00.2	96 45.6 +02.2	S	20 10.7 +00.0	20			
21	30 43.0 +01.4	N	11 19.4 +00.4	110 35.1 +01.9	S	20 01.1 -00.1	111 47.8 +02.1	S	20 10.7 -00.1	21			
22	45 44.4 +01.5	N	11 19.8 +00.5	125 37.0 +01.8	S	20 01.0 -00.1	126 49.9 +02.2	S	20 10.6 -00.1	22			
23	60 45.9 +01.4	N	11 20.3 +00.4	140 38.8 +01.9	S	20 00.9 -00.2	141 52.1 +02.2	S	20 10.5 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 335° 335° 335° 335° 335° 335°			SHA 055° 055° 055° 055° 055° 055°			SHA 056° 056° 056° 056° 056° 056°						
	Greenwich Culmination Time: 18:57			Greenwich Culmination Time: 13:38			Greenwich Culmination Time: 13:33						

