

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 01.7 -00.1	N 23 05.2 -00.1	214 42.4 +01.9	N 17 15.5 -00.1	55 52.5 -31.8	S 12 48.8 +12.4	00						
01	194 01.6 -00.1	N 23 05.1 -00.2	229 44.3 +01.9	N 17 15.4 -00.1	70 20.7 -31.8	S 13 01.2 +12.4	01						
02	209 01.5 -00.1	N 23 04.9 -00.2	244 46.2 +01.9	N 17 15.3 -00.1	84 48.9 -31.9	S 13 13.6 +12.4	02						
03	224 01.4 -00.2	N 23 04.7 -00.2	259 48.1 +01.9	N 17 15.2 -00.1	99 17.0 -32.0	S 13 26.0 +12.2	03						
04	239 01.2 -00.1	N 23 04.5 -00.1	274 50.0 +01.8	N 17 15.1 +00.0	113 45.0 -32.0	S 13 38.2 +12.2	04						
05	254 01.1 -00.1	N 23 04.4 -00.2	289 51.8 +01.9	N 17 15.1 -00.1	128 13.0 -32.0	S 13 50.4 +12.0	05						
06	269 01.0 -00.1	N 23 04.2 -00.2	304 53.7 +01.9	N 17 15.0 -00.1	142 41.0 -32.1	S 14 02.4 +12.0	06						
07	284 00.9 -00.1	N 23 04.0 -00.2	319 55.6 +01.9	N 17 14.9 -00.1	157 08.9 -32.2	S 14 14.4 +11.9	07						
08	299 00.8 -00.2	N 23 03.8 -00.1	334 57.5 +01.8	N 17 14.8 +00.0	171 36.7 -32.2	S 14 26.3 +11.9	08						
09	314 00.6 -00.1	N 23 03.7 -00.2	349 59.3 +01.9	N 17 14.8 -00.1	186 04.5 -32.3	S 14 38.2 +11.7	09						
10	329 00.5 -00.1	N 23 03.5 -00.2	5 01.2 +01.9	N 17 14.7 -00.1	200 32.2 -32.4	S 14 49.9 +11.6	10						
11	344 00.4 -00.1	N 23 03.3 -00.2	20 03.1 +01.8	N 17 14.6 -00.1	214 59.8 -32.4	S 15 01.5 +11.6	11						
12	359 00.3 -00.1	N 23 03.1 -00.2	35 04.9 +01.9	N 17 14.5 +00.0	229 27.4 -32.4	S 15 13.1 +11.5	12						
13	14 00.2 -00.2	N 23 02.9 -00.2	50 06.8 +01.8	N 17 14.5 -00.1	243 55.0 -32.5	S 15 24.6 +11.3	13						
14	29 00.0 -00.1	N 23 02.7 -00.1	65 08.6 +01.9	N 17 14.4 -00.1	258 22.5 -32.6	S 15 35.9 +11.3	14						
15	43 59.9 -00.1	N 23 02.6 -00.2	80 10.5 +01.8	N 17 14.3 +00.0	272 49.9 -32.6	S 15 47.2 +11.2	15						
16	58 59.8 -00.1	N 23 02.4 -00.2	95 12.3 +01.9	N 17 14.3 -00.1	287 17.3 -32.7	S 15 58.4 +11.1	16						
17	73 59.7 -00.1	N 23 02.2 -00.2	110 14.2 +01.8	N 17 14.2 +00.0	301 44.6 -32.8	S 16 09.5 +11.0	17						
18	88 59.6 -00.1	N 23 02.0 -00.2	125 16.0 +01.9	N 17 14.2 -00.1	316 11.8 -32.8	S 16 20.5 +10.8	18						
19	103 59.5 -00.2	N 23 01.8 -00.2	140 17.9 +01.8	N 17 14.1 -00.1	330 39.0 -32.9	S 16 31.3 +10.8	19						
20	118 59.3 -00.1	N 23 01.6 -00.1	155 19.7 +01.8	N 17 14.0 +00.0	345 06.1 -32.9	S 16 42.1 +10.7	20						
21	133 59.2 -00.1	N 23 01.5 -00.2	170 21.5 +01.9	N 17 14.0 -00.1	359 33.2 -33.0	S 16 52.8 +10.6	21						
22	148 59.1 -00.1	N 23 01.3 -00.2	185 23.4 +01.8	N 17 13.9 +00.0	14 00.2 -33.0	S 17 03.4 +10.5	22						
23	163 59.0 -00.1	N 23 01.1 -00.2	200 25.2 +01.8	N 17 13.9 -00.1	28 27.2 -33.1	S 17 13.9 +10.3	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 16'2 16'2 16'2 16'1 16'1 16'1								
	HP 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 59'3 59'3 59'3 59'3 59'2 59'2								
	SHA 259° 259° 259° 259° 259° 259°		SHA 295° 295° 295° 295° 295° 295°		SHA 135° 133° 131° 128° 126° 124°								
	Greenwich Culmination Time: 12:03		Greenwich Culmination Time: 09:39		Greenwich Culmination Time: 21:01								
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	276 38.6 +01.1	S 02 10.4 -00.5	343 32.7 +02.8	S 21 35.6 +00.0	337 12.6 +02.7	S 20 19.9 +00.0	00						
01	291 39.7 +01.0	S 02 09.9 -00.6	358 35.5 +02.8	S 21 35.6 +00.1	352 15.3 +02.6	S 20 19.9 +00.1	01						
02	306 40.7 +01.1	S 02 09.3 -00.5	13 38.3 +02.8	S 21 35.7 +00.0	7 17.9 +02.6	S 20 20.0 +00.0	02						
03	321 41.8 +01.1	S 02 08.8 -00.5	28 41.1 +02.8	S 21 35.7 +00.1	22 20.5 +02.7	S 20 20.0 +00.0	03						
04	336 42.9 +01.0	S 02 08.3 -00.6	43 43.9 +02.7	S 21 35.8 +00.1	37 23.2 +02.6	S 20 20.0 +00.1	04						
05	351 43.9 +01.1	S 02 07.7 -00.5	58 46.6 +02.8	S 21 35.9 +00.0	52 25.8 +02.6	S 20 20.1 +00.0	05						
06	6 45.0 +01.1	S 02 07.2 -00.5	73 49.4 +02.8	S 21 35.9 +00.1	67 28.4 +02.7	S 20 20.1 +00.0	06						
07	21 46.1 +01.1	S 02 06.7 -00.6	88 52.2 +02.8	S 21 36.0 +00.0	82 31.1 +02.6	S 20 20.1 +00.1	07						
08	36 47.2 +01.0	S 02 06.1 -00.5	103 55.0 +02.8	S 21 36.0 +00.1	97 33.7 +02.7	S 20 20.2 +00.0	08						
09	51 48.2 +01.1	S 02 05.6 -00.5	118 57.8 +02.8	S 21 36.1 +00.1	112 36.4 +02.6	S 20 20.2 +00.1	09						
10	66 49.3 +01.1	S 02 05.1 -00.6	134 00.6 +02.7	S 21 36.2 +00.0	127 39.0 +02.6	S 20 20.3 +00.0	10						
11	81 50.4 +01.1	S 02 04.5 -00.5	149 03.3 +02.8	S 21 36.2 +00.1	142 41.6 +02.7	S 20 20.3 +00.0	11						
12	96 51.5 +01.0	S 02 04.0 -00.6	164 06.1 +02.8	S 21 36.3 +00.0	157 44.3 +02.6	S 20 20.3 +00.1	12						
13	111 52.5 +01.1	S 02 03.4 -00.5	179 08.9 +02.8	S 21 36.3 +00.1	172 46.9 +02.6	S 20 20.4 +00.0	13						
14	126 53.6 +01.1	S 02 02.9 -00.5	194 11.7 +02.8	S 21 36.4 +00.1	187 49.5 +02.7	S 20 20.4 +00.1	14						
15	141 54.7 +01.1	S 02 02.4 -00.6	209 14.5 +02.8	S 21 36.5 +00.0	202 52.2 +02.6	S 20 20.5 +00.0	15						
16	156 55.8 +01.0	S 02 01.8 -00.5	224 17.3 +02.7	S 21 36.5 +00.1	217 54.8 +02.7	S 20 20.5 +00.0	16						
17	171 56.8 +01.1	S 02 01.3 -00.5	239 20.0 +02.8	S 21 36.6 +00.0	232 57.5 +02.6	S 20 20.5 +00.1	17						
18	186 57.9 +01.1	S 02 00.8 -00.6	254 22.8 +02.8	S 21 36.6 +00.1	248 00.1 +02.6	S 20 20.6 +00.0	18						
19	201 59.0 +01.1	S 02 00.2 -00.5	269 25.6 +02.8	S 21 36.7 +00.0	263 02.7 +02.7	S 20 20.6 +00.1	19						
20	217 00.1 +01.0	S 01 59.7 -00.5	284 28.4 +02.8	S 21 36.7 +00.1	278 05.4 +02.6	S 20 20.7 +00.0	20						
21	232 01.1 +01.1	S 01 59.2 -00.6	299 31.2 +02.8	S 21 36.8 +00.1	293 08.0 +02.6	S 20 20.7 +00.0	21						
22	247 02.2 +01.1	S 01 58.6 -00.5	314 34.0 +02.8	S 21 36.9 +00.0	308 10.6 +02.7	S 20 20.7 +00.1	22						
23	262 03.3 +01.1	S 01 58.1 -00.5	329 36.8 +02.7	S 21 36.9 +00.1	323 13.3 +02.6	S 20 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 00'1 00'1 00'1 00'1 00'1 00'1		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 357° 357° 357° 357° 357° 357°		SHA 064° 064° 064° 064° 064° 064°		SHA 058° 058° 058° 058° 058° 058°								
	Greenwich Culmination Time: 05:33		Greenwich Culmination Time: 01:05		Greenwich Culmination Time: 01:30								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 58.9 -00.1	N 23 00.9 -00.2	215 27.0 +01.8	N 17 13.8 +00.0	42 54.1 -33.2	S 17 24.2 +10.3	00						
01	193 58.8 -00.2	N 23 00.7 -00.2	230 28.8 +01.8	N 17 13.8 -00.1	57 20.9 -33.2	S 17 34.5 +10.1	01						
02	208 58.6 -00.1	N 23 00.5 -00.2	245 30.6 +01.8	N 17 13.7 +00.0	71 47.7 -33.2	S 17 44.6 +10.1	02						
03	223 58.5 -00.1	N 23 00.3 -00.2	260 32.4 +01.8	N 17 13.7 -00.1	86 14.5 -33.4	S 17 54.7 +09.9	03						
04	238 58.4 -00.1	N 23 00.1 -00.2	275 34.2 +01.8	N 17 13.6 +00.0	100 41.1 -33.4	S 18 04.6 +09.8	04						
05	253 58.3 -00.1	N 22 59.9 -00.2	290 36.0 +01.8	N 17 13.6 -00.1	115 07.7 -33.4	S 18 14.4 +09.7	05						
06	268 58.2 -00.1	N 22 59.7 -00.2	305 37.8 +01.8	N 17 13.5 +00.0	129 34.3 -33.5	S 18 24.1 +09.6	06						
07	283 58.1 -00.2	N 22 59.5 -00.1	320 39.6 +01.8	N 17 13.5 -00.1	144 00.8 -33.5	S 18 33.7 +09.5	07						
08	298 57.9 -00.1	N 22 59.4 -00.2	335 41.4 +01.8	N 17 13.4 +00.0	158 27.3 -33.7	S 18 43.2 +09.3	08						
09	313 57.8 -00.1	N 22 59.2 -00.2	350 43.2 +01.8	N 17 13.4 -00.1	172 53.6 -33.6	S 18 52.5 +09.2	09						
10	328 57.7 -00.1	N 22 59.0 -00.2	5 45.0 +01.8	N 17 13.3 +00.0	187 20.0 -33.7	S 19 01.7 +09.2	10						
11	343 57.6 -00.1	N 22 58.8 -00.2	20 46.8 +01.8	N 17 13.3 -00.1	201 46.3 -33.8	S 19 10.9 +08.9	11						
12	358 57.5 -00.1	N 22 58.6 -00.2	35 48.6 +01.7	N 17 13.2 +00.0	216 12.5 -33.8	S 19 19.8 +08.9	12						
13	13 57.4 -00.1	N 22 58.4 -00.2	50 50.3 +01.8	N 17 13.2 +00.0	230 38.7 -33.9	S 19 28.7 +08.8	13						
14	28 57.3 -00.2	N 22 58.2 -00.2	65 52.1 +01.8	N 17 13.2 -00.1	245 04.8 -33.9	S 19 37.5 +08.6	14						
15	43 57.1 -00.1	N 22 58.0 -00.2	80 53.9 +01.7	N 17 13.1 +00.0	259 30.9 -34.0	S 19 46.1 +08.5	15						
16	58 57.0 -00.1	N 22 57.8 -00.2	95 55.6 +01.8	N 17 13.1 +00.0	273 56.9 -34.1	S 19 54.6 +08.3	16						
17	73 56.9 -00.1	N 22 57.6 -00.2	110 57.4 +01.8	N 17 13.1 -00.1	288 22.8 -34.0	S 20 02.9 +08.3	17						
18	88 56.8 -00.1	N 22 57.4 -00.2	125 59.2 +01.7	N 17 13.0 +00.0	302 48.8 -34.2	S 20 11.2 +08.1	18						
19	103 56.7 -00.1	N 22 57.2 -00.2	141 00.9 +01.8	N 17 13.0 +00.0	317 14.6 -34.1	S 20 19.3 +07.9	19						
20	118 56.6 -00.1	N 22 57.0 -00.2	156 02.7 +01.7	N 17 13.0 -00.1	331 40.5 -34.3	S 20 27.2 +07.9	20						
21	133 56.5 -00.2	N 22 56.8 -00.2	171 04.4 +01.8	N 17 12.9 +00.0	346 06.2 -34.2	S 20 35.1 +07.7	21						
22	148 56.3 -00.1	N 22 56.6 -00.2	186 06.2 +01.7	N 17 12.9 +00.0	0 32.0 -34.4	S 20 42.8 +07.6	22						
23	163 56.2 -00.1	N 22 56.4 -00.3	201 07.9 +01.7	N 17 12.9 -00.1	14 57.6 -34.3	S 20 50.4 +07.4	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'4 00'4 00'4 00'4 00'3 00'3		SD 16'1 16'1 16'1 16'1 16'1 16'1								
	HP 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 59'2 59'1 59'1 59'0 59'0 58'9								
	SHA 258° 258° 258° 258° 258° 258°		SHA 295° 295° 295° 295° 295° 295°		SHA 121° 119° 116° 114° 112° 109°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 09:37		Greenwich Culmination Time: 21:57								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	277 04.4 +01.0	S 01 57.6 -00.6	344 39.5 +02.8	S 21 37.0 +00.0	338 15.9 +02.7	S 20 20.8 +00.1	00						
01	292 05.4 +01.1	S 01 57.0 -00.5	359 42.3 +02.8	S 21 37.0 +00.1	353 18.6 +02.6	S 20 20.9 +00.0	01						
02	307 06.5 +01.1	S 01 56.5 -00.5	14 45.1 +02.8	S 21 37.1 +00.1	8 21.2 +02.6	S 20 20.9 +00.0	02						
03	322 07.6 +01.1	S 01 56.0 -00.6	29 47.9 +02.8	S 21 37.2 +00.0	23 23.8 +02.7	S 20 20.9 +00.1	03						
04	337 08.7 +01.1	S 01 55.4 -00.5	44 50.7 +02.8	S 21 37.2 +00.1	38 26.5 +02.6	S 20 21.0 +00.0	04						
05	352 09.8 +01.0	S 01 54.9 -00.5	59 53.5 +02.8	S 21 37.3 +00.0	53 29.1 +02.7	S 20 21.0 +00.1	05						
06	7 10.8 +01.1	S 01 54.4 -00.6	74 56.3 +02.7	S 21 37.3 +00.1	68 31.8 +02.6	S 20 21.1 +00.0	06						
07	22 11.9 +01.1	S 01 53.8 -00.5	89 59.0 +02.8	S 21 37.4 +00.1	83 34.4 +02.6	S 20 21.1 +00.0	07						
08	37 13.0 +01.1	S 01 53.3 -00.5	105 01.8 +02.8	S 21 37.5 +00.0	98 37.0 +02.7	S 20 21.1 +00.1	08						
09	52 14.1 +01.1	S 01 52.8 -00.5	120 04.6 +02.8	S 21 37.5 +00.1	113 39.7 +02.6	S 20 21.2 +00.0	09						
10	67 15.2 +01.0	S 01 52.3 -00.6	135 07.4 +02.8	S 21 37.6 +00.0	128 42.3 +02.7	S 20 21.2 +00.1	10						
11	82 16.2 +01.1	S 01 51.7 -00.5	150 10.2 +02.8	S 21 37.6 +00.1	143 45.0 +02.6	S 20 21.3 +00.0	11						
12	97 17.3 +01.1	S 01 51.2 -00.5	165 13.0 +02.8	S 21 37.7 +00.1	158 47.6 +02.6	S 20 21.3 +00.0	12						
13	112 18.4 +01.1	S 01 50.7 -00.6	180 15.8 +02.7	S 21 37.8 +00.0	173 50.2 +02.7	S 20 21.3 +00.1	13						
14	127 19.5 +01.1	S 01 50.1 -00.5	195 18.5 +02.8	S 21 37.8 +00.1	188 52.9 +02.6	S 20 21.4 +00.0	14						
15	142 20.6 +01.1	S 01 49.6 -00.5	210 21.3 +02.8	S 21 37.9 +00.0	203 55.5 +02.7	S 20 21.4 +00.1	15						
16	157 21.7 +01.0	S 01 49.1 -00.6	225 24.1 +02.8	S 21 37.9 +00.1	218 58.2 +02.6	S 20 21.5 +00.0	16						
17	172 22.7 +01.1	S 01 48.5 -00.5	240 26.9 +02.8	S 21 38.0 +00.1	234 00.8 +02.6	S 20 21.5 +00.0	17						
18	187 23.8 +01.1	S 01 48.0 -00.5	255 29.7 +02.8	S 21 38.1 +00.0	249 03.4 +02.7	S 20 21.5 +00.1	18						
19	202 24.9 +01.1	S 01 47.5 -00.6	270 32.5 +02.8	S 21 38.1 +00.1	264 06.1 +02.6	S 20 21.6 +00.0	19						
20	217 26.0 +01.1	S 01 46.9 -00.5	285 35.3 +02.8	S 21 38.2 +00.0	279 08.7 +02.7	S 20 21.6 +00.1	20						
21	232 27.1 +01.1	S 01 46.4 -00.5	300 38.1 +02.7	S 21 38.2 +00.1	294 11.4 +02.6	S 20 21.7 +00.0	21						
22	247 28.2 +01.0	S 01 45.9 -00.5	315 40.8 +02.8	S 21 38.3 +00.0	309 14.0 +02.6	S 20 21.7 +00.0	22						
23	262 29.2 +01.1	S 01 45.4 -00.6	330 43.6 +02.8	S 21 38.3 +00.1	324 16.6 +02.7	S 20 21.7 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 357° 356° 356° 356° 356° 356°		SHA 064° 064° 064° 064° 064° 064°		SHA 058° 058° 058° 058° 058° 058°								
	Greenwich Culmination Time: 05:31		Greenwich Culmination Time: 01:01		Greenwich Culmination Time: 01:26								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 56.1 -00.1	N 22 56.1 -00.2	216 09.6 +01.8	N 17 12.8 +00.0	29 23.3 -34.4	S 20 57.8 +07.3	00						
01	193 56.0 -00.1	N 22 55.9 -00.2	231 11.4 +01.7	N 17 12.8 +00.0	43 48.9 -34.5	S 21 05.1 +07.2	01						
02	208 55.9 -00.1	N 22 55.7 -00.2	246 13.1 +01.7	N 17 12.8 +00.0	58 14.4 -34.5	S 21 12.3 +07.0	02						
03	223 55.8 -00.1	N 22 55.5 -00.2	261 14.8 +01.8	N 17 12.8 +00.0	72 39.9 -34.5	S 21 19.3 +06.9	03						
04	238 55.7 -00.2	N 22 55.3 -00.2	276 16.6 +01.7	N 17 12.8 -00.1	87 05.4 -34.6	S 21 26.2 +06.8	04						
05	253 55.5 -00.1	N 22 55.1 -00.2	291 18.3 +01.7	N 17 12.7 +00.0	101 30.8 -34.6	S 21 33.0 +06.6	05						
06	268 55.4 -00.1	N 22 54.9 -00.2	306 20.0 +01.7	N 17 12.7 +00.0	115 56.2 -34.6	S 21 39.6 +06.5	06						
07	283 55.3 -00.1	N 22 54.7 -00.2	321 21.7 +01.7	N 17 12.7 +00.0	130 21.6 -34.7	S 21 46.1 +06.3	07						
08	298 55.2 -00.1	N 22 54.5 -00.2	336 23.4 +01.7	N 17 12.7 +00.0	144 46.9 -34.7	S 21 52.4 +06.2	08						
09	313 55.1 -00.1	N 22 54.3 -00.2	351 25.1 +01.7	N 17 12.7 -00.1	159 12.2 -34.8	S 21 58.6 +06.1	09						
10	328 55.0 -00.1	N 22 54.1 -00.3	6 26.8 +01.7	N 17 12.6 +00.0	173 37.4 -34.8	S 22 04.7 +05.9	10						
11	343 54.9 -00.1	N 22 53.8 -00.2	21 28.5 +01.7	N 17 12.6 +00.0	188 02.6 -34.8	S 22 10.6 +05.7	11						
12	358 54.8 -00.1	N 22 53.6 -00.2	36 30.2 +01.7	N 17 12.6 +00.0	202 27.8 -34.8	S 22 16.3 +05.6	12						
13	13 54.7 -00.2	N 22 53.4 -00.2	51 31.9 +01.7	N 17 12.6 +00.0	216 53.0 -34.9	S 22 21.9 +05.5	13						
14	28 54.5 -00.1	N 22 53.2 -00.2	66 33.6 +01.7	N 17 12.6 +00.0	231 18.1 -34.9	S 22 27.4 +05.3	14						
15	43 54.4 -00.1	N 22 53.0 -00.2	81 35.3 +01.7	N 17 12.6 +00.0	245 43.2 -35.0	S 22 32.7 +05.2	15						
16	58 54.3 -00.1	N 22 52.8 -00.3	96 37.0 +01.7	N 17 12.6 +00.0	260 08.2 -34.9	S 22 37.9 +05.0	16						
17	73 54.2 -00.1	N 22 52.5 -00.2	111 38.7 +01.7	N 17 12.6 +00.0	274 33.3 -35.0	S 22 42.9 +04.9	17						
18	88 54.1 -00.1	N 22 52.3 -00.2	126 40.4 +01.6	N 17 12.6 +00.0	288 58.3 -35.0	S 22 47.8 +04.7	18						
19	103 54.0 -00.1	N 22 52.1 -00.2	141 42.0 +01.7	N 17 12.6 +00.0	303 23.3 -35.0	S 22 52.5 +04.6	19						
20	118 53.9 -00.1	N 22 51.9 -00.2	156 43.7 +01.7	N 17 12.6 -00.1	317 48.3 -35.0	S 22 57.1 +04.5	20						
21	133 53.8 -00.1	N 22 51.7 -00.2	171 45.4 +01.6	N 17 12.5 +00.0	332 13.3 -35.1	S 23 01.6 +04.2	21						
22	148 53.7 -00.2	N 22 51.5 -00.3	186 47.0 +01.7	N 17 12.5 +00.0	346 38.2 -35.0	S 23 05.8 +04.2	22						
23	163 53.5 -00.1	N 22 51.2 -00.2	201 48.7 +01.7	N 17 12.5 +00.0	1 03.2 -35.1	S 23 10.0 +04.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 16'0 16'0 16'0 16'0 16'0 15'9								
	HP 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 58'9 58'8 58'7 58'7 58'6 58'5								
	SHA 257° 257° 257° 257° 257° 257°		SHA 295° 295° 295° 295° 294° 294°		SHA 107° 104° 102° 099° 097° 094°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 09:34		Greenwich Culmination Time: 22:55								

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	277 30.3 +01.1	S 01 44.8 -00.5	345 46.4 +02.8	S 21 38.4 +00.1	339 19.3 +02.6	S 20 21.8 +00.0	00						
01	292 31.4 +01.1	S 01 44.3 -00.5	0 49.2 +02.8	S 21 38.5 +00.0	354 21.9 +02.7	S 20 21.8 +00.1	01						
02	307 32.5 +01.1	S 01 43.8 -00.6	15 52.0 +02.8	S 21 38.5 +00.1	9 24.6 +02.6	S 20 21.9 +00.0	02						
03	322 33.6 +01.1	S 01 43.2 -00.5	30 54.8 +02.8	S 21 38.6 +00.0	24 27.2 +02.6	S 20 21.9 +00.0	03						
04	337 34.7 +01.1	S 01 42.7 -00.5	45 57.6 +02.8	S 21 38.6 +00.1	39 29.8 +02.7	S 20 21.9 +00.1	04						
05	352 35.8 +01.0	S 01 42.2 -00.6	61 00.4 +02.8	S 21 38.7 +00.1	54 32.5 +02.6	S 20 22.0 +00.0	05						
06	7 36.8 +01.1	S 01 41.6 -00.5	76 03.2 +02.7	S 21 38.8 +00.0	69 35.1 +02.7	S 20 22.0 +00.0	06						
07	22 37.9 +01.1	S 01 41.1 -00.5	91 05.9 +02.8	S 21 38.8 +00.1	84 37.8 +02.6	S 20 22.0 +00.1	07						
08	37 39.0 +01.1	S 01 40.6 -00.5	106 08.7 +02.8	S 21 38.9 +00.0	99 40.4 +02.6	S 20 22.1 +00.0	08						
09	52 40.1 +01.1	S 01 40.1 -00.6	121 11.5 +02.8	S 21 38.9 +00.1	114 43.0 +02.7	S 20 22.1 +00.1	09						
10	67 41.2 +01.1	S 01 39.5 -00.5	136 14.3 +02.8	S 21 39.0 +00.1	129 45.7 +02.6	S 20 22.2 +00.0	10						
11	82 42.3 +01.1	S 01 39.0 -00.5	151 17.1 +02.8	S 21 39.1 +00.0	144 48.3 +02.7	S 20 22.2 +00.0	11						
12	97 43.4 +01.1	S 01 38.5 -00.5	166 19.9 +02.8	S 21 39.1 +00.1	159 51.0 +02.6	S 20 22.2 +00.1	12						
13	112 44.5 +01.1	S 01 38.0 -00.6	181 22.7 +02.8	S 21 39.2 +00.0	174 53.6 +02.6	S 20 22.3 +00.0	13						
14	127 45.6 +01.0	S 01 37.4 -00.5	196 25.5 +02.8	S 21 39.2 +00.1	189 56.2 +02.7	S 20 22.3 +00.1	14						
15	142 46.6 +01.1	S 01 36.9 -00.5	211 28.3 +02.7	S 21 39.3 +00.1	204 58.9 +02.6	S 20 22.4 +00.0	15						
16	157 47.7 +01.1	S 01 36.4 -00.6	226 31.0 +02.8	S 21 39.4 +00.0	220 01.5 +02.7	S 20 22.4 +00.0	16						
17	172 48.8 +01.1	S 01 35.8 -00.5	241 33.8 +02.8	S 21 39.4 +00.1	235 04.2 +02.6	S 20 22.4 +00.1	17						
18	187 49.9 +01.1	S 01 35.3 -00.5	256 36.6 +02.8	S 21 39.5 +00.0	250 06.8 +02.7	S 20 22.5 +00.0	18						
19	202 51.0 +01.1	S 01 34.8 -00.5	271 39.4 +02.8	S 21 39.5 +00.1	265 09.5 +02.6	S 20 22.5 +00.1	19						
20	217 52.1 +01.1	S 01 34.3 -00.6	286 42.2 +02.8	S 21 39.6 +00.1	280 12.1 +02.6	S 20 22.6 +00.0	20						
21	232 53.2 +01.1	S 01 33.7 -00.5	301 45.0 +02.8	S 21 39.7 +00.0	295 14.7 +02.7	S 20 22.6 +00.0	21						
22	247 54.3 +01.1	S 01 33.2 -00.5	316 47.8 +02.8	S 21 39.7 +00.1	310 17.4 +02.6	S 20 22.6 +00.1	22						
23	262 55.4 +01.1	S 01 32.7 -00.5	331 50.6 +02.8	S 21 39.8 +00.0	325 20.0 +02.7	S 20 22.7 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 356° 356° 356° 356° 356° 356°		SHA 064° 064° 064° 064° 064° 064°		SHA 058° 058° 058° 058° 058° 058°								
	Greenwich Culmination Time: 05:29		Greenwich Culmination Time: 00:56		Greenwich Culmination Time: 01:22								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 53.4 -00.1	N 22 51.0 -00.2	216 50.4 +01.6	N 17 12.5 +00.0	15 28.1 -35.1	S 23 14.0 +03.8	00						
01	193 53.3 -00.1	N 22 50.8 -00.2	231 52.0 +01.7	N 17 12.5 +00.0	29 53.0 -35.1	S 23 17.8 +03.7	01						
02	208 53.2 -00.1	N 22 50.6 -00.3	246 53.7 +01.6	N 17 12.5 +00.0	44 17.9 -35.1	S 23 21.5 +03.5	02						
03	223 53.1 -00.1	N 22 50.3 -00.2	261 55.3 +01.7	N 17 12.5 +00.1	58 42.8 -35.1	S 23 25.0 +03.4	03						
04	238 53.0 -00.1	N 22 50.1 -00.2	276 57.0 +01.6	N 17 12.6 +00.0	73 07.7 -35.1	S 23 28.4 +03.2	04						
05	253 52.9 -00.1	N 22 49.9 -00.2	291 58.6 +01.7	N 17 12.6 +00.0	87 32.6 -35.2	S 23 31.6 +03.1	05						
06	268 52.8 -00.1	N 22 49.7 -00.3	307 00.3 +01.6	N 17 12.6 +00.0	101 57.4 -35.1	S 23 34.7 +02.9	06						
07	283 52.7 -00.1	N 22 49.4 -00.2	322 01.9 +01.6	N 17 12.6 +00.0	116 22.3 -35.1	S 23 37.6 +02.7	07						
08	298 52.6 -00.1	N 22 49.2 -00.2	337 03.5 +01.7	N 17 12.6 +00.0	130 47.2 -35.2	S 23 40.3 +02.7	08						
09	313 52.5 -00.2	N 22 49.0 -00.3	352 05.2 +01.6	N 17 12.6 +00.0	145 12.0 -35.1	S 23 43.0 +02.4	09						
10	328 52.3 -00.1	N 22 48.7 -00.2	7 06.8 +01.6	N 17 12.6 +00.0	159 36.9 -35.1	S 23 45.4 +02.3	10						
11	343 52.2 -00.1	N 22 48.5 -00.2	22 08.4 +01.6	N 17 12.6 +00.0	174 01.8 -35.1	S 23 47.7 +02.2	11						
12	358 52.1 -00.1	N 22 48.3 -00.2	37 10.0 +01.7	N 17 12.6 +00.0	188 26.7 -35.1	S 23 49.9 +02.0	12						
13	13 52.0 -00.1	N 22 48.1 -00.3	52 11.7 +01.6	N 17 12.6 +00.1	202 51.6 -35.1	S 23 51.9 +01.8	13						
14	28 51.9 -00.1	N 22 47.8 -00.2	67 13.3 +01.6	N 17 12.7 +00.0	217 16.5 -35.1	S 23 53.7 +01.7	14						
15	43 51.8 -00.1	N 22 47.6 -00.2	82 14.9 +01.6	N 17 12.7 +00.0	231 41.4 -35.0	S 23 55.4 +01.5	15						
16	58 51.7 -00.1	N 22 47.4 -00.3	97 16.5 +01.6	N 17 12.7 +00.0	246 06.4 -35.1	S 23 56.9 +01.4	16						
17	73 51.6 -00.1	N 22 47.1 -00.2	112 18.1 +01.6	N 17 12.7 +00.0	260 31.3 -35.0	S 23 58.3 +01.2	17						
18	88 51.5 -00.1	N 22 46.9 -00.2	127 19.7 +01.6	N 17 12.7 +00.0	274 56.3 -35.1	S 23 59.5 +01.1	18						
19	103 51.4 -00.1	N 22 46.7 -00.3	142 21.3 +01.6	N 17 12.7 +00.1	289 21.2 -34.9	S 24 00.6 +00.9	19						
20	118 51.3 -00.1	N 22 46.4 -00.2	157 22.9 +01.6	N 17 12.8 +00.0	303 46.3 -35.0	S 24 01.5 +00.8	20						
21	133 51.2 -00.2	N 22 46.2 -00.3	172 24.5 +01.6	N 17 12.8 +00.0	318 11.3 -35.0	S 24 02.3 +00.6	21						
22	148 51.0 -00.1	N 22 45.9 -00.2	187 26.1 +01.6	N 17 12.8 +00.0	332 36.3 -34.9	S 24 02.9 +00.5	22						
23	163 50.9 -00.1	N 22 45.7 -00.2	202 27.7 +01.5	N 17 12.8 +00.1	347 01.4 -34.9	S 24 03.4 +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 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 15'9 15'9 15'9 15'8 15'8 15'8								
	HP 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 58'4 58'3 58'3 58'2 58'1 58'0								
	SHA 256° 256° 256° 256° 256° 255°		SHA 294° 294° 294° 294° 294° 294°		SHA 092° 089° 087° 084° 082° 079°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 09:31		Greenwich Culmination Time: 23:54								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	277 56.5 +01.1	S 01 32.2 -00.6	346 53.4 +02.8	S 21 39.8 +00.1	340 22.7 +02.6	S 20 22.7 +00.1	00						
01	292 57.6 +01.1	S 01 31.6 -00.5	1 56.2 +02.7	S 21 39.9 +00.0	355 25.3 +02.6	S 20 22.8 +00.0	01						
02	307 58.7 +01.1	S 01 31.1 -00.5	16 58.9 +02.8	S 21 39.9 +00.1	10 27.9 +02.7	S 20 22.8 +00.0	02						
03	322 59.8 +01.1	S 01 30.6 -00.5	32 01.7 +02.8	S 21 40.0 +00.1	25 30.6 +02.6	S 20 22.8 +00.1	03						
04	338 00.9 +01.0	S 01 30.1 -00.6	47 04.5 +02.8	S 21 40.1 +00.0	40 33.2 +02.7	S 20 22.9 +00.0	04						
05	353 01.9 +01.1	S 01 29.5 -00.5	62 07.3 +02.8	S 21 40.1 +00.1	55 35.9 +02.6	S 20 22.9 +00.1	05						
06	8 03.0 +01.1	S 01 29.0 -00.5	77 10.1 +02.8	S 21 40.2 +00.0	70 38.5 +02.7	S 20 23.0 +00.0	06						
07	23 04.1 +01.1	S 01 28.5 -00.5	92 12.9 +02.8	S 21 40.2 +00.1	85 41.2 +02.6	S 20 23.0 +00.0	07						
08	38 05.2 +01.1	S 01 28.0 -00.6	107 15.7 +02.8	S 21 40.3 +00.1	100 43.8 +02.6	S 20 23.0 +00.1	08						
09	53 06.3 +01.1	S 01 27.4 -00.5	122 18.5 +02.8	S 21 40.4 +00.0	115 46.4 +02.7	S 20 23.1 +00.0	09						
10	68 07.4 +01.1	S 01 26.9 -00.5	137 21.3 +02.8	S 21 40.4 +00.1	130 49.1 +02.6	S 20 23.1 +00.1	10						
11	83 08.5 +01.1	S 01 26.4 -00.5	152 24.1 +02.8	S 21 40.5 +00.0	145 51.7 +02.7	S 20 23.2 +00.0	11						
12	98 09.6 +01.1	S 01 25.9 -00.6	167 26.9 +02.8	S 21 40.5 +00.1	160 54.4 +02.6	S 20 23.2 +00.1	12						
13	113 10.7 +01.1	S 01 25.3 -00.5	182 29.7 +02.7	S 21 40.6 +00.1	175 57.0 +02.7	S 20 23.3 +00.0	13						
14	128 11.8 +01.1	S 01 24.8 -00.5	197 32.4 +02.8	S 21 40.7 +00.0	190 59.7 +02.6	S 20 23.3 +00.0	14						
15	143 12.9 +01.1	S 01 24.3 -00.5	212 35.2 +02.8	S 21 40.7 +00.1	206 02.3 +02.6	S 20 23.3 +00.1	15						
16	158 14.0 +01.1	S 01 23.8 -00.6	227 38.0 +02.8	S 21 40.8 +00.0	221 04.9 +02.7	S 20 23.4 +00.0	16						
17	173 15.1 +01.1	S 01 23.2 -00.5	242 40.8 +02.8	S 21 40.8 +00.1	236 07.6 +02.6	S 20 23.4 +00.1	17						
18	188 16.2 +01.1	S 01 22.7 -00.5	257 43.6 +02.8	S 21 40.9 +00.1	251 10.2 +02.7	S 20 23.5 +00.0	18						
19	203 17.3 +01.1	S 01 22.2 -00.5	272 46.4 +02.8	S 21 41.0 +00.0	266 12.9 +02.6	S 20 23.5 +00.0	19						
20	218 18.4 +01.1	S 01 21.7 -00.6	287 49.2 +02.8	S 21 41.0 +00.1	281 15.5 +02.7	S 20 23.5 +00.1	20						
21	233 19.5 +01.1	S 01 21.1 -00.5	302 52.0 +02.8	S 21 41.1 +00.0	296 18.2 +02.6	S 20 23.6 +00.0	21						
22	248 20.6 +01.1	S 01 20.6 -00.5	317 54.8 +02.8	S 21 41.1 +00.1	311 20.8 +02.6	S 20 23.6 +00.1	22						
23	263 21.7 +01.1	S 01 20.1 -00.5	332 57.6 +02.8	S 21 41.2 +00.1	326 23.4 +02.7	S 20 23.7 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 355° 355° 355° 355° 355° 355°		SHA 064° 064° 064° 065° 065° 065°		SHA 058° 058° 058° 058° 058° 058°								
	Greenwich Culmination Time: 05:27		Greenwich Culmination Time: 00:52		Greenwich Culmination Time: 01:18								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 50.8 -00.1	N 22 45.5 -00.3	217 29.2 +01.6	N 17 12.9 +00.0	1 26.5 -34.9	S 24 03.7 +00.2	00						
01	193 50.7 -00.1	N 22 45.2 -00.2	232 30.8 +01.6	N 17 12.9 +00.0	15 51.6 -34.8	S 24 03.9 +00.0	01						
02	208 50.6 -00.1	N 22 45.0 -00.2	247 32.4 +01.6	N 17 12.9 +00.0	30 16.8 -34.8	S 24 03.9 -00.1	02						
03	223 50.5 -00.1	N 22 44.8 -00.3	262 34.0 +01.5	N 17 12.9 +00.1	44 42.0 -34.8	S 24 03.8 -00.3	03						
04	238 50.4 -00.1	N 22 44.5 -00.2	277 35.5 +01.6	N 17 13.0 +00.0	59 07.2 -34.7	S 24 03.5 -00.5	04						
05	253 50.3 -00.1	N 22 44.3 -00.3	292 37.1 +01.6	N 17 13.0 +00.0	73 32.5 -34.7	S 24 03.0 -00.6	05						
06	268 50.2 -00.1	N 22 44.0 -00.2	307 38.7 +01.5	N 17 13.0 +00.1	87 57.8 -34.7	S 24 02.4 -00.7	06						
07	283 50.1 -00.1	N 22 43.8 -00.3	322 40.2 +01.6	N 17 13.1 +00.0	102 23.1 -34.6	S 24 01.7 -00.9	07						
08	298 50.0 -00.1	N 22 43.5 -00.2	337 41.8 +01.6	N 17 13.1 +00.0	116 48.5 -34.6	S 24 00.8 -01.0	08						
09	313 49.9 -00.1	N 22 43.3 -00.3	352 43.4 +01.5	N 17 13.1 +00.1	131 13.9 -34.5	S 23 59.8 -01.2	09						
10	328 49.8 -00.1	N 22 43.0 -00.2	7 44.9 +01.6	N 17 13.2 +00.0	145 39.4 -34.5	S 23 58.6 -01.3	10						
11	343 49.7 -00.1	N 22 42.8 -00.2	22 46.5 +01.5	N 17 13.2 +00.0	160 04.9 -34.4	S 23 57.3 -01.5	11						
12	358 49.6 -00.1	N 22 42.6 -00.3	37 48.0 +01.6	N 17 13.2 +00.1	174 30.5 -34.4	S 23 55.8 -01.6	12						
13	13 49.5 -00.1	N 22 42.3 -00.2	52 49.6 +01.5	N 17 13.3 +00.0	188 56.1 -34.4	S 23 54.2 -01.8	13						
14	28 49.4 -00.1	N 22 42.1 -00.3	67 51.1 +01.5	N 17 13.3 +00.1	203 21.7 -34.2	S 23 52.4 -01.9	14						
15	43 49.3 -00.1	N 22 41.8 -00.2	82 52.6 +01.6	N 17 13.4 +00.0	217 47.5 -34.3	S 23 50.5 -02.0	15						
16	58 49.2 -00.2	N 22 41.6 -00.3	97 54.2 +01.5	N 17 13.4 +00.0	232 13.2 -34.2	S 23 48.5 -02.2	16						
17	73 49.0 -00.1	N 22 41.3 -00.2	112 55.7 +01.5	N 17 13.4 +00.1	246 39.0 -34.1	S 23 46.3 -02.3	17						
18	88 48.9 -00.1	N 22 41.1 -00.3	127 57.2 +01.5	N 17 13.5 +00.0	261 04.9 -34.1	S 23 44.0 -02.5	18						
19	103 48.8 -00.1	N 22 40.8 -00.2	142 58.7 +01.6	N 17 13.5 +00.1	275 30.8 -34.0	S 23 41.5 -02.6	19						
20	118 48.7 -00.1	N 22 40.6 -00.3	158 00.3 +01.5	N 17 13.6 +00.0	289 56.8 -33.9	S 23 38.9 -02.8	20						
21	133 48.6 -00.1	N 22 40.3 -00.3	173 01.8 +01.5	N 17 13.6 +00.1	304 22.9 -33.9	S 23 36.1 -02.9	21						
22	148 48.5 -00.1	N 22 40.0 -00.2	188 03.3 +01.5	N 17 13.7 +00.0	318 49.0 -33.8	S 23 33.2 -03.0	22						
23	163 48.4 -00.1	N 22 39.8 -00.3	203 04.8 +01.5	N 17 13.7 +00.1	333 15.2 -33.8	S 23 30.2 -03.2	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 15'8 15'7 15'7 15'7 15'7 15'6								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'4 00'4 00'4 00'4 00'4 00'3		HP 57'9 57'8 57'7 57'6 57'5 57'4								
	SHA 255° 255° 255° 255° 255° 254°		SHA 294° 294° 294° 294° 294° 294°		SHA 077° 074° 072° 069° 067° 064°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 09:29		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	278 22.8 +01.1	S 01 19.6 -00.5	348 00.4 +02.8	S 21 41.3 +00.0	341 26.1 +02.6	S 20 23.7 +00.0	00						
01	293 23.9 +01.1	S 01 19.1 -00.6	3 03.2 +02.8	S 21 41.3 +00.1	356 28.7 +02.7	S 20 23.7 +00.1	01						
02	308 25.0 +01.1	S 01 18.5 -00.5	18 06.0 +02.8	S 21 41.4 +00.0	11 31.4 +02.6	S 20 23.8 +00.0	02						
03	323 26.1 +01.1	S 01 18.0 -00.5	33 08.8 +02.8	S 21 41.4 +00.1	26 34.0 +02.7	S 20 23.8 +00.1	03						
04	338 27.2 +01.1	S 01 17.5 -00.5	48 11.6 +02.7	S 21 41.5 +00.1	41 36.7 +02.6	S 20 23.9 +00.0	04						
05	353 28.3 +01.1	S 01 17.0 -00.6	63 14.3 +02.8	S 21 41.6 +00.0	56 39.3 +02.7	S 20 23.9 +00.0	05						
06	8 29.4 +01.1	S 01 16.4 -00.5	78 17.1 +02.8	S 21 41.6 +00.1	71 42.0 +02.6	S 20 23.9 +00.1	06						
07	23 30.5 +01.1	S 01 15.9 -00.5	93 19.9 +02.8	S 21 41.7 +00.0	86 44.6 +02.6	S 20 24.0 +00.0	07						
08	38 31.6 +01.1	S 01 15.4 -00.5	108 22.7 +02.8	S 21 41.7 +00.1	101 47.2 +02.7	S 20 24.0 +00.1	08						
09	53 32.7 +01.1	S 01 14.9 -00.5	123 25.5 +02.8	S 21 41.8 +00.1	116 49.9 +02.6	S 20 24.1 +00.0	09						
10	68 33.8 +01.1	S 01 14.4 -00.6	138 28.3 +02.8	S 21 41.9 +00.0	131 52.5 +02.7	S 20 24.1 +00.0	10						
11	83 34.9 +01.2	S 01 13.8 -00.5	153 31.1 +02.8	S 21 41.9 +00.1	146 55.2 +02.6	S 20 24.1 +00.1	11						
12	98 36.1 +01.1	S 01 13.3 -00.5	168 33.9 +02.8	S 21 42.0 +00.0	161 57.8 +02.7	S 20 24.2 +00.0	12						
13	113 37.2 +01.1	S 01 12.8 -00.5	183 36.7 +02.8	S 21 42.0 +00.1	177 00.5 +02.6	S 20 24.2 +00.1	13						
14	128 38.3 +01.1	S 01 12.3 -00.5	198 39.5 +02.8	S 21 42.1 +00.1	192 03.1 +02.7	S 20 24.3 +00.0	14						
15	143 39.4 +01.1	S 01 11.8 -00.6	213 42.3 +02.8	S 21 42.2 +00.0	207 05.8 +02.6	S 20 24.3 +00.0	15						
16	158 40.5 +01.1	S 01 11.2 -00.5	228 45.1 +02.8	S 21 42.2 +00.1	222 08.4 +02.6	S 20 24.3 +00.1	16						
17	173 41.6 +01.1	S 01 10.7 -00.5	243 47.9 +02.8	S 21 42.3 +00.0	237 11.0 +02.7	S 20 24.4 +00.0	17						
18	188 42.7 +01.1	S 01 10.2 -00.5	258 50.7 +02.8	S 21 42.3 +00.1	252 13.7 +02.6	S 20 24.4 +00.1	18						
19	203 43.8 +01.1	S 01 09.7 -00.5	273 53.5 +02.8	S 21 42.4 +00.0	267 16.3 +02.7	S 20 24.5 +00.0	19						
20	218 44.9 +01.1	S 01 09.2 -00.6	288 56.3 +02.8	S 21 42.4 +00.1	282 19.0 +02.6	S 20 24.5 +00.0	20						
21	233 46.0 +01.1	S 01 08.6 -00.5	303 59.1 +02.8	S 21 42.5 +00.1	297 21.6 +02.7	S 20 24.5 +00.1	21						
22	248 47.1 +01.1	S 01 08.1 -00.5	319 01.9 +02.7	S 21 42.6 +00.0	312 24.3 +02.6	S 20 24.6 +00.0	22						
23	263 48.2 +01.1	S 01 07.6 -00.5	334 04.6 +02.8	S 21 42.6 +00.1	327 26.9 +02.7	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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 355° 355° 355° 355° 355° 354°		SHA 065° 065° 065° 065° 065° 065°		SHA 058° 058° 058° 058° 058° 058°								
	Greenwich Culmination Time: 05:26		Greenwich Culmination Time: 00:47		Greenwich Culmination Time: 01:14								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 48.3 -00.1	N 22 39.5 -00.2	218 06.3 +01.5	N 17 13.8 +00.0	347 41.4 -33.7	S 23 27.0 -03.3	00						
01	193 48.2 -00.1	N 22 39.3 -00.3	233 07.8 +01.5	N 17 13.8 +00.1	2 07.7 -33.6	S 23 23.7 -03.4	01						
02	208 48.1 -00.1	N 22 39.0 -00.2	248 09.3 +01.5	N 17 13.9 +00.0	16 34.1 -33.6	S 23 20.3 -03.6	02						
03	223 48.0 -00.1	N 22 38.8 -00.3	263 10.8 +01.5	N 17 13.9 +00.1	31 00.5 -33.5	S 23 16.7 -03.7	03						
04	238 47.9 -00.1	N 22 38.5 -00.2	278 12.3 +01.5	N 17 14.0 +00.0	45 27.0 -33.4	S 23 13.0 -03.8	04						
05	253 47.8 -00.1	N 22 38.3 -00.3	293 13.8 +01.5	N 17 14.0 +00.1	59 53.6 -33.4	S 23 09.2 -04.0	05						
06	268 47.7 -00.1	N 22 38.0 -00.3	308 15.3 +01.5	N 17 14.1 +00.0	74 20.2 -33.3	S 23 05.2 -04.1	06						
07	283 47.6 -00.1	N 22 37.7 -00.2	323 16.8 +01.5	N 17 14.1 +00.1	88 46.9 -33.2	S 23 01.1 -04.2	07						
08	298 47.5 -00.1	N 22 37.5 -00.3	338 18.3 +01.5	N 17 14.2 +00.0	103 13.7 -33.2	S 22 56.9 -04.4	08						
09	313 47.4 -00.1	N 22 37.2 -00.2	353 19.8 +01.5	N 17 14.2 +00.1	117 40.5 -33.0	S 22 52.5 -04.5	09						
10	328 47.3 -00.1	N 22 37.0 -00.3	8 21.3 +01.4	N 17 14.3 +00.1	132 07.5 -33.0	S 22 48.0 -04.6	10						
11	343 47.2 -00.1	N 22 36.7 -00.3	23 22.7 +01.5	N 17 14.4 +00.0	146 34.5 -32.9	S 22 43.4 -04.7	11						
12	358 47.1 -00.1	N 22 36.4 -00.2	38 24.2 +01.5	N 17 14.4 +00.1	161 01.6 -32.9	S 22 38.7 -04.9	12						
13	13 47.0 -00.1	N 22 36.2 -00.3	53 25.7 +01.4	N 17 14.5 +00.0	175 28.7 -32.7	S 22 33.8 -05.0	13						
14	28 46.9 -00.1	N 22 35.9 -00.3	68 27.1 +01.5	N 17 14.5 +00.1	189 56.0 -32.7	S 22 28.8 -05.1	14						
15	43 46.8 -00.1	N 22 35.6 -00.2	83 28.6 +01.5	N 17 14.6 +00.1	204 23.3 -32.6	S 22 23.7 -05.2	15						
16	58 46.7 -00.1	N 22 35.4 -00.3	98 30.1 +01.4	N 17 14.7 +00.0	218 50.7 -32.5	S 22 18.5 -05.4	16						
17	73 46.6 -00.1	N 22 35.1 -00.3	113 31.5 +01.5	N 17 14.7 +00.1	233 18.2 -32.5	S 22 13.1 -05.4	17						
18	88 46.5 -00.1	N 22 34.8 -00.2	128 33.0 +01.4	N 17 14.8 +00.1	247 45.7 -32.3	S 22 07.7 -05.6	18						
19	103 46.4 -00.1	N 22 34.6 -00.3	143 34.4 +01.5	N 17 14.9 +00.0	262 13.4 -32.3	S 22 02.1 -05.7	19						
20	118 46.3 -00.1	N 22 34.3 -00.3	158 35.9 +01.4	N 17 14.9 +00.1	276 41.1 -32.2	S 21 56.4 -05.9	20						
21	133 46.2 -00.1	N 22 34.0 -00.2	173 37.3 +01.5	N 17 15.0 +00.1	291 08.9 -32.1	S 21 50.5 -05.9	21						
22	148 46.1 -00.1	N 22 33.8 -00.3	188 38.8 +01.4	N 17 15.1 +00.0	305 36.8 -32.1	S 21 44.6 -06.0	22						
23	163 46.0 -00.1	N 22 33.5 -00.3	203 40.2 +01.5	N 17 15.1 +00.1	320 04.7 -31.9	S 21 38.6 -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 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 15'6 15'6 15'5 15'5 15'5 15'4								
	HP 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 57'2 57'1 57'0 56'9 56'8 56'7								
	SHA 254° 254° 254° 254° 254° 253°		SHA 294° 294° 294° 293° 293° 293°		SHA 062° 060° 057° 055° 053° 050°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 09:26		Greenwich Culmination Time: 00:51								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	278 49.3 +01.1	S 01 07.1 -00.5	349 07.4 +02.8	S 21 42.7 +00.0	342 29.6 +02.6	S 20 24.7 +00.0	00						
01	293 50.4 +01.2	S 01 06.6 -00.6	4 10.2 +02.8	S 21 42.7 +00.1	357 32.2 +02.6	S 20 24.7 +00.0	01						
02	308 51.6 +01.1	S 01 06.0 -00.5	19 13.0 +02.8	S 21 42.8 +00.1	12 34.8 +02.7	S 20 24.7 +00.1	02						
03	323 52.7 +01.1	S 01 05.5 -00.5	34 15.8 +02.8	S 21 42.9 +00.0	27 37.5 +02.6	S 20 24.8 +00.0	03						
04	338 53.8 +01.1	S 01 05.0 -00.5	49 18.6 +02.8	S 21 42.9 +00.1	42 40.1 +02.7	S 20 24.8 +00.1	04						
05	353 54.9 +01.1	S 01 04.5 -00.5	64 21.4 +02.8	S 21 43.0 +00.0	57 42.8 +02.6	S 20 24.9 +00.0	05						
06	8 56.0 +01.1	S 01 04.0 -00.5	79 24.2 +02.8	S 21 43.0 +00.1	72 45.4 +02.7	S 20 24.9 +00.0	06						
07	23 57.1 +01.1	S 01 03.5 -00.6	94 27.0 +02.8	S 21 43.1 +00.1	87 48.1 +02.6	S 20 24.9 +00.1	07						
08	38 58.2 +01.1	S 01 02.9 -00.5	109 29.8 +02.8	S 21 43.2 +00.0	102 50.7 +02.7	S 20 25.0 +00.0	08						
09	53 59.3 +01.2	S 01 02.4 -00.5	124 32.6 +02.8	S 21 43.2 +00.1	117 53.4 +02.6	S 20 25.0 +00.1	09						
10	69 00.5 +01.1	S 01 01.9 -00.5	139 35.4 +02.8	S 21 43.3 +00.0	132 56.0 +02.7	S 20 25.1 +00.0	10						
11	84 01.6 +01.1	S 01 01.4 -00.5	154 38.2 +02.8	S 21 43.3 +00.1	147 58.7 +02.6	S 20 25.1 +00.0	11						
12	99 02.7 +01.1	S 01 00.9 -00.5	169 41.0 +02.8	S 21 43.4 +00.1	163 01.3 +02.6	S 20 25.1 +00.1	12						
13	114 03.8 +01.1	S 01 00.4 -00.6	184 43.8 +02.8	S 21 43.5 +00.0	178 03.9 +02.7	S 20 25.2 +00.0	13						
14	129 04.9 +01.1	S 00 59.8 -00.5	199 46.6 +02.8	S 21 43.5 +00.1	193 06.6 +02.6	S 20 25.2 +00.1	14						
15	144 06.0 +01.1	S 00 59.3 -00.5	214 49.4 +02.8	S 21 43.6 +00.0	208 09.2 +02.7	S 20 25.3 +00.0	15						
16	159 07.1 +01.2	S 00 58.8 -00.5	229 52.2 +02.8	S 21 43.6 +00.1	223 11.9 +02.6	S 20 25.3 +00.1	16						
17	174 08.3 +01.1	S 00 58.3 -00.5	244 55.0 +02.8	S 21 43.7 +00.1	238 14.5 +02.7	S 20 25.4 +00.0	17						
18	189 09.4 +01.1	S 00 57.8 -00.5	259 57.8 +02.8	S 21 43.8 +00.0	253 17.2 +02.6	S 20 25.4 +00.0	18						
19	204 10.5 +01.1	S 00 57.3 -00.6	275 00.6 +02.8	S 21 43.8 +00.1	268 19.8 +02.7	S 20 25.4 +00.1	19						
20	219 11.6 +01.1	S 00 56.7 -00.5	290 03.4 +02.8	S 21 43.9 +00.0	283 22.5 +02.6	S 20 25.5 +00.0	20						
21	234 12.7 +01.1	S 00 56.2 -00.5	305 06.2 +02.8	S 21 43.9 +00.1	298 25.1 +02.7	S 20 25.5 +00.1	21						
22	249 13.8 +01.1	S 00 55.7 -00.5	320 09.0 +02.8	S 21 44.0 +00.1	313 27.8 +02.6	S 20 25.6 +00.0	22						
23	264 14.9 +01.2	S 00 55.2 -00.5	335 11.8 +02.8	S 21 44.1 +00.0	328 30.4 +02.7	S 20 25.6 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 354° 354° 354° 354° 354° 354°		SHA 065° 065° 065° 065° 065° 065°		SHA 058° 058° 058° 058° 058° 058°								
	Greenwich Culmination Time: 05:24		Greenwich Culmination Time: 00:43		Greenwich Culmination Time: 01:09								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 45.9 -00.1	N 22 33.2 -00.3	218 41.7 +01.4	N 17 15.2 +00.1	334 32.8 -31.9	S 21 32.4 -06.3	00						
01	193 45.8 -00.1	N 22 32.9 -00.2	233 43.1 +01.4	N 17 15.3 +00.1	349 00.9 -31.8	S 21 26.1 -06.3	01						
02	208 45.7 -00.1	N 22 32.7 -00.3	248 44.5 +01.5	N 17 15.4 +00.0	3 29.1 -31.6	S 21 19.8 -06.5	02						
03	223 45.6 -00.1	N 22 32.4 -00.3	263 46.0 +01.4	N 17 15.4 +00.1	17 57.5 -31.6	S 21 13.3 -06.6	03						
04	238 45.5 -00.1	N 22 32.1 -00.3	278 47.4 +01.4	N 17 15.5 +00.1	32 25.9 -31.6	S 21 06.7 -06.7	04						
05	253 45.4 -00.1	N 22 31.8 -00.2	293 48.8 +01.4	N 17 15.6 +00.1	46 54.3 -31.4	S 20 60.0 -06.8	05						
06	268 45.3 -00.1	N 22 31.6 -00.3	308 50.2 +01.4	N 17 15.7 +00.0	61 22.9 -31.3	S 20 53.2 -06.9	06						
07	283 45.2 -00.1	N 22 31.3 -00.3	323 51.6 +01.5	N 17 15.7 +00.1	75 51.6 -31.3	S 20 46.3 -07.1	07						
08	298 45.1 -00.1	N 22 31.0 -00.3	338 53.1 +01.4	N 17 15.8 +00.1	90 20.3 -31.2	S 20 39.2 -07.1	08						
09	313 45.0 -00.1	N 22 30.7 -00.2	353 54.5 +01.4	N 17 15.9 +00.1	104 49.1 -31.1	S 20 32.1 -07.2	09						
10	328 44.9 -00.1	N 22 30.5 -00.3	8 55.9 +01.4	N 17 16.0 +00.1	119 18.0 -31.0	S 20 24.9 -07.3	10						
11	343 44.8 -00.1	N 22 30.2 -00.3	23 57.3 +01.4	N 17 16.1 +00.0	133 47.0 -30.9	S 20 17.6 -07.4	11						
12	358 44.7 -00.1	N 22 29.9 -00.3	38 58.7 +01.4	N 17 16.1 +00.1	148 16.1 -30.8	S 20 10.2 -07.5	12						
13	13 44.6 -00.1	N 22 29.6 -00.3	54 00.1 +01.4	N 17 16.2 +00.1	162 45.3 -30.7	S 20 02.7 -07.6	13						
14	28 44.5 -00.1	N 22 29.3 -00.2	69 01.5 +01.4	N 17 16.3 +00.1	177 14.6 -30.7	S 19 55.1 -07.7	14						
15	43 44.4 -00.1	N 22 29.1 -00.3	84 02.9 +01.4	N 17 16.4 +00.1	191 43.9 -30.5	S 19 47.4 -07.8	15						
16	58 44.3 -00.1	N 22 28.8 -00.3	99 04.3 +01.4	N 17 16.5 +00.1	206 13.4 -30.5	S 19 39.6 -07.9	16						
17	73 44.2 -00.1	N 22 28.5 -00.3	114 05.7 +01.3	N 17 16.6 +00.0	220 42.9 -30.4	S 19 31.7 -08.0	17						
18	88 44.1 +00.0	N 22 28.2 -00.3	129 07.0 +01.4	N 17 16.6 +00.1	235 12.5 -30.3	S 19 23.7 -08.1	18						
19	103 44.1 -00.1	N 22 27.9 -00.3	144 08.4 +01.4	N 17 16.7 +00.1	249 42.2 -30.2	S 19 15.6 -08.1	19						
20	118 44.0 -00.1	N 22 27.6 -00.2	159 09.8 +01.4	N 17 16.8 +00.1	264 12.0 -30.1	S 19 07.5 -08.3	20						
21	133 43.9 -00.1	N 22 27.4 -00.3	174 11.2 +01.4	N 17 16.9 +00.1	278 41.9 -30.0	S 18 59.2 -08.3	21						
22	148 43.8 -00.1	N 22 27.1 -00.3	189 12.6 +01.3	N 17 17.0 +00.1	293 11.9 -30.0	S 18 50.9 -08.4	22						
23	163 43.7 -00.1	N 22 26.8 -00.3	204 13.9 +01.4	N 17 17.1 +00.1	307 41.9 -29.8	S 18 42.5 -08.5	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		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 00'3 00'3 00'3 00'3 00'3 00'3		HP 56'6 56'5 56'4 56'3 56'1 56'0								
	SHA 253° 253° 253° 253° 253° 252°		SHA 293° 293° 293° 293° 293° 293°		SHA 048° 046° 043° 041° 039° 037°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 09:24		Greenwich Culmination Time: 01:45								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	279 16.1 +01.1	S 00 54.7 -00.5	350 14.6 +02.8	S 21 44.1 +00.1	343 33.1 +02.6	S 20 25.6 +00.1	00						
01	294 17.2 +01.1	S 00 54.2 -00.5	5 17.4 +02.8	S 21 44.2 +00.0	358 35.7 +02.6	S 20 25.7 +00.0	01						
02	309 18.3 +01.1	S 00 53.7 -00.6	20 20.2 +02.8	S 21 44.2 +00.1	13 38.3 +02.7	S 20 25.7 +00.1	02						
03	324 19.4 +01.1	S 00 53.1 -00.5	35 23.0 +02.8	S 21 44.3 +00.1	28 41.0 +02.6	S 20 25.8 +00.0	03						
04	339 20.5 +01.2	S 00 52.6 -00.5	50 25.8 +02.8	S 21 44.4 +00.0	43 43.6 +02.7	S 20 25.8 +00.0	04						
05	354 21.7 +01.1	S 00 52.1 -00.5	65 28.6 +02.8	S 21 44.4 +00.1	58 46.3 +02.6	S 20 25.8 +00.1	05						
06	9 22.8 +01.1	S 00 51.6 -00.5	80 31.4 +02.7	S 21 44.5 +00.0	73 48.9 +02.7	S 20 25.9 +00.0	06						
07	24 23.9 +01.1	S 00 51.1 -00.5	95 34.1 +02.8	S 21 44.5 +00.1	88 51.6 +02.6	S 20 25.9 +00.1	07						
08	39 25.0 +01.1	S 00 50.6 -00.5	110 36.9 +02.8	S 21 44.6 +00.1	103 54.2 +02.7	S 20 26.0 +00.0	08						
09	54 26.1 +01.2	S 00 50.1 -00.6	125 39.7 +02.8	S 21 44.7 +00.0	118 56.9 +02.6	S 20 26.0 +00.0	09						
10	69 27.3 +01.1	S 00 49.5 -00.5	140 42.5 +02.8	S 21 44.7 +00.1	133 59.5 +02.7	S 20 26.0 +00.1	10						
11	84 28.4 +01.1	S 00 49.0 -00.5	155 45.3 +02.8	S 21 44.8 +00.0	149 02.2 +02.6	S 20 26.1 +00.0	11						
12	99 29.5 +01.1	S 00 48.5 -00.5	170 48.1 +02.8	S 21 44.8 +00.1	164 04.8 +02.7	S 20 26.1 +00.1	12						
13	114 30.6 +01.2	S 00 48.0 -00.5	185 50.9 +02.8	S 21 44.9 +00.1	179 07.5 +02.6	S 20 26.2 +00.0	13						
14	129 31.8 +01.1	S 00 47.5 -00.5	200 53.7 +02.8	S 21 45.0 +00.0	194 10.1 +02.7	S 20 26.2 +00.0	14						
15	144 32.9 +01.1	S 00 47.0 -00.5	215 56.5 +02.8	S 21 45.0 +00.1	209 12.8 +02.6	S 20 26.2 +00.1	15						
16	159 34.0 +01.1	S 00 46.5 -00.5	230 59.3 +02.8	S 21 45.1 +00.0	224 15.4 +02.7	S 20 26.3 +00.0	16						
17	174 35.1 +01.1	S 00 46.0 -00.6	246 02.1 +02.8	S 21 45.1 +00.1	239 18.1 +02.6	S 20 26.3 +00.1	17						
18	189 36.2 +01.2	S 00 45.4 -00.5	261 04.9 +02.8	S 21 45.2 +00.1	254 20.7 +02.6	S 20 26.4 +00.0	18						
19	204 37.4 +01.1	S 00 44.9 -00.5	276 07.7 +02.8	S 21 45.3 +00.0	269 23.3 +02.7	S 20 26.4 +00.1	19						
20	219 38.5 +01.1	S 00 44.4 -00.5	291 10.5 +02.8	S 21 45.3 +00.1	284 26.0 +02.6	S 20 26.5 +00.0	20						
21	234 39.6 +01.1	S 00 43.9 -00.5	306 13.3 +02.8	S 21 45.4 +00.0	299 28.6 +02.7	S 20 26.5 +00.0	21						
22	249 40.7 +01.2	S 00 43.4 -00.5	321 16.1 +02.8	S 21 45.4 +00.1	314 31.3 +02.6	S 20 26.5 +00.1	22						
23	264 41.9 +01.1	S 00 42.9 -00.5	336 18.9 +02.8	S 21 45.5 +00.0	329 33.9 +02.7	S 20 26.6 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 354° 354° 354° 354° 353° 353°		SHA 065° 065° 065° 065° 065° 065°		SHA 058° 058° 058° 058° 058° 058°								
	Greenwich Culmination Time: 05:22		Greenwich Culmination Time: 00:38		Greenwich Culmination Time: 01:05								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 43.6 -00.1	N 22 26.5 -00.3	219 15.3 +01.4	N 17 17.2 +00.1	322 12.1 -29.8	S 18 34.0 -08.6	00						
01	193 43.5 -00.1	N 22 26.2 -00.3	234 16.7 +01.3	N 17 17.3 +00.1	336 42.3 -29.7	S 18 25.4 -08.7	01						
02	208 43.4 -00.1	N 22 25.9 -00.3	249 18.0 +01.4	N 17 17.4 +00.1	351 12.6 -29.6	S 18 16.7 -08.7	02						
03	223 43.3 -00.1	N 22 25.6 -00.3	264 19.4 +01.3	N 17 17.5 +00.1	5 43.0 -29.5	S 18 08.0 -08.8	03						
04	238 43.2 -00.1	N 22 25.3 -00.2	279 20.7 +01.4	N 17 17.6 +00.1	20 13.5 -29.4	S 17 59.2 -08.9	04						
05	253 43.1 -00.1	N 22 25.1 -00.3	294 22.1 +01.4	N 17 17.7 +00.1	34 44.1 -29.3	S 17 50.3 -09.0	05						
06	268 43.0 -00.1	N 22 24.8 -00.3	309 23.5 +01.3	N 17 17.8 +00.1	49 14.8 -29.3	S 17 41.3 -09.1	06						
07	283 42.9 -00.1	N 22 24.5 -00.3	324 24.8 +01.3	N 17 17.9 +00.1	63 45.5 -29.2	S 17 32.2 -09.1	07						
08	298 42.8 -00.1	N 22 24.2 -00.3	339 26.1 +01.4	N 17 18.0 +00.1	78 16.3 -29.1	S 17 23.1 -09.2	08						
09	313 42.7 -00.1	N 22 23.9 -00.3	354 27.5 +01.3	N 17 18.1 +00.1	92 47.2 -29.0	S 17 13.9 -09.3	09						
10	328 42.6 -00.1	N 22 23.6 -00.3	9 28.8 +01.4	N 17 18.2 +00.1	107 18.2 -28.9	S 17 04.6 -09.3	10						
11	343 42.5 -00.1	N 22 23.3 -00.3	24 30.2 +01.3	N 17 18.3 +00.1	121 49.3 -28.8	S 16 55.3 -09.4	11						
12	358 42.4 +00.0	N 22 23.0 -00.3	39 31.5 +01.3	N 17 18.4 +00.1	136 20.5 -28.8	S 16 45.9 -09.5	12						
13	13 42.4 -00.1	N 22 22.7 -00.3	54 32.8 +01.4	N 17 18.5 +00.1	150 51.7 -28.6	S 16 36.4 -09.6	13						
14	28 42.3 -00.1	N 22 22.4 -00.3	69 34.2 +01.3	N 17 18.6 +00.1	165 23.1 -28.6	S 16 26.8 -09.6	14						
15	43 42.2 -00.1	N 22 22.1 -00.3	84 35.5 +01.3	N 17 18.7 +00.1	179 54.5 -28.5	S 16 17.2 -09.7	15						
16	58 42.1 -00.1	N 22 21.8 -00.3	99 36.8 +01.3	N 17 18.8 +00.1	194 26.0 -28.5	S 16 07.5 -09.8	16						
17	73 42.0 -00.1	N 22 21.5 -00.3	114 38.1 +01.3	N 17 18.9 +00.1	208 57.5 -28.3	S 15 57.7 -09.8	17						
18	88 41.9 -00.1	N 22 21.2 -00.3	129 39.4 +01.4	N 17 19.0 +00.1	223 29.2 -28.3	S 15 47.9 -09.9	18						
19	103 41.8 -00.1	N 22 20.9 -00.3	144 40.8 +01.3	N 17 19.1 +00.1	238 00.9 -28.2	S 15 38.0 -09.9	19						
20	118 41.7 -00.1	N 22 20.6 -00.3	159 42.1 +01.3	N 17 19.2 +00.1	252 32.7 -28.1	S 15 28.1 -10.0	20						
21	133 41.6 -00.1	N 22 20.3 -00.3	174 43.4 +01.3	N 17 19.3 +00.1	267 04.6 -28.0	S 15 18.1 -10.1	21						
22	148 41.5 -00.1	N 22 20.0 -00.3	189 44.7 +01.3	N 17 19.4 +00.1	281 36.6 -28.0	S 15 08.0 -10.1	22						
23	163 41.4 -00.1	N 22 19.7 -00.3	204 46.0 +01.3	N 17 19.5 +00.1	296 08.6 -27.9	S 14 57.9 -10.2	23						
UT 02 06 10 14 18 22	SD 15'7 15'7 15'7 15'7 15'7 15'7	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 252° 252° 252° 252° 252° 251°	Greenwich Culmination Time: 12:05									
UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'3 00'3 00'3 00'3 00'3 00'3	SHA 293° 293° 293° 293° 293° 292°	Greenwich Culmination Time: 09:22									
UT 02 06 10 14 18 22	SD 15'2 15'2 15'2 15'2 15'1 15'1	HP 55'9 55'8 55'7 55'6 55'5 55'4	SHA 035° 033° 030° 028° 026° 024°	Greenwich Culmination Time: 02:36									

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	279 43.0 +01.1	S 00 42.4 -00.5	351 21.7 +02.8	S 21 45.5 +00.1	344 36.6 +02.6	S 20 26.6 +00.1	00						
01	294 44.1 +01.2	S 00 41.9 -00.5	6 24.5 +02.8	S 21 45.6 +00.1	359 39.2 +02.7	S 20 26.7 +00.0	01						
02	309 45.3 +01.1	S 00 41.4 -00.5	21 27.3 +02.8	S 21 45.7 +00.0	14 41.9 +02.6	S 20 26.7 +00.0	02						
03	324 46.4 +01.1	S 00 40.9 -00.6	36 30.1 +02.8	S 21 45.7 +00.1	29 44.5 +02.7	S 20 26.7 +00.1	03						
04	339 47.5 +01.1	S 00 40.3 -00.5	51 32.9 +02.8	S 21 45.8 +00.0	44 47.2 +02.6	S 20 26.8 +00.0	04						
05	354 48.6 +01.2	S 00 39.8 -00.5	66 35.7 +02.8	S 21 45.8 +00.1	59 49.8 +02.7	S 20 26.8 +00.1	05						
06	9 49.8 +01.1	S 00 39.3 -00.5	81 38.5 +02.8	S 21 45.9 +00.1	74 52.5 +02.6	S 20 26.9 +00.0	06						
07	24 50.9 +01.1	S 00 38.8 -00.5	96 41.3 +02.8	S 21 46.0 +00.0	89 55.1 +02.7	S 20 26.9 +00.0	07						
08	39 52.0 +01.2	S 00 38.3 -00.5	111 44.1 +02.8	S 21 46.0 +00.1	104 57.8 +02.6	S 20 26.9 +00.1	08						
09	54 53.2 +01.1	S 00 37.8 -00.5	126 46.9 +02.8	S 21 46.1 +00.0	120 00.4 +02.7	S 20 27.0 +00.0	09						
10	69 54.3 +01.1	S 00 37.3 -00.5	141 49.7 +02.8	S 21 46.1 +00.1	135 03.1 +02.6	S 20 27.0 +00.1	10						
11	84 55.4 +01.1	S 00 36.8 -00.5	156 52.5 +02.8	S 21 46.2 +00.1	150 05.7 +02.7	S 20 27.1 +00.0	11						
12	99 56.5 +01.2	S 00 36.3 -00.5	171 55.3 +02.8	S 21 46.3 +00.0	165 08.4 +02.6	S 20 27.1 +00.0	12						
13	114 57.7 +01.1	S 00 35.8 -00.5	186 58.1 +02.8	S 21 46.3 +00.1	180 11.0 +02.7	S 20 27.1 +00.1	13						
14	129 58.8 +01.1	S 00 35.3 -00.6	202 00.9 +02.8	S 21 46.4 +00.0	195 13.7 +02.6	S 20 27.2 +00.0	14						
15	144 59.9 +01.2	S 00 34.7 -00.5	217 03.7 +02.8	S 21 46.4 +00.1	210 16.3 +02.7	S 20 27.2 +00.1	15						
16	160 01.1 +01.1	S 00 34.2 -00.5	232 06.5 +02.8	S 21 46.5 +00.1	225 19.0 +02.6	S 20 27.3 +00.0	16						
17	175 02.2 +01.1	S 00 33.7 -00.5	247 09.3 +02.8	S 21 46.6 +00.0	240 21.6 +02.7	S 20 27.3 +00.1	17						
18	190 03.3 +01.2	S 00 33.2 -00.5	262 12.1 +02.8	S 21 46.6 +00.1	255 24.3 +02.6	S 20 27.4 +00.0	18						
19	205 04.5 +01.1	S 00 32.7 -00.5	277 14.9 +02.8	S 21 46.7 +00.0	270 26.9 +02.7	S 20 27.4 +00.0	19						
20	220 05.6 +01.1	S 00 32.2 -00.5	292 17.7 +02.8	S 21 46.7 +00.1	285 29.6 +02.6	S 20 27.4 +00.1	20						
21	235 06.7 +01.2	S 00 31.7 -00.5	307 20.5 +02.8	S 21 46.8 +00.1	300 32.2 +02.7	S 20 27.5 +00.0	21						
22	250 07.9 +01.1	S 00 31.2 -00.5	322 23.3 +02.8	S 21 46.9 +00.0	315 34.9 +02.6	S 20 27.5 +00.1	22						
23	265 09.0 +01.1	S 00 30.7 -00.5	337 26.1 +02.8	S 21 46.9 +00.1	330 37.5 +02.7	S 20 27.6 +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 353° 353° 353° 353° 353° 353°	Greenwich Culmination Time: 05:20									
UT 02 06 10 14 18 22	SD 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	SHA 065° 065° 065° 065° 065° 065°	Greenwich Culmination Time: 00:34									
UT 02 06 10 14 18 22	SD 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	SHA 058° 058° 058° 058° 058° 058°	Greenwich Culmination Time: 01:01									

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 64%				UT
	GHA ° / ' / "	ddGHA	Dec ° / ' / "	dDec	GHA ° / ' / "	ddGHA	Dec ° / ' / "	dDec	GHA ° / ' / "	ddGHA	Dec ° / ' / "	dDec	
00	178 41.3 +00.0	N 22	19.4 -00.3		219 47.3 +01.3	N 17	19.6 +00.2		310 40.7 -27.8	S 14	47.7 -10.2		00
01	193 41.3 -00.1	N 22	19.1 -00.3		234 48.6 +01.3	N 17	19.8 +00.1		325 12.9 -27.7	S 14	37.5 -10.3		01
02	208 41.2 -00.1	N 22	18.8 -00.3		249 49.9 +01.3	N 17	19.9 +00.1		339 45.2 -27.7	S 14	27.2 -10.3		02
03	223 41.1 -00.1	N 22	18.5 -00.3		264 51.2 +01.3	N 17	20.0 +00.1		354 17.5 -27.5	S 14	16.9 -10.4		03
04	238 41.0 -00.1	N 22	18.2 -00.3		279 52.5 +01.3	N 17	20.1 +00.1		8 50.0 -27.6	S 14	06.5 -10.5		04
05	253 40.9 -00.1	N 22	17.9 -00.3		294 53.8 +01.2	N 17	20.2 +00.1		23 22.4 -27.4	S 13	56.0 -10.5		05
06	268 40.8 -00.1	N 22	17.6 -00.3		309 55.0 +01.3	N 17	20.3 +00.1		37 55.0 -27.4	S 13	45.5 -10.6		06
07	283 40.7 -00.1	N 22	17.3 -00.4		324 56.3 +01.3	N 17	20.4 +00.2		52 27.6 -27.3	S 13	34.9 -10.6		07
08	298 40.6 -00.1	N 22	16.9 -00.3		339 57.6 +01.3	N 17	20.6 +00.1		67 00.3 -27.2	S 13	24.3 -10.6		08
09	313 40.5 -00.1	N 22	16.6 -00.3		354 58.9 +01.3	N 17	20.7 +00.1		81 33.1 -27.1	S 13	13.7 -10.7		09
10	328 40.4 +00.0	N 22	16.3 -00.3		10 00.2 +01.2	N 17	20.8 +00.1		96 06.0 -27.1	S 13	03.0 -10.8		10
11	343 40.4 -00.1	N 22	16.0 -00.3		25 01.4 +01.3	N 17	20.9 +00.1		110 38.9 -27.1	S 12	52.2 -10.8		11
12	358 40.3 -00.1	N 22	15.7 -00.3		40 02.7 +01.3	N 17	21.0 +00.2		125 11.8 -26.9	S 12	41.4 -10.8		12
13	13 40.2 -00.1	N 22	15.4 -00.3		55 04.0 +01.2	N 17	21.2 +00.1		139 44.9 -26.9	S 12	30.6 -10.9		13
14	28 40.1 -00.1	N 22	15.1 -00.3		70 05.2 +01.3	N 17	21.3 +00.1		154 18.0 -26.8	S 12	19.7 -10.9		14
15	43 40.0 -00.1	N 22	14.8 -00.3		85 06.5 +01.2	N 17	21.4 +00.1		168 51.2 -26.8	S 12	08.8 -11.0		15
16	58 39.9 -00.1	N 22	14.5 -00.4		100 07.7 +01.3	N 17	21.5 +00.2		183 24.4 -26.7	S 11	57.8 -11.0		16
17	73 39.8 -00.1	N 22	14.1 -00.3		115 09.0 +01.3	N 17	21.7 +00.1		197 57.7 -26.6	S 11	46.8 -11.0		17
18	88 39.7 +00.0	N 22	13.8 -00.3		130 10.3 +01.2	N 17	21.8 +00.1		212 31.1 -26.6	S 11	35.8 -11.1		18
19	103 39.7 -00.1	N 22	13.5 -00.3		145 11.5 +01.3	N 17	21.9 +00.1		227 04.5 -26.5	S 11	24.7 -11.2		19
20	118 39.6 -00.1	N 22	13.2 -00.3		160 12.8 +01.2	N 17	22.0 +00.2		241 38.0 -26.5	S 11	13.5 -11.1		20
21	133 39.5 -00.1	N 22	12.9 -00.3		175 14.0 +01.2	N 17	22.2 +00.1		256 11.5 -26.3	S 11	02.4 -11.2		21
22	148 39.4 -00.1	N 22	12.6 -00.4		190 15.2 +01.3	N 17	22.3 +00.1		270 45.2 -26.4	S 10	51.2 -11.3		22
23	163 39.3 -00.1	N 22	12.2 -00.3		205 16.5 +01.2	N 17	22.4 +00.2		285 18.8 -26.3	S 10	39.9 -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 15'7 15'7 15'7 15'7 15'7 15'7				SD 00'3 00'3 00'3 00'3 00'3 00'3				SD 15'1 15'1 15'0 15'0 15'0 15'0				
	HP 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 55'3 55'2 55'2 55'1 55'0 54'9				
	SHA 251° 251° 251° 251° 251° 250°				SHA 292° 292° 292° 292° 292° 292°				SHA 022° 020° 018° 016° 014° 012°				
	Greenwich Culmination Time: 12:05				Greenwich Culmination Time: 09:20				Greenwich Culmination Time: 03:23				

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° / ' / "	ddGHA	Dec ° / ' / "	dDec	GHA ° / ' / "	ddGHA	Dec ° / ' / "	dDec	GHA ° / ' / "	ddGHA	Dec ° / ' / "	dDec	
00	280 10.1 +01.2	S 00	30.2 -00.5		352 28.9 +02.8	S 21	47.0 +00.0		345 40.2 +02.6	S 20	27.6 +00.0		00
01	295 11.3 +01.1	S 00	29.7 -00.5		7 31.7 +02.8	S 21	47.0 +00.1		0 42.8 +02.7	S 20	27.6 +00.1		01
02	310 12.4 +01.1	S 00	29.2 -00.5		22 34.5 +02.8	S 21	47.1 +00.1		15 45.5 +02.6	S 20	27.7 +00.0		02
03	325 13.5 +01.2	S 00	28.7 -00.5		37 37.3 +02.8	S 21	47.2 +00.0		30 48.1 +02.7	S 20	27.7 +00.1		03
04	340 14.7 +01.1	S 00	28.2 -00.5		52 40.1 +02.8	S 21	47.2 +00.1		45 50.8 +02.6	S 20	27.8 +00.0		04
05	355 15.8 +01.2	S 00	27.7 -00.6		67 42.9 +02.8	S 21	47.3 +00.0		60 53.4 +02.6	S 20	27.8 +00.0		05
06	10 17.0 +01.1	S 00	27.1 -00.5		82 45.7 +02.9	S 21	47.3 +00.1		75 56.0 +02.7	S 20	27.8 +00.1		06
07	25 18.1 +01.1	S 00	26.6 -00.5		97 48.6 +02.8	S 21	47.4 +00.1		90 58.7 +02.6	S 20	27.9 +00.0		07
08	40 19.2 +01.2	S 00	26.1 -00.5		112 51.4 +02.8	S 21	47.5 +00.0		106 01.3 +02.7	S 20	27.9 +00.1		08
09	55 20.4 +01.1	S 00	25.6 -00.5		127 54.2 +02.8	S 21	47.5 +00.1		121 04.0 +02.6	S 20	28.0 +00.0		09
10	70 21.5 +01.1	S 00	25.1 -00.5		142 57.0 +02.8	S 21	47.6 +00.0		136 06.6 +02.7	S 20	28.0 +00.1		10
11	85 22.6 +01.2	S 00	24.6 -00.5		157 59.8 +02.8	S 21	47.6 +00.1		151 09.3 +02.6	S 20	28.1 +00.0		11
12	100 23.8 +01.1	S 00	24.1 -00.5		173 02.6 +02.8	S 21	47.7 +00.0		166 11.9 +02.7	S 20	28.1 +00.0		12
13	115 24.9 +01.2	S 00	23.6 -00.5		188 05.4 +02.8	S 21	47.7 +00.1		181 14.6 +02.6	S 20	28.1 +00.1		13
14	130 26.1 +01.1	S 00	23.1 -00.5		203 08.2 +02.8	S 21	47.8 +00.1		196 17.2 +02.7	S 20	28.2 +00.0		14
15	145 27.2 +01.1	S 00	22.6 -00.5		218 11.0 +02.8	S 21	47.9 +00.0		211 19.9 +02.6	S 20	28.2 +00.1		15
16	160 28.3 +01.2	S 00	22.1 -00.5		233 13.8 +02.8	S 21	47.9 +00.1		226 22.5 +02.7	S 20	28.3 +00.0		16
17	175 29.5 +01.1	S 00	21.6 -00.5		248 16.6 +02.8	S 21	48.0 +00.0		241 25.2 +02.6	S 20	28.3 +00.0		17
18	190 30.6 +01.2	S 00	21.1 -00.5		263 19.4 +02.8	S 21	48.0 +00.1		256 27.8 +02.7	S 20	28.3 +00.1		18
19	205 31.8 +01.1	S 00	20.6 -00.5		278 22.2 +02.8	S 21	48.1 +00.1		271 30.5 +02.6	S 20	28.4 +00.0		19
20	220 32.9 +01.2	S 00	20.1 -00.5		293 25.0 +02.8	S 21	48.2 +00.0		286 33.1 +02.7	S 20	28.4 +00.1		20
21	235 34.1 +01.1	S 00	19.6 -00.5		308 27.8 +02.8	S 21	48.2 +00.1		301 35.8 +02.6	S 20	28.5 +00.0		21
22	250 35.2 +01.1	S 00	19.1 -00.5		323 30.6 +02.8	S 21	48.3 +00.0		316 38.4 +02.7	S 20	28.5 +00.0		22
23	265 36.3 +01.2	S 00	18.6 -00.5		338 33.4 +02.8	S 21	48.3 +00.1		331 41.1 +02.6	S 20	28.5 +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 00'4 00'4 00'4 00'4 00'4 00'4				SD 00'2 00'2 00'2 00'2 00'2 00'2				
	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 353° 353° 353° 352° 352° 352°				SHA 065° 065° 065° 065° 065° 065°				SHA 058° 058° 058° 058° 058° 058°				
	Greenwich Culmination Time: 05:18				Greenwich Culmination Time: 00:29				Greenwich Culmination Time: 00:57				

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 39.2 -00.1	N 22 11.9 -00.3	220 17.7 +01.2	N 17 22.6 +00.1	299 52.5 -26.2	S 10 28.6 -11.3	00						
01	193 39.1 -00.1	N 22 11.6 -00.3	235 18.9 +01.3	N 17 22.7 +00.1	314 26.3 -26.1	S 10 17.3 -11.3	01						
02	208 39.0 +00.0	N 22 11.3 -00.3	250 20.2 +01.2	N 17 22.8 +00.1	329 00.2 -26.2	S 10 06.0 -11.4	02						
03	223 39.0 -00.1	N 22 11.0 -00.4	265 21.4 +01.2	N 17 22.9 +00.2	343 34.0 -26.0	S 09 54.6 -11.4	03						
04	238 38.9 -00.1	N 22 10.6 -00.3	280 22.6 +01.3	N 17 23.1 +00.1	358 08.0 -26.0	S 09 43.2 -11.4	04						
05	253 38.8 -00.1	N 22 10.3 -00.3	295 23.9 +01.2	N 17 23.2 +00.1	12 42.0 -26.0	S 09 31.8 -11.5	05						
06	268 38.7 -00.1	N 22 10.0 -00.3	310 25.1 +01.2	N 17 23.3 +00.2	27 16.0 -25.9	S 09 20.3 -11.5	06						
07	283 38.6 -00.1	N 22 09.7 -00.4	325 26.3 +01.2	N 17 23.5 +00.1	41 50.1 -25.8	S 09 08.8 -11.5	07						
08	298 38.5 -00.1	N 22 09.3 -00.3	340 27.5 +01.2	N 17 23.6 +00.1	56 24.3 -25.8	S 08 57.3 -11.6	08						
09	313 38.4 +00.0	N 22 09.0 -00.3	355 28.7 +01.2	N 17 23.7 +00.2	70 58.5 -25.8	S 08 45.7 -11.6	09						
10	328 38.4 -00.1	N 22 08.7 -00.3	10 29.9 +01.2	N 17 23.9 +00.1	85 32.7 -25.7	S 08 34.1 -11.6	10						
11	343 38.3 -00.1	N 22 08.4 -00.4	25 31.1 +01.2	N 17 24.0 +00.2	100 07.0 -25.6	S 08 22.5 -11.6	11						
12	358 38.2 -00.1	N 22 08.0 -00.3	40 32.3 +01.2	N 17 24.2 +00.1	114 41.4 -25.7	S 08 10.9 -11.7	12						
13	13 38.1 -00.1	N 22 07.7 -00.3	55 33.5 +01.2	N 17 24.3 +00.1	129 15.7 -25.5	S 07 59.2 -11.7	13						
14	28 38.0 -00.1	N 22 07.4 -00.4	70 34.7 +01.2	N 17 24.4 +00.2	143 50.2 -25.6	S 07 47.5 -11.7	14						
15	43 37.9 +00.0	N 22 07.0 -00.3	85 35.9 +01.2	N 17 24.6 +00.1	158 24.6 -25.4	S 07 35.8 -11.7	15						
16	58 37.9 -00.1	N 22 06.7 -00.3	100 37.1 +01.2	N 17 24.7 +00.2	172 59.2 -25.5	S 07 24.1 -11.8	16						
17	73 37.8 -00.1	N 22 06.4 -00.4	115 38.3 +01.2	N 17 24.9 +00.1	187 33.7 -25.4	S 07 12.3 -11.7	17						
18	88 37.7 -00.1	N 22 06.0 -00.3	130 39.5 +01.2	N 17 25.0 +00.1	202 08.3 -25.3	S 07 00.6 -11.8	18						
19	103 37.6 -00.1	N 22 05.7 -00.3	145 40.7 +01.2	N 17 25.1 +00.2	216 43.0 -25.4	S 06 48.8 -11.9	19						
20	118 37.5 -00.1	N 22 05.4 -00.3	160 41.9 +01.2	N 17 25.3 +00.1	231 17.6 -25.3	S 06 36.9 -11.8	20						
21	133 37.4 +00.0	N 22 05.1 -00.4	175 43.1 +01.1	N 17 25.4 +00.2	245 52.3 -25.2	S 06 25.1 -11.8	21						
22	148 37.4 -00.1	N 22 04.7 -00.3	190 44.2 +01.2	N 17 25.6 +00.1	260 27.1 -25.2	S 06 13.3 -11.9	22						
23	163 37.3 -00.1	N 22 04.4 -00.4	205 45.4 +01.2	N 17 25.7 +00.2	275 01.9 -25.2	S 06 01.4 -11.9	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		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 00'3 00'3 00'3 00'3 00'3 00'3		HP 54'8 54'8 54'7 54'6 54'6 54'5								
	SHA 250° 250° 250° 250° 250° 249°		SHA 292° 292° 292° 292° 292° 291°		SHA 011° 009° 007° 005° 003° 001°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 09:18		Greenwich Culmination Time: 04:07								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	280 37.5 +01.1	S 00 18.1 -00.5	353 36.2 +02.8	S 21 48.4 +00.1	346 43.7 +02.7	S 20 28.6 +00.0	00						
01	295 38.6 +01.2	S 00 17.6 -00.5	8 39.0 +02.8	S 21 48.5 +00.0	1 46.4 +02.6	S 20 28.6 +00.1	01						
02	310 39.8 +01.1	S 00 17.1 -00.5	23 41.8 +02.8	S 21 48.5 +00.1	16 49.0 +02.7	S 20 28.7 +00.0	02						
03	325 40.9 +01.2	S 00 16.6 -00.5	38 44.6 +02.8	S 21 48.6 +00.0	31 51.7 +02.6	S 20 28.7 +00.1	03						
04	340 42.1 +01.1	S 00 16.1 -00.5	53 47.4 +02.8	S 21 48.6 +00.1	46 54.3 +02.7	S 20 28.8 +00.0	04						
05	355 43.2 +01.2	S 00 15.6 -00.5	68 50.2 +02.8	S 21 48.7 +00.1	61 57.0 +02.7	S 20 28.8 +00.0	05						
06	10 44.4 +01.1	S 00 15.1 -00.5	83 53.0 +02.8	S 21 48.8 +00.0	76 59.7 +02.6	S 20 28.8 +00.1	06						
07	25 45.5 +01.2	S 00 14.6 -00.5	98 55.8 +02.8	S 21 48.8 +00.1	92 02.3 +02.7	S 20 28.9 +00.0	07						
08	40 46.7 +01.1	S 00 14.1 -00.5	113 58.6 +02.8	S 21 48.9 +00.0	107 05.0 +02.6	S 20 28.9 +00.1	08						
09	55 47.8 +01.2	S 00 13.6 -00.5	129 01.4 +02.8	S 21 48.9 +00.1	122 07.6 +02.7	S 20 29.0 +00.0	09						
10	70 49.0 +01.1	S 00 13.1 -00.5	144 04.2 +02.8	S 21 49.0 +00.1	137 10.3 +02.6	S 20 29.0 +00.0	10						
11	85 50.1 +01.2	S 00 12.6 -00.5	159 07.0 +02.8	S 21 49.1 +00.0	152 12.9 +02.7	S 20 29.0 +00.1	11						
12	100 51.3 +01.1	S 00 12.1 -00.5	174 09.8 +02.8	S 21 49.1 +00.1	167 15.6 +02.6	S 20 29.1 +00.0	12						
13	115 52.4 +01.2	S 00 11.6 -00.5	189 12.6 +02.8	S 21 49.2 +00.0	182 18.2 +02.7	S 20 29.1 +00.1	13						
14	130 53.6 +01.1	S 00 11.1 -00.5	204 15.4 +02.8	S 21 49.2 +00.1	197 20.9 +02.6	S 20 29.2 +00.0	14						
15	145 54.7 +01.2	S 00 10.6 -00.5	219 18.2 +02.8	S 21 49.3 +00.1	212 23.5 +02.7	S 20 29.2 +00.0	15						
16	160 55.9 +01.1	S 00 10.1 -00.5	234 21.0 +02.8	S 21 49.4 +00.0	227 26.2 +02.6	S 20 29.2 +00.1	16						
17	175 57.0 +01.2	S 00 09.6 -00.5	249 23.8 +02.8	S 21 49.4 +00.1	242 28.8 +02.7	S 20 29.3 +00.0	17						
18	190 58.2 +01.1	S 00 09.1 -00.5	264 26.6 +02.8	S 21 49.5 +00.0	257 31.5 +02.6	S 20 29.3 +00.1	18						
19	205 59.3 +01.2	S 00 08.6 -00.5	279 29.4 +02.8	S 21 49.5 +00.1	272 34.1 +02.7	S 20 29.4 +00.0	19						
20	221 00.5 +01.1	S 00 08.1 -00.5	294 32.2 +02.9	S 21 49.6 +00.0	287 36.8 +02.6	S 20 29.4 +00.1	20						
21	236 01.6 +01.2	S 00 07.6 -00.5	309 35.1 +02.8	S 21 49.6 +00.1	302 39.4 +02.7	S 20 29.5 +00.0	21						
22	251 02.8 +01.1	S 00 07.1 -00.5	324 37.9 +02.8	S 21 49.7 +00.1	317 42.1 +02.6	S 20 29.5 +00.0	22						
23	266 03.9 +01.2	S 00 06.6 -00.5	339 40.7 +02.8	S 21 49.8 +00.0	332 44.7 +02.7	S 20 29.5 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 352° 352° 352° 352° 352° 352°		SHA 065° 065° 065° 065° 065° 065°		SHA 058° 058° 058° 058° 058° 058°								
	Greenwich Culmination Time: 05:17		Greenwich Culmination Time: 00:25		Greenwich Culmination Time: 00:52								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 37.2 -00.1	N 22 04.0 -00.3	220 46.6 +01.2	N 17 25.9 +00.1	289 36.7 -25.1	S 05 49.5 -11.9	00						
01	193 37.1 -00.1	N 22 03.7 -00.3	235 47.8 +01.1	N 17 26.0 +00.2	304 11.6 -25.1	S 05 37.6 -11.9	01						
02	208 37.0 -00.1	N 22 03.4 -00.4	250 48.9 +01.2	N 17 26.2 +00.1	318 46.5 -25.1	S 05 25.7 -12.0	02						
03	223 36.9 +00.0	N 22 03.0 -00.3	265 50.1 +01.2	N 17 26.3 +00.2	333 21.4 -25.1	S 05 13.7 -11.9	03						
04	238 36.9 -00.1	N 22 02.7 -00.3	280 51.3 +01.1	N 17 26.5 +00.1	347 56.3 -25.0	S 05 01.8 -12.0	04						
05	253 36.8 -00.1	N 22 02.4 -00.4	295 52.4 +01.2	N 17 26.6 +00.2	2 31.3 -25.0	S 04 49.8 -11.9	05						
06	268 36.7 -00.1	N 22 02.0 -00.3	310 53.6 +01.1	N 17 26.8 +00.1	17 06.3 -24.9	S 04 37.9 -12.0	06						
07	283 36.6 -00.1	N 22 01.7 -00.4	325 54.7 +01.2	N 17 26.9 +00.2	31 41.4 -25.0	S 04 25.9 -12.0	07						
08	298 36.5 +00.0	N 22 01.3 -00.3	340 55.9 +01.1	N 17 27.1 +00.1	46 16.4 -24.9	S 04 13.9 -12.0	08						
09	313 36.5 -00.1	N 22 01.0 -00.3	355 57.0 +01.2	N 17 27.2 +00.2	60 51.5 -24.9	S 04 01.9 -12.1	09						
10	328 36.4 -00.1	N 22 00.7 -00.4	10 58.2 +01.1	N 17 27.4 +00.1	75 26.6 -24.8	S 03 49.8 -12.0	10						
11	343 36.3 -00.1	N 22 00.3 -00.3	25 59.3 +01.2	N 17 27.5 +00.2	90 01.8 -24.9	S 03 37.8 -12.0	11						
12	358 36.2 -00.1	N 21 60.0 -00.4	41 00.5 +01.1	N 17 27.7 +00.1	104 36.9 -24.8	S 03 25.8 -12.1	12						
13	13 36.1 +00.0	N 21 59.6 -00.3	56 01.6 +01.1	N 17 27.8 +00.2	119 12.1 -24.8	S 03 13.7 -12.0	13						
14	28 36.1 -00.1	N 21 59.3 -00.4	71 02.7 +01.2	N 17 28.0 +00.1	133 47.3 -24.7	S 03 01.7 -12.1	14						
15	43 36.0 -00.1	N 21 58.9 -00.3	86 03.9 +01.1	N 17 28.1 +00.2	148 22.6 -24.8	S 02 49.6 -12.1	15						
16	58 35.9 -00.1	N 21 58.6 -00.4	101 05.0 +01.1	N 17 28.3 +00.2	162 57.8 -24.7	S 02 37.5 -12.0	16						
17	73 35.8 -00.1	N 21 58.2 -00.3	116 06.1 +01.2	N 17 28.5 +00.1	177 33.1 -24.8	S 02 25.5 -12.1	17						
18	88 35.7 +00.0	N 21 57.9 -00.3	131 07.3 +01.1	N 17 28.6 +00.2	192 08.3 -24.7	S 02 13.4 -12.1	18						
19	103 35.7 -00.1	N 21 57.6 -00.4	146 08.4 +01.1	N 17 28.8 +00.1	206 43.6 -24.7	S 02 01.3 -12.1	19						
20	118 35.6 -00.1	N 21 57.2 -00.3	161 09.5 +01.1	N 17 28.9 +00.2	221 18.9 -24.6	S 01 49.2 -12.1	20						
21	133 35.5 -00.1	N 21 56.9 -00.4	176 10.6 +01.2	N 17 29.1 +00.1	235 54.3 -24.7	S 01 37.1 -12.1	21						
22	148 35.4 +00.0	N 21 56.5 -00.3	191 11.8 +01.1	N 17 29.2 +00.2	250 29.6 -24.6	S 01 25.0 -12.1	22						
23	163 35.4 -00.1	N 21 56.2 -00.4	206 12.9 +01.1	N 17 29.4 +00.2	265 05.0 -24.7	S 01 12.9 -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 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		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 00'3 00'3 00'3 00'3 00'3 00'3		HP 54'5 54'4 54'4 54'4 54'3 54'3								
	SHA 249° 249° 249° 249° 248° 248°		SHA 291° 291° 291° 291° 291° 291°		SHA 359° 357° 356° 354° 352° 350°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 09:16		Greenwich Culmination Time: 04:49								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	281 05.1 +01.1	S 00 06.1 -00.5	354 43.5 +02.8	S 21 49.8 +00.1	347 47.4 +02.6	S 20 29.6 +00.0	00						
01	296 06.2 +01.2	S 00 05.6 -00.5	9 46.3 +02.8	S 21 49.9 +00.0	2 50.0 +02.7	S 20 29.6 +00.1	01						
02	311 07.4 +01.1	S 00 05.1 -00.5	24 49.1 +02.8	S 21 49.9 +00.1	17 52.7 +02.6	S 20 29.7 +00.0	02						
03	326 08.5 +01.2	S 00 04.6 -00.5	39 51.9 +02.8	S 21 50.0 +00.1	32 55.3 +02.7	S 20 29.7 +00.0	03						
04	341 09.7 +01.1	S 00 04.1 -00.5	54 54.7 +02.8	S 21 50.1 +00.0	47 58.0 +02.6	S 20 29.7 +00.1	04						
05	356 10.8 +01.2	S 00 03.6 -00.5	69 57.5 +02.8	S 21 50.1 +00.1	63 00.6 +02.7	S 20 29.8 +00.0	05						
06	11 12.0 +01.2	S 00 03.1 -00.5	85 00.3 +02.8	S 21 50.2 +00.0	78 03.3 +02.6	S 20 29.8 +00.1	06						
07	26 13.2 +01.1	S 00 02.6 -00.5	100 03.1 +02.8	S 21 50.2 +00.1	93 05.9 +02.7	S 20 29.9 +00.0	07						
08	41 14.3 +01.2	S 00 02.1 -00.5	115 05.9 +02.8	S 21 50.3 +00.1	108 08.6 +02.6	S 20 29.9 +00.1	08						
09	56 15.5 +01.1	S 00 01.6 -00.5	130 08.7 +02.8	S 21 50.4 +00.0	123 11.2 +02.7	S 20 30.0 +00.0	09						
10	71 16.6 +01.2	S 00 01.1 -00.5	145 11.5 +02.8	S 21 50.4 +00.1	138 13.9 +02.6	S 20 30.0 +00.0	10						
11	86 17.8 +01.1	S 00 00.6 -00.5	160 14.3 +02.8	S 21 50.5 +00.0	153 16.5 +02.7	S 20 30.0 +00.1	11						
12	101 18.9 +01.2	S 00 00.1 -00.4	175 17.1 +02.8	S 21 50.5 +00.1	168 19.2 +02.6	S 20 30.1 +00.0	12						
13	116 20.1 +01.2	N 00 00.3 +00.5	190 19.9 +02.8	S 21 50.6 +00.1	183 21.8 +02.7	S 20 30.1 +00.1	13						
14	131 21.3 +01.1	N 00 00.8 +00.5	205 22.7 +02.8	S 21 50.7 +00.0	198 24.5 +02.6	S 20 30.2 +00.0	14						
15	146 22.4 +01.2	N 00 01.3 +00.5	220 25.5 +02.8	S 21 50.7 +00.1	213 27.1 +02.7	S 20 30.2 +00.0	15						
16	161 23.6 +01.1	N 00 01.8 +00.5	235 28.3 +02.8	S 21 50.8 +00.0	228 29.8 +02.7	S 20 30.2 +00.1	16						
17	176 24.7 +01.2	N 00 02.3 +00.5	250 31.1 +02.8	S 21 50.8 +00.1	243 32.5 +02.6	S 20 30.3 +00.0	17						
18	191 25.9 +01.2	N 00 02.8 +00.5	265 33.9 +02.8	S 21 50.9 +00.0	258 35.1 +02.7	S 20 30.3 +00.1	18						
19	206 27.1 +01.1	N 00 03.3 +00.5	280 36.7 +02.8	S 21 50.9 +00.1	273 37.8 +02.6	S 20 30.4 +00.0	19						
20	221 28.2 +01.2	N 00 03.8 +00.5	295 39.5 +02.9	S 21 51.0 +00.1	288 40.4 +02.7	S 20 30.4 +00.0	20						
21	236 29.4 +01.1	N 00 04.3 +00.5	310 42.4 +02.8	S 21 51.1 +00.0	303 43.1 +02.6	S 20 30.4 +00.1	21						
22	251 30.5 +01.2	N 00 04.8 +00.5	325 45.2 +02.8	S 21 51.1 +00.1	318 45.7 +02.7	S 20 30.5 +00.0	22						
23	266 31.7 +01.2	N 00 05.3 +00.5	340 48.0 +02.8	S 21 51.2 +00.0	333 48.4 +02.6	S 20 30.5 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 352° 352° 352° 351° 351° 351°		SHA 065° 065° 065° 065° 065° 065°		SHA 058° 058° 058° 058° 058° 058°								
	Greenwich Culmination Time: 05:15		Greenwich Culmination Time: 00:21		Greenwich Culmination Time: 00:48								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 35.3 -00.1	N 21 55.8 -00.4	221 14.0 +01.1	N 17 29.6 +00.1	279 40.3 -24.6	S 01 00.8 -12.1	00	00					
01	193 35.2 -00.1	N 21 55.4 -00.3	236 15.1 +01.1	N 17 29.7 +00.2	294 15.7 -24.6	S 00 48.7 -12.1	01	00					
02	208 35.1 -00.1	N 21 55.1 -00.4	251 16.2 +01.1	N 17 29.9 +00.2	308 51.1 -24.6	S 00 36.6 -12.1	02	00					
03	223 35.0 +00.0	N 21 54.7 -00.3	266 17.3 +01.1	N 17 30.1 +00.1	323 26.5 -24.6	S 00 24.5 -12.0	03	00					
04	238 35.0 -00.1	N 21 54.4 -00.4	281 18.4 +01.1	N 17 30.2 +00.2	338 01.9 -24.6	S 00 12.5 -12.1	04	00					
05	253 34.9 -00.1	N 21 54.0 -00.3	296 19.5 +01.1	N 17 30.4 +00.2	352 37.3 -24.6	S 00 00.4 -12.1	05	00					
06	268 34.8 -00.1	N 21 53.7 -00.4	311 20.6 +01.1	N 17 30.6 +00.1	7 12.7 -24.6	N 00 11.7 +12.1	06	00					
07	283 34.7 +00.0	N 21 53.3 -00.3	326 21.7 +01.1	N 17 30.7 +00.2	21 48.1 -24.6	N 00 23.8 +12.1	07	00					
08	298 34.7 -00.1	N 21 53.0 -00.4	341 22.8 +01.1	N 17 30.9 +00.1	36 23.5 -24.6	N 00 35.9 +12.1	08	00					
09	313 34.6 -00.1	N 21 52.6 -00.3	356 23.9 +01.1	N 17 31.0 +00.2	50 58.9 -24.6	N 00 48.0 +12.1	09	00					
10	328 34.5 -00.1	N 21 52.3 -00.4	11 25.0 +01.1	N 17 31.2 +00.2	65 34.3 -24.6	N 01 00.1 +12.0	10	00					
11	343 34.4 +00.0	N 21 51.9 -00.4	26 26.1 +01.0	N 17 31.4 +00.2	80 09.7 -24.5	N 01 12.1 +12.1	11	00					
12	358 34.4 -00.1	N 21 51.5 -00.3	41 27.1 +01.1	N 17 31.6 +00.1	94 45.2 -24.6	N 01 24.2 +12.1	12	00					
13	13 34.3 -00.1	N 21 51.2 -00.4	56 28.2 +01.1	N 17 31.7 +00.2	109 20.6 -24.6	N 01 36.3 +12.0	13	00					
14	28 34.2 -00.1	N 21 50.8 -00.3	71 29.3 +01.1	N 17 31.9 +00.2	123 56.0 -24.6	N 01 48.3 +12.1	14	00					
15	43 34.1 +00.0	N 21 50.5 -00.4	86 30.4 +01.0	N 17 32.1 +00.1	138 31.4 -24.6	N 02 00.4 +12.0	15	00					
16	58 34.1 -00.1	N 21 50.1 -00.4	101 31.4 +01.1	N 17 32.2 +00.2	153 06.8 -24.6	N 02 12.4 +12.0	16	00					
17	73 34.0 -00.1	N 21 49.7 -00.3	116 32.5 +01.1	N 17 32.4 +00.2	167 42.2 -24.6	N 02 24.4 +12.1	17	00					
18	88 33.9 -00.1	N 21 49.4 -00.4	131 33.6 +01.0	N 17 32.6 +00.1	182 17.6 -24.6	N 02 36.5 +12.0	18	00					
19	103 33.8 +00.0	N 21 49.0 -00.4	146 34.6 +01.1	N 17 32.7 +00.2	196 53.0 -24.7	N 02 48.5 +12.0	19	00					
20	118 33.8 -00.1	N 21 48.6 -00.3	161 35.7 +01.1	N 17 32.9 +00.2	211 28.3 -24.6	N 03 00.5 +12.0	20	00					
21	133 33.7 -00.1	N 21 48.3 -00.4	176 36.8 +01.0	N 17 33.1 +00.2	226 03.7 -24.7	N 03 12.5 +11.9	21	00					
22	148 33.6 -00.1	N 21 47.9 -00.4	191 37.8 +01.1	N 17 33.3 +00.1	240 39.0 -24.6	N 03 24.4 +12.0	22	00					
23	163 33.5 +00.0	N 21 47.5 -00.3	206 38.9 +01.0	N 17 33.4 +00.2	255 14.4 -24.7	N 03 36.4 +12.0	23	00					
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		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 00'3 00'3 00'3 00'3 00'3 00'3		HP 54'3 54'2 54'2 54'2 54'2 54'2								
	SHA 248° 248° 248° 248° 247° 247°		SHA 291° 291° 291° 291° 290° 290°		SHA 348° 347° 345° 343° 341° 339°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 09:14		Greenwich Culmination Time: 05:30								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	281 32.9 +01.1	N 00 05.8 +00.5	355 50.8 +02.8	S 21 51.2 +00.1	348 51.0 +02.7	S 20 30.6 +00.0	00	00					
01	296 34.0 +01.2	N 00 06.3 +00.5	10 53.6 +02.8	S 21 51.3 +00.1	3 53.7 +02.6	S 20 30.6 +00.1	01	00					
02	311 35.2 +01.2	N 00 06.8 +00.5	25 56.4 +02.8	S 21 51.4 +00.0	18 56.3 +02.7	S 20 30.7 +00.0	02	00					
03	326 36.4 +01.1	N 00 07.3 +00.4	40 59.2 +02.8	S 21 51.4 +00.1	33 59.0 +02.6	S 20 30.7 +00.0	03	00					
04	341 37.5 +01.2	N 00 07.7 +00.5	56 02.0 +02.8	S 21 51.5 +00.0	49 01.6 +02.7	S 20 30.7 +00.1	04	00					
05	356 38.7 +01.2	N 00 08.2 +00.5	71 04.8 +02.8	S 21 51.5 +00.1	64 04.3 +02.6	S 20 30.8 +00.0	05	00					
06	11 39.9 +01.1	N 00 08.7 +00.5	86 07.6 +02.8	S 21 51.6 +00.1	79 06.9 +02.7	S 20 30.8 +00.1	06	00					
07	26 41.0 +01.2	N 00 09.2 +00.5	101 10.4 +02.8	S 21 51.7 +00.0	94 09.6 +02.6	S 20 30.9 +00.0	07	00					
08	41 42.2 +01.2	N 00 09.7 +00.5	116 13.2 +02.8	S 21 51.7 +00.1	109 12.2 +02.7	S 20 30.9 +00.0	08	00					
09	56 43.4 +01.1	N 00 10.2 +00.5	131 16.0 +02.8	S 21 51.8 +00.0	124 14.9 +02.6	S 20 30.9 +00.1	09	00					
10	71 44.5 +01.2	N 00 10.7 +00.5	146 18.8 +02.8	S 21 51.8 +00.1	139 17.5 +02.7	S 20 31.0 +00.0	10	00					
11	86 45.7 +01.2	N 00 11.2 +00.5	161 21.6 +02.8	S 21 51.9 +00.1	154 20.2 +02.6	S 20 31.0 +00.1	11	00					
12	101 46.9 +01.1	N 00 11.7 +00.5	176 24.4 +02.8	S 21 52.0 +00.0	169 22.8 +02.7	S 20 31.1 +00.0	12	00					
13	116 48.0 +01.2	N 00 12.2 +00.5	191 27.2 +02.8	S 21 52.0 +00.1	184 25.5 +02.7	S 20 31.1 +00.0	13	00					
14	131 49.2 +01.2	N 00 12.7 +00.4	206 30.0 +02.8	S 21 52.1 +00.0	199 28.2 +02.6	S 20 31.1 +00.1	14	00					
15	146 50.4 +01.1	N 00 13.1 +00.5	221 32.8 +02.8	S 21 52.1 +00.1	214 30.8 +02.7	S 20 31.2 +00.0	15	00					
16	161 51.5 +01.2	N 00 13.6 +00.5	236 35.6 +02.8	S 21 52.2 +00.0	229 33.5 +02.6	S 20 31.2 +00.1	16	00					
17	176 52.7 +01.2	N 00 14.1 +00.5	251 38.4 +02.9	S 21 52.2 +00.1	244 36.1 +02.7	S 20 31.3 +00.0	17	00					
18	191 53.9 +01.1	N 00 14.6 +00.5	266 41.3 +02.8	S 21 52.3 +00.1	259 38.8 +02.6	S 20 31.3 +00.1	18	00					
19	206 55.0 +01.2	N 00 15.1 +00.5	281 44.1 +02.8	S 21 52.4 +00.0	274 41.4 +02.7	S 20 31.4 +00.0	19	00					
20	221 56.2 +01.2	N 00 15.6 +00.5	296 46.9 +02.8	S 21 52.4 +00.1	289 44.1 +02.6	S 20 31.4 +00.0	20	00					
21	236 57.4 +01.2	N 00 16.1 +00.5	311 49.7 +02.8	S 21 52.5 +00.0	304 46.7 +02.7	S 20 31.4 +00.1	21	00					
22	251 58.6 +01.1	N 00 16.6 +00.5	326 52.5 +02.8	S 21 52.5 +00.1	319 49.4 +02.6	S 20 31.5 +00.0	22	00					
23	266 59.7 +01.2	N 00 17.1 +00.4	341 55.3 +02.8	S 21 52.6 +00.1	334 52.0 +02.7	S 20 31.5 +00.1	23	00					
	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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 351° 351° 351° 351° 351° 351°		SHA 066° 066° 066° 066° 066° 066°		SHA 059° 059° 059° 059° 059° 059°								
	Greenwich Culmination Time: 05:13		Greenwich Culmination Time: 00:16		Greenwich Culmination Time: 00:44								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 33.5 -00.1	N 21 47.2 -00.4	221 39.9 +01.1	N 17 33.6 +00.2	269 49.7 -24.7	N 03 48.4 +11.9	00						
01	193 33.4 -00.1	N 21 46.8 -00.4	236 41.0 +01.0	N 17 33.8 +00.2	284 25.0 -24.7	N 04 00.3 +11.9	01						
02	208 33.3 +00.0	N 21 46.4 -00.3	251 42.0 +01.1	N 17 34.0 +00.1	299 00.3 -24.7	N 04 12.2 +11.9	02						
03	223 33.3 -00.1	N 21 46.1 -00.4	266 43.1 +01.0	N 17 34.1 +00.2	313 35.6 -24.7	N 04 24.1 +11.9	03						
04	238 33.2 -00.1	N 21 45.7 -00.4	281 44.1 +01.1	N 17 34.3 +00.2	328 10.9 -24.8	N 04 36.0 +11.9	04						
05	253 33.1 -00.1	N 21 45.3 -00.3	296 45.2 +01.0	N 17 34.5 +00.2	342 46.1 -24.8	N 04 47.9 +11.9	05						
06	268 33.0 +00.0	N 21 45.0 -00.4	311 46.2 +01.0	N 17 34.7 +00.2	357 21.3 -24.8	N 04 59.8 +11.8	06						
07	283 33.0 -00.1	N 21 44.6 -00.4	326 47.2 +01.1	N 17 34.9 +00.1	11 56.5 -24.8	N 05 11.6 +11.8	07						
08	298 32.9 -00.1	N 21 44.2 -00.4	341 48.3 +01.0	N 17 35.0 +00.2	26 31.7 -24.8	N 05 23.4 +11.8	08						
09	313 32.8 +00.0	N 21 43.8 -00.3	356 49.3 +01.0	N 17 35.2 +00.2	41 06.9 -24.9	N 05 35.2 +11.8	09						
10	328 32.8 -00.1	N 21 43.5 -00.4	11 50.3 +01.1	N 17 35.4 +00.2	55 42.0 -24.8	N 05 47.0 +11.8	10						
11	343 32.7 -00.1	N 21 43.1 -00.4	26 51.4 +01.0	N 17 35.6 +00.2	70 17.2 -24.9	N 05 58.8 +11.7	11						
12	358 32.6 -00.1	N 21 42.7 -00.3	41 52.4 +01.0	N 17 35.8 +00.1	84 52.3 -25.0	N 06 10.5 +11.8	12						
13	13 32.5 +00.0	N 21 42.4 -00.4	56 53.4 +01.0	N 17 35.9 +00.2	99 27.3 -24.9	N 06 22.3 +11.7	13						
14	28 32.5 -00.1	N 21 42.0 -00.4	71 54.4 +01.0	N 17 36.1 +00.2	114 02.4 -25.0	N 06 34.0 +11.6	14						
15	43 32.4 -00.1	N 21 41.6 -00.4	86 55.4 +01.1	N 17 36.3 +00.2	128 37.4 -25.0	N 06 45.6 +11.7	15						
16	58 32.3 +00.0	N 21 41.2 -00.4	101 56.5 +01.0	N 17 36.5 +00.2	143 12.4 -25.1	N 06 57.3 +11.6	16						
17	73 32.3 -00.1	N 21 40.8 -00.3	116 57.5 +01.0	N 17 36.7 +00.2	157 47.3 -25.1	N 07 08.9 +11.7	17						
18	88 32.2 -00.1	N 21 40.5 -00.4	131 58.5 +01.0	N 17 36.9 +00.1	172 22.2 -25.1	N 07 20.6 +11.5	18						
19	103 32.1 +00.0	N 21 40.1 -00.4	146 59.5 +01.0	N 17 37.0 +00.2	186 57.1 -25.1	N 07 32.1 +11.6	19						
20	118 32.1 -00.1	N 21 39.7 -00.4	162 00.5 +01.0	N 17 37.2 +00.2	201 32.0 -25.2	N 07 43.7 +11.5	20						
21	133 32.0 -00.1	N 21 39.3 -00.4	177 01.5 +01.0	N 17 37.4 +00.2	216 06.8 -25.2	N 07 55.2 +11.6	21						
22	148 31.9 -00.1	N 21 38.9 -00.3	192 02.5 +01.0	N 17 37.6 +00.2	230 41.6 -25.2	N 08 06.8 +11.4	22						
23	163 31.8 +00.0	N 21 38.6 -00.4	207 03.5 +01.0	N 17 37.8 +00.2	245 16.4 -25.3	N 08 18.2 +11.5	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		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 00'3 00'3 00'3 00'3 00'3 00'3		HP 54'2 54'2 54'3 54'3 54'3 54'3								
	SHA 247° 247° 247° 247° 246° 246°		SHA 290° 290° 290° 290° 290° 290°		SHA 338° 336° 334° 332° 330° 328°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 09:12		Greenwich Culmination Time: 06:10								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	282 00.9 +01.2	N 00 17.5 +00.5	356 58.1 +02.8	S 21 52.7 +00.0	349 54.7 +02.6	S 20 31.6 +00.0	00						
01	297 02.1 +01.2	N 00 18.0 +00.5	12 00.9 +02.8	S 21 52.7 +00.1	4 57.3 +02.7	S 20 31.6 +00.0	01						
02	312 03.3 +01.1	N 00 18.5 +00.5	27 03.7 +02.8	S 21 52.8 +00.0	19 60.0 +02.6	S 20 31.6 +00.1	02						
03	327 04.4 +01.2	N 00 19.0 +00.5	42 06.5 +02.8	S 21 52.8 +00.1	35 02.6 +02.7	S 20 31.7 +00.0	03						
04	342 05.6 +01.2	N 00 19.5 +00.5	57 09.3 +02.8	S 21 52.9 +00.0	50 05.3 +02.7	S 20 31.7 +00.1	04						
05	357 06.8 +01.2	N 00 20.0 +00.5	72 12.1 +02.8	S 21 52.9 +00.1	65 08.0 +02.6	S 20 31.8 +00.0	05						
06	12 08.0 +01.1	N 00 20.5 +00.5	87 14.9 +02.8	S 21 53.0 +00.1	80 10.6 +02.7	S 20 31.8 +00.1	06						
07	27 09.1 +01.2	N 00 21.0 +00.4	102 17.7 +02.8	S 21 53.1 +00.0	95 13.3 +02.6	S 20 31.9 +00.0	07						
08	42 10.3 +01.2	N 00 21.4 +00.5	117 20.5 +02.8	S 21 53.1 +00.1	110 15.9 +02.7	S 20 31.9 +00.0	08						
09	57 11.5 +01.2	N 00 21.9 +00.5	132 23.3 +02.8	S 21 53.2 +00.0	125 18.6 +02.6	S 20 31.9 +00.1	09						
10	72 12.7 +01.1	N 00 22.4 +00.5	147 26.1 +02.8	S 21 53.2 +00.1	140 21.2 +02.7	S 20 32.0 +00.0	10						
11	87 13.8 +01.2	N 00 22.9 +00.5	162 28.9 +02.9	S 21 53.3 +00.1	155 23.9 +02.6	S 20 32.0 +00.1	11						
12	102 15.0 +01.2	N 00 23.4 +00.5	177 31.8 +02.8	S 21 53.4 +00.0	170 26.5 +02.7	S 20 32.1 +00.0	12						
13	117 16.2 +01.2	N 00 23.9 +00.5	192 34.6 +02.8	S 21 53.4 +00.1	185 29.2 +02.6	S 20 32.1 +00.0	13						
14	132 17.4 +01.2	N 00 24.4 +00.4	207 37.4 +02.8	S 21 53.5 +00.0	200 31.8 +02.7	S 20 32.1 +00.1	14						
15	147 18.6 +01.1	N 00 24.8 +00.5	222 40.2 +02.8	S 21 53.5 +00.1	215 34.5 +02.6	S 20 32.2 +00.0	15						
16	162 19.7 +01.2	N 00 25.3 +00.5	237 43.0 +02.8	S 21 53.6 +00.1	230 37.1 +02.7	S 20 32.2 +00.1	16						
17	177 20.9 +01.2	N 00 25.8 +00.5	252 45.8 +02.8	S 21 53.7 +00.0	245 39.8 +02.7	S 20 32.3 +00.0	17						
18	192 22.1 +01.2	N 00 26.3 +00.5	267 48.6 +02.8	S 21 53.7 +00.1	260 42.5 +02.6	S 20 32.3 +00.1	18						
19	207 23.3 +01.2	N 00 26.8 +00.5	282 51.4 +02.8	S 21 53.8 +00.0	275 45.1 +02.7	S 20 32.4 +00.0	19						
20	222 24.5 +01.1	N 00 27.3 +00.4	297 54.2 +02.8	S 21 53.8 +00.1	290 47.8 +02.6	S 20 32.4 +00.0	20						
21	237 25.6 +01.2	N 00 27.7 +00.5	312 57.0 +02.8	S 21 53.9 +00.0	305 50.4 +02.7	S 20 32.4 +00.1	21						
22	252 26.8 +01.2	N 00 28.2 +00.5	327 59.8 +02.8	S 21 53.9 +00.1	320 53.1 +02.6	S 20 32.5 +00.0	22						
23	267 28.0 +01.2	N 00 28.7 +00.5	343 02.6 +02.8	S 21 54.0 +00.1	335 55.7 +02.7	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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 351° 351° 350° 350° 350° 350°		SHA 066° 066° 066° 066° 066° 066°		SHA 059° 059° 059° 059° 059° 059°								
	Greenwich Culmination Time: 05:11		Greenwich Culmination Time: 00:12		Greenwich Culmination Time: 00:40								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 31.8 -00.1	N 21 38.2 -00.4	222 04.5 +01.0	N 17 38.0 +00.2	259 51.1 -25.3	N 08 29.7 +11.4	00						
01	193 31.7 -00.1	N 21 37.8 -00.4	237 05.5 +01.0	N 17 38.2 +00.2	274 25.8 -25.4	N 08 41.1 +11.4	01						
02	208 31.6 +00.0	N 21 37.4 -00.4	252 06.5 +01.0	N 17 38.4 +00.1	289 00.4 -25.4	N 08 52.5 +11.4	02						
03	223 31.6 -00.1	N 21 37.0 -00.4	267 07.5 +01.0	N 17 38.5 +00.2	303 35.0 -25.4	N 09 03.9 +11.3	03						
04	238 31.5 -00.1	N 21 36.6 -00.3	282 08.5 +00.9	N 17 38.7 +00.2	318 09.6 -25.5	N 09 15.2 +11.3	04						
05	253 31.4 +00.0	N 21 36.3 -00.4	297 09.4 +01.0	N 17 38.9 +00.2	332 44.1 -25.5	N 09 26.5 +11.3	05						
06	268 31.4 -00.1	N 21 35.9 -00.4	312 10.4 +01.0	N 17 39.1 +00.2	347 18.6 -25.5	N 09 37.8 +11.2	06						
07	283 31.3 -00.1	N 21 35.5 -00.4	327 11.4 +01.0	N 17 39.3 +00.2	1 53.1 -25.6	N 09 49.0 +11.2	07						
08	298 31.2 +00.0	N 21 35.1 -00.4	342 12.4 +01.0	N 17 39.5 +00.2	16 27.5 -25.7	N 10 00.2 +11.2	08						
09	313 31.2 -00.1	N 21 34.7 -00.4	357 13.4 +00.9	N 17 39.7 +00.2	31 01.8 -25.7	N 10 11.4 +11.1	09						
10	328 31.1 -00.1	N 21 34.3 -00.4	12 14.3 +01.0	N 17 39.9 +00.2	45 36.1 -25.7	N 10 22.5 +11.1	10						
11	343 31.0 +00.0	N 21 33.9 -00.4	27 15.3 +01.0	N 17 40.1 +00.2	60 10.4 -25.8	N 10 33.6 +11.1	11						
12	358 31.0 -00.1	N 21 33.5 -00.3	42 16.3 +00.9	N 17 40.3 +00.2	74 44.6 -25.8	N 10 44.7 +11.0	12						
13	13 30.9 -00.1	N 21 33.2 -00.4	57 17.2 +01.0	N 17 40.5 +00.2	89 18.8 -25.9	N 10 55.7 +11.0	13						
14	28 30.8 +00.0	N 21 32.8 -00.4	72 18.2 +01.0	N 17 40.7 +00.2	103 52.9 -26.0	N 11 06.7 +10.9	14						
15	43 30.8 -00.1	N 21 32.4 -00.4	87 19.2 +00.9	N 17 40.9 +00.1	118 26.9 -25.9	N 11 17.6 +10.9	15						
16	58 30.7 +00.0	N 21 32.0 -00.4	102 20.1 +01.0	N 17 41.0 +00.2	133 01.0 -26.1	N 11 28.5 +10.9	16						
17	73 30.7 -00.1	N 21 31.6 -00.4	117 21.1 +00.9	N 17 41.2 +00.2	147 34.9 -26.1	N 11 39.4 +10.8	17						
18	88 30.6 -00.1	N 21 31.2 -00.4	132 22.0 +01.0	N 17 41.4 +00.2	162 08.8 -26.1	N 11 50.2 +10.8	18						
19	103 30.5 +00.0	N 21 30.8 -00.4	147 23.0 +00.9	N 17 41.6 +00.2	176 42.7 -26.2	N 12 01.0 +10.8	19						
20	118 30.5 -00.1	N 21 30.4 -00.4	162 23.9 +01.0	N 17 41.8 +00.2	191 16.5 -26.2	N 12 11.8 +10.7	20						
21	133 30.4 -00.1	N 21 30.0 -00.4	177 24.9 +00.9	N 17 42.0 +00.2	205 50.3 -26.4	N 12 22.5 +10.6	21						
22	148 30.3 +00.0	N 21 29.6 -00.4	192 25.8 +01.0	N 17 42.2 +00.2	220 23.9 -26.3	N 12 33.1 +10.6	22						
23	163 30.3 -00.1	N 21 29.2 -00.4	207 26.8 +00.9	N 17 42.4 +00.2	234 57.6 -26.4	N 12 43.7 +10.6	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 14'8 14'8 14'8 14'8 14'9 14'9								
	HP 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 54'4 54'4 54'4 54'5 54'5 54'6								
	SHA 246° 246° 246° 246° 245° 245°		SHA 290° 290° 290° 289° 289° 289°		SHA 327° 325° 323° 321° 319° 317°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 09:11		Greenwich Culmination Time: 06:52								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	282 29.2 +01.2	N 00 29.2 +00.5	358 05.4 +02.8	S 21 54.1 +00.0	350 58.4 +02.6	S 20 32.6 +00.0	00						
01	297 30.4 +01.2	N 00 29.7 +00.5	13 08.2 +02.8	S 21 54.1 +00.1	6 01.0 +02.7	S 20 32.6 +00.0	01						
02	312 31.6 +01.1	N 00 30.2 +00.4	28 11.0 +02.8	S 21 54.2 +00.0	21 03.7 +02.6	S 20 32.6 +00.1	02						
03	327 32.7 +01.2	N 00 30.6 +00.5	43 13.8 +02.8	S 21 54.2 +00.1	36 06.3 +02.7	S 20 32.7 +00.0	03						
04	342 33.9 +01.2	N 00 31.1 +00.5	58 16.6 +02.9	S 21 54.3 +00.1	51 09.0 +02.6	S 20 32.7 +00.1	04						
05	357 35.1 +01.2	N 00 31.6 +00.5	73 19.5 +02.8	S 21 54.4 +00.0	66 11.6 +02.7	S 20 32.8 +00.0	05						
06	12 36.3 +01.2	N 00 32.1 +00.5	88 22.3 +02.8	S 21 54.4 +00.1	81 14.3 +02.7	S 20 32.8 +00.0	06						
07	27 37.5 +01.2	N 00 32.6 +00.4	103 25.1 +02.8	S 21 54.5 +00.0	96 17.0 +02.6	S 20 32.8 +00.1	07						
08	42 38.7 +01.2	N 00 33.0 +00.5	118 27.9 +02.8	S 21 54.5 +00.1	111 19.6 +02.7	S 20 32.9 +00.0	08						
09	57 39.9 +01.1	N 00 33.5 +00.5	133 30.7 +02.8	S 21 54.6 +00.0	126 22.3 +02.6	S 20 32.9 +00.1	09						
10	72 41.0 +01.2	N 00 34.0 +00.5	148 33.5 +02.8	S 21 54.6 +00.1	141 24.9 +02.7	S 20 33.0 +00.0	10						
11	87 42.2 +01.2	N 00 34.5 +00.5	163 36.3 +02.8	S 21 54.7 +00.1	156 27.6 +02.6	S 20 33.0 +00.1	11						
12	102 43.4 +01.2	N 00 35.0 +00.5	178 39.1 +02.8	S 21 54.8 +00.0	171 30.2 +02.7	S 20 33.1 +00.0	12						
13	117 44.6 +01.2	N 00 35.5 +00.4	193 41.9 +02.8	S 21 54.8 +00.1	186 32.9 +02.6	S 20 33.1 +00.0	13						
14	132 45.8 +01.2	N 00 35.9 +00.5	208 44.7 +02.8	S 21 54.9 +00.0	201 35.5 +02.7	S 20 33.1 +00.1	14						
15	147 47.0 +01.2	N 00 36.4 +00.5	223 47.5 +02.8	S 21 54.9 +00.1	216 38.2 +02.6	S 20 33.2 +00.0	15						
16	162 48.2 +01.2	N 00 36.9 +00.5	238 50.3 +02.8	S 21 55.0 +00.1	231 40.8 +02.7	S 20 33.2 +00.1	16						
17	177 49.4 +01.2	N 00 37.4 +00.4	253 53.1 +02.8	S 21 55.1 +00.0	246 43.5 +02.7	S 20 33.3 +00.0	17						
18	192 50.6 +01.1	N 00 37.8 +00.5	268 55.9 +02.8	S 21 55.1 +00.1	261 46.2 +02.6	S 20 33.3 +00.0	18						
19	207 51.7 +01.2	N 00 38.3 +00.5	283 58.7 +02.8	S 21 55.2 +00.0	276 48.8 +02.7	S 20 33.3 +00.1	19						
20	222 52.9 +01.2	N 00 38.8 +00.5	299 01.5 +02.8	S 21 55.2 +00.1	291 51.5 +02.6	S 20 33.4 +00.0	20						
21	237 54.1 +01.2	N 00 39.3 +00.5	314 04.3 +02.9	S 21 55.3 +00.0	306 54.1 +02.7	S 20 33.4 +00.1	21						
22	252 55.3 +01.2	N 00 39.8 +00.4	329 07.2 +02.8	S 21 55.3 +00.1	321 56.8 +02.6	S 20 33.5 +00.0	22						
23	267 56.5 +01.2	N 00 40.2 +00.5	344 10.0 +02.8	S 21 55.4 +00.1	336 59.4 +02.7	S 20 33.5 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 350° 350° 350° 350° 350° 350°		SHA 066° 066° 066° 066° 066° 066°		SHA 059° 059° 059° 059° 059° 059°								
	Greenwich Culmination Time: 05:09		Greenwich Culmination Time: 00:07		Greenwich Culmination Time: 00:36								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 30.2 -00.1	N 21 28.8 -00.4	222 27.7 +01.0	N 17 42.6 +00.2	249 31.2 -26.5	N 12 54.3 +10.5	00						
01	193 30.1 +00.0	N 21 28.4 -00.4	237 28.7 +00.9	N 17 42.8 +00.2	264 04.7 -26.6	N 13 04.8 +10.5	01						
02	208 30.1 -00.1	N 21 28.0 -00.4	252 29.6 +00.9	N 17 43.0 +00.2	278 38.1 -26.6	N 13 15.3 +10.4	02						
03	223 30.0 +00.0	N 21 27.6 -00.4	267 30.5 +01.0	N 17 43.2 +00.2	293 11.5 -26.6	N 13 25.7 +10.4	03						
04	238 30.0 -00.1	N 21 27.2 -00.4	282 31.5 +00.9	N 17 43.4 +00.2	307 44.9 -26.7	N 13 36.1 +10.3	04						
05	253 29.9 -00.1	N 21 26.8 -00.4	297 32.4 +00.9	N 17 43.6 +00.2	322 18.2 -26.8	N 13 46.4 +10.3	05						
06	268 29.8 +00.0	N 21 26.4 -00.4	312 33.3 +00.9	N 17 43.8 +00.2	336 51.4 -26.9	N 13 56.7 +10.2	06						
07	283 29.8 -00.1	N 21 26.0 -00.4	327 34.2 +01.0	N 17 44.0 +00.2	351 24.5 -26.9	N 14 06.9 +10.2	07						
08	298 29.7 +00.0	N 21 25.6 -00.4	342 35.2 +00.9	N 17 44.2 +00.2	5 57.6 -26.9	N 14 17.1 +10.1	08						
09	313 29.7 -00.1	N 21 25.2 -00.4	357 36.1 +00.9	N 17 44.4 +00.2	20 30.7 -27.1	N 14 27.2 +10.0	09						
10	328 29.6 -00.1	N 21 24.8 -00.4	12 37.0 +00.9	N 17 44.6 +00.2	35 03.6 -27.1	N 14 37.2 +10.0	10						
11	343 29.5 +00.0	N 21 24.4 -00.4	27 37.9 +00.9	N 17 44.8 +00.2	49 36.5 -27.2	N 14 47.2 +10.0	11						
12	358 29.5 -00.1	N 21 24.0 -00.4	42 38.8 +00.9	N 17 45.0 +00.2	64 09.3 -27.2	N 14 57.2 +09.9	12						
13	13 29.4 -00.1	N 21 23.6 -00.4	57 39.7 +01.0	N 17 45.2 +00.2	78 42.1 -27.3	N 15 07.1 +09.8	13						
14	28 29.3 +00.0	N 21 23.2 -00.4	72 40.7 +00.9	N 17 45.4 +00.3	93 14.8 -27.4	N 15 16.9 +09.8	14						
15	43 29.3 -00.1	N 21 22.8 -00.4	87 41.6 +00.9	N 17 45.7 +00.2	107 47.4 -27.4	N 15 26.7 +09.7	15						
16	58 29.2 +00.0	N 21 22.4 -00.4	102 42.5 +00.9	N 17 45.9 +00.2	122 20.0 -27.6	N 15 36.4 +09.7	16						
17	73 29.2 -00.1	N 21 22.0 -00.4	117 43.4 +00.9	N 17 46.1 +00.2	136 52.4 -27.5	N 15 46.1 +09.6	17						
18	88 29.1 +00.0	N 21 21.6 -00.5	132 44.3 +00.9	N 17 46.3 +00.2	151 24.9 -27.7	N 15 55.7 +09.5	18						
19	103 29.1 -00.1	N 21 21.1 -00.4	147 45.2 +00.9	N 17 46.5 +00.2	165 57.2 -27.7	N 16 05.2 +09.5	19						
20	118 29.0 -00.1	N 21 20.7 -00.4	162 46.1 +00.9	N 17 46.7 +00.2	180 29.5 -27.8	N 16 14.7 +09.4	20						
21	133 28.9 +00.0	N 21 20.3 -00.4	177 47.0 +00.9	N 17 46.9 +00.2	195 01.7 -27.9	N 16 24.1 +09.3	21						
22	148 28.9 -00.1	N 21 19.9 -00.4	192 47.9 +00.8	N 17 47.1 +00.2	209 33.8 -28.0	N 16 33.4 +09.3	22						
23	163 28.8 +00.0	N 21 19.5 -00.4	207 48.7 +00.9	N 17 47.3 +00.2	224 05.8 -28.0	N 16 42.7 +09.2	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		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 00'3 00'3 00'3 00'3 00'3 00'3		HP 54'7 54'7 54'8 54'9 54'9 55'0								
	SHA 245° 245° 245° 245° 244° 244°		SHA 289° 289° 289° 289° 289° 289°		SHA 315° 313° 311° 309° 307° 305°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 09:09		Greenwich Culmination Time: 07:35								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	282 57.7 +01.2	N 00 40.7 +00.5	359 12.8 +02.8	S 21 55.5 +00.0	352 02.1 +02.6	S 20 33.6 +00.0	00						
01	297 58.9 +01.2	N 00 41.2 +00.5	14 15.6 +02.8	S 21 55.5 +00.1	7 04.7 +02.7	S 20 33.6 +00.0	01						
02	313 00.1 +01.2	N 00 41.7 +00.5	29 18.4 +02.8	S 21 55.6 +00.0	22 07.4 +02.6	S 20 33.6 +00.1	02						
03	328 01.3 +01.2	N 00 42.2 +00.4	44 21.2 +02.8	S 21 55.6 +00.1	37 10.0 +02.7	S 20 33.7 +00.0	03						
04	343 02.5 +01.2	N 00 42.6 +00.5	59 24.0 +02.8	S 21 55.7 +00.0	52 12.7 +02.7	S 20 33.7 +00.1	04						
05	358 03.7 +01.2	N 00 43.1 +00.5	74 26.8 +02.8	S 21 55.7 +00.1	67 15.4 +02.6	S 20 33.8 +00.0	05						
06	13 04.9 +01.2	N 00 43.6 +00.5	89 29.6 +02.8	S 21 55.8 +00.1	82 18.0 +02.7	S 20 33.8 +00.0	06						
07	28 06.1 +01.2	N 00 44.1 +00.4	104 32.4 +02.8	S 21 55.9 +00.0	97 20.7 +02.6	S 20 33.8 +00.1	07						
08	43 07.3 +01.2	N 00 44.5 +00.5	119 35.2 +02.8	S 21 55.9 +00.1	112 23.3 +02.7	S 20 33.9 +00.0	08						
09	58 08.5 +01.2	N 00 45.0 +00.5	134 38.0 +02.8	S 21 56.0 +00.0	127 26.0 +02.6	S 20 33.9 +00.1	09						
10	73 09.7 +01.2	N 00 45.5 +00.5	149 40.8 +02.8	S 21 56.0 +00.1	142 28.6 +02.7	S 20 34.0 +00.0	10						
11	88 10.9 +01.2	N 00 46.0 +00.4	164 43.6 +02.8	S 21 56.1 +00.1	157 31.3 +02.6	S 20 34.0 +00.1	11						
12	103 12.1 +01.2	N 00 46.4 +00.5	179 46.4 +02.8	S 21 56.2 +00.0	172 33.9 +02.7	S 20 34.1 +00.0	12						
13	118 13.3 +01.2	N 00 46.9 +00.5	194 49.2 +02.8	S 21 56.2 +00.1	187 36.6 +02.7	S 20 34.1 +00.0	13						
14	133 14.5 +01.2	N 00 47.4 +00.5	209 52.0 +02.9	S 21 56.3 +00.0	202 39.3 +02.6	S 20 34.1 +00.1	14						
15	148 15.7 +01.2	N 00 47.9 +00.4	224 54.9 +02.8	S 21 56.3 +00.1	217 41.9 +02.7	S 20 34.2 +00.0	15						
16	163 16.9 +01.2	N 00 48.3 +00.5	239 57.7 +02.8	S 21 56.4 +00.0	232 44.6 +02.6	S 20 34.2 +00.1	16						
17	178 18.1 +01.2	N 00 48.8 +00.5	255 00.5 +02.8	S 21 56.4 +00.1	247 47.2 +02.7	S 20 34.3 +00.0	17						
18	193 19.3 +01.2	N 00 49.3 +00.5	270 03.3 +02.8	S 21 56.5 +00.1	262 49.9 +02.6	S 20 34.3 +00.0	18						
19	208 20.5 +01.2	N 00 49.8 +00.4	285 06.1 +02.8	S 21 56.6 +00.0	277 52.5 +02.7	S 20 34.3 +00.1	19						
20	223 21.7 +01.2	N 00 50.2 +00.5	300 08.9 +02.8	S 21 56.6 +00.1	292 55.2 +02.6	S 20 34.4 +00.0	20						
21	238 22.9 +01.2	N 00 50.7 +00.5	315 11.7 +02.8	S 21 56.7 +00.0	307 57.8 +02.7	S 20 34.4 +00.1	21						
22	253 24.1 +01.2	N 00 51.2 +00.4	330 14.5 +02.8	S 21 56.7 +00.1	323 00.5 +02.7	S 20 34.5 +00.0	22						
23	268 25.3 +01.2	N 00 51.6 +00.5	345 17.3 +02.8	S 21 56.8 +00.0	338 03.2 +02.6	S 20 34.5 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 350° 350° 349° 349° 349° 349°		SHA 066° 066° 066° 066° 066° 066°		SHA 059° 059° 059° 059° 059° 059°								
	Greenwich Culmination Time: 05:07		Greenwich Culmination Time: 00:03		Greenwich Culmination Time: 00:31								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 28.8 -00.1	N 21 19.1 -00.4	222 49.6 +00.9	N 17 47.5 +00.2	238 37.8 -28.1	N 16 51.9 +09.2	00						
01	193 28.7 -00.1	N 21 18.7 -00.4	237 50.5 +00.9	N 17 47.7 +00.2	253 09.7 -28.2	N 17 01.1 +09.0	01						
02	208 28.6 +00.0	N 21 18.3 -00.5	252 51.4 +00.9	N 17 47.9 +00.2	267 41.5 -28.2	N 17 10.1 +09.0	02						
03	223 28.6 -00.1	N 21 17.8 -00.4	267 52.3 +00.9	N 17 48.1 +00.3	282 13.3 -28.4	N 17 19.1 +09.0	03						
04	238 28.5 +00.0	N 21 17.4 -00.4	282 53.2 +00.8	N 17 48.4 +00.2	296 44.9 -28.4	N 17 28.1 +08.8	04						
05	253 28.5 -00.1	N 21 17.0 -00.4	297 54.0 +00.9	N 17 48.6 +00.2	311 16.5 -28.5	N 17 36.9 +08.8	05						
06	268 28.4 +00.0	N 21 16.6 -00.4	312 54.9 +00.9	N 17 48.8 +00.2	325 48.0 -28.5	N 17 45.7 +08.7	06						
07	283 28.4 -00.1	N 21 16.2 -00.4	327 55.8 +00.9	N 17 49.0 +00.2	340 19.5 -28.7	N 17 54.4 +08.7	07						
08	298 28.3 -00.1	N 21 15.8 -00.5	342 56.7 +00.8	N 17 49.2 +00.2	354 50.8 -28.7	N 18 03.1 +08.6	08						
09	313 28.2 +00.0	N 21 15.3 -00.4	357 57.5 +00.9	N 17 49.4 +00.2	9 22.1 -28.8	N 18 11.7 +08.4	09						
10	328 28.2 -00.1	N 21 14.9 -00.4	12 58.4 +00.9	N 17 49.6 +00.2	23 53.3 -28.9	N 18 20.1 +08.5	10						
11	343 28.1 +00.0	N 21 14.5 -00.4	27 59.3 +00.8	N 17 49.8 +00.2	38 24.4 -28.9	N 18 28.6 +08.3	11						
12	358 28.1 -00.1	N 21 14.1 -00.4	43 00.1 +00.9	N 17 50.0 +00.3	52 55.5 -29.1	N 18 36.9 +08.2	12						
13	13 28.0 +00.0	N 21 13.7 -00.5	58 01.0 +00.8	N 17 50.3 +00.2	67 26.4 -29.1	N 18 45.1 +08.2	13						
14	28 28.0 -00.1	N 21 13.2 -00.4	73 01.8 +00.9	N 17 50.5 +00.2	81 57.3 -29.2	N 18 53.3 +08.1	14						
15	43 27.9 +00.0	N 21 12.8 -00.4	88 02.7 +00.8	N 17 50.7 +00.2	96 28.1 -29.3	N 19 01.4 +08.0	15						
16	58 27.9 -00.1	N 21 12.4 -00.4	103 03.5 +00.9	N 17 50.9 +00.2	110 58.8 -29.3	N 19 09.4 +08.0	16						
17	73 27.8 +00.0	N 21 12.0 -00.4	118 04.4 +00.8	N 17 51.1 +00.2	125 29.5 -29.5	N 19 17.4 +07.8	17						
18	88 27.8 -00.1	N 21 11.6 -00.5	133 05.2 +00.9	N 17 51.3 +00.2	140 00.0 -29.5	N 19 25.2 +07.8	18						
19	103 27.7 -00.1	N 21 11.1 -00.4	148 06.1 +00.8	N 17 51.5 +00.3	154 30.5 -29.6	N 19 33.0 +07.6	19						
20	118 27.6 +00.0	N 21 10.7 -00.4	163 06.9 +00.9	N 17 51.8 +00.2	169 00.9 -29.7	N 19 40.6 +07.6	20						
21	133 27.6 -00.1	N 21 10.3 -00.5	178 07.8 +00.8	N 17 52.0 +00.2	183 31.2 -29.8	N 19 48.2 +07.5	21						
22	148 27.5 +00.0	N 21 09.8 -00.4	193 08.6 +00.9	N 17 52.2 +00.2	198 01.4 -29.8	N 19 55.7 +07.4	22						
23	163 27.5 -00.1	N 21 09.4 -00.4	208 09.5 +00.8	N 17 52.4 +00.2	212 31.6 -30.0	N 20 03.1 +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 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		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 00'3 00'3 00'3 00'3 00'3 00'3		HP 55'1 55'2 55'3 55'4 55'5 55'6								
	SHA 244° 244° 244° 244° 243° 243°		SHA 288° 288° 288° 288° 288° 288°		SHA 303° 301° 299° 297° 295° 293°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 09:08		Greenwich Culmination Time: 08:21								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	283 26.5 +01.2	N 00 52.1 +00.5	0 20.1 +02.8	S 21 56.8 +00.1	353 05.8 +02.7	S 20 34.6 +00.0	00						
01	298 27.7 +01.2	N 00 52.6 +00.5	15 22.9 +02.8	S 21 56.9 +00.1	8 08.5 +02.6	S 20 34.6 +00.0	01						
02	313 28.9 +01.2	N 00 53.1 +00.4	30 25.7 +02.8	S 21 57.0 +00.0	23 11.1 +02.7	S 20 34.6 +00.1	02						
03	328 30.1 +01.2	N 00 53.5 +00.5	45 28.5 +02.8	S 21 57.0 +00.1	38 13.8 +02.6	S 20 34.7 +00.0	03						
04	343 31.3 +01.2	N 00 54.0 +00.5	60 31.3 +02.8	S 21 57.1 +00.0	53 16.4 +02.7	S 20 34.7 +00.1	04						
05	358 32.5 +01.2	N 00 54.5 +00.5	75 34.1 +02.8	S 21 57.1 +00.1	68 19.1 +02.6	S 20 34.8 +00.0	05						
06	13 33.7 +01.2	N 00 55.0 +00.4	90 36.9 +02.8	S 21 57.2 +00.1	83 21.7 +02.7	S 20 34.8 +00.0	06						
07	28 34.9 +01.2	N 00 55.4 +00.5	105 39.7 +02.9	S 21 57.3 +00.0	98 24.4 +02.7	S 20 34.8 +00.1	07						
08	43 36.1 +01.3	N 00 55.9 +00.5	120 42.6 +02.8	S 21 57.3 +00.1	113 27.1 +02.6	S 20 34.9 +00.0	08						
09	58 37.4 +01.2	N 00 56.4 +00.4	135 45.4 +02.8	S 21 57.4 +00.0	128 29.7 +02.7	S 20 34.9 +00.1	09						
10	73 38.6 +01.2	N 00 56.8 +00.5	150 48.2 +02.8	S 21 57.4 +00.1	143 32.4 +02.6	S 20 35.0 +00.0	10						
11	88 39.8 +01.2	N 00 57.3 +00.5	165 51.0 +02.8	S 21 57.5 +00.0	158 35.0 +02.7	S 20 35.0 +00.0	11						
12	103 41.0 +01.2	N 00 57.8 +00.4	180 53.8 +02.8	S 21 57.5 +00.1	173 37.7 +02.6	S 20 35.0 +00.1	12						
13	118 42.2 +01.2	N 00 58.2 +00.5	195 56.6 +02.8	S 21 57.6 +00.1	188 40.3 +02.7	S 20 35.1 +00.0	13						
14	133 43.4 +01.2	N 00 58.7 +00.5	210 59.4 +02.8	S 21 57.7 +00.0	203 43.0 +02.6	S 20 35.1 +00.1	14						
15	148 44.6 +01.2	N 00 59.2 +00.5	226 02.2 +02.8	S 21 57.7 +00.1	218 45.6 +02.7	S 20 35.2 +00.0	15						
16	163 45.8 +01.2	N 00 59.7 +00.4	241 05.0 +02.8	S 21 57.8 +00.0	233 48.3 +02.7	S 20 35.2 +00.1	16						
17	178 47.0 +01.3	N 01 00.1 +00.5	256 07.8 +02.8	S 21 57.8 +00.1	248 51.0 +02.6	S 20 35.3 +00.0	17						
18	193 48.3 +01.2	N 01 00.6 +00.5	271 10.6 +02.8	S 21 57.9 +00.0	263 53.6 +02.7	S 20 35.3 +00.0	18						
19	208 49.5 +01.2	N 01 01.1 +00.4	286 13.4 +02.8	S 21 57.9 +00.1	278 56.3 +02.6	S 20 35.3 +00.1	19						
20	223 50.7 +01.2	N 01 01.5 +00.5	301 16.2 +02.8	S 21 58.0 +00.1	293 58.9 +02.7	S 20 35.4 +00.0	20						
21	238 51.9 +01.2	N 01 02.0 +00.5	316 19.0 +02.8	S 21 58.1 +00.0	309 01.6 +02.6	S 20 35.4 +00.1	21						
22	253 53.1 +01.2	N 01 02.5 +00.4	331 21.8 +02.8	S 21 58.1 +00.1	324 04.2 +02.7	S 20 35.5 +00.0	22						
23	268 54.3 +01.2	N 01 02.9 +00.5	346 24.6 +02.8	S 21 58.2 +00.0	339 06.9 +02.6	S 20 35.5 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 349° 349° 349° 349° 349° 349°		SHA 066° 066° 066° 066° 066° 066°		SHA 059° 059° 059° 059° 059° 059°								
	Greenwich Culmination Time: 05:05		Greenwich Culmination Time: 23:54		Greenwich Culmination Time: 00:27								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 27.4 +00.0	N 21 09.0 -00.4	223 10.3 +00.8	N 17 52.6 +00.2	227 01.6 -30.0	N 20 10.4 +07.2	00						
01	193 27.4 -00.1	N 21 08.6 -00.5	238 11.1 +00.9	N 17 52.8 +00.3	241 31.6 -30.1	N 20 17.6 +07.2	01						
02	208 27.3 +00.0	N 21 08.1 -00.4	253 12.0 +00.8	N 17 53.1 +00.2	256 01.5 -30.2	N 20 24.8 +07.0	02						
03	223 27.3 -00.1	N 21 07.7 -00.4	268 12.8 +00.8	N 17 53.3 +00.2	270 31.3 -30.2	N 20 31.8 +06.9	03						
04	238 27.2 +00.0	N 21 07.3 -00.5	283 13.6 +00.9	N 17 53.5 +00.2	285 01.1 -30.4	N 20 38.7 +06.9	04						
05	253 27.2 -00.1	N 21 06.8 -00.4	298 14.5 +00.8	N 17 53.7 +00.2	299 30.7 -30.4	N 20 45.6 +06.7	05						
06	268 27.1 +00.0	N 21 06.4 -00.4	313 15.3 +00.8	N 17 53.9 +00.3	314 00.3 -30.5	N 20 52.3 +06.7	06						
07	283 27.1 -00.1	N 21 06.0 -00.4	328 16.1 +00.8	N 17 54.2 +00.2	328 29.8 -30.6	N 20 59.0 +06.5	07						
08	298 27.0 +00.0	N 21 05.6 -00.5	343 16.9 +00.8	N 17 54.4 +00.2	342 59.2 -30.7	N 21 05.5 +06.4	08						
09	313 27.0 -00.1	N 21 05.1 -00.4	358 17.7 +00.9	N 17 54.6 +00.2	357 28.5 -30.8	N 21 11.9 +06.4	09						
10	328 26.9 +00.0	N 21 04.7 -00.5	13 18.6 +00.8	N 17 54.8 +00.2	11 57.7 -30.8	N 21 18.3 +06.2	10						
11	343 26.9 -00.1	N 21 04.2 -00.4	28 19.4 +00.8	N 17 55.0 +00.3	26 26.9 -31.0	N 21 24.5 +06.2	11						
12	358 26.8 +00.0	N 21 03.8 -00.4	43 20.2 +00.8	N 17 55.3 +00.2	40 55.9 -31.0	N 21 30.7 +06.0	12						
13	13 26.8 -00.1	N 21 03.4 -00.5	58 21.0 +00.8	N 17 55.5 +00.2	55 24.9 -31.1	N 21 36.7 +05.9	13						
14	28 26.7 +00.0	N 21 02.9 -00.4	73 21.8 +00.8	N 17 55.7 +00.2	69 53.8 -31.1	N 21 42.6 +05.8	14						
15	43 26.7 -00.1	N 21 02.5 -00.4	88 22.6 +00.8	N 17 55.9 +00.2	84 22.7 -31.3	N 21 48.4 +05.8	15						
16	58 26.6 +00.0	N 21 02.1 -00.5	103 23.4 +00.8	N 17 56.1 +00.3	98 51.4 -31.3	N 21 54.2 +05.6	16						
17	73 26.6 -00.1	N 21 01.6 -00.4	118 24.2 +00.8	N 17 56.4 +00.2	113 20.1 -31.4	N 21 59.8 +05.5	17						
18	88 26.5 +00.0	N 21 01.2 -00.5	133 25.0 +00.8	N 17 56.6 +00.2	127 48.7 -31.5	N 22 05.3 +05.3	18						
19	103 26.5 -00.1	N 21 00.7 -00.4	148 25.8 +00.8	N 17 56.8 +00.2	142 17.2 -31.6	N 22 10.6 +05.3	19						
20	118 26.4 +00.0	N 21 00.3 -00.4	163 26.6 +00.8	N 17 57.0 +00.3	156 45.6 -31.7	N 22 15.9 +05.2	20						
21	133 26.4 -00.1	N 20 59.9 -00.5	178 27.4 +00.8	N 17 57.3 +00.2	171 13.9 -31.7	N 22 21.1 +05.0	21						
22	148 26.3 +00.0	N 20 59.4 -00.4	193 28.2 +00.8	N 17 57.5 +00.2	185 42.2 -31.8	N 22 26.1 +04.9	22						
23	163 26.3 -00.1	N 20 59.0 -00.5	208 29.0 +00.8	N 17 57.7 +00.2	200 10.4 -31.9	N 22 31.0 +04.9	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		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 00'3 00'3 00'3 00'3 00'3 00'3		HP 55'7 55'8 55'9 56'0 56'1 56'2								
	SHA 243° 243° 243° 243° 242° 242°		SHA 288° 288° 288° 288° 287° 287°		SHA 291° 288° 286° 284° 282° 280°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 09:06		Greenwich Culmination Time: 09:10								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	283 55.5 +01.3	N 01 03.4 +00.5	1 27.4 +02.9	S 21 58.2 +00.1	354 09.5 +02.7	S 20 35.5 +00.1	00						
01	298 56.8 +01.2	N 01 03.9 +00.4	16 30.3 +02.8	S 21 58.3 +00.0	9 12.2 +02.7	S 20 35.6 +00.0	01						
02	313 58.0 +01.2	N 01 04.3 +00.5	31 33.1 +02.8	S 21 58.3 +00.1	24 14.9 +02.6	S 20 35.6 +00.1	02						
03	328 59.2 +01.2	N 01 04.8 +00.5	46 35.9 +02.8	S 21 58.4 +00.1	39 17.5 +02.7	S 20 35.7 +00.0	03						
04	344 00.4 +01.2	N 01 05.3 +00.4	61 38.7 +02.8	S 21 58.5 +00.0	54 20.2 +02.6	S 20 35.7 +00.1	04						
05	359 01.6 +01.2	N 01 05.7 +00.5	76 41.5 +02.8	S 21 58.5 +00.1	69 22.8 +02.7	S 20 35.8 +00.0	05						
06	14 02.8 +01.3	N 01 06.2 +00.5	91 44.3 +02.8	S 21 58.6 +00.0	84 25.5 +02.6	S 20 35.8 +00.0	06						
07	29 04.1 +01.2	N 01 06.7 +00.4	106 47.1 +02.8	S 21 58.6 +00.1	99 28.1 +02.7	S 20 35.8 +00.1	07						
08	44 05.3 +01.2	N 01 07.1 +00.5	121 49.9 +02.8	S 21 58.7 +00.0	114 30.8 +02.6	S 20 35.9 +00.0	08						
09	59 06.5 +01.2	N 01 07.6 +00.5	136 52.7 +02.8	S 21 58.7 +00.1	129 33.4 +02.7	S 20 35.9 +00.1	09						
10	74 07.7 +01.2	N 01 08.1 +00.4	151 55.5 +02.8	S 21 58.8 +00.1	144 36.1 +02.7	S 20 36.0 +00.0	10						
11	89 08.9 +01.3	N 01 08.5 +00.5	166 58.3 +02.8	S 21 58.9 +00.0	159 38.8 +02.6	S 20 36.0 +00.0	11						
12	104 10.2 +01.2	N 01 09.0 +00.4	182 01.1 +02.8	S 21 58.9 +00.1	174 41.4 +02.7	S 20 36.0 +00.1	12						
13	119 11.4 +01.2	N 01 09.4 +00.5	197 03.9 +02.8	S 21 59.0 +00.0	189 44.1 +02.6	S 20 36.1 +00.0	13						
14	134 12.6 +01.2	N 01 09.9 +00.5	212 06.7 +02.8	S 21 59.0 +00.1	204 46.7 +02.7	S 20 36.1 +00.1	14						
15	149 13.8 +01.3	N 01 10.4 +00.4	227 09.5 +02.8	S 21 59.1 +00.0	219 49.4 +02.6	S 20 36.2 +00.0	15						
16	164 15.1 +01.2	N 01 10.8 +00.5	242 12.3 +02.8	S 21 59.1 +00.1	234 52.0 +02.7	S 20 36.2 +00.1	16						
17	179 16.3 +01.2	N 01 11.3 +00.5	257 15.1 +02.8	S 21 59.2 +00.1	249 54.7 +02.7	S 20 36.3 +00.0	17						
18	194 17.5 +01.2	N 01 11.8 +00.4	272 17.9 +02.9	S 21 59.3 +00.0	264 57.4 +02.6	S 20 36.3 +00.0	18						
19	209 18.7 +01.2	N 01 12.2 +00.5	287 20.8 +02.8	S 21 59.3 +00.1	280 00.0 +02.7	S 20 36.3 +00.1	19						
20	224 19.9 +01.3	N 01 12.7 +00.5	302 23.6 +02.8	S 21 59.4 +00.0	295 02.7 +02.6	S 20 36.4 +00.0	20						
21	239 21.2 +01.2	N 01 13.2 +00.4	317 26.4 +02.8	S 21 59.4 +00.1	310 05.3 +02.7	S 20 36.4 +00.1	21						
22	254 22.4 +01.2	N 01 13.6 +00.5	332 29.2 +02.8	S 21 59.5 +00.0	325 08.0 +02.6	S 20 36.5 +00.0	22						
23	269 23.6 +01.3	N 01 14.1 +00.4	347 32.0 +02.8	S 21 59.5 +00.1	340 10.6 +02.7	S 20 36.5 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 349° 349° 348° 348° 348° 348°		SHA 066° 066° 066° 066° 066° 066°		SHA 059° 059° 059° 059° 059° 059°								
	Greenwich Culmination Time: 05:03		Greenwich Culmination Time: 23:49		Greenwich Culmination Time: 00:23								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 26.2 +00.0	N 20 58.5 -00.4	223 29.8 +00.7	N 17 57.9 +00.3	214 38.5 -31.9	N 22 35.9 +04.6	00						
01	193 26.2 -00.1	N 20 58.1 -00.4	238 30.5 +00.8	N 17 58.2 +00.2	229 06.6 -32.1	N 22 40.5 +04.6	01						
02	208 26.1 +00.0	N 20 57.7 -00.5	253 31.3 +00.8	N 17 58.4 +00.2	243 34.5 -32.1	N 22 45.1 +04.5	02						
03	223 26.1 +00.0	N 20 57.2 -00.4	268 32.1 +00.8	N 17 58.6 +00.2	258 02.4 -32.2	N 22 49.6 +04.3	03						
04	238 26.1 -00.1	N 20 56.8 -00.5	283 32.9 +00.8	N 17 58.8 +00.3	272 30.2 -32.2	N 22 53.9 +04.2	04						
05	253 26.0 +00.0	N 20 56.3 -00.4	298 33.7 +00.7	N 17 59.1 +00.2	286 58.0 -32.4	N 22 58.1 +04.1	05						
06	268 26.0 -00.1	N 20 55.9 -00.5	313 34.4 +00.8	N 17 59.3 +00.2	301 25.6 -32.4	N 23 02.2 +04.0	06						
07	283 25.9 +00.0	N 20 55.4 -00.4	328 35.2 +00.8	N 17 59.5 +00.2	315 53.2 -32.5	N 23 06.2 +03.9	07						
08	298 25.9 -00.1	N 20 55.0 -00.5	343 36.0 +00.7	N 17 59.7 +00.3	330 20.7 -32.5	N 23 10.1 +03.7	08						
09	313 25.8 +00.0	N 20 54.5 -00.4	358 36.7 +00.8	N 17 60.0 +00.2	344 48.2 -32.6	N 23 13.8 +03.6	09						
10	328 25.8 -00.1	N 20 54.1 -00.5	13 37.5 +00.8	N 18 00.2 +00.2	359 15.6 -32.7	N 23 17.4 +03.4	10						
11	343 25.7 +00.0	N 20 53.6 -00.4	28 38.3 +00.7	N 18 00.4 +00.2	13 42.9 -32.8	N 23 20.8 +03.4	11						
12	358 25.7 +00.0	N 20 53.2 -00.5	43 39.0 +00.8	N 18 00.6 +00.3	28 10.1 -32.8	N 23 24.2 +03.2	12						
13	13 25.7 -00.1	N 20 52.7 -00.4	58 39.8 +00.8	N 18 00.9 +00.2	42 37.3 -32.9	N 23 27.4 +03.1	13						
14	28 25.6 +00.0	N 20 52.3 -00.5	73 40.6 +00.7	N 18 01.1 +00.2	57 04.4 -32.9	N 23 30.5 +02.9	14						
15	43 25.6 -00.1	N 20 51.8 -00.4	88 41.3 +00.8	N 18 01.3 +00.3	71 31.5 -33.1	N 23 33.4 +02.9	15						
16	58 25.5 +00.0	N 20 51.4 -00.5	103 42.1 +00.7	N 18 01.6 +00.2	85 58.4 -33.0	N 23 36.3 +02.7	16						
17	73 25.5 -00.1	N 20 50.9 -00.4	118 42.8 +00.8	N 18 01.8 +00.2	100 25.4 -33.2	N 23 39.0 +02.5	17						
18	88 25.4 +00.0	N 20 50.5 -00.5	133 43.6 +00.7	N 18 02.0 +00.2	114 52.2 -33.2	N 23 41.5 +02.4	18						
19	103 25.4 -00.1	N 20 50.0 -00.4	148 44.3 +00.8	N 18 02.2 +00.3	129 19.0 -33.3	N 23 43.9 +02.3	19						
20	118 25.3 +00.0	N 20 49.6 -00.5	163 45.1 +00.7	N 18 02.5 +00.2	143 45.7 -33.3	N 23 46.2 +02.2	20						
21	133 25.3 +00.0	N 20 49.1 -00.4	178 45.8 +00.8	N 18 02.7 +00.2	158 12.4 -33.4	N 23 48.4 +02.0	21						
22	148 25.3 -00.1	N 20 48.7 -00.5	193 46.6 +00.7	N 18 02.9 +00.3	172 39.0 -33.4	N 23 50.4 +01.9	22						
23	163 25.2 +00.0	N 20 48.2 -00.5	208 47.3 +00.7	N 18 03.2 +00.2	187 05.6 -33.5	N 23 52.3 +01.7	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 15'3 15'4 15'4 15'4 15'5 15'5								
	HP 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 56'3 56'4 56'6 56'7 56'8 56'9								
	SHA 242° 242° 242° 242° 241° 241°		SHA 287° 287° 287° 287° 287° 287°		SHA 277° 275° 273° 270° 268° 265°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 09:05		Greenwich Culmination Time: 10:03								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	284 24.9 +01.2	N 01 14.5 +00.5	2 34.8 +02.8	S 21 59.6 +00.1	355 13.3 +02.6	S 20 36.5 +00.1	00						
01	299 26.1 +01.2	N 01 15.0 +00.5	17 37.6 +02.8	S 21 59.7 +00.0	10 15.9 +02.7	S 20 36.6 +00.0	01						
02	314 27.3 +01.2	N 01 15.5 +00.4	32 40.4 +02.8	S 21 59.7 +00.1	25 18.6 +02.7	S 20 36.6 +00.1	02						
03	329 28.5 +01.3	N 01 15.9 +00.5	47 43.2 +02.8	S 21 59.8 +00.0	40 21.3 +02.6	S 20 36.7 +00.0	03						
04	344 29.8 +01.2	N 01 16.4 +00.4	62 46.0 +02.8	S 21 59.8 +00.1	55 23.9 +02.7	S 20 36.7 +00.1	04						
05	359 31.0 +01.2	N 01 16.8 +00.5	77 48.8 +02.8	S 21 59.9 +00.0	70 26.6 +02.6	S 20 36.8 +00.0	05						
06	14 32.2 +01.3	N 01 17.3 +00.5	92 51.6 +02.8	S 21 59.9 +00.1	85 29.2 +02.7	S 20 36.8 +00.0	06						
07	29 33.5 +01.2	N 01 17.8 +00.4	107 54.4 +02.8	S 21 60.0 +00.1	100 31.9 +02.6	S 20 36.8 +00.1	07						
08	44 34.7 +01.2	N 01 18.2 +00.5	122 57.2 +02.8	S 22 00.1 +00.0	115 34.5 +02.7	S 20 36.9 +00.0	08						
09	59 35.9 +01.2	N 01 18.7 +00.4	138 00.0 +02.8	S 22 00.1 +00.1	130 37.2 +02.7	S 20 36.9 +00.1	09						
10	74 37.1 +01.3	N 01 19.1 +00.5	153 02.8 +02.8	S 22 00.2 +00.0	145 39.9 +02.6	S 20 37.0 +00.0	10						
11	89 38.4 +01.2	N 01 19.6 +00.5	168 05.6 +02.8	S 22 00.2 +00.1	160 42.5 +02.7	S 20 37.0 +00.0	11						
12	104 39.6 +01.2	N 01 20.1 +00.4	183 08.4 +02.8	S 22 00.3 +00.0	175 45.2 +02.6	S 20 37.0 +00.1	12						
13	119 40.8 +01.3	N 01 20.5 +00.5	198 11.2 +02.8	S 22 00.3 +00.1	190 47.8 +02.7	S 20 37.1 +00.0	13						
14	134 42.1 +01.2	N 01 21.0 +00.4	213 14.0 +02.8	S 22 00.4 +00.0	205 50.5 +02.6	S 20 37.1 +00.1	14						
15	149 43.3 +01.2	N 01 21.4 +00.5	228 16.8 +02.9	S 22 00.4 +00.1	220 53.1 +02.7	S 20 37.2 +00.0	15						
16	164 44.5 +01.3	N 01 21.9 +00.5	243 19.7 +02.8	S 22 00.5 +00.1	235 55.8 +02.7	S 20 37.2 +00.0	16						
17	179 45.8 +01.2	N 01 22.4 +00.4	258 22.5 +02.8	S 22 00.6 +00.0	250 58.5 +02.6	S 20 37.2 +00.1	17						
18	194 47.0 +01.3	N 01 22.8 +00.5	273 25.3 +02.8	S 22 00.6 +00.1	266 01.1 +02.7	S 20 37.3 +00.0	18						
19	209 48.3 +01.2	N 01 23.3 +00.4	288 28.1 +02.8	S 22 00.7 +00.0	281 03.8 +02.6	S 20 37.3 +00.1	19						
20	224 49.5 +01.2	N 01 23.7 +00.5	303 30.9 +02.8	S 22 00.7 +00.1	296 06.4 +02.7	S 20 37.4 +00.0	20						
21	239 50.7 +01.3	N 01 24.2 +00.4	318 33.7 +02.8	S 22 00.8 +00.0	311 09.1 +02.6	S 20 37.4 +00.1	21						
22	254 52.0 +01.2	N 01 24.6 +00.5	333 36.5 +02.8	S 22 00.8 +00.1	326 11.7 +02.7	S 20 37.5 +00.0	22						
23	269 53.2 +01.2	N 01 25.1 +00.4	348 39.3 +02.8	S 22 00.9 +00.1	341 14.4 +02.6	S 20 37.5 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 348° 348° 348° 348° 348° 348°		SHA 066° 066° 066° 066° 066° 066°		SHA 059° 059° 059° 059° 059° 059°								
	Greenwich Culmination Time: 05:01		Greenwich Culmination Time: 23:45		Greenwich Culmination Time: 00:19								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 25.2 -00.1	N 20	47.7 -00.4	223 48.0 +00.8	N 18	03.4 +00.2	201 32.1 -33.5	N 23	54.0 +01.7	00			
01	193 25.1 +00.0	N 20	47.3 -00.5	238 48.8 +00.7	N 18	03.6 +00.3	215 58.6 -33.6	N 23	55.7 +01.4	01			
02	208 25.1 +00.0	N 20	46.8 -00.4	253 49.5 +00.7	N 18	03.9 +00.2	230 25.0 -33.7	N 23	57.1 +01.4	02			
03	223 25.1 -00.1	N 20	46.4 -00.5	268 50.2 +00.8	N 18	04.1 +00.2	244 51.3 -33.7	N 23	58.5 +01.2	03			
04	238 25.0 +00.0	N 20	45.9 -00.5	283 51.0 +00.7	N 18	04.3 +00.3	259 17.6 -33.7	N 23	59.7 +01.0	04			
05	253 25.0 -00.1	N 20	45.4 -00.4	298 51.7 +00.7	N 18	04.6 +00.2	273 43.9 -33.8	N 24	00.7 +00.9	05			
06	268 24.9 +00.0	N 20	45.0 -00.5	313 52.4 +00.7	N 18	04.8 +00.2	288 10.1 -33.9	N 24	01.6 +00.8	06			
07	283 24.9 +00.0	N 20	44.5 -00.4	328 53.1 +00.8	N 18	05.0 +00.2	302 36.2 -33.9	N 24	02.4 +00.6	07			
08	298 24.9 -00.1	N 20	44.1 -00.5	343 53.9 +00.7	N 18	05.2 +00.3	317 02.3 -33.9	N 24	03.0 +00.5	08			
09	313 24.8 +00.0	N 20	43.6 -00.5	358 54.6 +00.7	N 18	05.5 +00.2	331 28.4 -34.0	N 24	03.5 +00.3	09			
10	328 24.8 -00.1	N 20	43.1 -00.4	13 55.3 +00.7	N 18	05.7 +00.2	345 54.4 -34.0	N 24	03.8 +00.2	10			
11	343 24.7 +00.0	N 20	42.7 -00.5	28 56.0 +00.7	N 18	05.9 +00.3	0 20.4 -34.0	N 24	04.0 +00.1	11			
12	358 24.7 +00.0	N 20	42.2 -00.5	43 56.7 +00.8	N 18	06.2 +00.2	14 46.4 -34.1	N 24	04.1 -00.1	12			
13	13 24.7 -00.1	N 20	41.7 -00.4	58 57.5 +00.7	N 18	06.4 +00.2	29 12.3 -34.2	N 24	04.0 -00.3	13			
14	28 24.6 +00.0	N 20	41.3 -00.5	73 58.2 +00.7	N 18	06.6 +00.3	43 38.1 -34.1	N 24	03.7 -00.3	14			
15	43 24.6 -00.1	N 20	40.8 -00.5	88 58.9 +00.7	N 18	06.9 +00.2	58 04.0 -34.2	N 24	03.4 -00.6	15			
16	58 24.5 +00.0	N 20	40.3 -00.4	103 59.6 +00.7	N 18	07.1 +00.2	72 29.8 -34.2	N 24	02.8 -00.6	16			
17	73 24.5 +00.0	N 20	39.9 -00.5	119 00.3 +00.7	N 18	07.3 +00.3	86 55.6 -34.3	N 24	02.2 -00.9	17			
18	88 24.5 -00.1	N 20	39.4 -00.5	134 01.0 +00.7	N 18	07.6 +00.2	101 21.3 -34.3	N 24	01.3 -00.9	18			
19	103 24.4 +00.0	N 20	38.9 -00.4	149 01.7 +00.7	N 18	07.8 +00.3	115 47.0 -34.3	N 24	00.4 -01.2	19			
20	118 24.4 +00.0	N 20	38.5 -00.5	164 02.4 +00.7	N 18	08.1 +00.2	130 12.7 -34.3	N 23	59.2 -01.2	20			
21	133 24.4 -00.1	N 20	38.0 -00.5	179 03.1 +00.7	N 18	08.3 +00.2	144 38.4 -34.4	N 23	58.0 -01.4	21			
22	148 24.3 +00.0	N 20	37.5 -00.4	194 03.8 +00.7	N 18	08.5 +00.3	159 04.0 -34.4	N 23	56.6 -01.6	22			
23	163 24.3 +00.0	N 20	37.1 -00.5	209 04.5 +00.7	N 18	08.8 +00.2	173 29.6 -34.4	N 23	55.0 -01.7	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'7 15'7 15'7 15'7 15'7 15'7			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 15'5 15'6 15'6 15'6 15'7 15'7						
	HP 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 57'0 57'1 57'3 57'4 57'5 57'6						
	SHA 241° 241° 241° 241° 240° 240°			SHA 286° 286° 286° 286° 286° 286°			SHA 263° 261° 258° 256° 253° 251°						
	Greenwich Culmination Time: 12:06			Greenwich Culmination Time: 09:04			Greenwich Culmination Time: 10:58						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	284 54.4 +01.3	N 01	25.5 +00.5	3 42.1 +02.8	S 22	01.0 +00.0	356 17.0 +02.7	S 20	37.5 +00.1	00			
01	299 55.7 +01.2	N 01	26.0 +00.5	18 44.9 +02.8	S 22	01.0 +00.1	11 19.7 +02.7	S 20	37.6 +00.0	01			
02	314 56.9 +01.3	N 01	26.5 +00.4	33 47.7 +02.8	S 22	01.1 +00.0	26 22.4 +02.6	S 20	37.6 +00.1	02			
03	329 58.2 +01.2	N 01	26.9 +00.5	48 50.5 +02.8	S 22	01.1 +00.1	41 25.0 +02.7	S 20	37.7 +00.0	03			
04	344 59.4 +01.2	N 01	27.4 +00.4	63 53.3 +02.8	S 22	01.2 +00.0	56 27.7 +02.6	S 20	37.7 +00.0	04			
05	0 00.6 +01.3	N 01	27.8 +00.5	78 56.1 +02.8	S 22	01.2 +00.1	71 30.3 +02.7	S 20	37.7 +00.1	05			
06	15 01.9 +01.2	N 01	28.3 +00.4	93 58.9 +02.8	S 22	01.3 +00.1	86 33.0 +02.6	S 20	37.8 +00.0	06			
07	30 03.1 +01.3	N 01	28.7 +00.5	109 01.7 +02.8	S 22	01.4 +00.0	101 35.6 +02.7	S 20	37.8 +00.1	07			
08	45 04.4 +01.2	N 01	29.2 +00.4	124 04.5 +02.8	S 22	01.4 +00.1	116 38.3 +02.7	S 20	37.9 +00.0	08			
09	60 05.6 +01.3	N 01	29.6 +00.5	139 07.3 +02.8	S 22	01.5 +00.0	131 41.0 +02.6	S 20	37.9 +00.1	09			
10	75 06.9 +01.2	N 01	30.1 +00.4	154 10.1 +02.8	S 22	01.5 +00.1	146 43.6 +02.7	S 20	38.0 +00.0	10			
11	90 08.1 +01.2	N 01	30.5 +00.5	169 12.9 +02.8	S 22	01.6 +00.0	161 46.3 +02.6	S 20	38.0 +00.0	11			
12	105 09.3 +01.3	N 01	31.0 +00.5	184 15.7 +02.8	S 22	01.6 +00.1	176 48.9 +02.7	S 20	38.0 +00.1	12			
13	120 10.6 +01.2	N 01	31.5 +00.4	199 18.5 +02.8	S 22	01.7 +00.0	191 51.6 +02.6	S 20	38.1 +00.0	13			
14	135 11.8 +01.3	N 01	31.9 +00.5	214 21.3 +02.8	S 22	01.7 +00.1	206 54.2 +02.7	S 20	38.1 +00.1	14			
15	150 13.1 +01.2	N 01	32.4 +00.4	229 24.1 +02.8	S 22	01.8 +00.1	221 56.9 +02.7	S 20	38.2 +00.0	15			
16	165 14.3 +01.3	N 01	32.8 +00.5	244 26.9 +02.9	S 22	01.9 +00.0	236 59.6 +02.6	S 20	38.2 +00.0	16			
17	180 15.6 +01.2	N 01	33.3 +00.4	259 29.8 +02.8	S 22	01.9 +00.1	252 02.2 +02.7	S 20	38.2 +00.1	17			
18	195 16.8 +01.3	N 01	33.7 +00.5	274 32.6 +02.8	S 22	02.0 +00.0	267 04.9 +02.6	S 20	38.3 +00.0	18			
19	210 18.1 +01.2	N 01	34.2 +00.4	289 35.4 +02.8	S 22	02.0 +00.1	282 07.5 +02.7	S 20	38.3 +00.1	19			
20	225 19.3 +01.3	N 01	34.6 +00.5	304 38.2 +02.8	S 22	02.1 +00.0	297 10.2 +02.6	S 20	38.4 +00.0	20			
21	240 20.6 +01.2	N 01	35.1 +00.4	319 41.0 +02.8	S 22	02.1 +00.1	312 12.8 +02.7	S 20	38.4 +00.0	21			
22	255 21.8 +01.3	N 01	35.5 +00.5	334 43.8 +02.8	S 22	02.2 +00.0	327 15.5 +02.7	S 20	38.4 +00.1	22			
23	270 23.1 +01.2	N 01	36.0 +00.4	349 46.6 +02.8	S 22	02.2 +00.1	342 18.2 +02.6	S 20	38.5 +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 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'2 00'2 00'2 00'2 00'2 00'2						
	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 348° 348° 347° 347° 347° 347°			SHA 066° 066° 067° 067° 067° 067°			SHA 059° 059° 059° 059° 059° 059°						
	Greenwich Culmination Time: 04:59			Greenwich Culmination Time: 23:40			Greenwich Culmination Time: 00:14						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 24.3 -00.1	N 20	36.6 -00.5	224 05.2 +00.7	N 18	09.0 +00.2	187 55.2 -34.4	N 23	53.3 -01.9	00			
01	193 24.2 +00.0	N 20	36.1 -00.5	239 05.9 +00.7	N 18	09.2 +00.3	202 20.8 -34.4	N 23	51.4 -02.0	01			
02	208 24.2 +00.0	N 20	35.6 -00.4	254 06.6 +00.6	N 18	09.5 +00.2	216 46.4 -34.5	N 23	49.4 -02.1	02			
03	223 24.2 -00.1	N 20	35.2 -00.5	269 07.2 +00.7	N 18	09.7 +00.2	231 11.9 -34.5	N 23	47.3 -02.3	03			
04	238 24.1 +00.0	N 20	34.7 -00.5	284 07.9 +00.7	N 18	09.9 +00.3	245 37.4 -34.4	N 23	45.0 -02.5	04			
05	253 24.1 -00.1	N 20	34.2 -00.5	299 08.6 +00.7	N 18	10.2 +00.2	260 03.0 -34.5	N 23	42.5 -02.6	05			
06	268 24.0 +00.0	N 20	33.7 -00.4	314 09.3 +00.7	N 18	10.4 +00.2	274 28.5 -34.5	N 23	39.9 -02.7	06			
07	283 24.0 +00.0	N 20	33.3 -00.5	329 10.0 +00.6	N 18	10.6 +00.3	288 54.0 -34.5	N 23	37.2 -02.9	07			
08	298 24.0 -00.1	N 20	32.8 -00.5	344 10.6 +00.7	N 18	10.9 +00.2	303 19.5 -34.6	N 23	34.3 -03.1	08			
09	313 23.9 +00.0	N 20	32.3 -00.5	359 11.3 +00.7	N 18	11.1 +00.3	317 44.9 -34.5	N 23	31.2 -03.2	09			
10	328 23.9 +00.0	N 20	31.8 -00.5	14 12.0 +00.7	N 18	11.4 +00.2	332 10.4 -34.5	N 23	28.0 -03.3	10			
11	343 23.9 -00.1	N 20	31.3 -00.4	29 12.7 +00.6	N 18	11.6 +00.2	346 35.9 -34.5	N 23	24.7 -03.5	11			
12	358 23.8 +00.0	N 20	30.9 -00.5	44 13.3 +00.7	N 18	11.8 +00.3	1 01.4 -34.6	N 23	21.2 -03.7	12			
13	13 23.8 +00.0	N 20	30.4 -00.5	59 14.0 +00.7	N 18	12.1 +00.2	15 26.8 -34.5	N 23	17.5 -03.7	13			
14	28 23.8 -00.1	N 20	29.9 -00.5	74 14.7 +00.6	N 18	12.3 +00.2	29 52.3 -34.5	N 23	13.8 -04.0	14			
15	43 23.7 +00.0	N 20	29.4 -00.5	89 15.3 +00.7	N 18	12.5 +00.3	44 17.8 -34.5	N 23	09.8 -04.1	15			
16	58 23.7 +00.0	N 20	28.9 -00.4	104 16.0 +00.7	N 18	12.8 +00.2	58 43.3 -34.5	N 23	05.7 -04.2	16			
17	73 23.7 +00.0	N 20	28.5 -00.5	119 16.7 +00.6	N 18	13.0 +00.3	73 08.8 -34.5	N 23	01.5 -04.4	17			
18	88 23.7 -00.1	N 20	28.0 -00.5	134 17.3 +00.7	N 18	13.3 +00.2	87 34.3 -34.5	N 22	57.1 -04.5	18			
19	103 23.6 +00.0	N 20	27.5 -00.5	149 18.0 +00.6	N 18	13.5 +00.2	101 59.8 -34.5	N 22	52.6 -04.7	19			
20	118 23.6 +00.0	N 20	27.0 -00.5	164 18.6 +00.7	N 18	13.7 +00.3	116 25.3 -34.5	N 22	47.9 -04.8	20			
21	133 23.6 -00.1	N 20	26.5 -00.5	179 19.3 +00.6	N 18	14.0 +00.2	130 50.8 -34.5	N 22	43.1 -05.0	21			
22	148 23.5 +00.0	N 20	26.0 -00.4	194 19.9 +00.7	N 18	14.2 +00.3	145 16.3 -34.4	N 22	38.1 -05.1	22			
23	163 23.5 +00.0	N 20	25.6 -00.5	209 20.6 +00.6	N 18	14.5 +00.2	159 41.9 -34.4	N 22	33.0 -05.2	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'7 15'7 15'7 15'7 15'7 15'7			SD 00'3 00'3 00'3 00'3 00'3 00'3			SD 15'7 15'7 15'8 15'8 15'8 15'9						
	HP 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 57'7 57'8 57'9 58'0 58'1 58'2						
	SHA 240° 240° 240° 240° 239° 239°			SHA 286° 286° 286° 285° 285° 285°			SHA 248° 246° 244° 241° 239° 236°						
	Greenwich Culmination Time: 12:06			Greenwich Culmination Time: 09:03			Greenwich Culmination Time: 11:55						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	285 24.3 +01.3	N 01	36.4 +00.5	4 49.4 +02.8	S 22	02.3 +00.1	357 20.8 +02.7	S 20	38.5 +00.1	00			
01	300 25.6 +01.2	N 01	36.9 +00.4	19 52.2 +02.8	S 22	02.4 +00.0	12 23.5 +02.6	S 20	38.6 +00.0	01			
02	315 26.8 +01.3	N 01	37.3 +00.5	34 55.0 +02.8	S 22	02.4 +00.1	27 26.1 +02.7	S 20	38.6 +00.1	02			
03	330 28.1 +01.2	N 01	37.8 +00.4	49 57.8 +02.8	S 22	02.5 +00.0	42 28.8 +02.6	S 20	38.7 +00.0	03			
04	345 29.3 +01.3	N 01	38.2 +00.5	65 00.6 +02.8	S 22	02.5 +00.1	57 31.4 +02.7	S 20	38.7 +00.0	04			
05	0 30.6 +01.2	N 01	38.7 +00.4	80 03.4 +02.8	S 22	02.6 +00.0	72 34.1 +02.6	S 20	38.7 +00.1	05			
06	15 31.8 +01.3	N 01	39.1 +00.5	95 06.2 +02.8	S 22	02.6 +00.1	87 36.7 +02.7	S 20	38.8 +00.0	06			
07	30 33.1 +01.2	N 01	39.6 +00.4	110 09.0 +02.8	S 22	02.7 +00.0	102 39.4 +02.7	S 20	38.8 +00.1	07			
08	45 34.3 +01.3	N 01	40.0 +00.5	125 11.8 +02.8	S 22	02.7 +00.1	117 42.1 +02.6	S 20	38.9 +00.0	08			
09	60 35.6 +01.3	N 01	40.5 +00.4	140 14.6 +02.8	S 22	02.8 +00.1	132 44.7 +02.7	S 20	38.9 +00.0	09			
10	75 36.9 +01.2	N 01	40.9 +00.5	155 17.4 +02.8	S 22	02.9 +00.0	147 47.4 +02.6	S 20	38.9 +00.1	10			
11	90 38.1 +01.3	N 01	41.4 +00.4	170 20.2 +02.8	S 22	02.9 +00.1	162 50.0 +02.7	S 20	39.0 +00.0	11			
12	105 39.4 +01.2	N 01	41.8 +00.4	185 23.0 +02.8	S 22	03.0 +00.0	177 52.7 +02.6	S 20	39.0 +00.1	12			
13	120 40.6 +01.3	N 01	42.2 +00.5	200 25.8 +02.8	S 22	03.0 +00.1	192 55.3 +02.7	S 20	39.1 +00.0	13			
14	135 41.9 +01.2	N 01	42.7 +00.4	215 28.6 +02.8	S 22	03.1 +00.0	207 58.0 +02.7	S 20	39.1 +00.1	14			
15	150 43.1 +01.3	N 01	43.1 +00.5	230 31.4 +02.8	S 22	03.1 +00.1	223 00.7 +02.6	S 20	39.2 +00.0	15			
16	165 44.4 +01.3	N 01	43.6 +00.4	245 34.2 +02.8	S 22	03.2 +00.0	238 03.3 +02.7	S 20	39.2 +00.0	16			
17	180 45.7 +01.2	N 01	44.0 +00.5	260 37.0 +02.8	S 22	03.2 +00.1	253 06.0 +02.6	S 20	39.2 +00.1	17			
18	195 46.9 +01.3	N 01	44.5 +00.4	275 39.8 +02.8	S 22	03.3 +00.1	268 08.6 +02.7	S 20	39.3 +00.0	18			
19	210 48.2 +01.2	N 01	44.9 +00.5	290 42.6 +02.8	S 22	03.4 +00.0	283 11.3 +02.6	S 20	39.3 +00.1	19			
20	225 49.4 +01.3	N 01	45.4 +00.4	305 45.4 +02.8	S 22	03.4 +00.1	298 13.9 +02.7	S 20	39.4 +00.0	20			
21	240 50.7 +01.3	N 01	45.8 +00.5	320 48.2 +02.8	S 22	03.5 +00.0	313 16.6 +02.7	S 20	39.4 +00.0	21			
22	255 52.0 +01.2	N 01	46.3 +00.4	335 51.0 +02.8	S 22	03.5 +00.1	328 19.3 +02.6	S 20	39.4 +00.1	22			
23	270 53.2 +01.3	N 01	46.7 +00.5	350 53.8 +02.8	S 22	03.6 +00.0	343 21.9 +02.7	S 20	39.5 +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 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'2 00'2 00'2 00'2 00'2 00'2						
	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 347° 347° 347° 347° 347° 347°			SHA 067° 067° 067° 067° 067° 067°			SHA 059° 059° 059° 059° 059° 059°						
	Greenwich Culmination Time: 04:57			Greenwich Culmination Time: 23:36			Greenwich Culmination Time: 00:10						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 23.5 -00.1	N 20 25.1 -00.5	224 21.2 +00.7	N 18 14.7 +00.2	174 07.5 -34.4	N 22 27.8 -05.4	00						
01	193 23.4 +00.0	N 20 24.6 -00.5	239 21.9 +00.6	N 18 14.9 +00.3	188 33.1 -34.4	N 22 22.4 -05.6	01						
02	208 23.4 +00.0	N 20 24.1 -00.5	254 22.5 +00.7	N 18 15.2 +00.2	202 58.7 -34.4	N 22 16.8 -05.7	02						
03	223 23.4 +00.0	N 20 23.6 -00.5	269 23.2 +00.6	N 18 15.4 +00.2	217 24.3 -34.4	N 22 11.1 -05.8	03						
04	238 23.4 -00.1	N 20 23.1 -00.5	284 23.8 +00.6	N 18 15.6 +00.3	231 49.9 -34.3	N 22 05.3 -06.0	04						
05	253 23.3 +00.0	N 20 22.6 -00.5	299 24.4 +00.7	N 18 15.9 +00.2	246 15.6 -34.3	N 21 59.3 -06.1	05						
06	268 23.3 +00.0	N 20 22.1 -00.4	314 25.1 +00.6	N 18 16.1 +00.3	260 41.3 -34.3	N 21 53.2 -06.2	06						
07	283 23.3 -00.1	N 20 21.7 -00.5	329 25.7 +00.6	N 18 16.4 +00.2	275 07.0 -34.2	N 21 47.0 -06.4	07						
08	298 23.2 +00.0	N 20 21.2 -00.5	344 26.3 +00.7	N 18 16.6 +00.2	289 32.8 -34.3	N 21 40.6 -06.6	08						
09	313 23.2 +00.0	N 20 20.7 -00.5	359 27.0 +00.6	N 18 16.8 +00.3	303 58.5 -34.2	N 21 34.0 -06.6	09						
10	328 23.2 +00.0	N 20 20.2 -00.5	14 27.6 +00.6	N 18 17.1 +00.2	318 24.3 -34.1	N 21 27.4 -06.8	10						
11	343 23.2 -00.1	N 20 19.7 -00.5	29 28.2 +00.6	N 18 17.3 +00.3	332 50.2 -34.2	N 21 20.6 -07.0	11						
12	358 23.1 +00.0	N 20 19.2 -00.5	44 28.8 +00.7	N 18 17.6 +00.2	347 16.0 -34.1	N 21 13.6 -07.1	12						
13	13 23.1 +00.0	N 20 18.7 -00.5	59 29.5 +00.6	N 18 17.8 +00.3	1 41.9 -34.0	N 21 06.5 -07.2	13						
14	28 23.1 +00.0	N 20 18.2 -00.5	74 30.1 +00.6	N 18 18.1 +00.2	16 07.9 -34.1	N 20 59.3 -07.3	14						
15	43 23.1 -00.1	N 20 17.7 -00.5	89 30.7 +00.6	N 18 18.3 +00.2	30 33.8 -34.0	N 20 52.0 -07.5	15						
16	58 23.0 +00.0	N 20 17.2 -00.5	104 31.3 +00.6	N 18 18.5 +00.3	44 59.8 -34.0	N 20 44.5 -07.7	16						
17	73 23.0 +00.0	N 20 16.7 -00.5	119 31.9 +00.7	N 18 18.8 +00.2	59 25.8 -33.9	N 20 36.8 -07.7	17						
18	88 23.0 -00.1	N 20 16.2 -00.5	134 32.6 +00.6	N 18 19.0 +00.3	73 51.9 -33.9	N 20 29.1 -07.9	18						
19	103 22.9 +00.0	N 20 15.7 -00.5	149 33.2 +00.6	N 18 19.3 +00.2	88 18.0 -33.8	N 20 21.2 -08.0	19						
20	118 22.9 +00.0	N 20 15.2 -00.5	164 33.8 +00.6	N 18 19.5 +00.2	102 44.2 -33.8	N 20 13.2 -08.2	20						
21	133 22.9 +00.0	N 20 14.7 -00.5	179 34.4 +00.6	N 18 19.7 +00.3	117 10.4 -33.8	N 20 05.0 -08.2	21						
22	148 22.9 +00.0	N 20 14.2 -00.5	194 35.0 +00.6	N 18 20.0 +00.2	131 36.6 -33.8	N 19 56.8 -08.4	22						
23	163 22.9 -00.1	N 20 13.7 -00.5	209 35.6 +00.6	N 18 20.2 +00.3	146 02.8 -33.6	N 19 48.4 -08.6	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 15'9 15'9 15'9 16'0 16'0 16'0								
	HP 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 58'3 58'4 58'5 58'6 58'7 58'7								
	SHA 239° 239° 239° 239° 238° 238°		SHA 285° 285° 285° 285° 285° 284°		SHA 234° 231° 229° 226° 224° 221°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 09:02		Greenwich Culmination Time: 12:52								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	285 54.5 +01.3	N 01 47.2 +00.4	5 56.6 +02.8	S 22 03.6 +00.1	358 24.6 +02.6	S 20 39.5 +00.1	00						
01	300 55.8 +01.2	N 01 47.6 +00.4	20 59.4 +02.8	S 22 03.7 +00.0	13 27.2 +02.7	S 20 39.6 +00.0	01						
02	315 57.0 +01.3	N 01 48.0 +00.5	36 02.2 +02.8	S 22 03.7 +00.1	28 29.9 +02.6	S 20 39.6 +00.0	02						
03	330 58.3 +01.2	N 01 48.5 +00.4	51 05.0 +02.8	S 22 03.8 +00.1	43 32.5 +02.7	S 20 39.6 +00.1	03						
04	345 59.5 +01.3	N 01 48.9 +00.5	66 07.8 +02.8	S 22 03.9 +00.0	58 35.2 +02.7	S 20 39.7 +00.0	04						
05	1 00.8 +01.3	N 01 49.4 +00.4	81 10.6 +02.8	S 22 03.9 +00.1	73 37.9 +02.6	S 20 39.7 +00.1	05						
06	16 02.1 +01.2	N 01 49.8 +00.5	96 13.4 +02.8	S 22 04.0 +00.0	88 40.5 +02.7	S 20 39.8 +00.0	06						
07	31 03.3 +01.3	N 01 50.3 +00.4	111 16.2 +02.8	S 22 04.0 +00.1	103 43.2 +02.6	S 20 39.8 +00.1	07						
08	46 04.6 +01.3	N 01 50.7 +00.4	126 19.0 +02.8	S 22 04.1 +00.0	118 45.8 +02.7	S 20 39.9 +00.0	08						
09	61 05.9 +01.3	N 01 51.1 +00.5	141 21.8 +02.9	S 22 04.1 +00.1	133 48.5 +02.6	S 20 39.9 +00.0	09						
10	76 07.2 +01.2	N 01 51.6 +00.4	156 24.7 +02.8	S 22 04.2 +00.0	148 51.1 +02.7	S 20 39.9 +00.1	10						
11	91 08.4 +01.3	N 01 52.0 +00.5	171 27.5 +02.8	S 22 04.2 +00.1	163 53.8 +02.7	S 20 40.0 +00.0	11						
12	106 09.7 +01.3	N 01 52.5 +00.4	186 30.3 +02.8	S 22 04.3 +00.1	178 56.5 +02.6	S 20 40.0 +00.1	12						
13	121 11.0 +01.2	N 01 52.9 +00.4	201 33.1 +02.8	S 22 04.4 +00.0	193 59.1 +02.7	S 20 40.1 +00.0	13						
14	136 12.2 +01.3	N 01 53.3 +00.5	216 35.9 +02.8	S 22 04.4 +00.1	209 01.8 +02.6	S 20 40.1 +00.0	14						
15	151 13.5 +01.3	N 01 53.8 +00.4	231 38.7 +02.8	S 22 04.5 +00.0	224 04.4 +02.7	S 20 40.1 +00.1	15						
16	166 14.8 +01.2	N 01 54.2 +00.5	246 41.5 +02.8	S 22 04.5 +00.1	239 07.1 +02.6	S 20 40.2 +00.0	16						
17	181 16.0 +01.3	N 01 54.7 +00.4	261 44.3 +02.8	S 22 04.6 +00.0	254 09.7 +02.7	S 20 40.2 +00.1	17						
18	196 17.3 +01.3	N 01 55.1 +00.4	276 47.1 +02.8	S 22 04.6 +00.1	269 12.4 +02.7	S 20 40.3 +00.0	18						
19	211 18.6 +01.3	N 01 55.5 +00.5	291 49.9 +02.8	S 22 04.7 +00.0	284 15.1 +02.6	S 20 40.3 +00.0	19						
20	226 19.9 +01.2	N 01 56.0 +00.4	306 52.7 +02.8	S 22 04.7 +00.1	299 17.7 +02.7	S 20 40.3 +00.1	20						
21	241 21.1 +01.3	N 01 56.4 +00.5	321 55.5 +02.8	S 22 04.8 +00.0	314 20.4 +02.6	S 20 40.4 +00.0	21						
22	256 22.4 +01.3	N 01 56.9 +00.4	336 58.3 +02.8	S 22 04.8 +00.1	329 23.0 +02.7	S 20 40.4 +00.1	22						
23	271 23.7 +01.3	N 01 57.3 +00.4	352 01.1 +02.8	S 22 04.9 +00.1	344 25.7 +02.6	S 20 40.5 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 347° 347° 346° 346° 346° 346°		SHA 067° 067° 067° 067° 067° 067°		SHA 059° 059° 059° 059° 059° 059°								
	Greenwich Culmination Time: 04:55		Greenwich Culmination Time: 23:31		Greenwich Culmination Time: 00:06								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 22.8 +00.0	N 20 13.2 -00.5	224 36.2 +00.6	N 18 20.5 +00.2	160 29.2 -33.7	N 19 39.8 -08.6	00						
01	193 22.8 +00.0	N 20 12.7 -00.5	239 36.8 +00.6	N 18 20.7 +00.3	174 55.5 -33.6	N 19 31.2 -08.8	01						
02	208 22.8 +00.0	N 20 12.2 -00.5	254 37.4 +00.6	N 18 21.0 +00.2	189 21.9 -33.6	N 19 22.4 -08.9	02						
03	223 22.8 -00.1	N 20 11.7 -00.5	269 38.0 +00.6	N 18 21.2 +00.2	203 48.3 -33.5	N 19 13.5 -09.0	03						
04	238 22.7 +00.0	N 20 11.2 -00.5	284 38.6 +00.6	N 18 21.4 +00.3	218 14.8 -33.4	N 19 04.5 -09.2	04						
05	253 22.7 +00.0	N 20 10.7 -00.5	299 39.2 +00.6	N 18 21.7 +00.2	232 41.4 -33.5	N 18 55.3 -09.3	05						
06	268 22.7 +00.0	N 20 10.2 -00.5	314 39.8 +00.6	N 18 21.9 +00.3	247 07.9 -33.3	N 18 46.0 -09.3	06						
07	283 22.7 -00.1	N 20 09.7 -00.5	329 40.4 +00.6	N 18 22.2 +00.2	261 34.6 -33.4	N 18 36.7 -09.6	07						
08	298 22.6 +00.0	N 20 09.2 -00.5	344 41.0 +00.6	N 18 22.4 +00.2	276 01.2 -33.3	N 18 27.1 -09.6	08						
09	313 22.6 +00.0	N 20 08.7 -00.5	359 41.6 +00.5	N 18 22.6 +00.3	290 27.9 -33.2	N 18 17.5 -09.7	09						
10	328 22.6 +00.0	N 20 08.2 -00.5	14 42.1 +00.6	N 18 22.9 +00.2	304 54.7 -33.2	N 18 07.8 -09.9	10						
11	343 22.6 +00.0	N 20 07.7 -00.5	29 42.7 +00.6	N 18 23.1 +00.3	319 21.5 -33.1	N 17 57.9 -09.9	11						
12	358 22.6 -00.1	N 20 07.2 -00.5	44 43.3 +00.6	N 18 23.4 +00.2	333 48.4 -33.1	N 17 48.0 -10.1	12						
13	13 22.5 +00.0	N 20 06.7 -00.5	59 43.9 +00.6	N 18 23.6 +00.3	348 15.3 -33.0	N 17 37.9 -10.2	13						
14	28 22.5 +00.0	N 20 06.2 -00.5	74 44.5 +00.6	N 18 23.9 +00.2	2 42.3 -33.0	N 17 27.7 -10.3	14						
15	43 22.5 +00.0	N 20 05.7 -00.6	89 45.1 +00.5	N 18 24.1 +00.2	17 09.3 -33.0	N 17 17.4 -10.4	15						
16	58 22.5 +00.0	N 20 05.1 -00.5	104 45.6 +00.6	N 18 24.3 +00.3	31 36.3 -32.9	N 17 07.0 -10.5	16						
17	73 22.5 -00.1	N 20 04.6 -00.5	119 46.2 +00.6	N 18 24.6 +00.2	46 03.4 -32.8	N 16 56.5 -10.7	17						
18	88 22.4 +00.0	N 20 04.1 -00.5	134 46.8 +00.5	N 18 24.8 +00.3	60 30.6 -32.8	N 16 45.8 -10.7	18						
19	103 22.4 +00.0	N 20 03.6 -00.5	149 47.3 +00.6	N 18 25.1 +00.2	74 57.8 -32.7	N 16 35.1 -10.8	19						
20	118 22.4 +00.0	N 20 03.1 -00.5	164 47.9 +00.6	N 18 25.3 +00.3	89 25.1 -32.7	N 16 24.3 -11.0	20						
21	133 22.4 +00.0	N 20 02.6 -00.5	179 48.5 +00.5	N 18 25.6 +00.2	103 52.4 -32.6	N 16 13.3 -11.0	21						
22	148 22.4 -00.1	N 20 02.1 -00.5	194 49.0 +00.6	N 18 25.8 +00.3	118 19.8 -32.6	N 16 02.3 -11.1	22						
23	163 22.3 +00.0	N 20 01.6 -00.6	209 49.6 +00.6	N 18 26.1 +00.2	132 47.2 -32.6	N 15 51.2 -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 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		SD 16'0 16'0 16'1 16'1 16'1 16'1								
	HP 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 58'8 58'9 59'0 59'0 59'1 59'1								
	SHA 238° 238° 238° 238° 237° 237°		SHA 284° 284° 284° 284° 284° 284°		SHA 219° 217° 214° 212° 210° 207°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 09:01		Greenwich Culmination Time: 13:48								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	286 25.0 +01.2	N 01 57.7 +00.5	7 03.9 +02.8	S 22 05.0 +00.0	359 28.3 +02.7	S 20 40.5 +00.1	00						
01	301 26.2 +01.3	N 01 58.2 +00.4	22 06.7 +02.8	S 22 05.0 +00.1	14 31.0 +02.7	S 20 40.6 +00.0	01						
02	316 27.5 +01.3	N 01 58.6 +00.5	37 09.5 +02.8	S 22 05.1 +00.0	29 33.7 +02.6	S 20 40.6 +00.0	02						
03	331 28.8 +01.3	N 01 59.1 +00.4	52 12.3 +02.8	S 22 05.1 +00.1	44 36.3 +02.7	S 20 40.6 +00.1	03						
04	346 30.1 +01.2	N 01 59.5 +00.4	67 15.1 +02.8	S 22 05.2 +00.0	59 39.0 +02.6	S 20 40.7 +00.0	04						
05	1 31.3 +01.3	N 01 59.9 +00.5	82 17.9 +02.8	S 22 05.2 +00.1	74 41.6 +02.7	S 20 40.7 +00.1	05						
06	16 32.6 +01.3	N 02 00.4 +00.4	97 20.7 +02.8	S 22 05.3 +00.0	89 44.3 +02.6	S 20 40.8 +00.0	06						
07	31 33.9 +01.3	N 02 00.8 +00.4	112 23.5 +02.8	S 22 05.3 +00.1	104 46.9 +02.7	S 20 40.8 +00.0	07						
08	46 35.2 +01.3	N 02 01.2 +00.5	127 26.3 +02.8	S 22 05.4 +00.1	119 49.6 +02.7	S 20 40.8 +00.1	08						
09	61 36.5 +01.2	N 02 01.7 +00.4	142 29.1 +02.8	S 22 05.5 +00.0	134 52.3 +02.6	S 20 40.9 +00.0	09						
10	76 37.7 +01.3	N 02 02.1 +00.4	157 31.9 +02.8	S 22 05.5 +00.1	149 54.9 +02.7	S 20 40.9 +00.1	10						
11	91 39.0 +01.3	N 02 02.5 +00.5	172 34.7 +02.8	S 22 05.6 +00.0	164 57.6 +02.6	S 20 41.0 +00.0	11						
12	106 40.3 +01.3	N 02 03.0 +00.4	187 37.5 +02.8	S 22 05.6 +00.1	180 00.2 +02.7	S 20 41.0 +00.0	12						
13	121 41.6 +01.3	N 02 03.4 +00.4	202 40.3 +02.8	S 22 05.7 +00.0	195 02.9 +02.6	S 20 41.0 +00.1	13						
14	136 42.9 +01.3	N 02 03.8 +00.5	217 43.1 +02.8	S 22 05.7 +00.1	210 05.5 +02.7	S 20 41.1 +00.0	14						
15	151 44.2 +01.2	N 02 04.3 +00.4	232 45.9 +02.8	S 22 05.8 +00.0	225 08.2 +02.7	S 20 41.1 +00.1	15						
16	166 45.4 +01.3	N 02 04.7 +00.4	247 48.7 +02.8	S 22 05.8 +00.1	240 10.9 +02.6	S 20 41.2 +00.0	16						
17	181 46.7 +01.3	N 02 05.1 +00.5	262 51.5 +02.8	S 22 05.9 +00.0	255 13.5 +02.7	S 20 41.2 +00.1	17						
18	196 48.0 +01.3	N 02 05.6 +00.4	277 54.3 +02.7	S 22 05.9 +00.1	270 16.2 +02.6	S 20 41.3 +00.0	18						
19	211 49.3 +01.3	N 02 06.0 +00.4	292 57.0 +02.8	S 22 06.0 +00.0	285 18.8 +02.7	S 20 41.3 +00.0	19						
20	226 50.6 +01.3	N 02 06.4 +00.5	307 59.8 +02.8	S 22 06.0 +00.1	300 21.5 +02.6	S 20 41.3 +00.1	20						
21	241 51.9 +01.3	N 02 06.9 +00.4	323 02.6 +02.8	S 22 06.1 +00.1	315 24.1 +02.7	S 20 41.4 +00.0	21						
22	256 53.2 +01.2	N 02 07.3 +00.4	338 05.4 +02.8	S 22 06.2 +00.0	330 26.8 +02.6	S 20 41.4 +00.1	22						
23	271 54.4 +01.3	N 02 07.7 +00.5	353 08.2 +02.8	S 22 06.2 +00.1	345 29.4 +02.7	S 20 41.5 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 346° 346° 346° 346° 346° 346°		SHA 067° 067° 067° 067° 067° 067°		SHA 059° 059° 059° 059° 059° 059°								
	Greenwich Culmination Time: 04:53		Greenwich Culmination Time: 23:27		Greenwich Culmination Time: 00:02								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 22.3 +00.0	N 20 01.0 -00.5	224 50.2 +00.5	N 18 26.3 +00.2	147 14.6 -32.4	N 15 39.9 -11.3	00						
01	193 22.3 +00.0	N 20 00.5 -00.5	239 50.7 +00.6	N 18 26.5 +00.3	161 42.2 -32.5	N 15 28.6 -11.4	01						
02	208 22.3 +00.0	N 20 00.0 -00.5	254 51.3 +00.5	N 18 26.8 +00.2	176 09.7 -32.3	N 15 17.2 -11.5	02						
03	223 22.3 +00.0	N 19 59.5 -00.5	269 51.8 +00.6	N 18 27.0 +00.3	190 37.4 -32.4	N 15 05.7 -11.6	03						
04	238 22.3 -00.1	N 19 59.0 -00.5	284 52.4 +00.6	N 18 27.3 +00.2	205 05.0 -32.3	N 14 54.1 -11.7	04						
05	253 22.2 +00.0	N 19 58.5 -00.6	299 53.0 +00.5	N 18 27.5 +00.3	219 32.7 -32.2	N 14 42.4 -11.8	05						
06	268 22.2 +00.0	N 19 57.9 -00.5	314 53.5 +00.6	N 18 27.8 +00.2	234 00.5 -32.2	N 14 30.6 -11.9	06						
07	283 22.2 +00.0	N 19 57.4 -00.5	329 54.1 +00.5	N 18 28.0 +00.2	248 28.3 -32.1	N 14 18.7 -12.0	07						
08	298 22.2 +00.0	N 19 56.9 -00.5	344 54.6 +00.5	N 18 28.2 +00.3	262 56.2 -32.0	N 14 06.7 -12.0	08						
09	313 22.2 +00.0	N 19 56.4 -00.5	359 55.1 +00.6	N 18 28.5 +00.2	277 24.2 -32.1	N 13 54.7 -12.2	09						
10	328 22.2 +00.0	N 19 55.9 -00.6	14 55.7 +00.5	N 18 28.7 +00.3	291 52.1 -31.9	N 13 42.5 -12.2	10						
11	343 22.2 -00.1	N 19 55.3 -00.5	29 56.2 +00.6	N 18 29.0 +00.2	306 20.2 -32.0	N 13 30.3 -12.3	11						
12	358 22.1 +00.0	N 19 54.8 -00.5	44 56.8 +00.5	N 18 29.2 +00.3	320 48.2 -31.8	N 13 18.0 -12.4	12						
13	13 22.1 +00.0	N 19 54.3 -00.5	59 57.3 +00.6	N 18 29.5 +00.2	335 16.4 -31.9	N 13 05.6 -12.5	13						
14	28 22.1 +00.0	N 19 53.8 -00.5	74 57.9 +00.5	N 18 29.7 +00.2	349 44.5 -31.7	N 12 53.1 -12.5	14						
15	43 22.1 +00.0	N 19 53.3 -00.6	89 58.4 +00.5	N 18 29.9 +00.3	4 12.8 -31.8	N 12 40.6 -12.6	15						
16	58 22.1 +00.0	N 19 52.7 -00.5	104 58.9 +00.6	N 18 30.2 +00.2	18 41.0 -31.7	N 12 28.0 -12.7	16						
17	73 22.1 +00.0	N 19 52.2 -00.5	119 59.5 +00.5	N 18 30.4 +00.3	33 09.3 -31.6	N 12 15.3 -12.8	17						
18	88 22.1 -00.1	N 19 51.7 -00.5	134 60.0 +00.5	N 18 30.7 +00.2	47 37.7 -31.6	N 12 02.5 -12.8	18						
19	103 22.0 +00.0	N 19 51.2 -00.6	150 00.5 +00.5	N 18 30.9 +00.3	62 06.1 -31.5	N 11 49.7 -12.9	19						
20	118 22.0 +00.0	N 19 50.6 -00.5	165 01.0 +00.6	N 18 31.2 +00.2	76 34.6 -31.5	N 11 36.8 -13.0	20						
21	133 22.0 +00.0	N 19 50.1 -00.5	180 01.6 +00.5	N 18 31.4 +00.3	91 03.1 -31.5	N 11 23.8 -13.1	21						
22	148 22.0 +00.0	N 19 49.6 -00.5	195 02.1 +00.5	N 18 31.7 +00.2	105 31.6 -31.4	N 11 10.7 -13.1	22						
23	163 22.0 +00.0	N 19 49.1 -00.6	210 02.6 +00.5	N 18 31.9 +00.2	120 00.2 -31.3	N 10 57.6 -13.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'3 00'3		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 00'3 00'3 00'3 00'3 00'3 00'3		HP 59'2 59'2 59'3 59'3 59'4 59'4								
	SHA 237° 237° 237° 237° 236° 236°		SHA 284° 283° 283° 283° 283° 283°		SHA 205° 203° 200° 198° 196° 193°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 09:00		Greenwich Culmination Time: 14:42								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	286 55.7 +01.3	N 02 08.2 +00.4	8 11.0 +02.8	S 22 06.3 +00.0	0 32.1 +02.7	S 20 41.5 +00.0	00						
01	301 57.0 +01.3	N 02 08.6 +00.4	23 13.8 +02.8	S 22 06.3 +00.1	15 34.8 +02.6	S 20 41.5 +00.1	01						
02	316 58.3 +01.3	N 02 09.0 +00.5	38 16.6 +02.8	S 22 06.4 +00.0	30 37.4 +02.7	S 20 41.6 +00.0	02						
03	331 59.6 +01.3	N 02 09.5 +00.4	53 19.4 +02.8	S 22 06.4 +00.1	45 40.1 +02.6	S 20 41.6 +00.1	03						
04	347 00.9 +01.3	N 02 09.9 +00.4	68 22.2 +02.8	S 22 06.5 +00.0	60 42.7 +02.7	S 20 41.7 +00.0	04						
05	2 02.2 +01.3	N 02 10.3 +00.5	83 25.0 +02.8	S 22 06.5 +00.1	75 45.4 +02.6	S 20 41.7 +00.0	05						
06	17 03.5 +01.3	N 02 10.8 +00.4	98 27.8 +02.8	S 22 06.6 +00.0	90 48.0 +02.7	S 20 41.7 +00.1	06						
07	32 04.8 +01.3	N 02 11.2 +00.4	113 30.6 +02.8	S 22 06.6 +00.1	105 50.7 +02.7	S 20 41.8 +00.0	07						
08	47 06.1 +01.3	N 02 11.6 +00.5	128 33.4 +02.8	S 22 06.7 +00.1	120 53.4 +02.6	S 20 41.8 +00.1	08						
09	62 07.4 +01.3	N 02 12.1 +00.4	143 36.2 +02.8	S 22 06.8 +00.0	135 56.0 +02.7	S 20 41.9 +00.0	09						
10	77 08.7 +01.2	N 02 12.5 +00.4	158 39.0 +02.8	S 22 06.8 +00.1	150 58.7 +02.6	S 20 41.9 +00.1	10						
11	92 09.9 +01.3	N 02 12.9 +00.4	173 41.8 +02.8	S 22 06.9 +00.0	166 01.3 +02.7	S 20 42.0 +00.0	11						
12	107 11.2 +01.3	N 02 13.3 +00.5	188 44.6 +02.8	S 22 06.9 +00.1	181 04.0 +02.6	S 20 42.0 +00.0	12						
13	122 12.5 +01.3	N 02 13.8 +00.4	203 47.4 +02.8	S 22 07.0 +00.0	196 06.6 +02.7	S 20 42.0 +00.1	13						
14	137 13.8 +01.3	N 02 14.2 +00.4	218 50.2 +02.8	S 22 07.0 +00.1	211 09.3 +02.7	S 20 42.1 +00.0	14						
15	152 15.1 +01.3	N 02 14.6 +00.5	233 53.0 +02.8	S 22 07.1 +00.0	226 12.0 +02.6	S 20 42.1 +00.1	15						
16	167 16.4 +01.3	N 02 15.1 +00.4	248 55.8 +02.8	S 22 07.1 +00.1	241 14.6 +02.7	S 20 42.2 +00.0	16						
17	182 17.7 +01.3	N 02 15.5 +00.4	263 58.6 +02.8	S 22 07.2 +00.0	256 17.3 +02.6	S 20 42.2 +00.0	17						
18	197 19.0 +01.3	N 02 15.9 +00.4	279 01.4 +02.8	S 22 07.2 +00.1	271 19.9 +02.7	S 20 42.2 +00.1	18						
19	212 20.3 +01.3	N 02 16.3 +00.5	294 04.2 +02.8	S 22 07.3 +00.0	286 22.6 +02.6	S 20 42.3 +00.0	19						
20	227 21.6 +01.3	N 02 16.8 +00.4	309 07.0 +02.8	S 22 07.3 +00.1	301 25.2 +02.7	S 20 42.3 +00.1	20						
21	242 22.9 +01.3	N 02 17.2 +00.4	324 09.8 +02.8	S 22 07.4 +00.0	316 27.9 +02.7	S 20 42.4 +00.0	21						
22	257 24.2 +01.3	N 02 17.6 +00.4	339 12.6 +02.8	S 22 07.4 +00.1	331 30.6 +02.6	S 20 42.4 +00.0	22						
23	272 25.5 +01.3	N 02 18.0 +00.5	354 15.4 +02.8	S 22 07.5 +00.1	346 33.2 +02.7	S 20 42.4 +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 00'1 00'1 00'1 00'1 00'1 00'1		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 346° 346° 346° 345° 345° 345°		SHA 067° 067° 067° 067° 067° 067°		SHA 059° 059° 059° 059° 059° 059°								
	Greenwich Culmination Time: 04:51		Greenwich Culmination Time: 23:22		Greenwich Culmination Time: 23:53								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 22.0 +00.0	N 19 48.5 -00.5	225 03.1 +00.6	N 18 32.1 +00.3	134 28.9 -31.3	N 10 44.5 -13.3	00						
01	193 22.0 +00.0	N 19 48.0 -00.5	240 03.7 +00.5	N 18 32.4 +00.2	148 57.6 -31.3	N 10 31.2 -13.3	01						
02	208 22.0 -00.1	N 19 47.5 -00.6	255 04.2 +00.5	N 18 32.6 +00.3	163 26.3 -31.2	N 10 17.9 -13.3	02						
03	223 21.9 +00.0	N 19 46.9 -00.5	270 04.7 +00.5	N 18 32.9 +00.2	177 55.1 -31.2	N 10 04.6 -13.5	03						
04	238 21.9 +00.0	N 19 46.4 -00.5	285 05.2 +00.5	N 18 33.1 +00.3	192 23.9 -31.2	N 09 51.1 -13.4	04						
05	253 21.9 +00.0	N 19 45.9 -00.6	300 05.7 +00.5	N 18 33.4 +00.2	206 52.7 -31.1	N 09 37.7 -13.6	05						
06	268 21.9 +00.0	N 19 45.3 -00.5	315 06.2 +00.5	N 18 33.6 +00.3	221 21.6 -31.0	N 09 24.1 -13.6	06						
07	283 21.9 +00.0	N 19 44.8 -00.5	330 06.7 +00.5	N 18 33.9 +00.2	235 50.6 -31.1	N 09 10.5 -13.6	07						
08	298 21.9 +00.0	N 19 44.3 -00.6	345 07.2 +00.6	N 18 34.1 +00.2	250 19.5 -30.9	N 08 56.9 -13.7	08						
09	313 21.9 +00.0	N 19 43.7 -00.5	0 07.8 +00.5	N 18 34.3 +00.3	264 48.6 -31.0	N 08 43.2 -13.7	09						
10	328 21.9 +00.0	N 19 43.2 -00.5	15 08.3 +00.5	N 18 34.6 +00.2	279 17.6 -30.9	N 08 29.5 -13.8	10						
11	343 21.9 +00.0	N 19 42.7 -00.6	30 08.8 +00.5	N 18 34.8 +00.3	293 46.7 -30.9	N 08 15.7 -13.9	11						
12	358 21.9 +00.0	N 19 42.1 -00.5	45 09.3 +00.5	N 18 35.1 +00.2	308 15.8 -30.8	N 08 01.8 -13.8	12						
13	13 21.9 -00.1	N 19 41.6 -00.5	60 09.8 +00.5	N 18 35.3 +00.3	322 45.0 -30.8	N 07 48.0 -14.0	13						
14	28 21.8 +00.0	N 19 41.1 -00.6	75 10.3 +00.5	N 18 35.6 +00.2	337 14.2 -30.8	N 07 34.0 -13.9	14						
15	43 21.8 +00.0	N 19 40.5 -00.5	90 10.8 +00.5	N 18 35.8 +00.2	351 43.4 -30.7	N 07 20.1 -14.0	15						
16	58 21.8 +00.0	N 19 40.0 -00.5	105 11.3 +00.4	N 18 36.0 +00.3	6 12.7 -30.7	N 07 06.1 -14.1	16						
17	73 21.8 +00.0	N 19 39.5 -00.6	120 11.7 +00.5	N 18 36.3 +00.2	20 42.0 -30.7	N 06 52.0 -14.1	17						
18	88 21.8 +00.0	N 19 38.9 -00.5	135 12.2 +00.5	N 18 36.5 +00.3	35 11.3 -30.6	N 06 37.9 -14.1	18						
19	103 21.8 +00.0	N 19 38.4 -00.6	150 12.7 +00.5	N 18 36.8 +00.2	49 40.7 -30.6	N 06 23.8 -14.2	19						
20	118 21.8 +00.0	N 19 37.8 -00.5	165 13.2 +00.5	N 18 37.0 +00.3	64 10.1 -30.6	N 06 09.6 -14.2	20						
21	133 21.8 +00.0	N 19 37.3 -00.5	180 13.7 +00.5	N 18 37.3 +00.2	78 39.5 -30.6	N 05 55.4 -14.2	21						
22	148 21.8 +00.0	N 19 36.8 -00.6	195 14.2 +00.5	N 18 37.5 +00.3	93 08.9 -30.5	N 05 41.2 -14.3	22						
23	163 21.8 +00.0	N 19 36.2 -00.5	210 14.7 +00.4	N 18 37.8 +00.2	107 38.4 -30.5	N 05 26.9 -14.2	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'3 00'3 00'3 00'3 00'2 00'2		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		HP 00'3 00'3 00'3 00'3 00'3 00'3		HP 59'4 59'4 59'5 59'5 59'5 59'5								
	SHA 236° 236° 236° 236° 235° 235°		SHA 283° 283° 283° 282° 282° 282°		SHA 191° 189° 187° 184° 182° 180°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 08:59		Greenwich Culmination Time: 15:34								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	287 26.8 +01.3	N 02 18.5 +00.4	9 18.2 +02.8	S 22 07.6 +00.0	1 35.9 +02.6	S 20 42.5 +00.0	00						
01	302 28.1 +01.3	N 02 18.9 +00.4	24 21.0 +02.8	S 22 07.6 +00.1	16 38.5 +02.7	S 20 42.5 +00.1	01						
02	317 29.4 +01.3	N 02 19.3 +00.4	39 23.8 +02.8	S 22 07.7 +00.0	31 41.2 +02.6	S 20 42.6 +00.0	02						
03	332 30.7 +01.3	N 02 19.7 +00.5	54 26.6 +02.8	S 22 07.7 +00.1	46 43.8 +02.7	S 20 42.6 +00.0	03						
04	347 32.0 +01.3	N 02 20.2 +00.4	69 29.4 +02.8	S 22 07.8 +00.0	61 46.5 +02.7	S 20 42.6 +00.1	04						
05	2 33.3 +01.4	N 02 20.6 +00.4	84 32.2 +02.8	S 22 07.8 +00.1	76 49.2 +02.6	S 20 42.7 +00.0	05						
06	17 34.7 +01.3	N 02 21.0 +00.4	99 35.0 +02.7	S 22 07.9 +00.0	91 51.8 +02.7	S 20 42.7 +00.1	06						
07	32 36.0 +01.3	N 02 21.4 +00.5	114 37.7 +02.8	S 22 07.9 +00.1	106 54.5 +02.6	S 20 42.8 +00.0	07						
08	47 37.3 +01.3	N 02 21.9 +00.4	129 40.5 +02.8	S 22 08.0 +00.0	121 57.1 +02.7	S 20 42.8 +00.1	08						
09	62 38.6 +01.3	N 02 22.3 +00.4	144 43.3 +02.8	S 22 08.0 +00.1	136 59.8 +02.6	S 20 42.9 +00.0	09						
10	77 39.9 +01.3	N 02 22.7 +00.4	159 46.1 +02.8	S 22 08.1 +00.0	152 02.4 +02.7	S 20 42.9 +00.0	10						
11	92 41.2 +01.3	N 02 23.1 +00.5	174 48.9 +02.8	S 22 08.1 +00.1	167 05.1 +02.6	S 20 42.9 +00.1	11						
12	107 42.5 +01.3	N 02 23.6 +00.4	189 51.7 +02.8	S 22 08.2 +00.0	182 07.7 +02.7	S 20 43.0 +00.0	12						
13	122 43.8 +01.3	N 02 24.0 +00.4	204 54.5 +02.8	S 22 08.2 +00.1	197 10.4 +02.7	S 20 43.0 +00.1	13						
14	137 45.1 +01.3	N 02 24.4 +00.4	219 57.3 +02.8	S 22 08.3 +00.1	212 13.1 +02.6	S 20 43.1 +00.0	14						
15	152 46.4 +01.3	N 02 24.8 +00.4	235 00.1 +02.8	S 22 08.4 +00.0	227 15.7 +02.7	S 20 43.1 +00.0	15						
16	167 47.7 +01.3	N 02 25.2 +00.5	250 02.9 +02.8	S 22 08.4 +00.1	242 18.4 +02.6	S 20 43.1 +00.1	16						
17	182 49.0 +01.4	N 02 25.7 +00.4	265 05.7 +02.8	S 22 08.5 +00.0	257 21.0 +02.7	S 20 43.2 +00.0	17						
18	197 50.4 +01.3	N 02 26.1 +00.4	280 08.5 +02.8	S 22 08.5 +00.1	272 23.7 +02.6	S 20 43.2 +00.1	18						
19	212 51.7 +01.3	N 02 26.5 +00.4	295 11.3 +02.8	S 22 08.6 +00.0	287 26.3 +02.7	S 20 43.3 +00.0	19						
20	227 53.0 +01.3	N 02 26.9 +00.4	310 14.1 +02.8	S 22 08.6 +00.1	302 29.0 +02.7	S 20 43.3 +00.0	20						
21	242 54.3 +01.3	N 02 27.3 +00.5	325 16.9 +02.8	S 22 08.7 +00.0	317 31.7 +02.6	S 20 43.3 +00.1	21						
22	257 55.6 +01.3	N 02 27.8 +00.4	340 19.7 +02.8	S 22 08.7 +00.1	332 34.3 +02.7	S 20 43.4 +00.0	22						
23	272 56.9 +01.3	N 02 28.2 +00.4	355 22.5 +02.8	S 22 08.8 +00.0	347 37.0 +02.6	S 20 43.4 +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 00'1 00'1 00'1 00'1 00'1 00'1		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 067° 067° 067° 067° 067° 067°		SHA 059° 059° 059° 059° 059° 059°								
	Greenwich Culmination Time: 04:49		Greenwich Culmination Time: 23:18		Greenwich Culmination Time: 23:49								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 21.8 +00.0	N 19 35.7 -00.6	225 15.1 +00.5	N 18 38.0 +00.2	122 07.9 -30.4	N 05 12.7 -14.4	00						
01	193 21.8 +00.0	N 19 35.1 -00.5	240 15.6 +00.5	N 18 38.2 +00.3	136 37.5 -30.5	N 04 58.3 -14.3	01						
02	208 21.8 +00.0	N 19 34.6 -00.5	255 16.1 +00.5	N 18 38.5 +00.2	151 07.0 -30.4	N 04 44.0 -14.4	02						
03	223 21.8 +00.0	N 19 34.1 -00.6	270 16.6 +00.5	N 18 38.7 +00.3	165 36.6 -30.4	N 04 29.6 -14.4	03						
04	238 21.8 +00.0	N 19 33.5 -00.5	285 17.1 +00.4	N 18 39.0 +00.2	180 06.2 -30.4	N 04 15.2 -14.4	04						
05	253 21.8 +00.0	N 19 33.0 -00.6	300 17.5 +00.5	N 18 39.2 +00.3	194 35.8 -30.3	N 04 00.8 -14.4	05						
06	268 21.8 +00.0	N 19 32.4 -00.5	315 18.0 +00.5	N 18 39.5 +00.2	209 05.5 -30.4	N 03 46.4 -14.5	06						
07	283 21.8 +00.0	N 19 31.9 -00.6	330 18.5 +00.4	N 18 39.7 +00.2	223 35.1 -30.3	N 03 31.9 -14.4	07						
08	298 21.8 -00.1	N 19 31.3 -00.5	345 18.9 +00.5	N 18 39.9 +00.3	238 04.8 -30.3	N 03 17.5 -14.5	08						
09	313 21.7 +00.0	N 19 30.8 -00.6	0 19.4 +00.5	N 18 40.2 +00.2	252 34.5 -30.2	N 03 03.0 -14.5	09						
10	328 21.7 +00.0	N 19 30.2 -00.5	15 19.9 +00.4	N 18 40.4 +00.3	267 04.3 -30.3	N 02 48.5 -14.6	10						
11	343 21.7 +00.0	N 19 29.7 -00.6	30 20.3 +00.5	N 18 40.7 +00.2	281 34.0 -30.2	N 02 33.9 -14.5	11						
12	358 21.7 +00.0	N 19 29.1 -00.5	45 20.8 +00.5	N 18 40.9 +00.3	296 03.8 -30.3	N 02 19.4 -14.5	12						
13	13 21.7 +00.0	N 19 28.6 -00.6	60 21.3 +00.4	N 18 41.2 +00.2	310 33.5 -30.2	N 02 04.9 -14.6	13						
14	28 21.7 +00.0	N 19 28.0 -00.5	75 21.7 +00.5	N 18 41.4 +00.2	325 03.3 -30.2	N 01 50.3 -14.6	14						
15	43 21.7 +00.0	N 19 27.5 -00.6	90 22.2 +00.4	N 18 41.6 +00.3	339 33.1 -30.2	N 01 35.7 -14.5	15						
16	58 21.7 +00.0	N 19 26.9 -00.5	105 22.6 +00.5	N 18 41.9 +00.2	354 02.9 -30.2	N 01 21.2 -14.6	16						
17	73 21.7 +00.0	N 19 26.4 -00.6	120 23.1 +00.4	N 18 42.1 +00.3	8 32.7 -30.1	N 01 06.6 -14.6	17						
18	88 21.7 +00.0	N 19 25.8 -00.5	135 23.5 +00.5	N 18 42.4 +00.2	23 02.6 -30.2	N 00 52.0 -14.6	18						
19	103 21.7 +00.0	N 19 25.3 -00.6	150 24.0 +00.4	N 18 42.6 +00.3	37 32.4 -30.1	N 00 37.4 -14.6	19						
20	118 21.7 +00.0	N 19 24.7 -00.5	165 24.4 +00.5	N 18 42.9 +00.2	52 02.3 -30.2	N 00 22.8 -14.5	20						
21	133 21.7 +00.0	N 19 24.2 -00.6	180 24.9 +00.4	N 18 43.1 +00.2	66 32.1 -30.1	N 00 08.3 -14.6	21						
22	148 21.7 +00.0	N 19 23.6 -00.5	195 25.3 +00.5	N 18 43.3 +00.3	81 02.0 -30.2	S 00 06.3 +14.6	22						
23	163 21.7 +00.0	N 19 23.1 -00.6	210 25.8 +00.4	N 18 43.6 +00.2	95 31.8 -30.1	S 00 20.9 +14.6	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'2 00'2 00'2 00'2 00'2 00'2		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		HP 00'3 00'3 00'3 00'3 00'3 00'3		HP 59'5 59'5 59'5 59'5 59'5 59'5								
	SHA 235° 235° 235° 235° 234° 234°		SHA 282° 282° 282° 282° 281° 281°		SHA 178° 176° 173° 171° 169° 167°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 08:58		Greenwich Culmination Time: 16:24								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	287 58.2 +01.4	N 02 28.6 +00.4	10 25.3 +02.8	S 22 08.8 +00.1	2 39.6 +02.7	S 20 43.5 +00.0	00						
01	302 59.6 +01.3	N 02 29.0 +00.4	25 28.1 +02.7	S 22 08.9 +00.0	17 42.3 +02.6	S 20 43.5 +00.0	01						
02	318 00.9 +01.3	N 02 29.4 +00.5	40 30.8 +02.8	S 22 08.9 +00.1	32 44.9 +02.7	S 20 43.5 +00.1	02						
03	333 02.2 +01.3	N 02 29.9 +00.4	55 33.6 +02.8	S 22 09.0 +00.0	47 47.6 +02.6	S 20 43.6 +00.0	03						
04	348 03.5 +01.3	N 02 30.3 +00.4	70 36.4 +02.8	S 22 09.0 +00.1	62 50.2 +02.7	S 20 43.6 +00.1	04						
05	3 04.8 +01.3	N 02 30.7 +00.4	85 39.2 +02.8	S 22 09.1 +00.0	77 52.9 +02.7	S 20 43.7 +00.0	05						
06	18 06.1 +01.4	N 02 31.1 +00.4	100 42.0 +02.8	S 22 09.1 +00.1	92 55.6 +02.6	S 20 43.7 +00.0	06						
07	33 07.5 +01.3	N 02 31.5 +00.5	115 44.8 +02.8	S 22 09.2 +00.1	107 58.2 +02.7	S 20 43.7 +00.1	07						
08	48 08.8 +01.3	N 02 32.0 +00.4	130 47.6 +02.8	S 22 09.3 +00.0	123 00.9 +02.6	S 20 43.8 +00.0	08						
09	63 10.1 +01.3	N 02 32.4 +00.4	145 50.4 +02.8	S 22 09.3 +00.1	138 03.5 +02.7	S 20 43.8 +00.1	09						
10	78 11.4 +01.3	N 02 32.8 +00.4	160 53.2 +02.8	S 22 09.4 +00.0	153 06.2 +02.6	S 20 43.9 +00.0	10						
11	93 12.7 +01.4	N 02 33.2 +00.4	175 56.0 +02.8	S 22 09.4 +00.1	168 08.8 +02.7	S 20 43.9 +00.1	11						
12	108 14.1 +01.3	N 02 33.6 +00.4	190 58.8 +02.8	S 22 09.5 +00.0	183 11.5 +02.7	S 20 44.0 +00.0	12						
13	123 15.4 +01.3	N 02 34.0 +00.4	206 01.6 +02.8	S 22 09.5 +00.1	198 14.2 +02.6	S 20 44.0 +00.0	13						
14	138 16.7 +01.3	N 02 34.4 +00.5	221 04.4 +02.8	S 22 09.6 +00.0	213 16.8 +02.7	S 20 44.0 +00.1	14						
15	153 18.0 +01.4	N 02 34.9 +00.4	236 07.2 +02.7	S 22 09.6 +00.1	228 19.5 +02.6	S 20 44.1 +00.0	15						
16	168 19.4 +01.3	N 02 35.3 +00.4	251 09.9 +02.8	S 22 09.7 +00.0	243 22.1 +02.7	S 20 44.1 +00.1	16						
17	183 20.7 +01.3	N 02 35.7 +00.4	266 12.7 +02.8	S 22 09.7 +00.1	258 24.8 +02.6	S 20 44.2 +00.0	17						
18	198 22.0 +01.3	N 02 36.1 +00.4	281 15.5 +02.8	S 22 09.8 +00.0	273 27.4 +02.7	S 20 44.2 +00.0	18						
19	213 23.3 +01.4	N 02 36.5 +00.4	296 18.3 +02.8	S 22 09.8 +00.1	288 30.1 +02.6	S 20 44.2 +00.1	19						
20	228 24.7 +01.3	N 02 36.9 +00.5	311 21.1 +02.8	S 22 09.9 +00.0	303 32.7 +02.7	S 20 44.3 +00.0	20						
21	243 26.0 +01.3	N 02 37.4 +00.4	326 23.9 +02.8	S 22 09.9 +00.1	318 35.4 +02.7	S 20 44.3 +00.1	21						
22	258 27.3 +01.4	N 02 37.8 +00.4	341 26.7 +02.8	S 22 10.0 +00.0	333 38.1 +02.6	S 20 44.4 +00.0	22						
23	273 28.7 +01.3	N 02 38.2 +00.4	356 29.5 +02.8	S 22 10.0 +00.1	348 40.7 +02.7	S 20 44.4 +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 00'1 00'1 00'1 00'1 00'1 00'1		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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° 344° 344°		SHA 067° 067° 067° 067° 067° 067°		SHA 060° 060° 060° 060° 060° 060°								
	Greenwich Culmination Time: 04:47		Greenwich Culmination Time: 23:13		Greenwich Culmination Time: 23:45								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 21.7 +00.0	N 19 22.5 -00.5	225 26.2 +00.5	N 18 43.8 +00.3	110 01.7 -30.1	S 00 35.5 +14.5	00	01					
01	193 21.7 +00.0	N 19 22.0 -00.6	240 26.7 +00.4	N 18 44.1 +00.2	124 31.6 -30.2	S 00 50.0 +14.6	01	02					
02	208 21.7 +00.0	N 19 21.4 -00.6	255 27.1 +00.4	N 18 44.3 +00.3	139 01.4 -30.1	S 01 04.6 +14.6	02	03					
03	223 21.7 +00.0	N 19 20.8 -00.5	270 27.5 +00.5	N 18 44.6 +00.2	153 31.3 -30.1	S 01 19.2 +14.5	03	04					
04	238 21.7 +00.0	N 19 20.3 -00.6	285 28.0 +00.4	N 18 44.8 +00.2	168 01.2 -30.1	S 01 33.7 +14.5	04	05					
05	253 21.7 +00.1	N 19 19.7 -00.5	300 28.4 +00.4	N 18 45.0 +00.3	182 31.1 -30.2	S 01 48.2 +14.6	05	06					
06	268 21.8 +00.0	N 19 19.2 -00.6	315 28.8 +00.5	N 18 45.3 +00.2	197 00.9 -30.1	S 02 02.8 +14.5	06	07					
07	283 21.8 +00.0	N 19 18.6 -00.6	330 29.3 +00.4	N 18 45.5 +00.3	211 30.8 -30.1	S 02 17.3 +14.5	07	08					
08	298 21.8 +00.0	N 19 18.0 -00.5	345 29.7 +00.4	N 18 45.8 +00.2	226 00.7 -30.2	S 02 31.8 +14.4	08	09					
09	313 21.8 +00.0	N 19 17.5 -00.6	0 30.1 +00.5	N 18 46.0 +00.2	240 30.5 -30.1	S 02 46.2 +14.5	09	10					
10	328 21.8 +00.0	N 19 16.9 -00.5	15 30.6 +00.4	N 18 46.2 +00.3	255 00.4 -30.2	S 03 00.7 +14.4	10	11					
11	343 21.8 +00.0	N 19 16.4 -00.6	30 31.0 +00.4	N 18 46.5 +00.2	269 30.2 -30.1	S 03 15.1 +14.4	11	12					
12	358 21.8 +00.0	N 19 15.8 -00.6	45 31.4 +00.4	N 18 46.7 +00.3	284 00.1 -30.2	S 03 29.5 +14.4	12	13					
13	13 21.8 +00.0	N 19 15.2 -00.5	60 31.8 +00.5	N 18 47.0 +00.2	298 29.9 -30.2	S 03 43.9 +14.4	13	14					
14	28 21.8 +00.0	N 19 14.7 -00.6	75 32.3 +00.4	N 18 47.2 +00.2	312 59.7 -30.2	S 03 58.3 +14.4	14	15					
15	43 21.8 +00.0	N 19 14.1 -00.6	90 32.7 +00.4	N 18 47.4 +00.3	327 29.5 -30.2	S 04 12.7 +14.3	15	16					
16	58 21.8 +00.0	N 19 13.5 -00.5	105 33.1 +00.4	N 18 47.7 +00.2	341 59.3 -30.2	S 04 27.0 +14.3	16	17					
17	73 21.8 +00.0	N 19 13.0 -00.6	120 33.5 +00.4	N 18 47.9 +00.3	356 29.1 -30.3	S 04 41.3 +14.2	17	18					
18	88 21.8 +00.0	N 19 12.4 -00.5	135 33.9 +00.4	N 18 48.2 +00.2	10 58.8 -30.2	S 04 55.5 +14.3	18	19					
19	103 21.8 +00.0	N 19 11.9 -00.6	150 34.3 +00.5	N 18 48.4 +00.3	25 28.6 -30.3	S 05 09.8 +14.2	19	20					
20	118 21.8 +00.0	N 19 11.3 -00.6	165 34.8 +00.4	N 18 48.7 +00.2	39 58.3 -30.3	S 05 24.0 +14.1	20	21					
21	133 21.8 +00.0	N 19 10.7 -00.5	180 35.2 +00.4	N 18 48.9 +00.2	54 28.0 -30.3	S 05 38.1 +14.2	21	22					
22	148 21.8 +00.0	N 19 10.2 -00.6	195 35.6 +00.4	N 18 49.1 +00.3	68 57.7 -30.3	S 05 52.3 +14.1	22	23					
23	163 21.8 +00.1	N 19 09.6 -00.6	210 36.0 +00.4	N 18 49.4 +00.2	83 27.4 -30.3	S 06 06.4 +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 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'2 00'2 00'2 00'2 00'2 00'2		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		HP 00'3 00'3 00'3 00'3 00'3 00'3		HP 59'5 59'4 59'4 59'4 59'4 59'3								
	SHA 234° 234° 234° 234° 233° 233°		SHA 281° 281° 281° 281° 281° 281°		SHA 165° 163° 160° 158° 156° 154°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 08:57		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	288 30.0 +01.3	N 02 38.6 +00.4	11 32.3 +02.8	S 22 10.1 +00.0	3 43.4 +02.6	S 20 44.4 +00.1	00	01					
01	303 31.3 +01.3	N 02 39.0 +00.4	26 35.1 +02.8	S 22 10.1 +00.1	18 46.0 +02.7	S 20 44.5 +00.0	01	02					
02	318 32.6 +01.4	N 02 39.4 +00.4	41 37.9 +02.8	S 22 10.2 +00.0	33 48.7 +02.6	S 20 44.5 +00.1	02	03					
03	333 34.0 +01.3	N 02 39.8 +00.4	56 40.7 +02.7	S 22 10.2 +00.1	48 51.3 +02.7	S 20 44.6 +00.0	03	04					
04	348 35.3 +01.3	N 02 40.2 +00.5	71 43.4 +02.8	S 22 10.3 +00.0	63 54.0 +02.6	S 20 44.6 +00.0	04	05					
05	3 36.6 +01.4	N 02 40.7 +00.4	86 46.2 +02.8	S 22 10.3 +00.1	78 56.6 +02.7	S 20 44.6 +00.1	05	06					
06	18 38.0 +01.3	N 02 41.1 +00.4	101 49.0 +02.8	S 22 10.4 +00.1	93 59.3 +02.7	S 20 44.7 +00.0	06	07					
07	33 39.3 +01.3	N 02 41.5 +00.4	116 51.8 +02.8	S 22 10.5 +00.0	109 02.0 +02.6	S 20 44.7 +00.1	07	08					
08	48 40.6 +01.4	N 02 41.9 +00.4	131 54.6 +02.8	S 22 10.5 +00.1	124 04.6 +02.7	S 20 44.8 +00.0	08	09					
09	63 42.0 +01.3	N 02 42.3 +00.4	146 57.4 +02.8	S 22 10.6 +00.0	139 07.3 +02.6	S 20 44.8 +00.0	09	10					
10	78 43.3 +01.3	N 02 42.7 +00.4	162 00.2 +02.8	S 22 10.6 +00.1	154 09.9 +02.7	S 20 44.8 +00.1	10	11					
11	93 44.6 +01.4	N 02 43.1 +00.4	177 03.0 +02.8	S 22 10.7 +00.0	169 12.6 +02.6	S 20 44.9 +00.0	11	12					
12	108 46.0 +01.3	N 02 43.5 +00.4	192 05.8 +02.8	S 22 10.7 +00.1	184 15.2 +02.7	S 20 44.9 +00.1	12	13					
13	123 47.3 +01.3	N 02 43.9 +00.4	207 08.6 +02.7	S 22 10.8 +00.0	199 17.9 +02.6	S 20 45.0 +00.0	13	14					
14	138 48.6 +01.4	N 02 44.3 +00.5	222 11.3 +02.8	S 22 10.8 +00.1	214 20.5 +02.7	S 20 45.0 +00.0	14	15					
15	153 50.0 +01.3	N 02 44.8 +00.4	237 14.1 +02.8	S 22 10.9 +00.0	229 23.2 +02.7	S 20 45.0 +00.1	15	16					
16	168 51.3 +01.4	N 02 45.2 +00.4	252 16.9 +02.8	S 22 10.9 +00.1	244 25.9 +02.6	S 20 45.1 +00.0	16	17					
17	183 52.7 +01.3	N 02 45.6 +00.4	267 19.7 +02.8	S 22 11.0 +00.0	259 28.5 +02.7	S 20 45.1 +00.1	17	18					
18	198 54.0 +01.3	N 02 46.0 +00.4	282 22.5 +02.8	S 22 11.0 +00.1	274 31.2 +02.6	S 20 45.2 +00.0	18	19					
19	213 55.3 +01.4	N 02 46.4 +00.4	297 25.3 +02.8	S 22 11.1 +00.0	289 33.8 +02.7	S 20 45.2 +00.0	19	20					
20	228 56.7 +01.3	N 02 46.8 +00.4	312 28.1 +02.8	S 22 11.1 +00.1	304 36.5 +02.6	S 20 45.2 +00.1	20	21					
21	243 58.0 +01.4	N 02 47.2 +00.4	327 30.9 +02.8	S 22 11.2 +00.0	319 39.1 +02.7	S 20 45.3 +00.0	21	22					
22	258 59.4 +01.3	N 02 47.6 +00.4	342 33.7 +02.7	S 22 11.2 +00.1	334 41.8 +02.6	S 20 45.3 +00.1	22	23					
23	274 00.7 +01.4	N 02 48.0 +00.4	357 36.4 +02.8	S 22 11.3 +00.0	349 44.4 +02.7	S 20 45.4 +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 00'1 00'1 00'1 00'1 00'1 00'1		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 067° 067° 067° 067° 067° 068°		SHA 060° 060° 060° 060° 060° 060°								
	Greenwich Culmination Time: 04:45		Greenwich Culmination Time: 23:09		Greenwich Culmination Time: 23:40								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 21.9 +00.0	N 19 09.0 -00.6	225 36.4 +00.4	N 18 49.6 +00.3	97 57.1 -30.4	S 06 20.4 +14.1	00						
01	193 21.9 +00.0	N 19 08.4 -00.5	240 36.8 +00.4	N 18 49.9 +00.2	112 26.7 -30.4	S 06 34.5 +13.9	01						
02	208 21.9 +00.0	N 19 07.9 -00.6	255 37.2 +00.4	N 18 50.1 +00.2	126 56.3 -30.4	S 06 48.4 +14.0	02						
03	223 21.9 +00.0	N 19 07.3 -00.6	270 37.6 +00.4	N 18 50.3 +00.3	141 25.9 -30.4	S 07 02.4 +13.9	03						
04	238 21.9 +00.0	N 19 06.7 -00.5	285 38.0 +00.4	N 18 50.6 +00.2	155 55.5 -30.4	S 07 16.3 +13.9	04						
05	253 21.9 +00.0	N 19 06.2 -00.6	300 38.4 +00.4	N 18 50.8 +00.2	170 25.1 -30.5	S 07 30.2 +13.8	05						
06	268 21.9 +00.0	N 19 05.6 -00.6	315 38.8 +00.4	N 18 51.0 +00.3	184 54.6 -30.5	S 07 44.0 +13.7	06						
07	283 21.9 +00.0	N 19 05.0 -00.6	330 39.2 +00.4	N 18 51.3 +00.2	199 24.1 -30.5	S 07 57.7 +13.7	07						
08	298 21.9 +00.0	N 19 04.4 -00.5	345 39.6 +00.4	N 18 51.5 +00.3	213 53.6 -30.6	S 08 11.4 +13.7	08						
09	313 21.9 +00.0	N 19 03.9 -00.6	0 40.0 +00.4	N 18 51.8 +00.2	228 23.0 -30.6	S 08 25.1 +13.6	09						
10	328 21.9 +00.1	N 19 03.3 -00.6	15 40.4 +00.4	N 18 52.0 +00.2	242 52.4 -30.6	S 08 38.7 +13.6	10						
11	343 22.0 +00.0	N 19 02.7 -00.6	30 40.8 +00.3	N 18 52.2 +00.3	257 21.8 -30.6	S 08 52.3 +13.5	11						
12	358 22.0 +00.0	N 19 02.1 -00.5	45 41.1 +00.4	N 18 52.5 +00.2	271 51.2 -30.7	S 09 05.8 +13.5	12						
13	13 22.0 +00.0	N 19 01.6 -00.6	60 41.5 +00.4	N 18 52.7 +00.3	286 20.5 -30.7	S 09 19.3 +13.4	13						
14	28 22.0 +00.0	N 19 01.0 -00.6	75 41.9 +00.4	N 18 53.0 +00.2	300 49.8 -30.8	S 09 32.7 +13.3	14						
15	43 22.0 +00.0	N 19 00.4 -00.6	90 42.3 +00.4	N 18 53.2 +00.2	315 19.0 -30.7	S 09 46.0 +13.3	15						
16	58 22.0 +00.0	N 18 59.8 -00.5	105 42.7 +00.4	N 18 53.4 +00.3	329 48.3 -30.8	S 09 59.3 +13.3	16						
17	73 22.0 +00.0	N 18 59.3 -00.6	120 43.1 +00.3	N 18 53.7 +00.2	344 17.5 -30.9	S 10 12.6 +13.1	17						
18	88 22.0 +00.0	N 18 58.7 -00.6	135 43.4 +00.4	N 18 53.9 +00.2	358 46.6 -30.9	S 10 25.7 +13.1	18						
19	103 22.0 +00.1	N 18 58.1 -00.6	150 43.8 +00.4	N 18 54.1 +00.3	13 15.7 -30.9	S 10 38.8 +13.1	19						
20	118 22.1 +00.0	N 18 57.5 -00.6	165 44.2 +00.4	N 18 54.4 +00.2	27 44.8 -30.9	S 10 51.9 +13.0	20						
21	133 22.1 +00.0	N 18 56.9 -00.5	180 44.6 +00.3	N 18 54.6 +00.3	42 13.9 -31.0	S 11 04.9 +12.9	21						
22	148 22.1 +00.0	N 18 56.4 -00.6	195 44.9 +00.4	N 18 54.9 +00.2	56 42.9 -31.0	S 11 17.8 +12.8	22						
23	163 22.1 +00.0	N 18 55.8 -00.6	210 45.3 +00.4	N 18 55.1 +00.2	71 11.9 -31.1	S 11 30.6 +12.8	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 16'2 16'1 16'1 16'1 16'1 16'1								
	HP 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 59'3 59'3 59'2 59'2 59'2 59'1								
	SHA 233° 233° 233° 233° 232° 232°		SHA 280° 280° 280° 280° 280° 280°		SHA 152° 150° 147° 145° 143° 141°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 08:57		Greenwich Culmination Time: 18:05								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	289 02.1 +01.3	N 02 48.4 +00.4	12 39.2 +02.8	S 22 11.3 +00.1	4 47.1 +02.7	S 20 45.4 +00.0	00						
01	304 03.4 +01.3	N 02 48.8 +00.4	27 42.0 +02.8	S 22 11.4 +00.0	19 49.8 +02.6	S 20 45.4 +00.1	01						
02	319 04.7 +01.4	N 02 49.2 +00.4	42 44.8 +02.8	S 22 11.4 +00.1	34 52.4 +02.7	S 20 45.5 +00.0	02						
03	334 06.1 +01.3	N 02 49.6 +00.4	57 47.6 +02.8	S 22 11.5 +00.0	49 55.1 +02.6	S 20 45.5 +00.1	03						
04	349 07.4 +01.4	N 02 50.0 +00.4	72 50.4 +02.8	S 22 11.5 +00.1	64 57.7 +02.7	S 20 45.6 +00.0	04						
05	4 08.8 +01.3	N 02 50.4 +00.5	87 53.2 +02.8	S 22 11.6 +00.0	80 00.4 +02.6	S 20 45.6 +00.0	05						
06	19 10.1 +01.4	N 02 50.9 +00.4	102 56.0 +02.7	S 22 11.6 +00.1	95 03.0 +02.7	S 20 45.6 +00.1	06						
07	34 11.5 +01.3	N 02 51.3 +00.4	117 58.7 +02.8	S 22 11.7 +00.0	110 05.7 +02.6	S 20 45.7 +00.0	07						
08	49 12.8 +01.4	N 02 51.7 +00.4	133 01.5 +02.8	S 22 11.7 +00.1	125 08.3 +02.7	S 20 45.7 +00.1	08						
09	64 14.2 +01.3	N 02 52.1 +00.4	148 04.3 +02.8	S 22 11.8 +00.0	140 11.0 +02.7	S 20 45.8 +00.0	09						
10	79 15.5 +01.4	N 02 52.5 +00.4	163 07.1 +02.8	S 22 11.8 +00.1	155 13.7 +02.6	S 20 45.8 +00.1	10						
11	94 16.9 +01.3	N 02 52.9 +00.4	178 09.9 +02.8	S 22 11.9 +00.0	170 16.3 +02.7	S 20 45.9 +00.0	11						
12	109 18.2 +01.4	N 02 53.3 +00.4	193 12.7 +02.8	S 22 11.9 +00.1	185 19.0 +02.6	S 20 45.9 +00.0	12						
13	124 19.6 +01.3	N 02 53.7 +00.4	208 15.5 +02.8	S 22 12.0 +00.0	200 21.6 +02.7	S 20 45.9 +00.1	13						
14	139 20.9 +01.4	N 02 54.1 +00.4	223 18.3 +02.7	S 22 12.0 +00.1	215 24.3 +02.6	S 20 46.0 +00.0	14						
15	154 22.3 +01.3	N 02 54.5 +00.4	238 21.0 +02.8	S 22 12.1 +00.0	230 26.9 +02.7	S 20 46.0 +00.1	15						
16	169 23.6 +01.4	N 02 54.9 +00.4	253 23.8 +02.8	S 22 12.1 +00.1	245 29.6 +02.6	S 20 46.1 +00.0	16						
17	184 25.0 +01.3	N 02 55.3 +00.4	268 26.6 +02.8	S 22 12.2 +00.0	260 32.2 +02.7	S 20 46.1 +00.0	17						
18	199 26.3 +01.4	N 02 55.7 +00.4	283 29.4 +02.8	S 22 12.2 +00.1	275 34.9 +02.7	S 20 46.1 +00.1	18						
19	214 27.7 +01.3	N 02 56.1 +00.4	298 32.2 +02.8	S 22 12.3 +00.0	290 37.6 +02.6	S 20 46.2 +00.0	19						
20	229 29.0 +01.4	N 02 56.5 +00.4	313 35.0 +02.8	S 22 12.3 +00.1	305 40.2 +02.7	S 20 46.2 +00.1	20						
21	244 30.4 +01.4	N 02 56.9 +00.4	328 37.8 +02.7	S 22 12.4 +00.1	320 42.9 +02.6	S 20 46.3 +00.0	21						
22	259 31.8 +01.3	N 02 57.3 +00.4	343 40.5 +02.8	S 22 12.5 +00.0	335 45.5 +02.7	S 20 46.3 +00.0	22						
23	274 33.1 +01.4	N 02 57.7 +00.4	358 43.3 +02.8	S 22 12.5 +00.1	350 48.2 +02.6	S 20 46.3 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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° 343°		SHA 068° 068° 068° 068° 068° 068°		SHA 060° 060° 060° 060° 060° 060°								
	Greenwich Culmination Time: 04:43		Greenwich Culmination Time: 23:05		Greenwich Culmination Time: 23:36								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 22.1 +00.0	N 18 55.2 -00.6	225 45.7 +00.4	N 18 55.3 +00.3	85 40.8 -31.1	S 11 43.4 +12.7	00						
01	193 22.1 +00.0	N 18 54.6 -00.6	240 46.1 +00.3	N 18 55.6 +00.2	100 09.7 -31.2	S 11 56.1 +12.7	01						
02	208 22.1 +00.1	N 18 54.0 -00.5	255 46.4 +00.4	N 18 55.8 +00.2	114 38.5 -31.1	S 12 08.8 +12.5	02						
03	223 22.2 +00.0	N 18 53.5 -00.6	270 46.8 +00.4	N 18 56.0 +00.3	129 07.4 -31.3	S 12 21.3 +12.5	03						
04	238 22.2 +00.0	N 18 52.9 -00.6	285 47.2 +00.3	N 18 56.3 +00.2	143 36.1 -31.2	S 12 33.8 +12.4	04						
05	253 22.2 +00.0	N 18 52.3 -00.6	300 47.5 +00.4	N 18 56.5 +00.2	158 04.9 -31.4	S 12 46.2 +12.4	05						
06	268 22.2 +00.0	N 18 51.7 -00.6	315 47.9 +00.3	N 18 56.7 +00.3	172 33.5 -31.3	S 12 58.6 +12.3	06						
07	283 22.2 +00.0	N 18 51.1 -00.6	330 48.2 +00.4	N 18 57.0 +00.2	187 02.2 -31.4	S 13 10.9 +12.1	07						
08	298 22.2 +00.1	N 18 50.5 -00.6	345 48.6 +00.3	N 18 57.2 +00.2	201 30.8 -31.5	S 13 23.0 +12.2	08						
09	313 22.3 +00.0	N 18 49.9 -00.5	0 48.9 +00.4	N 18 57.4 +00.3	215 59.3 -31.5	S 13 35.2 +12.0	09						
10	328 22.3 +00.0	N 18 49.4 -00.6	15 49.3 +00.4	N 18 57.7 +00.2	230 27.8 -31.5	S 13 47.2 +11.9	10						
11	343 22.3 +00.0	N 18 48.8 -00.6	30 49.7 +00.3	N 18 57.9 +00.3	244 56.3 -31.6	S 13 59.1 +11.9	11						
12	358 22.3 +00.0	N 18 48.2 -00.6	45 50.0 +00.4	N 18 58.2 +00.2	259 24.7 -31.6	S 14 11.0 +11.8	12						
13	13 22.3 +00.0	N 18 47.6 -00.6	60 50.4 +00.3	N 18 58.4 +00.2	273 53.1 -31.7	S 14 22.8 +11.6	13						
14	28 22.3 +00.1	N 18 47.0 -00.6	75 50.7 +00.4	N 18 58.6 +00.3	288 21.4 -31.7	S 14 34.4 +11.6	14						
15	43 22.4 +00.0	N 18 46.4 -00.6	90 51.1 +00.3	N 18 58.9 +00.2	302 49.7 -31.8	S 14 46.0 +11.6	15						
16	58 22.4 +00.0	N 18 45.8 -00.6	105 51.4 +00.4	N 18 59.1 +00.2	317 17.9 -31.8	S 14 57.6 +11.4	16						
17	73 22.4 +00.0	N 18 45.2 -00.6	120 51.8 +00.3	N 18 59.3 +00.3	331 46.1 -31.8	S 15 09.0 +11.3	17						
18	88 22.4 +00.0	N 18 44.6 -00.5	135 52.1 +00.3	N 18 59.6 +00.2	346 14.3 -32.0	S 15 20.3 +11.3	18						
19	103 22.4 +00.1	N 18 44.1 -00.6	150 52.4 +00.4	N 18 59.8 +00.2	0 42.3 -31.9	S 15 31.6 +11.1	19						
20	118 22.5 +00.0	N 18 43.5 -00.6	165 52.8 +00.3	N 19 00.0 +00.3	15 10.4 -32.0	S 15 42.7 +11.1	20						
21	133 22.5 +00.0	N 18 42.9 -00.6	180 53.1 +00.4	N 19 00.3 +00.2	29 38.4 -32.1	S 15 53.8 +10.9	21						
22	148 22.5 +00.0	N 18 42.3 -00.6	195 53.5 +00.3	N 19 00.5 +00.2	44 06.3 -32.1	S 16 04.7 +10.9	22						
23	163 22.5 +00.0	N 18 41.7 -00.6	210 53.8 +00.3	N 19 00.7 +00.3	58 34.2 -32.1	S 16 15.6 +10.7	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 16'1 16'1 16'1 16'1 16'0 16'0								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'3 00'3 00'3 00'2 00'2 00'2		HP 59'1 59'0 59'0 58'9 58'9 58'8								
	SHA 232° 232° 232° 232° 232° 231°		SHA 280° 279° 279° 279° 279° 279°		SHA 138° 136° 134° 132° 129° 127°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 08:56		Greenwich Culmination Time: 18:57								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	289 34.5 +01.3	N 02 58.1 +00.4	13 46.1 +02.8	S 22 12.6 +00.0	5 50.8 +02.7	S 20 46.4 +00.0	00						
01	304 35.8 +01.4	N 02 58.5 +00.4	28 48.9 +02.8	S 22 12.6 +00.1	20 53.5 +02.6	S 20 46.4 +00.1	01						
02	319 37.2 +01.3	N 02 58.9 +00.4	43 51.7 +02.8	S 22 12.7 +00.0	35 56.1 +02.7	S 20 46.5 +00.0	02						
03	334 38.5 +01.4	N 02 59.3 +00.4	58 54.5 +02.8	S 22 12.7 +00.1	50 58.8 +02.6	S 20 46.5 +00.0	03						
04	349 39.9 +01.4	N 02 59.7 +00.4	73 57.3 +02.7	S 22 12.8 +00.0	66 01.4 +02.7	S 20 46.5 +00.1	04						
05	4 41.3 +01.3	N 03 00.1 +00.4	89 00.0 +02.8	S 22 12.8 +00.1	81 04.1 +02.7	S 20 46.6 +00.0	05						
06	19 42.6 +01.4	N 03 00.5 +00.4	104 02.8 +02.8	S 22 12.9 +00.0	96 06.8 +02.6	S 20 46.6 +00.1	06						
07	34 44.0 +01.4	N 03 00.9 +00.4	119 05.6 +02.8	S 22 12.9 +00.1	111 09.4 +02.7	S 20 46.7 +00.0	07						
08	49 45.4 +01.3	N 03 01.3 +00.4	134 08.4 +02.8	S 22 13.0 +00.0	126 12.1 +02.6	S 20 46.7 +00.0	08						
09	64 46.7 +01.4	N 03 01.7 +00.4	149 11.2 +02.8	S 22 13.0 +00.1	141 14.7 +02.7	S 20 46.7 +00.1	09						
10	79 48.1 +01.3	N 03 02.1 +00.4	164 14.0 +02.7	S 22 13.1 +00.0	156 17.4 +02.6	S 20 46.8 +00.0	10						
11	94 49.4 +01.4	N 03 02.5 +00.4	179 16.7 +02.8	S 22 13.1 +00.1	171 20.0 +02.7	S 20 46.8 +00.1	11						
12	109 50.8 +01.4	N 03 02.9 +00.4	194 19.5 +02.8	S 22 13.2 +00.0	186 22.7 +02.6	S 20 46.9 +00.0	12						
13	124 52.2 +01.3	N 03 03.3 +00.4	209 22.3 +02.8	S 22 13.2 +00.1	201 25.3 +02.7	S 20 46.9 +00.0	13						
14	139 53.5 +01.4	N 03 03.7 +00.4	224 25.1 +02.8	S 22 13.3 +00.0	216 28.0 +02.6	S 20 46.9 +00.1	14						
15	154 54.9 +01.4	N 03 04.1 +00.4	239 27.9 +02.8	S 22 13.3 +00.1	231 30.6 +02.7	S 20 47.0 +00.0	15						
16	169 56.3 +01.3	N 03 04.5 +00.3	254 30.7 +02.7	S 22 13.4 +00.0	246 33.3 +02.7	S 20 47.0 +00.1	16						
17	184 57.6 +01.4	N 03 04.8 +00.4	269 33.4 +02.8	S 22 13.4 +00.1	261 36.0 +02.6	S 20 47.1 +00.0	17						
18	199 59.0 +01.4	N 03 05.2 +00.4	284 36.2 +02.8	S 22 13.5 +00.0	276 38.6 +02.7	S 20 47.1 +00.0	18						
19	215 00.4 +01.3	N 03 05.6 +00.4	299 39.0 +02.8	S 22 13.5 +00.1	291 41.3 +02.6	S 20 47.1 +00.1	19						
20	230 01.7 +01.4	N 03 06.0 +00.4	314 41.8 +02.8	S 22 13.6 +00.0	306 43.9 +02.7	S 20 47.2 +00.0	20						
21	245 03.1 +01.4	N 03 06.4 +00.4	329 44.6 +02.8	S 22 13.6 +00.1	321 46.6 +02.6	S 20 47.2 +00.1	21						
22	260 04.5 +01.4	N 03 06.8 +00.4	344 47.4 +02.7	S 22 13.7 +00.0	336 49.2 +02.7	S 20 47.3 +00.0	22						
23	275 05.9 +01.3	N 03 07.2 +00.4	359 50.1 +02.8	S 22 13.7 +00.1	351 51.9 +02.6	S 20 47.3 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 068° 068° 068° 068° 068° 068°		SHA 060° 060° 060° 060° 060° 060°								
	Greenwich Culmination Time: 04:41		Greenwich Culmination Time: 23:00		Greenwich Culmination Time: 23:32								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 31%				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 22.5 +00.1	N 18 41.1 -00.6	225 54.1 +00.4	N 19 01.0 +00.2	73 02.1 -32.2	S 16 26.3 +10.7	00						
01	193 22.6 +00.0	N 18 40.5 -00.6	240 54.5 +00.3	N 19 01.2 +00.2	87 29.9 -32.3	S 16 37.0 +10.6	01						
02	208 22.6 +00.0	N 18 39.9 -00.6	255 54.8 +00.3	N 19 01.4 +00.3	101 57.6 -32.3	S 16 47.6 +10.4	02						
03	223 22.6 +00.0	N 18 39.3 -00.6	270 55.1 +00.4	N 19 01.7 +00.2	116 25.3 -32.4	S 16 58.0 +10.4	03						
04	238 22.6 +00.0	N 18 38.7 -00.6	285 55.5 +00.3	N 19 01.9 +00.2	130 52.9 -32.4	S 17 08.4 +10.2	04						
05	253 22.6 +00.1	N 18 38.1 -00.6	300 55.8 +00.3	N 19 02.1 +00.2	145 20.5 -32.4	S 17 18.6 +10.2	05						
06	268 22.7 +00.0	N 18 37.5 -00.6	315 56.1 +00.3	N 19 02.3 +00.3	159 48.1 -32.5	S 17 28.8 +10.0	06						
07	283 22.7 +00.0	N 18 36.9 -00.6	330 56.4 +00.4	N 19 02.6 +00.2	174 15.6 -32.6	S 17 38.8 +10.0	07						
08	298 22.7 +00.0	N 18 36.3 -00.6	345 56.8 +00.3	N 19 02.8 +00.2	188 43.0 -32.6	S 17 48.8 +09.8	08						
09	313 22.7 +00.1	N 18 35.7 -00.6	0 57.1 +00.3	N 19 03.0 +00.3	203 10.4 -32.6	S 17 58.6 +09.7	09						
10	328 22.8 +00.0	N 18 35.1 -00.6	15 57.4 +00.3	N 19 03.3 +00.2	217 37.8 -32.7	S 18 08.3 +09.6	10						
11	343 22.8 +00.0	N 18 34.5 -00.6	30 57.7 +00.3	N 19 03.5 +00.2	232 05.1 -32.8	S 18 17.9 +09.5	11						
12	358 22.8 +00.0	N 18 33.9 -00.6	45 58.0 +00.3	N 19 03.7 +00.3	246 32.3 -32.8	S 18 27.4 +09.4	12						
13	13 22.8 +00.1	N 18 33.3 -00.6	60 58.3 +00.4	N 19 04.0 +00.2	260 59.5 -32.8	S 18 36.8 +09.3	13						
14	28 22.9 +00.0	N 18 32.7 -00.6	75 58.7 +00.3	N 19 04.2 +00.2	275 26.7 -32.9	S 18 46.1 +09.1	14						
15	43 22.9 +00.0	N 18 32.1 -00.6	90 59.0 +00.3	N 19 04.4 +00.2	289 53.8 -33.0	S 18 55.2 +09.1	15						
16	58 22.9 +00.0	N 18 31.5 -00.6	105 59.3 +00.3	N 19 04.6 +00.3	304 20.8 -32.9	S 19 04.3 +08.9	16						
17	73 22.9 +00.1	N 18 30.9 -00.6	120 59.6 +00.3	N 19 04.9 +00.2	318 47.9 -33.1	S 19 13.2 +08.8	17						
18	88 23.0 +00.0	N 18 30.3 -00.6	135 59.9 +00.3	N 19 05.1 +00.2	333 14.8 -33.1	S 19 22.0 +08.7	18						
19	103 23.0 +00.0	N 18 29.7 -00.6	151 00.2 +00.3	N 19 05.3 +00.3	347 41.7 -33.1	S 19 30.7 +08.5	19						
20	118 23.0 +00.0	N 18 29.1 -00.6	166 00.5 +00.3	N 19 05.6 +00.2	2 08.6 -33.2	S 19 39.2 +08.5	20						
21	133 23.0 +00.1	N 18 28.5 -00.6	181 00.8 +00.3	N 19 05.8 +00.2	16 35.4 -33.2	S 19 47.7 +08.3	21						
22	148 23.1 +00.0	N 18 27.9 -00.6	196 01.1 +00.3	N 19 06.0 +00.2	31 02.2 -33.3	S 19 56.0 +08.2	22						
23	163 23.1 +00.0	N 18 27.3 -00.6	211 01.4 +00.3	N 19 06.2 +00.3	45 28.9 -33.3	S 20 04.2 +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 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 16'0 16'0 16'0 16'0 15'9 15'9								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'2 00'2 00'2 00'2 00'2 00'2		HP 58'8 58'7 58'7 58'6 58'5 58'5								
	SHA 231° 231° 231° 231° 231° 230°		SHA 279° 279° 278° 278° 278° 278°		SHA 125° 122° 120° 118° 115° 113°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 08:56		Greenwich Culmination Time: 19:51								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	290 07.2 +01.4	N 03 07.6 +00.4	14 52.9 +02.8	S 22 13.8 +00.0	6 54.5 +02.7	S 20 47.3 +00.1	00						
01	305 08.6 +01.4	N 03 08.0 +00.4	29 55.7 +02.8	S 22 13.8 +00.1	21 57.2 +02.6	S 20 47.4 +00.0	01						
02	320 10.0 +01.4	N 03 08.4 +00.4	44 58.5 +02.8	S 22 13.9 +00.0	36 59.8 +02.7	S 20 47.4 +00.0	02						
03	335 11.4 +01.3	N 03 08.8 +00.4	60 01.3 +02.8	S 22 13.9 +00.1	52 02.5 +02.6	S 20 47.4 +00.1	03						
04	350 12.7 +01.4	N 03 09.2 +00.4	75 04.1 +02.7	S 22 14.0 +00.0	67 05.1 +02.7	S 20 47.5 +00.0	04						
05	5 14.1 +01.4	N 03 09.6 +00.4	90 06.8 +02.8	S 22 14.0 +00.1	82 07.8 +02.7	S 20 47.5 +00.1	05						
06	20 15.5 +01.4	N 03 10.0 +00.3	105 09.6 +02.8	S 22 14.1 +00.0	97 10.5 +02.6	S 20 47.6 +00.0	06						
07	35 16.9 +01.3	N 03 10.3 +00.4	120 12.4 +02.8	S 22 14.1 +00.1	112 13.1 +02.7	S 20 47.6 +00.0	07						
08	50 18.2 +01.4	N 03 10.7 +00.4	135 15.2 +02.8	S 22 14.2 +00.0	127 15.8 +02.6	S 20 47.6 +00.1	08						
09	65 19.6 +01.4	N 03 11.1 +00.4	150 18.0 +02.7	S 22 14.2 +00.0	142 18.4 +02.7	S 20 47.7 +00.0	09						
10	80 21.0 +01.4	N 03 11.5 +00.4	165 20.7 +02.8	S 22 14.2 +00.1	157 21.1 +02.6	S 20 47.7 +00.1	10						
11	95 22.4 +01.3	N 03 11.9 +00.4	180 23.5 +02.8	S 22 14.3 +00.0	172 23.7 +02.7	S 20 47.8 +00.0	11						
12	110 23.7 +01.4	N 03 12.3 +00.4	195 26.3 +02.8	S 22 14.3 +00.1	187 26.4 +02.6	S 20 47.8 +00.0	12						
13	125 25.1 +01.4	N 03 12.7 +00.4	210 29.1 +02.8	S 22 14.4 +00.0	202 29.0 +02.7	S 20 47.8 +00.1	13						
14	140 26.5 +01.4	N 03 13.1 +00.4	225 31.9 +02.7	S 22 14.4 +00.1	217 31.7 +02.6	S 20 47.9 +00.0	14						
15	155 27.9 +01.4	N 03 13.5 +00.4	240 34.6 +02.8	S 22 14.5 +00.0	232 34.3 +02.7	S 20 47.9 +00.1	15						
16	170 29.3 +01.4	N 03 13.9 +00.3	255 37.4 +02.8	S 22 14.5 +00.1	247 37.0 +02.6	S 20 48.0 +00.0	16						
17	185 30.7 +01.3	N 03 14.2 +00.4	270 40.2 +02.8	S 22 14.6 +00.0	262 39.6 +02.7	S 20 48.0 +00.0	17						
18	200 32.0 +01.4	N 03 14.6 +00.4	285 43.0 +02.8	S 22 14.6 +00.1	277 42.3 +02.6	S 20 48.0 +00.1	18						
19	215 33.4 +01.4	N 03 15.0 +00.4	300 45.8 +02.7	S 22 14.7 +00.0	292 44.9 +02.7	S 20 48.1 +00.0	19						
20	230 34.8 +01.4	N 03 15.4 +00.4	315 48.5 +02.8	S 22 14.7 +00.1	307 47.6 +02.7	S 20 48.1 +00.1	20						
21	245 36.2 +01.4	N 03 15.8 +00.4	330 51.3 +02.8	S 22 14.8 +00.0	322 50.3 +02.6	S 20 48.2 +00.0	21						
22	260 37.6 +01.4	N 03 16.2 +00.4	345 54.1 +02.8	S 22 14.8 +00.1	337 52.9 +02.7	S 20 48.2 +00.0	22						
23	275 39.0 +01.4	N 03 16.6 +00.4	0 56.9 +02.8	S 22 14.9 +00.0	352 55.6 +02.6	S 20 48.2 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 068° 068° 068° 068° 068° 068°		SHA 060° 060° 060° 060° 060° 060°								
	Greenwich Culmination Time: 04:39		Greenwich Culmination Time: 22:56		Greenwich Culmination Time: 23:28								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 23.1 +00.0	N 18 26.7 -00.6	226 01.7 +00.3	N 19 06.5 +00.2	59 55.6 -33.4	S 20 12.3 +07.9	00						
01	193 23.1 +00.1	N 18 26.1 -00.7	241 02.0 +00.3	N 19 06.7 +00.2	74 22.2 -33.4	S 20 20.2 +07.8	01						
02	208 23.2 +00.0	N 18 25.4 -00.6	256 02.3 +00.3	N 19 06.9 +00.3	88 48.8 -33.4	S 20 28.0 +07.7	02						
03	223 23.2 +00.0	N 18 24.8 -00.6	271 02.6 +00.3	N 19 07.2 +00.2	103 15.4 -33.5	S 20 35.7 +07.6	03						
04	238 23.2 +00.1	N 18 24.2 -00.6	286 02.9 +00.3	N 19 07.4 +00.2	117 41.9 -33.5	S 20 43.3 +07.4	04						
05	253 23.3 +00.0	N 18 23.6 -00.6	301 03.2 +00.3	N 19 07.6 +00.2	132 08.4 -33.6	S 20 50.7 +07.3	05						
06	268 23.3 +00.0	N 18 23.0 -00.6	316 03.5 +00.3	N 19 07.8 +00.3	146 34.8 -33.6	S 20 58.0 +07.2	06						
07	283 23.3 +00.0	N 18 22.4 -00.6	331 03.8 +00.3	N 19 08.1 +00.2	161 01.2 -33.7	S 21 05.2 +07.1	07						
08	298 23.3 +00.1	N 18 21.8 -00.6	346 04.1 +00.3	N 19 08.3 +00.2	175 27.5 -33.7	S 21 12.3 +06.9	08						
09	313 23.4 +00.0	N 18 21.2 -00.6	1 04.4 +00.3	N 19 08.5 +00.2	189 53.8 -33.7	S 21 19.2 +06.8	09						
10	328 23.4 +00.0	N 18 20.6 -00.7	16 04.7 +00.3	N 19 08.7 +00.3	204 20.1 -33.8	S 21 26.0 +06.6	10						
11	343 23.4 +00.1	N 18 19.9 -00.6	31 05.0 +00.2	N 19 09.0 +00.2	218 46.3 -33.8	S 21 32.6 +06.6	11						
12	358 23.5 +00.0	N 18 19.3 -00.6	46 05.2 +00.3	N 19 09.2 +00.2	233 12.5 -33.8	S 21 39.2 +06.3	12						
13	13 23.5 +00.0	N 18 18.7 -00.6	61 05.5 +00.3	N 19 09.4 +00.2	247 38.7 -33.9	S 21 45.5 +06.3	13						
14	28 23.5 +00.1	N 18 18.1 -00.6	76 05.8 +00.3	N 19 09.6 +00.3	262 04.8 -33.9	S 21 51.8 +06.1	14						
15	43 23.6 +00.0	N 18 17.5 -00.6	91 06.1 +00.3	N 19 09.9 +00.2	276 30.9 -33.9	S 21 57.9 +06.0	15						
16	58 23.6 +00.0	N 18 16.9 -00.6	106 06.4 +00.2	N 19 10.1 +00.2	290 57.0 -34.0	S 22 03.9 +05.8	16						
17	73 23.6 +00.1	N 18 16.3 -00.7	121 06.6 +00.3	N 19 10.3 +00.2	305 23.0 -34.0	S 22 09.7 +05.7	17						
18	88 23.7 +00.0	N 18 15.6 -00.6	136 06.9 +00.3	N 19 10.5 +00.2	319 49.0 -34.0	S 22 15.4 +05.6	18						
19	103 23.7 +00.0	N 18 15.0 -00.6	151 07.2 +00.3	N 19 10.7 +00.3	334 15.0 -34.1	S 22 21.0 +05.4	19						
20	118 23.7 +00.1	N 18 14.4 -00.6	166 07.5 +00.2	N 19 11.0 +00.2	348 40.9 -34.1	S 22 26.4 +05.3	20						
21	133 23.8 +00.0	N 18 13.8 -00.6	181 07.7 +00.3	N 19 11.2 +00.2	3 06.8 -34.1	S 22 31.7 +05.1	21						
22	148 23.8 +00.0	N 18 13.2 -00.6	196 08.0 +00.3	N 19 11.4 +00.2	17 32.7 -34.2	S 22 36.8 +05.0	22						
23	163 23.8 +00.1	N 18 12.6 -00.7	211 08.3 +00.2	N 19 11.6 +00.3	31 58.5 -34.1	S 22 41.8 +04.9	23						
UT	02 06 10 14 18 22	UT	02 06 10 14 18 22	UT	02 06 10 14 18 22								
SD	15'8 15'8 15'8 15'8 15'8 15'8	SD	00'2 00'2 00'2 00'2 00'2 00'2	SD	15'9 15'9 15'9 15'9 15'8 15'8								
HP	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	58'4 58'4 58'3 58'2 58'1 58'1								
SHA	230° 230° 230° 230° 230° 229°	SHA	278° 278° 278° 277° 277° 277°	SHA	111° 108° 106° 103° 101° 099°								
Greenwich Culmination Time: 12:06			Greenwich Culmination Time: 08:55			Greenwich Culmination Time: 20:47							

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	290 40.4 +01.3	N 03 17.0 +00.3	15 59.7 +02.7	S 22 14.9 +00.1	7 58.2 +02.7	S 20 48.3 +00.0	00						
01	305 41.7 +01.4	N 03 17.3 +00.4	31 02.4 +02.8	S 22 15.0 +00.0	23 00.9 +02.6	S 20 48.3 +00.1	01						
02	320 43.1 +01.4	N 03 17.7 +00.4	46 05.2 +02.8	S 22 15.0 +00.1	38 03.5 +02.7	S 20 48.4 +00.0	02						
03	335 44.5 +01.4	N 03 18.1 +00.4	61 08.0 +02.8	S 22 15.1 +00.0	53 06.2 +02.6	S 20 48.4 +00.0	03						
04	350 45.9 +01.4	N 03 18.5 +00.4	76 10.8 +02.7	S 22 15.1 +00.1	68 08.8 +02.7	S 20 48.4 +00.1	04						
05	5 47.3 +01.4	N 03 18.9 +00.4	91 13.5 +02.8	S 22 15.2 +00.0	83 11.5 +02.6	S 20 48.5 +00.0	05						
06	20 48.7 +01.4	N 03 19.3 +00.4	106 16.3 +02.8	S 22 15.2 +00.1	98 14.1 +02.7	S 20 48.5 +00.1	06						
07	35 50.1 +01.4	N 03 19.7 +00.3	121 19.1 +02.8	S 22 15.3 +00.0	113 16.8 +02.6	S 20 48.6 +00.0	07						
08	50 51.5 +01.4	N 03 20.0 +00.4	136 21.9 +02.8	S 22 15.3 +00.1	128 19.4 +02.7	S 20 48.6 +00.0	08						
09	65 52.9 +01.4	N 03 20.4 +00.4	151 24.7 +02.7	S 22 15.4 +00.0	143 22.1 +02.6	S 20 48.6 +00.1	09						
10	80 54.3 +01.4	N 03 20.8 +00.4	166 27.4 +02.8	S 22 15.4 +00.1	158 24.7 +02.7	S 20 48.7 +00.0	10						
11	95 55.7 +01.3	N 03 21.2 +00.4	181 30.2 +02.8	S 22 15.5 +00.0	173 27.4 +02.7	S 20 48.7 +00.1	11						
12	110 57.0 +01.4	N 03 21.6 +00.4	196 33.0 +02.8	S 22 15.5 +00.1	188 30.1 +02.6	S 20 48.8 +00.0	12						
13	125 58.4 +01.4	N 03 22.0 +00.3	211 35.8 +02.7	S 22 15.6 +00.0	203 32.7 +02.7	S 20 48.8 +00.0	13						
14	140 59.8 +01.4	N 03 22.3 +00.4	226 38.5 +02.8	S 22 15.6 +00.1	218 35.4 +02.6	S 20 48.8 +00.1	14						
15	156 01.2 +01.4	N 03 22.7 +00.4	241 41.3 +02.8	S 22 15.7 +00.0	233 38.0 +02.7	S 20 48.9 +00.0	15						
16	171 02.6 +01.4	N 03 23.1 +00.4	256 44.1 +02.8	S 22 15.7 +00.1	248 40.7 +02.6	S 20 48.9 +00.1	16						
17	186 04.0 +01.4	N 03 23.5 +00.4	271 46.9 +02.7	S 22 15.8 +00.0	263 43.3 +02.7	S 20 49.0 +00.0	17						
18	201 05.4 +01.4	N 03 23.9 +00.3	286 49.6 +02.8	S 22 15.8 +00.1	278 46.0 +02.6	S 20 49.0 +00.0	18						
19	216 06.8 +01.4	N 03 24.2 +00.4	301 52.4 +02.8	S 22 15.9 +00.0	293 48.6 +02.7	S 20 49.0 +00.1	19						
20	231 08.2 +01.4	N 03 24.6 +00.4	316 55.2 +02.8	S 22 15.9 +00.1	308 51.3 +02.6	S 20 49.1 +00.0	20						
21	246 09.6 +01.4	N 03 25.0 +00.4	331 58.0 +02.7	S 22 16.0 +00.0	323 53.9 +02.7	S 20 49.1 +00.0	21						
22	261 11.0 +01.4	N 03 25.4 +00.4	347 00.7 +02.8	S 22 16.0 +00.1	338 56.6 +02.6	S 20 49.1 +00.1	22						
23	276 12.4 +01.4	N 03 25.8 +00.3	2 03.5 +02.8	S 22 16.1 +00.0	353 59.2 +02.7	S 20 49.2 +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	00'4 00'4 00'4 00'4 00'4 00'4	SD	00'2 00'2 00'2 00'2 00'2 00'2								
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° 342° 342° 342° 342° 342°	SHA	068° 068° 068° 068° 068° 068°	SHA	060° 060° 060° 060° 060° 060°								
Greenwich Culmination Time: 04:36			Greenwich Culmination Time: 22:51			Greenwich Culmination Time: 23:23							

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 23.9 +00.0	N 18 11.9 -00.6	226 08.5 +00.3	N 19 11.9 +00.2	46 24.4 -34.2	S 22 46.7 +04.7	00						
01	193 23.9 +00.0	N 18 11.3 -00.6	241 08.8 +00.3	N 19 12.1 +00.2	60 50.2 -34.2	S 22 51.4 +04.6	01						
02	208 23.9 +00.1	N 18 10.7 -00.6	256 09.1 +00.2	N 19 12.3 +00.2	75 16.0 -34.3	S 22 56.0 +04.4	02						
03	223 24.0 +00.0	N 18 10.1 -00.6	271 09.3 +00.3	N 19 12.5 +00.2	89 41.7 -34.2	S 23 00.4 +04.3	03						
04	238 24.0 +00.0	N 18 09.5 -00.7	286 09.6 +00.3	N 19 12.7 +00.3	104 07.5 -34.3	S 23 04.7 +04.1	04						
05	253 24.0 +00.1	N 18 08.8 -00.6	301 09.9 +00.2	N 19 13.0 +00.2	118 33.2 -34.3	S 23 08.8 +04.0	05						
06	268 24.1 +00.0	N 18 08.2 -00.6	316 10.1 +00.3	N 19 13.2 +00.2	132 58.9 -34.3	S 23 12.8 +03.9	06						
07	283 24.1 +00.0	N 18 07.6 -00.6	331 10.4 +00.2	N 19 13.4 +00.2	147 24.6 -34.3	S 23 16.7 +03.7	07						
08	298 24.1 +00.1	N 18 07.0 -00.7	346 10.6 +00.3	N 19 13.6 +00.2	161 50.3 -34.3	S 23 20.4 +03.5	08						
09	313 24.2 +00.0	N 18 06.3 -00.6	1 10.9 +00.2	N 19 13.8 +00.3	176 16.0 -34.3	S 23 23.9 +03.4	09						
10	328 24.2 +00.0	N 18 05.7 -00.6	16 11.1 +00.3	N 19 14.1 +00.2	190 41.7 -34.4	S 23 27.3 +03.3	10						
11	343 24.2 +00.1	N 18 05.1 -00.6	31 11.4 +00.2	N 19 14.3 +00.2	205 07.3 -34.3	S 23 30.6 +03.1	11						
12	358 24.3 +00.0	N 18 04.5 -00.7	46 11.6 +00.3	N 19 14.5 +00.2	219 33.0 -34.4	S 23 33.7 +03.0	12						
13	13 24.3 +00.1	N 18 03.8 -00.6	61 11.9 +00.2	N 19 14.7 +00.2	233 58.6 -34.4	S 23 36.7 +02.8	13						
14	28 24.4 +00.0	N 18 03.2 -00.6	76 12.1 +00.3	N 19 14.9 +00.3	248 24.2 -34.4	S 23 39.5 +02.7	14						
15	43 24.4 +00.0	N 18 02.6 -00.6	91 12.4 +00.2	N 19 15.2 +00.2	262 49.8 -34.3	S 23 42.2 +02.6	15						
16	58 24.4 +00.1	N 18 02.0 -00.7	106 12.6 +00.3	N 19 15.4 +00.2	277 15.5 -34.4	S 23 44.8 +02.4	16						
17	73 24.5 +00.0	N 18 01.3 -00.6	121 12.9 +00.2	N 19 15.6 +00.2	291 41.1 -34.4	S 23 47.2 +02.2	17						
18	88 24.5 +00.0	N 18 00.7 -00.6	136 13.1 +00.3	N 19 15.8 +00.2	306 06.7 -34.4	S 23 49.4 +02.1	18						
19	103 24.5 +00.1	N 18 00.1 -00.7	151 13.4 +00.2	N 19 16.0 +00.2	320 32.3 -34.3	S 23 51.5 +01.9	19						
20	118 24.6 +00.0	N 17 59.4 -00.6	166 13.6 +00.3	N 19 16.2 +00.3	334 58.0 -34.4	S 23 53.4 +01.8	20						
21	133 24.6 +00.1	N 17 58.8 -00.6	181 13.9 +00.2	N 19 16.5 +00.2	349 23.6 -34.4	S 23 55.2 +01.7	21						
22	148 24.7 +00.0	N 17 58.2 -00.7	196 14.1 +00.2	N 19 16.7 +00.2	3 49.2 -34.3	S 23 56.9 +01.5	22						
23	163 24.7 +00.0	N 17 57.5 -00.6	211 14.3 +00.3	N 19 16.9 +00.2	18 14.9 -34.4	S 23 58.4 +01.4	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 15'8 15'8 15'8 15'7 15'7 15'7								
	HP 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 58'0 57'9 57'9 57'8 57'7 57'6								
	SHA 229° 229° 229° 229° 229° 228°		SHA 277° 277° 277° 277° 276° 276°		SHA 096° 094° 091° 089° 086° 084°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 08:55		Greenwich Culmination Time: 21:44								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	291 13.8 +01.4	N 03 26.1 +00.4	17 06.3 +02.8	S 22 16.1 +00.0	9 01.9 +02.6	S 20 49.2 +00.1	00						
01	306 15.2 +01.4	N 03 26.5 +00.4	32 09.1 +02.7	S 22 16.1 +00.1	24 04.5 +02.7	S 20 49.3 +00.0	01						
02	321 16.6 +01.4	N 03 26.9 +00.4	47 11.8 +02.8	S 22 16.2 +00.0	39 07.2 +02.6	S 20 49.3 +00.0	02						
03	336 18.0 +01.5	N 03 27.3 +00.4	62 14.6 +02.8	S 22 16.2 +00.1	54 09.8 +02.7	S 20 49.3 +00.1	03						
04	351 19.5 +01.4	N 03 27.7 +00.3	77 17.4 +02.8	S 22 16.3 +00.0	69 12.5 +02.6	S 20 49.4 +00.0	04						
05	6 20.9 +01.4	N 03 28.0 +00.4	92 20.2 +02.7	S 22 16.3 +00.1	84 15.1 +02.7	S 20 49.4 +00.1	05						
06	21 22.3 +01.4	N 03 28.4 +00.4	107 22.9 +02.8	S 22 16.4 +00.0	99 17.8 +02.6	S 20 49.5 +00.0	06						
07	36 23.7 +01.4	N 03 28.8 +00.4	122 25.7 +02.8	S 22 16.4 +00.1	114 20.4 +02.7	S 20 49.5 +00.0	07						
08	51 25.1 +01.4	N 03 29.2 +00.3	137 28.5 +02.8	S 22 16.5 +00.0	129 23.1 +02.6	S 20 49.5 +00.1	08						
09	66 26.5 +01.4	N 03 29.5 +00.4	152 31.3 +02.7	S 22 16.5 +00.1	144 25.7 +02.7	S 20 49.6 +00.0	09						
10	81 27.9 +01.4	N 03 29.9 +00.4	167 34.0 +02.8	S 22 16.6 +00.0	159 28.4 +02.7	S 20 49.6 +00.1	10						
11	96 29.3 +01.4	N 03 30.3 +00.4	182 36.8 +02.8	S 22 16.6 +00.1	174 31.1 +02.6	S 20 49.7 +00.0	11						
12	111 30.7 +01.4	N 03 30.7 +00.4	197 39.6 +02.7	S 22 16.7 +00.0	189 33.7 +02.7	S 20 49.7 +00.0	12						
13	126 32.1 +01.4	N 03 31.1 +00.3	212 42.3 +02.8	S 22 16.7 +00.1	204 36.4 +02.6	S 20 49.7 +00.1	13						
14	141 33.5 +01.5	N 03 31.4 +00.4	227 45.1 +02.8	S 22 16.8 +00.0	219 39.0 +02.7	S 20 49.8 +00.0	14						
15	156 35.0 +01.4	N 03 31.8 +00.4	242 47.9 +02.8	S 22 16.8 +00.1	234 41.7 +02.6	S 20 49.8 +00.1	15						
16	171 36.4 +01.4	N 03 32.2 +00.4	257 50.7 +02.7	S 22 16.9 +00.0	249 44.3 +02.7	S 20 49.9 +00.0	16						
17	186 37.8 +01.4	N 03 32.6 +00.3	272 53.4 +02.8	S 22 16.9 +00.1	264 47.0 +02.6	S 20 49.9 +00.0	17						
18	201 39.2 +01.4	N 03 32.9 +00.4	287 56.2 +02.8	S 22 17.0 +00.0	279 49.6 +02.7	S 20 49.9 +00.1	18						
19	216 40.6 +01.4	N 03 33.3 +00.4	302 59.0 +02.8	S 22 17.0 +00.1	294 52.3 +02.6	S 20 50.0 +00.0	19						
20	231 42.0 +01.4	N 03 33.7 +00.4	318 01.8 +02.7	S 22 17.1 +00.0	309 54.9 +02.7	S 20 50.0 +00.0	20						
21	246 43.4 +01.5	N 03 34.1 +00.3	333 04.5 +02.8	S 22 17.1 +00.0	324 57.6 +02.6	S 20 50.0 +00.1	21						
22	261 44.9 +01.4	N 03 34.4 +00.4	348 07.3 +02.8	S 22 17.1 +00.1	340 00.2 +02.7	S 20 50.1 +00.0	22						
23	276 46.3 +01.4	N 03 34.8 +00.4	3 10.1 +02.7	S 22 17.2 +00.0	355 02.9 +02.6	S 20 50.1 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 068° 068° 068° 068° 068° 068°		SHA 060° 060° 060° 060° 060° 060°								
	Greenwich Culmination Time: 04:34		Greenwich Culmination Time: 22:47		Greenwich Culmination Time: 23:19								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 24.7 +00.1	N 17 56.9 -00.6	226 14.6 +00.2	N 19 17.1 +00.2	32 40.5 -34.3	S 23 59.8 +01.2	00						
01	193 24.8 +00.0	N 17 56.3 -00.7	241 14.8 +00.2	N 19 17.3 +00.2	47 06.2 -34.3	S 24 01.0 +01.0	01						
02	208 24.8 +00.1	N 17 55.6 -00.6	256 15.0 +00.3	N 19 17.5 +00.2	61 31.9 -34.3	S 24 02.0 +00.9	02						
03	223 24.9 +00.0	N 17 55.0 -00.6	271 15.3 +00.2	N 19 17.7 +00.3	75 57.6 -34.3	S 24 02.9 +00.8	03						
04	238 24.9 +00.1	N 17 54.4 -00.7	286 15.5 +00.2	N 19 18.0 +00.2	90 23.3 -34.3	S 24 03.7 +00.6	04						
05	253 25.0 +00.0	N 17 53.7 -00.6	301 15.7 +00.2	N 19 18.2 +00.2	104 49.0 -34.3	S 24 04.3 +00.5	05						
06	268 25.0 +00.0	N 17 53.1 -00.6	316 15.9 +00.3	N 19 18.4 +00.2	119 14.7 -34.2	S 24 04.8 +00.3	06						
07	283 25.0 +00.1	N 17 52.5 -00.7	331 16.2 +00.2	N 19 18.6 +00.2	133 40.5 -34.2	S 24 05.1 +00.2	07						
08	298 25.1 +00.0	N 17 51.8 -00.6	346 16.4 +00.2	N 19 18.8 +00.2	148 06.3 -34.2	S 24 05.3 +00.0	08						
09	313 25.1 +00.1	N 17 51.2 -00.6	1 16.6 +00.2	N 19 19.0 +00.2	162 32.1 -34.2	S 24 05.3 -00.1	09						
10	328 25.2 +00.0	N 17 50.6 -00.7	16 16.8 +00.3	N 19 19.2 +00.2	176 57.9 -34.1	S 24 05.2 -00.2	10						
11	343 25.2 +00.1	N 17 49.9 -00.6	31 17.1 +00.2	N 19 19.4 +00.3	191 23.8 -34.2	S 24 05.0 -00.4	11						
12	358 25.3 +00.0	N 17 49.3 -00.6	46 17.3 +00.2	N 19 19.7 +00.2	205 49.6 -34.0	S 24 04.6 -00.6	12						
13	13 25.3 +00.0	N 17 48.7 -00.7	61 17.5 +00.2	N 19 19.9 +00.2	220 15.6 -34.1	S 24 04.0 -00.7	13						
14	28 25.3 +00.1	N 17 48.0 -00.6	76 17.7 +00.2	N 19 20.1 +00.2	234 41.5 -34.0	S 24 03.3 -00.8	14						
15	43 25.4 +00.0	N 17 47.4 -00.7	91 17.9 +00.3	N 19 20.3 +00.2	249 07.5 -34.0	S 24 02.5 -01.0	15						
16	58 25.4 +00.1	N 17 46.7 -00.6	106 18.2 +00.2	N 19 20.5 +00.2	263 33.5 -34.0	S 24 01.5 -01.1	16						
17	73 25.5 +00.0	N 17 46.1 -00.6	121 18.4 +00.2	N 19 20.7 +00.2	277 59.5 -33.9	S 24 00.4 -01.3	17						
18	88 25.5 +00.1	N 17 45.5 -00.7	136 18.6 +00.2	N 19 20.9 +00.2	292 25.6 -33.9	S 23 59.1 -01.4	18						
19	103 25.6 +00.0	N 17 44.8 -00.6	151 18.8 +00.2	N 19 21.1 +00.2	306 51.7 -33.9	S 23 57.7 -01.5	19						
20	118 25.6 +00.1	N 17 44.2 -00.7	166 19.0 +00.2	N 19 21.3 +00.2	321 17.8 -33.8	S 23 56.2 -01.7	20						
21	133 25.7 +00.0	N 17 43.5 -00.6	181 19.2 +00.2	N 19 21.5 +00.3	335 44.0 -33.7	S 23 54.5 -01.8	21						
22	148 25.7 +00.0	N 17 42.9 -00.7	196 19.4 +00.2	N 19 21.8 +00.2	350 10.3 -33.8	S 23 52.7 -02.0	22						
23	163 25.7 +00.1	N 17 42.2 -00.6	211 19.6 +00.2	N 19 22.0 +00.2	4 36.5 -33.6	S 23 50.7 -02.1	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	15'8 15'8 15'8 15'8 15'8 15'8		SD	00'2 00'2 00'2 00'2 00'2 00'2		SD	15'7 15'7 15'6 15'6 15'6 15'6						
HP	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	57'5 57'5 57'4 57'3 57'2 57'1						
SHA	228° 228° 228° 228° 228° 227°		SHA	276° 276° 276° 276° 276° 275°		SHA	081° 079° 076° 074° 072° 069°						
Greenwich Culmination Time: 12:06				Greenwich Culmination Time: 08:54				Greenwich Culmination Time: 22:40					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	291 47.7 +01.4	N 03 35.2 +00.3	18 12.8 +02.8	S 22 17.2 +00.1	10 05.5 +02.7	S 20 50.2 +00.0	00						
01	306 49.1 +01.4	N 03 35.5 +00.4	33 15.6 +02.8	S 22 17.3 +00.0	25 08.2 +02.6	S 20 50.2 +00.0	01						
02	321 50.5 +01.5	N 03 35.9 +00.4	48 18.4 +02.7	S 22 17.3 +00.1	40 10.8 +02.7	S 20 50.2 +00.1	02						
03	336 52.0 +01.4	N 03 36.3 +00.4	63 21.1 +02.8	S 22 17.4 +00.0	55 13.5 +02.6	S 20 50.3 +00.0	03						
04	351 53.4 +01.4	N 03 36.7 +00.3	78 23.9 +02.8	S 22 17.4 +00.1	70 16.1 +02.7	S 20 50.3 +00.1	04						
05	6 54.8 +01.4	N 03 37.0 +00.4	93 26.7 +02.8	S 22 17.5 +00.0	85 18.8 +02.6	S 20 50.4 +00.0	05						
06	21 56.2 +01.4	N 03 37.4 +00.4	108 29.5 +02.7	S 22 17.5 +00.1	100 21.4 +02.7	S 20 50.4 +00.0	06						
07	36 57.6 +01.5	N 03 37.8 +00.3	123 32.2 +02.8	S 22 17.6 +00.0	115 24.1 +02.6	S 20 50.4 +00.1	07						
08	51 59.1 +01.4	N 03 38.1 +00.4	138 35.0 +02.8	S 22 17.6 +00.1	130 26.7 +02.7	S 20 50.5 +00.0	08						
09	67 00.5 +01.4	N 03 38.5 +00.4	153 37.8 +02.7	S 22 17.7 +00.0	145 29.4 +02.6	S 20 50.5 +00.1	09						
10	82 01.9 +01.4	N 03 38.9 +00.3	168 40.5 +02.8	S 22 17.7 +00.1	160 32.0 +02.7	S 20 50.6 +00.0	10						
11	97 03.3 +01.5	N 03 39.2 +00.4	183 43.3 +02.8	S 22 17.8 +00.0	175 34.7 +02.6	S 20 50.6 +00.0	11						
12	112 04.8 +01.4	N 03 39.6 +00.4	198 46.1 +02.7	S 22 17.8 +00.1	190 37.3 +02.7	S 20 50.6 +00.1	12						
13	127 06.2 +01.4	N 03 40.0 +00.4	213 48.8 +02.8	S 22 17.9 +00.0	205 40.0 +02.6	S 20 50.7 +00.0	13						
14	142 07.6 +01.4	N 03 40.4 +00.3	228 51.6 +02.8	S 22 17.9 +00.0	220 42.6 +02.7	S 20 50.7 +00.0	14						
15	157 09.0 +01.5	N 03 40.7 +00.4	243 54.4 +02.7	S 22 17.9 +00.1	235 45.3 +02.6	S 20 50.7 +00.1	15						
16	172 10.5 +01.4	N 03 41.1 +00.4	258 57.1 +02.8	S 22 18.0 +00.0	250 47.9 +02.7	S 20 50.8 +00.0	16						
17	187 11.9 +01.4	N 03 41.5 +00.3	273 59.9 +02.8	S 22 18.0 +00.1	265 50.6 +02.6	S 20 50.8 +00.1	17						
18	202 13.3 +01.5	N 03 41.8 +00.4	289 02.7 +02.8	S 22 18.1 +00.0	280 53.2 +02.7	S 20 50.9 +00.0	18						
19	217 14.8 +01.4	N 03 42.2 +00.4	304 05.5 +02.7	S 22 18.1 +00.1	295 55.9 +02.6	S 20 50.9 +00.0	19						
20	232 16.2 +01.4	N 03 42.6 +00.3	319 08.2 +02.8	S 22 18.2 +00.0	310 58.5 +02.7	S 20 50.9 +00.1	20						
21	247 17.6 +01.5	N 03 42.9 +00.4	334 11.0 +02.8	S 22 18.2 +00.1	326 01.2 +02.6	S 20 51.0 +00.0	21						
22	262 19.1 +01.4	N 03 43.3 +00.4	349 13.8 +02.7	S 22 18.3 +00.0	341 03.8 +02.7	S 20 51.0 +00.1	22						
23	277 20.5 +01.4	N 03 43.7 +00.3	4 16.5 +02.8	S 22 18.3 +00.1	356 06.5 +02.6	S 20 51.1 +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	00'1 00'1 00'1 00'1 00'1 00'1		SD	00'4 00'4 00'4 00'4 00'4 00'4		SD	00'2 00'2 00'2 00'2 00'2 00'2						
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° 341° 341° 341°		SHA	068° 068° 068° 068° 068° 068°		SHA	060° 060° 060° 060° 060° 060°						
Greenwich Culmination Time: 04:32				Greenwich Culmination Time: 22:42				Greenwich Culmination Time: 23:15					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 25.8 +00.0	N 17 41.6 -00.6	226 19.8 +00.2	N 19 22.2 +00.2	19 02.9 -33.7	S 23 48.6 -02.3	00						
01	193 25.8 +00.1	N 17 41.0 -00.7	241 20.0 +00.2	N 19 22.4 +00.2	33 29.2 -33.6	S 23 46.3 -02.4	01						
02	208 25.9 +00.0	N 17 40.3 -00.6	256 20.2 +00.2	N 19 22.6 +00.2	47 55.6 -33.5	S 23 43.9 -02.5	02						
03	223 25.9 +00.1	N 17 39.7 -00.7	271 20.4 +00.2	N 19 22.8 +00.2	62 22.1 -33.5	S 23 41.4 -02.6	03						
04	238 26.0 +00.0	N 17 39.0 -00.6	286 20.6 +00.2	N 19 23.0 +00.2	76 48.6 -33.4	S 23 38.8 -02.8	04						
05	253 26.0 +00.1	N 17 38.4 -00.7	301 20.8 +00.2	N 19 23.2 +00.2	91 15.2 -33.4	S 23 36.0 -03.0	05						
06	268 26.1 +00.0	N 17 37.7 -00.6	316 21.0 +00.2	N 19 23.4 +00.2	105 41.8 -33.4	S 23 33.0 -03.0	06						
07	283 26.1 +00.1	N 17 37.1 -00.7	331 21.2 +00.2	N 19 23.6 +00.2	120 08.4 -33.2	S 23 30.0 -03.2	07						
08	298 26.2 +00.0	N 17 36.4 -00.6	346 21.4 +00.2	N 19 23.8 +00.2	134 35.2 -33.3	S 23 26.8 -03.4	08						
09	313 26.2 +00.1	N 17 35.8 -00.7	1 21.6 +00.2	N 19 24.0 +00.2	149 01.9 -33.1	S 23 23.4 -03.5	09						
10	328 26.3 +00.0	N 17 35.1 -00.6	16 21.8 +00.2	N 19 24.2 +00.2	163 28.8 -33.1	S 23 19.9 -03.6	10						
11	343 26.3 +00.1	N 17 34.5 -00.7	31 22.0 +00.2	N 19 24.4 +00.2	177 55.7 -33.1	S 23 16.3 -03.7	11						
12	358 26.4 +00.0	N 17 33.8 -00.6	46 22.2 +00.2	N 19 24.6 +00.2	192 22.6 -33.0	S 23 12.6 -03.8	12						
13	13 26.4 +00.1	N 17 33.2 -00.7	61 22.4 +00.2	N 19 24.8 +00.2	206 49.6 -32.9	S 23 08.8 -04.0	13						
14	28 26.5 +00.0	N 17 32.5 -00.6	76 22.6 +00.1	N 19 25.0 +00.2	221 16.7 -32.9	S 23 04.8 -04.2	14						
15	43 26.5 +00.1	N 17 31.9 -00.7	91 22.7 +00.2	N 19 25.2 +00.2	235 43.8 -32.8	S 23 00.6 -04.2	15						
16	58 26.6 +00.0	N 17 31.2 -00.6	106 22.9 +00.2	N 19 25.4 +00.2	250 11.0 -32.8	S 22 56.4 -04.4	16						
17	73 26.6 +00.1	N 17 30.6 -00.7	121 23.1 +00.2	N 19 25.6 +00.2	264 38.2 -32.6	S 22 52.0 -04.5	17						
18	88 26.7 +00.0	N 17 29.9 -00.6	136 23.3 +00.2	N 19 25.8 +00.2	279 05.6 -32.6	S 22 47.5 -04.6	18						
19	103 26.7 +00.1	N 17 29.3 -00.7	151 23.5 +00.1	N 19 26.0 +00.3	293 33.0 -32.6	S 22 42.9 -04.8	19						
20	118 26.8 +00.0	N 17 28.6 -00.6	166 23.6 +00.2	N 19 26.3 +00.2	308 00.4 -32.5	S 22 38.1 -04.8	20						
21	133 26.8 +00.1	N 17 28.0 -00.7	181 23.8 +00.2	N 19 26.5 +00.2	322 27.9 -32.4	S 22 33.3 -05.0	21						
22	148 26.9 +00.0	N 17 27.3 -00.6	196 24.0 +00.2	N 19 26.7 +00.2	336 55.5 -32.3	S 22 28.3 -05.1	22						
23	163 26.9 +00.1	N 17 26.7 -00.7	211 24.2 +00.1	N 19 26.9 +00.1	351 23.2 -32.3	S 22 23.2 -05.3	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	15'8 15'8 15'8 15'8 15'8 15'8		SD	00'2 00'2 00'2 00'2 00'2 00'2		SD	15'5 15'5 15'5 15'5 15'4 15'4						
HP	00'1 00'1 00'1 00'1 00'1 00'1		HP	00'2 00'2 00'2 00'2 00'2 00'2		HP	57'1 57'0 56'9 56'8 56'7 56'6						
SHA	227° 227° 227° 227° 227° 226°		SHA	275° 275° 275° 275° 275° 274°		SHA	067° 064° 062° 060° 057° 055°						
Greenwich Culmination Time: 12:06			Greenwich Culmination Time: 08:54			Greenwich Culmination Time: 23:35							
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	292 21.9 +01.5	N 03 44.0 +00.4	19 19.3 +02.8	S 22 18.4 +00.0	11 09.1 +02.7	S 20 51.1 +00.0	00						
01	307 23.4 +01.4	N 03 44.4 +00.4	34 22.1 +02.7	S 22 18.4 +00.1	26 11.8 +02.6	S 20 51.1 +00.1	01						
02	322 24.8 +01.4	N 03 44.8 +00.3	49 24.8 +02.8	S 22 18.5 +00.0	41 14.4 +02.7	S 20 51.2 +00.0	02						
03	337 26.2 +01.5	N 03 45.1 +00.4	64 27.6 +02.8	S 22 18.5 +00.1	56 17.1 +02.6	S 20 51.2 +00.1	03						
04	352 27.7 +01.4	N 03 45.5 +00.3	79 30.4 +02.7	S 22 18.6 +00.0	71 19.7 +02.7	S 20 51.3 +00.0	04						
05	7 29.1 +01.5	N 03 45.8 +00.4	94 33.1 +02.8	S 22 18.6 +00.0	86 22.4 +02.6	S 20 51.3 +00.0	05						
06	22 30.6 +01.4	N 03 46.2 +00.4	109 35.9 +02.7	S 22 18.6 +00.1	101 25.0 +02.7	S 20 51.3 +00.1	06						
07	37 32.0 +01.4	N 03 46.6 +00.3	124 38.6 +02.8	S 22 18.7 +00.0	116 27.7 +02.6	S 20 51.4 +00.0	07						
08	52 33.4 +01.5	N 03 46.9 +00.4	139 41.4 +02.8	S 22 18.7 +00.1	131 30.3 +02.7	S 20 51.4 +00.0	08						
09	67 34.9 +01.4	N 03 47.3 +00.4	154 44.2 +02.7	S 22 18.8 +00.0	146 33.0 +02.6	S 20 51.4 +00.1	09						
10	82 36.3 +01.5	N 03 47.7 +00.3	169 46.9 +02.8	S 22 18.8 +00.1	161 35.6 +02.7	S 20 51.5 +00.0	10						
11	97 37.8 +01.4	N 03 48.0 +00.4	184 49.7 +02.8	S 22 18.9 +00.0	176 38.3 +02.6	S 20 51.5 +00.1	11						
12	112 39.2 +01.4	N 03 48.4 +00.4	199 52.5 +02.7	S 22 18.9 +00.1	191 40.9 +02.7	S 20 51.6 +00.0	12						
13	127 40.6 +01.5	N 03 48.8 +00.3	214 55.2 +02.8	S 22 19.0 +00.0	206 43.6 +02.6	S 20 51.6 +00.0	13						
14	142 42.1 +01.4	N 03 49.1 +00.4	229 58.0 +02.8	S 22 19.0 +00.1	221 46.2 +02.7	S 20 51.6 +00.1	14						
15	157 43.5 +01.5	N 03 49.5 +00.3	245 00.8 +02.7	S 22 19.1 +00.0	236 48.9 +02.6	S 20 51.7 +00.0	15						
16	172 45.0 +01.4	N 03 49.8 +00.4	260 03.5 +02.8	S 22 19.1 +00.0	251 51.5 +02.7	S 20 51.7 +00.1	16						
17	187 46.4 +01.5	N 03 50.2 +00.4	275 06.3 +02.8	S 22 19.1 +00.1	266 54.2 +02.6	S 20 51.8 +00.0	17						
18	202 47.9 +01.4	N 03 50.6 +00.3	290 09.1 +02.7	S 22 19.2 +00.0	281 56.8 +02.7	S 20 51.8 +00.0	18						
19	217 49.3 +01.5	N 03 50.9 +00.4	305 11.8 +02.8	S 22 19.2 +00.1	296 59.5 +02.6	S 20 51.8 +00.1	19						
20	232 50.8 +01.4	N 03 51.3 +00.3	320 14.6 +02.7	S 22 19.3 +00.0	312 02.1 +02.7	S 20 51.9 +00.0	20						
21	247 52.2 +01.5	N 03 51.6 +00.4	335 17.3 +02.8	S 22 19.3 +00.1	327 04.8 +02.6	S 20 51.9 +00.0	21						
22	262 53.7 +01.4	N 03 52.0 +00.4	350 20.1 +02.8	S 22 19.4 +00.0	342 07.4 +02.7	S 20 51.9 +00.1	22						
23	277 55.1 +01.5	N 03 52.4 +00.3	5 22.9 +02.7	S 22 19.4 +00.1	357 10.1 +02.6	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	00'4 00'4 00'4 00'4 00'4 00'4		SD	00'2 00'2 00'2 00'2 00'2 00'2						
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	068° 068° 068° 068° 068° 068°		SHA	060° 060° 060° 060° 060° 060°						
Greenwich Culmination Time: 04:30			Greenwich Culmination Time: 22:38			Greenwich Culmination Time: 23:11							

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 27.0 +00.0	N 17 26.0 -00.7	226 24.3 +00.2	N 19 27.0 +00.2	5 50.9 -32.2	S 22 17.9 -05.3	00						
01	193 27.0 +00.1	N 17 25.3 -00.6	241 24.5 +00.2	N 19 27.2 +00.2	20 18.7 -32.1	S 22 12.6 -05.5	01						
02	208 27.1 +00.1	N 17 24.7 -00.7	256 24.7 +00.2	N 19 27.4 +00.2	34 46.6 -32.1	S 22 07.1 -05.6	02						
03	223 27.2 +00.0	N 17 24.0 -00.6	271 24.9 +00.1	N 19 27.6 +00.2	49 14.5 -32.0	S 22 01.5 -05.7	03						
04	238 27.2 +00.1	N 17 23.4 -00.7	286 25.0 +00.2	N 19 27.8 +00.2	63 42.5 -31.9	S 21 55.8 -05.8	04						
05	253 27.3 +00.0	N 17 22.7 -00.6	301 25.2 +00.2	N 19 28.0 +00.2	78 10.6 -31.9	S 21 50.0 -06.0	05						
06	268 27.3 +00.1	N 17 22.1 -00.7	316 25.4 +00.1	N 19 28.2 +00.2	92 38.7 -31.7	S 21 44.0 -06.0	06						
07	283 27.4 +00.0	N 17 21.4 -00.7	331 25.5 +00.2	N 19 28.4 +00.2	107 07.0 -31.7	S 21 38.0 -06.2	07						
08	298 27.4 +00.1	N 17 20.7 -00.6	346 25.7 +00.2	N 19 28.6 +00.2	121 35.3 -31.6	S 21 31.8 -06.2	08						
09	313 27.5 +00.0	N 17 20.1 -00.7	1 25.9 +00.1	N 19 28.8 +00.2	136 03.7 -31.6	S 21 25.6 -06.4	09						
10	328 27.5 +00.1	N 17 19.4 -00.6	16 26.0 +00.2	N 19 29.0 +00.2	150 32.1 -31.4	S 21 19.2 -06.5	10						
11	343 27.6 +00.1	N 17 18.8 -00.7	31 26.2 +00.1	N 19 29.2 +00.2	165 00.7 -31.4	S 21 12.7 -06.6	11						
12	358 27.7 +00.0	N 17 18.1 -00.7	46 26.3 +00.2	N 19 29.4 +00.2	179 29.3 -31.3	S 21 06.1 -06.7	12						
13	13 27.7 +00.1	N 17 17.4 -00.6	61 26.5 +00.2	N 19 29.6 +00.2	193 58.0 -31.3	S 20 59.4 -06.8	13						
14	28 27.8 +00.0	N 17 16.8 -00.7	76 26.7 +00.1	N 19 29.8 +00.2	208 26.7 -31.1	S 20 52.6 -07.0	14						
15	43 27.8 +00.1	N 17 16.1 -00.7	91 26.8 +00.2	N 19 30.0 +00.2	222 55.6 -31.1	S 20 45.6 -07.0	15						
16	58 27.9 +00.0	N 17 15.4 -00.6	106 27.0 +00.1	N 19 30.2 +00.2	237 24.5 -31.0	S 20 38.6 -07.1	16						
17	73 27.9 +00.1	N 17 14.8 -00.7	121 27.1 +00.2	N 19 30.4 +00.2	251 53.5 -30.9	S 20 31.5 -07.2	17						
18	88 28.0 +00.1	N 17 14.1 -00.7	136 27.3 +00.1	N 19 30.6 +00.2	266 22.6 -30.9	S 20 24.3 -07.3	18						
19	103 28.1 +00.0	N 17 13.4 -00.6	151 27.4 +00.2	N 19 30.8 +00.2	280 51.7 -30.7	S 20 17.0 -07.5	19						
20	118 28.1 +00.1	N 17 12.8 -00.7	166 27.6 +00.1	N 19 31.0 +00.2	295 21.0 -30.7	S 20 09.5 -07.5	20						
21	133 28.2 +00.0	N 17 12.1 -00.7	181 27.7 +00.2	N 19 31.2 +00.1	309 50.3 -30.6	S 20 02.0 -07.6	21						
22	148 28.2 +00.1	N 17 11.4 -00.6	196 27.9 +00.1	N 19 31.3 +00.2	324 19.7 -30.5	S 19 54.4 -07.7	22						
23	163 28.3 +00.0	N 17 10.8 -00.7	211 28.0 +00.2	N 19 31.5 +00.2	338 49.2 -30.5	S 19 46.7 -07.8	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	15'8 15'8 15'8 15'8 15'8 15'8		SD	00'2 00'2 00'2 00'2 00'2 00'2		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	00'2 00'2 00'2 00'2 00'2 00'2		HP	56'5 56'4 56'3 56'3 56'2 56'1						
SHA	226° 226° 226° 226° 226° 226°		SHA	274° 274° 274° 274° 274° 274°		SHA	053° 050° 048° 046° 044° 041°						
Greenwich Culmination Time: 12:06			Greenwich Culmination Time: 08:54			Greenwich Culmination Time: -1:00							

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	292 56.6 +01.4	N 03 52.7 +00.4	20 25.6 +02.8	S 22 19.5 +00.0	12 12.7 +02.7	S 20 52.0 +00.1	00						
01	307 58.0 +01.5	N 03 53.1 +00.3	35 28.4 +02.8	S 22 19.5 +00.1	27 15.4 +02.6	S 20 52.1 +00.0	01						
02	322 59.5 +01.4	N 03 53.4 +00.4	50 31.2 +02.7	S 22 19.6 +00.0	42 18.0 +02.7	S 20 52.1 +00.0	02						
03	338 00.9 +01.5	N 03 53.8 +00.3	65 33.9 +02.8	S 22 19.6 +00.1	57 20.7 +02.6	S 20 52.1 +00.1	03						
04	353 02.4 +01.4	N 03 54.1 +00.4	80 36.7 +02.7	S 22 19.7 +00.0	72 23.3 +02.7	S 20 52.2 +00.0	04						
05	8 03.8 +01.5	N 03 54.5 +00.4	95 39.4 +02.8	S 22 19.7 +00.0	87 26.0 +02.6	S 20 52.2 +00.1	05						
06	23 05.3 +01.4	N 03 54.9 +00.3	110 42.2 +02.8	S 22 19.7 +00.1	102 28.6 +02.7	S 20 52.3 +00.0	06						
07	38 06.7 +01.5	N 03 55.2 +00.4	125 45.0 +02.7	S 22 19.8 +00.0	117 31.3 +02.6	S 20 52.3 +00.0	07						
08	53 08.2 +01.5	N 03 55.6 +00.3	140 47.7 +02.8	S 22 19.8 +00.1	132 33.9 +02.7	S 20 52.3 +00.1	08						
09	68 09.7 +01.4	N 03 55.9 +00.4	155 50.5 +02.7	S 22 19.9 +00.0	147 36.6 +02.6	S 20 52.4 +00.0	09						
10	83 11.1 +01.5	N 03 56.3 +00.3	170 53.2 +02.8	S 22 19.9 +00.1	162 39.2 +02.7	S 20 52.4 +00.0	10						
11	98 12.6 +01.4	N 03 56.6 +00.4	185 56.0 +02.8	S 22 20.0 +00.0	177 41.9 +02.6	S 20 52.4 +00.1	11						
12	113 14.0 +01.5	N 03 57.0 +00.3	200 58.8 +02.7	S 22 20.0 +00.1	192 44.5 +02.7	S 20 52.5 +00.0	12						
13	128 15.5 +01.5	N 03 57.3 +00.4	216 01.5 +02.8	S 22 20.1 +00.0	207 47.2 +02.6	S 20 52.5 +00.1	13						
14	143 17.0 +01.4	N 03 57.7 +00.4	231 04.3 +02.7	S 22 20.1 +00.0	222 49.8 +02.7	S 20 52.6 +00.0	14						
15	158 18.4 +01.5	N 03 58.1 +00.3	246 07.0 +02.8	S 22 20.1 +00.1	237 52.5 +02.6	S 20 52.6 +00.0	15						
16	173 19.9 +01.4	N 03 58.4 +00.4	261 09.8 +02.8	S 22 20.2 +00.0	252 55.1 +02.7	S 20 52.6 +00.1	16						
17	188 21.3 +01.5	N 03 58.8 +00.3	276 12.6 +02.7	S 22 20.2 +00.1	267 57.8 +02.6	S 20 52.7 +00.0	17						
18	203 22.8 +01.5	N 03 59.1 +00.4	291 15.3 +02.8	S 22 20.3 +00.0	283 00.4 +02.7	S 20 52.7 +00.0	18						
19	218 24.3 +01.4	N 03 59.5 +00.3	306 18.1 +02.7	S 22 20.3 +00.1	298 03.1 +02.6	S 20 52.7 +00.1	19						
20	233 25.7 +01.5	N 03 59.8 +00.4	321 20.8 +02.8	S 22 20.4 +00.0	313 05.7 +02.6	S 20 52.8 +00.0	20						
21	248 27.2 +01.5	N 04 00.2 +00.3	336 23.6 +02.8	S 22 20.4 +00.1	328 08.3 +02.7	S 20 52.8 +00.1	21						
22	263 28.7 +01.4	N 04 00.5 +00.4	351 26.4 +02.7	S 22 20.5 +00.0	343 11.0 +02.6	S 20 52.9 +00.0	22						
23	278 30.1 +01.5	N 04 00.9 +00.3	6 29.1 +02.8	S 22 20.5 +00.0	358 13.6 +02.7	S 20 52.9 +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	00'4 00'4 00'4 00'4 00'4 00'4		SD	00'2 00'2 00'2 00'2 00'2 00'2						
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	068° 068° 068° 068° 068° 069°		SHA	060° 060° 060° 060° 060° 060°						
Greenwich Culmination Time: 04:27			Greenwich Culmination Time: 22:34			Greenwich Culmination Time: 23:07							

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 28.3 +00.1	N 17 10.1 -00.7	226 28.2 +00.1	N 19 31.7 +00.2	353 18.7 -30.4	S 19 38.9 -07.9	00						
01	193 28.4 +00.1	N 17 09.4 -00.6	241 28.3 +00.1	N 19 31.9 +00.2	7 48.3 -30.2	S 19 31.0 -08.0	01						
02	208 28.5 +00.0	N 17 08.8 -00.7	256 28.4 +00.2	N 19 32.1 +00.2	22 18.1 -30.2	S 19 23.0 -08.1	02						
03	223 28.5 +00.1	N 17 08.1 -00.7	271 28.6 +00.1	N 19 32.3 +00.2	36 47.9 -30.2	S 19 14.9 -08.2	03						
04	238 28.6 +00.0	N 17 07.4 -00.6	286 28.7 +00.2	N 19 32.5 +00.2	51 17.7 -30.0	S 19 06.7 -08.3	04						
05	253 28.6 +00.1	N 17 06.8 -00.7	301 28.9 +00.1	N 19 32.7 +00.2	65 47.7 -30.0	S 18 58.4 -08.3	05						
06	268 28.7 +00.1	N 17 06.1 -00.7	316 29.0 +00.1	N 19 32.9 +00.1	80 17.7 -29.9	S 18 50.1 -08.5	06						
07	283 28.8 +00.0	N 17 05.4 -00.6	331 29.1 +00.2	N 19 33.0 +00.2	94 47.8 -29.8	S 18 41.6 -08.5	07						
08	298 28.8 +00.1	N 17 04.8 -00.7	346 29.3 +00.1	N 19 33.2 +00.2	109 18.0 -29.7	S 18 33.1 -08.6	08						
09	313 28.9 +00.1	N 17 04.1 -00.7	1 29.4 +00.1	N 19 33.4 +00.2	123 48.3 -29.6	S 18 24.5 -08.7	09						
10	328 29.0 +00.0	N 17 03.4 -00.7	16 29.5 +00.2	N 19 33.6 +00.2	138 18.7 -29.6	S 18 15.8 -08.8	10						
11	343 29.0 +00.1	N 17 02.7 -00.6	31 29.7 +00.1	N 19 33.8 +00.2	152 49.1 -29.5	S 18 07.0 -08.8	11						
12	358 29.1 +00.0	N 17 02.1 -00.7	46 29.8 +00.1	N 19 34.0 +00.2	167 19.6 -29.4	S 17 58.2 -08.9	12						
13	13 29.1 +00.1	N 17 01.4 -00.7	61 29.9 +00.2	N 19 34.2 +00.2	181 50.2 -29.3	S 17 49.3 -09.1	13						
14	28 29.2 +00.1	N 17 00.7 -00.7	76 30.1 +00.1	N 19 34.4 +00.1	196 20.9 -29.2	S 17 40.2 -09.1	14						
15	43 29.3 +00.0	N 17 00.0 -00.6	91 30.2 +00.1	N 19 34.5 +00.2	210 51.7 -29.2	S 17 31.1 -09.1	15						
16	58 29.3 +00.1	N 16 59.4 -00.7	106 30.3 +00.1	N 19 34.7 +00.2	225 22.5 -29.1	S 17 22.0 -09.3	16						
17	73 29.4 +00.1	N 16 58.7 -00.7	121 30.4 +00.2	N 19 34.9 +00.2	239 53.4 -29.0	S 17 12.7 -09.3	17						
18	88 29.5 +00.0	N 16 58.0 -00.7	136 30.6 +00.1	N 19 35.1 +00.2	254 24.4 -28.9	S 17 03.4 -09.4	18						
19	103 29.5 +00.1	N 16 57.3 -00.6	151 30.7 +00.1	N 19 35.3 +00.2	268 55.5 -28.9	S 16 54.0 -09.5	19						
20	118 29.6 +00.0	N 16 56.7 -00.7	166 30.8 +00.1	N 19 35.5 +00.1	283 26.6 -28.8	S 16 44.5 -09.5	20						
21	133 29.6 +00.1	N 16 56.0 -00.7	181 30.9 +00.1	N 19 35.6 +00.2	297 57.8 -28.7	S 16 35.0 -09.6	21						
22	148 29.7 +00.1	N 16 55.3 -00.7	196 31.0 +00.2	N 19 35.8 +00.2	312 29.1 -28.6	S 16 25.4 -09.7	22						
23	163 29.8 +00.0	N 16 54.6 -00.6	211 31.2 +00.1	N 19 36.0 +00.2	327 00.5 -28.6	S 16 15.7 -09.7	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 15'3 15'2 15'2 15'2 15'2 15'1								
	HP 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 56'0 55'9 55'8 55'7 55'6 55'6								
	SHA 225° 225° 225° 225° 225° 225°		SHA 273° 273° 273° 273° 273° 273°		SHA 039° 037° 035° 033° 031° 029°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 08:54		Greenwich Culmination Time: 00:27								
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	293 31.6 +01.5	N 04 01.2 +00.4	21 31.9 +02.7	S 22 20.5 +00.1	13 16.3 +02.6	S 20 52.9 +00.1	00						
01	308 33.1 +01.4	N 04 01.6 +00.3	36 34.6 +02.8	S 22 20.6 +00.0	28 18.9 +02.7	S 20 53.0 +00.0	01						
02	323 34.5 +01.5	N 04 01.9 +00.4	51 37.4 +02.7	S 22 20.6 +00.1	43 21.6 +02.6	S 20 53.0 +00.1	02						
03	338 36.0 +01.5	N 04 02.3 +00.3	66 40.1 +02.8	S 22 20.7 +00.0	58 24.2 +02.7	S 20 53.1 +00.0	03						
04	353 37.5 +01.5	N 04 02.6 +00.4	81 42.9 +02.8	S 22 20.7 +00.1	73 26.9 +02.6	S 20 53.1 +00.0	04						
05	8 39.0 +01.4	N 04 03.0 +00.3	96 45.7 +02.7	S 22 20.8 +00.0	88 29.5 +02.7	S 20 53.1 +00.1	05						
06	23 40.4 +01.5	N 04 03.3 +00.4	111 48.4 +02.8	S 22 20.8 +00.1	103 32.2 +02.6	S 20 53.2 +00.0	06						
07	38 41.9 +01.5	N 04 03.7 +00.3	126 51.2 +02.7	S 22 20.9 +00.0	118 34.8 +02.7	S 20 53.2 +00.0	07						
08	53 43.4 +01.5	N 04 04.0 +00.4	141 53.9 +02.8	S 22 20.9 +00.0	133 37.5 +02.6	S 20 53.2 +00.1	08						
09	68 44.9 +01.4	N 04 04.4 +00.3	156 56.7 +02.7	S 22 20.9 +00.1	148 40.1 +02.7	S 20 53.3 +00.0	09						
10	83 46.3 +01.5	N 04 04.7 +00.4	171 59.4 +02.8	S 22 21.0 +00.0	163 42.8 +02.6	S 20 53.3 +00.1	10						
11	98 47.8 +01.5	N 04 05.1 +00.3	187 02.2 +02.8	S 22 21.0 +00.1	178 45.4 +02.7	S 20 53.4 +00.0	11						
12	113 49.3 +01.5	N 04 05.4 +00.4	202 05.0 +02.7	S 22 21.1 +00.0	193 48.1 +02.6	S 20 53.4 +00.0	12						
13	128 50.8 +01.4	N 04 05.8 +00.3	217 07.7 +02.8	S 22 21.1 +00.1	208 50.7 +02.7	S 20 53.4 +00.1	13						
14	143 52.2 +01.5	N 04 06.1 +00.4	232 10.5 +02.7	S 22 21.2 +00.0	223 53.4 +02.6	S 20 53.5 +00.0	14						
15	158 53.7 +01.5	N 04 06.5 +00.3	247 13.2 +02.8	S 22 21.2 +00.1	238 56.0 +02.6	S 20 53.5 +00.0	15						
16	173 55.2 +01.5	N 04 06.8 +00.3	262 16.0 +02.7	S 22 21.3 +00.0	253 58.6 +02.7	S 20 53.5 +00.1	16						
17	188 56.7 +01.5	N 04 07.1 +00.4	277 18.7 +02.8	S 22 21.3 +00.0	269 01.3 +02.6	S 20 53.6 +00.0	17						
18	203 58.2 +01.4	N 04 07.5 +00.3	292 21.5 +02.7	S 22 21.3 +00.1	284 03.9 +02.7	S 20 53.6 +00.1	18						
19	218 59.6 +01.5	N 04 07.8 +00.4	307 24.2 +02.8	S 22 21.4 +00.0	299 06.6 +02.6	S 20 53.7 +00.0	19						
20	234 01.1 +01.5	N 04 08.2 +00.3	322 27.0 +02.7	S 22 21.4 +00.1	314 09.2 +02.7	S 20 53.7 +00.0	20						
21	249 02.6 +01.5	N 04 08.5 +00.4	337 29.7 +02.8	S 22 21.5 +00.0	329 11.9 +02.6	S 20 53.7 +00.1	21						
22	264 04.1 +01.5	N 04 08.9 +00.3	352 32.5 +02.8	S 22 21.5 +00.1	344 14.5 +02.7	S 20 53.8 +00.0	22						
23	279 05.6 +01.5	N 04 09.2 +00.4	7 35.3 +02.7	S 22 21.6 +00.0	359 17.2 +02.6	S 20 53.8 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 069° 069° 069° 069° 069° 069°		SHA 060° 060° 060° 060° 060° 060°								
	Greenwich Culmination Time: 04:25		Greenwich Culmination Time: 22:29		Greenwich Culmination Time: 23:02								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 56%				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 29.8 +00.1	N 16 54.0 -00.7	226 31.3 +00.1	N 19 36.2 +00.2	341 31.9 -28.4	S 16 06.0 -09.8	00						
01	193 29.9 +00.1	N 16 53.3 -00.7	241 31.4 +00.1	N 19 36.4 +00.1	356 03.5 -28.4	S 15 56.2 -09.9	01						
02	208 30.0 +00.0	N 16 52.6 -00.7	256 31.5 +00.1	N 19 36.5 +00.2	10 35.1 -28.4	S 15 46.3 -09.9	02						
03	223 30.0 +00.1	N 16 51.9 -00.7	271 31.6 +00.1	N 19 36.7 +00.2	25 06.7 -28.2	S 15 36.4 -10.1	03						
04	238 30.1 +00.1	N 16 51.2 -00.6	286 31.7 +00.1	N 19 36.9 +00.2	39 38.5 -28.2	S 15 26.3 -10.0	04						
05	253 30.2 +00.0	N 16 50.6 -00.7	301 31.8 +00.1	N 19 37.1 +00.2	54 10.3 -28.1	S 15 16.3 -10.2	05						
06	268 30.2 +00.1	N 16 49.9 -00.7	316 31.9 +00.1	N 19 37.3 +00.1	68 42.2 -28.0	S 15 06.1 -10.1	06						
07	283 30.3 +00.1	N 16 49.2 -00.7	331 32.0 +00.2	N 19 37.4 +00.2	83 14.2 -28.0	S 14 56.0 -10.3	07						
08	298 30.4 +00.0	N 16 48.5 -00.7	346 32.2 +00.1	N 19 37.6 +00.2	97 46.2 -27.9	S 14 45.7 -10.3	08						
09	313 30.4 +00.1	N 16 47.8 -00.7	1 32.3 +00.1	N 19 37.8 +00.2	112 18.3 -27.8	S 14 35.4 -10.4	09						
10	328 30.5 +00.1	N 16 47.1 -00.6	16 32.4 +00.1	N 19 38.0 +00.1	126 50.5 -27.7	S 14 25.0 -10.4	10						
11	343 30.6 +00.1	N 16 46.5 -00.7	31 32.5 +00.1	N 19 38.1 +00.2	141 22.8 -27.7	S 14 14.6 -10.5	11						
12	358 30.7 +00.0	N 16 45.8 -00.7	46 32.6 +00.1	N 19 38.3 +00.2	155 55.1 -27.6	S 14 04.1 -10.5	12						
13	13 30.7 +00.1	N 16 45.1 -00.7	61 32.7 +00.1	N 19 38.5 +00.2	170 27.5 -27.5	S 13 53.6 -10.6	13						
14	28 30.8 +00.1	N 16 44.4 -00.7	76 32.8 +00.1	N 19 38.7 +00.1	184 60.0 -27.5	S 13 43.0 -10.6	14						
15	43 30.9 +00.0	N 16 43.7 -00.7	91 32.9 +00.1	N 19 38.8 +00.2	199 32.5 -27.4	S 13 32.4 -10.7	15						
16	58 30.9 +00.1	N 16 43.0 -00.7	106 33.0 +00.1	N 19 39.0 +00.2	214 05.1 -27.3	S 13 21.7 -10.7	16						
17	73 31.0 +00.1	N 16 42.3 -00.6	121 33.1 +00.1	N 19 39.2 +00.2	228 37.8 -27.3	S 13 11.0 -10.8	17						
18	88 31.1 +00.0	N 16 41.7 -00.7	136 33.2 +00.1	N 19 39.4 +00.1	243 10.5 -27.2	S 13 00.2 -10.9	18						
19	103 31.1 +00.1	N 16 41.0 -00.7	151 33.3 +00.0	N 19 39.5 +00.2	257 43.3 -27.1	S 12 49.3 -10.9	19						
20	118 31.2 +00.1	N 16 40.3 -00.7	166 33.3 +00.1	N 19 39.7 +00.2	272 16.2 -27.1	S 12 38.4 -10.9	20						
21	133 31.3 +00.1	N 16 39.6 -00.7	181 33.4 +00.1	N 19 39.9 +00.1	286 49.1 -27.0	S 12 27.5 -11.0	21						
22	148 31.4 +00.0	N 16 38.9 -00.7	196 33.5 +00.1	N 19 40.0 +00.2	301 22.1 -27.0	S 12 16.5 -11.0	22						
23	163 31.4 +00.1	N 16 38.2 -00.7	211 33.6 +00.1	N 19 40.2 +00.2	315 55.1 -26.8	S 12 05.5 -11.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 15'1 15'1 15'1 15'0 15'0 15'0								
	HP 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 55'5 55'4 55'3 55'2 55'2 55'1								
	SHA 224° 224° 224° 224° 224° 224°		SHA 272° 272° 272° 272° 272° 272°		SHA 026° 024° 022° 020° 018° 016°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 08:53		Greenwich Culmination Time: 01:16								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	294 07.1 +01.4	N 04 09.6 +00.3	22 38.0 +02.8	S 22 21.6 +00.1	14 19.8 +02.7	S 20 53.8 +00.1	00						
01	309 08.5 +01.5	N 04 09.9 +00.3	37 40.8 +02.7	S 22 21.7 +00.0	29 22.5 +02.6	S 20 53.9 +00.0	01						
02	324 10.0 +01.5	N 04 10.2 +00.4	52 43.5 +02.8	S 22 21.7 +00.0	44 25.1 +02.7	S 20 53.9 +00.1	02						
03	339 11.5 +01.5	N 04 10.6 +00.3	67 46.3 +02.7	S 22 21.7 +00.1	59 27.8 +02.6	S 20 54.0 +00.0	03						
04	354 13.0 +01.5	N 04 10.9 +00.4	82 49.0 +02.8	S 22 21.8 +00.0	74 30.4 +02.7	S 20 54.0 +00.0	04						
05	9 14.5 +01.5	N 04 11.3 +00.3	97 51.8 +02.7	S 22 21.8 +00.1	89 33.1 +02.6	S 20 54.0 +00.1	05						
06	24 16.0 +01.5	N 04 11.6 +00.4	112 54.5 +02.8	S 22 21.9 +00.0	104 35.7 +02.6	S 20 54.1 +00.0	06						
07	39 17.5 +01.5	N 04 12.0 +00.3	127 57.3 +02.7	S 22 21.9 +00.1	119 38.3 +02.7	S 20 54.1 +00.0	07						
08	54 19.0 +01.5	N 04 12.3 +00.3	143 00.0 +02.8	S 22 22.0 +00.0	134 41.0 +02.6	S 20 54.1 +00.1	08						
09	69 20.5 +01.5	N 04 12.6 +00.4	158 02.8 +02.7	S 22 22.0 +00.0	149 43.6 +02.7	S 20 54.2 +00.0	09						
10	84 22.0 +01.4	N 04 13.0 +00.3	173 05.5 +02.8	S 22 22.0 +00.1	164 46.3 +02.6	S 20 54.2 +00.1	10						
11	99 23.4 +01.5	N 04 13.3 +00.4	188 08.3 +02.7	S 22 22.1 +00.0	179 48.9 +02.7	S 20 54.3 +00.0	11						
12	114 24.9 +01.5	N 04 13.7 +00.3	203 11.0 +02.8	S 22 22.1 +00.1	194 51.6 +02.6	S 20 54.3 +00.0	12						
13	129 26.4 +01.5	N 04 14.0 +00.3	218 13.8 +02.7	S 22 22.2 +00.0	209 54.2 +02.7	S 20 54.3 +00.1	13						
14	144 27.9 +01.5	N 04 14.3 +00.4	233 16.5 +02.8	S 22 22.2 +00.1	224 56.9 +02.6	S 20 54.4 +00.0	14						
15	159 29.4 +01.5	N 04 14.7 +00.3	248 19.3 +02.7	S 22 22.3 +00.0	239 59.5 +02.7	S 20 54.4 +00.0	15						
16	174 30.9 +01.5	N 04 15.0 +00.4	263 22.0 +02.8	S 22 22.3 +00.0	255 02.2 +02.6	S 20 54.4 +00.1	16						
17	189 32.4 +01.5	N 04 15.4 +00.3	278 24.8 +02.7	S 22 22.3 +00.1	270 04.8 +02.6	S 20 54.5 +00.0	17						
18	204 33.9 +01.5	N 04 15.7 +00.3	293 27.5 +02.8	S 22 22.4 +00.0	285 07.4 +02.7	S 20 54.5 +00.1	18						
19	219 35.4 +01.5	N 04 16.0 +00.4	308 30.3 +02.7	S 22 22.4 +00.1	300 10.1 +02.6	S 20 54.6 +00.0	19						
20	234 36.9 +01.5	N 04 16.4 +00.3	323 33.0 +02.8	S 22 22.5 +00.0	315 12.7 +02.7	S 20 54.6 +00.0	20						
21	249 38.4 +01.5	N 04 16.7 +00.3	338 35.8 +02.7	S 22 22.5 +00.1	330 15.4 +02.6	S 20 54.6 +00.1	21						
22	264 39.9 +01.5	N 04 17.0 +00.4	353 38.5 +02.8	S 22 22.6 +00.0	345 18.0 +02.7	S 20 54.7 +00.0	22						
23	279 41.4 +01.5	N 04 17.4 +00.3	8 41.3 +02.7	S 22 22.6 +00.0	0 20.7 +02.6	S 20 54.7 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 069° 069° 069° 069° 069° 069°		SHA 060° 060° 060° 060° 060° 060°								
	Greenwich Culmination Time: 04:23		Greenwich Culmination Time: 22:25		Greenwich Culmination Time: 22:58								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 31.5 +00.1	N 16 37.5 -00.7	226 33.7 +00.1	N 19 40.4 +00.2	330 28.3 -26.9	S 11 54.5 -11.2	00						
01	193 31.6 +00.0	N 16 36.8 -00.7	241 33.8 +00.1	N 19 40.6 +00.1	345 01.4 -26.7	S 11 43.3 -11.1	01						
02	208 31.6 +00.1	N 16 36.1 -00.6	256 33.9 +00.1	N 19 40.7 +00.2	359 34.7 -26.7	S 11 32.2 -11.2	02						
03	223 31.7 +00.1	N 16 35.5 -00.7	271 34.0 +00.0	N 19 40.9 +00.2	14 08.0 -26.7	S 11 21.0 -11.2	03						
04	238 31.8 +00.1	N 16 34.8 -00.7	286 34.0 +00.1	N 19 41.1 +00.1	28 41.3 -26.6	S 11 09.8 -11.3	04						
05	253 31.9 +00.0	N 16 34.1 -00.7	301 34.1 +00.1	N 19 41.2 +00.2	43 14.7 -26.5	S 10 58.5 -11.3	05						
06	268 31.9 +00.1	N 16 33.4 -00.7	316 34.2 +00.1	N 19 41.4 +00.2	57 48.2 -26.4	S 10 47.2 -11.3	06						
07	283 32.0 +00.1	N 16 32.7 -00.7	331 34.3 +00.1	N 19 41.6 +00.1	72 21.8 -26.5	S 10 35.9 -11.4	07						
08	298 32.1 +00.1	N 16 32.0 -00.7	346 34.4 +00.1	N 19 41.7 +00.2	86 55.3 -26.3	S 10 24.5 -11.4	08						
09	313 32.2 +00.0	N 16 31.3 -00.7	1 34.5 +00.0	N 19 41.9 +00.2	101 29.0 -26.3	S 10 13.1 -11.5	09						
10	328 32.2 +00.1	N 16 30.6 -00.7	16 34.5 +00.1	N 19 42.1 +00.1	116 02.7 -26.3	S 10 01.6 -11.5	10						
11	343 32.3 +00.1	N 16 29.9 -00.7	31 34.6 +00.1	N 19 42.2 +00.2	130 36.4 -26.2	S 09 50.1 -11.5	11						
12	358 32.4 +00.0	N 16 29.2 -00.7	46 34.7 +00.1	N 19 42.4 +00.2	145 10.2 -26.1	S 09 38.6 -11.5	12						
13	13 32.4 +00.1	N 16 28.5 -00.7	61 34.8 +00.0	N 19 42.6 +00.1	159 44.1 -26.1	S 09 27.1 -11.6	13						
14	28 32.5 +00.1	N 16 27.8 -00.7	76 34.8 +00.1	N 19 42.7 +00.2	174 18.0 -26.0	S 09 15.5 -11.6	14						
15	43 32.6 +00.1	N 16 27.1 -00.7	91 34.9 +00.1	N 19 42.9 +00.2	188 52.0 -26.0	S 09 03.9 -11.6	15						
16	58 32.7 +00.1	N 16 26.4 -00.7	106 35.0 +00.0	N 19 43.1 +00.1	203 26.0 -26.0	S 08 52.3 -11.7	16						
17	73 32.8 +00.0	N 16 25.7 -00.7	121 35.0 +00.1	N 19 43.2 +00.2	218 00.0 -25.9	S 08 40.6 -11.7	17						
18	88 32.8 +00.1	N 16 25.0 -00.7	136 35.1 +00.1	N 19 43.4 +00.1	232 34.1 -25.8	S 08 28.9 -11.7	18						
19	103 32.9 +00.1	N 16 24.3 -00.7	151 35.2 +00.0	N 19 43.5 +00.2	247 08.3 -25.8	S 08 17.2 -11.8	19						
20	118 33.0 +00.1	N 16 23.6 -00.7	166 35.2 +00.1	N 19 43.7 +00.2	261 42.5 -25.7	S 08 05.4 -11.7	20						
21	133 33.1 +00.0	N 16 22.9 -00.7	181 35.3 +00.1	N 19 43.9 +00.1	276 16.8 -25.8	S 07 53.7 -11.8	21						
22	148 33.1 +00.1	N 16 22.2 -00.7	196 35.4 +00.0	N 19 44.0 +00.2	290 51.0 -25.6	S 07 41.9 -11.8	22						
23	163 33.2 +00.1	N 16 21.5 -00.7	211 35.4 +00.1	N 19 44.2 +00.1	305 25.4 -25.6	S 07 30.1 -11.9	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 15'0 15'0 14'9 14'9 14'9 14'9								
	HP 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 55'0 54'9 54'9 54'8 54'7 54'7								
	SHA 223° 223° 223° 223° 223° 223°		SHA 271° 271° 271° 271° 271° 271°		SHA 015° 013° 011° 009° 007° 005°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 08:53		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	294 42.9 +01.5	N 04 17.7 +00.3	23 44.0 +02.8	S 22 22.6 +00.1	15 23.3 +02.7	S 20 54.7 +00.1	00						
01	309 44.4 +01.5	N 04 18.0 +00.4	38 46.8 +02.7	S 22 22.7 +00.0	30 26.0 +02.6	S 20 54.8 +00.0	01						
02	324 45.9 +01.6	N 04 18.4 +00.3	53 49.5 +02.8	S 22 22.7 +00.1	45 28.6 +02.7	S 20 54.8 +00.1	02						
03	339 47.5 +01.5	N 04 18.7 +00.4	68 52.3 +02.7	S 22 22.8 +00.0	60 31.3 +02.6	S 20 54.9 +00.0	03						
04	354 49.0 +01.5	N 04 19.1 +00.3	83 55.0 +02.8	S 22 22.8 +00.1	75 33.9 +02.6	S 20 54.9 +00.0	04						
05	9 50.5 +01.5	N 04 19.4 +00.3	98 57.8 +02.7	S 22 22.9 +00.0	90 36.5 +02.7	S 20 54.9 +00.1	05						
06	24 52.0 +01.5	N 04 19.7 +00.4	114 00.5 +02.8	S 22 22.9 +00.0	105 39.2 +02.6	S 20 55.0 +00.0	06						
07	39 53.5 +01.5	N 04 20.1 +00.3	129 03.3 +02.7	S 22 22.9 +00.1	120 41.8 +02.7	S 20 55.0 +00.0	07						
08	54 55.0 +01.5	N 04 20.4 +00.3	144 06.0 +02.7	S 22 23.0 +00.0	135 44.5 +02.6	S 20 55.0 +00.1	08						
09	69 56.5 +01.5	N 04 20.7 +00.4	159 08.7 +02.8	S 22 23.0 +00.1	150 47.1 +02.7	S 20 55.1 +00.0	09						
10	84 58.0 +01.5	N 04 21.1 +00.3	174 11.5 +02.7	S 22 23.1 +00.0	165 49.8 +02.6	S 20 55.1 +00.1	10						
11	99 59.5 +01.5	N 04 21.4 +00.3	189 14.2 +02.8	S 22 23.1 +00.1	180 52.4 +02.7	S 20 55.2 +00.0	11						
12	115 01.0 +01.6	N 04 21.7 +00.4	204 17.0 +02.7	S 22 23.2 +00.0	195 55.1 +02.6	S 20 55.2 +00.0	12						
13	130 02.6 +01.5	N 04 22.1 +00.3	219 19.7 +02.8	S 22 23.2 +00.0	210 57.7 +02.6	S 20 55.2 +00.1	13						
14	145 04.1 +01.5	N 04 22.4 +00.3	234 22.5 +02.7	S 22 23.2 +00.1	226 00.3 +02.7	S 20 55.3 +00.0	14						
15	160 05.6 +01.5	N 04 22.7 +00.3	249 25.2 +02.8	S 22 23.3 +00.0	241 03.0 +02.6	S 20 55.3 +00.0	15						
16	175 07.1 +01.5	N 04 23.0 +00.4	264 28.0 +02.7	S 22 23.3 +00.1	256 05.6 +02.7	S 20 55.3 +00.1	16						
17	190 08.6 +01.5	N 04 23.4 +00.3	279 30.7 +02.8	S 22 23.4 +00.0	271 08.3 +02.6	S 20 55.4 +00.0	17						
18	205 10.1 +01.5	N 04 23.7 +00.3	294 33.5 +02.7	S 22 23.4 +00.0	286 10.9 +02.7	S 20 55.4 +00.0	18						
19	220 11.6 +01.6	N 04 24.0 +00.4	309 36.2 +02.7	S 22 23.4 +00.1	301 13.6 +02.6	S 20 55.4 +00.1	19						
20	235 13.2 +01.5	N 04 24.4 +00.3	324 38.9 +02.8	S 22 23.5 +00.0	316 16.2 +02.6	S 20 55.5 +00.0	20						
21	250 14.7 +01.5	N 04 24.7 +00.3	339 41.7 +02.7	S 22 23.5 +00.1	331 18.8 +02.7	S 20 55.5 +00.1	21						
22	265 16.2 +01.5	N 04 25.0 +00.4	354 44.4 +02.8	S 22 23.6 +00.0	346 21.5 +02.6	S 20 55.6 +00.0	22						
23	280 17.7 +01.6	N 04 25.4 +00.3	9 47.2 +02.7	S 22 23.6 +00.1	1 24.1 +02.7	S 20 55.6 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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° 339° 339°		SHA 069° 069° 069° 069° 069° 069°		SHA 060° 060° 060° 060° 060° 060°								
	Greenwich Culmination Time: 04:20		Greenwich Culmination Time: 22:20		Greenwich Culmination Time: 22:54								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 33.3 +00.1	N 16 20.8 -00.7	226 35.5 +00.1	N 19 44.3 +00.2	319 59.8 -25.6	S 07 18.2 -11.8	00						
01	193 33.4 +00.0	N 16 20.1 -00.7	241 35.6 +00.0	N 19 44.5 +00.2	334 34.2 -25.6	S 07 06.4 -11.9	01						
02	208 33.4 +00.1	N 16 19.4 -00.7	256 35.6 +00.1	N 19 44.7 +00.1	349 08.6 -25.5	S 06 54.5 -11.9	02						
03	223 33.5 +00.1	N 16 18.7 -00.7	271 35.7 +00.0	N 19 44.8 +00.2	3 43.1 -25.4	S 06 42.6 -11.9	03						
04	238 33.6 +00.1	N 16 18.0 -00.7	286 35.7 +00.1	N 19 45.0 +00.1	18 17.7 -25.4	S 06 30.7 -12.0	04						
05	253 33.7 +00.1	N 16 17.3 -00.7	301 35.8 +00.0	N 19 45.1 +00.2	32 52.3 -25.4	S 06 18.7 -11.9	05						
06	268 33.8 +00.0	N 16 16.6 -00.7	316 35.8 +00.1	N 19 45.3 +00.1	47 26.9 -25.4	S 06 06.8 -12.0	06						
07	283 33.8 +00.1	N 16 15.9 -00.7	331 35.9 +00.0	N 19 45.4 +00.2	62 01.5 -25.3	S 05 54.8 -12.0	07						
08	298 33.9 +00.1	N 16 15.2 -00.7	346 35.9 +00.1	N 19 45.6 +00.2	76 36.2 -25.2	S 05 42.8 -12.0	08						
09	313 34.0 +00.1	N 16 14.5 -00.7	1 36.0 +00.1	N 19 45.8 +00.1	91 11.0 -25.3	S 05 30.8 -12.0	09						
10	328 34.1 +00.1	N 16 13.8 -00.7	16 36.1 +00.0	N 19 45.9 +00.2	105 45.7 -25.2	S 05 18.8 -12.1	10						
11	343 34.2 +00.0	N 16 13.1 -00.7	31 36.1 +00.0	N 19 46.1 +00.1	120 20.5 -25.2	S 05 06.7 -12.0	11						
12	358 34.2 +00.1	N 16 12.4 -00.7	46 36.1 +00.1	N 19 46.2 +00.2	134 55.3 -25.1	S 04 54.7 -12.1	12						
13	13 34.3 +00.1	N 16 11.7 -00.7	61 36.2 +00.0	N 19 46.4 +00.1	149 30.2 -25.1	S 04 42.6 -12.1	13						
14	28 34.4 +00.1	N 16 11.0 -00.7	76 36.2 +00.1	N 19 46.5 +00.2	164 05.1 -25.1	S 04 30.5 -12.1	14						
15	43 34.5 +00.1	N 16 10.3 -00.8	91 36.3 +00.0	N 19 46.7 +00.1	178 40.0 -25.0	S 04 18.4 -12.1	15						
16	58 34.6 +00.1	N 16 09.5 -00.7	106 36.3 +00.1	N 19 46.8 +00.2	193 15.0 -25.1	S 04 06.3 -12.1	16						
17	73 34.7 +00.0	N 16 08.8 -00.7	121 36.4 +00.0	N 19 47.0 +00.1	207 49.9 -25.0	S 03 54.2 -12.1	17						
18	88 34.7 +00.1	N 16 08.1 -00.7	136 36.4 +00.1	N 19 47.1 +00.2	222 24.9 -24.9	S 03 42.1 -12.1	18						
19	103 34.8 +00.1	N 16 07.4 -00.7	151 36.5 +00.0	N 19 47.3 +00.1	236 60.0 -25.0	S 03 30.0 -12.1	19						
20	118 34.9 +00.1	N 16 06.7 -00.7	166 36.5 +00.0	N 19 47.4 +00.2	251 35.0 -24.9	S 03 17.9 -12.2	20						
21	133 35.0 +00.1	N 16 06.0 -00.7	181 36.5 +00.1	N 19 47.6 +00.1	266 10.1 -24.9	S 03 05.7 -12.1	21						
22	148 35.1 +00.0	N 16 05.3 -00.7	196 36.6 +00.0	N 19 47.7 +00.2	280 45.2 -24.9	S 02 53.6 -12.2	22						
23	163 35.1 +00.1	N 16 04.6 -00.7	211 36.6 +00.0	N 19 47.9 +00.1	295 20.3 -24.8	S 02 41.4 -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 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		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 00'2 00'2 00'2 00'2 00'2 00'2		HP 54'6 54'6 54'5 54'5 54'4 54'4								
	SHA 223° 222° 222° 222° 222° 222°		SHA 271° 270° 270° 270° 270° 270°		SHA 003° 001° 359° 358° 356° 354°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 08:53		Greenwich Culmination Time: 02:44								
UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	295 19.3 +01.5	N 04 25.7 +00.3	24 49.9 +02.8	S 22 23.7 +00.0	16 26.8 +02.6	S 20 55.6 +00.1	00						
01	310 20.8 +01.5	N 04 26.0 +00.3	39 52.7 +02.7	S 22 23.7 +00.0	31 29.4 +02.7	S 20 55.7 +00.0	01						
02	325 22.3 +01.5	N 04 26.3 +00.4	54 55.4 +02.7	S 22 23.7 +00.1	46 32.1 +02.6	S 20 55.7 +00.0	02						
03	340 23.8 +01.5	N 04 26.7 +00.3	69 58.1 +02.8	S 22 23.8 +00.0	61 34.7 +02.7	S 20 55.7 +00.1	03						
04	355 25.3 +01.6	N 04 27.0 +00.3	85 00.9 +02.7	S 22 23.8 +00.1	76 37.4 +02.6	S 20 55.8 +00.0	04						
05	10 26.9 +01.5	N 04 27.3 +00.3	100 03.6 +02.8	S 22 23.9 +00.0	91 40.0 +02.6	S 20 55.8 +00.1	05						
06	25 28.4 +01.5	N 04 27.6 +00.4	115 06.4 +02.7	S 22 23.9 +00.0	106 42.6 +02.7	S 20 55.9 +00.0	06						
07	40 29.9 +01.6	N 04 28.0 +00.3	130 09.1 +02.8	S 22 23.9 +00.1	121 45.3 +02.6	S 20 55.9 +00.0	07						
08	55 31.5 +01.5	N 04 28.3 +00.3	145 11.9 +02.7	S 22 24.0 +00.0	136 47.9 +02.7	S 20 55.9 +00.1	08						
09	70 33.0 +01.5	N 04 28.6 +00.4	160 14.6 +02.7	S 22 24.0 +00.1	151 50.6 +02.6	S 20 56.0 +00.0	09						
10	85 34.5 +01.5	N 04 29.0 +00.3	175 17.3 +02.8	S 22 24.1 +00.0	166 53.2 +02.7	S 20 56.0 +00.0	10						
11	100 36.0 +01.6	N 04 29.3 +00.3	190 20.1 +02.7	S 22 24.1 +00.1	181 55.9 +02.6	S 20 56.0 +00.1	11						
12	115 37.6 +01.5	N 04 29.6 +00.3	205 22.8 +02.8	S 22 24.2 +00.0	196 58.5 +02.6	S 20 56.1 +00.0	12						
13	130 39.1 +01.5	N 04 29.9 +00.4	220 25.6 +02.7	S 22 24.2 +00.0	212 01.1 +02.7	S 20 56.1 +00.0	13						
14	145 40.6 +01.6	N 04 30.3 +00.3	235 28.3 +02.7	S 22 24.2 +00.1	227 03.8 +02.6	S 20 56.1 +00.1	14						
15	160 42.2 +01.5	N 04 30.6 +00.3	250 31.0 +02.8	S 22 24.3 +00.0	242 06.4 +02.7	S 20 56.2 +00.0	15						
16	175 43.7 +01.5	N 04 30.9 +00.3	265 33.8 +02.7	S 22 24.3 +00.1	257 09.1 +02.6	S 20 56.2 +00.1	16						
17	190 45.2 +01.6	N 04 31.2 +00.3	280 36.5 +02.8	S 22 24.4 +00.0	272 11.7 +02.7	S 20 56.3 +00.0	17						
18	205 46.8 +01.5	N 04 31.5 +00.4	295 39.3 +02.7	S 22 24.4 +00.0	287 14.4 +02.6	S 20 56.3 +00.0	18						
19	220 48.3 +01.6	N 04 31.9 +00.3	310 42.0 +02.7	S 22 24.4 +00.1	302 17.0 +02.6	S 20 56.3 +00.1	19						
20	235 49.9 +01.5	N 04 32.2 +00.3	325 44.7 +02.8	S 22 24.5 +00.0	317 19.6 +02.7	S 20 56.4 +00.0	20						
21	250 51.4 +01.5	N 04 32.5 +00.3	340 47.5 +02.7	S 22 24.5 +00.1	332 22.3 +02.6	S 20 56.4 +00.0	21						
22	265 52.9 +01.6	N 04 32.8 +00.4	355 50.2 +02.7	S 22 24.6 +00.0	347 24.9 +02.7	S 20 56.4 +00.1	22						
23	280 54.5 +01.5	N 04 33.2 +00.3	10 52.9 +02.8	S 22 24.6 +00.0	2 27.6 +02.6	S 20 56.5 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 069° 069° 069° 069° 069° 069°		SHA 060° 060° 061° 061° 061° 061°								
	Greenwich Culmination Time: 04:18		Greenwich Culmination Time: 22:16		Greenwich Culmination Time: 22:50								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 35.2 +00.1	N 16 03.9 -00.7	226 36.6 +00.1	N 19 48.0 +00.2	309 55.5 -24.9	S 02 29.3 -12.2	00						
01	193 35.3 +00.1	N 16 03.2 -00.8	241 36.7 +00.0	N 19 48.2 +00.1	324 30.6 -24.8	S 02 17.1 -12.1	01						
02	208 35.4 +00.1	N 16 02.4 -00.7	256 36.7 +00.0	N 19 48.3 +00.2	339 05.8 -24.8	S 02 05.0 -12.2	02						
03	223 35.5 +00.1	N 16 01.7 -00.7	271 36.7 +00.1	N 19 48.5 +00.1	353 41.0 -24.8	S 01 52.8 -12.2	03						
04	238 35.6 +00.1	N 16 01.0 -00.7	286 36.8 +00.0	N 19 48.6 +00.2	8 16.2 -24.7	S 01 40.6 -12.2	04						
05	253 35.7 +00.0	N 16 00.3 -00.7	301 36.8 +00.0	N 19 48.8 +00.1	22 51.5 -24.8	S 01 28.4 -12.1	05						
06	268 35.7 +00.1	N 15 59.6 -00.7	316 36.8 +00.1	N 19 48.9 +00.1	37 26.7 -24.7	S 01 16.3 -12.2	06						
07	283 35.8 +00.1	N 15 58.9 -00.7	331 36.9 +00.0	N 19 49.0 +00.2	52 02.0 -24.7	S 01 04.1 -12.2	07						
08	298 35.9 +00.1	N 15 58.2 -00.8	346 36.9 +00.0	N 19 49.2 +00.1	66 37.3 -24.7	S 00 51.9 -12.1	08						
09	313 36.0 +00.1	N 15 57.4 -00.7	1 36.9 +00.0	N 19 49.3 +00.2	81 12.6 -24.7	S 00 39.8 -12.2	09						
10	328 36.1 +00.1	N 15 56.7 -00.7	16 36.9 +00.1	N 19 49.5 +00.1	95 47.9 -24.7	S 00 27.6 -12.2	10						
11	343 36.2 +00.1	N 15 56.0 -00.7	31 37.0 +00.0	N 19 49.6 +00.2	110 23.2 -24.7	S 00 15.4 -12.1	11						
12	358 36.3 +00.0	N 15 55.3 -00.7	46 37.0 +00.0	N 19 49.8 +00.1	124 58.5 -24.6	S 00 03.3 -12.2	12						
13	13 36.3 +00.1	N 15 54.6 -00.8	61 37.0 +00.0	N 19 49.9 +00.1	139 33.9 -24.7	N 00 08.9 +12.1	13						
14	28 36.4 +00.1	N 15 53.8 -00.7	76 37.0 +00.1	N 19 50.0 +00.2	154 09.2 -24.6	N 00 21.0 +12.2	14						
15	43 36.5 +00.1	N 15 53.1 -00.7	91 37.1 +00.0	N 19 50.2 +00.1	168 44.6 -24.7	N 00 33.2 +12.1	15						
16	58 36.6 +00.1	N 15 52.4 -00.7	106 37.1 +00.0	N 19 50.3 +00.2	183 19.9 -24.6	N 00 45.3 +12.2	16						
17	73 36.7 +00.1	N 15 51.7 -00.7	121 37.1 +00.0	N 19 50.5 +00.1	197 55.3 -24.6	N 00 57.5 +12.1	17						
18	88 36.8 +00.1	N 15 51.0 -00.7	136 37.1 +00.0	N 19 50.6 +00.1	212 30.7 -24.6	N 01 09.6 +12.1	18						
19	103 36.9 +00.1	N 15 50.3 -00.8	151 37.1 +00.0	N 19 50.7 +00.2	227 06.1 -24.7	N 01 21.7 +12.2	19						
20	118 37.0 +00.0	N 15 49.5 -00.7	166 37.1 +00.1	N 19 50.9 +00.1	241 41.4 -24.6	N 01 33.9 +12.1	20						
21	133 37.0 +00.1	N 15 48.8 -00.7	181 37.2 +00.0	N 19 51.0 +00.1	256 16.8 -24.6	N 01 46.0 +12.1	21						
22	148 37.1 +00.1	N 15 48.1 -00.7	196 37.2 +00.0	N 19 51.1 +00.2	270 52.2 -24.6	N 01 58.1 +12.0	22						
23	163 37.2 +00.1	N 15 47.4 -00.8	211 37.2 +00.0	N 19 51.3 +00.1	285 27.6 -24.7	N 02 10.1 +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 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		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 00'2 00'2 00'2 00'2 00'2 00'2		HP 54'3 54'3 54'3 54'2 54'2 54'2								
	SHA 222° 221° 221° 221° 221° 221°		SHA 270° 269° 269° 269° 269° 269°		SHA 352° 350° 348° 347° 345° 343°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 08:53		Greenwich Culmination Time: 03:25								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	295 56.0 +01.6	N 04 33.5 +00.3	25 55.7 +02.7	S 22 24.6 +00.1	17 30.2 +02.6	S 20 56.5 +00.0	00						
01	310 57.6 +01.5	N 04 33.8 +00.3	40 58.4 +02.8	S 22 24.7 +00.0	32 32.8 +02.7	S 20 56.5 +00.1	01						
02	325 59.1 +01.5	N 04 34.1 +00.3	56 01.2 +02.7	S 22 24.7 +00.1	47 35.5 +02.6	S 20 56.6 +00.0	02						
03	341 00.6 +01.6	N 04 34.4 +00.4	71 03.9 +02.7	S 22 24.8 +00.0	62 38.1 +02.7	S 20 56.6 +00.1	03						
04	356 02.2 +01.5	N 04 34.8 +00.3	86 06.6 +02.8	S 22 24.8 +00.0	77 40.8 +02.6	S 20 56.7 +00.0	04						
05	11 03.7 +01.6	N 04 35.1 +00.3	101 09.4 +02.7	S 22 24.8 +00.1	92 43.4 +02.7	S 20 56.7 +00.0	05						
06	26 05.3 +01.5	N 04 35.4 +00.3	116 12.1 +02.7	S 22 24.9 +00.0	107 46.1 +02.6	S 20 56.7 +00.1	06						
07	41 06.8 +01.6	N 04 35.7 +00.3	131 14.8 +02.8	S 22 24.9 +00.1	122 48.7 +02.6	S 20 56.8 +00.0	07						
08	56 08.4 +01.5	N 04 36.0 +00.3	146 17.6 +02.7	S 22 25.0 +00.0	137 51.3 +02.7	S 20 56.8 +00.0	08						
09	71 09.9 +01.6	N 04 36.3 +00.4	161 20.3 +02.8	S 22 25.0 +00.0	152 54.0 +02.6	S 20 56.8 +00.1	09						
10	86 11.5 +01.5	N 04 36.7 +00.3	176 23.1 +02.7	S 22 25.0 +00.1	167 56.6 +02.7	S 20 56.9 +00.0	10						
11	101 13.0 +01.6	N 04 37.0 +00.3	191 25.8 +02.7	S 22 25.1 +00.0	182 59.3 +02.6	S 20 56.9 +00.0	11						
12	116 14.6 +01.5	N 04 37.3 +00.3	206 28.5 +02.8	S 22 25.1 +00.1	198 01.9 +02.6	S 20 56.9 +00.1	12						
13	131 16.1 +01.6	N 04 37.6 +00.3	221 31.3 +02.7	S 22 25.2 +00.0	213 04.5 +02.7	S 20 57.0 +00.0	13						
14	146 17.7 +01.5	N 04 37.9 +00.3	236 34.0 +02.7	S 22 25.2 +00.1	228 07.2 +02.6	S 20 57.0 +00.1	14						
15	161 19.2 +01.6	N 04 38.2 +00.4	251 36.7 +02.8	S 22 25.3 +00.0	243 09.8 +02.7	S 20 57.1 +00.0	15						
16	176 20.8 +01.5	N 04 38.6 +00.3	266 39.5 +02.7	S 22 25.3 +00.0	258 12.5 +02.6	S 20 57.1 +00.0	16						
17	191 22.3 +01.6	N 04 38.9 +00.3	281 42.2 +02.7	S 22 25.3 +00.1	273 15.1 +02.6	S 20 57.1 +00.1	17						
18	206 23.9 +01.6	N 04 39.2 +00.3	296 44.9 +02.8	S 22 25.4 +00.0	288 17.7 +02.7	S 20 57.2 +00.0	18						
19	221 25.5 +01.5	N 04 39.5 +00.3	311 47.7 +02.7	S 22 25.4 +00.1	303 20.4 +02.6	S 20 57.2 +00.0	19						
20	236 27.0 +01.6	N 04 39.8 +00.3	326 50.4 +02.7	S 22 25.5 +00.0	318 23.0 +02.7	S 20 57.2 +00.1	20						
21	251 28.6 +01.5	N 04 40.1 +00.3	341 53.1 +02.8	S 22 25.5 +00.0	333 25.7 +02.6	S 20 57.3 +00.0	21						
22	266 30.1 +01.6	N 04 40.4 +00.4	356 55.9 +02.7	S 22 25.5 +00.1	348 28.3 +02.6	S 20 57.3 +00.0	22						
23	281 31.7 +01.6	N 04 40.8 +00.3	11 58.6 +02.7	S 22 25.6 +00.0	3 30.9 +02.7	S 20 57.3 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 069° 069° 069° 069° 069° 069°		SHA 061° 061° 061° 061° 061° 061°								
	Greenwich Culmination Time: 04:15		Greenwich Culmination Time: 22:12		Greenwich Culmination Time: 22:45								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 37.3 +00.1	N 15 46.6 -00.7	226 37.2 +00.0	N 19 51.4 +00.1	300 02.9 -24.6	N 02 22.2 +12.1	00						
01	193 37.4 +00.1	N 15 45.9 -00.7	241 37.2 +00.0	N 19 51.5 +00.2	314 38.3 -24.6	N 02 34.3 +12.0	01						
02	208 37.5 +00.1	N 15 45.2 -00.7	256 37.2 +00.0	N 19 51.7 +00.1	329 13.7 -24.6	N 02 46.3 +12.1	02						
03	223 37.6 +00.1	N 15 44.5 -00.8	271 37.2 +00.0	N 19 51.8 +00.2	343 49.1 -24.7	N 02 58.4 +12.0	03						
04	238 37.7 +00.1	N 15 43.7 -00.7	286 37.2 +00.0	N 19 52.0 +00.1	358 24.4 -24.6	N 03 10.4 +12.0	04						
05	253 37.8 +00.1	N 15 43.0 -00.7	301 37.2 +00.0	N 19 52.1 +00.1	12 59.8 -24.7	N 03 22.4 +12.0	05						
06	268 37.9 +00.0	N 15 42.3 -00.7	316 37.2 +00.0	N 19 52.2 +00.1	27 35.1 -24.6	N 03 34.4 +12.0	06						
07	283 37.9 +00.1	N 15 41.6 -00.8	331 37.2 +00.0	N 19 52.3 +00.2	42 10.5 -24.7	N 03 46.4 +12.0	07						
08	298 38.0 +00.1	N 15 40.8 -00.7	346 37.2 +00.0	N 19 52.5 +00.1	56 45.8 -24.7	N 03 58.4 +11.9	08						
09	313 38.1 +00.1	N 15 40.1 -00.7	1 37.2 +00.0	N 19 52.6 +00.1	71 21.1 -24.6	N 04 10.3 +12.0	09						
10	328 38.2 +00.1	N 15 39.4 -00.7	16 37.2 +00.0	N 19 52.7 +00.2	85 56.5 -24.7	N 04 22.3 +11.9	10						
11	343 38.3 +00.1	N 15 38.7 -00.8	31 37.2 +00.0	N 19 52.9 +00.1	100 31.8 -24.7	N 04 34.2 +11.9	11						
12	358 38.4 +00.1	N 15 37.9 -00.7	46 37.2 +00.0	N 19 53.0 +00.1	115 07.1 -24.8	N 04 46.1 +11.9	12						
13	13 38.5 +00.1	N 15 37.2 -00.7	61 37.2 +00.0	N 19 53.1 +00.2	129 42.3 -24.7	N 04 58.0 +11.8	13						
14	28 38.6 +00.1	N 15 36.5 -00.8	76 37.2 +00.0	N 19 53.3 +00.1	144 17.6 -24.8	N 05 09.8 +11.9	14						
15	43 38.7 +00.1	N 15 35.7 -00.7	91 37.2 +00.0	N 19 53.4 +00.1	158 52.8 -24.7	N 05 21.7 +11.8	15						
16	58 38.8 +00.1	N 15 35.0 -00.7	106 37.2 +00.0	N 19 53.5 +00.1	173 28.1 -24.8	N 05 33.5 +11.8	16						
17	73 38.9 +00.1	N 15 34.3 -00.7	121 37.2 +00.0	N 19 53.6 +00.2	188 03.3 -24.8	N 05 45.3 +11.8	17						
18	88 39.0 +00.1	N 15 33.6 -00.8	136 37.2 +00.0	N 19 53.8 +00.1	202 38.5 -24.8	N 05 57.1 +11.8	18						
19	103 39.1 +00.1	N 15 32.8 -00.7	151 37.2 +00.0	N 19 53.9 +00.1	217 13.7 -24.9	N 06 08.9 +11.7	19						
20	118 39.2 +00.1	N 15 32.1 -00.7	166 37.2 +00.0	N 19 54.0 +00.1	231 48.8 -24.8	N 06 20.6 +11.7	20						
21	133 39.3 +00.0	N 15 31.4 -00.8	181 37.2 +00.0	N 19 54.1 +00.2	246 24.0 -24.9	N 06 32.3 +11.7	21						
22	148 39.3 +00.1	N 15 30.6 -00.7	196 37.2 +00.0	N 19 54.3 +00.1	260 59.1 -24.9	N 06 44.0 +11.7	22						
23	163 39.4 +00.1	N 15 29.9 -00.7	211 37.2 -00.1	N 19 54.4 +00.1	275 34.2 -25.0	N 06 55.7 +11.6	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		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 00'2 00'2 00'2 00'2 00'2 00'2		HP 54'2 54'2 54'2 54'2 54'2 54'2								
	SHA 221° 220° 220° 220° 220° 220°		SHA 269° 268° 268° 268° 268° 268°		SHA 341° 339° 338° 336° 334° 332°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 08:53		Greenwich Culmination Time: 04:06								

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	296 33.3 +01.5	N 04 41.1 +00.3	27 01.3 +02.8	S 22 25.6 +00.0	18 33.6 +02.6	S 20 57.4 +00.0	00						
01	311 34.8 +01.6	N 04 41.4 +00.3	42 04.1 +02.7	S 22 25.6 +00.1	33 36.2 +02.7	S 20 57.4 +00.1	01						
02	326 36.4 +01.5	N 04 41.7 +00.3	57 06.8 +02.7	S 22 25.7 +00.0	48 38.9 +02.6	S 20 57.5 +00.0	02						
03	341 37.9 +01.6	N 04 42.0 +00.3	72 09.5 +02.8	S 22 25.7 +00.1	63 41.5 +02.6	S 20 57.5 +00.0	03						
04	356 39.5 +01.6	N 04 42.3 +00.3	87 12.3 +02.7	S 22 25.8 +00.0	78 44.1 +02.7	S 20 57.5 +00.1	04						
05	11 41.1 +01.5	N 04 42.6 +00.3	102 15.0 +02.7	S 22 25.8 +00.0	93 46.8 +02.6	S 20 57.6 +00.0	05						
06	26 42.6 +01.6	N 04 42.9 +00.4	117 17.7 +02.7	S 22 25.8 +00.1	108 49.4 +02.7	S 20 57.6 +00.0	06						
07	41 44.2 +01.6	N 04 43.3 +00.3	132 20.4 +02.8	S 22 25.9 +00.0	123 52.1 +02.6	S 20 57.6 +00.1	07						
08	56 45.8 +01.5	N 04 43.6 +00.3	147 23.2 +02.7	S 22 25.9 +00.1	138 54.7 +02.6	S 20 57.7 +00.0	08						
09	71 47.3 +01.6	N 04 43.9 +00.3	162 25.9 +02.7	S 22 26.0 +00.0	153 57.3 +02.7	S 20 57.7 +00.0	09						
10	86 48.9 +01.6	N 04 44.2 +00.3	177 28.6 +02.8	S 22 26.0 +00.0	168 60.0 +02.6	S 20 57.7 +00.1	10						
11	101 50.5 +01.5	N 04 44.5 +00.3	192 31.4 +02.7	S 22 26.0 +00.1	184 02.6 +02.7	S 20 57.8 +00.0	11						
12	116 52.0 +01.6	N 04 44.8 +00.3	207 34.1 +02.7	S 22 26.1 +00.0	199 05.3 +02.6	S 20 57.8 +00.0	12						
13	131 53.6 +01.6	N 04 45.1 +00.3	222 36.8 +02.8	S 22 26.1 +00.1	214 07.9 +02.6	S 20 57.8 +00.1	13						
14	146 55.2 +01.6	N 04 45.4 +00.3	237 39.6 +02.7	S 22 26.2 +00.0	229 10.5 +02.7	S 20 57.9 +00.0	14						
15	161 56.8 +01.5	N 04 45.7 +00.3	252 42.3 +02.7	S 22 26.2 +00.0	244 13.2 +02.6	S 20 57.9 +00.1	15						
16	176 58.3 +01.6	N 04 46.0 +00.3	267 45.0 +02.7	S 22 26.2 +00.1	259 15.8 +02.7	S 20 58.0 +00.0	16						
17	191 59.9 +01.6	N 04 46.3 +00.3	282 47.7 +02.8	S 22 26.3 +00.0	274 18.5 +02.6	S 20 58.0 +00.0	17						
18	207 01.5 +01.6	N 04 46.6 +00.4	297 50.5 +02.7	S 22 26.3 +00.1	289 21.1 +02.6	S 20 58.0 +00.1	18						
19	222 03.1 +01.5	N 04 47.0 +00.3	312 53.2 +02.7	S 22 26.4 +00.0	304 23.7 +02.7	S 20 58.1 +00.0	19						
20	237 04.6 +01.6	N 04 47.3 +00.3	327 55.9 +02.8	S 22 26.4 +00.0	319 26.4 +02.6	S 20 58.1 +00.0	20						
21	252 06.2 +01.6	N 04 47.6 +00.3	342 58.7 +02.7	S 22 26.4 +00.1	334 29.0 +02.7	S 20 58.1 +00.1	21						
22	267 07.8 +01.6	N 04 47.9 +00.3	358 01.4 +02.7	S 22 26.5 +00.0	349 31.7 +02.6	S 20 58.2 +00.0	22						
23	282 09.4 +01.6	N 04 48.2 +00.3	13 04.1 +02.7	S 22 26.5 +00.1	4 34.3 +02.6	S 20 58.2 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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° 338° 338° 338° 338°		SHA 069° 069° 069° 069° 069° 069°		SHA 061° 061° 061° 061° 061° 061°								
	Greenwich Culmination Time: 04:13		Greenwich Culmination Time: 22:07		Greenwich Culmination Time: 22:41								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 70%				UT
	GHA ° ' "	ddGHA	Dec ° ' "	dDec	GHA ° ' "	ddGHA	Dec ° ' "	dDec	GHA ° ' "	ddGHA	Dec ° ' "	dDec	
00	178 39.5 +00.1	N 15 29.2 -00.8	226 37.1 +00.0	N 19 54.5 +00.1	290 09.2 -24.9	N 07 07.3 +11.6	00						
01	193 39.6 +00.1	N 15 28.4 -00.7	241 37.1 +00.0	N 19 54.6 +00.1	304 44.3 -25.0	N 07 18.9 +11.6	01						
02	208 39.7 +00.1	N 15 27.7 -00.7	256 37.1 +00.0	N 19 54.7 +00.2	319 19.3 -25.0	N 07 30.5 +11.5	02						
03	223 39.8 +00.1	N 15 27.0 -00.8	271 37.1 +00.0	N 19 54.9 +00.1	333 54.3 -25.0	N 07 42.0 +11.6	03						
04	238 39.9 +00.1	N 15 26.2 -00.7	286 37.1 +00.0	N 19 55.0 +00.1	348 29.3 -25.1	N 07 53.6 +11.5	04						
05	253 40.0 +00.1	N 15 25.5 -00.7	301 37.1 -00.1	N 19 55.1 +00.1	3 04.2 -25.1	N 08 05.1 +11.4	05						
06	268 40.1 +00.1	N 15 24.8 -00.8	316 37.0 +00.0	N 19 55.2 +00.1	17 39.1 -25.1	N 08 16.5 +11.5	06						
07	283 40.2 +00.1	N 15 24.0 -00.7	331 37.0 +00.0	N 19 55.3 +00.2	32 14.0 -25.2	N 08 28.0 +11.4	07						
08	298 40.3 +00.1	N 15 23.3 -00.8	346 37.0 +00.0	N 19 55.5 +00.1	46 48.8 -25.2	N 08 39.4 +11.4	08						
09	313 40.4 +00.1	N 15 22.5 -00.7	1 37.0 +00.0	N 19 55.6 +00.1	61 23.6 -25.2	N 08 50.8 +11.3	09						
10	328 40.5 +00.1	N 15 21.8 -00.7	16 37.0 -00.1	N 19 55.7 +00.1	75 58.4 -25.2	N 09 02.1 +11.3	10						
11	343 40.6 +00.1	N 15 21.1 -00.8	31 36.9 +00.0	N 19 55.8 +00.1	90 33.2 -25.3	N 09 13.4 +11.3	11						
12	358 40.7 +00.1	N 15 20.3 -00.7	46 36.9 +00.0	N 19 55.9 +00.1	105 07.9 -25.3	N 09 24.7 +11.3	12						
13	13 40.8 +00.1	N 15 19.6 -00.7	61 36.9 +00.0	N 19 56.0 +00.2	119 42.6 -25.4	N 09 36.0 +11.2	13						
14	28 40.9 +00.1	N 15 18.9 -00.8	76 36.9 -00.1	N 19 56.2 +00.1	134 17.2 -25.4	N 09 47.2 +11.1	14						
15	43 41.0 +00.1	N 15 18.1 -00.7	91 36.8 +00.0	N 19 56.3 +00.1	148 51.8 -25.4	N 09 58.3 +11.2	15						
16	58 41.1 +00.1	N 15 17.4 -00.8	106 36.8 +00.0	N 19 56.4 +00.1	163 26.4 -25.5	N 10 09.5 +11.1	16						
17	73 41.2 +00.1	N 15 16.6 -00.7	121 36.8 -00.1	N 19 56.5 +00.1	178 00.9 -25.5	N 10 20.6 +11.1	17						
18	88 41.3 +00.1	N 15 15.9 -00.7	136 36.7 +00.0	N 19 56.6 +00.1	192 35.4 -25.6	N 10 31.7 +11.0	18						
19	103 41.4 +00.1	N 15 15.2 -00.8	151 36.7 +00.0	N 19 56.7 +00.1	207 09.8 -25.6	N 10 42.7 +11.0	19						
20	118 41.5 +00.1	N 15 14.4 -00.7	166 36.7 -00.1	N 19 56.8 +00.1	221 44.2 -25.6	N 10 53.7 +10.9	20						
21	133 41.6 +00.1	N 15 13.7 -00.8	181 36.6 +00.0	N 19 56.9 +00.1	236 18.6 -25.7	N 11 04.6 +10.9	21						
22	148 41.7 +00.1	N 15 12.9 -00.7	196 36.6 +00.0	N 19 57.0 +00.2	250 52.9 -25.7	N 11 15.5 +10.9	22						
23	163 41.8 +00.1	N 15 12.2 -00.8	211 36.6 -00.1	N 19 57.2 +00.1	265 27.2 -25.8	N 11 26.4 +10.8	23						
	UT 02 06 10 14 18 22 SD 15'8 15'8 15'8 15'8 15'8 15'8 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 220° 219° 219° 219° 219° 219° Greenwich Culmination Time: 12:05	UT 02 06 10 14 18 22 SD 00'2 00'2 00'2 00'2 00'2 00'2 HP 00'2 00'2 00'2 00'2 00'2 00'2 SHA 268° 267° 267° 267° 267° 267° Greenwich Culmination Time: 08:53	UT 02 06 10 14 18 22 SD 14'8 14'8 14'8 14'8 14'8 14'8 HP 54'2 54'2 54'2 54'2 54'3 54'3 SHA 330° 328° 327° 325° 323° 321° Greenwich Culmination Time: 04:47										
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA	Dec ° ' "	dDec	GHA ° ' "	ddGHA	Dec ° ' "	dDec	GHA ° ' "	ddGHA	Dec ° ' "	dDec	
00	297 11.0 +01.5	N 04 48.5 +00.3	28 06.8 +02.8	S 22 26.6 +00.0	19 36.9 +02.7	S 20 58.2 +00.1	00						
01	312 12.5 +01.6	N 04 48.8 +00.3	43 09.6 +02.7	S 22 26.6 +00.0	34 39.6 +02.6	S 20 58.3 +00.0	01						
02	327 14.1 +01.6	N 04 49.1 +00.3	58 12.3 +02.7	S 22 26.6 +00.1	49 42.2 +02.6	S 20 58.3 +00.0	02						
03	342 15.7 +01.6	N 04 49.4 +00.3	73 15.0 +02.7	S 22 26.7 +00.0	64 44.8 +02.7	S 20 58.3 +00.1	03						
04	357 17.3 +01.6	N 04 49.7 +00.3	88 17.7 +02.8	S 22 26.7 +00.0	79 47.5 +02.6	S 20 58.4 +00.0	04						
05	12 18.9 +01.6	N 04 50.0 +00.3	103 20.5 +02.7	S 22 26.7 +00.1	94 50.1 +02.7	S 20 58.4 +00.1	05						
06	27 20.5 +01.6	N 04 50.3 +00.3	118 23.2 +02.7	S 22 26.8 +00.0	109 52.8 +02.6	S 20 58.5 +00.0	06						
07	42 22.1 +01.5	N 04 50.6 +00.3	133 25.9 +02.7	S 22 26.8 +00.1	124 55.4 +02.6	S 20 58.5 +00.0	07						
08	57 23.6 +01.6	N 04 50.9 +00.3	148 28.6 +02.8	S 22 26.9 +00.0	139 58.0 +02.7	S 20 58.5 +00.1	08						
09	72 25.2 +01.6	N 04 51.2 +00.3	163 31.4 +02.7	S 22 26.9 +00.0	155 00.7 +02.6	S 20 58.6 +00.0	09						
10	87 26.8 +01.6	N 04 51.5 +00.3	178 34.1 +02.7	S 22 26.9 +00.1	170 03.3 +02.6	S 20 58.6 +00.0	10						
11	102 28.4 +01.6	N 04 51.8 +00.3	193 36.8 +02.7	S 22 27.0 +00.0	185 05.9 +02.7	S 20 58.6 +00.1	11						
12	117 30.0 +01.6	N 04 52.1 +00.3	208 39.5 +02.8	S 22 27.0 +00.0	200 08.6 +02.6	S 20 58.7 +00.0	12						
13	132 31.6 +01.6	N 04 52.4 +00.3	223 42.3 +02.7	S 22 27.0 +00.1	215 11.2 +02.7	S 20 58.7 +00.0	13						
14	147 33.2 +01.6	N 04 52.7 +00.3	238 45.0 +02.7	S 22 27.1 +00.0	230 13.9 +02.6	S 20 58.7 +00.1	14						
15	162 34.8 +01.6	N 04 53.0 +00.3	253 47.7 +02.7	S 22 27.1 +00.1	245 16.5 +02.6	S 20 58.8 +00.0	15						
16	177 36.4 +01.6	N 04 53.3 +00.3	268 50.4 +02.8	S 22 27.2 +00.0	260 19.1 +02.7	S 20 58.8 +00.0	16						
17	192 38.0 +01.6	N 04 53.6 +00.3	283 53.2 +02.7	S 22 27.2 +00.0	275 21.8 +02.6	S 20 58.8 +00.1	17						
18	207 39.6 +01.6	N 04 53.9 +00.3	298 55.9 +02.7	S 22 27.2 +00.1	290 24.4 +02.6	S 20 58.9 +00.0	18						
19	222 41.2 +01.6	N 04 54.2 +00.3	313 58.6 +02.7	S 22 27.3 +00.0	305 27.0 +02.7	S 20 58.9 +00.0	19						
20	237 42.8 +01.6	N 04 54.5 +00.3	329 01.3 +02.7	S 22 27.3 +00.1	320 29.7 +02.6	S 20 58.9 +00.1	20						
21	252 44.4 +01.6	N 04 54.8 +00.3	344 04.0 +02.8	S 22 27.4 +00.0	335 32.3 +02.7	S 20 59.0 +00.0	21						
22	267 46.0 +01.6	N 04 55.1 +00.3	359 06.8 +02.7	S 22 27.4 +00.0	350 35.0 +02.6	S 20 59.0 +00.1	22						
23	282 47.6 +01.6	N 04 55.4 +00.3	14 09.5 +02.7	S 22 27.4 +00.1	5 37.6 +02.6	S 20 59.1 +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 338° 338° 338° 338° 338° 338° Greenwich Culmination Time: 04:10	UT 02 06 10 14 18 22 SD 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 SHA 069° 069° 069° 069° 069° 069° Greenwich Culmination Time: 22:03	UT 02 06 10 14 18 22 SD 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 SHA 061° 061° 061° 061° 061° 061° Greenwich Culmination Time: 22:37										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 41.9 +00.1	N 15 11.4 -00.7	226 36.5 +00.0	N 19 57.3 +00.1	280 01.4 -25.8	N 11 37.2 +10.8	00						
01	193 42.0 +00.1	N 15 10.7 -00.7	241 36.5 +00.0	N 19 57.4 +00.1	294 35.6 -25.9	N 11 48.0 +10.8	01						
02	208 42.1 +00.1	N 15 10.0 -00.8	256 36.5 -00.1	N 19 57.5 +00.1	309 09.7 -25.9	N 11 58.8 +10.7	02						
03	223 42.2 +00.1	N 15 09.2 -00.7	271 36.4 +00.0	N 19 57.6 +00.1	323 43.8 -26.0	N 12 09.5 +10.6	03						
04	238 42.3 +00.1	N 15 08.5 -00.8	286 36.4 -00.1	N 19 57.7 +00.1	338 17.8 -26.0	N 12 20.1 +10.6	04						
05	253 42.4 +00.1	N 15 07.7 -00.7	301 36.3 +00.0	N 19 57.8 +00.1	352 51.8 -26.0	N 12 30.7 +10.6	05						
06	268 42.5 +00.1	N 15 07.0 -00.8	316 36.3 +00.0	N 19 57.9 +00.1	7 25.8 -26.2	N 12 41.3 +10.5	06						
07	283 42.6 +00.1	N 15 06.2 -00.7	331 36.3 -00.1	N 19 58.0 +00.1	21 59.6 -26.1	N 12 51.8 +10.5	07						
08	298 42.7 +00.1	N 15 05.5 -00.8	346 36.2 +00.0	N 19 58.1 +00.1	36 33.5 -26.2	N 13 02.3 +10.4	08						
09	313 42.8 +00.1	N 15 04.7 -00.7	1 36.2 -00.1	N 19 58.2 +00.1	51 07.3 -26.3	N 13 12.7 +10.4	09						
10	328 42.9 +00.1	N 15 04.0 -00.8	16 36.1 +00.0	N 19 58.3 +00.1	65 41.0 -26.3	N 13 23.1 +10.3	10						
11	343 43.0 +00.1	N 15 03.2 -00.7	31 36.1 -00.1	N 19 58.4 +00.1	80 14.7 -26.4	N 13 33.4 +10.3	11						
12	358 43.1 +00.1	N 15 02.5 -00.8	46 36.0 +00.0	N 19 58.5 +00.1	94 48.3 -26.5	N 13 43.7 +10.2	12						
13	13 43.2 +00.1	N 15 01.7 -00.7	61 36.0 -00.1	N 19 58.6 +00.1	109 21.8 -26.5	N 13 53.9 +10.2	13						
14	28 43.3 +00.1	N 15 01.0 -00.8	76 35.9 +00.0	N 19 58.7 +00.1	123 55.3 -26.5	N 14 04.1 +10.1	14						
15	43 43.4 +00.2	N 15 00.2 -00.7	91 35.9 -00.1	N 19 58.8 +00.1	138 28.8 -26.6	N 14 14.2 +10.1	15						
16	58 43.6 +00.1	N 14 59.5 -00.8	106 35.8 +00.0	N 19 58.9 +00.1	153 02.2 -26.7	N 14 24.3 +10.0	16						
17	73 43.7 +00.1	N 14 58.7 -00.7	121 35.8 -00.1	N 19 59.0 +00.1	167 35.5 -26.7	N 14 34.3 +10.0	17						
18	88 43.8 +00.1	N 14 58.0 -00.8	136 35.7 +00.0	N 19 59.1 +00.1	182 08.8 -26.8	N 14 44.3 +09.9	18						
19	103 43.9 +00.1	N 14 57.2 -00.7	151 35.7 -00.1	N 19 59.2 +00.1	196 42.0 -26.9	N 14 54.2 +09.8	19						
20	118 44.0 +00.1	N 14 56.5 -00.8	166 35.6 -00.1	N 19 59.3 +00.1	211 15.1 -26.9	N 15 04.0 +09.8	20						
21	133 44.1 +00.1	N 14 55.7 -00.7	181 35.5 +00.0	N 19 59.4 +00.1	225 48.2 -27.0	N 15 13.8 +09.8	21						
22	148 44.2 +00.1	N 14 55.0 -00.8	196 35.5 -00.1	N 19 59.5 +00.1	240 21.2 -27.0	N 15 23.6 +09.6	22						
23	163 44.3 +00.1	N 14 54.2 -00.7	211 35.4 +00.0	N 19 59.6 +00.1	254 54.2 -27.1	N 15 33.2 +09.6	23						
	UT 02 06 10 14 18 22 SD 15'8 15'8 15'8 15'8 15'8 15'8 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 219° 219° 218° 218° 218° 218° Greenwich Culmination Time: 12:05	UT 02 06 10 14 18 22 SD 00'2 00'2 00'2 00'2 00'2 00'2 HP 00'2 00'2 00'2 00'2 00'2 00'2 SHA 267° 266° 266° 266° 266° 266° Greenwich Culmination Time: 08:53	UT 02 06 10 14 18 22 SD 14'8 14'8 14'8 14'8 14'9 14'9 HP 54'3 54'4 54'4 54'5 54'6 54'6 SHA 319° 317° 315° 313° 311° 310° Greenwich Culmination Time: 05:29										
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	297 49.2 +01.6	N 04 55.7 +00.3	29 12.2 +02.7	S 22 27.5 +00.0	20 40.2 +02.7	S 20 59.1 +00.0	00						
01	312 50.8 +01.6	N 04 56.0 +00.3	44 14.9 +02.7	S 22 27.5 +00.0	35 42.9 +02.6	S 20 59.1 +00.1	01						
02	327 52.4 +01.6	N 04 56.3 +00.3	59 17.6 +02.8	S 22 27.5 +00.1	50 45.5 +02.6	S 20 59.2 +00.0	02						
03	342 54.0 +01.6	N 04 56.6 +00.3	74 20.4 +02.7	S 22 27.6 +00.0	65 48.1 +02.7	S 20 59.2 +00.0	03						
04	357 55.6 +01.6	N 04 56.9 +00.3	89 23.1 +02.7	S 22 27.6 +00.1	80 50.8 +02.6	S 20 59.2 +00.1	04						
05	12 57.2 +01.6	N 04 57.2 +00.3	104 25.8 +02.7	S 22 27.7 +00.0	95 53.4 +02.6	S 20 59.3 +00.0	05						
06	27 58.8 +01.6	N 04 57.5 +00.3	119 28.5 +02.7	S 22 27.7 +00.0	110 56.0 +02.7	S 20 59.3 +00.0	06						
07	43 00.4 +01.6	N 04 57.8 +00.3	134 31.2 +02.8	S 22 27.7 +00.1	125 58.7 +02.6	S 20 59.3 +00.1	07						
08	58 02.0 +01.6	N 04 58.1 +00.2	149 34.0 +02.7	S 22 27.8 +00.0	141 01.3 +02.6	S 20 59.4 +00.0	08						
09	73 03.6 +01.6	N 04 58.3 +00.3	164 36.7 +02.7	S 22 27.8 +00.0	156 03.9 +02.7	S 20 59.4 +00.0	09						
10	88 05.2 +01.6	N 04 58.6 +00.3	179 39.4 +02.7	S 22 27.8 +00.1	171 06.6 +02.6	S 20 59.4 +00.1	10						
11	103 06.8 +01.7	N 04 58.9 +00.3	194 42.1 +02.7	S 22 27.9 +00.0	186 09.2 +02.7	S 20 59.5 +00.0	11						
12	118 08.5 +01.6	N 04 59.2 +00.3	209 44.8 +02.8	S 22 27.9 +00.1	201 11.9 +02.6	S 20 59.5 +00.0	12						
13	133 10.1 +01.6	N 04 59.5 +00.3	224 47.6 +02.7	S 22 28.0 +00.0	216 14.5 +02.6	S 20 59.5 +00.1	13						
14	148 11.7 +01.6	N 04 59.8 +00.3	239 50.3 +02.7	S 22 28.0 +00.0	231 17.1 +02.7	S 20 59.6 +00.0	14						
15	163 13.3 +01.6	N 05 00.1 +00.3	254 53.0 +02.7	S 22 28.0 +00.1	246 19.8 +02.6	S 20 59.6 +00.0	15						
16	178 14.9 +01.6	N 05 00.4 +00.3	269 55.7 +02.7	S 22 28.1 +00.0	261 22.4 +02.6	S 20 59.6 +00.1	16						
17	193 16.5 +01.7	N 05 00.7 +00.3	284 58.4 +02.7	S 22 28.1 +00.0	276 25.0 +02.7	S 20 59.7 +00.0	17						
18	208 18.2 +01.6	N 05 01.0 +00.3	300 01.1 +02.8	S 22 28.1 +00.1	291 27.7 +02.6	S 20 59.7 +00.1	18						
19	223 19.8 +01.6	N 05 01.3 +00.3	315 03.9 +02.7	S 22 28.2 +00.0	306 30.3 +02.6	S 20 59.8 +00.0	19						
20	238 21.4 +01.6	N 05 01.6 +00.2	330 06.6 +02.7	S 22 28.2 +00.0	321 32.9 +02.7	S 20 59.8 +00.0	20						
21	253 23.0 +01.6	N 05 01.8 +00.3	345 09.3 +02.7	S 22 28.2 +00.1	336 35.6 +02.6	S 20 59.8 +00.1	21						
22	268 24.6 +01.7	N 05 02.1 +00.3	0 12.0 +02.7	S 22 28.3 +00.0	351 38.2 +02.6	S 20 59.9 +00.0	22						
23	283 26.3 +01.6	N 05 02.4 +00.3	15 14.7 +02.7	S 22 28.3 +00.1	6 40.8 +02.7	S 20 59.9 +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 338° 338° 338° 338° 338° 338° Greenwich Culmination Time: 04:08	UT 02 06 10 14 18 22 SD 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 SHA 069° 069° 069° 069° 069° 069° Greenwich Culmination Time: 21:59	UT 02 06 10 14 18 22 SD 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 SHA 061° 061° 061° 061° 061° 061° Greenwich Culmination Time: 22:33										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT				
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec					
00	178 44.4 +00.1	N 14 53.5 -00.8	226 35.4 -00.1	N 19 59.7 +00.1	269 27.1 -27.2	N 15 42.8 +09.6	00										
01	193 44.5 +00.1	N 14 52.7 -00.7	241 35.3 -00.1	N 19 59.8 +00.1	283 59.9 -27.3	N 15 52.4 +09.5	01										
02	208 44.6 +00.1	N 14 52.0 -00.8	256 35.2 +00.0	N 19 59.9 +00.1	298 32.6 -27.3	N 16 01.9 +09.4	02										
03	223 44.7 +00.1	N 14 51.2 -00.7	271 35.2 -00.1	N 19 60.0 +00.1	313 05.3 -27.3	N 16 11.3 +09.4	03										
04	238 44.8 +00.1	N 14 50.5 -00.8	286 35.1 +00.0	N 20 00.1 +00.1	327 38.0 -27.5	N 16 20.7 +09.3	04										
05	253 44.9 +00.1	N 14 49.7 -00.8	301 35.1 -00.1	N 20 00.2 +00.1	342 10.5 -27.5	N 16 30.0 +09.2	05										
06	268 45.0 +00.2	N 14 48.9 -00.7	316 35.0 -00.1	N 20 00.3 +00.0	356 43.0 -27.6	N 16 39.2 +09.2	06										
07	283 45.2 +00.1	N 14 48.2 -00.8	331 34.9 +00.0	N 20 00.3 +00.1	11 15.4 -27.6	N 16 48.4 +09.1	07										
08	298 45.3 +00.1	N 14 47.4 -00.7	346 34.9 -00.1	N 20 00.4 +00.1	25 47.8 -27.7	N 16 57.5 +09.1	08										
09	313 45.4 +00.1	N 14 46.7 -00.8	1 34.8 -00.1	N 20 00.5 +00.1	40 20.1 -27.8	N 17 06.6 +08.9	09										
10	328 45.5 +00.1	N 14 45.9 -00.7	16 34.7 +00.0	N 20 00.6 +00.1	54 52.3 -27.9	N 17 15.5 +08.9	10										
11	343 45.6 +00.1	N 14 45.2 -00.8	31 34.7 -00.1	N 20 00.7 +00.1	69 24.4 -27.9	N 17 24.4 +08.9	11										
12	358 45.7 +00.1	N 14 44.4 -00.8	46 34.6 -00.1	N 20 00.8 +00.1	83 56.5 -28.0	N 17 33.3 +08.7	12										
13	13 45.8 +00.1	N 14 43.6 -00.7	61 34.5 -00.1	N 20 00.9 +00.1	98 28.5 -28.1	N 17 42.0 +08.7	13										
14	28 45.9 +00.1	N 14 42.9 -00.8	76 34.4 +00.0	N 20 01.0 +00.0	113 00.4 -28.2	N 17 50.7 +08.6	14										
15	43 46.0 +00.1	N 14 42.1 -00.7	91 34.4 -00.1	N 20 01.0 +00.1	127 32.2 -28.2	N 17 59.3 +08.6	15										
16	58 46.1 +00.2	N 14 41.4 -00.8	106 34.3 -00.1	N 20 01.1 +00.1	142 04.0 -28.3	N 18 07.9 +08.4	16										
17	73 46.3 +00.1	N 14 40.6 -00.8	121 34.2 +00.0	N 20 01.2 +00.1	156 35.7 -28.4	N 18 16.3 +08.4	17										
18	88 46.4 +00.1	N 14 39.8 -00.7	136 34.2 -00.1	N 20 01.3 +00.1	171 07.3 -28.4	N 18 24.7 +08.4	18										
19	103 46.5 +00.1	N 14 39.1 -00.8	151 34.1 -00.1	N 20 01.4 +00.1	185 38.9 -28.5	N 18 33.1 +08.2	19										
20	118 46.6 +00.1	N 14 38.3 -00.7	166 34.0 -00.1	N 20 01.5 +00.0	200 10.4 -28.7	N 18 41.3 +08.2	20										
21	133 46.7 +00.1	N 14 37.6 -00.8	181 33.9 -00.1	N 20 01.5 +00.1	214 41.7 -28.6	N 18 49.5 +08.0	21										
22	148 46.8 +00.1	N 14 36.8 -00.8	196 33.8 +00.0	N 20 01.6 +00.1	229 13.1 -28.8	N 18 57.5 +08.1	22										
23	163 46.9 +00.1	N 14 36.0 -00.7	211 33.8 -00.1	N 20 01.7 +00.1	243 44.3 -28.8	N 19 05.6 +07.9	23										
	UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 218° 218° 217° 217° 217° 217°	Greenwich Culmination Time: 12:04		UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2	HP 00'2 00'2 00'2 00'2 00'2 00'2	SHA 266° 265° 265° 265° 265° 265°	Greenwich Culmination Time: 08:53		UT 02 06 10 14 18 22	SD 14'9 14'9 14'9 15'0 15'0 15'0	HP 54'7 54'8 54'8 54'9 55'0 55'1	SHA 308° 306° 304° 302° 299° 297°	Greenwich Culmination Time: 06:13

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT				
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec					
00	298 27.9 +01.6	N 05 02.7 +00.3	30 17.4 +02.8	S 22 28.4 +00.0	21 43.5 +02.6	S 20 59.9 +00.1	00										
01	313 29.5 +01.6	N 05 03.0 +00.3	45 20.2 +02.7	S 22 28.4 +00.0	36 46.1 +02.6	S 20 60.0 +00.0	01										
02	328 31.1 +01.7	N 05 03.3 +00.3	60 22.9 +02.7	S 22 28.4 +00.1	51 48.7 +02.7	S 20 60.0 +00.0	02										
03	343 32.8 +01.6	N 05 03.6 +00.3	75 25.6 +02.7	S 22 28.5 +00.0	66 51.4 +02.6	S 21 00.0 +00.1	03										
04	358 34.4 +01.6	N 05 03.9 +00.2	90 28.3 +02.7	S 22 28.5 +00.0	81 54.0 +02.6	S 21 00.1 +00.0	04										
05	13 36.0 +01.6	N 05 04.1 +00.3	105 31.0 +02.7	S 22 28.5 +00.1	96 56.6 +02.7	S 21 00.1 +00.0	05										
06	28 37.6 +01.7	N 05 04.4 +00.3	120 33.7 +02.7	S 22 28.6 +00.0	111 59.3 +02.6	S 21 00.1 +00.1	06										
07	43 39.3 +01.6	N 05 04.7 +00.3	135 36.4 +02.7	S 22 28.6 +00.1	127 01.9 +02.6	S 21 00.2 +00.0	07										
08	58 40.9 +01.6	N 05 05.0 +00.3	150 39.1 +02.8	S 22 28.7 +00.0	142 04.5 +02.7	S 21 00.2 +00.0	08										
09	73 42.5 +01.7	N 05 05.3 +00.3	165 41.9 +02.7	S 22 28.7 +00.0	157 07.2 +02.6	S 21 00.2 +00.1	09										
10	88 44.2 +01.6	N 05 05.6 +00.3	180 44.6 +02.7	S 22 28.7 +00.1	172 09.8 +02.6	S 21 00.3 +00.0	10										
11	103 45.8 +01.6	N 05 05.9 +00.2	195 47.3 +02.7	S 22 28.8 +00.0	187 12.4 +02.7	S 21 00.3 +00.0	11										
12	118 47.4 +01.7	N 05 06.1 +00.3	210 50.0 +02.7	S 22 28.8 +00.0	202 15.1 +02.6	S 21 00.3 +00.1	12										
13	133 49.1 +01.6	N 05 06.4 +00.3	225 52.7 +02.7	S 22 28.8 +00.1	217 17.7 +02.6	S 21 00.4 +00.0	13										
14	148 50.7 +01.6	N 05 06.7 +00.3	240 55.4 +02.7	S 22 28.9 +00.0	232 20.3 +02.7	S 21 00.4 +00.0	14										
15	163 52.3 +01.7	N 05 07.0 +00.3	255 58.1 +02.7	S 22 28.9 +00.0	247 23.0 +02.6	S 21 00.4 +00.1	15										
16	178 54.0 +01.6	N 05 07.3 +00.3	271 00.8 +02.8	S 22 28.9 +00.1	262 25.6 +02.6	S 21 00.5 +00.0	16										
17	193 55.6 +01.6	N 05 07.6 +00.2	286 03.6 +02.7	S 22 29.0 +00.0	277 28.2 +02.7	S 21 00.5 +00.0	17										
18	208 57.2 +01.7	N 05 07.8 +00.3	301 06.3 +02.7	S 22 29.0 +00.0	292 30.9 +02.6	S 21 00.5 +00.1	18										
19	223 58.9 +01.6	N 05 08.1 +00.3	316 09.0 +02.7	S 22 29.0 +00.1	307 33.5 +02.6	S 21 00.6 +00.0	19										
20	239 00.5 +01.7	N 05 08.4 +00.3	331 11.7 +02.7	S 22 29.1 +00.0	322 36.1 +02.7	S 21 00.6 +00.0	20										
21	254 02.2 +01.6	N 05 08.7 +00.3	346 14.4 +02.7	S 22 29.1 +00.1	337 38.8 +02.6	S 21 00.6 +00.1	21										
22	269 03.8 +01.7	N 05 09.0 +00.2	1 17.1 +02.7	S 22 29.2 +00.0	352 41.4 +02.6	S 21 00.7 +00.0	22										
23	284 05.5 +01.6	N 05 09.2 +00.3	16 19.8 +02.7	S 22 29.2 +00.0	7 44.0 +02.7	S 21 00.7 +00.1	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 338° 337° 337° 337° 337° 337°	Greenwich Culmination Time: 04:05		UT 02 06 10 14 18 22	SD 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	SHA 069° 069° 069° 069° 069° 069°	Greenwich Culmination Time: 21:54		UT 02 06 10 14 18 22	SD 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	SHA 061° 061° 061° 061° 061° 061°	Greenwich Culmination Time: 22:29

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 47.0 +00.1	N 14 35.3 -00.8	226 33.7 -00.1	N 20 01.8 +00.1	258 15.5 -29.0	N 19 13.5 +07.8	00						
01	193 47.1 +00.2	N 14 34.5 -00.8	241 33.6 -00.1	N 20 01.9 +00.0	272 46.5 -28.9	N 19 21.3 +07.8	01						
02	208 47.3 +00.1	N 14 33.7 -00.7	256 33.5 -00.1	N 20 01.9 +00.1	287 17.6 -29.1	N 19 29.1 +07.7	02						
03	223 47.4 +00.1	N 14 33.0 -00.8	271 33.4 -00.1	N 20 02.0 +00.1	301 48.5 -29.2	N 19 36.8 +07.5	03						
04	238 47.5 +00.1	N 14 32.2 -00.8	286 33.3 +00.0	N 20 02.1 +00.1	316 19.3 -29.2	N 19 44.3 +07.5	04						
05	253 47.6 +00.1	N 14 31.4 -00.7	301 33.3 -00.1	N 20 02.2 +00.1	330 50.1 -29.3	N 19 51.8 +07.5	05						
06	268 47.7 +00.1	N 14 30.7 -00.8	316 33.2 -00.1	N 20 02.3 +00.0	345 20.8 -29.4	N 19 59.3 +07.3	06						
07	283 47.8 +00.1	N 14 29.9 -00.7	331 33.1 -00.1	N 20 02.3 +00.1	359 51.4 -29.5	N 20 06.6 +07.2	07						
08	298 47.9 +00.2	N 14 29.2 -00.8	346 33.0 -00.1	N 20 02.4 +00.1	14 21.9 -29.5	N 20 13.8 +07.2	08						
09	313 48.1 +00.1	N 14 28.4 -00.8	1 32.9 -00.1	N 20 02.5 +00.1	28 52.4 -29.7	N 20 21.0 +07.1	09						
10	328 48.2 +00.1	N 14 27.6 -00.8	16 32.8 -00.1	N 20 02.6 +00.0	43 22.7 -29.7	N 20 28.1 +06.9	10						
11	343 48.3 +00.1	N 14 26.8 -00.7	31 32.7 -00.1	N 20 02.6 +00.1	57 53.0 -29.8	N 20 35.0 +06.9	11						
12	358 48.4 +00.1	N 14 26.1 -00.8	46 32.6 +00.0	N 20 02.7 +00.1	72 23.2 -29.9	N 20 41.9 +06.8	12						
13	13 48.5 +00.1	N 14 25.3 -00.8	61 32.6 -00.1	N 20 02.8 +00.0	86 53.3 -29.9	N 20 48.7 +06.7	13						
14	28 48.6 +00.1	N 14 24.5 -00.7	76 32.5 -00.1	N 20 02.8 +00.1	101 23.4 -30.1	N 20 55.4 +06.6	14						
15	43 48.7 +00.2	N 14 23.8 -00.8	91 32.4 -00.1	N 20 02.9 +00.1	115 53.3 -30.1	N 21 02.0 +06.5	15						
16	58 48.9 +00.1	N 14 23.0 -00.8	106 32.3 -00.1	N 20 03.0 +00.1	130 23.2 -30.2	N 21 08.5 +06.4	16						
17	73 49.0 +00.1	N 14 22.2 -00.7	121 32.2 -00.1	N 20 03.1 +00.0	144 53.0 -30.3	N 21 14.9 +06.3	17						
18	88 49.1 +00.1	N 14 21.5 -00.8	136 32.1 -00.1	N 20 03.1 +00.1	159 22.7 -30.3	N 21 21.2 +06.2	18						
19	103 49.2 +00.1	N 14 20.7 -00.8	151 32.0 -00.1	N 20 03.2 +00.1	173 52.4 -30.5	N 21 27.4 +06.1	19						
20	118 49.3 +00.1	N 14 19.9 -00.8	166 31.9 -00.1	N 20 03.3 +00.0	188 21.9 -30.5	N 21 33.5 +06.0	20						
21	133 49.4 +00.2	N 14 19.1 -00.7	181 31.8 -00.1	N 20 03.3 +00.1	202 51.4 -30.6	N 21 39.5 +05.9	21						
22	148 49.6 +00.1	N 14 18.4 -00.8	196 31.7 -00.1	N 20 03.4 +00.1	217 20.8 -30.7	N 21 45.4 +05.8	22						
23	163 49.7 +00.1	N 14 17.6 -00.8	211 31.6 -00.1	N 20 03.5 +00.0	231 50.1 -30.8	N 21 51.2 +05.6	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 15'0 15'1 15'1 15'1 15'2 15'2								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'2 00'2 00'2 00'2 00'2 00'2		HP 55'2 55'3 55'4 55'5 55'6 55'7								
	SHA 217° 217° 217° 216° 216° 216°		SHA 265° 264° 264° 264° 264° 264°		SHA 295° 293° 291° 289° 287° 285°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 08:53		Greenwich Culmination Time: 07:00								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	299 07.1 +01.6	N 05 09.5 +00.3	31 22.5 +02.7	S 22 29.2 +00.1	22 46.7 +02.6	S 21 00.8 +00.0	00						
01	314 08.7 +01.7	N 05 09.8 +00.3	46 25.2 +02.7	S 22 29.3 +00.0	37 49.3 +02.6	S 21 00.8 +00.0	01						
02	329 10.4 +01.6	N 05 10.1 +00.3	61 27.9 +02.7	S 22 29.3 +00.0	52 51.9 +02.7	S 21 00.8 +00.1	02						
03	344 12.0 +01.7	N 05 10.4 +00.2	76 30.6 +02.8	S 22 29.3 +00.1	67 54.6 +02.6	S 21 00.9 +00.0	03						
04	359 13.7 +01.6	N 05 10.6 +00.3	91 33.4 +02.7	S 22 29.4 +00.0	82 57.2 +02.6	S 21 00.9 +00.0	04						
05	14 15.3 +01.7	N 05 10.9 +00.3	106 36.1 +02.7	S 22 29.4 +00.0	97 59.8 +02.7	S 21 00.9 +00.1	05						
06	29 17.0 +01.6	N 05 11.2 +00.3	121 38.8 +02.7	S 22 29.4 +00.1	113 02.5 +02.6	S 21 01.0 +00.0	06						
07	44 18.6 +01.7	N 05 11.5 +00.2	136 41.5 +02.7	S 22 29.5 +00.0	128 05.1 +02.6	S 21 01.0 +00.0	07						
08	59 20.3 +01.7	N 05 11.7 +00.3	151 44.2 +02.7	S 22 29.5 +00.0	143 07.7 +02.7	S 21 01.0 +00.1	08						
09	74 22.0 +01.6	N 05 12.0 +00.3	166 46.9 +02.7	S 22 29.5 +00.1	158 10.4 +02.6	S 21 01.1 +00.0	09						
10	89 23.6 +01.7	N 05 12.3 +00.3	181 49.6 +02.7	S 22 29.6 +00.0	173 13.0 +02.6	S 21 01.1 +00.0	10						
11	104 25.3 +01.6	N 05 12.6 +00.3	196 52.3 +02.7	S 22 29.6 +00.0	188 15.6 +02.7	S 21 01.1 +00.1	11						
12	119 26.9 +01.7	N 05 12.9 +00.2	211 55.0 +02.7	S 22 29.6 +00.1	203 18.3 +02.6	S 21 01.2 +00.0	12						
13	134 28.6 +01.6	N 05 13.1 +00.3	226 57.7 +02.7	S 22 29.7 +00.0	218 20.9 +02.6	S 21 01.2 +00.0	13						
14	149 30.2 +01.7	N 05 13.4 +00.3	242 00.4 +02.7	S 22 29.7 +00.1	233 23.5 +02.7	S 21 01.2 +00.1	14						
15	164 31.9 +01.7	N 05 13.7 +00.3	257 03.1 +02.7	S 22 29.8 +00.0	248 26.2 +02.6	S 21 01.3 +00.0	15						
16	179 33.6 +01.6	N 05 14.0 +00.2	272 05.8 +02.7	S 22 29.8 +00.0	263 28.8 +02.6	S 21 01.3 +00.0	16						
17	194 35.2 +01.7	N 05 14.2 +00.3	287 08.5 +02.7	S 22 29.8 +00.1	278 31.4 +02.6	S 21 01.3 +00.1	17						
18	209 36.9 +01.6	N 05 14.5 +00.3	302 11.2 +02.7	S 22 29.9 +00.0	293 34.0 +02.7	S 21 01.4 +00.0	18						
19	224 38.5 +01.7	N 05 14.8 +00.2	317 13.9 +02.7	S 22 29.9 +00.0	308 36.7 +02.6	S 21 01.4 +00.0	19						
20	239 40.2 +01.7	N 05 15.0 +00.3	332 16.6 +02.7	S 22 29.9 +00.1	323 39.3 +02.6	S 21 01.4 +00.1	20						
21	254 41.9 +01.6	N 05 15.3 +00.3	347 19.3 +02.7	S 22 30.0 +00.0	338 41.9 +02.7	S 21 01.5 +00.0	21						
22	269 43.5 +01.7	N 05 15.6 +00.3	2 22.0 +02.7	S 22 30.0 +00.0	353 44.6 +02.6	S 21 01.5 +00.0	22						
23	284 45.2 +01.7	N 05 15.9 +00.2	17 24.7 +02.8	S 22 30.0 +00.1	8 47.2 +02.6	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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 337° 337° 337° 337° 337° 337°		SHA 069° 070° 070° 070° 070° 070°		SHA 061° 061° 061° 061° 061° 061°								
	Greenwich Culmination Time: 04:03		Greenwich Culmination Time: 21:50		Greenwich Culmination Time: 22:24								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 49.8 +00.1	N 14 16.8 -00.7	226 31.5 -00.1	N 20 03.5 +00.1	246 19.3 -30.9	N 21 56.8 +05.6	00						
01	193 49.9 +00.1	N 14 16.1 -00.8	241 31.4 -00.1	N 20 03.6 +00.0	260 48.4 -30.9	N 22 02.4 +05.5	01						
02	208 50.0 +00.2	N 14 15.3 -00.8	256 31.3 -00.1	N 20 03.6 +00.1	275 17.5 -31.0	N 22 07.9 +05.4	02						
03	223 50.2 +00.1	N 14 14.5 -00.8	271 31.2 -00.1	N 20 03.7 +00.1	289 46.5 -31.1	N 22 13.3 +05.2	03						
04	238 50.3 +00.1	N 14 13.7 -00.7	286 31.1 -00.1	N 20 03.8 +00.0	304 15.4 -31.2	N 22 18.5 +05.2	04						
05	253 50.4 +00.1	N 14 13.0 -00.8	301 31.0 -00.1	N 20 03.8 +00.1	318 44.2 -31.2	N 22 23.7 +05.0	05						
06	268 50.5 +00.1	N 14 12.2 -00.8	316 30.9 -00.2	N 20 03.9 +00.1	333 13.0 -31.4	N 22 28.7 +05.0	06						
07	283 50.6 +00.2	N 14 11.4 -00.8	331 30.7 -00.1	N 20 04.0 +00.0	347 41.6 -31.4	N 22 33.7 +04.8	07						
08	298 50.8 +00.1	N 14 10.6 -00.7	346 30.6 -00.1	N 20 04.0 +00.1	2 10.2 -31.5	N 22 38.5 +04.7	08						
09	313 50.9 +00.1	N 14 09.9 -00.8	1 30.5 -00.1	N 20 04.1 +00.0	16 38.7 -31.5	N 22 43.2 +04.6	09						
10	328 51.0 +00.1	N 14 09.1 -00.8	16 30.4 -00.1	N 20 04.1 +00.1	31 07.2 -31.7	N 22 47.8 +04.4	10						
11	343 51.1 +00.1	N 14 08.3 -00.8	31 30.3 -00.1	N 20 04.2 +00.0	45 35.5 -31.7	N 22 52.2 +04.4	11						
12	358 51.2 +00.2	N 14 07.5 -00.8	46 30.2 -00.1	N 20 04.2 +00.1	60 03.8 -31.8	N 22 56.6 +04.2	12						
13	13 51.4 +00.1	N 14 06.7 -00.7	61 30.1 -00.1	N 20 04.3 +00.1	74 32.0 -31.9	N 23 00.8 +04.2	13						
14	28 51.5 +00.1	N 14 06.0 -00.8	76 30.0 -00.1	N 20 04.4 +00.0	89 00.1 -32.0	N 23 05.0 +04.0	14						
15	43 51.6 +00.1	N 14 05.2 -00.8	91 29.9 -00.2	N 20 04.4 +00.1	103 28.1 -32.0	N 23 09.0 +03.8	15						
16	58 51.7 +00.1	N 14 04.4 -00.8	106 29.7 -00.1	N 20 04.5 +00.0	117 56.1 -32.1	N 23 12.8 +03.8	16						
17	73 51.8 +00.2	N 14 03.6 -00.7	121 29.6 -00.1	N 20 04.5 +00.1	132 24.0 -32.2	N 23 16.6 +03.6	17						
18	88 52.0 +00.1	N 14 02.9 -00.8	136 29.5 -00.1	N 20 04.6 +00.0	146 51.8 -32.2	N 23 20.2 +03.5	18						
19	103 52.1 +00.1	N 14 02.1 -00.8	151 29.4 -00.1	N 20 04.6 +00.1	161 19.6 -32.4	N 23 23.7 +03.4	19						
20	118 52.2 +00.1	N 14 01.3 -00.8	166 29.3 -00.1	N 20 04.7 +00.0	175 47.2 -32.4	N 23 27.1 +03.3	20						
21	133 52.3 +00.2	N 14 00.5 -00.8	181 29.2 -00.2	N 20 04.7 +00.1	190 14.8 -32.4	N 23 30.4 +03.1	21						
22	148 52.5 +00.1	N 13 59.7 -00.8	196 29.0 -00.1	N 20 04.8 +00.0	204 42.4 -32.6	N 23 33.5 +03.1	22						
23	163 52.6 +00.1	N 13 58.9 -00.7	211 28.9 -00.1	N 20 04.8 +00.1	219 09.8 -32.6	N 23 36.6 +02.8	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 15'2 15'2 15'3 15'3 15'3 15'4								
	HP 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 55'8 56'0 56'1 56'2 56'3 56'5								
	SHA 216° 216° 216° 215° 215° 215°		SHA 264° 263° 263° 263° 263° 263°		SHA 282° 280° 278° 276° 273° 271°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 08:53		Greenwich Culmination Time: 07:51								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	299 46.9 +01.6	N 05 16.1 +00.3	32 27.5 +02.7	S 22 30.1 +00.0	23 49.8 +02.7	S 21 01.6 +00.0	00						
01	314 48.5 +01.7	N 05 16.4 +00.3	47 30.2 +02.7	S 22 30.1 +00.0	38 52.5 +02.6	S 21 01.6 +00.0	01						
02	329 50.2 +01.7	N 05 16.7 +00.2	62 32.9 +02.7	S 22 30.1 +00.1	53 55.1 +02.6	S 21 01.6 +00.1	02						
03	344 51.9 +01.6	N 05 16.9 +00.3	77 35.6 +02.7	S 22 30.2 +00.0	68 57.7 +02.6	S 21 01.7 +00.0	03						
04	359 53.5 +01.7	N 05 17.2 +00.3	92 38.3 +02.7	S 22 30.2 +00.0	84 00.3 +02.7	S 21 01.7 +00.0	04						
05	14 55.2 +01.7	N 05 17.5 +00.3	107 41.0 +02.7	S 22 30.2 +00.1	99 03.0 +02.6	S 21 01.7 +00.1	05						
06	29 56.9 +01.7	N 05 17.8 +00.2	122 43.7 +02.7	S 22 30.3 +00.0	114 05.6 +02.6	S 21 01.8 +00.0	06						
07	44 58.6 +01.6	N 05 18.0 +00.3	137 46.4 +02.7	S 22 30.3 +00.0	129 08.2 +02.7	S 21 01.8 +00.0	07						
08	60 00.2 +01.7	N 05 18.3 +00.3	152 49.1 +02.7	S 22 30.3 +00.1	144 10.9 +02.6	S 21 01.8 +00.1	08						
09	75 01.9 +01.7	N 05 18.6 +00.2	167 51.8 +02.7	S 22 30.4 +00.0	159 13.5 +02.6	S 21 01.9 +00.0	09						
10	90 03.6 +01.7	N 05 18.8 +00.3	182 54.5 +02.7	S 22 30.4 +00.0	174 16.1 +02.7	S 21 01.9 +00.0	10						
11	105 05.3 +01.6	N 05 19.1 +00.3	197 57.2 +02.7	S 22 30.4 +00.1	189 18.8 +02.6	S 21 01.9 +00.1	11						
12	120 06.9 +01.7	N 05 19.4 +00.2	212 59.9 +02.7	S 22 30.5 +00.0	204 21.4 +02.6	S 21 02.0 +00.0	12						
13	135 08.6 +01.7	N 05 19.6 +00.3	228 02.6 +02.7	S 22 30.5 +00.0	219 24.0 +02.6	S 21 02.0 +00.0	13						
14	150 10.3 +01.7	N 05 19.9 +00.3	243 05.3 +02.7	S 22 30.5 +00.1	234 26.6 +02.7	S 21 02.0 +00.1	14						
15	165 12.0 +01.7	N 05 20.2 +00.2	258 08.0 +02.7	S 22 30.6 +00.0	249 29.3 +02.6	S 21 02.1 +00.0	15						
16	180 13.7 +01.7	N 05 20.4 +00.3	273 10.7 +02.7	S 22 30.6 +00.0	264 31.9 +02.6	S 21 02.1 +00.0	16						
17	195 15.4 +01.6	N 05 20.7 +00.3	288 13.4 +02.7	S 22 30.6 +00.1	279 34.5 +02.7	S 21 02.1 +00.1	17						
18	210 17.0 +01.7	N 05 21.0 +00.2	303 16.1 +02.6	S 22 30.7 +00.0	294 37.2 +02.6	S 21 02.2 +00.0	18						
19	225 18.7 +01.7	N 05 21.2 +00.3	318 18.7 +02.7	S 22 30.7 +00.0	309 39.8 +02.6	S 21 02.2 +00.0	19						
20	240 20.4 +01.7	N 05 21.5 +00.3	333 21.4 +02.7	S 22 30.7 +00.1	324 42.4 +02.6	S 21 02.2 +00.1	20						
21	255 22.1 +01.7	N 05 21.8 +00.2	348 24.1 +02.7	S 22 30.8 +00.0	339 45.0 +02.7	S 21 02.3 +00.0	21						
22	270 23.8 +01.7	N 05 22.0 +00.3	3 26.8 +02.7	S 22 30.8 +00.1	354 47.7 +02.6	S 21 02.3 +00.0	22						
23	285 25.5 +01.7	N 05 22.3 +00.2	18 29.5 +02.7	S 22 30.9 +00.0	9 50.3 +02.6	S 21 02.3 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 337° 337° 337° 337° 337° 337°		SHA 070° 070° 070° 070° 070° 070°		SHA 061° 061° 061° 061° 061° 061°								
	Greenwich Culmination Time: 04:00		Greenwich Culmination Time: 21:46		Greenwich Culmination Time: 22:20								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 52.7 +00.1	N 13 58.2 -00.8	226 28.8 -00.1	N 20 04.9 +00.0	233 37.2 -32.7	N 23 39.4 +02.8	00						
01	193 52.8 +00.1	N 13 57.4 -00.8	241 28.7 -00.2	N 20 04.9 +00.1	248 04.5 -32.7	N 23 42.2 +02.6	01						
02	208 52.9 +00.2	N 13 56.6 -00.8	256 28.5 -00.1	N 20 05.0 +00.0	262 31.8 -32.8	N 23 44.8 +02.5	02						
03	223 53.1 +00.1	N 13 55.8 -00.8	271 28.4 -00.1	N 20 05.0 +00.1	276 59.0 -32.9	N 23 47.3 +02.4	03						
04	238 53.2 +00.1	N 13 55.0 -00.8	286 28.3 -00.1	N 20 05.1 +00.0	291 26.1 -33.0	N 23 49.7 +02.2	04						
05	253 53.3 +00.1	N 13 54.2 -00.7	301 28.2 -00.2	N 20 05.1 +00.1	305 53.1 -33.0	N 23 51.9 +02.1	05						
06	268 53.4 +00.2	N 13 53.5 -00.8	316 28.0 -00.1	N 20 05.2 +00.0	320 20.1 -33.1	N 23 54.0 +02.0	06						
07	283 53.6 +00.1	N 13 52.7 -00.8	331 27.9 -00.1	N 20 05.2 +00.1	334 47.0 -33.1	N 23 56.0 +01.8	07						
08	298 53.7 +00.1	N 13 51.9 -00.8	346 27.8 -00.1	N 20 05.3 +00.0	349 13.9 -33.2	N 23 57.8 +01.7	08						
09	313 53.8 +00.1	N 13 51.1 -00.8	1 27.7 -00.2	N 20 05.3 +00.0	3 40.7 -33.3	N 23 59.5 +01.6	09						
10	328 53.9 +00.2	N 13 50.3 -00.8	16 27.5 -00.1	N 20 05.3 +00.1	18 07.4 -33.3	N 24 01.1 +01.4	10						
11	343 54.1 +00.1	N 13 49.5 -00.8	31 27.4 -00.1	N 20 05.4 +00.0	32 34.1 -33.4	N 24 02.5 +01.3	11						
12	358 54.2 +00.1	N 13 48.7 -00.7	46 27.3 -00.2	N 20 05.4 +00.1	47 00.7 -33.4	N 24 03.8 +01.1	12						
13	13 54.3 +00.1	N 13 48.0 -00.8	61 27.1 -00.1	N 20 05.5 +00.0	61 27.3 -33.5	N 24 04.9 +01.1	13						
14	28 54.4 +00.2	N 13 47.2 -00.8	76 27.0 -00.1	N 20 05.5 +00.0	75 53.8 -33.6	N 24 06.0 +00.8	14						
15	43 54.6 +00.1	N 13 46.4 -00.8	91 26.9 -00.2	N 20 05.5 +00.1	90 20.2 -33.6	N 24 06.8 +00.8	15						
16	58 54.7 +00.1	N 13 45.6 -00.8	106 26.7 -00.1	N 20 05.6 +00.0	104 46.6 -33.6	N 24 07.6 +00.6	16						
17	73 54.8 +00.2	N 13 44.8 -00.8	121 26.6 -00.1	N 20 05.6 +00.1	119 13.0 -33.7	N 24 08.2 +00.4	17						
18	88 55.0 +00.1	N 13 44.0 -00.8	136 26.5 -00.2	N 20 05.7 +00.0	133 39.3 -33.8	N 24 08.6 +00.3	18						
19	103 55.1 +00.1	N 13 43.2 -00.8	151 26.3 -00.1	N 20 05.7 +00.0	148 05.5 -33.8	N 24 08.9 +00.2	19						
20	118 55.2 +00.1	N 13 42.4 -00.8	166 26.2 -00.1	N 20 05.7 +00.1	162 31.7 -33.9	N 24 09.1 +00.0	20						
21	133 55.3 +00.2	N 13 41.6 -00.7	181 26.1 -00.2	N 20 05.8 +00.0	176 57.8 -33.9	N 24 09.1 -00.1	21						
22	148 55.5 +00.1	N 13 40.9 -00.8	196 25.9 -00.1	N 20 05.8 +00.0	191 23.9 -33.9	N 24 09.0 -00.3	22						
23	163 55.6 +00.1	N 13 40.1 -00.8	211 25.8 -00.2	N 20 05.8 +00.1	205 50.0 -34.0	N 24 08.7 -00.4	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 15'4 15'5 15'5 15'5 15'6 15'6								
	HP 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 56'6 56'7 56'9 57'0 57'1 57'3								
	SHA 215° 215° 215° 214° 214° 214°		SHA 263° 262° 262° 262° 262° 262°		SHA 269° 266° 264° 261° 259° 257°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 08:54		Greenwich Culmination Time: 08:44								

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	300 27.2 +01.7	N 05 22.5 +00.3	33 32.2 +02.7	S 22 30.9 +00.0	24 52.9 +02.7	S 21 02.4 +00.0	00						
01	315 28.9 +01.7	N 05 22.8 +00.3	48 34.9 +02.7	S 22 30.9 +00.1	39 55.6 +02.6	S 21 02.4 +00.0	01						
02	330 30.6 +01.7	N 05 23.1 +00.2	63 37.6 +02.7	S 22 31.0 +00.0	54 58.2 +02.6	S 21 02.4 +00.1	02						
03	345 32.3 +01.6	N 05 23.3 +00.3	78 40.3 +02.7	S 22 31.0 +00.0	70 00.8 +02.6	S 21 02.5 +00.0	03						
04	0 33.9 +01.7	N 05 23.6 +00.2	93 43.0 +02.7	S 22 31.0 +00.1	85 03.4 +02.7	S 21 02.5 +00.0	04						
05	15 35.6 +01.7	N 05 23.8 +00.3	108 45.7 +02.7	S 22 31.1 +00.0	100 06.1 +02.6	S 21 02.5 +00.1	05						
06	30 37.3 +01.7	N 05 24.1 +00.3	123 48.4 +02.7	S 22 31.1 +00.0	115 08.7 +02.6	S 21 02.6 +00.0	06						
07	45 39.0 +01.7	N 05 24.4 +00.2	138 51.1 +02.7	S 22 31.1 +00.1	130 11.3 +02.6	S 21 02.6 +00.0	07						
08	60 40.7 +01.7	N 05 24.6 +00.3	153 53.8 +02.7	S 22 31.2 +00.0	145 13.9 +02.7	S 21 02.6 +00.1	08						
09	75 42.4 +01.7	N 05 24.9 +00.2	168 56.5 +02.7	S 22 31.2 +00.0	160 16.6 +02.6	S 21 02.7 +00.0	09						
10	90 44.1 +01.7	N 05 25.1 +00.3	183 59.2 +02.7	S 22 31.2 +00.1	175 19.2 +02.6	S 21 02.7 +00.0	10						
11	105 45.8 +01.7	N 05 25.4 +00.3	199 01.9 +02.7	S 22 31.3 +00.0	190 21.8 +02.7	S 21 02.7 +00.1	11						
12	120 47.5 +01.7	N 05 25.7 +00.2	214 04.6 +02.7	S 22 31.3 +00.0	205 24.5 +02.6	S 21 02.8 +00.0	12						
13	135 49.2 +01.7	N 05 25.9 +00.3	229 07.3 +02.6	S 22 31.3 +00.0	220 27.1 +02.6	S 21 02.8 +00.0	13						
14	150 50.9 +01.8	N 05 26.2 +00.2	244 09.9 +02.7	S 22 31.3 +00.1	235 29.7 +02.6	S 21 02.8 +00.1	14						
15	165 52.7 +01.7	N 05 26.4 +00.3	259 12.6 +02.7	S 22 31.4 +00.0	250 32.3 +02.7	S 21 02.9 +00.0	15						
16	180 54.4 +01.7	N 05 26.7 +00.2	274 15.3 +02.7	S 22 31.4 +00.0	265 35.0 +02.6	S 21 02.9 +00.0	16						
17	195 56.1 +01.7	N 05 26.9 +00.3	289 18.0 +02.7	S 22 31.4 +00.1	280 37.6 +02.6	S 21 02.9 +00.1	17						
18	210 57.8 +01.7	N 05 27.2 +00.3	304 20.7 +02.7	S 22 31.5 +00.0	295 40.2 +02.6	S 21 03.0 +00.0	18						
19	225 59.5 +01.7	N 05 27.5 +00.2	319 23.4 +02.7	S 22 31.5 +00.0	310 42.8 +02.7	S 21 03.0 +00.0	19						
20	241 01.2 +01.7	N 05 27.7 +00.3	334 26.1 +02.7	S 22 31.5 +00.1	325 45.5 +02.6	S 21 03.0 +00.1	20						
21	256 02.9 +01.7	N 05 28.0 +00.2	349 28.8 +02.7	S 22 31.6 +00.0	340 48.1 +02.6	S 21 03.1 +00.0	21						
22	271 04.6 +01.7	N 05 28.2 +00.3	4 31.5 +02.7	S 22 31.6 +00.0	355 50.7 +02.6	S 21 03.1 +00.0	22						
23	286 06.3 +01.7	N 05 28.5 +00.2	19 34.2 +02.7	S 22 31.6 +00.1	10 53.3 +02.7	S 21 03.1 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 337° 337° 336° 336° 336° 336°		SHA 070° 070° 070° 070° 070° 070°		SHA 061° 061° 061° 061° 061° 061°								
	Greenwich Culmination Time: 03:57		Greenwich Culmination Time: 21:41		Greenwich Culmination Time: 22:16								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 55.7 +00.2	N 13 39.3 -00.8	226 25.6 -00.1	N 20 05.9 +00.0	220 16.0 -34.0	N 24 08.3 -00.6	00						
01	193 55.9 +00.1	N 13 38.5 -00.8	241 25.5 -00.1	N 20 05.9 +00.0	234 42.0 -34.1	N 24 07.7 -00.7	01						
02	208 56.0 +00.1	N 13 37.7 -00.8	256 25.4 -00.2	N 20 05.9 +00.1	249 07.9 -34.1	N 24 07.0 -00.8	02						
03	223 56.1 +00.1	N 13 36.9 -00.8	271 25.2 -00.1	N 20 06.0 +00.0	263 33.8 -34.2	N 24 06.2 -01.0	03						
04	238 56.2 +00.2	N 13 36.1 -00.8	286 25.1 -00.2	N 20 06.0 +00.0	277 59.6 -34.2	N 24 05.2 -01.1	04						
05	253 56.4 +00.1	N 13 35.3 -00.8	301 24.9 -00.1	N 20 06.0 +00.0	292 25.4 -34.2	N 24 04.1 -01.3	05						
06	268 56.5 +00.1	N 13 34.5 -00.8	316 24.8 -00.2	N 20 06.0 +00.1	306 51.2 -34.3	N 24 02.8 -01.5	06						
07	283 56.6 +00.2	N 13 33.7 -00.8	331 24.6 -00.1	N 20 06.1 +00.0	321 16.9 -34.3	N 24 01.3 -01.6	07						
08	298 56.8 +00.1	N 13 32.9 -00.8	346 24.5 -00.2	N 20 06.1 +00.0	335 42.6 -34.3	N 23 59.7 -01.7	08						
09	313 56.9 +00.1	N 13 32.1 -00.8	1 24.3 -00.1	N 20 06.1 +00.1	350 08.3 -34.3	N 23 58.0 -01.9	09						
10	328 57.0 +00.2	N 13 31.3 -00.8	16 24.2 -00.2	N 20 06.2 +00.0	4 34.0 -34.4	N 23 56.1 -02.0	10						
11	343 57.2 +00.1	N 13 30.5 -00.8	31 24.0 -00.1	N 20 06.2 +00.0	18 59.6 -34.4	N 23 54.1 -02.2	11						
12	358 57.3 +00.1	N 13 29.7 -00.7	46 23.9 -00.2	N 20 06.2 +00.0	33 25.2 -34.5	N 23 51.9 -02.3	12						
13	13 57.4 +00.1	N 13 29.0 -00.8	61 23.7 -00.1	N 20 06.2 +00.0	47 50.7 -34.4	N 23 49.6 -02.5	13						
14	28 57.5 +00.2	N 13 28.2 -00.8	76 23.6 -00.2	N 20 06.2 +00.1	62 16.3 -34.5	N 23 47.1 -02.6	14						
15	43 57.7 +00.1	N 13 27.4 -00.8	91 23.4 -00.1	N 20 06.3 +00.0	76 41.8 -34.5	N 23 44.5 -02.8	15						
16	58 57.8 +00.1	N 13 26.6 -00.8	106 23.3 -00.2	N 20 06.3 +00.0	91 07.3 -34.5	N 23 41.7 -02.9	16						
17	73 57.9 +00.2	N 13 25.8 -00.8	121 23.1 -00.1	N 20 06.3 +00.0	105 32.8 -34.6	N 23 38.8 -03.1	17						
18	88 58.1 +00.1	N 13 25.0 -00.8	136 23.0 -00.2	N 20 06.3 +00.1	119 58.2 -34.5	N 23 35.7 -03.3	18						
19	103 58.2 +00.1	N 13 24.2 -00.8	151 22.8 -00.1	N 20 06.4 +00.0	134 23.7 -34.6	N 23 32.4 -03.3	19						
20	118 58.3 +00.2	N 13 23.4 -00.8	166 22.7 -00.2	N 20 06.4 +00.0	148 49.1 -34.6	N 23 29.1 -03.6	20						
21	133 58.5 +00.1	N 13 22.6 -00.8	181 22.5 -00.1	N 20 06.4 +00.0	163 14.5 -34.6	N 23 25.5 -03.7	21						
22	148 58.6 +00.1	N 13 21.8 -00.8	196 22.4 -00.2	N 20 06.4 +00.0	177 39.9 -34.6	N 23 21.8 -03.8	22						
23	163 58.7 +00.2	N 13 21.0 -00.8	211 22.2 -00.2	N 20 06.4 +00.0	192 05.3 -34.6	N 23 18.0 -04.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 15'6 15'7 15'7 15'8 15'8 15'8								
	HP 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 57'4 57'6 57'7 57'8 58'0 58'1								
	SHA 214° 214° 214° 214° 213° 213°		SHA 261° 261° 261° 261° 261° 261°		SHA 254° 252° 249° 247° 244° 242°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 08:54		Greenwich Culmination Time: 09:41								

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	301 08.0 +01.8	N 05 28.7 +00.3	34 36.9 +02.6	S 22 31.7 +00.0	25 56.0 +02.6	S 21 03.2 +00.0	00						
01	316 09.8 +01.7	N 05 29.0 +00.2	49 39.5 +02.7	S 22 31.7 +00.0	40 58.6 +02.6	S 21 03.2 +00.0	01						
02	331 11.5 +01.7	N 05 29.2 +00.3	64 42.2 +02.7	S 22 31.7 +00.1	56 01.2 +02.6	S 21 03.2 +00.1	02						
03	346 13.2 +01.7	N 05 29.5 +00.2	79 44.9 +02.7	S 22 31.8 +00.0	71 03.8 +02.7	S 21 03.3 +00.0	03						
04	1 14.9 +01.7	N 05 29.7 +00.3	94 47.6 +02.7	S 22 31.8 +00.0	86 06.5 +02.6	S 21 03.3 +00.0	04						
05	16 16.6 +01.8	N 05 30.0 +00.3	109 50.3 +02.7	S 22 31.8 +00.1	101 09.1 +02.6	S 21 03.3 +00.1	05						
06	31 18.4 +01.7	N 05 30.3 +00.2	124 53.0 +02.7	S 22 31.9 +00.0	116 11.7 +02.6	S 21 03.4 +00.0	06						
07	46 20.1 +01.7	N 05 30.5 +00.3	139 55.7 +02.7	S 22 31.9 +00.0	131 14.3 +02.7	S 21 03.4 +00.0	07						
08	61 21.8 +01.7	N 05 30.8 +00.2	154 58.4 +02.6	S 22 31.9 +00.1	146 17.0 +02.6	S 21 03.4 +00.1	08						
09	76 23.5 +01.7	N 05 31.0 +00.3	170 01.0 +02.7	S 22 32.0 +00.0	161 19.6 +02.6	S 21 03.5 +00.0	09						
10	91 25.2 +01.8	N 05 31.3 +00.2	185 03.7 +02.7	S 22 32.0 +00.0	176 22.2 +02.6	S 21 03.5 +00.0	10						
11	106 27.0 +01.7	N 05 31.5 +00.3	200 06.4 +02.7	S 22 32.0 +00.1	191 24.8 +02.7	S 21 03.5 +00.0	11						
12	121 28.7 +01.7	N 05 31.8 +00.2	215 09.1 +02.7	S 22 32.1 +00.0	206 27.5 +02.6	S 21 03.5 +00.1	12						
13	136 30.4 +01.8	N 05 32.0 +00.3	230 11.8 +02.7	S 22 32.1 +00.0	221 30.1 +02.6	S 21 03.6 +00.0	13						
14	151 32.2 +01.7	N 05 32.3 +00.2	245 14.5 +02.7	S 22 32.1 +00.1	236 32.7 +02.6	S 21 03.6 +00.0	14						
15	166 33.9 +01.7	N 05 32.5 +00.2	260 17.2 +02.6	S 22 32.2 +00.0	251 35.3 +02.7	S 21 03.6 +00.1	15						
16	181 35.6 +01.7	N 05 32.7 +00.3	275 19.8 +02.7	S 22 32.2 +00.0	266 38.0 +02.6	S 21 03.7 +00.0	16						
17	196 37.3 +01.8	N 05 33.0 +00.2	290 22.5 +02.7	S 22 32.2 +00.1	281 40.6 +02.6	S 21 03.7 +00.0	17						
18	211 39.1 +01.7	N 05 33.2 +00.3	305 25.2 +02.7	S 22 32.3 +00.0	296 43.2 +02.6	S 21 03.7 +00.1	18						
19	226 40.8 +01.7	N 05 33.5 +00.2	320 27.9 +02.7	S 22 32.3 +00.0	311 45.8 +02.7	S 21 03.8 +00.0	19						
20	241 42.5 +01.8	N 05 33.7 +00.3	335 30.6 +02.7	S 22 32.3 +00.0	326 48.5 +02.6	S 21 03.8 +00.0	20						
21	256 44.3 +01.7	N 05 34.0 +00.2	350 33.3 +02.6	S 22 32.3 +00.1	341 51.1 +02.6	S 21 03.8 +00.1	21						
22	271 46.0 +01.8	N 05 34.2 +00.3	5 35.9 +02.7	S 22 32.4 +00.0	356 53.7 +02.6	S 21 03.9 +00.0	22						
23	286 47.8 +01.7	N 05 34.5 +00.2	20 38.6 +02.7	S 22 32.4 +00.0	11 56.3 +02.7	S 21 03.9 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 336° 336° 336° 336° 336° 336°		SHA 070° 070° 070° 070° 070° 070°		SHA 061° 061° 061° 061° 061° 061°								
	Greenwich Culmination Time: 03:55		Greenwich Culmination Time: 21:37		Greenwich Culmination Time: 22:12								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 58.9 +00.1	N 13 20.2 -00.8	226 22.0 -00.1	N 20 06.4 +00.1	206 30.7 -34.7	N 23 14.0 -04.1	00						
01	193 59.0 +00.1	N 13 19.4 -00.8	241 21.9 -00.2	N 20 06.5 +00.0	220 56.0 -34.6	N 23 09.9 -04.3	01						
02	208 59.1 +00.2	N 13 18.6 -00.8	256 21.7 -00.1	N 20 06.5 +00.0	235 21.4 -34.6	N 23 05.6 -04.4	02						
03	223 59.3 +00.1	N 13 17.8 -00.8	271 21.6 -00.2	N 20 06.5 +00.0	249 46.8 -34.7	N 23 01.2 -04.6	03						
04	238 59.4 +00.2	N 13 17.0 -00.8	286 21.4 -00.2	N 20 06.5 +00.0	264 12.1 -34.6	N 22 56.6 -04.8	04						
05	253 59.6 +00.1	N 13 16.2 -00.8	301 21.2 -00.1	N 20 06.5 +00.0	278 37.5 -34.7	N 22 51.8 -04.8	05						
06	268 59.7 +00.1	N 13 15.4 -00.8	316 21.1 -00.2	N 20 06.5 +00.0	293 02.8 -34.6	N 22 47.0 -05.1	06						
07	283 59.8 +00.2	N 13 14.6 -00.9	331 20.9 -00.2	N 20 06.5 +00.1	307 28.2 -34.6	N 22 41.9 -05.2	07						
08	298 60.0 +00.1	N 13 13.7 -00.8	346 20.7 -00.1	N 20 06.6 +00.0	321 53.6 -34.7	N 22 36.7 -05.3	08						
09	314 00.1 +00.1	N 13 12.9 -00.8	1 20.6 -00.2	N 20 06.6 +00.0	336 18.9 -34.6	N 22 31.4 -05.5	09						
10	329 00.2 +00.2	N 13 12.1 -00.8	16 20.4 -00.2	N 20 06.6 +00.0	350 44.3 -34.6	N 22 25.9 -05.6	10						
11	344 00.4 +00.1	N 13 11.3 -00.8	31 20.2 -00.1	N 20 06.6 +00.0	5 09.7 -34.7	N 22 20.3 -05.8	11						
12	359 00.5 +00.1	N 13 10.5 -00.8	46 20.1 -00.2	N 20 06.6 +00.0	19 35.0 -34.6	N 22 14.5 -05.9	12						
13	14 00.6 +00.2	N 13 09.7 -00.8	61 19.9 -00.2	N 20 06.6 +00.0	34 00.4 -34.6	N 22 08.6 -06.1	13						
14	29 00.8 +00.1	N 13 08.9 -00.8	76 19.7 -00.1	N 20 06.6 +00.0	48 25.8 -34.6	N 22 02.5 -06.2	14						
15	44 00.9 +00.1	N 13 08.1 -00.8	91 19.6 -00.2	N 20 06.6 +00.0	62 51.2 -34.5	N 21 56.3 -06.4	15						
16	59 01.0 +00.2	N 13 07.3 -00.8	106 19.4 -00.2	N 20 06.6 +00.0	77 16.7 -34.6	N 21 49.9 -06.5	16						
17	74 01.2 +00.1	N 13 06.5 -00.8	121 19.2 -00.1	N 20 06.6 +00.0	91 42.1 -34.5	N 21 43.4 -06.6	17						
18	89 01.3 +00.2	N 13 05.7 -00.8	136 19.1 -00.2	N 20 06.6 +00.0	106 07.6 -34.6	N 21 36.8 -06.8	18						
19	104 01.5 +00.1	N 13 04.9 -00.8	151 18.9 -00.2	N 20 06.6 +00.0	120 33.0 -34.5	N 21 30.0 -06.9	19						
20	119 01.6 +00.1	N 13 04.1 -00.8	166 18.7 -00.2	N 20 06.6 +00.0	134 58.5 -34.5	N 21 23.1 -07.1	20						
21	134 01.7 +00.2	N 13 03.3 -00.8	181 18.5 -00.1	N 20 06.6 +00.0	149 24.0 -34.4	N 21 16.0 -07.3	21						
22	149 01.9 +00.1	N 13 02.5 -00.8	196 18.4 -00.2	N 20 06.6 +00.0	163 49.6 -34.5	N 21 08.7 -07.3	22						
23	164 02.0 +00.2	N 13 01.7 -00.9	211 18.2 -00.2	N 20 06.6 +00.0	178 15.1 -34.4	N 21 01.4 -07.5	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 15'9 15'9 15'9 16'0 16'0 16'0								
	HP 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 58'3 58'4 58'5 58'6 58'8 58'9								
	SHA 213° 213° 213° 213° 212° 212°		SHA 260° 260° 260° 260° 260° 260°		SHA 239° 237° 234° 232° 230° 227°								
	Greenwich Culmination Time: 12:03		Greenwich Culmination Time: 08:54		Greenwich Culmination Time: 10:38								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	301 49.5 +01.7	N 05 34.7 +00.3	35 41.3 +02.7	S 22 32.4 +00.1	26 59.0 +02.6	S 21 03.9 +00.1	00						
01	316 51.2 +01.8	N 05 35.0 +00.2	50 44.0 +02.7	S 22 32.5 +00.0	42 01.6 +02.6	S 21 04.0 +00.0	01						
02	331 53.0 +01.7	N 05 35.2 +00.3	65 46.7 +02.7	S 22 32.5 +00.0	57 04.2 +02.6	S 21 04.0 +00.0	02						
03	346 54.7 +01.8	N 05 35.5 +00.2	80 49.4 +02.6	S 22 32.5 +00.1	72 06.8 +02.6	S 21 04.0 +00.1	03						
04	1 56.5 +01.7	N 05 35.7 +00.2	95 52.0 +02.7	S 22 32.6 +00.0	87 09.4 +02.7	S 21 04.1 +00.0	04						
05	16 58.2 +01.7	N 05 35.9 +00.3	110 54.7 +02.7	S 22 32.6 +00.0	102 12.1 +02.6	S 21 04.1 +00.0	05						
06	31 59.9 +01.8	N 05 36.2 +00.2	125 57.4 +02.7	S 22 32.6 +00.1	117 14.7 +02.6	S 21 04.1 +00.1	06						
07	47 01.7 +01.7	N 05 36.4 +00.3	141 00.1 +02.7	S 22 32.7 +00.0	132 17.3 +02.6	S 21 04.2 +00.0	07						
08	62 03.4 +01.8	N 05 36.7 +00.2	156 02.8 +02.6	S 22 32.7 +00.0	147 19.9 +02.7	S 21 04.2 +00.0	08						
09	77 05.2 +01.7	N 05 36.9 +00.2	171 05.4 +02.7	S 22 32.7 +00.1	162 22.6 +02.6	S 21 04.2 +00.1	09						
10	92 06.9 +01.8	N 05 37.1 +00.3	186 08.1 +02.7	S 22 32.8 +00.0	177 25.2 +02.6	S 21 04.3 +00.0	10						
11	107 08.7 +01.7	N 05 37.4 +00.2	201 10.8 +02.7	S 22 32.8 +00.0	192 27.8 +02.6	S 21 04.3 +00.0	11						
12	122 10.4 +01.8	N 05 37.6 +00.3	216 13.5 +02.7	S 22 32.8 +00.0	207 30.4 +02.7	S 21 04.3 +00.1	12						
13	137 12.2 +01.7	N 05 37.9 +00.2	231 16.2 +02.6	S 22 32.8 +00.1	222 33.1 +02.6	S 21 04.4 +00.0	13						
14	152 13.9 +01.8	N 05 38.1 +00.2	246 18.8 +02.7	S 22 32.9 +00.0	237 35.7 +02.6	S 21 04.4 +00.0	14						
15	167 15.7 +01.8	N 05 38.3 +00.3	261 21.5 +02.7	S 22 32.9 +00.0	252 38.3 +02.6	S 21 04.4 +00.0	15						
16	182 17.5 +01.7	N 05 38.6 +00.2	276 24.2 +02.7	S 22 32.9 +00.1	267 40.9 +02.6	S 21 04.4 +00.1	16						
17	197 19.2 +01.8	N 05 38.8 +00.3	291 26.9 +02.6	S 22 33.0 +00.0	282 43.5 +02.7	S 21 04.5 +00.0	17						
18	212 21.0 +01.7	N 05 39.1 +00.2	306 29.5 +02.7	S 22 33.0 +00.0	297 46.2 +02.6	S 21 04.5 +00.0	18						
19	227 22.7 +01.8	N 05 39.3 +00.2	321 32.2 +02.7	S 22 33.0 +00.1	312 48.8 +02.6	S 21 04.5 +00.1	19						
20	242 24.5 +01.7	N 05 39.5 +00.3	336 34.9 +02.7	S 22 33.1 +00.0	327 51.4 +02.6	S 21 04.6 +00.0	20						
21	257 26.2 +01.8	N 05 39.8 +00.2	351 37.6 +02.7	S 22 33.1 +00.0	342 54.0 +02.6	S 21 04.6 +00.0	21						
22	272 28.0 +01.8	N 05 40.0 +00.3	6 40.3 +02.6	S 22 33.1 +00.1	357 56.6 +02.7	S 21 04.6 +00.1	22						
23	287 29.8 +01.7	N 05 40.3 +00.2	21 42.9 +02.7	S 22 33.2 +00.0	12 59.3 +02.6	S 21 04.7 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 336° 336° 336° 336° 336° 336°		SHA 070° 070° 070° 070° 070° 070°		SHA 061° 061° 061° 061° 061° 061°								
	Greenwich Culmination Time: 03:52		Greenwich Culmination Time: 21:33		Greenwich Culmination Time: 22:08								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 02.2 +00.1	N 13 00.8 -00.8			226 18.0 -00.2	N 20 06.6 +00.0			192 40.7 -34.4	N 20 53.9 -07.7			00
01	194 02.3 +00.1	N 13 00.0 -00.8			241 17.8 -00.1	N 20 06.6 +00.0			207 06.3 -34.4	N 20 46.2 -07.8			01
02	209 02.4 +00.2	N 12 59.2 -00.8			256 17.7 -00.2	N 20 06.6 +00.0			221 31.9 -34.4	N 20 38.4 -07.9			02
03	224 02.6 +00.1	N 12 58.4 -00.8			271 17.5 -00.2	N 20 06.6 +00.0			235 57.5 -34.3	N 20 30.5 -08.1			03
04	239 02.7 +00.2	N 12 57.6 -00.8			286 17.3 -00.2	N 20 06.6 +00.0			250 23.2 -34.3	N 20 22.4 -08.2			04
05	254 02.9 +00.1	N 12 56.8 -00.8			301 17.1 -00.2	N 20 06.6 +00.0			264 48.9 -34.3	N 20 14.2 -08.3			05
06	269 03.0 +00.1	N 12 56.0 -00.8			316 16.9 -00.1	N 20 06.6 +00.0			279 14.6 -34.2	N 20 05.9 -08.5			06
07	284 03.1 +00.2	N 12 55.2 -00.8			331 16.8 -00.2	N 20 06.6 +00.0			293 40.4 -34.2	N 19 57.4 -08.6			07
08	299 03.3 +00.1	N 12 54.4 -00.9			346 16.6 -00.2	N 20 06.6 +00.0			308 06.2 -34.2	N 19 48.8 -08.7			08
09	314 03.4 +00.2	N 12 53.5 -00.8			1 16.4 -00.2	N 20 06.6 +00.0			322 32.0 -34.1	N 19 40.1 -08.9			09
10	329 03.6 +00.1	N 12 52.7 -00.8			16 16.2 -00.2	N 20 06.6 +00.0			336 57.9 -34.2	N 19 31.2 -09.0			10
11	344 03.7 +00.1	N 12 51.9 -00.8			31 16.0 -00.2	N 20 06.6 +00.0			351 23.7 -34.0	N 19 22.2 -09.1			11
12	359 03.8 +00.2	N 12 51.1 -00.8			46 15.8 -00.1	N 20 06.6 +00.0			5 49.7 -34.1	N 19 13.1 -09.3			12
13	14 04.0 +00.1	N 12 50.3 -00.8			61 15.7 -00.2	N 20 06.6 -00.1			20 15.6 -34.0	N 19 03.8 -09.4			13
14	29 04.1 +00.2	N 12 49.5 -00.8			76 15.5 -00.2	N 20 06.5 +00.0			34 41.6 -34.0	N 18 54.4 -09.5			14
15	44 04.3 +00.1	N 12 48.7 -00.8			91 15.3 -00.2	N 20 06.5 +00.0			49 07.6 -33.9	N 18 44.9 -09.6			15
16	59 04.4 +00.2	N 12 47.9 -00.9			106 15.1 -00.2	N 20 06.5 +00.0			63 33.7 -33.9	N 18 35.3 -09.8			16
17	74 04.6 +00.1	N 12 47.0 -00.8			121 14.9 -00.2	N 20 06.5 +00.0			77 59.8 -33.9	N 18 25.5 -09.9			17
18	89 04.7 +00.1	N 12 46.2 -00.8			136 14.7 -00.2	N 20 06.5 +00.0			92 25.9 -33.8	N 18 15.6 -10.0			18
19	104 04.8 +00.2	N 12 45.4 -00.8			151 14.5 -00.2	N 20 06.5 +00.0			106 52.1 -33.8	N 18 05.6 -10.2			19
20	119 05.0 +00.1	N 12 44.6 -00.8			166 14.3 -00.2	N 20 06.5 -00.1			121 18.3 -33.7	N 17 55.4 -10.2			20
21	134 05.1 +00.2	N 12 43.8 -00.8			181 14.1 -00.1	N 20 06.4 +00.0			135 44.6 -33.7	N 17 45.2 -10.4			21
22	149 05.3 +00.1	N 12 43.0 -00.9			196 14.0 -00.2	N 20 06.4 +00.0			150 10.9 -33.7	N 17 34.8 -10.5			22
23	164 05.4 +00.2	N 12 42.1 -00.8			211 13.8 -00.2	N 20 06.4 +00.0			164 37.2 -33.6	N 17 24.3 -10.6			23
	UT 02 06 10 14 18 22				UT 02 06 10 14 18 22				UT 02 06 10 14 18 22				
	SD 15'8 15'8 15'8 15'8 15'8 15'8				SD 00'2 00'2 00'2 00'2 00'2 00'2				SD 16'1 16'1 16'1 16'2 16'2 16'2				
	HP 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 59'0 59'1 59'2 59'3 59'5 59'5				
	SHA 212° 212° 212° 212° 212° 211°				SHA 259° 259° 259° 259° 259° 259°				SHA 225° 222° 220° 217° 215° 212°				
	Greenwich Culmination Time: 12:03				Greenwich Culmination Time: 08:54				Greenwich Culmination Time: 11:35				

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	302 31.5 +01.8	N 05 40.5 +00.2			36 45.6 +02.7	S 22 33.2 +00.0			28 01.9 +02.6	S 21 04.7 +00.0			00
01	317 33.3 +01.8	N 05 40.7 +00.3			51 48.3 +02.7	S 22 33.2 +00.0			43 04.5 +02.6	S 21 04.7 +00.1			01
02	332 35.1 +01.7	N 05 41.0 +00.2			66 51.0 +02.6	S 22 33.2 +00.1			58 07.1 +02.6	S 21 04.8 +00.0			02
03	347 36.8 +01.8	N 05 41.2 +00.2			81 53.6 +02.7	S 22 33.3 +00.0			73 09.7 +02.7	S 21 04.8 +00.0			03
04	2 38.6 +01.8	N 05 41.4 +00.3			96 56.3 +02.7	S 22 33.3 +00.0			88 12.4 +02.6	S 21 04.8 +00.1			04
05	17 40.4 +01.7	N 05 41.7 +00.2			111 59.0 +02.7	S 22 33.3 +00.1			103 15.0 +02.6	S 21 04.9 +00.0			05
06	32 42.1 +01.8	N 05 41.9 +00.2			127 01.7 +02.6	S 22 33.4 +00.0			118 17.6 +02.6	S 21 04.9 +00.0			06
07	47 43.9 +01.8	N 05 42.1 +00.3			142 04.3 +02.7	S 22 33.4 +00.0			133 20.2 +02.6	S 21 04.9 +00.1			07
08	62 45.7 +01.8	N 05 42.4 +00.2			157 07.0 +02.7	S 22 33.4 +00.1			148 22.8 +02.7	S 21 05.0 +00.0			08
09	77 47.5 +01.7	N 05 42.6 +00.2			172 09.7 +02.6	S 22 33.5 +00.0			163 25.5 +02.6	S 21 05.0 +00.0			09
10	92 49.2 +01.8	N 05 42.8 +00.3			187 12.3 +02.7	S 22 33.5 +00.0			178 28.1 +02.6	S 21 05.0 +00.0			10
11	107 51.0 +01.8	N 05 43.1 +00.2			202 15.0 +02.7	S 22 33.5 +00.0			193 30.7 +02.6	S 21 05.0 +00.1			11
12	122 52.8 +01.8	N 05 43.3 +00.2			217 17.7 +02.7	S 22 33.5 +00.1			208 33.3 +02.6	S 21 05.1 +00.0			12
13	137 54.6 +01.7	N 05 43.5 +00.3			232 20.4 +02.6	S 22 33.6 +00.0			223 35.9 +02.7	S 21 05.1 +00.0			13
14	152 56.3 +01.8	N 05 43.8 +00.2			247 23.0 +02.7	S 22 33.6 +00.0			238 38.6 +02.6	S 21 05.1 +00.1			14
15	167 58.1 +01.8	N 05 44.0 +00.2			262 25.7 +02.7	S 22 33.6 +00.1			253 41.2 +02.6	S 21 05.2 +00.0			15
16	182 59.9 +01.8	N 05 44.2 +00.2			277 28.4 +02.6	S 22 33.7 +00.0			268 43.8 +02.6	S 21 05.2 +00.0			16
17	198 01.7 +01.8	N 05 44.4 +00.3			292 31.0 +02.7	S 22 33.7 +00.0			283 46.4 +02.6	S 21 05.2 +00.1			17
18	213 03.5 +01.7	N 05 44.7 +00.2			307 33.7 +02.7	S 22 33.7 +00.1			298 49.0 +02.7	S 21 05.3 +00.0			18
19	228 05.2 +01.8	N 05 44.9 +00.2			322 36.4 +02.7	S 22 33.8 +00.0			313 51.7 +02.6	S 21 05.3 +00.0			19
20	243 07.0 +01.8	N 05 45.1 +00.3			337 39.1 +02.6	S 22 33.8 +00.0			328 54.3 +02.6	S 21 05.3 +00.1			20
21	258 08.8 +01.8	N 05 45.4 +00.2			352 41.7 +02.7	S 22 33.8 +00.0			343 56.9 +02.6	S 21 05.4 +00.0			21
22	273 10.6 +01.8	N 05 45.6 +00.2			7 44.4 +02.7	S 22 33.8 +00.1			358 59.5 +02.6	S 21 05.4 +00.0			22
23	288 12.4 +01.8	N 05 45.8 +00.2			22 47.1 +02.6	S 22 33.9 +00.0			14 02.1 +02.7	S 21 05.4 +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 00'1 00'1 00'1 00'1 00'1 00'1				SD 00'4 00'4 00'4 00'4 00'4 00'4				SD 00'2 00'2 00'2 00'2 00'2 00'2				
	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 336° 336° 336° 336° 336° 335°				SHA 070° 070° 070° 070° 070° 070°				SHA 061° 061° 061° 061° 061° 061°				
	Greenwich Culmination Time: 03:49				Greenwich Culmination Time: 21:29				Greenwich Culmination Time: 22:04				

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 05.6 +00.1	N 12 41.3 -00.8	226 13.6 -00.2	N 20 06.4 +00.0	179 03.6 -33.6	N 17 13.7 -10.7	00						
01	194 05.7 +00.1	N 12 40.5 -00.8	241 13.4 -00.2	N 20 06.4 +00.0	193 30.0 -33.6	N 17 03.0 -10.9	01						
02	209 05.8 +00.2	N 12 39.7 -00.8	256 13.2 -00.2	N 20 06.4 -00.1	207 56.4 -33.4	N 16 52.1 -10.9	02						
03	224 06.0 +00.1	N 12 38.9 -00.9	271 13.0 -00.2	N 20 06.3 +00.0	222 23.0 -33.5	N 16 41.2 -11.1	03						
04	239 06.1 +00.2	N 12 38.0 -00.8	286 12.8 -00.2	N 20 06.3 +00.0	236 49.5 -33.4	N 16 30.1 -11.2	04						
05	254 06.3 +00.1	N 12 37.2 -00.8	301 12.6 -00.2	N 20 06.3 +00.0	251 16.1 -33.4	N 16 18.9 -11.3	05						
06	269 06.4 +00.2	N 12 36.4 -00.8	316 12.4 -00.2	N 20 06.3 -00.1	265 42.7 -33.3	N 16 07.6 -11.4	06						
07	284 06.6 +00.1	N 12 35.6 -00.8	331 12.2 -00.2	N 20 06.2 +00.0	280 09.4 -33.3	N 15 56.2 -11.5	07						
08	299 06.7 +00.2	N 12 34.8 -00.9	346 12.0 -00.2	N 20 06.2 +00.0	294 36.1 -33.2	N 15 44.7 -11.6	08						
09	314 06.9 +00.1	N 12 33.9 -00.8	1 11.8 -00.2	N 20 06.2 +00.0	309 02.9 -33.2	N 15 33.1 -11.7	09						
10	329 07.0 +00.2	N 12 33.1 -00.8	16 11.6 -00.2	N 20 06.2 -00.1	323 29.7 -33.2	N 15 21.4 -11.8	10						
11	344 07.2 +00.1	N 12 32.3 -00.8	31 11.4 -00.2	N 20 06.1 +00.0	337 56.5 -33.1	N 15 09.6 -11.9	11						
12	359 07.3 +00.2	N 12 31.5 -00.8	46 11.2 -00.2	N 20 06.1 +00.0	352 23.4 -33.0	N 14 57.7 -12.1	12						
13	14 07.5 +00.1	N 12 30.7 -00.9	61 11.0 -00.2	N 20 06.1 +00.0	6 50.4 -33.1	N 14 45.6 -12.1	13						
14	29 07.6 +00.1	N 12 29.8 -00.8	76 10.8 -00.2	N 20 06.1 -00.1	21 17.3 -32.9	N 14 33.5 -12.2	14						
15	44 07.7 +00.2	N 12 29.0 -00.8	91 10.6 -00.2	N 20 06.0 +00.0	35 44.4 -33.0	N 14 21.3 -12.3	15						
16	59 07.9 +00.1	N 12 28.2 -00.8	106 10.4 -00.2	N 20 06.0 +00.0	50 11.4 -32.8	N 14 09.0 -12.4	16						
17	74 08.0 +00.2	N 12 27.4 -00.9	121 10.2 -00.2	N 20 06.0 -00.1	64 38.6 -32.9	N 13 56.6 -12.5	17						
18	89 08.2 +00.1	N 12 26.5 -00.8	136 10.0 -00.2	N 20 05.9 +00.0	79 05.7 -32.8	N 13 44.1 -12.6	18						
19	104 08.3 +00.2	N 12 25.7 -00.8	151 09.8 -00.2	N 20 05.9 +00.0	93 32.9 -32.7	N 13 31.5 -12.6	19						
20	119 08.5 +00.1	N 12 24.9 -00.8	166 09.6 -00.2	N 20 05.9 -00.1	108 00.2 -32.7	N 13 18.9 -12.8	20						
21	134 08.6 +00.2	N 12 24.1 -00.9	181 09.4 -00.2	N 20 05.8 +00.0	122 27.5 -32.7	N 13 06.1 -12.8	21						
22	149 08.8 +00.1	N 12 23.2 -00.8	196 09.2 -00.3	N 20 05.8 +00.0	136 54.8 -32.6	N 12 53.3 -13.0	22						
23	164 08.9 +00.2	N 12 22.4 -00.8	211 08.9 -00.2	N 20 05.8 -00.1	151 22.2 -32.6	N 12 40.3 -13.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 16'2 16'3 16'3 16'3 16'3 16'4								
	HP 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 59'6 59'7 59'8 59'9 60'0 60'0								
	SHA 211° 211° 211° 211° 211° 210°		SHA 258° 258° 258° 258° 258° 257°		SHA 210° 208° 205° 203° 201° 198°								
	Greenwich Culmination Time: 12:03		Greenwich Culmination Time: 08:55		Greenwich Culmination Time: 12:31								

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	303 14.2 +01.8	N 05 46.0 +00.3	37 49.7 +02.7	S 22 33.9 +00.0	29 04.8 +02.6	S 21 05.5 +00.0	00						
01	318 16.0 +01.8	N 05 46.3 +00.2	52 52.4 +02.7	S 22 33.9 +00.1	44 07.4 +02.6	S 21 05.5 +00.0	01						
02	333 17.8 +01.8	N 05 46.5 +00.2	67 55.1 +02.6	S 22 34.0 +00.0	59 10.0 +02.6	S 21 05.5 +00.0	02						
03	348 19.6 +01.7	N 05 46.7 +00.2	82 57.7 +02.7	S 22 34.0 +00.0	74 12.6 +02.6	S 21 05.5 +00.1	03						
04	3 21.3 +01.8	N 05 46.9 +00.3	98 00.4 +02.7	S 22 34.0 +00.0	89 15.2 +02.6	S 21 05.6 +00.0	04						
05	18 23.1 +01.8	N 05 47.2 +00.2	113 03.1 +02.6	S 22 34.0 +00.1	104 17.8 +02.7	S 21 05.6 +00.0	05						
06	33 24.9 +01.8	N 05 47.4 +00.2	128 05.7 +02.7	S 22 34.1 +00.0	119 20.5 +02.6	S 21 05.6 +00.1	06						
07	48 26.7 +01.8	N 05 47.6 +00.2	143 08.4 +02.7	S 22 34.1 +00.0	134 23.1 +02.6	S 21 05.7 +00.0	07						
08	63 28.5 +01.8	N 05 47.8 +00.3	158 11.1 +02.6	S 22 34.1 +00.1	149 25.7 +02.6	S 21 05.7 +00.0	08						
09	78 30.3 +01.8	N 05 48.1 +00.2	173 13.7 +02.7	S 22 34.2 +00.0	164 28.3 +02.6	S 21 05.7 +00.1	09						
10	93 32.1 +01.8	N 05 48.3 +00.2	188 16.4 +02.7	S 22 34.2 +00.0	179 30.9 +02.6	S 21 05.8 +00.0	10						
11	108 33.9 +01.8	N 05 48.5 +00.2	203 19.1 +02.6	S 22 34.2 +00.0	194 33.5 +02.7	S 21 05.8 +00.0	11						
12	123 35.7 +01.8	N 05 48.7 +00.3	218 21.7 +02.7	S 22 34.2 +00.1	209 36.2 +02.6	S 21 05.8 +00.1	12						
13	138 37.5 +01.8	N 05 49.0 +00.2	233 24.4 +02.7	S 22 34.3 +00.0	224 38.8 +02.6	S 21 05.9 +00.0	13						
14	153 39.3 +01.8	N 05 49.2 +00.2	248 27.1 +02.6	S 22 34.3 +00.0	239 41.4 +02.6	S 21 05.9 +00.0	14						
15	168 41.1 +01.9	N 05 49.4 +00.2	263 29.7 +02.7	S 22 34.3 +00.1	254 44.0 +02.6	S 21 05.9 +00.0	15						
16	183 43.0 +01.8	N 05 49.6 +00.2	278 32.4 +02.6	S 22 34.4 +00.0	269 46.6 +02.6	S 21 05.9 +00.1	16						
17	198 44.8 +01.8	N 05 49.8 +00.3	293 35.0 +02.7	S 22 34.4 +00.0	284 49.2 +02.7	S 21 06.0 +00.0	17						
18	213 46.6 +01.8	N 05 50.1 +00.2	308 37.7 +02.7	S 22 34.4 +00.0	299 51.9 +02.6	S 21 06.0 +00.0	18						
19	228 48.4 +01.8	N 05 50.3 +00.2	323 40.4 +02.6	S 22 34.4 +00.1	314 54.5 +02.6	S 21 06.0 +00.1	19						
20	243 50.2 +01.8	N 05 50.5 +00.2	338 43.0 +02.7	S 22 34.5 +00.0	329 57.1 +02.6	S 21 06.1 +00.0	20						
21	258 52.0 +01.8	N 05 50.7 +00.2	353 45.7 +02.7	S 22 34.5 +00.0	344 59.7 +02.6	S 21 06.1 +00.0	21						
22	273 53.8 +01.8	N 05 50.9 +00.3	8 48.4 +02.6	S 22 34.5 +00.1	0 02.3 +02.6	S 21 06.1 +00.1	22						
23	288 55.6 +01.8	N 05 51.2 +00.2	23 51.0 +02.7	S 22 34.6 +00.0	15 04.9 +02.7	S 21 06.2 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 335° 335° 335° 335° 335° 335°		SHA 070° 070° 070° 070° 070° 070°		SHA 061° 061° 061° 061° 061° 061°								
	Greenwich Culmination Time: 03:46		Greenwich Culmination Time: 21:24		Greenwich Culmination Time: 21:59								

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 09.1 +00.1	N 12 21.6 -00.8	226 08.7 -00.2	N 20 05.7 +00.0	165 49.6 -32.5	N 12 27.3 -13.1	00						
01	194 09.2 +00.2	N 12 20.8 -00.9	241 08.5 -00.2	N 20 05.7 +00.0	180 17.1 -32.5	N 12 14.2 -13.1	01						
02	209 09.4 +00.1	N 12 19.9 -00.8	256 08.3 -00.2	N 20 05.7 -00.1	194 44.6 -32.5	N 12 01.1 -13.3	02						
03	224 09.5 +00.2	N 12 19.1 -00.8	271 08.1 -00.2	N 20 05.6 +00.0	209 12.1 -32.4	N 11 47.8 -13.3	03						
04	239 09.7 +00.1	N 12 18.3 -00.8	286 07.9 -00.2	N 20 05.6 +00.0	223 39.7 -32.3	N 11 34.5 -13.4	04						
05	254 09.8 +00.2	N 12 17.5 -00.9	301 07.7 -00.2	N 20 05.6 -00.1	238 07.4 -32.3	N 11 21.1 -13.5	05						
06	269 10.0 +00.1	N 12 16.6 -00.8	316 07.5 -00.2	N 20 05.5 +00.0	252 35.1 -32.3	N 11 07.6 -13.5	06						
07	284 10.1 +00.2	N 12 15.8 -00.8	331 07.3 -00.3	N 20 05.5 -00.1	267 02.8 -32.2	N 10 54.1 -13.6	07						
08	299 10.3 +00.1	N 12 15.0 -00.9	346 07.0 -00.2	N 20 05.4 +00.0	281 30.6 -32.2	N 10 40.5 -13.7	08						
09	314 10.4 +00.2	N 12 14.1 -00.8	1 06.8 -00.2	N 20 05.4 -00.1	295 58.4 -32.2	N 10 26.8 -13.8	09						
10	329 10.6 +00.1	N 12 13.3 -00.8	16 06.6 -00.2	N 20 05.3 +00.0	310 26.2 -32.1	N 10 13.0 -13.8	10						
11	344 10.7 +00.2	N 12 12.5 -00.8	31 06.4 -00.2	N 20 05.3 +00.0	324 54.1 -32.1	N 09 59.2 -13.9	11						
12	359 10.9 +00.1	N 12 11.7 -00.9	46 06.2 -00.2	N 20 05.3 -00.1	339 22.0 -32.0	N 09 45.3 -13.9	12						
13	14 11.0 +00.2	N 12 10.8 -00.8	61 06.0 -00.3	N 20 05.2 +00.0	353 50.0 -32.0	N 09 31.4 -14.0	13						
14	29 11.2 +00.1	N 12 10.0 -00.8	76 05.7 -00.2	N 20 05.2 -00.1	8 18.0 -32.0	N 09 17.4 -14.1	14						
15	44 11.3 +00.2	N 12 09.2 -00.9	91 05.5 -00.2	N 20 05.1 +00.0	22 46.0 -31.9	N 09 03.3 -14.1	15						
16	59 11.5 +00.1	N 12 08.3 -00.8	106 05.3 -00.2	N 20 05.1 -00.1	37 14.1 -31.9	N 08 49.2 -14.2	16						
17	74 11.6 +00.2	N 12 07.5 -00.8	121 05.1 -00.2	N 20 05.0 +00.0	51 42.2 -31.8	N 08 35.0 -14.2	17						
18	89 11.8 +00.2	N 12 06.7 -00.9	136 04.9 -00.2	N 20 05.0 -00.1	66 10.4 -31.8	N 08 20.8 -14.3	18						
19	104 12.0 +00.1	N 12 05.8 -00.8	151 04.7 -00.3	N 20 04.9 +00.0	80 38.6 -31.8	N 08 06.5 -14.3	19						
20	119 12.1 +00.2	N 12 05.0 -00.8	166 04.4 -00.2	N 20 04.9 -00.1	95 06.8 -31.8	N 07 52.2 -14.4	20						
21	134 12.3 +00.1	N 12 04.2 -00.9	181 04.2 -00.2	N 20 04.8 +00.0	109 35.0 -31.7	N 07 37.8 -14.4	21						
22	149 12.4 +00.2	N 12 03.3 -00.8	196 04.0 -00.2	N 20 04.8 -00.1	124 03.3 -31.7	N 07 23.4 -14.5	22						
23	164 12.6 +00.1	N 12 02.5 -00.8	211 03.8 -00.3	N 20 04.7 +00.0	138 31.6 -31.6	N 07 08.9 -14.5	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 16'4 16'4 16'4 16'4 16'4 16'4								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'2 00'2 00'2 00'2 00'2 00'2		HP 60'1 60'1 60'2 60'2 60'2 60'3								
	SHA 210° 210° 210° 210° 210° 210°		SHA 257° 257° 257° 257° 257° 256°		SHA 196° 194° 191° 189° 187° 184°								
	Greenwich Culmination Time: 12:03		Greenwich Culmination Time: 08:55		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	303 57.4 +01.9	N 05 51.4 +00.2	38 53.7 +02.6	S 22 34.6 +00.0	30 07.6 +02.6	S 21 06.2 +00.0	00						
01	318 59.3 +01.8	N 05 51.6 +00.2	53 56.3 +02.7	S 22 34.6 +00.0	45 10.2 +02.6	S 21 06.2 +00.1	01						
02	334 01.1 +01.8	N 05 51.8 +00.2	68 59.0 +02.7	S 22 34.6 +00.1	60 12.8 +02.6	S 21 06.3 +00.0	02						
03	349 02.9 +01.8	N 05 52.0 +00.2	84 01.7 +02.6	S 22 34.7 +00.0	75 15.4 +02.6	S 21 06.3 +00.0	03						
04	4 04.7 +01.8	N 05 52.2 +00.3	99 04.3 +02.7	S 22 34.7 +00.0	90 18.0 +02.6	S 21 06.3 +00.0	04						
05	19 06.5 +01.9	N 05 52.5 +00.2	114 07.0 +02.6	S 22 34.7 +00.1	105 20.6 +02.6	S 21 06.3 +00.1	05						
06	34 08.4 +01.8	N 05 52.7 +00.2	129 09.6 +02.7	S 22 34.8 +00.0	120 23.2 +02.7	S 21 06.4 +00.0	06						
07	49 10.2 +01.8	N 05 52.9 +00.2	144 12.3 +02.7	S 22 34.8 +00.0	135 25.9 +02.6	S 21 06.4 +00.0	07						
08	64 12.0 +01.8	N 05 53.1 +00.2	159 15.0 +02.6	S 22 34.8 +00.0	150 28.5 +02.6	S 21 06.4 +00.1	08						
09	79 13.8 +01.9	N 05 53.3 +00.2	174 17.6 +02.7	S 22 34.8 +00.1	165 31.1 +02.6	S 21 06.5 +00.0	09						
10	94 15.7 +01.8	N 05 53.5 +00.2	189 20.3 +02.6	S 22 34.9 +00.0	180 33.7 +02.6	S 21 06.5 +00.0	10						
11	109 17.5 +01.8	N 05 53.7 +00.3	204 22.9 +02.7	S 22 34.9 +00.0	195 36.3 +02.6	S 21 06.5 +00.1	11						
12	124 19.3 +01.8	N 05 54.0 +00.2	219 25.6 +02.6	S 22 34.9 +00.1	210 38.9 +02.6	S 21 06.6 +00.0	12						
13	139 21.1 +01.9	N 05 54.2 +00.2	234 28.2 +02.7	S 22 35.0 +00.0	225 41.5 +02.7	S 21 06.6 +00.0	13						
14	154 23.0 +01.8	N 05 54.4 +00.2	249 30.9 +02.7	S 22 35.0 +00.0	240 44.2 +02.6	S 21 06.6 +00.0	14						
15	169 24.8 +01.8	N 05 54.6 +00.2	264 33.6 +02.6	S 22 35.0 +00.0	255 46.8 +02.6	S 21 06.6 +00.1	15						
16	184 26.6 +01.9	N 05 54.8 +00.2	279 36.2 +02.7	S 22 35.0 +00.1	270 49.4 +02.6	S 21 06.7 +00.0	16						
17	199 28.5 +01.8	N 05 55.0 +00.2	294 38.9 +02.6	S 22 35.1 +00.0	285 52.0 +02.6	S 21 06.7 +00.0	17						
18	214 30.3 +01.8	N 05 55.2 +00.2	309 41.5 +02.7	S 22 35.1 +00.0	300 54.6 +02.6	S 21 06.7 +00.1	18						
19	229 32.1 +01.9	N 05 55.4 +00.2	324 44.2 +02.6	S 22 35.1 +00.0	315 57.2 +02.6	S 21 06.8 +00.0	19						
20	244 34.0 +01.8	N 05 55.6 +00.3	339 46.8 +02.7	S 22 35.1 +00.1	330 59.8 +02.7	S 21 06.8 +00.0	20						
21	259 35.8 +01.9	N 05 55.9 +00.2	354 49.5 +02.6	S 22 35.2 +00.0	346 02.5 +02.6	S 21 06.8 +00.1	21						
22	274 37.7 +01.8	N 05 56.1 +00.2	9 52.1 +02.7	S 22 35.2 +00.0	1 05.1 +02.6	S 21 06.9 +00.0	22						
23	289 39.5 +01.8	N 05 56.3 +00.2	24 54.8 +02.7	S 22 35.2 +00.1	16 07.7 +02.6	S 21 06.9 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 335° 335° 335° 335° 335° 335°		SHA 070° 070° 070° 070° 070° 070°		SHA 061° 061° 061° 061° 061° 061°								
	Greenwich Culmination Time: 03:43		Greenwich Culmination Time: 21:20		Greenwich Culmination Time: 21:55								

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 12.7 +00.2	N 12 01.7 -00.9	226 03.5 -00.2	N 20 04.7 -00.1	152 60.0 -31.6	N 06 54.4 -14.5	00						
01	194 12.9 +00.1	N 12 00.8 -00.8	241 03.3 -00.2	N 20 04.6 -00.1	167 28.4 -31.6	N 06 39.9 -14.6	01						
02	209 13.0 +00.2	N 11 60.0 -00.8	256 03.1 -00.2	N 20 04.5 +00.0	181 56.8 -31.5	N 06 25.3 -14.7	02						
03	224 13.2 +00.1	N 11 59.2 -00.9	271 02.9 -00.3	N 20 04.5 -00.1	196 25.3 -31.6	N 06 10.6 -14.6	03						
04	239 13.3 +00.2	N 11 58.3 -00.8	286 02.6 -00.2	N 20 04.4 +00.0	210 53.7 -31.5	N 05 56.0 -14.7	04						
05	254 13.5 +00.2	N 11 57.5 -00.8	301 02.4 -00.2	N 20 04.4 -00.1	225 22.2 -31.4	N 05 41.3 -14.8	05						
06	269 13.7 +00.1	N 11 56.7 -00.9	316 02.2 -00.2	N 20 04.3 +00.0	239 50.8 -31.5	N 05 26.5 -14.8	06						
07	284 13.8 +00.2	N 11 55.8 -00.8	331 02.0 -00.3	N 20 04.3 -00.1	254 19.3 -31.4	N 05 11.7 -14.8	07						
08	299 14.0 +00.1	N 11 55.0 -00.9	346 01.7 -00.2	N 20 04.2 -00.1	268 47.9 -31.3	N 04 56.9 -14.8	08						
09	314 14.1 +00.2	N 11 54.1 -00.8	1 01.5 -00.2	N 20 04.1 +00.0	283 16.6 -31.4	N 04 42.1 -14.9	09						
10	329 14.3 +00.1	N 11 53.3 -00.8	16 01.3 -00.3	N 20 04.1 -00.1	297 45.2 -31.3	N 04 27.2 -14.8	10						
11	344 14.4 +00.2	N 11 52.5 -00.9	31 01.0 -00.2	N 20 04.0 -00.1	312 13.9 -31.3	N 04 12.4 -14.9	11						
12	359 14.6 +00.1	N 11 51.6 -00.8	46 00.8 -00.2	N 20 03.9 +00.0	326 42.6 -31.3	N 03 57.5 -15.0	12						
13	14 14.7 +00.2	N 11 50.8 -00.8	61 00.6 -00.3	N 20 03.9 -00.1	341 11.3 -31.3	N 03 42.5 -14.9	13						
14	29 14.9 +00.2	N 11 50.0 -00.9	76 00.3 -00.2	N 20 03.8 +00.0	355 40.0 -31.2	N 03 27.6 -15.0	14						
15	44 15.1 +00.1	N 11 49.1 -00.8	91 00.1 -00.2	N 20 03.8 -00.1	10 08.8 -31.2	N 03 12.6 -15.0	15						
16	59 15.2 +00.2	N 11 48.3 -00.9	105 59.9 -00.3	N 20 03.7 -00.1	24 37.6 -31.2	N 02 57.6 -15.0	16						
17	74 15.4 +00.1	N 11 47.4 -00.8	120 59.6 -00.2	N 20 03.6 +00.0	39 06.4 -31.2	N 02 42.6 -15.0	17						
18	89 15.5 +00.2	N 11 46.6 -00.8	135 59.4 -00.2	N 20 03.6 -00.1	53 35.2 -31.2	N 02 27.6 -15.0	18						
19	104 15.7 +00.1	N 11 45.8 -00.9	150 59.2 -00.3	N 20 03.5 -00.1	68 04.0 -31.1	N 02 12.6 -15.1	19						
20	119 15.8 +00.2	N 11 44.9 -00.8	165 58.9 -00.2	N 20 03.4 -00.1	82 32.9 -31.2	N 01 57.5 -15.0	20						
21	134 16.0 +00.2	N 11 44.1 -00.9	180 58.7 -00.2	N 20 03.3 +00.0	97 01.7 -31.1	N 01 42.5 -15.1	21						
22	149 16.2 +00.1	N 11 43.2 -00.8	195 58.5 -00.3	N 20 03.3 -00.1	111 30.6 -31.1	N 01 27.4 -15.0	22						
23	164 16.3 +00.2	N 11 42.4 -00.8	210 58.2 -00.2	N 20 03.2 -00.1	125 59.5 -31.1	N 01 12.4 -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 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 16'4 16'4 16'4 16'4 16'4 16'4								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'2 00'2 00'2 00'2 00'2 00'2		HP 60'3 60'3 60'3 60'3 60'3 60'3								
	SHA 209° 209° 209° 209° 209° 209°		SHA 256° 256° 256° 256° 255° 255°		SHA 182° 180° 178° 175° 173° 171°								
	Greenwich Culmination Time: 12:03		Greenwich Culmination Time: 08:55		Greenwich Culmination Time: 14:17								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	304 41.3 +01.9	N 05 56.5 +00.2	39 57.5 +02.6	S 22 35.3 +00.0	31 10.3 +02.6	S 21 06.9 +00.0	00						
01	319 43.2 +01.8	N 05 56.7 +00.2	55 00.1 +02.7	S 22 35.3 +00.0	46 12.9 +02.6	S 21 06.9 +00.1	01						
02	334 45.0 +01.9	N 05 56.9 +00.2	70 02.8 +02.6	S 22 35.3 +00.0	61 15.5 +02.6	S 21 07.0 +00.0	02						
03	349 46.9 +01.8	N 05 57.1 +00.2	85 05.4 +02.7	S 22 35.3 +00.1	76 18.1 +02.6	S 21 07.0 +00.0	03						
04	4 48.7 +01.9	N 05 57.3 +00.2	100 08.1 +02.6	S 22 35.4 +00.0	91 20.7 +02.7	S 21 07.0 +00.1	04						
05	19 50.6 +01.8	N 05 57.5 +00.2	115 10.7 +02.7	S 22 35.4 +00.0	106 23.4 +02.6	S 21 07.1 +00.0	05						
06	34 52.4 +01.9	N 05 57.7 +00.2	130 13.4 +02.6	S 22 35.4 +00.0	121 26.0 +02.6	S 21 07.1 +00.0	06						
07	49 54.3 +01.8	N 05 57.9 +00.2	145 16.0 +02.7	S 22 35.4 +00.1	136 28.6 +02.6	S 21 07.1 +00.1	07						
08	64 56.1 +01.9	N 05 58.1 +00.2	160 18.7 +02.6	S 22 35.5 +00.0	151 31.2 +02.6	S 21 07.2 +00.0	08						
09	79 58.0 +01.8	N 05 58.3 +00.2	175 21.3 +02.7	S 22 35.5 +00.0	166 33.8 +02.6	S 21 07.2 +00.0	09						
10	94 59.8 +01.9	N 05 58.5 +00.3	190 24.0 +02.6	S 22 35.5 +00.1	181 36.4 +02.6	S 21 07.2 +00.0	10						
11	110 01.7 +01.8	N 05 58.8 +00.2	205 26.6 +02.7	S 22 35.6 +00.0	196 39.0 +02.6	S 21 07.2 +00.1	11						
12	125 03.5 +01.9	N 05 59.0 +00.2	220 29.3 +02.6	S 22 35.6 +00.0	211 41.6 +02.6	S 21 07.3 +00.0	12						
13	140 05.4 +01.8	N 05 59.2 +00.2	235 31.9 +02.7	S 22 35.6 +00.0	226 44.2 +02.7	S 21 07.3 +00.0	13						
14	155 07.2 +01.9	N 05 59.4 +00.2	250 34.6 +02.6	S 22 35.6 +00.1	241 46.9 +02.6	S 21 07.3 +00.1	14						
15	170 09.1 +01.9	N 05 59.6 +00.2	265 37.2 +02.7	S 22 35.7 +00.0	256 49.5 +02.6	S 21 07.4 +00.0	15						
16	185 11.0 +01.8	N 05 59.8 +00.2	280 39.9 +02.6	S 22 35.7 +00.0	271 52.1 +02.6	S 21 07.4 +00.0	16						
17	200 12.8 +01.9	N 05 60.0 +00.2	295 42.5 +02.7	S 22 35.7 +00.0	286 54.7 +02.6	S 21 07.4 +00.1	17						
18	215 14.7 +01.8	N 06 00.2 +00.2	310 45.2 +02.6	S 22 35.7 +00.1	301 57.3 +02.6	S 21 07.5 +00.0	18						
19	230 16.5 +01.9	N 06 00.4 +00.2	325 47.8 +02.7	S 22 35.8 +00.0	316 59.9 +02.6	S 21 07.5 +00.0	19						
20	245 18.4 +01.9	N 06 00.6 +00.2	340 50.5 +02.6	S 22 35.8 +00.0	332 02.5 +02.6	S 21 07.5 +00.0	20						
21	260 20.3 +01.8	N 06 00.8 +00.2	355 53.1 +02.7	S 22 35.8 +00.0	347 05.1 +02.6	S 21 07.5 +00.1	21						
22	275 22.1 +01.9	N 06 01.0 +00.2	10 55.8 +02.6	S 22 35.8 +00.1	2 07.7 +02.7	S 21 07.6 +00.0	22						
23	290 24.0 +01.9	N 06 01.2 +00.2	25 58.4 +02.7	S 22 35.9 +00.0	17 10.4 +02.6	S 21 07.6 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 335° 335° 335° 335° 335° 335°		SHA 070° 070° 070° 070° 070° 070°		SHA 061° 061° 061° 061° 061° 061°								
	Greenwich Culmination Time: 03:40		Greenwich Culmination Time: 21:16		Greenwich Culmination Time: 21:51								

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 16.5 +00.1	N 11 41.6 -00.9	225 58.0 -00.3	N 20 03.1 +00.0	140 28.4 -31.1	N 00 57.3 -15.0	00	00	00	00	00	00	00
01	194 16.6 +00.2	N 11 40.7 -00.8	240 57.7 -00.2	N 20 03.1 -00.1	154 57.3 -31.0	N 00 42.3 -15.1	01	00	00	00	00	00	01
02	209 16.8 +00.2	N 11 39.9 -00.9	255 57.5 -00.2	N 20 03.0 -00.1	169 26.3 -31.1	N 00 27.2 -15.1	02	00	00	00	00	00	02
03	224 17.0 +00.1	N 11 39.0 -00.8	270 57.3 -00.3	N 20 02.9 -00.1	183 55.2 -31.0	N 00 12.1 -15.0	03	00	00	00	00	00	03
04	239 17.1 +00.2	N 11 38.2 -00.9	285 57.0 -00.2	N 20 02.8 +00.0	198 24.2 -31.0	S 00 02.9 +15.1	04	00	00	00	00	00	04
05	254 17.3 +00.1	N 11 37.3 -00.8	300 56.8 -00.3	N 20 02.8 -00.1	212 53.2 -31.1	S 00 18.0 +15.0	05	00	00	00	00	00	05
06	269 17.4 +00.2	N 11 36.5 -00.8	315 56.5 -00.2	N 20 02.7 -00.1	227 22.1 -31.0	S 00 33.0 +15.1	06	00	00	00	00	00	06
07	284 17.6 +00.2	N 11 35.7 -00.9	330 56.3 -00.2	N 20 02.6 -00.1	241 51.1 -31.0	S 00 48.1 +15.0	07	00	00	00	00	00	07
08	299 17.8 +00.1	N 11 34.8 -00.8	345 56.1 -00.3	N 20 02.5 -00.1	256 20.1 -31.0	S 01 03.1 +15.0	08	00	00	00	00	00	08
09	314 17.9 +00.2	N 11 34.0 -00.9	0 55.8 -00.2	N 20 02.4 +00.0	270 49.1 -31.0	S 01 18.1 +15.1	09	00	00	00	00	00	09
10	329 18.1 +00.1	N 11 33.1 -00.8	15 55.6 -00.3	N 20 02.4 -00.1	285 18.1 -31.0	S 01 33.2 +15.0	10	00	00	00	00	00	10
11	344 18.2 +00.2	N 11 32.3 -00.9	30 55.3 -00.2	N 20 02.3 -00.1	299 47.1 -31.0	S 01 48.2 +14.9	11	00	00	00	00	00	11
12	359 18.4 +00.2	N 11 31.4 -00.8	45 55.1 -00.3	N 20 02.2 -00.1	314 16.1 -31.0	S 02 03.1 +15.0	12	00	00	00	00	00	12
13	14 18.6 +00.1	N 11 30.6 -00.9	60 54.8 -00.2	N 20 02.1 -00.1	328 45.1 -31.0	S 02 18.1 +15.0	13	00	00	00	00	00	13
14	29 18.7 +00.2	N 11 29.7 -00.8	75 54.6 -00.3	N 20 02.0 +00.0	343 14.1 -30.9	S 02 33.1 +14.9	14	00	00	00	00	00	14
15	44 18.9 +00.2	N 11 28.9 -00.9	90 54.3 -00.2	N 20 02.0 -00.1	357 43.2 -31.0	S 02 48.0 +14.9	15	00	00	00	00	00	15
16	59 19.1 +00.1	N 11 28.0 -00.8	105 54.1 -00.3	N 20 01.9 -00.1	12 12.2 -31.0	S 03 02.9 +14.9	16	00	00	00	00	00	16
17	74 19.2 +00.2	N 11 27.2 -00.9	120 53.8 -00.2	N 20 01.8 -00.1	26 41.2 -31.0	S 03 17.8 +14.8	17	00	00	00	00	00	17
18	89 19.4 +00.1	N 11 26.3 -00.8	135 53.6 -00.2	N 20 01.7 -00.1	41 10.2 -31.0	S 03 32.6 +14.9	18	00	00	00	00	00	18
19	104 19.5 +00.2	N 11 25.5 -00.8	150 53.4 -00.3	N 20 01.6 -00.1	55 39.2 -31.0	S 03 47.5 +14.8	19	00	00	00	00	00	19
20	119 19.7 +00.2	N 11 24.7 -00.9	165 53.1 -00.2	N 20 01.5 -00.1	70 08.2 -31.0	S 04 02.3 +14.7	20	00	00	00	00	00	20
21	134 19.9 +00.1	N 11 23.8 -00.8	180 52.9 -00.3	N 20 01.4 -00.1	84 37.2 -31.0	S 04 17.0 +14.8	21	00	00	00	00	00	21
22	149 20.0 +00.2	N 11 23.0 -00.9	195 52.6 -00.2	N 20 01.3 -00.1	99 06.2 -31.0	S 04 31.8 +14.7	22	00	00	00	00	00	22
23	164 20.2 +00.2	N 11 22.1 -00.8	210 52.4 -00.3	N 20 01.2 +00.0	113 35.2 -31.1	S 04 46.5 +14.7	23	00	00	00	00	00	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 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 16'4 16'4 16'4 16'4 16'4 16'4				SD 00'2 00'2 00'2 00'2 00'2 00'2				
	HP 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 60'2 60'2 60'2 60'2 60'1 60'1				HP 00'0 00'0 00'0 00'0 00'0 00'0				
	SHA 208° 208° 208° 208° 208° 208°		SHA 255° 255° 255° 255° 254° 254°		SHA 169° 166° 164° 162° 160° 157°				SHA 061° 061° 061° 061° 062° 062°				
	Greenwich Culmination Time: 12:02		Greenwich Culmination Time: 08:56		Greenwich Culmination Time: 15:09				Greenwich Culmination Time: 21:47				

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	305 25.9 +01.8	N 06 01.4 +00.2	41 01.1 +02.6	S 22 35.9 +00.0	32 13.0 +02.6	S 21 07.6 +00.1	00	00	00	00	00	00	00
01	320 27.7 +01.9	N 06 01.6 +00.2	56 03.7 +02.6	S 22 35.9 +00.0	47 15.6 +02.6	S 21 07.7 +00.0	01	00	00	00	00	00	01
02	335 29.6 +01.9	N 06 01.8 +00.2	71 06.3 +02.7	S 22 35.9 +00.1	62 18.2 +02.6	S 21 07.7 +00.0	02	00	00	00	00	00	02
03	350 31.5 +01.9	N 06 02.0 +00.2	86 09.0 +02.6	S 22 36.0 +00.0	77 20.8 +02.6	S 21 07.7 +00.0	03	00	00	00	00	00	03
04	5 33.4 +01.8	N 06 02.2 +00.2	101 11.6 +02.7	S 22 36.0 +00.0	92 23.4 +02.6	S 21 07.7 +00.1	04	00	00	00	00	00	04
05	20 35.2 +01.9	N 06 02.4 +00.2	116 14.3 +02.6	S 22 36.0 +00.0	107 26.0 +02.6	S 21 07.8 +00.0	05	00	00	00	00	00	05
06	35 37.1 +01.9	N 06 02.6 +00.2	131 16.9 +02.7	S 22 36.0 +00.1	122 28.6 +02.6	S 21 07.8 +00.0	06	00	00	00	00	00	06
07	50 39.0 +01.9	N 06 02.8 +00.2	146 19.6 +02.6	S 22 36.1 +00.0	137 31.2 +02.6	S 21 07.8 +00.1	07	00	00	00	00	00	07
08	65 40.9 +01.8	N 06 03.0 +00.2	161 22.2 +02.7	S 22 36.1 +00.0	152 33.8 +02.6	S 21 07.9 +00.0	08	00	00	00	00	00	08
09	80 42.7 +01.9	N 06 03.2 +00.1	176 24.9 +02.6	S 22 36.1 +00.1	167 36.4 +02.7	S 21 07.9 +00.0	09	00	00	00	00	00	09
10	95 44.6 +01.9	N 06 03.3 +00.2	191 27.5 +02.6	S 22 36.2 +00.0	182 39.1 +02.6	S 21 07.9 +00.0	10	00	00	00	00	00	10
11	110 46.5 +01.9	N 06 03.5 +00.2	206 30.1 +02.7	S 22 36.2 +00.0	197 41.7 +02.6	S 21 07.9 +00.1	11	00	00	00	00	00	11
12	125 48.4 +01.9	N 06 03.7 +00.2	221 32.8 +02.6	S 22 36.2 +00.0	212 44.3 +02.6	S 21 08.0 +00.0	12	00	00	00	00	00	12
13	140 50.3 +01.9	N 06 03.9 +00.2	236 35.4 +02.7	S 22 36.2 +00.1	227 46.9 +02.6	S 21 08.0 +00.0	13	00	00	00	00	00	13
14	155 52.2 +01.8	N 06 04.1 +00.2	251 38.1 +02.6	S 22 36.3 +00.0	242 49.5 +02.6	S 21 08.0 +00.1	14	00	00	00	00	00	14
15	170 54.0 +01.9	N 06 04.3 +00.2	266 40.7 +02.7	S 22 36.3 +00.0	257 52.1 +02.6	S 21 08.1 +00.0	15	00	00	00	00	00	15
16	185 55.9 +01.9	N 06 04.5 +00.2	281 43.4 +02.6	S 22 36.3 +00.0	272 54.7 +02.6	S 21 08.1 +00.0	16	00	00	00	00	00	16
17	200 57.8 +01.9	N 06 04.7 +00.2	296 46.0 +02.6	S 22 36.3 +00.1	287 57.3 +02.6	S 21 08.1 +00.1	17	00	00	00	00	00	17
18	215 59.7 +01.9	N 06 04.9 +00.2	311 48.6 +02.7	S 22 36.4 +00.0	302 59.9 +02.6	S 21 08.2 +00.0	18	00	00	00	00	00	18
19	231 01.6 +01.9	N 06 05.1 +00.2	326 51.3 +02.6	S 22 36.4 +00.0	318 02.5 +02.6	S 21 08.2 +00.0	19	00	00	00	00	00	19
20	246 03.5 +01.9	N 06 05.3 +00.2	341 53.9 +02.7	S 22 36.4 +00.0	333 05.1 +02.6	S 21 08.2 +00.0	20	00	00	00	00	00	20
21	261 05.4 +01.9	N 06 05.5 +00.2	356 56.6 +02.6	S 22 36.4 +00.1	348 07.7 +02.7	S 21 08.2 +00.1	21	00	00	00	00	00	21
22	276 07.3 +01.9	N 06 05.7 +00.2	11 59.2 +02.6	S 22 36.5 +00.0	3 10.4 +02.6	S 21 08.3 +00.0	22	00	00	00	00	00	22
23	291 09.2 +01.9	N 06 05.9 +00.1	27 01.8 +02.7	S 22 36.5 +00.0	18 13.0 +02.6	S 21 08.3 +00.0	23	00	00	00	00	00	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 00'1 00'1 00'1 00'1 00'1 00'1		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2				SD 00'2 00'2 00'2 00'2 00'2 00'2				
	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 00'0 00'0 00'0 00'0 00'0 00'0				
	SHA 335° 335° 335° 335° 334° 334°		SHA 070° 070° 070° 070° 070° 070°		SHA 061° 061° 061° 061° 062° 062°				SHA 061° 061° 061° 061° 062° 062°				
	Greenwich Culmination Time: 03:37		Greenwich Culmination Time: 21:12		Greenwich Culmination Time: 21:47				Greenwich Culmination Time: 21:47				

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 20.4 +00.1	N 11 21.3 -00.9	225 52.1 -00.3	N 20 01.2 -00.1	128 04.1 -31.0	S 05 01.2 +14.6	00						
01	194 20.5 +00.2	N 11 20.4 -00.8	240 51.8 -00.2	N 20 01.1 -00.1	142 33.1 -31.0	S 05 15.8 +14.6	01						
02	209 20.7 +00.2	N 11 19.6 -00.9	255 51.6 -00.3	N 20 01.0 -00.1	157 02.1 -31.1	S 05 30.4 +14.6	02						
03	224 20.9 +00.1	N 11 18.7 -00.8	270 51.3 -00.2	N 20 00.9 -00.1	171 31.0 -31.0	S 05 45.0 +14.5	03						
04	239 21.0 +00.2	N 11 17.9 -00.9	285 51.1 -00.3	N 20 00.8 -00.1	185 60.0 -31.1	S 05 59.5 +14.5	04						
05	254 21.2 +00.1	N 11 17.0 -00.8	300 50.8 -00.2	N 20 00.7 -00.1	200 28.9 -31.1	S 06 14.0 +14.4	05						
06	269 21.3 +00.2	N 11 16.2 -00.9	315 50.6 -00.3	N 20 00.6 -00.1	214 57.8 -31.1	S 06 28.4 +14.4	06						
07	284 21.5 +00.2	N 11 15.3 -00.8	330 50.3 -00.2	N 20 00.5 -00.1	229 26.7 -31.1	S 06 42.8 +14.4	07						
08	299 21.7 +00.1	N 11 14.5 -00.9	345 50.1 -00.3	N 20 00.4 -00.1	243 55.6 -31.2	S 06 57.2 +14.3	08						
09	314 21.8 +00.2	N 11 13.6 -00.9	0 49.8 -00.3	N 20 00.3 -00.1	258 24.4 -31.1	S 07 11.5 +14.2	09						
10	329 22.0 +00.2	N 11 12.7 -00.8	15 49.5 -00.2	N 20 00.2 -00.1	272 53.3 -31.2	S 07 25.7 +14.2	10						
11	344 22.2 +00.1	N 11 11.9 -00.9	30 49.3 -00.3	N 20 00.1 -00.1	287 22.1 -31.1	S 07 39.9 +14.2	11						
12	359 22.3 +00.2	N 11 11.0 -00.8	45 49.0 -00.2	N 20 00.0 -00.1	301 51.0 -31.2	S 07 54.1 +14.1	12						
13	14 22.5 +00.2	N 11 10.2 -00.9	60 48.8 -00.3	N 19 59.9 -00.1	316 19.8 -31.3	S 08 08.2 +14.0	13						
14	29 22.7 +00.1	N 11 09.3 -00.8	75 48.5 -00.2	N 19 59.8 -00.1	330 48.5 -31.2	S 08 22.2 +14.0	14						
15	44 22.8 +00.2	N 11 08.5 -00.9	90 48.3 -00.3	N 19 59.7 -00.1	345 17.3 -31.3	S 08 36.2 +14.0	15						
16	59 23.0 +00.2	N 11 07.6 -00.8	105 48.0 -00.3	N 19 59.6 -00.1	359 46.0 -31.2	S 08 50.2 +13.8	16						
17	74 23.2 +00.1	N 11 06.8 -00.9	120 47.7 -00.2	N 19 59.5 -00.1	14 14.8 -31.3	S 09 04.0 +13.8	17						
18	89 23.3 +00.2	N 11 05.9 -00.8	135 47.5 -00.3	N 19 59.4 -00.1	28 43.5 -31.4	S 09 17.8 +13.8	18						
19	104 23.5 +00.2	N 11 05.1 -00.9	150 47.2 -00.3	N 19 59.3 -00.1	43 12.1 -31.3	S 09 31.6 +13.7	19						
20	119 23.7 +00.1	N 11 04.2 -00.9	165 46.9 -00.2	N 19 59.2 -00.1	57 40.8 -31.4	S 09 45.3 +13.6	20						
21	134 23.8 +00.2	N 11 03.3 -00.8	180 46.7 -00.3	N 19 59.1 -00.1	72 09.4 -31.4	S 09 58.9 +13.6	21						
22	149 24.0 +00.2	N 11 02.5 -00.9	195 46.4 -00.2	N 19 59.0 -00.2	86 38.0 -31.4	S 10 12.5 +13.5	22						
23	164 24.2 +00.1	N 11 01.6 -00.8	210 46.2 -00.3	N 19 58.8 -00.1	101 06.6 -31.4	S 10 26.0 +13.4	23						
	UT 02 06 10 14 18 22 SD 15'8 15'8 15'8 15'8 15'8 15'8 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 208° 207° 207° 207° 207° 207° Greenwich Culmination Time: 12:02	UT 02 06 10 14 18 22 SD 00'2 00'2 00'2 00'2 00'2 00'2 HP 00'2 00'2 00'2 00'2 00'2 00'2 SHA 254° 254° 254° 253° 253° 253° Greenwich Culmination Time: 08:56	UT 02 06 10 14 18 22 SD 16'4 16'3 16'3 16'3 16'3 16'3 HP 60'0 60'0 59'9 59'8 59'8 59'7 SHA 155° 153° 151° 148° 146° 144° Greenwich Culmination Time: 16:00										
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	306 11.1 +01.9	N 06 06.0 +00.2	42 04.5 +02.6	S 22 36.5 +00.0	33 15.6 +02.6	S 21 08.3 +00.1	00						
01	321 13.0 +01.9	N 06 06.2 +00.2	57 07.1 +02.6	S 22 36.5 +00.1	48 18.2 +02.6	S 21 08.4 +00.0	01						
02	336 14.9 +01.9	N 06 06.4 +00.2	72 09.7 +02.7	S 22 36.6 +00.0	63 20.8 +02.6	S 21 08.4 +00.0	02						
03	351 16.8 +01.9	N 06 06.6 +00.2	87 12.4 +02.6	S 22 36.6 +00.0	78 23.4 +02.6	S 21 08.4 +00.0	03						
04	6 18.7 +01.9	N 06 06.8 +00.2	102 15.0 +02.7	S 22 36.6 +00.0	93 26.0 +02.6	S 21 08.4 +00.1	04						
05	21 20.6 +01.9	N 06 07.0 +00.2	117 17.7 +02.6	S 22 36.6 +00.1	108 28.6 +02.6	S 21 08.5 +00.0	05						
06	36 22.5 +01.9	N 06 07.2 +00.2	132 20.3 +02.6	S 22 36.7 +00.0	123 31.2 +02.6	S 21 08.5 +00.0	06						
07	51 24.4 +01.9	N 06 07.4 +00.1	147 22.9 +02.7	S 22 36.7 +00.0	138 33.8 +02.6	S 21 08.5 +00.1	07						
08	66 26.3 +01.9	N 06 07.5 +00.2	162 25.6 +02.6	S 22 36.7 +00.0	153 36.4 +02.6	S 21 08.6 +00.0	08						
09	81 28.2 +01.9	N 06 07.7 +00.2	177 28.2 +02.6	S 22 36.7 +00.0	168 39.0 +02.6	S 21 08.6 +00.0	09						
10	96 30.1 +01.9	N 06 07.9 +00.2	192 30.8 +02.7	S 22 36.7 +00.1	183 41.6 +02.6	S 21 08.6 +00.0	10						
11	111 32.0 +01.9	N 06 08.1 +00.2	207 33.5 +02.6	S 22 36.8 +00.0	198 44.2 +02.6	S 21 08.6 +00.1	11						
12	126 33.9 +01.9	N 06 08.3 +00.2	222 36.1 +02.6	S 22 36.8 +00.0	213 46.8 +02.6	S 21 08.7 +00.0	12						
13	141 35.8 +01.9	N 06 08.5 +00.2	237 38.7 +02.7	S 22 36.8 +00.0	228 49.4 +02.7	S 21 08.7 +00.0	13						
14	156 37.7 +01.9	N 06 08.7 +00.1	252 41.4 +02.6	S 22 36.8 +00.1	243 52.1 +02.6	S 21 08.7 +00.1	14						
15	171 39.6 +02.0	N 06 08.8 +00.2	267 44.0 +02.6	S 22 36.9 +00.0	258 54.7 +02.6	S 21 08.8 +00.0	15						
16	186 41.6 +01.9	N 06 09.0 +00.2	282 46.6 +02.7	S 22 36.9 +00.0	273 57.3 +02.6	S 21 08.8 +00.0	16						
17	201 43.5 +01.9	N 06 09.2 +00.2	297 49.3 +02.6	S 22 36.9 +00.0	288 59.9 +02.6	S 21 08.8 +00.0	17						
18	216 45.4 +01.9	N 06 09.4 +00.2	312 51.9 +02.6	S 22 36.9 +00.1	304 02.5 +02.6	S 21 08.8 +00.1	18						
19	231 47.3 +01.9	N 06 09.6 +00.2	327 54.5 +02.7	S 22 37.0 +00.0	319 05.1 +02.6	S 21 08.9 +00.0	19						
20	246 49.2 +01.9	N 06 09.8 +00.1	342 57.2 +02.6	S 22 37.0 +00.0	334 07.7 +02.6	S 21 08.9 +00.0	20						
21	261 51.1 +02.0	N 06 09.9 +00.2	357 59.8 +02.6	S 22 37.0 +00.0	349 10.3 +02.6	S 21 08.9 +00.0	21						
22	276 53.1 +01.9	N 06 10.1 +00.2	13 02.4 +02.7	S 22 37.0 +00.1	4 12.9 +02.6	S 21 08.9 +00.1	22						
23	291 55.0 +01.9	N 06 10.3 +00.2	28 05.1 +02.6	S 22 37.1 +00.0	19 15.5 +02.6	S 21 09.0 +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 334° 334° 334° 334° 334° 334° Greenwich Culmination Time: 03:34	UT 02 06 10 14 18 22 SD 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 SHA 070° 070° 070° 070° 070° 070° Greenwich Culmination Time: 21:07	UT 02 06 10 14 18 22 SD 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 SHA 062° 062° 062° 062° 062° 062° Greenwich Culmination Time: 21:43										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 24.3 +00.2	N 11 00.8 -00.9	225 45.9 -00.3	N 19 58.7 -00.1	115 35.2 -31.5	S 10 39.4 +13.3	00						
01	194 24.5 +00.2	N 10 59.9 -00.8	240 45.6 -00.2	N 19 58.6 -00.1	130 03.7 -31.5	S 10 52.7 +13.3	01						
02	209 24.7 +00.2	N 10 59.1 -00.9	255 45.4 -00.3	N 19 58.5 -00.1	144 32.2 -31.5	S 11 06.0 +13.2	02						
03	224 24.9 +00.1	N 10 58.2 -00.8	270 45.1 -00.3	N 19 58.4 -00.1	159 00.7 -31.6	S 11 19.2 +13.2	03						
04	239 25.0 +00.2	N 10 57.4 -00.9	285 44.8 -00.2	N 19 58.3 -00.1	173 29.1 -31.6	S 11 32.4 +13.0	04						
05	254 25.2 +00.2	N 10 56.5 -00.9	300 44.6 -00.3	N 19 58.2 -00.1	187 57.5 -31.6	S 11 45.4 +13.0	05						
06	269 25.4 +00.1	N 10 55.6 -00.8	315 44.3 -00.3	N 19 58.1 -00.2	202 25.9 -31.6	S 11 58.4 +12.9	06						
07	284 25.5 +00.2	N 10 54.8 -00.9	330 44.0 -00.2	N 19 57.9 -00.1	216 54.3 -31.7	S 12 11.3 +12.8	07						
08	299 25.7 +00.2	N 10 53.9 -00.8	345 43.8 -00.3	N 19 57.8 -00.1	231 22.6 -31.7	S 12 24.1 +12.8	08						
09	314 25.9 +00.1	N 10 53.1 -00.9	0 43.5 -00.3	N 19 57.7 -00.1	245 50.9 -31.8	S 12 36.9 +12.7	09						
10	329 26.0 +00.2	N 10 52.2 -00.9	15 43.2 -00.3	N 19 57.6 -00.1	260 19.1 -31.7	S 12 49.6 +12.5	10						
11	344 26.2 +00.2	N 10 51.3 -00.8	30 42.9 -00.2	N 19 57.5 -00.2	274 47.4 -31.9	S 13 02.1 +12.5	11						
12	359 26.4 +00.2	N 10 50.5 -00.9	45 42.7 -00.3	N 19 57.3 -00.1	289 15.5 -31.8	S 13 14.6 +12.5	12						
13	14 26.6 +00.1	N 10 49.6 -00.8	60 42.4 -00.3	N 19 57.2 -00.1	303 43.7 -31.9	S 13 27.1 +12.3	13						
14	29 26.7 +00.2	N 10 48.8 -00.9	75 42.1 -00.2	N 19 57.1 -00.1	318 11.8 -31.9	S 13 39.4 +12.2	14						
15	44 26.9 +00.2	N 10 47.9 -00.9	90 41.9 -00.3	N 19 57.0 -00.1	332 39.9 -31.9	S 13 51.6 +12.2	15						
16	59 27.1 +00.1	N 10 47.0 -00.8	105 41.6 -00.3	N 19 56.9 -00.2	347 08.0 -32.0	S 14 03.8 +12.0	16						
17	74 27.2 +00.2	N 10 46.2 -00.9	120 41.3 -00.3	N 19 56.7 -00.1	1 36.0 -32.0	S 14 15.8 +12.0	17						
18	89 27.4 +00.2	N 10 45.3 -00.9	135 41.0 -00.2	N 19 56.6 -00.1	16 04.0 -32.0	S 14 27.8 +11.9	18						
19	104 27.6 +00.2	N 10 44.4 -00.8	150 40.8 -00.3	N 19 56.5 -00.1	30 32.0 -32.1	S 14 39.7 +11.8	19						
20	119 27.8 +00.1	N 10 43.6 -00.9	165 40.5 -00.3	N 19 56.4 -00.2	44 59.9 -32.1	S 14 51.5 +11.6	20						
21	134 27.9 +00.2	N 10 42.7 -00.8	180 40.2 -00.3	N 19 56.2 -00.1	59 27.8 -32.2	S 15 03.1 +11.6	21						
22	149 28.1 +00.2	N 10 41.9 -00.9	195 39.9 -00.2	N 19 56.1 -00.1	73 55.6 -32.2	S 15 14.7 +11.5	22						
23	164 28.3 +00.1	N 10 41.0 -00.9	210 39.7 -00.3	N 19 56.0 -00.2	88 23.4 -32.2	S 15 26.2 +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 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 16'2 16'2 16'2 16'2 16'2 16'1								
	HP 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 59'6 59'5 59'5 59'4 59'3 59'2								
	SHA 207° 206° 206° 206° 206° 206°		SHA 253° 253° 253° 252° 252° 252°		SHA 142° 139° 137° 135° 133° 130°								
	Greenwich Culmination Time: 12:02		Greenwich Culmination Time: 08:57		Greenwich Culmination Time: 16:53								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	306 56.9 +01.9	N 06 10.5 +00.2	43 07.7 +02.6	S 22 37.1 +00.0	34 18.1 +02.6	S 21 09.0 +00.0	00						
01	321 58.8 +02.0	N 06 10.7 +00.1	58 10.3 +02.7	S 22 37.1 +00.0	49 20.7 +02.6	S 21 09.0 +00.1	01						
02	337 00.8 +01.9	N 06 10.8 +00.2	73 13.0 +02.6	S 22 37.1 +00.1	64 23.3 +02.6	S 21 09.1 +00.0	02						
03	352 02.7 +01.9	N 06 11.0 +00.2	88 15.6 +02.6	S 22 37.2 +00.0	79 25.9 +02.6	S 21 09.1 +00.0	03						
04	7 04.6 +02.0	N 06 11.2 +00.2	103 18.2 +02.7	S 22 37.2 +00.0	94 28.5 +02.6	S 21 09.1 +00.0	04						
05	22 06.6 +01.9	N 06 11.4 +00.2	118 20.9 +02.6	S 22 37.2 +00.0	109 31.1 +02.6	S 21 09.1 +00.1	05						
06	37 08.5 +01.9	N 06 11.6 +00.1	133 23.5 +02.6	S 22 37.2 +00.1	124 33.7 +02.6	S 21 09.2 +00.0	06						
07	52 10.4 +01.9	N 06 11.7 +00.2	148 26.1 +02.6	S 22 37.3 +00.0	139 36.3 +02.6	S 21 09.2 +00.0	07						
08	67 12.3 +02.0	N 06 11.9 +00.2	163 28.7 +02.7	S 22 37.3 +00.0	154 38.9 +02.6	S 21 09.2 +00.1	08						
09	82 14.3 +01.9	N 06 12.1 +00.2	178 31.4 +02.6	S 22 37.3 +00.0	169 41.5 +02.6	S 21 09.3 +00.0	09						
10	97 16.2 +02.0	N 06 12.3 +00.1	193 34.0 +02.6	S 22 37.3 +00.0	184 44.1 +02.6	S 21 09.3 +00.0	10						
11	112 18.2 +01.9	N 06 12.4 +00.2	208 36.6 +02.6	S 22 37.3 +00.1	199 46.7 +02.6	S 21 09.3 +00.0	11						
12	127 20.1 +01.9	N 06 12.6 +00.2	223 39.2 +02.7	S 22 37.4 +00.0	214 49.3 +02.6	S 21 09.3 +00.1	12						
13	142 22.0 +02.0	N 06 12.8 +00.2	238 41.9 +02.6	S 22 37.4 +00.0	229 51.9 +02.6	S 21 09.4 +00.0	13						
14	157 24.0 +01.9	N 06 13.0 +00.2	253 44.5 +02.6	S 22 37.4 +00.0	244 54.5 +02.6	S 21 09.4 +00.0	14						
15	172 25.9 +02.0	N 06 13.2 +00.1	268 47.1 +02.7	S 22 37.4 +00.1	259 57.1 +02.6	S 21 09.4 +00.1	15						
16	187 27.9 +01.9	N 06 13.3 +00.2	283 49.8 +02.6	S 22 37.5 +00.0	274 59.7 +02.6	S 21 09.5 +00.0	16						
17	202 29.8 +01.9	N 06 13.5 +00.2	298 52.4 +02.6	S 22 37.5 +00.0	290 02.3 +02.7	S 21 09.5 +00.0	17						
18	217 31.7 +02.0	N 06 13.7 +00.1	313 55.0 +02.6	S 22 37.5 +00.0	305 05.0 +02.6	S 21 09.5 +00.0	18						
19	232 33.7 +01.9	N 06 13.8 +00.2	328 57.6 +02.7	S 22 37.5 +00.1	320 07.6 +02.6	S 21 09.5 +00.1	19						
20	247 35.6 +02.0	N 06 14.0 +00.2	344 00.3 +02.6	S 22 37.6 +00.0	335 10.2 +02.6	S 21 09.6 +00.0	20						
21	262 37.6 +01.9	N 06 14.2 +00.2	359 02.9 +02.6	S 22 37.6 +00.0	350 12.8 +02.6	S 21 09.6 +00.0	21						
22	277 39.5 +02.0	N 06 14.4 +00.1	14 05.5 +02.6	S 22 37.6 +00.0	5 15.4 +02.6	S 21 09.6 +00.0	22						
23	292 41.5 +01.9	N 06 14.5 +00.2	29 08.1 +02.6	S 22 37.6 +00.0	20 18.0 +02.6	S 21 09.6 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 334° 334° 334° 334° 334° 334°		SHA 070° 070° 070° 070° 070° 070°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 03:31		Greenwich Culmination Time: 21:03		Greenwich Culmination Time: 21:39								

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 28.4 +00.2	N 10	40.1 -00.8	225 39.4 -00.3	N 19	55.8 -00.1	102 51.2 -32.3	S 15	37.6 +11.3	00							
01	194 28.6 +00.2	N 10	39.3 -00.9	240 39.1 -00.3	N 19	55.7 -00.1	117 18.9 -32.3	S 15	48.9 +11.2	01							
02	209 28.8 +00.2	N 10	38.4 -00.9	255 38.8 -00.3	N 19	55.6 -00.1	131 46.6 -32.3	S 16	00.1 +11.1	02							
03	224 29.0 +00.1	N 10	37.5 -00.8	270 38.5 -00.2	N 19	55.5 -00.2	146 14.3 -32.4	S 16	11.2 +11.0	03							
04	239 29.1 +00.2	N 10	36.7 -00.9	285 38.3 -00.3	N 19	55.3 -00.1	160 41.9 -32.4	S 16	22.2 +10.9	04							
05	254 29.3 +00.2	N 10	35.8 -00.9	300 38.0 -00.3	N 19	55.2 -00.1	175 09.5 -32.5	S 16	33.1 +10.8	05							
06	269 29.5 +00.2	N 10	34.9 -00.8	315 37.7 -00.3	N 19	55.1 -00.2	189 37.0 -32.5	S 16	43.9 +10.6	06							
07	284 29.7 +00.1	N 10	34.1 -00.9	330 37.4 -00.3	N 19	54.9 -00.1	204 04.5 -32.5	S 16	54.5 +10.6	07							
08	299 29.8 +00.2	N 10	33.2 -00.9	345 37.1 -00.2	N 19	54.8 -00.2	218 32.0 -32.6	S 17	05.1 +10.5	08							
09	314 30.0 +00.2	N 10	32.3 -00.8	0 36.9 -00.3	N 19	54.6 -00.1	232 59.4 -32.6	S 17	15.6 +10.3	09							
10	329 30.2 +00.2	N 10	31.5 -00.9	15 36.6 -00.3	N 19	54.5 -00.1	247 26.8 -32.6	S 17	25.9 +10.3	10							
11	344 30.4 +00.1	N 10	30.6 -00.9	30 36.3 -00.3	N 19	54.4 -00.2	261 54.2 -32.7	S 17	36.2 +10.1	11							
12	359 30.5 +00.2	N 10	29.7 -00.8	45 36.0 -00.3	N 19	54.2 -00.1	276 21.5 -32.7	S 17	46.3 +10.0	12							
13	14 30.7 +00.2	N 10	28.9 -00.9	60 35.7 -00.3	N 19	54.1 -00.2	290 48.8 -32.8	S 17	56.3 +09.9	13							
14	29 30.9 +00.2	N 10	28.0 -00.9	75 35.4 -00.2	N 19	53.9 -00.1	305 16.0 -32.7	S 18	06.2 +09.8	14							
15	44 31.1 +00.1	N 10	27.1 -00.8	90 35.2 -00.3	N 19	53.8 -00.1	319 43.3 -32.9	S 18	16.0 +09.6	15							
16	59 31.2 +00.2	N 10	26.3 -00.9	105 34.9 -00.3	N 19	53.7 -00.2	334 10.4 -32.8	S 18	25.6 +09.6	16							
17	74 31.4 +00.2	N 10	25.4 -00.9	120 34.6 -00.3	N 19	53.5 -00.1	348 37.6 -33.0	S 18	35.2 +09.4	17							
18	89 31.6 +00.2	N 10	24.5 -00.8	135 34.3 -00.3	N 19	53.4 -00.2	3 04.6 -32.9	S 18	44.6 +09.4	18							
19	104 31.8 +00.1	N 10	23.7 -00.9	150 34.0 -00.3	N 19	53.2 -00.1	17 31.7 -33.0	S 18	54.0 +09.2	19							
20	119 31.9 +00.2	N 10	22.8 -00.9	165 33.7 -00.3	N 19	53.1 -00.2	31 58.7 -33.0	S 19	03.2 +09.0	20							
21	134 32.1 +00.2	N 10	21.9 -00.8	180 33.4 -00.2	N 19	52.9 -00.1	46 25.7 -33.0	S 19	12.2 +09.0	21							
22	149 32.3 +00.2	N 10	21.1 -00.9	195 33.2 -00.2	N 19	52.8 -00.2	60 52.7 -33.1	S 19	21.2 +08.8	22							
23	164 32.5 +00.2	N 10	20.2 -00.9	210 32.9 -00.3	N 19	52.6 -00.1	75 19.6 -33.2	S 19	30.0 +08.7	23							
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT			
SD	15'8	15'8	15'8	15'8	15'8	15'8	SD	00'2	00'2	00'2	00'2	00'2	00'2	SD			
HP	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			
SHA	206°	206°	205°	205°	205°	205°	SHA	252°	252°	251°	251°	251°	251°	SHA			
Greenwich Culmination Time: 12:01						Greenwich Culmination Time: 08:57						Greenwich Culmination Time: 17:47					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT				
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec					
00	307 43.4 +02.0	N 06	14.7 +00.2	44 10.7 +02.7	S 22	37.6 +00.1	35 20.6 +02.6	S 21	09.7 +00.0	00							
01	322 45.4 +02.0	N 06	14.9 +00.1	59 13.4 +02.6	S 22	37.7 +00.0	50 23.2 +02.6	S 21	09.7 +00.0	01							
02	337 47.4 +01.9	N 06	15.0 +00.2	74 16.0 +02.6	S 22	37.7 +00.0	65 25.8 +02.6	S 21	09.7 +00.1	02							
03	352 49.3 +02.0	N 06	15.2 +00.2	89 18.6 +02.6	S 22	37.7 +00.0	80 28.4 +02.6	S 21	09.8 +00.0	03							
04	7 51.3 +01.9	N 06	15.4 +00.2	104 21.2 +02.7	S 22	37.7 +00.1	95 31.0 +02.6	S 21	09.8 +00.0	04							
05	22 53.2 +02.0	N 06	15.6 +00.1	119 23.9 +02.6	S 22	37.8 +00.0	110 33.6 +02.6	S 21	09.8 +00.0	05							
06	37 55.2 +01.9	N 06	15.7 +00.2	134 26.5 +02.6	S 22	37.8 +00.0	125 36.2 +02.6	S 21	09.8 +00.1	06							
07	52 57.1 +02.0	N 06	15.9 +00.2	149 29.1 +02.6	S 22	37.8 +00.0	140 38.8 +02.6	S 21	09.9 +00.0	07							
08	67 59.1 +02.0	N 06	16.1 +00.1	164 31.7 +02.6	S 22	37.8 +00.0	155 41.4 +02.6	S 21	09.9 +00.0	08							
09	83 01.1 +01.9	N 06	16.2 +00.2	179 34.3 +02.7	S 22	37.8 +00.1	170 44.0 +02.6	S 21	09.9 +00.0	09							
10	98 03.0 +02.0	N 06	16.4 +00.2	194 37.0 +02.6	S 22	37.9 +00.0	185 46.6 +02.6	S 21	09.9 +00.1	10							
11	113 05.0 +02.0	N 06	16.6 +00.1	209 39.6 +02.6	S 22	37.9 +00.0	200 49.2 +02.6	S 21	10.0 +00.0	11							
12	128 07.0 +01.9	N 06	16.7 +00.2	224 42.2 +02.6	S 22	37.9 +00.0	215 51.8 +02.6	S 21	10.0 +00.0	12							
13	143 08.9 +02.0	N 06	16.9 +00.2	239 44.8 +02.6	S 22	37.9 +00.1	230 54.4 +02.6	S 21	10.0 +00.1	13							
14	158 10.9 +02.0	N 06	17.1 +00.1	254 47.4 +02.7	S 22	38.0 +00.0	245 57.0 +02.6	S 21	10.1 +00.0	14							
15	173 12.9 +01.9	N 06	17.2 +00.2	269 50.1 +02.6	S 22	38.0 +00.0	260 59.6 +02.6	S 21	10.1 +00.0	15							
16	188 14.8 +02.0	N 06	17.4 +00.2	284 52.7 +02.6	S 22	38.0 +00.0	276 02.2 +02.6	S 21	10.1 +00.0	16							
17	203 16.8 +02.0	N 06	17.6 +00.1	299 55.3 +02.6	S 22	38.0 +00.0	291 04.8 +02.6	S 21	10.1 +00.1	17							
18	218 18.8 +02.0	N 06	17.7 +00.2	314 57.9 +02.6	S 22	38.0 +00.1	306 07.4 +02.6	S 21	10.2 +00.0	18							
19	233 20.8 +01.9	N 06	17.9 +00.2	330 00.5 +02.6	S 22	38.1 +00.0	321 10.0 +02.6	S 21	10.2 +00.0	19							
20	248 22.7 +02.0	N 06	18.1 +00.1	345 03.1 +02.7	S 22	38.1 +00.0	336 12.6 +02.6	S 21	10.2 +00.0	20							
21	263 24.7 +02.0	N 06	18.2 +00.2	0 05.8 +02.6	S 22	38.1 +00.0	351 15.2 +02.5	S 21	10.2 +00.1	21							
22	278 26.7 +02.0	N 06	18.4 +00.1	15 08.4 +02.6	S 22	38.1 +00.1	6 17.7 +02.6	S 21	10.3 +00.0	22							
23	293 28.7 +02.0	N 06	18.5 +00.2	30 11.0 +02.6	S 22	38.2 +00.0	21 20.3 +02.6	S 21	10.3 +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	00'4	00'4	00'4	00'4	00'4	00'4	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	334°	334°	334°	334°	334°	334°	SHA	070°	070°	070°	071°	071°	SHA				
Greenwich Culmination Time: 03:28						Greenwich Culmination Time: 20:59						Greenwich Culmination Time: 21:34					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 32.7 +00.1	N 10	19.3 -00.9	225 32.6 -00.3	N 19	52.5 -00.2	89 46.4 -33.1	S 19	38.7 +08.6	00			
01	194 32.8 +00.2	N 10	18.4 -00.8	240 32.3 -00.3	N 19	52.3 -00.1	104 13.3 -33.2	S 19	47.3 +08.5	01			
02	209 33.0 +00.2	N 10	17.6 -00.9	255 32.0 -00.3	N 19	52.2 -00.2	118 40.1 -33.2	S 19	55.8 +08.3	02			
03	224 33.2 +00.2	N 10	16.7 -00.9	270 31.7 -00.3	N 19	52.0 -00.1	133 06.9 -33.3	S 20	04.1 +08.2	03			
04	239 33.4 +00.1	N 10	15.8 -00.8	285 31.4 -00.3	N 19	51.9 -00.2	147 33.6 -33.3	S 20	12.3 +08.1	04			
05	254 33.5 +00.2	N 10	15.0 -00.9	300 31.1 -00.3	N 19	51.7 -00.1	162 00.3 -33.3	S 20	20.4 +08.0	05			
06	269 33.7 +00.2	N 10	14.1 -00.9	315 30.8 -00.3	N 19	51.6 -00.2	176 27.0 -33.4	S 20	28.4 +07.8	06			
07	284 33.9 +00.2	N 10	13.2 -00.9	330 30.5 -00.2	N 19	51.4 -00.1	190 53.6 -33.4	S 20	36.2 +07.7	07			
08	299 34.1 +00.2	N 10	12.3 -00.8	345 30.3 -00.3	N 19	51.3 -00.2	205 20.2 -33.4	S 20	43.9 +07.6	08			
09	314 34.3 +00.1	N 10	11.5 -00.9	0 30.0 -00.3	N 19	51.1 -00.1	219 46.8 -33.4	S 20	51.5 +07.4	09			
10	329 34.4 +00.2	N 10	10.6 -00.9	15 29.7 -00.3	N 19	51.0 -00.2	234 13.4 -33.5	S 20	58.9 +07.3	10			
11	344 34.6 +00.2	N 10	09.7 -00.9	30 29.4 -00.3	N 19	50.8 -00.2	248 39.9 -33.5	S 21	06.2 +07.2	11			
12	359 34.8 +00.2	N 10	08.8 -00.8	45 29.1 -00.3	N 19	50.6 -00.1	263 06.4 -33.6	S 21	13.4 +07.0	12			
13	14 35.0 +00.2	N 10	08.0 -00.9	60 28.8 -00.3	N 19	50.5 -00.2	277 32.8 -33.5	S 21	20.4 +06.9	13			
14	29 35.2 +00.1	N 10	07.1 -00.9	75 28.5 -00.3	N 19	50.3 -00.1	291 59.3 -33.6	S 21	27.3 +06.8	14			
15	44 35.3 +00.2	N 10	06.2 -00.9	90 28.2 -00.3	N 19	50.2 -00.2	306 25.7 -33.7	S 21	34.1 +06.7	15			
16	59 35.5 +00.2	N 10	05.3 -00.8	105 27.9 -00.3	N 19	50.0 -00.2	320 52.0 -33.6	S 21	40.8 +06.5	16			
17	74 35.7 +00.2	N 10	04.5 -00.9	120 27.6 -00.3	N 19	49.8 -00.1	335 18.4 -33.7	S 21	47.3 +06.3	17			
18	89 35.9 +00.2	N 10	03.6 -00.9	135 27.3 -00.3	N 19	49.7 -00.2	349 44.7 -33.7	S 21	53.6 +06.3	18			
19	104 36.1 +00.1	N 10	02.7 -00.9	150 27.0 -00.3	N 19	49.5 -00.2	4 11.0 -33.7	S 21	59.9 +06.0	19			
20	119 36.2 +00.2	N 10	01.8 -00.8	165 26.7 -00.3	N 19	49.3 -00.1	18 37.3 -33.7	S 22	05.9 +06.0	20			
21	134 36.4 +00.2	N 10	01.0 -00.9	180 26.4 -00.3	N 19	49.2 -00.2	33 03.6 -33.8	S 22	11.9 +05.8	21			
22	149 36.6 +00.2	N 10	00.1 -00.9	195 26.1 -00.3	N 19	49.0 -00.2	47 29.8 -33.8	S 22	17.7 +05.7	22			
23	164 36.8 +00.2	N 09	59.2 -00.9	210 25.8 -00.3	N 19	48.8 -00.1	61 56.0 -33.8	S 22	23.4 +05.5	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'8 15'8 15'8 15'8 15'8 15'8			SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 16'0 15'9 15'9 15'9 15'8 15'8						
	HP 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 58'6 58'5 58'4 58'3 58'2 58'1						
	SHA 205° 205° 204° 204° 204° 204°			SHA 251° 251° 250° 250° 250° 250°			SHA 114° 112° 109° 107° 104° 102°						
	Greenwich Culmination Time: 12:01			Greenwich Culmination Time: 08:58			Greenwich Culmination Time: 18:42						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	308 30.7 +01.9	N 06	18.7 +00.2	45 13.6 +02.6	S 22	38.2 +00.0	36 22.9 +02.6	S 21	10.3 +00.0	00			
01	323 32.6 +02.0	N 06	18.9 +00.1	60 16.2 +02.6	S 22	38.2 +00.0	51 25.5 +02.6	S 21	10.3 +00.1	01			
02	338 34.6 +02.0	N 06	19.0 +00.2	75 18.8 +02.6	S 22	38.2 +00.0	66 28.1 +02.6	S 21	10.4 +00.0	02			
03	353 36.6 +02.0	N 06	19.2 +00.1	90 21.4 +02.7	S 22	38.2 +00.1	81 30.7 +02.6	S 21	10.4 +00.0	03			
04	8 38.6 +02.0	N 06	19.3 +00.2	105 24.1 +02.6	S 22	38.3 +00.0	96 33.3 +02.6	S 21	10.4 +00.1	04			
05	23 40.6 +02.0	N 06	19.5 +00.2	120 26.7 +02.6	S 22	38.3 +00.0	111 35.9 +02.6	S 21	10.5 +00.0	05			
06	38 42.6 +02.0	N 06	19.7 +00.1	135 29.3 +02.6	S 22	38.3 +00.0	126 38.5 +02.6	S 21	10.5 +00.0	06			
07	53 44.6 +02.0	N 06	19.8 +00.2	150 31.9 +02.6	S 22	38.3 +00.0	141 41.1 +02.6	S 21	10.5 +00.0	07			
08	68 46.6 +02.0	N 06	20.0 +00.1	165 34.5 +02.6	S 22	38.3 +00.1	156 43.7 +02.6	S 21	10.5 +00.1	08			
09	83 48.6 +01.9	N 06	20.1 +00.2	180 37.1 +02.6	S 22	38.4 +00.0	171 46.3 +02.6	S 21	10.6 +00.0	09			
10	98 50.5 +02.0	N 06	20.3 +00.2	195 39.7 +02.6	S 22	38.4 +00.0	186 48.9 +02.6	S 21	10.6 +00.0	10			
11	113 52.5 +02.0	N 06	20.5 +00.1	210 42.3 +02.7	S 22	38.4 +00.0	201 51.5 +02.6	S 21	10.6 +00.0	11			
12	128 54.5 +02.0	N 06	20.6 +00.2	225 45.0 +02.6	S 22	38.4 +00.1	216 54.1 +02.6	S 21	10.6 +00.1	12			
13	143 56.5 +02.0	N 06	20.8 +00.1	240 47.6 +02.6	S 22	38.5 +00.0	231 56.7 +02.6	S 21	10.7 +00.0	13			
14	158 58.5 +02.0	N 06	20.9 +00.2	255 50.2 +02.6	S 22	38.5 +00.0	246 59.3 +02.6	S 21	10.7 +00.0	14			
15	174 00.5 +02.0	N 06	21.1 +00.1	270 52.8 +02.6	S 22	38.5 +00.0	262 01.9 +02.6	S 21	10.7 +00.0	15			
16	189 02.5 +02.0	N 06	21.2 +00.2	285 55.4 +02.6	S 22	38.5 +00.0	277 04.5 +02.6	S 21	10.7 +00.1	16			
17	204 04.5 +02.0	N 06	21.4 +00.2	300 58.0 +02.6	S 22	38.5 +00.1	292 07.1 +02.6	S 21	10.8 +00.0	17			
18	219 06.5 +02.0	N 06	21.6 +00.1	316 00.6 +02.6	S 22	38.6 +00.0	307 09.7 +02.6	S 21	10.8 +00.0	18			
19	234 08.5 +02.0	N 06	21.7 +00.2	331 03.2 +02.6	S 22	38.6 +00.0	322 12.3 +02.6	S 21	10.8 +00.1	19			
20	249 10.5 +02.1	N 06	21.9 +00.1	346 05.8 +02.6	S 22	38.6 +00.0	337 14.9 +02.6	S 21	10.9 +00.0	20			
21	264 12.6 +02.0	N 06	22.0 +00.2	1 08.4 +02.7	S 22	38.6 +00.0	352 17.5 +02.6	S 21	10.9 +00.0	21			
22	279 14.6 +02.0	N 06	22.2 +00.1	16 11.1 +02.6	S 22	38.6 +00.1	7 20.1 +02.6	S 21	10.9 +00.0	22			
23	294 16.6 +02.0	N 06	22.3 +00.2	31 13.7 +02.6	S 22	38.7 +00.0	22 22.7 +02.6	S 21	10.9 +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 00'2 00'2 00'2 00'2 00'2			SD 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'2 00'2 00'2 00'2 00'2 00'2						
	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 334° 334° 334° 334° 334° 334°			SHA 071° 071° 071° 071° 071° 071°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 03:25			Greenwich Culmination Time: 20:55			Greenwich Culmination Time: 21:30						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 30%				UT
	GHA ° / ' / "	ddGHA	Dec ° / ' / "	dDec	GHA ° / ' / "	ddGHA	Dec ° / ' / "	dDec	GHA ° / ' / "	ddGHA	Dec ° / ' / "	dDec	
00	179 37.0 +00.1	N 09	58.3 -00.8	225 25.5 -00.3	N 19	48.7 -00.2	76 22.2 -33.8	S 22	28.9 +05.4	00			
01	194 37.1 +00.2	N 09	57.5 -00.9	240 25.2 -00.3	N 19	48.5 -00.2	90 48.4 -33.9	S 22	34.3 +05.3	01			
02	209 37.3 +00.2	N 09	56.6 -00.9	255 24.9 -00.3	N 19	48.3 -00.1	105 14.5 -33.8	S 22	39.6 +05.1	02			
03	224 37.5 +00.2	N 09	55.7 -00.9	270 24.6 -00.3	N 19	48.2 -00.2	119 40.7 -33.9	S 22	44.7 +05.0	03			
04	239 37.7 +00.2	N 09	54.8 -00.9	285 24.3 -00.3	N 19	48.0 -00.2	134 06.8 -33.9	S 22	49.7 +04.8	04			
05	254 37.9 +00.2	N 09	53.9 -00.8	300 24.0 -00.3	N 19	47.8 -00.2	148 32.9 -33.9	S 22	54.5 +04.7	05			
06	269 38.1 +00.1	N 09	53.1 -00.9	315 23.7 -00.3	N 19	47.6 -00.1	162 59.0 -33.9	S 22	59.2 +04.6	06			
07	284 38.2 +00.2	N 09	52.2 -00.9	330 23.4 -00.3	N 19	47.5 -00.2	177 25.1 -33.9	S 23	03.8 +04.4	07			
08	299 38.4 +00.2	N 09	51.3 -00.9	345 23.1 -00.3	N 19	47.3 -00.2	191 51.2 -34.0	S 23	08.2 +04.2	08			
09	314 38.6 +00.2	N 09	50.4 -00.9	0 22.8 -00.3	N 19	47.1 -00.2	206 17.2 -33.9	S 23	12.4 +04.2	09			
10	329 38.8 +00.2	N 09	49.5 -00.8	15 22.5 -00.3	N 19	46.9 -00.1	220 43.3 -34.0	S 23	16.6 +03.9	10			
11	344 39.0 +00.1	N 09	48.7 -00.9	30 22.2 -00.3	N 19	46.8 -00.2	235 09.3 -33.9	S 23	20.5 +03.9	11			
12	359 39.1 +00.2	N 09	47.8 -00.9	45 21.9 -00.3	N 19	46.6 -00.2	249 35.4 -34.0	S 23	24.4 +03.7	12			
13	14 39.3 +00.2	N 09	46.9 -00.9	60 21.6 -00.3	N 19	46.4 -00.2	264 01.4 -34.0	S 23	28.1 +03.5	13			
14	29 39.5 +00.2	N 09	46.0 -00.9	75 21.3 -00.3	N 19	46.2 -00.2	278 27.4 -34.0	S 23	31.6 +03.4	14			
15	44 39.7 +00.2	N 09	45.1 -00.8	90 21.0 -00.4	N 19	46.0 -00.1	292 53.4 -33.9	S 23	35.0 +03.3	15			
16	59 39.9 +00.2	N 09	44.3 -00.9	105 20.6 -00.3	N 19	45.9 -00.2	307 19.5 -34.0	S 23	38.3 +03.1	16			
17	74 40.1 +00.2	N 09	43.4 -00.9	120 20.3 -00.3	N 19	45.7 -00.2	321 45.5 -34.0	S 23	41.4 +03.0	17			
18	89 40.3 +00.1	N 09	42.5 -00.9	135 20.0 -00.3	N 19	45.5 -00.2	336 11.5 -34.0	S 23	44.4 +02.8	18			
19	104 40.4 +00.2	N 09	41.6 -00.9	150 19.7 -00.3	N 19	45.3 -00.2	350 37.5 -34.0	S 23	47.2 +02.7	19			
20	119 40.6 +00.2	N 09	40.7 -00.9	165 19.4 -00.3	N 19	45.1 -00.2	5 03.5 -33.9	S 23	49.9 +02.5	20			
21	134 40.8 +00.2	N 09	39.8 -00.8	180 19.1 -00.3	N 19	44.9 -00.2	19 29.6 -34.0	S 23	52.4 +02.4	21			
22	149 41.0 +00.2	N 09	39.0 -00.9	195 18.8 -00.3	N 19	44.7 -00.1	33 55.6 -34.0	S 23	54.8 +02.2	22			
23	164 41.2 +00.2	N 09	38.1 -00.9	210 18.5 -00.3	N 19	44.6 -00.2	48 21.6 -33.9	S 23	57.0 +02.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'8 15'8 15'8 15'8 15'8 15'8			SD 00'2 00'2 00'2 00'2 00'2 00'2			SD 15'8 15'8 15'7 15'7 15'7 15'7						
	HP 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 58'0 57'9 57'8 57'7 57'6 57'5						
	SHA 204° 204° 204° 203° 203° 203°			SHA 250° 249° 249° 249° 249° 249°			SHA 099° 097° 095° 092° 090° 087°						
	Greenwich Culmination Time: 12:01			Greenwich Culmination Time: 08:58			Greenwich Culmination Time: 19:38						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° / ' / "	ddGHA	Dec ° / ' / "	dDec	GHA ° / ' / "	ddGHA	Dec ° / ' / "	dDec	GHA ° / ' / "	ddGHA	Dec ° / ' / "	dDec	
00	309 18.6 +02.0	N 06	22.5 +00.1	46 16.3 +02.6	S 22	38.7 +00.0	37 25.3 +02.5	S 21	11.0 +00.0	00			
01	324 20.6 +02.0	N 06	22.6 +00.2	61 18.9 +02.6	S 22	38.7 +00.0	52 27.8 +02.6	S 21	11.0 +00.0	01			
02	339 22.6 +02.0	N 06	22.8 +00.1	76 21.5 +02.6	S 22	38.7 +00.0	67 30.4 +02.6	S 21	11.0 +00.0	02			
03	354 24.6 +02.0	N 06	22.9 +00.2	91 24.1 +02.6	S 22	38.7 +00.1	82 33.0 +02.6	S 21	11.0 +00.1	03			
04	9 26.6 +02.1	N 06	23.1 +00.1	106 26.7 +02.6	S 22	38.8 +00.0	97 35.6 +02.6	S 21	11.1 +00.0	04			
05	24 28.7 +02.0	N 06	23.2 +00.2	121 29.3 +02.6	S 22	38.8 +00.0	112 38.2 +02.6	S 21	11.1 +00.0	05			
06	39 30.7 +02.0	N 06	23.4 +00.1	136 31.9 +02.6	S 22	38.8 +00.0	127 40.8 +02.6	S 21	11.1 +00.0	06			
07	54 32.7 +02.0	N 06	23.5 +00.2	151 34.5 +02.6	S 22	38.8 +00.0	142 43.4 +02.6	S 21	11.1 +00.1	07			
08	69 34.7 +02.0	N 06	23.7 +00.1	166 37.1 +02.6	S 22	38.8 +00.1	157 46.0 +02.6	S 21	11.2 +00.0	08			
09	84 36.7 +02.1	N 06	23.8 +00.2	181 39.7 +02.6	S 22	38.9 +00.0	172 48.6 +02.6	S 21	11.2 +00.0	09			
10	99 38.8 +02.0	N 06	24.0 +00.1	196 42.3 +02.6	S 22	38.9 +00.0	187 51.2 +02.6	S 21	11.2 +00.0	10			
11	114 40.8 +02.0	N 06	24.1 +00.2	211 44.9 +02.6	S 22	38.9 +00.0	202 53.8 +02.6	S 21	11.2 +00.1	11			
12	129 42.8 +02.0	N 06	24.3 +00.1	226 47.5 +02.6	S 22	38.9 +00.0	217 56.4 +02.6	S 21	11.3 +00.0	12			
13	144 44.8 +02.1	N 06	24.4 +00.2	241 50.1 +02.6	S 22	38.9 +00.1	232 59.0 +02.6	S 21	11.3 +00.0	13			
14	159 46.9 +02.0	N 06	24.6 +00.1	256 52.7 +02.6	S 22	39.0 +00.0	248 01.6 +02.6	S 21	11.3 +00.0	14			
15	174 48.9 +02.0	N 06	24.7 +00.2	271 55.3 +02.6	S 22	39.0 +00.0	263 04.2 +02.6	S 21	11.3 +00.1	15			
16	189 50.9 +02.1	N 06	24.9 +00.1	286 57.9 +02.6	S 22	39.0 +00.0	278 06.8 +02.5	S 21	11.4 +00.0	16			
17	204 53.0 +02.0	N 06	25.0 +00.2	302 00.5 +02.6	S 22	39.0 +00.0	293 09.3 +02.6	S 21	11.4 +00.0	17			
18	219 55.0 +02.0	N 06	25.2 +00.1	317 03.1 +02.6	S 22	39.0 +00.1	308 11.9 +02.6	S 21	11.4 +00.1	18			
19	234 57.0 +02.1	N 06	25.3 +00.1	332 05.7 +02.6	S 22	39.1 +00.0	323 14.5 +02.6	S 21	11.5 +00.0	19			
20	249 59.1 +02.0	N 06	25.4 +00.2	347 08.3 +02.6	S 22	39.1 +00.0	338 17.1 +02.6	S 21	11.5 +00.0	20			
21	265 01.1 +02.0	N 06	25.6 +00.1	2 10.9 +02.6	S 22	39.1 +00.0	353 19.7 +02.6	S 21	11.5 +00.0	21			
22	280 03.1 +02.1	N 06	25.7 +00.2	17 13.5 +02.6	S 22	39.1 +00.0	8 22.3 +02.6	S 21	11.5 +00.1	22			
23	295 05.2 +02.0	N 06	25.9 +00.1	32 16.1 +02.6	S 22	39.1 +00.1	23 24.9 +02.6	S 21	11.6 +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 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'2 00'2 00'2 00'2 00'2 00'2						
	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 334° 334° 334° 334° 333° 333°			SHA 071° 071° 071° 071° 071° 071°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 03:22			Greenwich Culmination Time: 20:51			Greenwich Culmination Time: 21:26						

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 41.4 +00.1	N 09 37.2 -00.9	225 18.2 -00.3	N 19 44.4 -00.2	62 47.7 -34.0	S 23 59.1 +02.0	00						
01	194 41.5 +00.2	N 09 36.3 -00.9	240 17.9 -00.3	N 19 44.2 -00.2	77 13.7 -33.9	S 24 01.1 +01.8	01						
02	209 41.7 +00.2	N 09 35.4 -00.9	255 17.6 -00.4	N 19 44.0 -00.2	91 39.8 -33.9	S 24 02.9 +01.7	02						
03	224 41.9 +00.2	N 09 34.5 -00.8	270 17.2 -00.3	N 19 43.8 -00.2	106 05.9 -34.0	S 24 04.6 +01.5	03						
04	239 42.1 +00.2	N 09 33.7 -00.9	285 16.9 -00.3	N 19 43.6 -00.2	120 31.9 -33.9	S 24 06.1 +01.4	04						
05	254 42.3 +00.2	N 09 32.8 -00.9	300 16.6 -00.3	N 19 43.4 -00.2	134 58.0 -33.8	S 24 07.5 +01.2	05						
06	269 42.5 +00.2	N 09 31.9 -00.9	315 16.3 -00.3	N 19 43.2 -00.2	149 24.2 -33.9	S 24 08.7 +01.1	06						
07	284 42.7 +00.2	N 09 31.0 -00.9	330 16.0 -00.3	N 19 43.0 -00.2	163 50.3 -33.9	S 24 09.8 +00.9	07						
08	299 42.9 +00.1	N 09 30.1 -00.9	345 15.7 -00.3	N 19 42.8 -00.2	178 16.4 -33.8	S 24 10.7 +00.8	08						
09	314 43.0 +00.2	N 09 29.2 -00.9	0 15.4 -00.4	N 19 42.6 -00.2	192 42.6 -33.8	S 24 11.5 +00.7	09						
10	329 43.2 +00.2	N 09 28.3 -00.8	15 15.0 -00.3	N 19 42.4 -00.2	207 08.8 -33.8	S 24 12.2 +00.5	10						
11	344 43.4 +00.2	N 09 27.5 -00.9	30 14.7 -00.3	N 19 42.2 -00.2	221 35.0 -33.8	S 24 12.7 +00.4	11						
12	359 43.6 +00.2	N 09 26.6 -00.9	45 14.4 -00.3	N 19 42.0 -00.2	236 01.2 -33.7	S 24 13.1 +00.2	12						
13	14 43.8 +00.2	N 09 25.7 -00.9	60 14.1 -00.3	N 19 41.8 -00.2	250 27.5 -33.7	S 24 13.3 +00.1	13						
14	29 44.0 +00.2	N 09 24.8 -00.9	75 13.8 -00.3	N 19 41.6 -00.2	264 53.8 -33.7	S 24 13.4 -00.1	14						
15	44 44.2 +00.2	N 09 23.9 -00.9	90 13.5 -00.4	N 19 41.4 -00.2	279 20.1 -33.7	S 24 13.3 -00.2	15						
16	59 44.4 +00.1	N 09 23.0 -00.9	105 13.1 -00.3	N 19 41.2 -00.2	293 46.4 -33.6	S 24 13.1 -00.3	16						
17	74 44.5 +00.2	N 09 22.1 -00.9	120 12.8 -00.3	N 19 41.0 -00.2	308 12.8 -33.6	S 24 12.8 -00.5	17						
18	89 44.7 +00.2	N 09 21.2 -00.8	135 12.5 -00.3	N 19 40.8 -00.2	322 39.2 -33.6	S 24 12.3 -00.7	18						
19	104 44.9 +00.2	N 09 20.4 -00.9	150 12.2 -00.3	N 19 40.6 -00.2	337 05.6 -33.5	S 24 11.6 -00.7	19						
20	119 45.1 +00.2	N 09 19.5 -00.9	165 11.9 -00.3	N 19 40.4 -00.2	351 32.1 -33.5	S 24 10.9 -00.9	20						
21	134 45.3 +00.2	N 09 18.6 -00.9	180 11.6 -00.4	N 19 40.2 -00.2	5 58.6 -33.5	S 24 10.0 -01.1	21						
22	149 45.5 +00.2	N 09 17.7 -00.9	195 11.2 -00.3	N 19 40.0 -00.2	20 25.1 -33.4	S 24 08.9 -01.2	22						
23	164 45.7 +00.2	N 09 16.8 -00.9	210 10.9 -00.3	N 19 39.8 -00.2	34 51.7 -33.4	S 24 07.7 -01.3	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 15'6 15'6 15'6 15'6 15'5 15'5								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'2 00'2 00'2 00'2 00'2 00'2		HP 57'4 57'3 57'2 57'1 57'0 56'9								
	SHA 203° 203° 203° 202° 202° 202°		SHA 249° 248° 248° 248° 248° 248°		SHA 085° 082° 080° 078° 075° 073°								
	Greenwich Culmination Time: 12:01		Greenwich Culmination Time: 08:58		Greenwich Culmination Time: 20:35								

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	310 07.2 +02.1	N 06 26.0 +00.2	47 18.7 +02.6	S 22 39.2 +00.0	38 27.5 +02.6	S 21 11.6 +00.0	00						
01	325 09.3 +02.0	N 06 26.2 +00.1	62 21.3 +02.6	S 22 39.2 +00.0	53 30.1 +02.6	S 21 11.6 +00.0	01						
02	340 11.3 +02.0	N 06 26.3 +00.2	77 23.9 +02.6	S 22 39.2 +00.0	68 32.7 +02.6	S 21 11.6 +00.1	02						
03	355 13.3 +02.1	N 06 26.5 +00.1	92 26.5 +02.6	S 22 39.2 +00.0	83 35.3 +02.6	S 21 11.7 +00.0	03						
04	10 15.4 +02.0	N 06 26.6 +00.1	107 29.1 +02.6	S 22 39.2 +00.1	98 37.9 +02.5	S 21 11.7 +00.0	04						
05	25 17.4 +02.1	N 06 26.7 +00.2	122 31.7 +02.6	S 22 39.3 +00.0	113 40.4 +02.6	S 21 11.7 +00.0	05						
06	40 19.5 +02.0	N 06 26.9 +00.1	137 34.3 +02.6	S 22 39.3 +00.0	128 43.0 +02.6	S 21 11.7 +00.1	06						
07	55 21.5 +02.1	N 06 27.0 +00.2	152 36.9 +02.6	S 22 39.3 +00.0	143 45.6 +02.6	S 21 11.8 +00.0	07						
08	70 23.6 +02.0	N 06 27.2 +00.1	167 39.5 +02.6	S 22 39.3 +00.0	158 48.2 +02.6	S 21 11.8 +00.0	08						
09	85 25.6 +02.1	N 06 27.3 +00.1	182 42.1 +02.6	S 22 39.3 +00.1	173 50.8 +02.6	S 21 11.8 +00.0	09						
10	100 27.7 +02.0	N 06 27.4 +00.2	197 44.7 +02.6	S 22 39.4 +00.0	188 53.4 +02.6	S 21 11.8 +00.1	10						
11	115 29.7 +02.1	N 06 27.6 +00.1	212 47.3 +02.6	S 22 39.4 +00.0	203 56.0 +02.6	S 21 11.9 +00.0	11						
12	130 31.8 +02.0	N 06 27.7 +00.2	227 49.9 +02.6	S 22 39.4 +00.0	218 58.6 +02.6	S 21 11.9 +00.0	12						
13	145 33.8 +02.1	N 06 27.9 +00.1	242 52.5 +02.6	S 22 39.4 +00.0	234 01.2 +02.6	S 21 11.9 +00.0	13						
14	160 35.9 +02.1	N 06 28.0 +00.1	257 55.1 +02.6	S 22 39.4 +00.0	249 03.8 +02.5	S 21 11.9 +00.1	14						
15	175 38.0 +02.0	N 06 28.1 +00.2	272 57.7 +02.6	S 22 39.4 +00.1	264 06.3 +02.6	S 21 12.0 +00.0	15						
16	190 40.0 +02.1	N 06 28.3 +00.1	288 00.3 +02.6	S 22 39.5 +00.0	279 08.9 +02.6	S 21 12.0 +00.0	16						
17	205 42.1 +02.1	N 06 28.4 +00.1	303 02.9 +02.6	S 22 39.5 +00.0	294 11.5 +02.6	S 21 12.0 +00.0	17						
18	220 44.2 +02.0	N 06 28.5 +00.2	318 05.5 +02.6	S 22 39.5 +00.0	309 14.1 +02.6	S 21 12.0 +00.1	18						
19	235 46.2 +02.1	N 06 28.7 +00.1	333 08.1 +02.6	S 22 39.5 +00.0	324 16.7 +02.6	S 21 12.1 +00.0	19						
20	250 48.3 +02.1	N 06 28.8 +00.1	348 10.7 +02.5	S 22 39.5 +00.1	339 19.3 +02.6	S 21 12.1 +00.0	20						
21	265 50.4 +02.0	N 06 28.9 +00.2	3 13.2 +02.6	S 22 39.6 +00.0	354 21.9 +02.6	S 21 12.1 +00.0	21						
22	280 52.4 +02.1	N 06 29.1 +00.1	18 15.8 +02.6	S 22 39.6 +00.0	9 24.5 +02.6	S 21 12.1 +00.1	22						
23	295 54.5 +02.1	N 06 29.2 +00.1	33 18.4 +02.6	S 22 39.6 +00.0	24 27.1 +02.5	S 21 12.2 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 333° 333° 333° 333° 333° 333°		SHA 071° 071° 071° 071° 071° 071°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 03:19		Greenwich Culmination Time: 20:47		Greenwich Culmination Time: 21:22								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 45.9 +00.2	N 09 15.9 -00.9	225 10.6 -00.3	N 19 39.6 -00.2	49 18.3 -33.4	S 24 06.4 -01.5	00						
01	194 46.1 +00.1	N 09 15.0 -00.9	240 10.3 -00.3	N 19 39.4 -00.2	63 44.9 -33.3	S 24 04.9 -01.6	01						
02	209 46.2 +00.2	N 09 14.1 -00.9	255 10.0 -00.4	N 19 39.2 -00.2	78 11.6 -33.3	S 24 03.3 -01.7	02						
03	224 46.4 +00.2	N 09 13.2 -00.9	270 09.6 -00.3	N 19 39.0 -00.3	92 38.3 -33.2	S 24 01.6 -01.9	03						
04	239 46.6 +00.2	N 09 12.3 -00.8	285 09.3 -00.3	N 19 38.7 -00.2	107 05.1 -33.2	S 23 59.7 -02.0	04						
05	254 46.8 +00.2	N 09 11.5 -00.9	300 09.0 -00.3	N 19 38.5 -00.2	121 31.9 -33.2	S 23 57.7 -02.2	05						
06	269 47.0 +00.2	N 09 10.6 -00.9	315 08.7 -00.4	N 19 38.3 -00.2	135 58.7 -33.1	S 23 55.5 -02.3	06						
07	284 47.2 +00.2	N 09 09.7 -00.9	330 08.3 -00.3	N 19 38.1 -00.2	150 25.6 -33.0	S 23 53.2 -02.4	07						
08	299 47.4 +00.2	N 09 08.8 -00.9	345 08.0 -00.3	N 19 37.9 -00.2	164 52.6 -33.0	S 23 50.8 -02.5	08						
09	314 47.6 +00.2	N 09 07.9 -00.9	0 07.7 -00.3	N 19 37.7 -00.2	179 19.6 -33.0	S 23 48.3 -02.7	09						
10	329 47.8 +00.2	N 09 07.0 -00.9	15 07.4 -00.4	N 19 37.5 -00.3	193 46.6 -32.9	S 23 45.6 -02.9	10						
11	344 48.0 +00.1	N 09 06.1 -00.9	30 07.0 -00.3	N 19 37.2 -00.2	208 13.7 -32.8	S 23 42.7 -02.9	11						
12	359 48.1 +00.2	N 09 05.2 -00.9	45 06.7 -00.3	N 19 37.0 -00.2	222 40.9 -32.8	S 23 39.8 -03.1	12						
13	14 48.3 +00.2	N 09 04.3 -00.9	60 06.4 -00.3	N 19 36.8 -00.2	237 08.1 -32.8	S 23 36.7 -03.2	13						
14	29 48.5 +00.2	N 09 03.4 -00.9	75 06.1 -00.4	N 19 36.6 -00.2	251 35.3 -32.7	S 23 33.5 -03.4	14						
15	44 48.7 +00.2	N 09 02.5 -00.9	90 05.7 -00.3	N 19 36.4 -00.3	266 02.6 -32.6	S 23 30.1 -03.4	15						
16	59 48.9 +00.2	N 09 01.6 -00.9	105 05.4 -00.3	N 19 36.1 -00.2	280 30.0 -32.6	S 23 26.7 -03.6	16						
17	74 49.1 +00.2	N 09 00.7 -00.9	120 05.1 -00.3	N 19 35.9 -00.2	294 57.4 -32.5	S 23 23.1 -03.8	17						
18	89 49.3 +00.2	N 08 59.8 -00.8	135 04.8 -00.4	N 19 35.7 -00.2	309 24.9 -32.5	S 23 19.3 -03.8	18						
19	104 49.5 +00.2	N 08 59.0 -00.9	150 04.4 -00.3	N 19 35.5 -00.3	323 52.4 -32.4	S 23 15.5 -04.0	19						
20	119 49.7 +00.2	N 08 58.1 -00.9	165 04.1 -00.3	N 19 35.2 -00.2	338 20.0 -32.4	S 23 11.5 -04.1	20						
21	134 49.9 +00.2	N 08 57.2 -00.9	180 03.8 -00.3	N 19 35.0 -00.2	352 47.6 -32.3	S 23 07.4 -04.3	21						
22	149 50.1 +00.2	N 08 56.3 -00.9	195 03.5 -00.4	N 19 34.8 -00.3	7 15.3 -32.2	S 23 03.1 -04.3	22						
23	164 50.3 +00.2	N 08 55.4 -00.9	210 03.1 -00.3	N 19 34.5 -00.2	21 43.1 -32.2	S 22 58.8 -04.5	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 15'5 15'5 15'4 15'4 15'4 15'4								
	HP 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 56'8 56'7 56'7 56'6 56'5 56'4								
	SHA 202° 202° 202° 202° 201° 201°		SHA 247° 247° 247° 247° 247° 246°		SHA 070° 068° 066° 063° 061° 059°								
	Greenwich Culmination Time: 12:00		Greenwich Culmination Time: 08:59		Greenwich Culmination Time: 21:29								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	310 56.6 +02.0	N 06 29.3 +00.2	48 21.0 +02.6	S 22 39.6 +00.0	39 29.6 +02.6	S 21 12.2 +00.0	00						
01	325 58.6 +02.1	N 06 29.5 +00.1	63 23.6 +02.6	S 22 39.6 +00.0	54 32.2 +02.6	S 21 12.2 +00.0	01						
02	341 00.7 +02.1	N 06 29.6 +00.1	78 26.2 +02.6	S 22 39.6 +00.1	69 34.8 +02.6	S 21 12.2 +00.1	02						
03	356 02.8 +02.1	N 06 29.7 +00.2	93 28.8 +02.6	S 22 39.7 +00.0	84 37.4 +02.6	S 21 12.3 +00.0	03						
04	11 04.9 +02.0	N 06 29.9 +00.1	108 31.4 +02.6	S 22 39.7 +00.0	99 40.0 +02.6	S 21 12.3 +00.0	04						
05	26 06.9 +02.1	N 06 30.0 +00.1	123 34.0 +02.6	S 22 39.7 +00.0	114 42.6 +02.6	S 21 12.3 +00.0	05						
06	41 09.0 +02.1	N 06 30.1 +00.2	138 36.6 +02.6	S 22 39.7 +00.0	129 45.2 +02.6	S 21 12.3 +00.1	06						
07	56 11.1 +02.1	N 06 30.3 +00.1	153 39.2 +02.5	S 22 39.7 +00.1	144 47.8 +02.5	S 21 12.4 +00.0	07						
08	71 13.2 +02.1	N 06 30.4 +00.1	168 41.7 +02.6	S 22 39.8 +00.0	159 50.3 +02.6	S 21 12.4 +00.0	08						
09	86 15.3 +02.0	N 06 30.5 +00.2	183 44.3 +02.6	S 22 39.8 +00.0	174 52.9 +02.6	S 21 12.4 +00.0	09						
10	101 17.3 +02.1	N 06 30.7 +00.1	198 46.9 +02.6	S 22 39.8 +00.0	189 55.5 +02.6	S 21 12.4 +00.1	10						
11	116 19.4 +02.1	N 06 30.8 +00.1	213 49.5 +02.6	S 22 39.8 +00.0	204 58.1 +02.6	S 21 12.5 +00.0	11						
12	131 21.5 +02.1	N 06 30.9 +00.1	228 52.1 +02.6	S 22 39.8 +00.0	220 00.7 +02.6	S 21 12.5 +00.0	12						
13	146 23.6 +02.1	N 06 31.0 +00.2	243 54.7 +02.6	S 22 39.8 +00.1	235 03.3 +02.6	S 21 12.5 +00.0	13						
14	161 25.7 +02.1	N 06 31.2 +00.1	258 57.3 +02.5	S 22 39.9 +00.0	250 05.9 +02.5	S 21 12.5 +00.1	14						
15	176 27.8 +02.1	N 06 31.3 +00.1	273 59.8 +02.6	S 22 39.9 +00.0	265 08.4 +02.6	S 21 12.6 +00.0	15						
16	191 29.9 +02.1	N 06 31.4 +00.2	289 02.4 +02.6	S 22 39.9 +00.0	280 11.0 +02.6	S 21 12.6 +00.0	16						
17	206 32.0 +02.1	N 06 31.6 +00.1	304 05.0 +02.6	S 22 39.9 +00.0	295 13.6 +02.6	S 21 12.6 +00.0	17						
18	221 34.1 +02.0	N 06 31.7 +00.1	319 07.6 +02.6	S 22 39.9 +00.1	310 16.2 +02.6	S 21 12.6 +00.1	18						
19	236 36.1 +02.1	N 06 31.8 +00.1	334 10.2 +02.6	S 22 40.0 +00.0	325 18.8 +02.6	S 21 12.7 +00.0	19						
20	251 38.2 +02.1	N 06 31.9 +00.2	349 12.8 +02.6	S 22 40.0 +00.0	340 21.4 +02.6	S 21 12.7 +00.0	20						
21	266 40.3 +02.1	N 06 32.1 +00.1	4 15.4 +02.5	S 22 40.0 +00.0	355 24.0 +02.5	S 21 12.7 +00.0	21						
22	281 42.4 +02.1	N 06 32.2 +00.1	19 17.9 +02.6	S 22 40.0 +00.0	10 26.5 +02.6	S 21 12.7 +00.1	22						
23	296 44.5 +02.1	N 06 32.3 +00.1	34 20.5 +02.6	S 22 40.0 +00.0	25 29.1 +02.6	S 21 12.8 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 333° 333° 333° 333° 333° 333°		SHA 071° 071° 071° 071° 071° 071°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 03:15		Greenwich Culmination Time: 20:43		Greenwich Culmination Time: 21:18								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 50.5 +00.1	N 08 54.5 -00.9	225 02.8 -00.3	N 19 34.3 -00.2	36 10.9 -32.1	S 22 54.3 -04.6	00						
01	194 50.6 +00.2	N 08 53.6 -00.9	240 02.5 -00.4	N 19 34.1 -00.2	50 38.8 -32.0	S 22 49.7 -04.7	01						
02	209 50.8 +00.2	N 08 52.7 -00.9	255 02.1 -00.3	N 19 33.9 -00.3	65 06.8 -32.0	S 22 45.0 -04.9	02						
03	224 51.0 +00.2	N 08 51.8 -00.9	270 01.8 -00.3	N 19 33.6 -00.2	79 34.8 -31.9	S 22 40.1 -04.9	03						
04	239 51.2 +00.2	N 08 50.9 -00.9	285 01.5 -00.4	N 19 33.4 -00.2	94 02.9 -31.9	S 22 35.2 -05.1	04						
05	254 51.4 +00.2	N 08 50.0 -00.9	300 01.1 -00.3	N 19 33.2 -00.3	108 31.0 -31.8	S 22 30.1 -05.2	05						
06	269 51.6 +00.2	N 08 49.1 -00.9	315 00.8 -00.3	N 19 32.9 -00.2	122 59.2 -31.7	S 22 24.9 -05.3	06						
07	284 51.8 +00.2	N 08 48.2 -00.9	330 00.5 -00.4	N 19 32.7 -00.2	137 27.5 -31.6	S 22 19.6 -05.5	07						
08	299 52.0 +00.2	N 08 47.3 -00.9	345 00.1 -00.3	N 19 32.5 -00.3	151 55.9 -31.6	S 22 14.1 -05.5	08						
09	314 52.2 +00.2	N 08 46.4 -00.9	359 59.8 -00.3	N 19 32.2 -00.2	166 24.3 -31.6	S 22 08.6 -05.7	09						
10	329 52.4 +00.2	N 08 45.5 -00.9	14 59.5 -00.4	N 19 32.0 -00.3	180 52.7 -31.4	S 22 02.9 -05.8	10						
11	344 52.6 +00.2	N 08 44.6 -00.9	29 59.1 -00.3	N 19 31.7 -00.2	195 21.3 -31.4	S 21 57.1 -05.9	11						
12	359 52.8 +00.2	N 08 43.7 -00.9	44 58.8 -00.3	N 19 31.5 -00.2	209 49.9 -31.3	S 21 51.2 -06.0	12						
13	14 53.0 +00.2	N 08 42.8 -00.9	59 58.5 -00.4	N 19 31.3 -00.3	224 18.6 -31.2	S 21 45.2 -06.1	13						
14	29 53.2 +00.2	N 08 41.9 -00.9	74 58.1 -00.3	N 19 31.0 -00.2	238 47.4 -31.2	S 21 39.1 -06.2	14						
15	44 53.4 +00.2	N 08 41.0 -00.9	89 57.8 -00.3	N 19 30.8 -00.3	253 16.2 -31.1	S 21 32.9 -06.3	15						
16	59 53.6 +00.2	N 08 40.1 -00.9	104 57.5 -00.4	N 19 30.5 -00.2	267 45.1 -31.0	S 21 26.6 -06.4	16						
17	74 53.8 +00.1	N 08 39.2 -00.9	119 57.1 -00.3	N 19 30.3 -00.3	282 14.1 -31.0	S 21 20.2 -06.6	17						
18	89 53.9 +00.2	N 08 38.3 -00.9	134 56.8 -00.3	N 19 30.0 -00.2	296 43.1 -30.9	S 21 13.6 -06.6	18						
19	104 54.1 +00.2	N 08 37.4 -00.9	149 56.5 -00.4	N 19 29.8 -00.2	311 12.2 -30.8	S 21 07.0 -06.8	19						
20	119 54.3 +00.2	N 08 36.5 -00.9	164 56.1 -00.3	N 19 29.6 -00.3	325 41.4 -30.7	S 21 00.2 -06.8	20						
21	134 54.5 +00.2	N 08 35.6 -00.9	179 55.8 -00.4	N 19 29.3 -00.2	340 10.7 -30.7	S 20 53.4 -07.0	21						
22	149 54.7 +00.2	N 08 34.7 -00.9	194 55.4 -00.3	N 19 29.1 -00.3	354 40.0 -30.6	S 20 46.4 -07.1	22						
23	164 54.9 +00.2	N 08 33.8 -00.9	209 55.1 -00.3	N 19 28.8 -00.2	9 09.4 -30.5	S 20 39.3 -07.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 15'3 15'3 15'3 15'3 15'3 15'2								
	HP 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 56'3 56'2 56'1 56'1 56'0 55'9								
	SHA 201° 201° 201° 201° 201° 200°		SHA 246° 246° 246° 246° 246° 245°		SHA 056° 054° 052° 050° 047° 045°								
	Greenwich Culmination Time: 12:00		Greenwich Culmination Time: 09:00		Greenwich Culmination Time: 22:22								

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	311 46.6 +02.1	N 06 32.4 +00.2	49 23.1 +02.6	S 22 40.0 +00.1	40 31.7 +02.6	S 21 12.8 +00.0	00						
01	326 48.7 +02.2	N 06 32.6 +00.1	64 25.7 +02.6	S 22 40.1 +00.0	55 34.3 +02.6	S 21 12.8 +00.0	01						
02	341 50.9 +02.1	N 06 32.7 +00.1	79 28.3 +02.6	S 22 40.1 +00.0	70 36.9 +02.6	S 21 12.8 +00.0	02						
03	356 53.0 +02.1	N 06 32.8 +00.1	94 30.9 +02.5	S 22 40.1 +00.0	85 39.5 +02.6	S 21 12.8 +00.1	03						
04	11 55.1 +02.1	N 06 32.9 +00.2	109 33.4 +02.6	S 22 40.1 +00.0	100 42.1 +02.5	S 21 12.9 +00.0	04						
05	26 57.2 +02.1	N 06 33.1 +00.1	124 36.0 +02.6	S 22 40.1 +00.0	115 44.6 +02.6	S 21 12.9 +00.0	05						
06	41 59.3 +02.1	N 06 33.2 +00.1	139 38.6 +02.6	S 22 40.1 +00.1	130 47.2 +02.6	S 21 12.9 +00.0	06						
07	57 01.4 +02.1	N 06 33.3 +00.1	154 41.2 +02.6	S 22 40.2 +00.0	145 49.8 +02.6	S 21 12.9 +00.1	07						
08	72 03.5 +02.1	N 06 33.4 +00.1	169 43.8 +02.5	S 22 40.2 +00.0	160 52.4 +02.6	S 21 13.0 +00.0	08						
09	87 05.6 +02.1	N 06 33.5 +00.2	184 46.3 +02.6	S 22 40.2 +00.0	175 55.0 +02.6	S 21 13.0 +00.0	09						
10	102 07.7 +02.1	N 06 33.7 +00.1	199 48.9 +02.6	S 22 40.2 +00.0	190 57.6 +02.5	S 21 13.0 +00.0	10						
11	117 09.8 +02.2	N 06 33.8 +00.1	214 51.5 +02.6	S 22 40.2 +00.0	206 00.1 +02.6	S 21 13.0 +00.1	11						
12	132 12.0 +02.1	N 06 33.9 +00.1	229 54.1 +02.6	S 22 40.2 +00.1	221 02.7 +02.6	S 21 13.1 +00.0	12						
13	147 14.1 +02.1	N 06 34.0 +00.1	244 56.7 +02.5	S 22 40.3 +00.0	236 05.3 +02.6	S 21 13.1 +00.0	13						
14	162 16.2 +02.1	N 06 34.1 +00.2	259 59.2 +02.6	S 22 40.3 +00.0	251 07.9 +02.6	S 21 13.1 +00.0	14						
15	177 18.3 +02.1	N 06 34.3 +00.1	275 01.8 +02.6	S 22 40.3 +00.0	266 10.5 +02.6	S 21 13.1 +00.1	15						
16	192 20.4 +02.2	N 06 34.4 +00.1	290 04.4 +02.6	S 22 40.3 +00.0	281 13.1 +02.5	S 21 13.2 +00.0	16						
17	207 22.6 +02.1	N 06 34.5 +00.1	305 07.0 +02.5	S 22 40.3 +00.0	296 15.6 +02.6	S 21 13.2 +00.0	17						
18	222 24.7 +02.1	N 06 34.6 +00.1	320 09.5 +02.6	S 22 40.3 +00.1	311 18.2 +02.6	S 21 13.2 +00.0	18						
19	237 26.8 +02.2	N 06 34.7 +00.1	335 12.1 +02.6	S 22 40.4 +00.0	326 20.8 +02.6	S 21 13.2 +00.1	19						
20	252 29.0 +02.1	N 06 34.8 +00.2	350 14.7 +02.6	S 22 40.4 +00.0	341 23.4 +02.6	S 21 13.3 +00.0	20						
21	267 31.1 +02.1	N 06 35.0 +00.1	5 17.3 +02.5	S 22 40.4 +00.0	356 26.0 +02.5	S 21 13.3 +00.0	21						
22	282 33.2 +02.1	N 06 35.1 +00.1	20 19.8 +02.6	S 22 40.4 +00.0	11 28.5 +02.6	S 21 13.3 +00.0	22						
23	297 35.3 +02.2	N 06 35.2 +00.1	35 22.4 +02.6	S 22 40.4 +00.0	26 31.1 +02.6	S 21 13.3 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	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 333° 333° 333° 333° 333° 333°		SHA 071° 071° 071° 071° 071° 071°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 03:12		Greenwich Culmination Time: 20:38		Greenwich Culmination Time: 21:14								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 55.1 +00.2	N 08 32.9 -00.9	224 54.8 -00.4	N 19 28.6 -00.3	23 38.9 -30.5	S 20 32.2 -07.3	00						
01	194 55.3 +00.2	N 08 32.0 -00.9	239 54.4 -00.3	N 19 28.3 -00.2	38 08.4 -30.4	S 20 24.9 -07.3	01						
02	209 55.5 +00.2	N 08 31.1 -00.9	254 54.1 -00.3	N 19 28.1 -00.3	52 38.0 -30.3	S 20 17.6 -07.5	02						
03	224 55.7 +00.2	N 08 30.2 -00.9	269 53.8 -00.4	N 19 27.8 -00.2	67 07.7 -30.2	S 20 10.1 -07.5	03						
04	239 55.9 +00.2	N 08 29.3 -00.9	284 53.4 -00.3	N 19 27.6 -00.3	81 37.5 -30.1	S 20 02.6 -07.7	04						
05	254 56.1 +00.2	N 08 28.4 -00.9	299 53.1 -00.4	N 19 27.3 -00.3	96 07.4 -30.1	S 19 54.9 -07.7	05						
06	269 56.3 +00.2	N 08 27.5 -00.9	314 52.7 -00.3	N 19 27.0 -00.2	110 37.3 -30.0	S 19 47.2 -07.9	06						
07	284 56.5 +00.2	N 08 26.6 -00.9	329 52.4 -00.4	N 19 26.8 -00.3	125 07.3 -30.0	S 19 39.3 -07.9	07						
08	299 56.7 +00.2	N 08 25.7 -00.9	344 52.0 -00.3	N 19 26.5 -00.2	139 37.3 -29.8	S 19 31.4 -08.0	08						
09	314 56.9 +00.2	N 08 24.8 -00.9	359 51.7 -00.3	N 19 26.3 -00.3	154 07.5 -29.8	S 19 23.4 -08.1	09						
10	329 57.1 +00.2	N 08 23.9 -00.9	14 51.4 -00.4	N 19 26.0 -00.2	168 37.7 -29.7	S 19 15.3 -08.2	10						
11	344 57.3 +00.2	N 08 23.0 -00.9	29 51.0 -00.3	N 19 25.8 -00.3	183 08.0 -29.7	S 19 07.1 -08.3	11						
12	359 57.5 +00.2	N 08 22.1 -00.9	44 50.7 -00.4	N 19 25.5 -00.3	197 38.3 -29.5	S 18 58.8 -08.4	12						
13	14 57.7 +00.2	N 08 21.2 -00.9	59 50.3 -00.3	N 19 25.2 -00.2	212 08.8 -29.5	S 18 50.4 -08.4	13						
14	29 57.9 +00.2	N 08 20.3 -00.9	74 50.0 -00.3	N 19 25.0 -00.3	226 39.3 -29.4	S 18 42.0 -08.6	14						
15	44 58.1 +00.2	N 08 19.4 -01.0	89 49.7 -00.4	N 19 24.7 -00.2	241 09.9 -29.4	S 18 33.4 -08.6	15						
16	59 58.3 +00.2	N 08 18.4 -00.9	104 49.3 -00.3	N 19 24.5 -00.3	255 40.5 -29.2	S 18 24.8 -08.7	16						
17	74 58.5 +00.2	N 08 17.5 -00.9	119 49.0 -00.4	N 19 24.2 -00.3	270 11.3 -29.2	S 18 16.1 -08.8	17						
18	89 58.7 +00.2	N 08 16.6 -00.9	134 48.6 -00.3	N 19 23.9 -00.2	284 42.1 -29.1	S 18 07.3 -08.9	18						
19	104 58.9 +00.2	N 08 15.7 -00.9	149 48.3 -00.4	N 19 23.7 -00.3	299 13.0 -29.1	S 17 58.4 -08.9	19						
20	119 59.1 +00.2	N 08 14.8 -00.9	164 47.9 -00.3	N 19 23.4 -00.3	313 43.9 -29.0	S 17 49.5 -09.1	20						
21	134 59.3 +00.2	N 08 13.9 -00.9	179 47.6 -00.4	N 19 23.1 -00.2	328 14.9 -28.9	S 17 40.4 -09.1	21						
22	149 59.5 +00.2	N 08 13.0 -00.9	194 47.2 -00.3	N 19 22.9 -00.3	342 46.0 -28.8	S 17 31.3 -09.2	22						
23	164 59.7 +00.2	N 08 12.1 -00.9	209 46.9 -00.4	N 19 22.6 -00.3	357 17.2 -28.8	S 17 22.1 -09.2	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'2 00'2 00'2 00'2 00'2 00'2		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 00'2 00'2 00'2 00'2 00'2 00'2		HP 55'8 55'7 55'7 55'6 55'5 55'4								
	SHA 200° 200° 200° 200° 200° 199°		SHA 245° 245° 245° 245° 244° 244°		SHA 043° 041° 039° 036° 034° 032°								
	Greenwich Culmination Time: 12:00		Greenwich Culmination Time: 09:00		Greenwich Culmination Time: 23:11								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	312 37.5 +02.1	N 06 35.3 +00.1	50 25.0 +02.6	S 22 40.4 +00.1	41 33.7 +02.6	S 21 13.3 +00.1	00						
01	327 39.6 +02.1	N 06 35.4 +00.1	65 27.6 +02.5	S 22 40.5 +00.0	56 36.3 +02.6	S 21 13.4 +00.0	01						
02	342 41.7 +02.2	N 06 35.5 +00.1	80 30.1 +02.6	S 22 40.5 +00.0	71 38.9 +02.6	S 21 13.4 +00.0	02						
03	357 43.9 +02.1	N 06 35.6 +00.2	95 32.7 +02.6	S 22 40.5 +00.0	86 41.5 +02.5	S 21 13.4 +00.0	03						
04	12 46.0 +02.2	N 06 35.8 +00.1	110 35.3 +02.6	S 22 40.5 +00.0	101 44.0 +02.6	S 21 13.4 +00.1	04						
05	27 48.2 +02.1	N 06 35.9 +00.1	125 37.9 +02.5	S 22 40.5 +00.0	116 46.6 +02.6	S 21 13.5 +00.0	05						
06	42 50.3 +02.1	N 06 36.0 +00.1	140 40.4 +02.6	S 22 40.5 +00.1	131 49.2 +02.6	S 21 13.5 +00.0	06						
07	57 52.4 +02.2	N 06 36.1 +00.1	155 43.0 +02.6	S 22 40.6 +00.0	146 51.8 +02.6	S 21 13.5 +00.0	07						
08	72 54.6 +02.1	N 06 36.2 +00.1	170 45.6 +02.6	S 22 40.6 +00.0	161 54.4 +02.5	S 21 13.5 +00.1	08						
09	87 56.7 +02.2	N 06 36.3 +00.1	185 48.2 +02.5	S 22 40.6 +00.0	176 56.9 +02.6	S 21 13.6 +00.0	09						
10	102 58.9 +02.1	N 06 36.4 +00.1	200 50.7 +02.6	S 22 40.6 +00.0	191 59.5 +02.6	S 21 13.6 +00.0	10						
11	118 01.0 +02.2	N 06 36.5 +00.1	215 53.3 +02.6	S 22 40.6 +00.0	207 02.1 +02.6	S 21 13.6 +00.0	11						
12	133 03.2 +02.1	N 06 36.6 +00.2	230 55.9 +02.5	S 22 40.6 +00.0	222 04.7 +02.6	S 21 13.6 +00.1	12						
13	148 05.3 +02.2	N 06 36.8 +00.1	245 58.4 +02.6	S 22 40.6 +00.1	237 07.3 +02.5	S 21 13.7 +00.0	13						
14	163 07.5 +02.1	N 06 36.9 +00.1	261 01.0 +02.6	S 22 40.7 +00.0	252 09.8 +02.6	S 21 13.7 +00.0	14						
15	178 09.6 +02.2	N 06 37.0 +00.1	276 03.6 +02.5	S 22 40.7 +00.0	267 12.4 +02.6	S 21 13.7 +00.0	15						
16	193 11.8 +02.1	N 06 37.1 +00.1	291 06.1 +02.6	S 22 40.7 +00.0	282 15.0 +02.6	S 21 13.7 +00.0	16						
17	208 13.9 +02.2	N 06 37.2 +00.1	306 08.7 +02.6	S 22 40.7 +00.0	297 17.6 +02.5	S 21 13.7 +00.1	17						
18	223 16.1 +02.2	N 06 37.3 +00.1	321 11.3 +02.5	S 22 40.7 +00.0	312 20.1 +02.6	S 21 13.8 +00.0	18						
19	238 18.3 +02.1	N 06 37.4 +00.1	336 13.8 +02.6	S 22 40.7 +00.1	327 22.7 +02.6	S 21 13.8 +00.0	19						
20	253 20.4 +02.2	N 06 37.5 +00.1	351 16.4 +02.6	S 22 40.8 +00.0	342 25.3 +02.6	S 21 13.8 +00.0	20						
21	268 22.6 +02.1	N 06 37.6 +00.1	6 19.0 +02.6	S 22 40.8 +00.0	357 27.9 +02.6	S 21 13.8 +00.1	21						
22	283 24.7 +02.2	N 06 37.7 +00.1	21 21.6 +02.5	S 22 40.8 +00.0	12 30.5 +02.5	S 21 13.9 +00.0	22						
23	298 26.9 +02.2	N 06 37.8 +00.1	36 24.1 +02.6	S 22 40.8 +00.0	27 33.0 +02.6	S 21 13.9 +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 00'4 00'4 00'4 00'4 00'4 00'4		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 333° 333° 333° 333° 333° 333°		SHA 071° 071° 071° 071° 071° 071°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 03:09		Greenwich Culmination Time: 20:34		Greenwich Culmination Time: 21:10								

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 59.9 +00.2	N 08 11.2 -00.9	224 46.5 -00.3	N 19 22.3 -00.3	11 48.4 -28.7	S 17 12.9 -09.4	00													
01	195 00.1 +00.2	N 08 10.3 -00.9	239 46.2 -00.4	N 19 22.0 -00.2	26 19.7 -28.6	S 17 03.5 -09.4	01													
02	210 00.3 +00.2	N 08 09.4 -00.9	254 45.8 -00.3	N 19 21.8 -00.3	40 51.1 -28.5	S 16 54.1 -09.5	02													
03	225 00.5 +00.2	N 08 08.5 -00.9	269 45.5 -00.3	N 19 21.5 -00.3	55 22.6 -28.5	S 16 44.6 -09.5	03													
04	240 00.7 +00.2	N 08 07.6 -00.9	284 45.2 -00.4	N 19 21.2 -00.3	69 54.1 -28.4	S 16 35.1 -09.6	04													
05	255 00.9 +00.2	N 08 06.7 -01.0	299 44.8 -00.3	N 19 20.9 -00.2	84 25.7 -28.3	S 16 25.5 -09.7	05													
06	270 01.1 +00.2	N 08 05.7 -00.9	314 44.5 -00.4	N 19 20.7 -00.3	98 57.4 -28.3	S 16 15.8 -09.8	06													
07	285 01.3 +00.2	N 08 04.8 -00.9	329 44.1 -00.3	N 19 20.4 -00.3	113 29.1 -28.2	S 16 06.0 -09.8	07													
08	300 01.5 +00.2	N 08 03.9 -00.9	344 43.8 -00.4	N 19 20.1 -00.3	128 00.9 -28.1	S 15 56.2 -09.9	08													
09	315 01.7 +00.2	N 08 03.0 -00.9	359 43.4 -00.3	N 19 19.8 -00.2	142 32.8 -28.1	S 15 46.3 -10.0	09													
10	330 01.9 +00.2	N 08 02.1 -00.9	14 43.1 -00.4	N 19 19.6 -00.3	157 04.7 -28.0	S 15 36.3 -10.0	10													
11	345 02.1 +00.2	N 08 01.2 -00.9	29 42.7 -00.3	N 19 19.3 -00.3	171 36.7 -27.9	S 15 26.3 -10.1	11													
12	0 02.3 +00.2	N 08 00.3 -00.9	44 42.4 -00.4	N 19 19.0 -00.3	186 08.8 -27.8	S 15 16.2 -10.1	12													
13	15 02.5 +00.2	N 07 59.4 -00.9	59 42.0 -00.3	N 19 18.7 -00.3	200 41.0 -27.8	S 15 06.1 -10.3	13													
14	30 02.7 +00.2	N 07 58.5 -00.9	74 41.7 -00.4	N 19 18.4 -00.2	215 13.2 -27.7	S 14 55.8 -10.2	14													
15	45 02.9 +00.2	N 07 57.6 -00.9	89 41.3 -00.3	N 19 18.2 -00.3	229 45.5 -27.7	S 14 45.6 -10.4	15													
16	60 03.1 +00.2	N 07 56.7 -01.0	104 41.0 -00.4	N 19 17.9 -00.3	244 17.8 -27.6	S 14 35.2 -10.3	16													
17	75 03.3 +00.2	N 07 55.7 -00.9	119 40.6 -00.3	N 19 17.6 -00.3	258 50.2 -27.5	S 14 24.9 -10.5	17													
18	90 03.5 +00.2	N 07 54.8 -00.9	134 40.3 -00.4	N 19 17.3 -00.3	273 22.7 -27.5	S 14 14.4 -10.5	18													
19	105 03.7 +00.2	N 07 53.9 -00.9	149 39.9 -00.4	N 19 17.0 -00.3	287 55.2 -27.4	S 14 03.9 -10.6	19													
20	120 03.9 +00.2	N 07 53.0 -00.9	164 39.5 -00.3	N 19 16.7 -00.3	302 27.8 -27.3	S 13 53.3 -10.6	20													
21	135 04.1 +00.2	N 07 52.1 -00.9	179 39.2 -00.4	N 19 16.4 -00.3	317 00.5 -27.3	S 13 42.7 -10.6	21													
22	150 04.3 +00.2	N 07 51.2 -00.9	194 38.8 -00.3	N 19 16.1 -00.2	331 33.2 -27.2	S 13 32.1 -10.8	22													
23	165 04.5 +00.2	N 07 50.3 -00.9	209 38.5 -00.4	N 19 15.9 -00.3	346 06.0 -27.1	S 13 21.3 -10.7	23													
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	15'8	15'8	15'9	15'9	15'9	15'9	SD	00'2	00'2	00'2	00'2	00'2	00'2	SD	15'1	15'1	15'0	15'0	15'0	15'0
HP	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	55'4	55'3	55'2	55'2	55'1	55'0
SHA	199°	199°	199°	199°	199°	199°	SHA	244°	244°	244°	244°	243°	243°	SHA	030°	028°	026°	024°	022°	020°
Greenwich Culmination Time: 11:59							Greenwich Culmination Time: 09:01							Greenwich Culmination Time: 23:57						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	313 29.1 +02.1	N 06 37.9 +00.1	51 26.7 +02.6	S 22 40.8 +00.0	42 35.6 +02.6	S 21 13.9 +00.0	00													
01	328 31.2 +02.2	N 06 38.0 +00.1	66 29.3 +02.5	S 22 40.8 +00.0	57 38.2 +02.6	S 21 13.9 +00.1	01													
02	343 33.4 +02.2	N 06 38.1 +00.2	81 31.8 +02.6	S 22 40.8 +00.1	72 40.8 +02.6	S 21 14.0 +00.0	02													
03	358 35.6 +02.1	N 06 38.3 +00.1	96 34.4 +02.5	S 22 40.9 +00.0	87 43.4 +02.5	S 21 14.0 +00.0	03													
04	13 37.7 +02.2	N 06 38.4 +00.1	111 36.9 +02.6	S 22 40.9 +00.0	102 45.9 +02.6	S 21 14.0 +00.0	04													
05	28 39.9 +02.2	N 06 38.5 +00.1	126 39.5 +02.6	S 22 40.9 +00.0	117 48.5 +02.6	S 21 14.0 +00.0	05													
06	43 42.1 +02.2	N 06 38.6 +00.1	141 42.1 +02.5	S 22 40.9 +00.0	132 51.1 +02.6	S 21 14.0 +00.1	06													
07	58 44.3 +02.1	N 06 38.7 +00.1	156 44.6 +02.6	S 22 40.9 +00.0	147 53.7 +02.5	S 21 14.1 +00.0	07													
08	73 46.4 +02.2	N 06 38.8 +00.1	171 47.2 +02.6	S 22 40.9 +00.0	162 56.2 +02.6	S 21 14.1 +00.0	08													
09	88 48.6 +02.2	N 06 38.9 +00.1	186 49.8 +02.5	S 22 40.9 +00.1	177 58.8 +02.6	S 21 14.1 +00.0	09													
10	103 50.8 +02.2	N 06 39.0 +00.1	201 52.3 +02.6	S 22 41.0 +00.0	193 01.4 +02.6	S 21 14.1 +00.1	10													
11	118 53.0 +02.2	N 06 39.1 +00.1	216 54.9 +02.6	S 22 41.0 +00.0	208 04.0 +02.5	S 21 14.2 +00.0	11													
12	133 55.2 +02.1	N 06 39.2 +00.1	231 57.5 +02.5	S 22 41.0 +00.0	223 06.5 +02.6	S 21 14.2 +00.0	12													
13	148 57.3 +02.2	N 06 39.3 +00.1	247 00.0 +02.6	S 22 41.0 +00.0	238 09.1 +02.6	S 21 14.2 +00.0	13													
14	163 59.5 +02.2	N 06 39.4 +00.1	262 02.6 +02.5	S 22 41.0 +00.0	253 11.7 +02.6	S 21 14.2 +00.0	14													
15	179 01.7 +02.2	N 06 39.5 +00.1	277 05.1 +02.6	S 22 41.0 +00.0	268 14.3 +02.5	S 21 14.2 +00.1	15													
16	194 03.9 +02.2	N 06 39.6 +00.1	292 07.7 +02.6	S 22 41.0 +00.1	283 16.8 +02.6	S 21 14.3 +00.0	16													
17	209 06.1 +02.2	N 06 39.7 +00.1	307 10.3 +02.5	S 22 41.1 +00.0	298 19.4 +02.6	S 21 14.3 +00.0	17													
18	224 08.3 +02.2	N 06 39.8 +00.1	322 12.8 +02.6	S 22 41.1 +00.0	313 22.0 +02.6	S 21 14.3 +00.0	18													
19	239 10.5 +02.1	N 06 39.9 +00.1	337 15.4 +02.5	S 22 41.1 +00.0	328 24.6 +02.5	S 21 14.3 +00.1	19													
20	254 12.6 +02.2	N 06 40.0 +00.1	352 17.9 +02.6	S 22 41.1 +00.0	343 27.1 +02.6	S 21 14.4 +00.0	20													
21	269 14.8 +02.2	N 06 40.1 +00.1	7 20.5 +02.6	S 22 41.1 +00.0	358 29.7 +02.6	S 21 14.4 +00.0	21													
22	284 17.0 +02.2	N 06 40.2 +00.0	22 23.1 +02.5	S 22 41.1 +00.0	13 32.3 +02.6	S 21 14.4 +00.0	22													
23	299 19.2 +02.2	N 06 40.2 +00.1	37 25.6 +02.6	S 22 41.1 +00.1	28 34.9 +02.5	S 21 14.4 +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	00'4	00'4	00'4	00'4	00'4	00'4	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	333°	333°	333°	333°	333°	333°	SHA	071°	071°	071°	071°	071°	071°	SHA	062°	062°	062°	062°	062°	062°
Greenwich Culmination Time: 03:05							Greenwich Culmination Time: 20:30							Greenwich Culmination Time: 21:06						

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 04.7 +00.2	N 07 49.4 -01.0	224 38.1 -00.3	N 19 15.6 -00.3	0 38.9 -27.1	S 13 10.6 -10.9	00						
01	195 04.9 +00.2	N 07 48.4 -00.9	239 37.8 -00.4	N 19 15.3 -00.3	15 11.8 -27.0	S 12 59.7 -10.8	01						
02	210 05.1 +00.2	N 07 47.5 -00.9	254 37.4 -00.3	N 19 15.0 -00.3	29 44.8 -27.0	S 12 48.9 -11.0	02						
03	225 05.3 +00.2	N 07 46.6 -00.9	269 37.1 -00.4	N 19 14.7 -00.3	44 17.8 -26.9	S 12 37.9 -10.9	03						
04	240 05.5 +00.2	N 07 45.7 -00.9	284 36.7 -00.3	N 19 14.4 -00.3	58 50.9 -26.9	S 12 27.0 -11.0	04						
05	255 05.7 +00.2	N 07 44.8 -00.9	299 36.4 -00.4	N 19 14.1 -00.3	73 24.0 -26.7	S 12 16.0 -11.1	05						
06	270 05.9 +00.2	N 07 43.9 -00.9	314 36.0 -00.4	N 19 13.8 -00.3	87 57.3 -26.8	S 12 04.9 -11.1	06						
07	285 06.1 +00.2	N 07 43.0 -01.0	329 35.6 -00.3	N 19 13.5 -00.3	102 30.5 -26.7	S 11 53.8 -11.2	07						
08	300 06.3 +00.2	N 07 42.0 -00.9	344 35.3 -00.4	N 19 13.2 -00.3	117 03.8 -26.6	S 11 42.6 -11.2	08						
09	315 06.5 +00.2	N 07 41.1 -00.9	359 34.9 -00.3	N 19 12.9 -00.3	131 37.2 -26.5	S 11 31.4 -11.2	09						
10	330 06.7 +00.2	N 07 40.2 -00.9	14 34.6 -00.4	N 19 12.6 -00.3	146 10.7 -26.6	S 11 20.2 -11.3	10						
11	345 06.9 +00.2	N 07 39.3 -00.9	29 34.2 -00.3	N 19 12.3 -00.3	160 44.1 -26.4	S 11 08.9 -11.3	11						
12	0 07.1 +00.2	N 07 38.4 -00.9	44 33.9 -00.4	N 19 12.0 -00.3	175 17.7 -26.4	S 10 57.6 -11.3	12						
13	15 07.3 +00.3	N 07 37.5 -00.9	59 33.5 -00.4	N 19 11.7 -00.3	189 51.3 -26.4	S 10 46.3 -11.4	13						
14	30 07.6 +00.2	N 07 36.6 -01.0	74 33.1 -00.3	N 19 11.4 -00.3	204 24.9 -26.3	S 10 34.9 -11.5	14						
15	45 07.8 +00.2	N 07 35.6 -00.9	89 32.8 -00.4	N 19 11.1 -00.3	218 58.6 -26.2	S 10 23.4 -11.4	15						
16	60 08.0 +00.2	N 07 34.7 -00.9	104 32.4 -00.3	N 19 10.8 -00.3	233 32.4 -26.2	S 10 12.0 -11.5	16						
17	75 08.2 +00.2	N 07 33.8 -00.9	119 32.1 -00.4	N 19 10.5 -00.3	248 06.2 -26.2	S 10 00.5 -11.6	17						
18	90 08.4 +00.2	N 07 32.9 -00.9	134 31.7 -00.4	N 19 10.2 -00.3	262 40.0 -26.1	S 09 48.9 -11.6	18						
19	105 08.6 +00.2	N 07 32.0 -00.9	149 31.3 -00.3	N 19 09.9 -00.3	277 13.9 -26.0	S 09 37.3 -11.6	19						
20	120 08.8 +00.2	N 07 31.1 -01.0	164 31.0 -00.4	N 19 09.6 -00.3	291 47.9 -26.0	S 09 25.7 -11.6	20						
21	135 09.0 +00.2	N 07 30.1 -00.9	179 30.6 -00.3	N 19 09.3 -00.4	306 21.9 -26.0	S 09 14.1 -11.7	21						
22	150 09.2 +00.2	N 07 29.2 -00.9	194 30.3 -00.4	N 19 08.9 -00.3	320 55.9 -25.9	S 09 02.4 -11.7	22						
23	165 09.4 +00.2	N 07 28.3 -00.9	209 29.9 -00.4	N 19 08.6 -00.3	335 30.0 -25.9	S 08 50.7 -11.7	23						
UT	02 06 10 14 18 22	SD 15'9 15'9 15'9 15'9 15'9 15'9	UT	02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2	UT	02 06 10 14 18 22	SD 15'0 15'0 14'9 14'9 14'9 14'9					
	HP 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 55'0 54'9 54'8 54'8 54'7 54'7		HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 198° 198° 198° 198° 198° 198°		SHA 243° 243° 243° 242° 242° 242°		SHA 018° 016° 014° 012° 010° 008°		SHA 018° 016° 014° 012° 010° 008°						
	Greenwich Culmination Time: 11:59		Greenwich Culmination Time: 09:01		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	314 21.4 +02.2	N 06 40.3 +00.1	52 28.2 +02.5	S 22 41.2 +00.0	43 37.4 +02.6	S 21 14.5 +00.0	00						
01	329 23.6 +02.2	N 06 40.4 +00.1	67 30.7 +02.6	S 22 41.2 +00.0	58 40.0 +02.6	S 21 14.5 +00.0	01						
02	344 25.8 +02.2	N 06 40.5 +00.1	82 33.3 +02.5	S 22 41.2 +00.0	73 42.6 +02.6	S 21 14.5 +00.0	02						
03	359 28.0 +02.2	N 06 40.6 +00.1	97 35.8 +02.6	S 22 41.2 +00.0	88 45.2 +02.5	S 21 14.5 +00.0	03						
04	14 30.2 +02.2	N 06 40.7 +00.1	112 38.4 +02.6	S 22 41.2 +00.0	103 47.7 +02.6	S 21 14.5 +00.1	04						
05	29 32.4 +02.2	N 06 40.8 +00.1	127 41.0 +02.5	S 22 41.2 +00.0	118 50.3 +02.6	S 21 14.6 +00.0	05						
06	44 34.6 +02.2	N 06 40.9 +00.1	142 43.5 +02.6	S 22 41.2 +00.1	133 52.9 +02.6	S 21 14.6 +00.0	06						
07	59 36.8 +02.3	N 06 41.0 +00.1	157 46.1 +02.5	S 22 41.3 +00.0	148 55.5 +02.5	S 21 14.6 +00.0	07						
08	74 39.1 +02.2	N 06 41.1 +00.1	172 48.6 +02.6	S 22 41.3 +00.0	163 58.0 +02.6	S 21 14.6 +00.0	08						
09	89 41.3 +02.2	N 06 41.2 +00.1	187 51.2 +02.5	S 22 41.3 +00.0	179 00.6 +02.6	S 21 14.6 +00.1	09						
10	104 43.5 +02.2	N 06 41.3 +00.1	202 53.7 +02.6	S 22 41.3 +00.0	194 03.2 +02.6	S 21 14.7 +00.0	10						
11	119 45.7 +02.2	N 06 41.4 +00.1	217 56.3 +02.5	S 22 41.3 +00.0	209 05.8 +02.5	S 21 14.7 +00.0	11						
12	134 47.9 +02.2	N 06 41.5 +00.0	232 58.8 +02.6	S 22 41.3 +00.0	224 08.3 +02.6	S 21 14.7 +00.0	12						
13	149 50.1 +02.2	N 06 41.5 +00.1	248 01.4 +02.6	S 22 41.3 +00.1	239 10.9 +02.6	S 21 14.7 +00.1	13						
14	164 52.3 +02.3	N 06 41.6 +00.1	263 04.0 +02.5	S 22 41.4 +00.0	254 13.5 +02.5	S 21 14.8 +00.0	14						
15	179 54.6 +02.2	N 06 41.7 +00.1	278 06.5 +02.6	S 22 41.4 +00.0	269 16.0 +02.6	S 21 14.8 +00.0	15						
16	194 56.8 +02.2	N 06 41.8 +00.1	293 09.1 +02.5	S 22 41.4 +00.0	284 18.6 +02.6	S 21 14.8 +00.0	16						
17	209 59.0 +02.2	N 06 41.9 +00.1	308 11.6 +02.6	S 22 41.4 +00.0	299 21.2 +02.6	S 21 14.8 +00.0	17						
18	225 01.2 +02.2	N 06 42.0 +00.1	323 14.2 +02.5	S 22 41.4 +00.0	314 23.8 +02.5	S 21 14.8 +00.1	18						
19	240 03.4 +02.3	N 06 42.1 +00.1	338 16.7 +02.6	S 22 41.4 +00.0	329 26.3 +02.6	S 21 14.9 +00.0	19						
20	255 05.7 +02.2	N 06 42.2 +00.1	353 19.3 +02.5	S 22 41.4 +00.0	344 28.9 +02.6	S 21 14.9 +00.0	20						
21	270 07.9 +02.2	N 06 42.3 +00.0	8 21.8 +02.6	S 22 41.4 +00.1	359 31.5 +02.5	S 21 14.9 +00.0	21						
22	285 10.1 +02.2	N 06 42.3 +00.1	23 24.4 +02.5	S 22 41.5 +00.0	14 34.0 +02.6	S 21 14.9 +00.1	22						
23	300 12.3 +02.3	N 06 42.4 +00.1	38 26.9 +02.6	S 22 41.5 +00.0	29 36.6 +02.6	S 21 15.0 +00.0	23						
UT	02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2	UT	02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	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 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 333° 333° 333° 333° 333° 333°		SHA 071° 071° 071° 071° 071° 071°		SHA 062° 062° 062° 062° 062° 062°		SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 03:02		Greenwich Culmination Time: 20:26		Greenwich Culmination Time: 21:01								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180	09.6+00.2	N 07 27.4	-00.9	224	29.5-00.3	N 19 08.3	-00.3	350	04.1-25.8	S 08 39.0	-11.8	00
01	195	09.8+00.2	N 07 26.5	-00.9	239	29.2-00.4	N 19 08.0	-00.3	4	38.3-25.8	S 08 27.2	-11.8	01
02	210	10.0+00.2	N 07 25.6	-01.0	254	28.8-00.3	N 19 07.7	-00.3	19	12.5-25.7	S 08 15.4	-11.8	02
03	225	10.2+00.2	N 07 24.6	-00.9	269	28.5-00.4	N 19 07.4	-00.3	33	46.8-25.7	S 08 03.6	-11.8	03
04	240	10.4+00.2	N 07 23.7	-00.9	284	28.1-00.4	N 19 07.1	-00.3	48	21.1-25.6	S 07 51.8	-11.9	04
05	255	10.6+00.2	N 07 22.8	-00.9	299	27.7-00.3	N 19 06.8	-00.4	62	55.5-25.7	S 07 39.9	-11.9	05
06	270	10.8+00.2	N 07 21.9	-00.9	314	27.4-00.4	N 19 06.4	-00.3	77	29.8-25.5	S 07 28.0	-11.9	06
07	285	11.0+00.2	N 07 21.0	-01.0	329	27.0-00.4	N 19 06.1	-00.3	92	04.3-25.6	S 07 16.1	-11.9	07
08	300	11.2+00.3	N 07 20.0	-00.9	344	26.6-00.3	N 19 05.8	-00.3	106	38.7-25.5	S 07 04.2	-12.0	08
09	315	11.5+00.2	N 07 19.1	-00.9	359	26.3-00.4	N 19 05.5	-00.3	121	13.2-25.4	S 06 52.2	-12.0	09
10	330	11.7+00.2	N 07 18.2	-00.9	14	25.9-00.4	N 19 05.2	-00.4	135	47.8-25.4	S 06 40.2	-12.0	10
11	345	11.9+00.2	N 07 17.3	-00.9	29	25.5-00.3	N 19 04.8	-00.3	150	22.4-25.4	S 06 28.2	-12.0	11
12	0	12.1+00.2	N 07 16.4	-01.0	44	25.2-00.4	N 19 04.5	-00.3	164	57.0-25.4	S 06 16.2	-12.1	12
13	15	12.3+00.2	N 07 15.4	-00.9	59	24.8-00.3	N 19 04.2	-00.3	179	31.6-25.3	S 06 04.1	-12.0	13
14	30	12.5+00.2	N 07 14.5	-00.9	74	24.5-00.4	N 19 03.9	-00.4	194	06.3-25.3	S 05 52.1	-12.1	14
15	45	12.7+00.2	N 07 13.6	-00.9	89	24.1-00.4	N 19 03.5	-00.3	208	41.0-25.2	S 05 40.0	-12.1	15
16	60	12.9+00.2	N 07 12.7	-00.9	104	23.7-00.3	N 19 03.2	-00.3	223	15.8-25.2	S 05 27.9	-12.1	16
17	75	13.1+00.2	N 07 11.8	-01.0	119	23.4-00.4	N 19 02.9	-00.3	237	50.6-25.2	S 05 15.8	-12.1	17
18	90	13.3+00.2	N 07 10.8	-00.9	134	23.0-00.4	N 19 02.6	-00.4	252	25.4-25.2	S 05 03.7	-12.2	18
19	105	13.5+00.2	N 07 09.9	-00.9	149	22.6-00.3	N 19 02.2	-00.3	267	00.2-25.1	S 04 51.5	-12.1	19
20	120	13.7+00.2	N 07 09.0	-00.9	164	22.3-00.4	N 19 01.9	-00.3	281	35.1-25.1	S 04 39.4	-12.2	20
21	135	13.9+00.2	N 07 08.1	-00.9	179	21.9-00.4	N 19 01.6	-00.4	296	10.0-25.1	S 04 27.2	-12.2	21
22	150	14.1+00.3	N 07 07.2	-01.0	194	21.5-00.3	N 19 01.2	-00.3	310	44.9-25.0	S 04 15.0	-12.2	22
23	165	14.4+00.2	N 07 06.2	-00.9	209	21.2-00.4	N 19 00.9	-00.3	325	19.9-25.0	S 04 02.8	-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 15'9 15'9 15'9 15'9 15'9 15'9				SD 00'2 00'2 00'2 00'2 00'2 00'2				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 00'2 00'2 00'2 00'2 00'2 00'2				HP 54'6 54'5 54'5 54'4 54'4 54'4				
	SHA 197° 197° 197° 197° 197° 197°				SHA 242° 242° 241° 241° 241° 241°				SHA 007° 005° 003° 001° 359° 357°				
	Greenwich Culmination Time: 11:59				Greenwich Culmination Time: 09:02				Greenwich Culmination Time: 00:40				

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	315	14.6+02.2	N 06 42.5	+00.1	53	29.5+02.5	S 22 41.5	+00.0	44	39.2+02.6	S 21 15.0	+00.0	00
01	330	16.8+02.2	N 06 42.6	+00.1	68	32.0+02.6	S 22 41.5	+00.0	59	41.8+02.5	S 21 15.0	+00.0	01
02	345	19.0+02.3	N 06 42.7	+00.1	83	34.6+02.5	S 22 41.5	+00.0	74	44.3+02.6	S 21 15.0	+00.0	02
03	0	21.3+02.2	N 06 42.8	+00.1	98	37.1+02.6	S 22 41.5	+00.0	89	46.9+02.6	S 21 15.0	+00.1	03
04	15	23.5+02.2	N 06 42.9	+00.0	113	39.7+02.5	S 22 41.5	+00.0	104	49.5+02.5	S 21 15.1	+00.0	04
05	30	25.7+02.3	N 06 42.9	+00.1	128	42.2+02.6	S 22 41.5	+00.1	119	52.0+02.6	S 21 15.1	+00.0	05
06	45	28.0+02.2	N 06 43.0	+00.1	143	44.8+02.5	S 22 41.6	+00.0	134	54.6+02.6	S 21 15.1	+00.0	06
07	60	30.2+02.3	N 06 43.1	+00.1	158	47.3+02.6	S 22 41.6	+00.0	149	57.2+02.6	S 21 15.1	+00.0	07
08	75	32.5+02.2	N 06 43.2	+00.1	173	49.9+02.5	S 22 41.6	+00.0	164	59.8+02.5	S 21 15.1	+00.1	08
09	90	34.7+02.3	N 06 43.3	+00.1	188	52.4+02.5	S 22 41.6	+00.0	180	02.3+02.6	S 21 15.2	+00.0	09
10	105	37.0+02.2	N 06 43.4	+00.0	203	54.9+02.6	S 22 41.6	+00.0	195	04.9+02.6	S 21 15.2	+00.0	10
11	120	39.2+02.2	N 06 43.4	+00.1	218	57.5+02.5	S 22 41.6	+00.0	210	07.5+02.5	S 21 15.2	+00.0	11
12	135	41.4+02.3	N 06 43.5	+00.1	234	00.0+02.6	S 22 41.6	+00.0	225	10.0+02.6	S 21 15.2	+00.1	12
13	150	43.7+02.2	N 06 43.6	+00.1	249	02.6+02.5	S 22 41.6	+00.1	240	12.6+02.6	S 21 15.3	+00.0	13
14	165	45.9+02.3	N 06 43.7	+00.1	264	05.1+02.6	S 22 41.7	+00.0	255	15.2+02.5	S 21 15.3	+00.0	14
15	180	48.2+02.2	N 06 43.8	+00.0	279	07.7+02.5	S 22 41.7	+00.0	270	17.7+02.6	S 21 15.3	+00.0	15
16	195	50.4+02.3	N 06 43.8	+00.1	294	10.2+02.6	S 22 41.7	+00.0	285	20.3+02.6	S 21 15.3	+00.0	16
17	210	52.7+02.3	N 06 43.9	+00.1	309	12.8+02.5	S 22 41.7	+00.0	300	22.9+02.5	S 21 15.3	+00.1	17
18	225	55.0+02.2	N 06 44.0	+00.1	324	15.3+02.5	S 22 41.7	+00.0	315	25.4+02.6	S 21 15.4	+00.0	18
19	240	57.2+02.3	N 06 44.1	+00.0	339	17.8+02.6	S 22 41.7	+00.0	330	28.0+02.6	S 21 15.4	+00.0	19
20	255	59.5+02.2	N 06 44.1	+00.1	354	20.4+02.5	S 22 41.7	+00.0	345	30.6+02.5	S 21 15.4	+00.0	20
21	271	01.7+02.3	N 06 44.2	+00.1	9	22.9+02.6	S 22 41.7	+00.1	0	33.1+02.6	S 21 15.4	+00.0	21
22	286	04.0+02.3	N 06 44.3	+00.1	24	25.5+02.5	S 22 41.8	+00.0	15	35.7+02.6	S 21 15.4	+00.1	22
23	301	06.3+02.2	N 06 44.4	+00.1	39	28.0+02.6	S 22 41.8	+00.0	30	38.3+02.5	S 21 15.5	+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 00'4 00'4 00'4 00'4 00'4 00'4				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 333° 333° 333° 333° 333° 333°				SHA 071° 071° 071° 071° 071° 071°				SHA 062° 062° 062° 062° 062° 062°				
	Greenwich Culmination Time: 02:58				Greenwich Culmination Time: 20:22				Greenwich Culmination Time: 20:57				

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> A: 57%				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	180 14.6 +00.2	N 07 05.3 -00.9	224 20.8 -00.4	N 19 00.6 -00.4	339 54.9 -25.0	S 03 50.6 -12.2	00						
01	195 14.8 +00.2	N 07 04.4 -00.9	239 20.4 -00.3	N 19 00.2 -00.3	354 29.9 -25.0	S 03 38.4 -12.2	01						
02	210 15.0 +00.2	N 07 03.5 -01.0	254 20.1 -00.4	N 18 59.9 -00.3	9 04.9 -24.9	S 03 26.2 -12.2	02						
03	225 15.2 +00.2	N 07 02.5 -00.9	269 19.7 -00.4	N 18 59.6 -00.4	23 40.0 -24.9	S 03 14.0 -12.2	03						
04	240 15.4 +00.2	N 07 01.6 -00.9	284 19.3 -00.4	N 18 59.2 -00.3	38 15.1 -24.9	S 03 01.8 -12.3	04						
05	255 15.6 +00.2	N 07 00.7 -00.9	299 18.9 -00.3	N 18 58.9 -00.3	52 50.2 -24.9	S 02 49.5 -12.2	05						
06	270 15.8 +00.2	N 06 59.8 -01.0	314 18.6 -00.4	N 18 58.6 -00.4	67 25.3 -24.9	S 02 37.3 -12.3	06						
07	285 16.0 +00.2	N 06 58.8 -00.9	329 18.2 -00.4	N 18 58.2 -00.3	82 00.4 -24.8	S 02 25.0 -12.2	07						
08	300 16.2 +00.2	N 06 57.9 -00.9	344 17.8 -00.3	N 18 57.9 -00.4	96 35.6 -24.8	S 02 12.8 -12.3	08						
09	315 16.4 +00.2	N 06 57.0 -00.9	359 17.5 -00.4	N 18 57.5 -00.3	111 10.8 -24.8	S 02 00.5 -12.3	09						
10	330 16.6 +00.3	N 06 56.1 -01.0	14 17.1 -00.4	N 18 57.2 -00.3	125 46.0 -24.8	S 01 48.2 -12.2	10						
11	345 16.9 +00.2	N 06 55.1 -00.9	29 16.7 -00.3	N 18 56.9 -00.4	140 21.2 -24.8	S 01 36.0 -12.3	11						
12	0 17.1 +00.2	N 06 54.2 -00.9	44 16.4 -00.4	N 18 56.5 -00.3	154 56.4 -24.7	S 01 23.7 -12.3	12						
13	15 17.3 +00.2	N 06 53.3 -00.9	59 16.0 -00.4	N 18 56.2 -00.4	169 31.7 -24.8	S 01 11.4 -12.2	13						
14	30 17.5 +00.2	N 06 52.4 -01.0	74 15.6 -00.4	N 18 55.8 -00.3	184 06.9 -24.7	S 00 59.2 -12.3	14						
15	45 17.7 +00.2	N 06 51.4 -00.9	89 15.2 -00.3	N 18 55.5 -00.4	198 42.2 -24.7	S 00 46.9 -12.3	15						
16	60 17.9 +00.2	N 06 50.5 -00.9	104 14.9 -00.4	N 18 55.1 -00.3	213 17.5 -24.7	S 00 34.6 -12.2	16						
17	75 18.1 +00.2	N 06 49.6 -00.9	119 14.5 -00.4	N 18 54.8 -00.4	227 52.8 -24.7	S 00 22.4 -12.3	17						
18	90 18.3 +00.2	N 06 48.7 -01.0	134 14.1 -00.3	N 18 54.4 -00.3	242 28.1 -24.7	S 00 10.1 -12.3	18						
19	105 18.5 +00.2	N 06 47.7 -00.9	149 13.8 -00.4	N 18 54.1 -00.4	257 03.4 -24.7	N 00 02.2 +12.2	19						
20	120 18.7 +00.3	N 06 46.8 -00.9	164 13.4 -00.4	N 18 53.7 -00.3	271 38.7 -24.6	N 00 14.4 +12.3	20						
21	135 19.0 +00.2	N 06 45.9 -00.9	179 13.0 -00.4	N 18 53.4 -00.4	286 14.1 -24.7	N 00 26.7 +12.2	21						
22	150 19.2 +00.2	N 06 45.0 -01.0	194 12.6 -00.3	N 18 53.0 -00.3	300 49.4 -24.6	N 00 38.9 +12.3	22						
23	165 19.4 +00.2	N 06 44.0 -00.9	209 12.3 -00.4	N 18 52.7 -00.4	315 24.8 -24.7	N 00 51.2 +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 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'2 00'2 00'2 00'2 00'2 00'2		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 00'2 00'2 00'2 00'2 00'2 00'2		HP 54'3 54'3 54'2 54'2 54'2 54'1								
	SHA 197° 196° 196° 196° 196° 196°		SHA 241° 240° 240° 240° 240° 240°		SHA 355° 354° 352° 350° 348° 346°								
	Greenwich Culmination Time: 11:58		Greenwich Culmination Time: 09:02		Greenwich Culmination Time: 01:22								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	GHA ° ' "	ddGHA ' "	Dec ° ' "	dDec ' "	
00	316 08.5 +02.3	N 06 44.5 +00.0	54 30.6 +02.5	S 22 41.8 +00.0	45 40.8 +02.6	S 21 15.5 +00.0	00						
01	331 10.8 +02.2	N 06 44.5 +00.1	69 33.1 +02.5	S 22 41.8 +00.0	60 43.4 +02.6	S 21 15.5 +00.0	01						
02	346 13.0 +02.3	N 06 44.6 +00.1	84 35.6 +02.6	S 22 41.8 +00.0	75 46.0 +02.5	S 21 15.5 +00.0	02						
03	1 15.3 +02.3	N 06 44.7 +00.1	99 38.2 +02.5	S 22 41.8 +00.0	90 48.5 +02.6	S 21 15.5 +00.1	03						
04	16 17.6 +02.3	N 06 44.8 +00.0	114 40.7 +02.6	S 22 41.8 +00.0	105 51.1 +02.6	S 21 15.6 +00.0	04						
05	31 19.9 +02.2	N 06 44.8 +00.1	129 43.3 +02.5	S 22 41.8 +00.0	120 53.7 +02.5	S 21 15.6 +00.0	05						
06	46 22.1 +02.3	N 06 44.9 +00.1	144 45.8 +02.5	S 22 41.8 +00.1	135 56.2 +02.6	S 21 15.6 +00.0	06						
07	61 24.4 +02.3	N 06 45.0 +00.1	159 48.3 +02.6	S 22 41.9 +00.0	150 58.8 +02.6	S 21 15.6 +00.1	07						
08	76 26.7 +02.3	N 06 45.1 +00.0	174 50.9 +02.5	S 22 41.9 +00.0	166 01.4 +02.5	S 21 15.7 +00.0	08						
09	91 29.0 +02.2	N 06 45.1 +00.1	189 53.4 +02.6	S 22 41.9 +00.0	181 03.9 +02.6	S 21 15.7 +00.0	09						
10	106 31.2 +02.3	N 06 45.2 +00.1	204 56.0 +02.5	S 22 41.9 +00.0	196 06.5 +02.6	S 21 15.7 +00.0	10						
11	121 33.5 +02.3	N 06 45.3 +00.0	219 58.5 +02.5	S 22 41.9 +00.0	211 09.1 +02.5	S 21 15.7 +00.0	11						
12	136 35.8 +02.3	N 06 45.3 +00.1	235 01.0 +02.6	S 22 41.9 +00.0	226 11.6 +02.6	S 21 15.7 +00.1	12						
13	151 38.1 +02.3	N 06 45.4 +00.1	250 03.6 +02.5	S 22 41.9 +00.0	241 14.2 +02.6	S 21 15.8 +00.0	13						
14	166 40.4 +02.2	N 06 45.5 +00.1	265 06.1 +02.5	S 22 41.9 +00.1	256 16.8 +02.5	S 21 15.8 +00.0	14						
15	181 42.6 +02.3	N 06 45.6 +00.0	280 08.6 +02.6	S 22 42.0 +00.0	271 19.3 +02.6	S 21 15.8 +00.0	15						
16	196 44.9 +02.3	N 06 45.6 +00.1	295 11.2 +02.5	S 22 42.0 +00.0	286 21.9 +02.6	S 21 15.8 +00.0	16						
17	211 47.2 +02.3	N 06 45.7 +00.1	310 13.7 +02.5	S 22 42.0 +00.0	301 24.5 +02.5	S 21 15.8 +00.1	17						
18	226 49.5 +02.3	N 06 45.8 +00.0	325 16.2 +02.6	S 22 42.0 +00.0	316 27.0 +02.6	S 21 15.9 +00.0	18						
19	241 51.8 +02.3	N 06 45.8 +00.1	340 18.8 +02.5	S 22 42.0 +00.0	331 29.6 +02.6	S 21 15.9 +00.0	19						
20	256 54.1 +02.3	N 06 45.9 +00.1	355 21.3 +02.5	S 22 42.0 +00.0	346 32.2 +02.5	S 21 15.9 +00.0	20						
21	271 56.4 +02.3	N 06 46.0 +00.0	10 23.8 +02.6	S 22 42.0 +00.0	1 34.7 +02.6	S 21 15.9 +00.0	21						
22	286 58.7 +02.3	N 06 46.0 +00.1	25 26.4 +02.5	S 22 42.0 +00.0	16 37.3 +02.6	S 21 15.9 +00.1	22						
23	302 01.0 +02.3	N 06 46.1 +00.1	40 28.9 +02.5	S 22 42.0 +00.0	31 39.9 +02.5	S 21 16.0 +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 00'4 00'4 00'4 00'4 00'4 00'4		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 333° 333° 333° 333° 333° 333°		SHA 071° 071° 071° 071° 071° 071°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 02:54		Greenwich Culmination Time: 20:18		Greenwich Culmination Time: 20:53								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180	19.6+00.2	N 06 43.1	-00.9	224	11.9-00.4	N 18 52.3	-00.3	330	00.1 -24.6	N 01 03.4	+12.2	00
01	195	19.8+00.2	N 06 42.2	-00.9	239	11.5-00.4	N 18 52.0	-00.4	344	35.5 -24.6	N 01 15.6	+12.2	01
02	210	20.0+00.2	N 06 41.3	-01.0	254	11.1-00.3	N 18 51.6	-00.3	359	10.9 -24.7	N 01 27.8	+12.2	02
03	225	20.2+00.2	N 06 40.3	-00.9	269	10.8-00.4	N 18 51.3	-00.4	13	46.2 -24.6	N 01 40.0	+12.2	03
04	240	20.4+00.2	N 06 39.4	-00.9	284	10.4-00.4	N 18 50.9	-00.3	28	21.6 -24.6	N 01 52.2	+12.2	04
05	255	20.6+00.2	N 06 38.5	-01.0	299	10.0-00.4	N 18 50.6	-00.4	42	57.0 -24.6	N 02 04.4	+12.2	05
06	270	20.8+00.3	N 06 37.5	-00.9	314	09.6-00.3	N 18 50.2	-00.4	57	32.4 -24.7	N 02 16.6	+12.2	06
07	285	21.1+00.2	N 06 36.6	-00.9	329	09.3-00.4	N 18 49.8	-00.3	72	07.7 -24.6	N 02 28.8	+12.1	07
08	300	21.3+00.2	N 06 35.7	-00.9	344	08.9-00.4	N 18 49.5	-00.4	86	43.1 -24.6	N 02 40.9	+12.2	08
09	315	21.5+00.2	N 06 34.8	-01.0	359	08.5-00.4	N 18 49.1	-00.3	101	18.5 -24.7	N 02 53.1	+12.1	09
10	330	21.7+00.2	N 06 33.8	-00.9	14	08.1-00.3	N 18 48.8	-00.4	115	53.8 -24.6	N 03 05.2	+12.1	10
11	345	21.9+00.2	N 06 32.9	-00.9	29	07.8-00.4	N 18 48.4	-00.4	130	29.2 -24.6	N 03 17.3	+12.1	11
12	0	22.1+00.2	N 06 32.0	-01.0	44	07.4-00.4	N 18 48.0	-00.3	145	04.6 -24.7	N 03 29.4	+12.1	12
13	15	22.3+00.2	N 06 31.0	-00.9	59	07.0-00.4	N 18 47.7	-00.4	159	39.9 -24.6	N 03 41.5	+12.1	13
14	30	22.5+00.2	N 06 30.1	-00.9	74	06.6-00.3	N 18 47.3	-00.4	174	15.3 -24.7	N 03 53.6	+12.0	14
15	45	22.7+00.3	N 06 29.2	-01.0	89	06.3-00.4	N 18 46.9	-00.3	188	50.6 -24.6	N 04 05.6	+12.1	15
16	60	23.0+00.2	N 06 28.2	-00.9	104	05.9-00.4	N 18 46.6	-00.4	203	26.0 -24.7	N 04 17.7	+12.0	16
17	75	23.2+00.2	N 06 27.3	-00.9	119	05.5-00.4	N 18 46.2	-00.4	218	01.3 -24.7	N 04 29.7	+12.0	17
18	90	23.4+00.2	N 06 26.4	-00.9	134	05.1-00.3	N 18 45.8	-00.3	232	36.6 -24.7	N 04 41.7	+11.9	18
19	105	23.6+00.2	N 06 25.5	-01.0	149	04.8-00.4	N 18 45.5	-00.4	247	11.9 -24.7	N 04 53.6	+12.0	19
20	120	23.8+00.2	N 06 24.5	-00.9	164	04.4-00.4	N 18 45.1	-00.4	261	47.2 -24.7	N 05 05.6	+11.9	20
21	135	24.0+00.2	N 06 23.6	-00.9	179	04.0-00.4	N 18 44.7	-00.4	276	22.5 -24.7	N 05 17.5	+12.0	21
22	150	24.2+00.2	N 06 22.7	-01.0	194	03.6-00.4	N 18 44.3	-00.3	290	57.8 -24.8	N 05 29.5	+11.9	22
23	165	24.4+00.3	N 06 21.7	-00.9	209	03.2-00.3	N 18 44.0	-00.4	305	33.0 -24.7	N 05 41.4	+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 15'9 15'9 15'9 15'9 15'9 15'9				SD 00'2 00'2 00'2 00'2 00'2 00'2				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 00'2 00'2 00'2 00'2 00'2 00'2				HP 54'1 54'1 54'1 54'1 54'1 54'0				
	SHA 196° 196° 195° 195° 195° 195°				SHA 240° 239° 239° 239° 239° 239°				SHA 345° 343° 341° 339° 337° 336°				
	Greenwich Culmination Time: 11:58				Greenwich Culmination Time: 09:03				Greenwich Culmination Time: 02:03				

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	317	03.3+02.3	N 06 46.2	+00.0	55	31.4+02.6	S 22 42.0	+00.1	46	42.4 +02.6	S 21 16.0	+00.0	00
01	332	05.6+02.3	N 06 46.2	+00.1	70	34.0+02.5	S 22 42.1	+00.0	61	45.0 +02.5	S 21 16.0	+00.0	01
02	347	07.9+02.3	N 06 46.3	+00.1	85	36.5+02.5	S 22 42.1	+00.0	76	47.5 +02.6	S 21 16.0	+00.0	02
03	2	10.2+02.3	N 06 46.4	+00.0	100	39.0+02.6	S 22 42.1	+00.0	91	50.1 +02.6	S 21 16.0	+00.1	03
04	17	12.5+02.3	N 06 46.4	+00.1	115	41.6+02.5	S 22 42.1	+00.0	106	52.7 +02.5	S 21 16.1	+00.0	04
05	32	14.8+02.3	N 06 46.5	+00.1	130	44.1+02.5	S 22 42.1	+00.0	121	55.2 +02.6	S 21 16.1	+00.0	05
06	47	17.1+02.3	N 06 46.6	+00.0	145	46.6+02.6	S 22 42.1	+00.0	136	57.8 +02.6	S 21 16.1	+00.0	06
07	62	19.4+02.3	N 06 46.6	+00.1	160	49.2+02.5	S 22 42.1	+00.0	152	00.4 +02.5	S 21 16.1	+00.0	07
08	77	21.7+02.3	N 06 46.7	+00.0	175	51.7+02.5	S 22 42.1	+00.0	167	02.9 +02.6	S 21 16.1	+00.1	08
09	92	24.0+02.3	N 06 46.7	+00.1	190	54.2+02.6	S 22 42.1	+00.1	182	05.5 +02.5	S 21 16.2	+00.0	09
10	107	26.3+02.3	N 06 46.8	+00.1	205	56.8+02.5	S 22 42.2	+00.0	197	08.0 +02.6	S 21 16.2	+00.0	10
11	122	28.6+02.3	N 06 46.9	+00.0	220	59.3+02.5	S 22 42.2	+00.0	212	10.6 +02.6	S 21 16.2	+00.0	11
12	137	30.9+02.4	N 06 46.9	+00.1	236	01.8+02.5	S 22 42.2	+00.0	227	13.2 +02.5	S 21 16.2	+00.0	12
13	152	33.3+02.3	N 06 47.0	+00.1	251	04.3+02.6	S 22 42.2	+00.0	242	15.7 +02.6	S 21 16.2	+00.1	13
14	167	35.6+02.3	N 06 47.1	+00.0	266	06.9+02.5	S 22 42.2	+00.0	257	18.3 +02.6	S 21 16.3	+00.0	14
15	182	37.9+02.3	N 06 47.1	+00.1	281	09.4+02.5	S 22 42.2	+00.0	272	20.9 +02.5	S 21 16.3	+00.0	15
16	197	40.2+02.3	N 06 47.2	+00.0	296	11.9+02.6	S 22 42.2	+00.0	287	23.4 +02.6	S 21 16.3	+00.0	16
17	212	42.5+02.4	N 06 47.2	+00.1	311	14.5+02.5	S 22 42.2	+00.0	302	26.0 +02.5	S 21 16.3	+00.0	17
18	227	44.9+02.3	N 06 47.3	+00.0	326	17.0+02.5	S 22 42.2	+00.0	317	28.5 +02.6	S 21 16.3	+00.1	18
19	242	47.2+02.3	N 06 47.3	+00.1	341	19.5+02.5	S 22 42.2	+00.1	332	31.1 +02.6	S 21 16.4	+00.0	19
20	257	49.5+02.3	N 06 47.4	+00.1	356	22.0+02.6	S 22 42.3	+00.0	347	33.7 +02.5	S 21 16.4	+00.0	20
21	272	51.8+02.4	N 06 47.5	+00.0	11	24.6+02.5	S 22 42.3	+00.0	2	36.2 +02.6	S 21 16.4	+00.0	21
22	287	54.2+02.3	N 06 47.5	+00.1	26	27.1+02.5	S 22 42.3	+00.0	17	38.8 +02.5	S 21 16.4	+00.0	22
23	302	56.5+02.3	N 06 47.6	+00.0	41	29.6+02.5	S 22 42.3	+00.0	32	41.3 +02.6	S 21 16.4	+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 00'2 00'2 00'2 00'2 00'2				SD 00'4 00'4 00'4 00'4 00'4 00'4				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 332° 332° 332° 332° 332° 332°				SHA 071° 071° 071° 071° 071° 071°				SHA 062° 062° 062° 062° 062° 062°				
	Greenwich Culmination Time: 02:51				Greenwich Culmination Time: 20:14				Greenwich Culmination Time: 20:49				

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 24.7 +00.2	N 06 20.8 -00.9	224 02.9 -00.4	N 18 43.6 -00.4	320 08.3 -24.8	N 05 53.2 +11.9	00						
01	195 24.9 +00.2	N 06 19.9 -01.0	239 02.5 -00.4	N 18 43.2 -00.4	334 43.5 -24.8	N 06 05.1 +11.8	01						
02	210 25.1 +00.2	N 06 18.9 -00.9	254 02.1 -00.4	N 18 42.8 -00.3	349 18.7 -24.8	N 06 16.9 +11.8	02						
03	225 25.3 +00.2	N 06 18.0 -00.9	269 01.7 -00.4	N 18 42.5 -00.4	3 53.9 -24.8	N 06 28.7 +11.8	03						
04	240 25.5 +00.2	N 06 17.1 -01.0	284 01.3 -00.3	N 18 42.1 -00.4	18 29.1 -24.9	N 06 40.5 +11.7	04						
05	255 25.7 +00.2	N 06 16.1 -00.9	299 01.0 -00.4	N 18 41.7 -00.4	33 04.2 -24.8	N 06 52.2 +11.7	05						
06	270 25.9 +00.2	N 06 15.2 -00.9	314 00.6 -00.4	N 18 41.3 -00.4	47 39.4 -24.9	N 07 03.9 +11.7	06						
07	285 26.1 +00.3	N 06 14.3 -01.0	329 00.2 -00.4	N 18 40.9 -00.3	62 14.5 -24.9	N 07 15.6 +11.7	07						
08	300 26.4 +00.2	N 06 13.3 -00.9	343 59.8 -00.4	N 18 40.6 -00.4	76 49.6 -25.0	N 07 27.3 +11.6	08						
09	315 26.6 +00.2	N 06 12.4 -00.9	358 59.4 -00.3	N 18 40.2 -00.4	91 24.6 -24.9	N 07 38.9 +11.6	09						
10	330 26.8 +00.2	N 06 11.5 -01.0	13 59.1 -00.4	N 18 39.8 -00.4	105 59.7 -25.0	N 07 50.5 +11.6	10						
11	345 27.0 +00.2	N 06 10.5 -00.9	28 58.7 -00.4	N 18 39.4 -00.4	120 34.7 -25.0	N 08 02.1 +11.6	11						
12	0 27.2 +00.2	N 06 09.6 -00.9	43 58.3 -00.4	N 18 39.0 -00.4	135 09.7 -25.0	N 08 13.7 +11.5	12						
13	15 27.4 +00.2	N 06 08.7 -01.0	58 57.9 -00.4	N 18 38.6 -00.3	149 44.7 -25.0	N 08 25.2 +11.5	13						
14	30 27.6 +00.3	N 06 07.7 -00.9	73 57.5 -00.4	N 18 38.3 -00.4	164 19.7 -25.1	N 08 36.7 +11.4	14						
15	45 27.9 +00.2	N 06 06.8 -00.9	88 57.1 -00.3	N 18 37.9 -00.4	178 54.6 -25.1	N 08 48.1 +11.4	15						
16	60 28.1 +00.2	N 06 05.9 -01.0	103 56.8 -00.4	N 18 37.5 -00.4	193 29.5 -25.2	N 08 59.5 +11.4	16						
17	75 28.3 +00.2	N 06 04.9 -00.9	118 56.4 -00.4	N 18 37.1 -00.4	208 04.3 -25.1	N 09 10.9 +11.4	17						
18	90 28.5 +00.2	N 06 04.0 -00.9	133 56.0 -00.4	N 18 36.7 -00.4	222 39.2 -25.2	N 09 22.3 +11.3	18						
19	105 28.7 +00.2	N 06 03.1 -01.0	148 55.6 -00.4	N 18 36.3 -00.4	237 14.0 -25.2	N 09 33.6 +11.3	19						
20	120 28.9 +00.2	N 06 02.1 -00.9	163 55.2 -00.3	N 18 35.9 -00.4	251 48.8 -25.3	N 09 44.9 +11.2	20						
21	135 29.1 +00.2	N 06 01.2 -00.9	178 54.9 -00.4	N 18 35.5 -00.4	266 23.5 -25.3	N 09 56.1 +11.2	21						
22	150 29.3 +00.3	N 06 00.3 -01.0	193 54.5 -00.4	N 18 35.1 -00.4	280 58.2 -25.3	N 10 07.3 +11.2	22						
23	165 29.6 +00.2	N 05 59.3 -00.9	208 54.1 -00.4	N 18 34.7 -00.4	295 32.9 -25.4	N 10 18.5 +11.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'2 00'2 00'2 00'2 00'2 00'2		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 00'2 00'2 00'2 00'2 00'2 00'2		HP 54'0 54'0 54'0 54'0 54'0 54'1								
	SHA 195° 195° 194° 194° 194° 194°		SHA 238° 238° 238° 238° 238° 237°		SHA 334° 332° 330° 328° 326° 325°								
	Greenwich Culmination Time: 11:58		Greenwich Culmination Time: 09:04		Greenwich Culmination Time: 02:43								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	317 58.8 +02.4	N 06 47.6 +00.1	56 32.1 +02.6	S 22 42.3 +00.0	47 43.9 +02.6	S 21 16.5 +00.0	00						
01	333 01.2 +02.3	N 06 47.7 +00.0	71 34.7 +02.5	S 22 42.3 +00.0	62 46.5 +02.5	S 21 16.5 +00.0	01						
02	348 03.5 +02.3	N 06 47.7 +00.1	86 37.2 +02.5	S 22 42.3 +00.0	77 49.0 +02.6	S 21 16.5 +00.0	02						
03	3 05.8 +02.4	N 06 47.8 +00.1	101 39.7 +02.5	S 22 42.3 +00.0	92 51.6 +02.5	S 21 16.5 +00.0	03						
04	18 08.2 +02.3	N 06 47.9 +00.0	116 42.2 +02.5	S 22 42.3 +00.0	107 54.1 +02.6	S 21 16.5 +00.1	04						
05	33 10.5 +02.4	N 06 47.9 +00.1	131 44.7 +02.6	S 22 42.3 +00.0	122 56.7 +02.6	S 21 16.6 +00.0	05						
06	48 12.9 +02.3	N 06 48.0 +00.0	146 47.3 +02.5	S 22 42.3 +00.1	137 59.3 +02.5	S 21 16.6 +00.0	06						
07	63 15.2 +02.3	N 06 48.0 +00.1	161 49.8 +02.5	S 22 42.4 +00.0	153 01.8 +02.6	S 21 16.6 +00.0	07						
08	78 17.5 +02.4	N 06 48.1 +00.0	176 52.3 +02.5	S 22 42.4 +00.0	168 04.4 +02.5	S 21 16.6 +00.0	08						
09	93 19.9 +02.3	N 06 48.1 +00.1	191 54.8 +02.6	S 22 42.4 +00.0	183 06.9 +02.6	S 21 16.6 +00.0	09						
10	108 22.2 +02.4	N 06 48.2 +00.0	206 57.4 +02.5	S 22 42.4 +00.0	198 09.5 +02.5	S 21 16.6 +00.1	10						
11	123 24.6 +02.3	N 06 48.2 +00.1	221 59.9 +02.5	S 22 42.4 +00.0	213 12.0 +02.6	S 21 16.7 +00.0	11						
12	138 26.9 +02.4	N 06 48.3 +00.0	237 02.4 +02.5	S 22 42.4 +00.0	228 14.6 +02.6	S 21 16.7 +00.0	12						
13	153 29.3 +02.3	N 06 48.3 +00.1	252 04.9 +02.5	S 22 42.4 +00.0	243 17.2 +02.5	S 21 16.7 +00.0	13						
14	168 31.6 +02.4	N 06 48.4 +00.0	267 07.4 +02.6	S 22 42.4 +00.0	258 19.7 +02.6	S 21 16.7 +00.0	14						
15	183 34.0 +02.3	N 06 48.4 +00.1	282 10.0 +02.5	S 22 42.4 +00.0	273 22.3 +02.5	S 21 16.7 +00.1	15						
16	198 36.3 +02.4	N 06 48.5 +00.0	297 12.5 +02.5	S 22 42.4 +00.0	288 24.8 +02.6	S 21 16.8 +00.0	16						
17	213 38.7 +02.4	N 06 48.5 +00.1	312 15.0 +02.5	S 22 42.4 +00.1	303 27.4 +02.6	S 21 16.8 +00.0	17						
18	228 41.1 +02.3	N 06 48.6 +00.0	327 17.5 +02.5	S 22 42.5 +00.0	318 30.0 +02.5	S 21 16.8 +00.0	18						
19	243 43.4 +02.4	N 06 48.6 +00.1	342 20.0 +02.5	S 22 42.5 +00.0	333 32.5 +02.6	S 21 16.8 +00.0	19						
20	258 45.8 +02.3	N 06 48.7 +00.0	357 22.5 +02.6	S 22 42.5 +00.0	348 35.1 +02.5	S 21 16.8 +00.1	20						
21	273 48.1 +02.4	N 06 48.7 +00.1	12 25.1 +02.5	S 22 42.5 +00.0	3 37.6 +02.6	S 21 16.9 +00.0	21						
22	288 50.5 +02.4	N 06 48.8 +00.0	27 27.6 +02.5	S 22 42.5 +00.0	18 40.2 +02.5	S 21 16.9 +00.0	22						
23	303 52.9 +02.3	N 06 48.8 +00.1	42 30.1 +02.5	S 22 42.5 +00.0	33 42.7 +02.6	S 21 16.9 +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 00'4 00'4 00'4 00'4 00'4 00'4		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 332° 332° 332° 332° 332° 332°		SHA 071° 071° 071° 071° 071° 071°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 02:47		Greenwich Culmination Time: 20:10		Greenwich Culmination Time: 20:45								

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 29.8 +00.2	N 05 58.4 -01.0	223 53.7 -00.4	N 18 34.3 -00.4	310 07.5 -25.4	N 10 29.6 +11.1	00						
01	195 30.0 +00.2	N 05 57.4 -00.9	238 53.3 -00.4	N 18 33.9 -00.4	324 42.1 -25.4	N 10 40.7 +11.0	01						
02	210 30.2 +00.2	N 05 56.5 -00.9	253 52.9 -00.4	N 18 33.5 -00.4	339 16.7 -25.5	N 10 51.7 +11.0	02						
03	225 30.4 +00.2	N 05 55.6 -01.0	268 52.5 -00.3	N 18 33.1 -00.3	353 51.2 -25.5	N 11 02.7 +11.0	03						
04	240 30.6 +00.2	N 05 54.6 -00.9	283 52.2 -00.4	N 18 32.8 -00.4	8 25.7 -25.5	N 11 13.7 +10.9	04						
05	255 30.8 +00.3	N 05 53.7 -00.9	298 51.8 -00.4	N 18 32.4 -00.4	23 00.2 -25.6	N 11 24.6 +10.9	05						
06	270 31.1 +00.2	N 05 52.8 -01.0	313 51.4 -00.4	N 18 32.0 -00.5	37 34.6 -25.6	N 11 35.5 +10.9	06						
07	285 31.3 +00.2	N 05 51.8 -00.9	328 51.0 -00.4	N 18 31.5 -00.4	52 09.0 -25.7	N 11 46.4 +10.7	07						
08	300 31.5 +00.2	N 05 50.9 -01.0	343 50.6 -00.4	N 18 31.1 -00.4	66 43.3 -25.7	N 11 57.1 +10.8	08						
09	315 31.7 +00.2	N 05 49.9 -00.9	358 50.2 -00.3	N 18 30.7 -00.4	81 17.6 -25.7	N 12 07.9 +10.7	09						
10	330 31.9 +00.2	N 05 49.0 -00.9	13 49.9 -00.4	N 18 30.3 -00.4	95 51.9 -25.8	N 12 18.6 +10.7	10						
11	345 32.1 +00.3	N 05 48.1 -01.0	28 49.5 -00.4	N 18 29.9 -00.4	110 26.1 -25.8	N 12 29.3 +10.6	11						
12	0 32.4 +00.2	N 05 47.1 -00.9	43 49.1 -00.4	N 18 29.5 -00.4	125 00.3 -25.9	N 12 39.9 +10.5	12						
13	15 32.6 +00.2	N 05 46.2 -00.9	58 48.7 -00.4	N 18 29.1 -00.4	139 34.4 -25.9	N 12 50.4 +10.5	13						
14	30 32.8 +00.2	N 05 45.3 -01.0	73 48.3 -00.4	N 18 28.7 -00.4	154 08.5 -26.0	N 13 00.9 +10.5	14						
15	45 33.0 +00.2	N 05 44.3 -00.9	88 47.9 -00.4	N 18 28.3 -00.4	168 42.5 -26.0	N 13 11.4 +10.4	15						
16	60 33.2 +00.2	N 05 43.4 -01.0	103 47.5 -00.4	N 18 27.9 -00.4	183 16.5 -26.1	N 13 21.8 +10.4	16						
17	75 33.4 +00.2	N 05 42.4 -00.9	118 47.1 -00.3	N 18 27.5 -00.4	197 50.4 -26.1	N 13 32.2 +10.3	17						
18	90 33.6 +00.3	N 05 41.5 -00.9	133 46.8 -00.4	N 18 27.1 -00.4	212 24.3 -26.1	N 13 42.5 +10.3	18						
19	105 33.9 +00.2	N 05 40.6 -01.0	148 46.4 -00.4	N 18 26.7 -00.5	226 58.2 -26.3	N 13 52.8 +10.2	19						
20	120 34.1 +00.2	N 05 39.6 -00.9	163 46.0 -00.4	N 18 26.2 -00.4	241 31.9 -26.2	N 14 03.0 +10.1	20						
21	135 34.3 +00.2	N 05 38.7 -01.0	178 45.6 -00.4	N 18 25.8 -00.4	256 05.7 -26.3	N 14 13.1 +10.1	21						
22	150 34.5 +00.2	N 05 37.7 -00.9	193 45.2 -00.4	N 18 25.4 -00.4	270 39.4 -26.4	N 14 23.2 +10.1	22						
23	165 34.7 +00.2	N 05 36.8 -00.9	208 44.8 -00.4	N 18 25.0 -00.4	285 13.0 -26.4	N 14 33.3 +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 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 14'7 14'7 14'7 14'8 14'8 14'8								
	HP 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 54'1 54'1 54'1 54'2 54'2 54'2								
	SHA 194° 194° 194° 193° 193° 193°		SHA 237° 237° 237° 237° 237° 236°		SHA 323° 321° 319° 317° 315° 313°								
	Greenwich Culmination Time: 11:57		Greenwich Culmination Time: 09:04		Greenwich Culmination Time: 03:25								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	318 55.2 +02.4	N 06 48.9 +00.0	57 32.6 +02.5	S 22 42.5 +00.0	48 45.3 +02.5	S 21 16.9 +00.0	00						
01	333 57.6 +02.4	N 06 48.9 +00.1	72 35.1 +02.5	S 22 42.5 +00.0	63 47.8 +02.6	S 21 16.9 +00.0	01						
02	348 60.0 +02.3	N 06 49.0 +00.0	87 37.6 +02.6	S 22 42.5 +00.0	78 50.4 +02.6	S 21 16.9 +00.1	02						
03	4 02.3 +02.4	N 06 49.0 +00.1	102 40.2 +02.5	S 22 42.5 +00.0	93 53.0 +02.5	S 21 17.0 +00.0	03						
04	19 04.7 +02.4	N 06 49.1 +00.0	117 42.7 +02.5	S 22 42.5 +00.0	108 55.5 +02.6	S 21 17.0 +00.0	04						
05	34 07.1 +02.4	N 06 49.1 +00.0	132 45.2 +02.5	S 22 42.5 +00.1	123 58.1 +02.5	S 21 17.0 +00.0	05						
06	49 09.5 +02.3	N 06 49.1 +00.1	147 47.7 +02.5	S 22 42.6 +00.0	139 00.6 +02.6	S 21 17.0 +00.0	06						
07	64 11.8 +02.4	N 06 49.2 +00.0	162 50.2 +02.5	S 22 42.6 +00.0	154 03.2 +02.5	S 21 17.0 +00.1	07						
08	79 14.2 +02.4	N 06 49.2 +00.1	177 52.7 +02.5	S 22 42.6 +00.0	169 05.7 +02.6	S 21 17.1 +00.0	08						
09	94 16.6 +02.4	N 06 49.3 +00.0	192 55.2 +02.5	S 22 42.6 +00.0	184 08.3 +02.5	S 21 17.1 +00.0	09						
10	109 19.0 +02.4	N 06 49.3 +00.1	207 57.7 +02.6	S 22 42.6 +00.0	199 10.8 +02.6	S 21 17.1 +00.0	10						
11	124 21.4 +02.3	N 06 49.4 +00.0	223 00.3 +02.5	S 22 42.6 +00.0	214 13.4 +02.6	S 21 17.1 +00.0	11						
12	139 23.7 +02.4	N 06 49.4 +00.0	238 02.8 +02.5	S 22 42.6 +00.0	229 16.0 +02.5	S 21 17.1 +00.1	12						
13	154 26.1 +02.4	N 06 49.4 +00.1	253 05.3 +02.5	S 22 42.6 +00.0	244 18.5 +02.6	S 21 17.2 +00.0	13						
14	169 28.5 +02.4	N 06 49.5 +00.0	268 07.8 +02.5	S 22 42.6 +00.0	259 21.1 +02.5	S 21 17.2 +00.0	14						
15	184 30.9 +02.4	N 06 49.5 +00.1	283 10.3 +02.5	S 22 42.6 +00.0	274 23.6 +02.6	S 21 17.2 +00.0	15						
16	199 33.3 +02.4	N 06 49.6 +00.0	298 12.8 +02.5	S 22 42.6 +00.0	289 26.2 +02.5	S 21 17.2 +00.0	16						
17	214 35.7 +02.4	N 06 49.6 +00.0	313 15.3 +02.5	S 22 42.6 +00.1	304 28.7 +02.6	S 21 17.2 +00.0	17						
18	229 38.1 +02.4	N 06 49.6 +00.1	328 17.8 +02.5	S 22 42.7 +00.0	319 31.3 +02.5	S 21 17.2 +00.1	18						
19	244 40.5 +02.4	N 06 49.7 +00.0	343 20.3 +02.6	S 22 42.7 +00.0	334 33.8 +02.6	S 21 17.3 +00.0	19						
20	259 42.9 +02.4	N 06 49.7 +00.1	358 22.9 +02.5	S 22 42.7 +00.0	349 36.4 +02.5	S 21 17.3 +00.0	20						
21	274 45.3 +02.4	N 06 49.8 +00.0	13 25.4 +02.5	S 22 42.7 +00.0	4 38.9 +02.6	S 21 17.3 +00.0	21						
22	289 47.7 +02.4	N 06 49.8 +00.0	28 27.9 +02.5	S 22 42.7 +00.0	19 41.5 +02.5	S 21 17.3 +00.0	22						
23	304 50.1 +02.4	N 06 49.8 +00.1	43 30.4 +02.5	S 22 42.7 +00.0	34 44.0 +02.6	S 21 17.3 +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 00'4 00'4 00'4 00'4 00'4 00'4		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 332° 332° 332° 332° 332° 332°		SHA 071° 071° 071° 071° 071° 071°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 02:43		Greenwich Culmination Time: 20:06		Greenwich Culmination Time: 20:41								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 34.9 +00.3	N 05 35.9 -01.0	223 44.4 -00.4	N 18 24.6 -00.4	299 46.6 -26.5	N 14 43.3 +09.9	00						
01	195 35.2 +00.2	N 05 34.9 -00.9	238 44.0 -00.3	N 18 24.2 -00.4	314 20.1 -26.5	N 14 53.2 +09.9	01						
02	210 35.4 +00.2	N 05 34.0 -01.0	253 43.7 -00.4	N 18 23.8 -00.5	328 53.6 -26.6	N 15 03.1 +09.8	02						
03	225 35.6 +00.2	N 05 33.0 -00.9	268 43.3 -00.4	N 18 23.3 -00.4	343 27.0 -26.6	N 15 12.9 +09.8	03						
04	240 35.8 +00.2	N 05 32.1 -00.9	283 42.9 -00.4	N 18 22.9 -00.4	358 00.4 -26.7	N 15 22.7 +09.7	04						
05	255 36.0 +00.2	N 05 31.2 -01.0	298 42.5 -00.4	N 18 22.5 -00.4	12 33.7 -26.7	N 15 32.4 +09.6	05						
06	270 36.2 +00.3	N 05 30.2 -00.9	313 42.1 -00.4	N 18 22.1 -00.5	27 07.0 -26.8	N 15 42.0 +09.6	06						
07	285 36.5 +00.2	N 05 29.3 -01.0	328 41.7 -00.4	N 18 21.6 -00.4	41 40.2 -26.9	N 15 51.6 +09.5	07						
08	300 36.7 +00.2	N 05 28.3 -00.9	343 41.3 -00.4	N 18 21.2 -00.4	56 13.3 -26.9	N 16 01.1 +09.5	08						
09	315 36.9 +00.2	N 05 27.4 -00.9	358 40.9 -00.4	N 18 20.8 -00.4	70 46.4 -27.0	N 16 10.6 +09.4	09						
10	330 37.1 +00.2	N 05 26.5 -01.0	13 40.5 -00.3	N 18 20.4 -00.4	85 19.4 -27.0	N 16 20.0 +09.3	10						
11	345 37.3 +00.2	N 05 25.5 -00.9	28 40.2 -00.4	N 18 20.0 -00.5	99 52.4 -27.1	N 16 29.3 +09.3	11						
12	0 37.5 +00.3	N 05 24.6 -01.0	43 39.8 -00.4	N 18 19.5 -00.4	114 25.3 -27.2	N 16 38.6 +09.2	12						
13	15 37.8 +00.2	N 05 23.6 -00.9	58 39.4 -00.4	N 18 19.1 -00.4	128 58.1 -27.2	N 16 47.8 +09.1	13						
14	30 38.0 +00.2	N 05 22.7 -01.0	73 39.0 -00.4	N 18 18.7 -00.5	143 30.9 -27.3	N 16 56.9 +09.0	14						
15	45 38.2 +00.2	N 05 21.7 -00.9	88 38.6 -00.4	N 18 18.2 -00.4	158 03.6 -27.3	N 17 05.9 +09.0	15						
16	60 38.4 +00.2	N 05 20.8 -00.9	103 38.2 -00.4	N 18 17.8 -00.4	172 36.3 -27.4	N 17 14.9 +09.0	16						
17	75 38.6 +00.2	N 05 19.9 -01.0	118 37.8 -00.4	N 18 17.4 -00.5	187 08.9 -27.5	N 17 23.9 +08.8	17						
18	90 38.8 +00.3	N 05 18.9 -00.9	133 37.4 -00.4	N 18 16.9 -00.4	201 41.4 -27.5	N 17 32.7 +08.8	18						
19	105 39.1 +00.2	N 05 18.0 -01.0	148 37.0 -00.4	N 18 16.5 -00.4	216 13.9 -27.6	N 17 41.5 +08.7	19						
20	120 39.3 +00.2	N 05 17.0 -00.9	163 36.6 -00.4	N 18 16.1 -00.5	230 46.3 -27.7	N 17 50.2 +08.7	20						
21	135 39.5 +00.2	N 05 16.1 -01.0	178 36.2 -00.3	N 18 15.6 -00.4	245 18.6 -27.7	N 17 58.9 +08.6	21						
22	150 39.7 +00.2	N 05 15.1 -00.9	193 35.9 -00.4	N 18 15.2 -00.4	259 50.9 -27.8	N 18 07.5 +08.5	22						
23	165 39.9 +00.2	N 05 14.2 -00.9	208 35.5 -00.4	N 18 14.8 -00.5	274 23.1 -27.9	N 18 16.0 +08.4	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'2 00'2 00'2 00'2 00'2 00'2		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 00'2 00'2 00'2 00'2 00'2 00'2		HP 54'3 54'3 54'4 54'4 54'5 54'5								
	SHA 193° 193° 193° 193° 192° 192°		SHA 236° 236° 236° 236° 235° 235°		SHA 311° 309° 307° 305° 303° 301°								
	Greenwich Culmination Time: 11:57		Greenwich Culmination Time: 09:05		Greenwich Culmination Time: 04:08								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	319 52.5 +02.4	N 06 49.9 +00.0	58 32.9 +02.5	S 22 42.7 +00.0	49 46.6 +02.5	S 21 17.4 +00.0	00						
01	334 54.9 +02.4	N 06 49.9 +00.0	73 35.4 +02.5	S 22 42.7 +00.0	64 49.1 +02.6	S 21 17.4 +00.0	01						
02	349 57.3 +02.4	N 06 49.9 +00.1	88 37.9 +02.5	S 22 42.7 +00.0	79 51.7 +02.6	S 21 17.4 +00.0	02						
03	4 59.7 +02.4	N 06 50.0 +00.0	103 40.4 +02.5	S 22 42.7 +00.0	94 54.3 +02.5	S 21 17.4 +00.0	03						
04	20 02.1 +02.4	N 06 50.0 +00.1	118 42.9 +02.5	S 22 42.7 +00.0	109 56.8 +02.6	S 21 17.4 +00.0	04						
05	35 04.5 +02.4	N 06 50.1 +00.0	133 45.4 +02.5	S 22 42.7 +00.0	124 59.4 +02.5	S 21 17.4 +00.1	05						
06	50 06.9 +02.4	N 06 50.1 +00.0	148 47.9 +02.5	S 22 42.7 +00.0	140 01.9 +02.6	S 21 17.5 +00.0	06						
07	65 09.3 +02.4	N 06 50.1 +00.1	163 50.4 +02.5	S 22 42.7 +00.1	155 04.5 +02.5	S 21 17.5 +00.0	07						
08	80 11.7 +02.4	N 06 50.2 +00.0	178 52.9 +02.5	S 22 42.8 +00.0	170 07.0 +02.6	S 21 17.5 +00.0	08						
09	95 14.1 +02.5	N 06 50.2 +00.0	193 55.4 +02.5	S 22 42.8 +00.0	185 09.6 +02.5	S 21 17.5 +00.0	09						
10	110 16.6 +02.4	N 06 50.2 +00.1	208 57.9 +02.5	S 22 42.8 +00.0	200 12.1 +02.6	S 21 17.5 +00.1	10						
11	125 19.0 +02.4	N 06 50.3 +00.0	224 00.4 +02.5	S 22 42.8 +00.0	215 14.7 +02.5	S 21 17.6 +00.0	11						
12	140 21.4 +02.4	N 06 50.3 +00.0	239 02.9 +02.5	S 22 42.8 +00.0	230 17.2 +02.6	S 21 17.6 +00.0	12						
13	155 23.8 +02.4	N 06 50.3 +00.1	254 05.4 +02.6	S 22 42.8 +00.0	245 19.8 +02.5	S 21 17.6 +00.0	13						
14	170 26.2 +02.5	N 06 50.4 +00.0	269 08.0 +02.5	S 22 42.8 +00.0	260 22.3 +02.6	S 21 17.6 +00.0	14						
15	185 28.7 +02.4	N 06 50.4 +00.0	284 10.5 +02.5	S 22 42.8 +00.0	275 24.9 +02.5	S 21 17.6 +00.0	15						
16	200 31.1 +02.4	N 06 50.4 +00.0	299 13.0 +02.5	S 22 42.8 +00.0	290 27.4 +02.6	S 21 17.6 +00.1	16						
17	215 33.5 +02.4	N 06 50.4 +00.1	314 15.5 +02.5	S 22 42.8 +00.0	305 30.0 +02.5	S 21 17.7 +00.0	17						
18	230 35.9 +02.5	N 06 50.5 +00.0	329 18.0 +02.5	S 22 42.8 +00.0	320 32.5 +02.6	S 21 17.7 +00.0	18						
19	245 38.4 +02.4	N 06 50.5 +00.0	344 20.5 +02.5	S 22 42.8 +00.0	335 35.1 +02.5	S 21 17.7 +00.0	19						
20	260 40.8 +02.4	N 06 50.5 +00.1	359 23.0 +02.5	S 22 42.8 +00.0	350 37.6 +02.6	S 21 17.7 +00.0	20						
21	275 43.2 +02.5	N 06 50.6 +00.0	14 25.5 +02.5	S 22 42.8 +00.0	5 40.2 +02.5	S 21 17.7 +00.0	21						
22	290 45.7 +02.4	N 06 50.6 +00.0	29 28.0 +02.5	S 22 42.8 +00.1	20 42.7 +02.6	S 21 17.7 +00.1	22						
23	305 48.1 +02.4	N 06 50.6 +00.0	44 30.5 +02.5	S 22 42.9 +00.0	35 45.3 +02.5	S 21 17.8 +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 00'4 00'4 00'4 00'4 00'4 00'4		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 332° 332° 332° 332° 332° 332°		SHA 071° 071° 071° 071° 071° 071°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 02:40		Greenwich Culmination Time: 20:02		Greenwich Culmination Time: 20:37								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 40.1 +00.3	N 05 13.3 -01.0	223 35.1 -00.4	N 18 14.3 -00.4	288 55.2 -27.9	N 18 24.4 +08.3	00						
01	195 40.4 +00.2	N 05 12.3 -00.9	238 34.7 -00.4	N 18 13.9 -00.4	303 27.3 -28.0	N 18 32.7 +08.3	01						
02	210 40.6 +00.2	N 05 11.4 -01.0	253 34.3 -00.4	N 18 13.5 -00.5	317 59.3 -28.1	N 18 41.0 +08.2	02						
03	225 40.8 +00.2	N 05 10.4 -00.9	268 33.9 -00.4	N 18 13.0 -00.4	332 31.2 -28.1	N 18 49.2 +08.1	03						
04	240 41.0 +00.2	N 05 09.5 -01.0	283 33.5 -00.4	N 18 12.6 -00.5	347 03.1 -28.2	N 18 57.3 +08.1	04						
05	255 41.2 +00.3	N 05 08.5 -00.9	298 33.1 -00.4	N 18 12.1 -00.4	1 34.9 -28.3	N 19 05.4 +07.9	05						
06	270 41.5 +00.2	N 05 07.6 -01.0	313 32.7 -00.4	N 18 11.7 -00.5	16 06.6 -28.3	N 19 13.3 +07.9	06						
07	285 41.7 +00.2	N 05 06.6 -00.9	328 32.3 -00.4	N 18 11.2 -00.4	30 38.3 -28.4	N 19 21.2 +07.8	07						
08	300 41.9 +00.2	N 05 05.7 -01.0	343 31.9 -00.4	N 18 10.8 -00.4	45 09.9 -28.5	N 19 29.0 +07.7	08						
09	315 42.1 +00.2	N 05 04.7 -00.9	358 31.5 -00.4	N 18 10.4 -00.5	59 41.4 -28.5	N 19 36.7 +07.7	09						
10	330 42.3 +00.2	N 05 03.8 -00.9	13 31.1 -00.3	N 18 09.9 -00.4	74 12.9 -28.7	N 19 44.4 +07.5	10						
11	345 42.5 +00.3	N 05 02.9 -01.0	28 30.8 -00.4	N 18 09.5 -00.5	88 44.2 -28.7	N 19 51.9 +07.5	11						
12	0 42.8 +00.2	N 05 01.9 -00.9	43 30.4 -00.4	N 18 09.0 -00.4	103 15.5 -28.7	N 19 59.4 +07.4	12						
13	15 43.0 +00.2	N 05 01.0 -01.0	58 30.0 -00.4	N 18 08.6 -00.5	117 46.8 -28.9	N 20 06.8 +07.2	13						
14	30 43.2 +00.2	N 05 00.0 -00.9	73 29.6 -00.4	N 18 08.1 -00.4	132 17.9 -28.9	N 20 14.0 +07.3	14						
15	45 43.4 +00.2	N 04 59.1 -01.0	88 29.2 -00.4	N 18 07.7 -00.5	146 49.0 -29.0	N 20 21.3 +07.1	15						
16	60 43.6 +00.3	N 04 58.1 -00.9	103 28.8 -00.4	N 18 07.2 -00.4	161 20.0 -29.0	N 20 28.4 +07.0	16						
17	75 43.9 +00.2	N 04 57.2 -01.0	118 28.4 -00.4	N 18 06.8 -00.5	175 51.0 -29.1	N 20 35.4 +06.9	17						
18	90 44.1 +00.2	N 04 56.2 -00.9	133 28.0 -00.4	N 18 06.3 -00.4	190 21.9 -29.2	N 20 42.3 +06.9	18						
19	105 44.3 +00.2	N 04 55.3 -01.0	148 27.6 -00.4	N 18 05.9 -00.5	204 52.7 -29.3	N 20 49.2 +06.7	19						
20	120 44.5 +00.2	N 04 54.3 -00.9	163 27.2 -00.4	N 18 05.4 -00.5	219 23.4 -29.4	N 20 55.9 +06.7	20						
21	135 44.7 +00.2	N 04 53.4 -01.0	178 26.8 -00.4	N 18 04.9 -00.4	233 54.0 -29.4	N 21 02.6 +06.6	21						
22	150 44.9 +00.3	N 04 52.4 -00.9	193 26.4 -00.4	N 18 04.5 -00.5	248 24.6 -29.5	N 21 09.2 +06.5	22						
23	165 45.2 +00.2	N 04 51.5 -00.9	208 26.0 -00.4	N 18 04.0 -00.4	262 55.1 -29.5	N 21 15.7 +06.3	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'2 00'2 00'2 00'2 00'2 00'2		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 00'2 00'2 00'2 00'2 00'2 00'2		HP 54'6 54'7 54'8 54'8 54'9 55'0								
	SHA 192° 192° 192° 192° 191° 191°		SHA 235° 235° 235° 234° 234° 234°		SHA 299° 297° 295° 293° 291° 289°								
	Greenwich Culmination Time: 11:57		Greenwich Culmination Time: 09:05		Greenwich Culmination Time: 04:53								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	320 50.5 +02.5	N 06 50.6 +00.1	59 33.0 +02.5	S 22 42.9 +00.0	50 47.8 +02.6	S 21 17.8 +00.0	00						
01	335 53.0 +02.4	N 06 50.7 +00.0	74 35.5 +02.5	S 22 42.9 +00.0	65 50.4 +02.5	S 21 17.8 +00.0	01						
02	350 55.4 +02.5	N 06 50.7 +00.0	89 38.0 +02.5	S 22 42.9 +00.0	80 52.9 +02.5	S 21 17.8 +00.0	02						
03	5 57.9 +02.4	N 06 50.7 +00.0	104 40.5 +02.4	S 22 42.9 +00.0	95 55.4 +02.6	S 21 17.8 +00.0	03						
04	21 00.3 +02.4	N 06 50.7 +00.1	119 42.9 +02.5	S 22 42.9 +00.0	110 58.0 +02.5	S 21 17.8 +00.1	04						
05	36 02.7 +02.5	N 06 50.8 +00.0	134 45.4 +02.5	S 22 42.9 +00.0	126 00.5 +02.6	S 21 17.9 +00.0	05						
06	51 05.2 +02.4	N 06 50.8 +00.0	149 47.9 +02.5	S 22 42.9 +00.0	141 03.1 +02.5	S 21 17.9 +00.0	06						
07	66 07.6 +02.5	N 06 50.8 +00.0	164 50.4 +02.5	S 22 42.9 +00.0	156 05.6 +02.6	S 21 17.9 +00.0	07						
08	81 10.1 +02.4	N 06 50.8 +00.1	179 52.9 +02.5	S 22 42.9 +00.0	171 08.2 +02.5	S 21 17.9 +00.0	08						
09	96 12.5 +02.5	N 06 50.9 +00.0	194 55.4 +02.5	S 22 42.9 +00.0	186 10.7 +02.6	S 21 17.9 +00.0	09						
10	111 15.0 +02.4	N 06 50.9 +00.0	209 57.9 +02.5	S 22 42.9 +00.0	201 13.3 +02.5	S 21 17.9 +00.1	10						
11	126 17.4 +02.5	N 06 50.9 +00.0	225 00.4 +02.5	S 22 42.9 +00.0	216 15.8 +02.6	S 21 18.0 +00.0	11						
12	141 19.9 +02.5	N 06 50.9 +00.1	240 02.9 +02.5	S 22 42.9 +00.0	231 18.4 +02.5	S 21 18.0 +00.0	12						
13	156 22.4 +02.4	N 06 51.0 +00.0	255 05.4 +02.5	S 22 42.9 +00.0	246 20.9 +02.6	S 21 18.0 +00.0	13						
14	171 24.8 +02.5	N 06 51.0 +00.0	270 07.9 +02.5	S 22 42.9 +00.1	261 23.5 +02.5	S 21 18.0 +00.0	14						
15	186 27.3 +02.4	N 06 51.0 +00.0	285 10.4 +02.5	S 22 43.0 +00.0	276 26.0 +02.6	S 21 18.0 +00.1	15						
16	201 29.7 +02.5	N 06 51.0 +00.0	300 12.9 +02.5	S 22 43.0 +00.0	291 28.6 +02.5	S 21 18.1 +00.0	16						
17	216 32.2 +02.5	N 06 51.0 +00.1	315 15.4 +02.5	S 22 43.0 +00.0	306 31.1 +02.6	S 21 18.1 +00.0	17						
18	231 34.7 +02.4	N 06 51.1 +00.0	330 17.9 +02.5	S 22 43.0 +00.0	321 33.7 +02.5	S 21 18.1 +00.0	18						
19	246 37.1 +02.5	N 06 51.1 +00.0	345 20.4 +02.5	S 22 43.0 +00.0	336 36.2 +02.5	S 21 18.1 +00.0	19						
20	261 39.6 +02.5	N 06 51.1 +00.0	0 22.9 +02.4	S 22 43.0 +00.0	351 38.7 +02.6	S 21 18.1 +00.0	20						
21	276 42.1 +02.4	N 06 51.1 +00.0	15 25.3 +02.5	S 22 43.0 +00.0	6 41.3 +02.5	S 21 18.1 +00.1	21						
22	291 44.5 +02.5	N 06 51.1 +00.1	30 27.8 +02.5	S 22 43.0 +00.0	21 43.8 +02.6	S 21 18.2 +00.0	22						
23	306 47.0 +02.5	N 06 51.2 +00.0	45 30.3 +02.5	S 22 43.0 +00.0	36 46.4 +02.5	S 21 18.2 +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 00'4 00'4 00'4 00'4 00'4 00'4		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 332° 332° 332° 332° 332° 332°		SHA 071° 071° 071° 071° 071° 071°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 02:36		Greenwich Culmination Time: 19:58		Greenwich Culmination Time: 20:33								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 45.4 +00.2	N 04	50.6 -01.0	223 25.6 -00.4	N 18	03.6 -00.5	277 25.6 -29.7	N 21	22.0 +06.3	00			
01	195 45.6 +00.2	N 04	49.6 -00.9	238 25.2 -00.4	N 18	03.1 -00.4	291 55.9 -29.7	N 21	28.3 +06.2	01			
02	210 45.8 +00.2	N 04	48.7 -01.0	253 24.8 -00.4	N 18	02.7 -00.5	306 26.2 -29.8	N 21	34.5 +06.1	02			
03	225 46.0 +00.3	N 04	47.7 -00.9	268 24.4 -00.4	N 18	02.2 -00.5	320 56.4 -29.8	N 21	40.6 +06.0	03			
04	240 46.3 +00.2	N 04	46.8 -01.0	283 24.0 -00.4	N 18	01.7 -00.4	335 26.6 -30.0	N 21	46.6 +05.9	04			
05	255 46.5 +00.2	N 04	45.8 -00.9	298 23.6 -00.3	N 18	01.3 -00.5	349 56.6 -30.0	N 21	52.5 +05.8	05			
06	270 46.7 +00.2	N 04	44.9 -01.0	313 23.3 -00.4	N 18	00.8 -00.5	4 26.6 -30.1	N 21	58.3 +05.7	06			
07	285 46.9 +00.2	N 04	43.9 -00.9	328 22.9 -00.4	N 18	00.3 -00.4	18 56.5 -30.1	N 22	04.0 +05.6	07			
08	300 47.1 +00.3	N 04	43.0 -01.0	343 22.5 -00.4	N 17	59.9 -00.5	33 26.4 -30.3	N 22	09.6 +05.5	08			
09	315 47.4 +00.2	N 04	42.0 -00.9	358 22.1 -00.4	N 17	59.4 -00.5	47 56.1 -30.3	N 22	15.1 +05.3	09			
10	330 47.6 +00.2	N 04	41.1 -01.0	13 21.7 -00.4	N 17	58.9 -00.4	62 25.8 -30.3	N 22	20.4 +05.3	10			
11	345 47.8 +00.2	N 04	40.1 -00.9	28 21.3 -00.4	N 17	58.5 -00.5	76 55.5 -30.5	N 22	25.7 +05.2	11			
12	0 48.0 +00.2	N 04	39.2 -01.0	43 20.9 -00.4	N 17	58.0 -00.5	91 25.0 -30.5	N 22	30.9 +05.1	12			
13	15 48.2 +00.3	N 04	38.2 -00.9	58 20.5 -00.4	N 17	57.5 -00.4	105 54.5 -30.6	N 22	36.0 +04.9	13			
14	30 48.5 +00.2	N 04	37.3 -01.0	73 20.1 -00.4	N 17	57.1 -00.5	120 23.9 -30.7	N 22	40.9 +04.9	14			
15	45 48.7 +00.2	N 04	36.3 -00.9	88 19.7 -00.4	N 17	56.6 -00.5	134 53.2 -30.7	N 22	45.8 +04.7	15			
16	60 48.9 +00.2	N 04	35.4 -01.0	103 19.3 -00.4	N 17	56.1 -00.4	149 22.5 -30.8	N 22	50.5 +04.6	16			
17	75 49.1 +00.2	N 04	34.4 -00.9	118 18.9 -00.4	N 17	55.7 -00.5	163 51.7 -30.9	N 22	55.1 +04.5	17			
18	90 49.3 +00.2	N 04	33.5 -01.0	133 18.5 -00.4	N 17	55.2 -00.5	178 20.8 -31.0	N 22	59.6 +04.4	18			
19	105 49.5 +00.3	N 04	32.5 -00.9	148 18.1 -00.4	N 17	54.7 -00.5	192 49.8 -31.0	N 23	04.0 +04.3	19			
20	120 49.8 +00.2	N 04	31.6 -01.0	163 17.7 -00.4	N 17	54.2 -00.4	207 18.8 -31.1	N 23	08.3 +04.2	20			
21	135 50.0 +00.2	N 04	30.6 -00.9	178 17.3 -00.4	N 17	53.8 -00.5	221 47.7 -31.2	N 23	12.5 +04.1	21			
22	150 50.2 +00.2	N 04	29.7 -01.0	193 16.9 -00.4	N 17	53.3 -00.5	236 16.5 -31.2	N 23	16.6 +03.9	22			
23	165 50.4 +00.2	N 04	28.7 -00.9	208 16.5 -00.4	N 17	52.8 -00.5	250 45.3 -31.3	N 23	20.5 +03.9	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'9 15'9 15'9 15'9 15'9 15'9			SD 00'2 00'2 00'2 00'2 00'1 00'1			SD 15'0 15'0 15'1 15'1 15'1 15'2						
	HP 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 55'1 55'2 55'3 55'4 55'5 55'7						
	SHA 191° 191° 191° 191° 191° 190°			SHA 234° 234° 233° 233° 233° 233°			SHA 287° 285° 283° 280° 278° 276°						
	Greenwich Culmination Time: 11:56			Greenwich Culmination Time: 09:06			Greenwich Culmination Time: 05:41						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	321 49.5 +02.4	N 06	51.2 +00.0	60 32.8 +02.5	S 22	43.0 +00.0	51 48.9 +02.6	S 21	18.2 +00.0	00			
01	336 51.9 +02.5	N 06	51.2 +00.0	75 35.3 +02.5	S 22	43.0 +00.0	66 51.5 +02.5	S 21	18.2 +00.0	01			
02	351 54.4 +02.5	N 06	51.2 +00.0	90 37.8 +02.5	S 22	43.0 +00.0	81 54.0 +02.6	S 21	18.2 +00.0	02			
03	6 56.9 +02.5	N 06	51.2 +00.0	105 40.3 +02.5	S 22	43.0 +00.0	96 56.6 +02.5	S 21	18.2 +00.1	03			
04	21 59.4 +02.5	N 06	51.2 +00.1	120 42.8 +02.5	S 22	43.0 +00.0	111 59.1 +02.5	S 21	18.3 +00.0	04			
05	37 01.9 +02.4	N 06	51.3 +00.0	135 45.3 +02.5	S 22	43.0 +00.0	127 01.6 +02.6	S 21	18.3 +00.0	05			
06	52 04.3 +02.5	N 06	51.3 +00.0	150 47.8 +02.4	S 22	43.0 +00.0	142 04.2 +02.5	S 21	18.3 +00.0	06			
07	67 06.8 +02.5	N 06	51.3 +00.0	165 50.2 +02.5	S 22	43.0 +00.0	157 06.7 +02.6	S 21	18.3 +00.0	07			
08	82 09.3 +02.5	N 06	51.3 +00.0	180 52.7 +02.5	S 22	43.0 +00.0	172 09.3 +02.5	S 21	18.3 +00.0	08			
09	97 11.8 +02.5	N 06	51.3 +00.0	195 55.2 +02.5	S 22	43.0 +00.0	187 11.8 +02.6	S 21	18.3 +00.0	09			
10	112 14.3 +02.5	N 06	51.3 +00.0	210 57.7 +02.5	S 22	43.0 +00.1	202 14.4 +02.5	S 21	18.3 +00.1	10			
11	127 16.8 +02.5	N 06	51.3 +00.1	226 00.2 +02.5	S 22	43.1 +00.0	217 16.9 +02.5	S 21	18.4 +00.0	11			
12	142 19.3 +02.5	N 06	51.4 +00.0	241 02.7 +02.5	S 22	43.1 +00.0	232 19.4 +02.6	S 21	18.4 +00.0	12			
13	157 21.8 +02.4	N 06	51.4 +00.0	256 05.2 +02.4	S 22	43.1 +00.0	247 22.0 +02.5	S 21	18.4 +00.0	13			
14	172 24.2 +02.5	N 06	51.4 +00.0	271 07.6 +02.5	S 22	43.1 +00.0	262 24.5 +02.6	S 21	18.4 +00.0	14			
15	187 26.7 +02.5	N 06	51.4 +00.0	286 10.1 +02.5	S 22	43.1 +00.0	277 27.1 +02.5	S 21	18.4 +00.0	15			
16	202 29.2 +02.5	N 06	51.4 +00.0	301 12.6 +02.5	S 22	43.1 +00.0	292 29.6 +02.6	S 21	18.4 +00.1	16			
17	217 31.7 +02.5	N 06	51.4 +00.0	316 15.1 +02.5	S 22	43.1 +00.0	307 32.2 +02.5	S 21	18.5 +00.0	17			
18	232 34.2 +02.5	N 06	51.4 +00.0	331 17.6 +02.5	S 22	43.1 +00.0	322 34.7 +02.5	S 21	18.5 +00.0	18			
19	247 36.7 +02.5	N 06	51.4 +00.0	346 20.1 +02.5	S 22	43.1 +00.0	337 37.2 +02.6	S 21	18.5 +00.0	19			
20	262 39.2 +02.5	N 06	51.4 +00.0	1 22.6 +02.4	S 22	43.1 +00.0	352 39.8 +02.5	S 21	18.5 +00.0	20			
21	277 41.7 +02.5	N 06	51.4 +00.1	16 25.0 +02.5	S 22	43.1 +00.0	7 42.3 +02.6	S 21	18.5 +00.0	21			
22	292 44.2 +02.6	N 06	51.5 +00.0	31 27.5 +02.5	S 22	43.1 +00.0	22 44.9 +02.5	S 21	18.5 +00.1	22			
23	307 46.8 +02.5	N 06	51.5 +00.0	46 30.0 +02.5	S 22	43.1 +00.0	37 47.4 +02.5	S 21	18.6 +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 00'4 00'4 00'4 00'4 00'4 00'4			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 332° 332° 332° 332° 332° 332°			SHA 071° 071° 071° 071° 071° 071°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 02:32			Greenwich Culmination Time: 19:54			Greenwich Culmination Time: 20:29						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 50.6 +00.3	N 04 27.8 -01.0	223 16.1 -00.4	N 17 52.3 -00.5	265 14.0 -31.4	N 23 24.4 +03.7	00						
01	195 50.9 +00.2	N 04 26.8 -00.9	238 15.7 -00.4	N 17 51.8 -00.4	279 42.6 -31.5	N 23 28.1 +03.6	01						
02	210 51.1 +00.2	N 04 25.9 -01.0	253 15.3 -00.4	N 17 51.4 -00.5	294 11.1 -31.5	N 23 31.7 +03.5	02						
03	225 51.3 +00.2	N 04 24.9 -00.9	268 14.9 -00.4	N 17 50.9 -00.5	308 39.6 -31.6	N 23 35.2 +03.3	03						
04	240 51.5 +00.2	N 04 24.0 -01.0	283 14.5 -00.4	N 17 50.4 -00.5	323 08.0 -31.6	N 23 38.5 +03.3	04						
05	255 51.7 +00.3	N 04 23.0 -00.9	298 14.1 -00.4	N 17 49.9 -00.5	337 36.4 -31.8	N 23 41.8 +03.1	05						
06	270 52.0 +00.2	N 04 22.1 -01.0	313 13.7 -00.4	N 17 49.4 -00.5	352 04.6 -31.7	N 23 44.9 +03.0	06						
07	285 52.2 +00.2	N 04 21.1 -00.9	328 13.3 -00.4	N 17 48.9 -00.4	6 32.9 -31.9	N 23 47.9 +02.8	07						
08	300 52.4 +00.2	N 04 20.2 -01.0	343 12.9 -00.4	N 17 48.5 -00.5	21 01.0 -31.9	N 23 50.7 +02.8	08						
09	315 52.6 +00.2	N 04 19.2 -01.0	358 12.5 -00.4	N 17 48.0 -00.5	35 29.1 -32.0	N 23 53.5 +02.6	09						
10	330 52.8 +00.3	N 04 18.2 -00.9	13 12.1 -00.4	N 17 47.5 -00.5	49 57.1 -32.0	N 23 56.1 +02.5	10						
11	345 53.1 +00.2	N 04 17.3 -01.0	28 11.7 -00.4	N 17 47.0 -00.5	64 25.1 -32.2	N 23 58.6 +02.4	11						
12	0 53.3 +00.2	N 04 16.3 -00.9	43 11.3 -00.4	N 17 46.5 -00.5	78 52.9 -32.1	N 24 01.0 +02.2	12						
13	15 53.5 +00.2	N 04 15.4 -01.0	58 10.9 -00.4	N 17 46.0 -00.5	93 20.8 -32.3	N 24 03.2 +02.2	13						
14	30 53.7 +00.3	N 04 14.4 -00.9	73 10.5 -00.4	N 17 45.5 -00.5	107 48.5 -32.3	N 24 05.4 +02.0	14						
15	45 54.0 +00.2	N 04 13.5 -01.0	88 10.1 -00.4	N 17 45.0 -00.5	122 16.2 -32.3	N 24 07.4 +01.8	15						
16	60 54.2 +00.2	N 04 12.5 -00.9	103 09.7 -00.4	N 17 44.5 -00.5	136 43.9 -32.4	N 24 09.2 +01.7	16						
17	75 54.4 +00.2	N 04 11.6 -01.0	118 09.3 -00.4	N 17 44.0 -00.4	151 11.5 -32.5	N 24 10.9 +01.6	17						
18	90 54.6 +00.2	N 04 10.6 -00.9	133 08.9 -00.4	N 17 43.6 -00.5	165 39.0 -32.6	N 24 12.5 +01.5	18						
19	105 54.8 +00.3	N 04 09.7 -01.0	148 08.5 -00.4	N 17 43.1 -00.5	180 06.4 -32.6	N 24 14.0 +01.4	19						
20	120 55.1 +00.2	N 04 08.7 -00.9	163 08.1 -00.4	N 17 42.6 -00.5	194 33.8 -32.6	N 24 15.4 +01.2	20						
21	135 55.3 +00.2	N 04 07.8 -01.0	178 07.7 -00.4	N 17 42.1 -00.5	209 01.2 -32.7	N 24 16.6 +01.0	21						
22	150 55.5 +00.2	N 04 06.8 -00.9	193 07.3 -00.4	N 17 41.6 -00.5	223 28.5 -32.8	N 24 17.6 +01.0	22						
23	165 55.7 +00.2	N 04 05.9 -01.0	208 06.9 -00.4	N 17 41.1 -00.5	237 55.7 -32.8	N 24 18.6 +00.8	23						
	UT 02 06 10 14 18 22 SD 15'9 15'9 15'9 15'9 15'9 15'9 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 190° 190° 190° 190° 190° 190° Greenwich Culmination Time: 11:56	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 233° 233° 232° 232° 232° 232° Greenwich Culmination Time: 09:07	UT 02 06 10 14 18 22 SD 15'2 15'2 15'3 15'3 15'3 15'4 HP 55'8 55'9 56'0 56'2 56'3 56'4 SHA 274° 271° 269° 267° 264° 262° Greenwich Culmination Time: 06:32										
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	322 49.3 +02.5	N 06 51.5 +00.0	61 32.5 +02.5	S 22 43.1 +00.0	52 49.9 +02.6	S 21 18.6 +00.0	00						
01	337 51.8 +02.5	N 06 51.5 +00.0	76 35.0 +02.4	S 22 43.1 +00.0	67 52.5 +02.5	S 21 18.6 +00.0	01						
02	352 54.3 +02.5	N 06 51.5 +00.0	91 37.4 +02.5	S 22 43.1 +00.0	82 55.0 +02.6	S 21 18.6 +00.0	02						
03	7 56.8 +02.5	N 06 51.5 +00.0	106 39.9 +02.5	S 22 43.1 +00.0	97 57.6 +02.5	S 21 18.6 +00.0	03						
04	22 59.3 +02.5	N 06 51.5 +00.0	121 42.4 +02.5	S 22 43.1 +00.0	113 00.1 +02.5	S 21 18.6 +00.1	04						
05	38 01.8 +02.5	N 06 51.5 +00.0	136 44.9 +02.5	S 22 43.1 +00.0	128 02.6 +02.6	S 21 18.7 +00.0	05						
06	53 04.3 +02.6	N 06 51.5 +00.0	151 47.4 +02.4	S 22 43.1 +00.0	143 05.2 +02.5	S 21 18.7 +00.0	06						
07	68 06.9 +02.5	N 06 51.5 +00.0	166 49.8 +02.5	S 22 43.1 +00.0	158 07.7 +02.6	S 21 18.7 +00.0	07						
08	83 09.4 +02.5	N 06 51.5 +00.0	181 52.3 +02.5	S 22 43.1 +00.0	173 10.3 +02.5	S 21 18.7 +00.0	08						
09	98 11.9 +02.5	N 06 51.5 +00.0	196 54.8 +02.5	S 22 43.1 +00.1	188 12.8 +02.5	S 21 18.7 +00.0	09						
10	113 14.4 +02.6	N 06 51.5 +00.0	211 57.3 +02.5	S 22 43.2 +00.0	203 15.3 +02.6	S 21 18.7 +00.0	10						
11	128 17.0 +02.5	N 06 51.5 +00.0	226 59.8 +02.4	S 22 43.2 +00.0	218 17.9 +02.5	S 21 18.7 +00.1	11						
12	143 19.5 +02.5	N 06 51.5 +00.0	242 02.2 +02.5	S 22 43.2 +00.0	233 20.4 +02.6	S 21 18.8 +00.0	12						
13	158 22.0 +02.5	N 06 51.5 +00.0	257 04.7 +02.5	S 22 43.2 +00.0	248 23.0 +02.5	S 21 18.8 +00.0	13						
14	173 24.5 +02.6	N 06 51.5 +00.0	272 07.2 +02.5	S 22 43.2 +00.0	263 25.5 +02.5	S 21 18.8 +00.0	14						
15	188 27.1 +02.5	N 06 51.5 +00.0	287 09.7 +02.4	S 22 43.2 +00.0	278 28.0 +02.6	S 21 18.8 +00.0	15						
16	203 29.6 +02.5	N 06 51.5 +00.0	302 12.1 +02.5	S 22 43.2 +00.0	293 30.6 +02.5	S 21 18.8 +00.0	16						
17	218 32.1 +02.6	N 06 51.5 +00.0	317 14.6 +02.5	S 22 43.2 +00.0	308 33.1 +02.5	S 21 18.8 +00.1	17						
18	233 34.7 +02.5	N 06 51.5 +00.0	332 17.1 +02.5	S 22 43.2 +00.0	323 35.6 +02.6	S 21 18.9 +00.0	18						
19	248 37.2 +02.6	N 06 51.5 +00.0	347 19.6 +02.4	S 22 43.2 +00.0	338 38.2 +02.5	S 21 18.9 +00.0	19						
20	263 39.8 +02.5	N 06 51.5 +00.0	2 22.0 +02.5	S 22 43.2 +00.0	353 40.7 +02.6	S 21 18.9 +00.0	20						
21	278 42.3 +02.5	N 06 51.5 +00.0	17 24.5 +02.5	S 22 43.2 +00.0	8 43.3 +02.5	S 21 18.9 +00.0	21						
22	293 44.8 +02.6	N 06 51.5 +00.0	32 27.0 +02.5	S 22 43.2 +00.0	23 45.8 +02.5	S 21 18.9 +00.0	22						
23	308 47.4 +02.5	N 06 51.5 +00.0	47 29.5 +02.4	S 22 43.2 +00.0	38 48.3 +02.6	S 21 18.9 +00.0	23						
	UT 02 06 10 14 18 22 SD 00'2 00'2 00'2 00'2 00'2 00'2 HP 00'3 00'3 00'3 00'3 00'3 00'3 SHA 332° 332° 332° 332° 332° 332° Greenwich Culmination Time: 02:28	UT 02 06 10 14 18 22 SD 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 SHA 071° 071° 071° 071° 071° 071° Greenwich Culmination Time: 19:50	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 062° 062° 062° 062° 062° 062° Greenwich Culmination Time: 20:25										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	180 55.9 +00.3	N 04 04.9 -01.0	223 06.5 -00.4	N 17 40.6 -00.5	252 22.9 -32.8	N 24 19.4 +00.6	00								
01	195 56.2 +00.2	N 04 03.9 -00.9	238 06.1 -00.4	N 17 40.1 -00.5	266 50.1 -33.0	N 24 20.0 +00.6	01								
02	210 56.4 +00.2	N 04 03.0 -01.0	253 05.7 -00.4	N 17 39.6 -00.5	281 17.1 -32.9	N 24 20.6 +00.4	02								
03	225 56.6 +00.2	N 04 02.0 -00.9	268 05.3 -00.4	N 17 39.1 -00.5	295 44.2 -33.0	N 24 21.0 +00.2	03								
04	240 56.8 +00.2	N 04 01.1 -01.0	283 04.9 -00.4	N 17 38.6 -00.5	310 11.2 -33.1	N 24 21.2 +00.2	04								
05	255 57.0 +00.3	N 04 00.1 -00.9	298 04.5 -00.4	N 17 38.1 -00.5	324 38.1 -33.1	N 24 21.4 -00.1	05								
06	270 57.3 +00.2	N 03 59.2 -01.0	313 04.1 -00.4	N 17 37.6 -00.6	339 05.0 -33.2	N 24 21.3 -00.1	06								
07	285 57.5 +00.2	N 03 58.2 -00.9	328 03.7 -00.4	N 17 37.0 -00.5	353 31.8 -33.2	N 24 21.2 -00.3	07								
08	300 57.7 +00.2	N 03 57.3 -01.0	343 03.3 -00.4	N 17 36.5 -00.5	7 58.6 -33.2	N 24 20.9 -00.4	08								
09	315 57.9 +00.2	N 03 56.3 -00.9	358 02.9 -00.4	N 17 36.0 -00.5	22 25.4 -33.3	N 24 20.5 -00.6	09								
10	330 58.1 +00.3	N 03 55.4 -01.0	13 02.5 -00.4	N 17 35.5 -00.5	36 52.1 -33.4	N 24 19.9 -00.7	10								
11	345 58.4 +00.2	N 03 54.4 -01.0	28 02.1 -00.4	N 17 35.0 -00.5	51 18.7 -33.4	N 24 19.2 -00.9	11								
12	0 58.6 +00.2	N 03 53.4 -00.9	43 01.7 -00.4	N 17 34.5 -00.5	65 45.3 -33.4	N 24 18.3 -01.0	12								
13	15 58.8 +00.2	N 03 52.5 -01.0	58 01.3 -00.4	N 17 34.0 -00.5	80 11.9 -33.4	N 24 17.3 -01.1	13								
14	30 59.0 +00.3	N 03 51.5 -00.9	73 00.9 -00.4	N 17 33.5 -00.5	94 38.5 -33.5	N 24 16.2 -01.3	14								
15	45 59.3 +00.2	N 03 50.6 -01.0	88 00.5 -00.4	N 17 33.0 -00.5	109 05.0 -33.6	N 24 14.9 -01.4	15								
16	60 59.5 +00.2	N 03 49.6 -00.9	103 00.1 -00.4	N 17 32.5 -00.6	123 31.4 -33.5	N 24 13.5 -01.6	16								
17	75 59.7 +00.2	N 03 48.7 -01.0	117 59.7 -00.4	N 17 31.9 -00.5	137 57.9 -33.6	N 24 11.9 -01.7	17								
18	90 59.9 +00.2	N 03 47.7 -01.0	132 59.3 -00.4	N 17 31.4 -00.5	152 24.3 -33.7	N 24 10.2 -01.9	18								
19	106 00.1 +00.3	N 03 46.7 -00.9	147 58.9 -00.4	N 17 30.9 -00.5	166 50.6 -33.7	N 24 08.3 -02.0	19								
20	121 00.4 +00.2	N 03 45.8 -01.0	162 58.5 -00.4	N 17 30.4 -00.5	181 16.9 -33.7	N 24 06.3 -02.1	20								
21	136 00.6 +00.2	N 03 44.8 -00.9	177 58.1 -00.4	N 17 29.9 -00.5	195 43.2 -33.7	N 24 04.2 -02.3	21								
22	151 00.8 +00.2	N 03 43.9 -01.0	192 57.7 -00.4	N 17 29.4 -00.6	210 09.5 -33.7	N 24 01.9 -02.5	22								
23	166 01.0 +00.2	N 03 42.9 -00.9	207 57.3 -00.4	N 17 28.8 -00.5	224 35.8 -33.8	N 23 59.4 -02.6	23								
	UT 02 06 10 14 18 22	SD 15'9 15'9 15'9 15'9 15'9 15'9	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 189° 189° 189° 189° 189° 189°	Greenwich Culmination Time: 11:56	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 232° 231° 231° 231° 231° 231°	Greenwich Culmination Time: 09:07	UT 02 06 10 14 18 22	SD 15'4 15'5 15'5 15'5 15'6 15'6	HP 56'6 56'7 56'9 57'0 57'2 57'3	SHA 260° 257° 255° 253° 250° 248°	Greenwich Culmination Time: 07:26

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	323 49.9 +02.6	N 06 51.5 +00.0	62 31.9 +02.5	S 22 43.2 +00.0	53 50.9 +02.5	S 21 18.9 +00.1	00								
01	338 52.5 +02.5	N 06 51.5 +00.0	77 34.4 +02.5	S 22 43.2 +00.0	68 53.4 +02.5	S 21 19.0 +00.0	01								
02	353 55.0 +02.6	N 06 51.5 +00.0	92 36.9 +02.4	S 22 43.2 +00.0	83 55.9 +02.6	S 21 19.0 +00.0	02								
03	8 57.6 +02.5	N 06 51.5 +00.0	107 39.3 +02.5	S 22 43.2 +00.0	98 58.5 +02.5	S 21 19.0 +00.0	03								
04	24 00.1 +02.6	N 06 51.5 +00.0	122 41.8 +02.5	S 22 43.2 +00.0	114 01.0 +02.6	S 21 19.0 +00.0	04								
05	39 02.7 +02.5	N 06 51.5 +00.0	137 44.3 +02.5	S 22 43.2 +00.0	129 03.6 +02.5	S 21 19.0 +00.0	05								
06	54 05.2 +02.6	N 06 51.5 +00.0	152 46.8 +02.4	S 22 43.2 +00.0	144 06.1 +02.5	S 21 19.0 +00.1	06								
07	69 07.8 +02.5	N 06 51.5 +00.0	167 49.2 +02.5	S 22 43.2 +00.0	159 08.6 +02.6	S 21 19.1 +00.0	07								
08	84 10.3 +02.6	N 06 51.5 +00.0	182 51.7 +02.5	S 22 43.2 +00.0	174 11.2 +02.5	S 21 19.1 +00.0	08								
09	99 12.9 +02.5	N 06 51.5 +00.0	197 54.2 +02.4	S 22 43.2 +00.0	189 13.7 +02.5	S 21 19.1 +00.0	09								
10	114 15.4 +02.6	N 06 51.5 +00.0	212 56.6 +02.5	S 22 43.2 +00.0	204 16.2 +02.6	S 21 19.1 +00.0	10								
11	129 18.0 +02.6	N 06 51.5 +00.0	227 59.1 +02.5	S 22 43.2 +00.0	219 18.8 +02.5	S 21 19.1 +00.0	11								
12	144 20.6 +02.5	N 06 51.5 +00.0	243 01.6 +02.4	S 22 43.2 +00.0	234 21.3 +02.5	S 21 19.1 +00.0	12								
13	159 23.1 +02.6	N 06 51.5 +00.0	258 04.0 +02.5	S 22 43.2 +00.0	249 23.8 +02.6	S 21 19.1 +00.1	13								
14	174 25.7 +02.6	N 06 51.5 +00.0	273 06.5 +02.5	S 22 43.2 +00.0	264 26.4 +02.5	S 21 19.2 +00.0	14								
15	189 28.3 +02.5	N 06 51.5 +00.0	288 09.0 +02.4	S 22 43.2 +00.0	279 28.9 +02.5	S 21 19.2 +00.0	15								
16	204 30.8 +02.6	N 06 51.5 -00.1	303 11.4 +02.5	S 22 43.2 +00.0	294 31.4 +02.6	S 21 19.2 +00.0	16								
17	219 33.4 +02.6	N 06 51.4 +00.0	318 13.9 +02.5	S 22 43.2 +00.0	309 34.0 +02.5	S 21 19.2 +00.0	17								
18	234 36.0 +02.6	N 06 51.4 +00.0	333 16.4 +02.4	S 22 43.2 +00.0	324 36.5 +02.5	S 21 19.2 +00.0	18								
19	249 38.6 +02.5	N 06 51.4 +00.0	348 18.8 +02.5	S 22 43.2 +00.1	339 39.0 +02.6	S 21 19.2 +00.0	19								
20	264 41.1 +02.6	N 06 51.4 +00.0	3 21.3 +02.5	S 22 43.3 +00.0	354 41.6 +02.5	S 21 19.2 +00.1	20								
21	279 43.7 +02.6	N 06 51.4 +00.0	18 23.8 +02.4	S 22 43.3 +00.0	9 44.1 +02.5	S 21 19.3 +00.0	21								
22	294 46.3 +02.6	N 06 51.4 +00.0	33 26.2 +02.5	S 22 43.3 +00.0	24 46.6 +02.6	S 21 19.3 +00.0	22								
23	309 48.9 +02.5	N 06 51.4 +00.0	48 28.7 +02.5	S 22 43.3 +00.0	39 49.2 +02.5	S 21 19.3 +00.0	23								
	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2	HP 00'3 00'3 00'3 00'3 00'3 00'3	SHA 332° 332° 332° 332° 332° 332°	Greenwich Culmination Time: 02:24	UT 02 06 10 14 18 22	SD 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	SHA 071° 071° 071° 071° 071° 071°	Greenwich Culmination Time: 19:46	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 062° 062° 062° 062° 062° 062°	Greenwich Culmination Time: 20:21

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 01.2 +00.3	N 03 42.0 -01.0	222 56.9 -00.4	N 17 28.3 -00.5	239 02.0 -33.9	N 23 56.8 -02.7	00						
01	196 01.5 +00.2	N 03 41.0 -01.0	237 56.5 -00.4	N 17 27.8 -00.5	253 28.1 -33.8	N 23 54.1 -02.9	01						
02	211 01.7 +00.2	N 03 40.0 -00.9	252 56.1 -00.4	N 17 27.3 -00.5	267 54.3 -33.9	N 23 51.2 -03.0	02						
03	226 01.9 +00.2	N 03 39.1 -01.0	267 55.7 -00.4	N 17 26.8 -00.6	282 20.4 -33.8	N 23 48.2 -03.2	03						
04	241 02.1 +00.3	N 03 38.1 -00.9	282 55.3 -00.4	N 17 26.2 -00.5	296 46.6 -34.0	N 23 45.0 -03.3	04						
05	256 02.4 +00.2	N 03 37.2 -01.0	297 54.9 -00.4	N 17 25.7 -00.5	311 12.6 -33.9	N 23 41.7 -03.4	05						
06	271 02.6 +00.2	N 03 36.2 -00.9	312 54.5 -00.4	N 17 25.2 -00.5	325 38.7 -33.9	N 23 38.3 -03.6	06						
07	286 02.8 +00.2	N 03 35.3 -01.0	327 54.1 -00.4	N 17 24.7 -00.6	340 04.8 -34.0	N 23 34.7 -03.8	07						
08	301 03.0 +00.2	N 03 34.3 -01.0	342 53.7 -00.4	N 17 24.1 -00.5	354 30.8 -34.0	N 23 30.9 -03.9	08						
09	316 03.2 +00.3	N 03 33.3 -00.9	357 53.3 -00.4	N 17 23.6 -00.5	8 56.8 -34.0	N 23 27.0 -04.1	09						
10	331 03.5 +00.2	N 03 32.4 -01.0	12 52.9 -00.4	N 17 23.1 -00.6	23 22.8 -34.0	N 23 22.9 -04.2	10						
11	346 03.7 +00.2	N 03 31.4 -00.9	27 52.5 -00.4	N 17 22.5 -00.5	37 48.8 -34.0	N 23 18.7 -04.3	11						
12	1 03.9 +00.2	N 03 30.5 -01.0	42 52.1 -00.4	N 17 22.0 -00.5	52 14.8 -34.1	N 23 14.4 -04.5	12						
13	16 04.1 +00.2	N 03 29.5 -01.0	57 51.7 -00.4	N 17 21.5 -00.6	66 40.7 -34.0	N 23 09.9 -04.6	13						
14	31 04.3 +00.3	N 03 28.5 -00.9	72 51.3 -00.5	N 17 20.9 -00.5	81 06.7 -34.1	N 23 05.3 -04.8	14						
15	46 04.6 +00.2	N 03 27.6 -01.0	87 50.8 -00.4	N 17 20.4 -00.5	95 32.6 -34.0	N 23 00.5 -05.0	15						
16	61 04.8 +00.2	N 03 26.6 -00.9	102 50.4 -00.4	N 17 19.9 -00.6	109 58.6 -34.1	N 22 55.5 -05.0	16						
17	76 05.0 +00.2	N 03 25.7 -01.0	117 50.0 -00.4	N 17 19.3 -00.5	124 24.5 -34.1	N 22 50.5 -05.3	17						
18	91 05.2 +00.3	N 03 24.7 -00.9	132 49.6 -00.4	N 17 18.8 -00.5	138 50.4 -34.1	N 22 45.2 -05.3	18						
19	106 05.5 +00.2	N 03 23.8 -01.0	147 49.2 -00.4	N 17 18.3 -00.6	153 16.3 -34.0	N 22 39.9 -05.5	19						
20	121 05.7 +00.2	N 03 22.8 -01.0	162 48.8 -00.4	N 17 17.7 -00.5	167 42.3 -34.1	N 22 34.4 -05.7	20						
21	136 05.9 +00.2	N 03 21.8 -00.9	177 48.4 -00.4	N 17 17.2 -00.5	182 08.2 -34.1	N 22 28.7 -05.8	21						
22	151 06.1 +00.2	N 03 20.9 -01.0	192 48.0 -00.4	N 17 16.7 -00.6	196 34.1 -34.1	N 22 22.9 -06.0	22						
23	166 06.3 +00.3	N 03 19.9 -00.9	207 47.6 -00.4	N 17 16.1 -00.5	210 60.0 -34.1	N 22 16.9 -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 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'7 15'7 15'7 15'8 15'8 15'9								
	HP 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 57'5 57'6 57'8 58'0 58'1 58'3								
	SHA 189° 188° 188° 188° 188° 188°		SHA 230° 230° 230° 230° 230° 229°		SHA 245° 243° 241° 238° 236° 233°								
	Greenwich Culmination Time: 11:55		Greenwich Culmination Time: 09:08		Greenwich Culmination Time: 08:22								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	324 51.4 +02.6	N 06 51.4 +00.0	63 31.2 +02.4	S 22 43.3 +00.0	54 51.7 +02.5	S 21 19.3 +00.0	00						
01	339 54.0 +02.6	N 06 51.4 -00.1	78 33.6 +02.5	S 22 43.3 +00.0	69 54.2 +02.6	S 21 19.3 +00.0	01						
02	354 56.6 +02.6	N 06 51.3 +00.0	93 36.1 +02.5	S 22 43.3 +00.0	84 56.8 +02.5	S 21 19.3 +00.0	02						
03	9 59.2 +02.6	N 06 51.3 +00.0	108 38.6 +02.4	S 22 43.3 +00.0	99 59.3 +02.5	S 21 19.3 +00.1	03						
04	25 01.8 +02.6	N 06 51.3 +00.0	123 41.0 +02.5	S 22 43.3 +00.0	115 01.8 +02.6	S 21 19.4 +00.0	04						
05	40 04.4 +02.6	N 06 51.3 +00.0	138 43.5 +02.5	S 22 43.3 +00.0	130 04.4 +02.5	S 21 19.4 +00.0	05						
06	55 07.0 +02.6	N 06 51.3 +00.0	153 46.0 +02.4	S 22 43.3 +00.0	145 06.9 +02.5	S 21 19.4 +00.0	06						
07	70 09.6 +02.5	N 06 51.3 +00.0	168 48.4 +02.5	S 22 43.3 +00.0	160 09.4 +02.6	S 21 19.4 +00.0	07						
08	85 12.1 +02.6	N 06 51.3 -00.1	183 50.9 +02.4	S 22 43.3 +00.0	175 12.0 +02.5	S 21 19.4 +00.0	08						
09	100 14.7 +02.6	N 06 51.2 +00.0	198 53.3 +02.5	S 22 43.3 +00.0	190 14.5 +02.5	S 21 19.4 +00.0	09						
10	115 17.3 +02.6	N 06 51.2 +00.0	213 55.8 +02.5	S 22 43.3 +00.0	205 17.0 +02.6	S 21 19.4 +00.1	10						
11	130 19.9 +02.6	N 06 51.2 +00.0	228 58.3 +02.4	S 22 43.3 +00.0	220 19.6 +02.5	S 21 19.5 +00.0	11						
12	145 22.5 +02.6	N 06 51.2 +00.0	244 00.7 +02.5	S 22 43.3 +00.0	235 22.1 +02.5	S 21 19.5 +00.0	12						
13	160 25.1 +02.6	N 06 51.2 +00.0	259 03.2 +02.4	S 22 43.3 +00.0	250 24.6 +02.5	S 21 19.5 +00.0	13						
14	175 27.7 +02.6	N 06 51.2 -00.1	274 05.6 +02.5	S 22 43.3 +00.0	265 27.1 +02.6	S 21 19.5 +00.0	14						
15	190 30.3 +02.6	N 06 51.1 +00.0	289 08.1 +02.5	S 22 43.3 +00.0	280 29.7 +02.5	S 21 19.5 +00.0	15						
16	205 32.9 +02.6	N 06 51.1 +00.0	304 10.6 +02.4	S 22 43.3 +00.0	295 32.2 +02.5	S 21 19.5 +00.0	16						
17	220 35.5 +02.7	N 06 51.1 +00.0	319 13.0 +02.5	S 22 43.3 +00.0	310 34.7 +02.6	S 21 19.5 +00.1	17						
18	235 38.2 +02.6	N 06 51.1 +00.0	334 15.5 +02.4	S 22 43.3 +00.0	325 37.3 +02.5	S 21 19.6 +00.0	18						
19	250 40.8 +02.6	N 06 51.1 +00.0	349 17.9 +02.5	S 22 43.3 +00.0	340 39.8 +02.5	S 21 19.6 +00.0	19						
20	265 43.4 +02.6	N 06 51.1 -00.1	4 20.4 +02.4	S 22 43.3 +00.0	355 42.3 +02.6	S 21 19.6 +00.0	20						
21	280 46.0 +02.6	N 06 51.0 +00.0	19 22.8 +02.5	S 22 43.3 +00.0	10 44.9 +02.5	S 21 19.6 +00.0	21						
22	295 48.6 +02.6	N 06 51.0 +00.0	34 25.3 +02.5	S 22 43.3 +00.0	25 47.4 +02.5	S 21 19.6 +00.0	22						
23	310 51.2 +02.6	N 06 51.0 +00.0	49 27.8 +02.4	S 22 43.3 +00.0	40 49.9 +02.5	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 00'4 00'4 00'4 00'4 00'4 00'4		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 332° 332° 332° 332° 332° 332°		SHA 071° 071° 071° 071° 071° 071°		SHA 062° 062° 062° 062° 062° 062°								
	Greenwich Culmination Time: 02:20		Greenwich Culmination Time: 19:42		Greenwich Culmination Time: 20:17								

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 06.6 +00.2	N 03	19.0 -01.0	222 47.2 -00.4	N 17	15.6 -00.6	225 25.9 -34.1	N 22	10.8 -06.2	00			
01	196 06.8 +00.2	N 03	18.0 -01.0	237 46.8 -00.4	N 17	15.0 -00.5	239 51.8 -34.1	N 22	04.6 -06.4	01			
02	211 07.0 +00.2	N 03	17.0 -00.9	252 46.4 -00.4	N 17	14.5 -00.6	254 17.7 -34.1	N 21	58.2 -06.6	02			
03	226 07.2 +00.3	N 03	16.1 -01.0	267 46.0 -00.4	N 17	13.9 -00.5	268 43.6 -34.1	N 21	51.6 -06.6	03			
04	241 07.5 +00.2	N 03	15.1 -00.9	282 45.6 -00.4	N 17	13.4 -00.5	283 09.5 -34.0	N 21	45.0 -06.9	04			
05	256 07.7 +00.2	N 03	14.2 -01.0	297 45.2 -00.4	N 17	12.9 -00.6	297 35.5 -34.1	N 21	38.1 -06.9	05			
06	271 07.9 +00.2	N 03	13.2 -01.0	312 44.8 -00.4	N 17	12.3 -00.5	312 01.4 -34.1	N 21	31.2 -07.1	06			
07	286 08.1 +00.2	N 03	12.2 -00.9	327 44.4 -00.4	N 17	11.8 -00.6	326 27.3 -34.0	N 21	24.1 -07.3	07			
08	301 08.3 +00.3	N 03	11.3 -01.0	342 44.0 -00.4	N 17	11.2 -00.5	340 53.3 -34.0	N 21	16.8 -07.4	08			
09	316 08.6 +00.2	N 03	10.3 -01.0	357 43.6 -00.4	N 17	10.7 -00.6	355 19.3 -34.1	N 21	09.4 -07.5	09			
10	331 08.8 +00.2	N 03	09.3 -00.9	12 43.2 -00.4	N 17	10.1 -00.5	9 45.2 -34.0	N 21	01.9 -07.7	10			
11	346 09.0 +00.2	N 03	08.4 -01.0	27 42.8 -00.4	N 17	09.6 -00.6	24 11.2 -34.0	N 20	54.2 -07.8	11			
12	1 09.2 +00.3	N 03	07.4 -00.9	42 42.4 -00.4	N 17	09.0 -00.5	38 37.2 -34.0	N 20	46.4 -07.9	12			
13	16 09.5 +00.2	N 03	06.5 -01.0	57 42.0 -00.4	N 17	08.5 -00.6	53 03.2 -34.0	N 20	38.5 -08.1	13			
14	31 09.7 +00.2	N 03	05.5 -01.0	72 41.6 -00.4	N 17	07.9 -00.5	67 29.2 -33.9	N 20	30.4 -08.3	14			
15	46 09.9 +00.2	N 03	04.5 -00.9	87 41.2 -00.4	N 17	07.4 -00.6	81 55.3 -34.0	N 20	22.1 -08.3	15			
16	61 10.1 +00.2	N 03	03.6 -01.0	102 40.8 -00.5	N 17	06.8 -00.5	96 21.3 -33.9	N 20	13.8 -08.5	16			
17	76 10.3 +00.3	N 03	02.6 -00.9	117 40.3 -00.4	N 17	06.3 -00.6	110 47.4 -33.9	N 20	05.3 -08.7	17			
18	91 10.6 +00.2	N 03	01.7 -01.0	132 39.9 -00.4	N 17	05.7 -00.6	125 13.5 -33.9	N 19	56.6 -08.8	18			
19	106 10.8 +00.2	N 03	00.7 -01.0	147 39.5 -00.4	N 17	05.1 -00.5	139 39.6 -33.9	N 19	47.8 -08.9	19			
20	121 11.0 +00.2	N 02	59.7 -00.9	162 39.1 -00.4	N 17	04.6 -00.6	154 05.7 -33.8	N 19	38.9 -09.0	20			
21	136 11.2 +00.3	N 02	58.8 -01.0	177 38.7 -00.4	N 17	04.0 -00.5	168 31.9 -33.9	N 19	29.9 -09.2	21			
22	151 11.5 +00.2	N 02	57.8 -01.0	192 38.3 -00.4	N 17	03.5 -00.6	182 58.0 -33.8	N 19	20.7 -09.3	22			
23	166 11.7 +00.2	N 02	56.8 -00.9	207 37.9 -00.4	N 17	02.9 -00.6	197 24.2 -33.8	N 19	11.4 -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 15'9 15'9 15'9 15'9 15'9 15'9			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'9 16'0 16'0 16'0 16'1 16'1						
	HP 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 58'4 58'6 58'7 58'9 59'0 59'2						
	SHA 188° 187° 187° 187° 187° 187°			SHA 229° 229° 229° 229° 228° 228°			SHA 231° 228° 226° 223° 221° 219°						
	Greenwich Culmination Time: 11:55			Greenwich Culmination Time: 09:09			Greenwich Culmination Time: 09:19						
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	325 53.8 +02.7	N 06	51.0 +00.0	64 30.2 +02.5	S 22	43.3 +00.0	55 52.4 +02.6	S 21	19.6 +00.1	00			
01	340 56.5 +02.6	N 06	51.0 -00.1	79 32.7 +02.4	S 22	43.3 +00.0	70 55.0 +02.5	S 21	19.7 +00.0	01			
02	355 59.1 +02.6	N 06	50.9 +00.0	94 35.1 +02.5	S 22	43.3 +00.0	85 57.5 +02.5	S 21	19.7 +00.0	02			
03	11 01.7 +02.6	N 06	50.9 +00.0	109 37.6 +02.4	S 22	43.3 +00.0	101 00.0 +02.6	S 21	19.7 +00.0	03			
04	26 04.3 +02.6	N 06	50.9 +00.0	124 40.0 +02.5	S 22	43.3 +00.0	116 02.6 +02.5	S 21	19.7 +00.0	04			
05	41 06.9 +02.7	N 06	50.9 -00.1	139 42.5 +02.4	S 22	43.3 +00.0	131 05.1 +02.5	S 21	19.7 +00.0	05			
06	56 09.6 +02.6	N 06	50.8 +00.0	154 44.9 +02.5	S 22	43.3 +00.0	146 07.6 +02.5	S 21	19.7 +00.0	06			
07	71 12.2 +02.6	N 06	50.8 +00.0	169 47.4 +02.4	S 22	43.3 +00.0	161 10.1 +02.6	S 21	19.7 +00.0	07			
08	86 14.8 +02.7	N 06	50.8 +00.0	184 49.8 +02.5	S 22	43.3 +00.0	176 12.7 +02.5	S 21	19.7 +00.1	08			
09	101 17.5 +02.6	N 06	50.8 -00.1	199 52.3 +02.4	S 22	43.3 +00.0	191 15.2 +02.5	S 21	19.8 +00.0	09			
10	116 20.1 +02.6	N 06	50.7 +00.0	214 54.7 +02.5	S 22	43.3 +00.0	206 17.7 +02.5	S 21	19.8 +00.0	10			
11	131 22.7 +02.7	N 06	50.7 +00.0	229 57.2 +02.4	S 22	43.3 +00.0	221 20.2 +02.6	S 21	19.8 +00.0	11			
12	146 25.4 +02.6	N 06	50.7 +00.0	244 59.6 +02.5	S 22	43.3 +00.0	236 22.8 +02.5	S 21	19.8 +00.0	12			
13	161 28.0 +02.6	N 06	50.7 -00.1	260 02.1 +02.4	S 22	43.3 +00.0	251 25.3 +02.5	S 21	19.8 +00.0	13			
14	176 30.6 +02.7	N 06	50.6 +00.0	275 04.5 +02.5	S 22	43.3 +00.0	266 27.8 +02.5	S 21	19.8 +00.0	14			
15	191 33.3 +02.6	N 06	50.6 +00.0	290 07.0 +02.4	S 22	43.3 +00.0	281 30.3 +02.6	S 21	19.8 +00.1	15			
16	206 35.9 +02.7	N 06	50.6 +00.0	305 09.4 +02.5	S 22	43.3 +00.0	296 32.9 +02.5	S 21	19.9 +00.0	16			
17	221 38.6 +02.6	N 06	50.6 -00.1	320 11.9 +02.4	S 22	43.3 +00.0	311 35.4 +02.5	S 21	19.9 +00.0	17			
18	236 41.2 +02.6	N 06	50.5 +00.0	335 14.3 +02.5	S 22	43.3 +00.0	326 37.9 +02.6	S 21	19.9 +00.0	18			
19	251 43.8 +02.7	N 06	50.5 +00.0	350 16.8 +02.4	S 22	43.3 +00.0	341 40.5 +02.5	S 21	19.9 +00.0	19			
20	266 46.5 +02.6	N 06	50.5 -00.1	5 19.2 +02.5	S 22	43.3 +00.0	356 43.0 +02.5	S 21	19.9 +00.0	20			
21	281 49.1 +02.7	N 06	50.4 +00.0	20 21.7 +02.4	S 22	43.3 +00.0	11 45.5 +02.5	S 21	19.9 +00.0	21			
22	296 51.8 +02.6	N 06	50.4 +00.0	35 24.1 +02.5	S 22	43.3 +00.0	26 48.0 +02.6	S 21	19.9 +00.0	22			
23	311 54.4 +02.7	N 06	50.4 -00.1	50 26.6 +02.4	S 22	43.3 +00.0	41 50.6 +02.5	S 21	19.9 +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 00'2 00'2 00'2 00'2 00'2 00'2			SD 00'4 00'4 00'4 00'4 00'4 00'4			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 332° 332° 332° 333° 333° 333°			SHA 071° 071° 071° 071° 071° 071°			SHA 062° 062° 062° 062° 062° 062°						
	Greenwich Culmination Time: 02:16			Greenwich Culmination Time: 19:38			Greenwich Culmination Time: 20:13						

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	11.9 +00.2	N 02 55.9	-01.0	222	37.5 -00.4	N 17 02.3	-00.5	211	50.4 -33.7	N 19 02.0	-09.6	00
01	196	12.1 +00.2	N 02 54.9	-00.9	237	37.1 -00.4	N 17 01.8	-00.6	226	16.7 -33.8	N 18 52.4	-09.7	01
02	211	12.3 +00.3	N 02 54.0	-01.0	252	36.7 -00.4	N 17 01.2	-00.5	240	42.9 -33.7	N 18 42.7	-09.8	02
03	226	12.6 +00.2	N 02 53.0	-01.0	267	36.3 -00.4	N 17 00.7	-00.6	255	09.2 -33.7	N 18 32.9	-10.0	03
04	241	12.8 +00.2	N 02 52.0	-00.9	282	35.9 -00.4	N 17 00.1	-00.6	269	35.5 -33.6	N 18 22.9	-10.1	04
05	256	13.0 +00.2	N 02 51.1	-01.0	297	35.5 -00.4	N 16 59.5	-00.5	284	01.9 -33.7	N 18 12.8	-10.2	05
06	271	13.2 +00.3	N 02 50.1	-01.0	312	35.1 -00.4	N 16 59.0	-00.6	298	28.2 -33.6	N 18 02.6	-10.3	06
07	286	13.5 +00.2	N 02 49.1	-00.9	327	34.7 -00.4	N 16 58.4	-00.6	312	54.6 -33.6	N 17 52.3	-10.5	07
08	301	13.7 +00.2	N 02 48.2	-01.0	342	34.3 -00.4	N 16 57.8	-00.5	327	21.0 -33.6	N 17 41.8	-10.6	08
09	316	13.9 +00.2	N 02 47.2	-00.9	357	33.9 -00.4	N 16 57.3	-00.6	341	47.4 -33.5	N 17 31.2	-10.7	09
10	331	14.1 +00.2	N 02 46.3	-01.0	12	33.5 -00.4	N 16 56.7	-00.6	356	13.9 -33.5	N 17 20.5	-10.8	10
11	346	14.3 +00.3	N 02 45.3	-01.0	27	33.1 -00.4	N 16 56.1	-00.6	10	40.4 -33.5	N 17 09.7	-10.9	11
12	1	14.6 +00.2	N 02 44.3	-00.9	42	32.7 -00.4	N 16 55.5	-00.5	25	06.9 -33.5	N 16 58.8	-11.1	12
13	16	14.8 +00.2	N 02 43.4	-01.0	57	32.3 -00.4	N 16 55.0	-00.6	39	33.4 -33.4	N 16 47.7	-11.2	13
14	31	15.0 +00.2	N 02 42.4	-01.0	72	31.9 -00.5	N 16 54.4	-00.6	53	60.0 -33.4	N 16 36.5	-11.2	14
15	46	15.2 +00.3	N 02 41.4	-00.9	87	31.4 -00.4	N 16 53.8	-00.5	68	26.6 -33.4	N 16 25.3	-11.5	15
16	61	15.5 +00.2	N 02 40.5	-01.0	102	31.0 -00.4	N 16 53.3	-00.6	82	53.2 -33.3	N 16 13.8	-11.5	16
17	76	15.7 +00.2	N 02 39.5	-01.0	117	30.6 -00.4	N 16 52.7	-00.6	97	19.9 -33.3	N 16 02.3	-11.6	17
18	91	15.9 +00.2	N 02 38.5	-00.9	132	30.2 -00.4	N 16 52.1	-00.6	111	46.6 -33.3	N 15 50.7	-11.8	18
19	106	16.1 +00.2	N 02 37.6	-01.0	147	29.8 -00.4	N 16 51.5	-00.6	126	13.3 -33.3	N 15 38.9	-11.8	19
20	121	16.3 +00.3	N 02 36.6	-00.9	162	29.4 -00.4	N 16 50.9	-00.5	140	40.0 -33.2	N 15 27.1	-12.0	20
21	136	16.6 +00.2	N 02 35.7	-01.0	177	29.0 -00.4	N 16 50.4	-00.6	155	06.8 -33.2	N 15 15.1	-12.0	21
22	151	16.8 +00.2	N 02 34.7	-01.0	192	28.6 -00.4	N 16 49.8	-00.6	169	33.6 -33.2	N 15 03.1	-12.2	22
23	166	17.0 +00.2	N 02 33.7	-00.9	207	28.2 -00.4	N 16 49.2	-00.6	184	00.4 -33.1	N 14 50.9	-12.3	23
	UT 02 06 10 14 18 22								UT 02 06 10 14 18 22				
	SD 15'9 15'9 15'9 15'9 15'9 15'9								SD 16'2 16'2 16'2 16'3 16'3 16'3				
	HP 00'1 00'1 00'1 00'1 00'1 00'1								HP 59'3 59'5 59'6 59'7 59'9 60'0				
	SHA 187° 187° 186° 186° 186° 186°								SHA 216° 214° 211° 209° 207° 204°				
	Greenwich Culmination Time: 11:55								Greenwich Culmination Time: 09:09				
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	326	57.1 +02.6	N 06 50.3	+00.0	65	29.0 +02.5	S 22 43.3	+00.0	56	53.1 +02.5	S 21 20.0	+00.0	00
01	341	59.7 +02.7	N 06 50.3	+00.0	80	31.5 +02.4	S 22 43.3	+00.0	71	55.6 +02.5	S 21 20.0	+00.0	01
02	357	02.4 +02.7	N 06 50.3	+00.0	95	33.9 +02.5	S 22 43.3	+00.0	86	58.1 +02.5	S 21 20.0	+00.0	02
03	12	05.1 +02.6	N 06 50.3	-00.1	110	36.4 +02.4	S 22 43.3	+00.0	102	00.6 +02.6	S 21 20.0	+00.0	03
04	27	07.7 +02.7	N 06 50.2	+00.0	125	38.8 +02.5	S 22 43.3	+00.0	117	03.2 +02.5	S 21 20.0	+00.0	04
05	42	10.4 +02.6	N 06 50.2	+00.0	140	41.3 +02.4	S 22 43.3	+00.0	132	05.7 +02.5	S 21 20.0	+00.0	05
06	57	13.0 +02.7	N 06 50.2	-00.1	155	43.7 +02.5	S 22 43.3	+00.0	147	08.2 +02.5	S 21 20.0	+00.0	06
07	72	15.7 +02.7	N 06 50.1	+00.0	170	46.2 +02.4	S 22 43.3	+00.0	162	10.7 +02.6	S 21 20.0	+00.1	07
08	87	18.4 +02.6	N 06 50.1	+00.0	185	48.6 +02.4	S 22 43.3	+00.0	177	13.3 +02.5	S 21 20.1	+00.0	08
09	102	21.0 +02.7	N 06 50.1	-00.1	200	51.0 +02.5	S 22 43.3	+00.0	192	15.8 +02.5	S 21 20.1	+00.0	09
10	117	23.7 +02.7	N 06 50.0	+00.0	215	53.5 +02.4	S 22 43.3	+00.0	207	18.3 +02.5	S 21 20.1	+00.0	10
11	132	26.4 +02.6	N 06 50.0	-00.1	230	55.9 +02.5	S 22 43.3	+00.0	222	20.8 +02.6	S 21 20.1	+00.0	11
12	147	29.0 +02.7	N 06 49.9	+00.0	245	58.4 +02.4	S 22 43.3	+00.0	237	23.4 +02.5	S 21 20.1	+00.0	12
13	162	31.7 +02.7	N 06 49.9	+00.0	261	00.8 +02.5	S 22 43.3	+00.0	252	25.9 +02.5	S 21 20.1	+00.0	13
14	177	34.4 +02.7	N 06 49.9	-00.1	276	03.3 +02.4	S 22 43.3	+00.0	267	28.4 +02.5	S 21 20.1	+00.0	14
15	192	37.1 +02.6	N 06 49.8	+00.0	291	05.7 +02.4	S 22 43.3	+00.0	282	30.9 +02.5	S 21 20.1	+00.1	15
16	207	39.7 +02.7	N 06 49.8	+00.0	306	08.1 +02.5	S 22 43.3	+00.0	297	33.4 +02.6	S 21 20.2	+00.0	16
17	222	42.4 +02.7	N 06 49.8	-00.1	321	10.6 +02.4	S 22 43.3	+00.0	312	36.0 +02.5	S 21 20.2	+00.0	17
18	237	45.1 +02.7	N 06 49.7	+00.0	336	13.0 +02.5	S 22 43.3	+00.0	327	38.5 +02.5	S 21 20.2	+00.0	18
19	252	47.8 +02.7	N 06 49.7	+00.0	351	15.5 +02.4	S 22 43.3	+00.0	342	41.0 +02.5	S 21 20.2	+00.0	19
20	267	50.5 +02.7	N 06 49.7	-00.1	6	17.9 +02.4	S 22 43.3	+00.0	357	43.5 +02.6	S 21 20.2	+00.0	20
21	282	53.2 +02.6	N 06 49.6	+00.0	21	20.3 +02.5	S 22 43.3	+00.0	12	46.1 +02.5	S 21 20.2	+00.0	21
22	297	55.8 +02.7	N 06 49.6	-00.1	36	22.8 +02.4	S 22 43.3	+00.0	27	48.6 +02.5	S 21 20.2	+00.0	22
23	312	58.5 +02.7	N 06 49.5	+00.0	51	25.2 +02.5	S 22 43.3	+00.0	42	51.1 +02.5	S 21 20.2	+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 00'2 00'2 00'2 00'2 00'2 00'2				SD 00'4 00'4 00'4 00'4 00'4 00'4				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 333° 333° 333° 333° 333° 333°				SHA 071° 071° 071° 071° 071° 071°				SHA 062° 062° 062° 062° 062° 062°				
	Greenwich Culmination Time: 02:11				Greenwich Culmination Time: 19:34				Greenwich Culmination Time: 20:09				

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181	17.2 +00.3	N 02 32.8	-01.0	222	27.8 -00.4	N 16 48.6	-00.6	198	27.3 -33.1	N 14 38.6	-12.4	00
01	196	17.5 +00.2	N 02 31.8	-01.0	237	27.4 -00.4	N 16 48.0	-00.5	212	54.2 -33.1	N 14 26.2	-12.5	01
02	211	17.7 +00.2	N 02 30.8	-00.9	252	27.0 -00.4	N 16 47.5	-00.6	227	21.1 -33.0	N 14 13.7	-12.6	02
03	226	17.9 +00.2	N 02 29.9	-01.0	267	26.6 -00.4	N 16 46.9	-00.6	241	48.1 -33.0	N 14 01.1	-12.6	03
04	241	18.1 +00.2	N 02 28.9	-01.0	282	26.2 -00.4	N 16 46.3	-00.6	256	15.1 -33.0	N 13 48.5	-12.8	04
05	256	18.3 +00.3	N 02 27.9	-00.9	297	25.8 -00.4	N 16 45.7	-00.6	270	42.1 -33.0	N 13 35.7	-12.9	05
06	271	18.6 +00.2	N 02 27.0	-01.0	312	25.4 -00.4	N 16 45.1	-00.6	285	09.1 -32.9	N 13 22.8	-13.0	06
07	286	18.8 +00.2	N 02 26.0	-01.0	327	25.0 -00.4	N 16 44.5	-00.5	299	36.2 -32.9	N 13 09.8	-13.0	07
08	301	19.0 +00.2	N 02 25.0	-00.9	342	24.6 -00.4	N 16 44.0	-00.6	314	03.3 -32.8	N 12 56.8	-13.2	08
09	316	19.2 +00.3	N 02 24.1	-01.0	357	24.2 -00.4	N 16 43.4	-00.6	328	30.5 -32.9	N 12 43.6	-13.3	09
10	331	19.5 +00.2	N 02 23.1	-01.0	12	23.8 -00.5	N 16 42.8	-00.6	342	57.6 -32.8	N 12 30.3	-13.3	10
11	346	19.7 +00.2	N 02 22.1	-00.9	27	23.3 -00.4	N 16 42.2	-00.6	357	24.8 -32.8	N 12 17.0	-13.4	11
12	1	19.9 +00.2	N 02 21.2	-01.0	42	22.9 -00.4	N 16 41.6	-00.6	11	52.0 -32.7	N 12 03.6	-13.5	12
13	16	20.1 +00.2	N 02 20.2	-01.0	57	22.5 -00.4	N 16 41.0	-00.6	26	19.3 -32.7	N 11 50.1	-13.6	13
14	31	20.3 +00.3	N 02 19.2	-00.9	72	22.1 -00.4	N 16 40.4	-00.6	40	46.6 -32.7	N 11 36.5	-13.7	14
15	46	20.6 +00.2	N 02 18.3	-01.0	87	21.7 -00.4	N 16 39.8	-00.6	55	13.9 -32.7	N 11 22.8	-13.8	15
16	61	20.8 +00.2	N 02 17.3	-01.0	102	21.3 -00.4	N 16 39.2	-00.6	69	41.2 -32.6	N 11 09.0	-13.8	16
17	76	21.0 +00.2	N 02 16.3	-00.9	117	20.9 -00.4	N 16 38.6	-00.6	84	08.6 -32.6	N 10 55.2	-13.9	17
18	91	21.2 +00.3	N 02 15.4	-01.0	132	20.5 -00.4	N 16 38.0	-00.6	98	36.0 -32.6	N 10 41.3	-14.0	18
19	106	21.5 +00.2	N 02 14.4	-01.0	147	20.1 -00.4	N 16 37.4	-00.6	113	03.4 -32.6	N 10 27.3	-14.1	19
20	121	21.7 +00.2	N 02 13.4	-00.9	162	19.7 -00.4	N 16 36.8	-00.6	127	30.8 -32.5	N 10 13.2	-14.1	20
21	136	21.9 +00.2	N 02 12.5	-01.0	177	19.3 -00.4	N 16 36.2	-00.6	141	58.3 -32.5	N 09 59.1	-14.2	21
22	151	22.1 +00.3	N 02 11.5	-01.0	192	18.9 -00.4	N 16 35.6	-00.6	156	25.8 -32.5	N 09 44.9	-14.3	22
23	166	22.4 +00.2	N 02 10.5	-00.9	207	18.5 -00.4	N 16 35.0	-00.6	170	53.3 -32.4	N 09 30.6	-14.3	23
	UT 02 06 10 14 18 22				UT 02 06 10 14 18 22				UT 02 06 10 14 18 22				
	SD 15'9 15'9 15'9 15'9 15'9 15'9				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 00'2 00'2 00'2 00'2 00'2 00'2				HP 60'1 60'2 60'3 60'4 60'5 60'6				
	SHA 186° 186° 186° 185° 185° 185°				SHA 227° 227° 227° 226° 226° 226°				SHA 202° 200° 197° 195° 192° 190°				
	Greenwich Culmination Time: 11:54				Greenwich Culmination Time: 09:10				Greenwich Culmination Time: 11:10				

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	328	01.2 +02.7	N 06 49.5	+00.0	66	27.7 +02.4	S 22 43.3	+00.0	57	53.6 +02.5	S 21 20.3	+00.0	00
01	343	03.9 +02.7	N 06 49.5	-00.1	81	30.1 +02.4	S 22 43.3	+00.0	72	56.1 +02.6	S 21 20.3	+00.0	01
02	358	06.6 +02.7	N 06 49.4	+00.0	96	32.5 +02.5	S 22 43.3	+00.0	87	58.7 +02.5	S 21 20.3	+00.0	02
03	13	09.3 +02.7	N 06 49.4	-00.1	111	35.0 +02.4	S 22 43.3	+00.0	103	01.2 +02.5	S 21 20.3	+00.0	03
04	28	12.0 +02.7	N 06 49.3	+00.0	126	37.4 +02.4	S 22 43.3	+00.0	118	03.7 +02.5	S 21 20.3	+00.0	04
05	43	14.7 +02.7	N 06 49.3	-00.1	141	39.8 +02.5	S 22 43.3	+00.0	133	06.2 +02.5	S 21 20.3	+00.0	05
06	58	17.4 +02.7	N 06 49.2	+00.0	156	42.3 +02.4	S 22 43.3	+00.0	148	08.7 +02.6	S 21 20.3	+00.0	06
07	73	20.1 +02.7	N 06 49.2	+00.0	171	44.7 +02.4	S 22 43.3	+00.0	163	11.3 +02.5	S 21 20.3	+00.1	07
08	88	22.8 +02.7	N 06 49.2	-00.1	186	47.1 +02.5	S 22 43.3	+00.0	178	13.8 +02.5	S 21 20.4	+00.0	08
09	103	25.5 +02.7	N 06 49.1	+00.0	201	49.6 +02.4	S 22 43.3	+00.0	193	16.3 +02.5	S 21 20.4	+00.0	09
10	118	28.2 +02.7	N 06 49.1	-00.1	216	52.0 +02.4	S 22 43.3	+00.0	208	18.8 +02.5	S 21 20.4	+00.0	10
11	133	30.9 +02.7	N 06 49.0	+00.0	231	54.4 +02.5	S 22 43.3	+00.0	223	21.3 +02.5	S 21 20.4	+00.0	11
12	148	33.6 +02.7	N 06 49.0	-00.1	246	56.9 +02.4	S 22 43.3	+00.0	238	23.8 +02.6	S 21 20.4	+00.0	12
13	163	36.3 +02.7	N 06 48.9	+00.0	261	59.3 +02.4	S 22 43.3	+00.0	253	26.4 +02.5	S 21 20.4	+00.0	13
14	178	39.0 +02.7	N 06 48.9	+00.0	277	01.7 +02.5	S 22 43.3	+00.0	268	28.9 +02.5	S 21 20.4	+00.0	14
15	193	41.7 +02.7	N 06 48.9	-00.1	292	04.2 +02.4	S 22 43.3	+00.0	283	31.4 +02.5	S 21 20.4	+00.1	15
16	208	44.4 +02.8	N 06 48.8	+00.0	307	06.6 +02.4	S 22 43.3	+00.0	298	33.9 +02.5	S 21 20.5	+00.0	16
17	223	47.2 +02.7	N 06 48.8	-00.1	322	09.0 +02.5	S 22 43.3	+00.0	313	36.4 +02.6	S 21 20.5	+00.0	17
18	238	49.9 +02.7	N 06 48.7	+00.0	337	11.5 +02.4	S 22 43.3	+00.0	328	39.0 +02.5	S 21 20.5	+00.0	18
19	253	52.6 +02.7	N 06 48.7	-00.1	352	13.9 +02.4	S 22 43.3	+00.0	343	41.5 +02.5	S 21 20.5	+00.0	19
20	268	55.3 +02.7	N 06 48.6	+00.0	7	16.3 +02.5	S 22 43.3	+00.0	358	44.0 +02.5	S 21 20.5	+00.0	20
21	283	58.0 +02.7	N 06 48.6	-00.1	22	18.8 +02.4	S 22 43.3	+00.0	13	46.5 +02.5	S 21 20.5	+00.0	21
22	299	00.7 +02.8	N 06 48.5	+00.0	37	21.2 +02.4	S 22 43.3	-00.1	28	49.0 +02.5	S 21 20.5	+00.0	22
23	314	03.5 +02.7	N 06 48.5	-00.1	52	23.6 +02.5	S 22 43.2	+00.0	43	51.5 +02.6	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 00'4 00'4 00'4 00'4 00'4 00'4				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 333° 333° 333° 333° 333° 333°				SHA 071° 071° 071° 071° 071° 071°				SHA 062° 062° 063° 063° 063° 063°				
	Greenwich Culmination Time: 02:07				Greenwich Culmination Time: 19:30				Greenwich Culmination Time: 20:05				

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 22.6 +00.2	N 02 09.6 -01.0	222 18.1 -00.4	N 16 34.4 -00.6	185 20.9 -32.4	N 09 16.3 -14.5	00						
01	196 22.8 +00.2	N 02 08.6 -01.0	237 17.7 -00.4	N 16 33.8 -00.6	199 48.5 -32.4	N 09 01.8 -14.4	01						
02	211 23.0 +00.2	N 02 07.6 -00.9	252 17.3 -00.4	N 16 33.2 -00.6	214 16.1 -32.4	N 08 47.4 -14.6	02						
03	226 23.2 +00.3	N 02 06.7 -01.0	267 16.9 -00.4	N 16 32.6 -00.6	228 43.7 -32.4	N 08 32.8 -14.6	03						
04	241 23.5 +00.2	N 02 05.7 -01.0	282 16.5 -00.4	N 16 32.0 -00.6	243 11.3 -32.3	N 08 18.2 -14.7	04						
05	256 23.7 +00.2	N 02 04.7 -00.9	297 16.1 -00.5	N 16 31.4 -00.6	257 39.0 -32.3	N 08 03.5 -14.7	05						
06	271 23.9 +00.2	N 02 03.8 -01.0	312 15.6 -00.4	N 16 30.8 -00.6	272 06.7 -32.3	N 07 48.8 -14.7	06						
07	286 24.1 +00.3	N 02 02.8 -01.0	327 15.2 -00.4	N 16 30.2 -00.6	286 34.4 -32.3	N 07 34.1 -14.9	07						
08	301 24.4 +00.2	N 02 01.8 -00.9	342 14.8 -00.4	N 16 29.6 -00.6	301 02.1 -32.2	N 07 19.2 -14.9	08						
09	316 24.6 +00.2	N 02 00.9 -01.0	357 14.4 -00.4	N 16 29.0 -00.6	315 29.9 -32.2	N 07 04.3 -14.9	09						
10	331 24.8 +00.2	N 01 59.9 -01.0	12 14.0 -00.4	N 16 28.4 -00.6	329 57.7 -32.2	N 06 49.4 -15.0	10						
11	346 25.0 +00.2	N 01 58.9 -00.9	27 13.6 -00.4	N 16 27.8 -00.6	344 25.5 -32.2	N 06 34.4 -15.0	11						
12	1 25.2 +00.3	N 01 58.0 -01.0	42 13.2 -00.4	N 16 27.2 -00.7	358 53.3 -32.2	N 06 19.4 -15.1	12						
13	16 25.5 +00.2	N 01 57.0 -01.0	57 12.8 -00.4	N 16 26.5 -00.6	13 21.1 -32.1	N 06 04.3 -15.1	13						
14	31 25.7 +00.2	N 01 56.0 -00.9	72 12.4 -00.4	N 16 25.9 -00.6	27 49.0 -32.2	N 05 49.2 -15.2	14						
15	46 25.9 +00.2	N 01 55.1 -01.0	87 12.0 -00.4	N 16 25.3 -00.6	42 16.8 -32.1	N 05 34.0 -15.2	15						
16	61 26.1 +00.3	N 01 54.1 -01.0	102 11.6 -00.4	N 16 24.7 -00.6	56 44.7 -32.1	N 05 18.8 -15.2	16						
17	76 26.4 +00.2	N 01 53.1 -00.9	117 11.2 -00.4	N 16 24.1 -00.6	71 12.6 -32.1	N 05 03.6 -15.3	17						
18	91 26.6 +00.2	N 01 52.2 -01.0	132 10.8 -00.4	N 16 23.5 -00.6	85 40.5 -32.0	N 04 48.3 -15.3	18						
19	106 26.8 +00.2	N 01 51.2 -01.0	147 10.4 -00.4	N 16 22.9 -00.7	100 08.5 -32.1	N 04 33.0 -15.3	19						
20	121 27.0 +00.2	N 01 50.2 -00.9	162 10.0 -00.4	N 16 22.2 -00.6	114 36.4 -32.0	N 04 17.7 -15.4	20						
21	136 27.2 +00.3	N 01 49.3 -01.0	177 09.6 -00.4	N 16 21.6 -00.6	129 04.4 -32.1	N 04 02.3 -15.4	21						
22	151 27.5 +00.2	N 01 48.3 -01.0	192 09.2 -00.4	N 16 21.0 -00.6	143 32.3 -32.0	N 03 46.9 -15.4	22						
23	166 27.7 +00.2	N 01 47.3 -00.9	207 08.8 -00.4	N 16 20.4 -00.6	158 00.3 -32.0	N 03 31.5 -15.5	23						
	UT 02 06 10 14 18 22 SD 15'9 15'9 15'9 15'9 15'9 15'9 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 185° 185° 185° 184° 184° 184° Greenwich Culmination Time: 11:54	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 00'1 00'1 00'1 00'1 SHA 226° 226° 225° 225° 225° 225° Greenwich Culmination Time: 09:11	UT 02 06 10 14 18 22 SD 16'5 16'6 16'6 16'6 16'6 16'6 HP 60'7 60'8 60'8 60'9 60'9 61'0 SHA 188° 185° 183° 181° 179° 176° Greenwich Culmination Time: 12:04										
UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	329 06.2 +02.7	N 06 48.4 +00.0	67 26.1 +02.4	S 22 43.2 +00.0	58 54.1 +02.5	S 21 20.5 +00.1	00						
01	344 08.9 +02.7	N 06 48.4 -00.1	82 28.5 +02.4	S 22 43.2 +00.0	73 56.6 +02.5	S 21 20.6 +00.0	01						
02	359 11.6 +02.8	N 06 48.3 +00.0	97 30.9 +02.4	S 22 43.2 +00.0	88 59.1 +02.5	S 21 20.6 +00.0	02						
03	14 14.4 +02.7	N 06 48.3 -00.1	112 33.3 +02.5	S 22 43.2 +00.0	104 01.6 +02.5	S 21 20.6 +00.0	03						
04	29 17.1 +02.7	N 06 48.2 +00.0	127 35.8 +02.4	S 22 43.2 +00.0	119 04.1 +02.5	S 21 20.6 +00.0	04						
05	44 19.8 +02.8	N 06 48.2 -00.1	142 38.2 +02.4	S 22 43.2 +00.0	134 06.6 +02.5	S 21 20.6 +00.0	05						
06	59 22.6 +02.7	N 06 48.1 +00.0	157 40.6 +02.5	S 22 43.2 +00.0	149 09.1 +02.6	S 21 20.6 +00.0	06						
07	74 25.3 +02.7	N 06 48.1 -00.1	172 43.1 +02.4	S 22 43.2 +00.0	164 11.7 +02.5	S 21 20.6 +00.0	07						
08	89 28.0 +02.8	N 06 48.0 +00.0	187 45.5 +02.4	S 22 43.2 +00.0	179 14.2 +02.5	S 21 20.6 +00.0	08						
09	104 30.8 +02.7	N 06 48.0 -00.1	202 47.9 +02.4	S 22 43.2 +00.0	194 16.7 +02.5	S 21 20.6 +00.1	09						
10	119 33.5 +02.8	N 06 47.9 +00.0	217 50.3 +02.5	S 22 43.2 +00.0	209 19.2 +02.5	S 21 20.7 +00.0	10						
11	134 36.3 +02.7	N 06 47.9 -00.1	232 52.8 +02.4	S 22 43.2 +00.0	224 21.7 +02.5	S 21 20.7 +00.0	11						
12	149 39.0 +02.7	N 06 47.8 +00.0	247 55.2 +02.4	S 22 43.2 +00.0	239 24.2 +02.5	S 21 20.7 +00.0	12						
13	164 41.7 +02.8	N 06 47.8 -00.1	262 57.6 +02.4	S 22 43.2 +00.0	254 26.7 +02.6	S 21 20.7 +00.0	13						
14	179 44.5 +02.7	N 06 47.7 -00.1	278 00.0 +02.5	S 22 43.2 +00.0	269 29.3 +02.5	S 21 20.7 +00.0	14						
15	194 47.2 +02.8	N 06 47.6 +00.0	293 02.5 +02.4	S 22 43.2 +00.0	284 31.8 +02.5	S 21 20.7 +00.0	15						
16	209 50.0 +02.7	N 06 47.6 -00.1	308 04.9 +02.4	S 22 43.2 +00.0	299 34.3 +02.5	S 21 20.7 +00.0	16						
17	224 52.7 +02.8	N 06 47.5 +00.0	323 07.3 +02.4	S 22 43.2 +00.0	314 36.8 +02.5	S 21 20.7 +00.0	17						
18	239 55.5 +02.7	N 06 47.5 -00.1	338 09.7 +02.5	S 22 43.2 +00.0	329 39.3 +02.5	S 21 20.7 +00.1	18						
19	254 58.2 +02.8	N 06 47.4 +00.0	353 12.2 +02.4	S 22 43.2 +00.0	344 41.8 +02.5	S 21 20.8 +00.0	19						
20	270 01.0 +02.8	N 06 47.4 -00.1	8 14.6 +02.4	S 22 43.2 +00.0	359 44.3 +02.6	S 21 20.8 +00.0	20						
21	285 03.8 +02.7	N 06 47.3 +00.0	23 17.0 +02.4	S 22 43.2 +00.0	14 46.9 +02.5	S 21 20.8 +00.0	21						
22	300 06.5 +02.8	N 06 47.3 -00.1	38 19.4 +02.4	S 22 43.2 +00.0	29 49.4 +02.5	S 21 20.8 +00.0	22						
23	315 09.3 +02.7	N 06 47.2 -00.1	53 21.8 +02.5	S 22 43.2 +00.0	44 51.9 +02.5	S 21 20.8 +00.0	23						
	UT 02 06 10 14 18 22 SD 00'2 00'2 00'2 00'2 00'2 00'2 HP 00'3 00'3 00'3 00'3 00'3 00'3 SHA 333° 333° 333° 333° 333° 333° Greenwich Culmination Time: 02:03	UT 02 06 10 14 18 22 SD 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 SHA 071° 071° 071° 071° 071° 071° Greenwich Culmination Time: 19:27	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 063° 063° 063° 063° 063° 063° Greenwich Culmination Time: 20:01										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	181 27.9 +00.2	N 01 46.4 -01.0	222 08.4 -00.4	N 16 19.8 -00.7	172 28.3 -32.0	N 03 16.0 -15.5	00								
01	196 28.1 +00.3	N 01 45.4 -01.0	237 08.0 -00.5	N 16 19.1 -00.6	186 56.3 -32.0	N 03 00.5 -15.5	01								
02	211 28.4 +00.2	N 01 44.4 -00.9	252 07.5 -00.4	N 16 18.5 -00.6	201 24.3 -32.0	N 02 45.0 -15.5	02								
03	226 28.6 +00.2	N 01 43.5 -01.0	267 07.1 -00.4	N 16 17.9 -00.6	215 52.3 -32.0	N 02 29.5 -15.5	03								
04	241 28.8 +00.2	N 01 42.5 -01.0	282 06.7 -00.4	N 16 17.3 -00.7	230 20.3 -31.9	N 02 14.0 -15.6	04								
05	256 29.0 +00.2	N 01 41.5 -01.0	297 06.3 -00.4	N 16 16.6 -00.6	244 48.4 -32.0	N 01 58.4 -15.5	05								
06	271 29.2 +00.3	N 01 40.5 -00.9	312 05.9 -00.4	N 16 16.0 -00.6	259 16.4 -31.9	N 01 42.9 -15.6	06								
07	286 29.5 +00.2	N 01 39.6 -01.0	327 05.5 -00.4	N 16 15.4 -00.6	273 44.5 -32.0	N 01 27.3 -15.6	07								
08	301 29.7 +00.2	N 01 38.6 -01.0	342 05.1 -00.4	N 16 14.8 -00.7	288 12.5 -31.9	N 01 11.7 -15.6	08								
09	316 29.9 +00.2	N 01 37.6 -00.9	357 04.7 -00.4	N 16 14.1 -00.6	302 40.6 -32.0	N 00 56.1 -15.6	09								
10	331 30.1 +00.3	N 01 36.7 -01.0	12 04.3 -00.4	N 16 13.5 -00.6	317 08.6 -31.9	N 00 40.5 -15.6	10								
11	346 30.4 +00.2	N 01 35.7 -01.0	27 03.9 -00.4	N 16 12.9 -00.7	331 36.7 -32.0	N 00 24.9 -15.7	11								
12	1 30.6 +00.2	N 01 34.7 -00.9	42 03.5 -00.4	N 16 12.2 -00.6	346 04.7 -31.9	N 00 09.2 -15.6	12								
13	16 30.8 +00.2	N 01 33.8 -01.0	57 03.1 -00.4	N 16 11.6 -00.6	0 32.8 -31.9	S 00 06.4 +15.6	13								
14	31 31.0 +00.2	N 01 32.8 -01.0	72 02.7 -00.4	N 16 11.0 -00.7	15 00.9 -32.0	S 00 22.0 +15.6	14								
15	46 31.2 +00.3	N 01 31.8 -00.9	87 02.3 -00.4	N 16 10.3 -00.6	29 28.9 -31.9	S 00 37.6 +15.6	15								
16	61 31.5 +00.2	N 01 30.9 -01.0	102 01.9 -00.4	N 16 09.7 -00.6	43 57.0 -31.9	S 00 53.2 +15.6	16								
17	76 31.7 +00.2	N 01 29.9 -01.0	117 01.5 -00.4	N 16 09.1 -00.7	58 25.1 -32.0	S 01 08.8 +15.6	17								
18	91 31.9 +00.2	N 01 28.9 -01.0	132 01.1 -00.4	N 16 08.4 -00.6	72 53.1 -31.9	S 01 24.4 +15.6	18								
19	106 32.1 +00.3	N 01 27.9 -00.9	147 00.7 -00.4	N 16 07.8 -00.6	87 21.2 -32.0	S 01 40.0 +15.6	19								
20	121 32.4 +00.2	N 01 27.0 -01.0	162 00.3 -00.4	N 16 07.2 -00.7	101 49.2 -31.9	S 01 55.6 +15.5	20								
21	136 32.6 +00.2	N 01 26.0 -01.0	176 59.9 -00.4	N 16 06.5 -00.6	116 17.3 -32.0	S 02 11.1 +15.6	21								
22	151 32.8 +00.2	N 01 25.0 -00.9	191 59.5 -00.5	N 16 05.9 -00.6	130 45.3 -32.0	S 02 26.7 +15.5	22								
23	166 33.0 +00.2	N 01 24.1 -01.0	206 59.0 -00.4	N 16 05.3 -00.7	145 13.3 -31.9	S 02 42.2 +15.5	23								
	UT 02 06 10 14 18 22	SD 15'9 15'9 15'9 15'9 15'9 15'9	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 184° 184° 184° 184° 183° 183°	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 225° 224° 224° 224° 224° 224°	Greenwich Culmination Time: 09:11	UT 02 06 10 14 18 22	SD 16'6 16'6 16'6 16'6 16'6 16'6	HP 61'0 61'0 61'0 61'0 61'0 61'0	SHA 174° 172° 169° 167° 165° 162°	Greenwich Culmination Time: 12:57

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	330 12.0 +02.8	N 06 47.1 +00.0	68 24.3 +02.4	S 22 43.2 +00.0	59 54.4 +02.5	S 21 20.8 +00.0	00								
01	345 14.8 +02.7	N 06 47.1 -00.1	83 26.7 +02.4	S 22 43.2 +00.0	74 56.9 +02.5	S 21 20.8 +00.0	01								
02	0 17.5 +02.8	N 06 47.0 +00.0	98 29.1 +02.4	S 22 43.2 +00.0	89 59.4 +02.5	S 21 20.8 +00.0	02								
03	15 20.3 +02.8	N 06 47.0 -00.1	113 31.5 +02.4	S 22 43.2 +00.0	105 01.9 +02.5	S 21 20.8 +00.1	03								
04	30 23.1 +02.7	N 06 46.9 -00.1	128 33.9 +02.5	S 22 43.2 +00.0	120 04.4 +02.5	S 21 20.9 +00.0	04								
05	45 25.8 +02.8	N 06 46.8 +00.0	143 36.4 +02.4	S 22 43.2 +00.0	135 06.9 +02.6	S 21 20.9 +00.0	05								
06	60 28.6 +02.8	N 06 46.8 -00.1	158 38.8 +02.4	S 22 43.2 +00.0	150 09.5 +02.5	S 21 20.9 +00.0	06								
07	75 31.4 +02.8	N 06 46.7 +00.0	173 41.2 +02.4	S 22 43.2 -00.1	165 12.0 +02.5	S 21 20.9 +00.0	07								
08	90 34.2 +02.7	N 06 46.7 -00.1	188 43.6 +02.4	S 22 43.1 +00.0	180 14.5 +02.5	S 21 20.9 +00.0	08								
09	105 36.9 +02.8	N 06 46.6 -00.1	203 46.0 +02.5	S 22 43.1 +00.0	195 17.0 +02.5	S 21 20.9 +00.0	09								
10	120 39.7 +02.8	N 06 46.5 +00.0	218 48.5 +02.4	S 22 43.1 +00.0	210 19.5 +02.5	S 21 20.9 +00.0	10								
11	135 42.5 +02.8	N 06 46.5 -00.1	233 50.9 +02.4	S 22 43.1 +00.0	225 22.0 +02.5	S 21 20.9 +00.0	11								
12	150 45.3 +02.7	N 06 46.4 +00.0	248 53.3 +02.4	S 22 43.1 +00.0	240 24.5 +02.5	S 21 20.9 +00.0	12								
13	165 48.0 +02.8	N 06 46.4 -00.1	263 55.7 +02.4	S 22 43.1 +00.0	255 27.0 +02.5	S 21 20.9 +00.1	13								
14	180 50.8 +02.8	N 06 46.3 -00.1	278 58.1 +02.4	S 22 43.1 +00.0	270 29.5 +02.6	S 21 21.0 +00.0	14								
15	195 53.6 +02.8	N 06 46.2 +00.0	294 00.5 +02.4	S 22 43.1 +00.0	285 32.1 +02.5	S 21 21.0 +00.0	15								
16	210 56.4 +02.8	N 06 46.2 -00.1	309 02.9 +02.5	S 22 43.1 +00.0	300 34.6 +02.5	S 21 21.0 +00.0	16								
17	225 59.2 +02.7	N 06 46.1 -00.1	324 05.4 +02.4	S 22 43.1 +00.0	315 37.1 +02.5	S 21 21.0 +00.0	17								
18	241 01.9 +02.8	N 06 46.0 +00.0	339 07.8 +02.4	S 22 43.1 +00.0	330 39.6 +02.5	S 21 21.0 +00.0	18								
19	256 04.7 +02.8	N 06 46.0 -00.1	354 10.2 +02.4	S 22 43.1 +00.0	345 42.1 +02.5	S 21 21.0 +00.0	19								
20	271 07.5 +02.8	N 06 45.9 -00.1	9 12.6 +02.4	S 22 43.1 +00.0	0 44.6 +02.5	S 21 21.0 +00.0	20								
21	286 10.3 +02.8	N 06 45.8 +00.0	24 15.0 +02.4	S 22 43.1 +00.0	15 47.1 +02.5	S 21 21.0 +00.0	21								
22	301 13.1 +02.8	N 06 45.8 -00.1	39 17.4 +02.4	S 22 43.1 +00.0	30 49.6 +02.5	S 21 21.0 +00.0	22								
23	316 15.9 +02.8	N 06 45.7 -00.1	54 19.8 +02.5	S 22 43.1 +00.0	45 52.1 +02.5	S 21 21.0 +00.1	23								
	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2	HP 00'3 00'3 00'3 00'3 00'3 00'3	SHA 333° 333° 333° 333° 333° 333°	Greenwich Culmination Time: 01:58	UT 02 06 10 14 18 22	SD 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	SHA 071° 071° 071° 071° 071° 071°	Greenwich Culmination Time: 19:23	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 063° 063° 063° 063° 063° 063°	Greenwich Culmination Time: 19:57

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 33.2 +00.3	N 01 23.1 -01.0	221 58.6 -00.4	N 16 04.6 -00.6	159 41.4 -32.0	S 02 57.7 +15.5	00						
01	196 33.5 +00.2	N 01 22.1 -00.9	236 58.2 -00.4	N 16 04.0 -00.7	174 09.4 -32.0	S 03 13.2 +15.5	01						
02	211 33.7 +00.2	N 01 21.2 -01.0	251 57.8 -00.4	N 16 03.3 -00.6	188 37.4 -32.0	S 03 28.7 +15.4	02						
03	226 33.9 +00.2	N 01 20.2 -01.0	266 57.4 -00.4	N 16 02.7 -00.7	203 05.4 -32.0	S 03 44.1 +15.4	03						
04	241 34.1 +00.3	N 01 19.2 -01.0	281 57.0 -00.4	N 16 02.0 -00.6	217 33.4 -32.1	S 03 59.5 +15.4	04						
05	256 34.4 +00.2	N 01 18.2 -00.9	296 56.6 -00.4	N 16 01.4 -00.6	232 01.3 -32.0	S 04 14.9 +15.4	05						
06	271 34.6 +00.2	N 01 17.3 -01.0	311 56.2 -00.4	N 16 00.8 -00.7	246 29.3 -32.0	S 04 30.3 +15.3	06						
07	286 34.8 +00.2	N 01 16.3 -01.0	326 55.8 -00.4	N 16 00.1 -00.6	260 57.3 -32.1	S 04 45.6 +15.3	07						
08	301 35.0 +00.2	N 01 15.3 -00.9	341 55.4 -00.4	N 15 59.5 -00.7	275 25.2 -32.1	S 05 00.9 +15.2	08						
09	316 35.2 +00.3	N 01 14.4 -01.0	356 55.0 -00.4	N 15 58.8 -00.6	289 53.1 -32.1	S 05 16.1 +15.2	09						
10	331 35.5 +00.2	N 01 13.4 -01.0	11 54.6 -00.4	N 15 58.2 -00.7	304 21.0 -32.1	S 05 31.3 +15.2	10						
11	346 35.7 +00.2	N 01 12.4 -00.9	26 54.2 -00.4	N 15 57.5 -00.6	318 48.9 -32.1	S 05 46.5 +15.2	11						
12	1 35.9 +00.2	N 01 11.5 -01.0	41 53.8 -00.4	N 15 56.9 -00.7	333 16.8 -32.1	S 06 01.7 +15.1	12						
13	16 36.1 +00.2	N 01 10.5 -01.0	56 53.4 -00.4	N 15 56.2 -00.6	347 44.7 -32.2	S 06 16.8 +15.0	13						
14	31 36.3 +00.3	N 01 09.5 -01.0	71 53.0 -00.4	N 15 55.6 -00.7	2 12.5 -32.2	S 06 31.8 +15.0	14						
15	46 36.6 +00.2	N 01 08.5 -00.9	86 52.6 -00.4	N 15 54.9 -00.6	16 40.3 -32.2	S 06 46.8 +15.0	15						
16	61 36.8 +00.2	N 01 07.6 -01.0	101 52.2 -00.4	N 15 54.3 -00.7	31 08.1 -32.2	S 07 01.8 +14.9	16						
17	76 37.0 +00.2	N 01 06.6 -01.0	116 51.8 -00.4	N 15 53.6 -00.7	45 35.9 -32.2	S 07 16.7 +14.8	17						
18	91 37.2 +00.3	N 01 05.6 -00.9	131 51.4 -00.4	N 15 52.9 -00.6	60 03.7 -32.3	S 07 31.5 +14.8	18						
19	106 37.5 +00.2	N 01 04.7 -01.0	146 51.0 -00.4	N 15 52.3 -00.7	74 31.4 -32.3	S 07 46.3 +14.8	19						
20	121 37.7 +00.2	N 01 03.7 -01.0	161 50.6 -00.4	N 15 51.6 -00.6	88 59.1 -32.3	S 08 01.1 +14.7	20						
21	136 37.9 +00.2	N 01 02.7 -01.0	176 50.2 -00.4	N 15 51.0 -00.7	103 26.8 -32.3	S 08 15.8 +14.6	21						
22	151 38.1 +00.2	N 01 01.7 -00.9	191 49.8 -00.4	N 15 50.3 -00.6	117 54.5 -32.3	S 08 30.4 +14.6	22						
23	166 38.3 +00.3	N 01 00.8 -01.0	206 49.4 -00.5	N 15 49.7 -00.7	132 22.2 -32.4	S 08 45.0 +14.5	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 16'6 16'6 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 61'0 61'0 60'9 60'9 60'8 60'8								
	SHA 183° 183° 183° 183° 183° 182°		SHA 224° 223° 223° 223° 223° 223°		SHA 160° 158° 156° 153° 151° 149°								
	Greenwich Culmination Time: 11:53		Greenwich Culmination Time: 09:12		Greenwich Culmination Time: 13:50								

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	331 18.7 +02.8	N 06 45.6 +00.0	69 22.3 +02.4	S 22 43.1 +00.0	60 54.6 +02.5	S 21 21.1 +00.0	00						
01	346 21.5 +02.8	N 06 45.6 -00.1	84 24.7 +02.4	S 22 43.1 +00.0	75 57.1 +02.5	S 21 21.1 +00.0	01						
02	1 24.3 +02.8	N 06 45.5 -00.1	99 27.1 +02.4	S 22 43.1 +00.0	90 59.6 +02.6	S 21 21.1 +00.0	02						
03	16 27.1 +02.8	N 06 45.4 +00.0	114 29.5 +02.4	S 22 43.1 +00.0	106 02.2 +02.5	S 21 21.1 +00.0	03						
04	31 29.9 +02.8	N 06 45.4 -00.1	129 31.9 +02.4	S 22 43.1 +00.0	121 04.7 +02.5	S 21 21.1 +00.0	04						
05	46 32.7 +02.8	N 06 45.3 -00.1	144 34.3 +02.4	S 22 43.1 +00.0	136 07.2 +02.5	S 21 21.1 +00.0	05						
06	61 35.5 +02.8	N 06 45.2 +00.0	159 36.7 +02.4	S 22 43.1 +00.0	151 09.7 +02.5	S 21 21.1 +00.0	06						
07	76 38.3 +02.8	N 06 45.2 -00.1	174 39.1 +02.4	S 22 43.1 -00.1	166 12.2 +02.5	S 21 21.1 +00.0	07						
08	91 41.1 +02.8	N 06 45.1 -00.1	189 41.5 +02.4	S 22 43.0 +00.0	181 14.7 +02.5	S 21 21.1 +00.0	08						
09	106 43.9 +02.8	N 06 45.0 +00.0	204 43.9 +02.5	S 22 43.0 +00.0	196 17.2 +02.5	S 21 21.1 +00.1	09						
10	121 46.7 +02.8	N 06 45.0 -00.1	219 46.4 +02.4	S 22 43.0 +00.0	211 19.7 +02.5	S 21 21.2 +00.0	10						
11	136 49.5 +02.8	N 06 44.9 -00.1	234 48.8 +02.4	S 22 43.0 +00.0	226 22.2 +02.5	S 21 21.2 +00.0	11						
12	151 52.3 +02.8	N 06 44.8 -00.1	249 51.2 +02.4	S 22 43.0 +00.0	241 24.7 +02.5	S 21 21.2 +00.0	12						
13	166 55.1 +02.9	N 06 44.7 +00.0	264 53.6 +02.4	S 22 43.0 +00.0	256 27.2 +02.5	S 21 21.2 +00.0	13						
14	181 58.0 +02.8	N 06 44.7 -00.1	279 56.0 +02.4	S 22 43.0 +00.0	271 29.7 +02.5	S 21 21.2 +00.0	14						
15	197 00.8 +02.8	N 06 44.6 -00.1	294 58.4 +02.4	S 22 43.0 +00.0	286 32.2 +02.5	S 21 21.2 +00.0	15						
16	212 03.6 +02.8	N 06 44.5 +00.0	310 00.8 +02.4	S 22 43.0 +00.0	301 34.7 +02.5	S 21 21.2 +00.0	16						
17	227 06.4 +02.8	N 06 44.5 -00.1	325 03.2 +02.4	S 22 43.0 +00.0	316 37.2 +02.5	S 21 21.2 +00.0	17						
18	242 09.2 +02.9	N 06 44.4 -00.1	340 05.6 +02.4	S 22 43.0 +00.0	331 39.7 +02.5	S 21 21.2 +00.0	18						
19	257 12.1 +02.8	N 06 44.3 -00.1	355 08.0 +02.4	S 22 43.0 +00.0	346 42.2 +02.5	S 21 21.2 +00.0	19						
20	272 14.9 +02.8	N 06 44.2 +00.0	10 10.4 +02.4	S 22 43.0 +00.0	1 44.7 +02.6	S 21 21.2 +00.1	20						
21	287 17.7 +02.8	N 06 44.2 -00.1	25 12.8 +02.4	S 22 43.0 +00.0	16 47.3 +02.5	S 21 21.3 +00.0	21						
22	302 20.5 +02.8	N 06 44.1 -00.1	40 15.2 +02.4	S 22 43.0 +00.0	31 49.8 +02.5	S 21 21.3 +00.0	22						
23	317 23.3 +02.9	N 06 44.0 -00.1	55 17.6 +02.4	S 22 43.0 +00.0	46 52.3 +02.5	S 21 21.3 +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 00'4 00'4 00'4 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 333° 333° 333° 333° 333° 333°		SHA 071° 071° 071° 071° 071° 071°		SHA 063° 063° 063° 063° 063° 063°								
	Greenwich Culmination Time: 01:54		Greenwich Culmination Time: 19:19		Greenwich Culmination Time: 19:53								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 38.6 +00.2	N 00	59.8 -01.0	221 48.9 -00.4	N 15	49.0 -00.7	146 49.8 -32.4	S 08	59.5 +14.5	00			
01	196 38.8 +00.2	N 00	58.8 -00.9	236 48.5 -00.4	N 15	48.3 -00.6	161 17.4 -32.4	S 09	14.0 +14.3	01			
02	211 39.0 +00.2	N 00	57.9 -01.0	251 48.1 -00.4	N 15	47.7 -00.7	175 45.0 -32.5	S 09	28.3 +14.4	02			
03	226 39.2 +00.2	N 00	56.9 -01.0	266 47.7 -00.4	N 15	47.0 -00.6	190 12.5 -32.5	S 09	42.7 +14.2	03			
04	241 39.4 +00.3	N 00	55.9 -00.9	281 47.3 -00.4	N 15	46.4 -00.7	204 40.0 -32.5	S 09	56.9 +14.2	04			
05	256 39.7 +00.2	N 00	55.0 -01.0	296 46.9 -00.4	N 15	45.7 -00.7	219 07.5 -32.5	S 10	11.1 +14.1	05			
06	271 39.9 +00.2	N 00	54.0 -01.0	311 46.5 -00.4	N 15	45.0 -00.6	233 35.0 -32.5	S 10	25.2 +14.0	06			
07	286 40.1 +00.2	N 00	53.0 -01.0	326 46.1 -00.4	N 15	44.4 -00.7	248 02.5 -32.6	S 10	39.2 +14.0	07			
08	301 40.3 +00.3	N 00	52.0 -00.9	341 45.7 -00.4	N 15	43.7 -00.7	262 29.9 -32.6	S 10	53.2 +13.9	08			
09	316 40.6 +00.2	N 00	51.1 -01.0	356 45.3 -00.4	N 15	43.0 -00.6	276 57.3 -32.7	S 11	07.1 +13.8	09			
10	331 40.8 +00.2	N 00	50.1 -01.0	11 44.9 -00.4	N 15	42.4 -00.7	291 24.6 -32.7	S 11	20.9 +13.7	10			
11	346 41.0 +00.2	N 00	49.1 -01.0	26 44.5 -00.4	N 15	41.7 -00.7	305 51.9 -32.7	S 11	34.6 +13.7	11			
12	1 41.2 +00.2	N 00	48.1 -00.9	41 44.1 -00.4	N 15	41.0 -00.6	320 19.2 -32.7	S 11	48.3 +13.5	12			
13	16 41.4 +00.3	N 00	47.2 -01.0	56 43.7 -00.4	N 15	40.4 -00.7	334 46.5 -32.8	S 12	01.8 +13.5	13			
14	31 41.7 +00.2	N 00	46.2 -01.0	71 43.3 -00.4	N 15	39.7 -00.7	349 13.7 -32.8	S 12	15.3 +13.4	14			
15	46 41.9 +00.2	N 00	45.2 -00.9	86 42.9 -00.4	N 15	39.0 -00.7	3 40.9 -32.8	S 12	28.7 +13.3	15			
16	61 42.1 +00.2	N 00	44.3 -01.0	101 42.5 -00.4	N 15	38.3 -00.6	18 08.1 -32.9	S 12	42.0 +13.3	16			
17	76 42.3 +00.2	N 00	43.3 -01.0	116 42.1 -00.4	N 15	37.7 -00.7	32 35.2 -32.8	S 12	55.3 +13.1	17			
18	91 42.5 +00.3	N 00	42.3 -01.0	131 41.7 -00.4	N 15	37.0 -00.7	47 02.4 -33.0	S 13	08.4 +13.0	18			
19	106 42.8 +00.2	N 00	41.3 -00.9	146 41.3 -00.4	N 15	36.3 -00.7	61 29.4 -32.9	S 13	21.4 +13.0	19			
20	121 43.0 +00.2	N 00	40.4 -01.0	161 40.9 -00.4	N 15	35.6 -00.6	75 56.5 -33.0	S 13	34.4 +12.8	20			
21	136 43.2 +00.2	N 00	39.4 -01.0	176 40.5 -00.4	N 15	35.0 -00.7	90 23.5 -33.1	S 13	47.2 +12.8	21			
22	151 43.4 +00.3	N 00	38.4 -00.9	191 40.1 -00.4	N 15	34.3 -00.7	104 50.4 -33.0	S 13	60.0 +12.6	22			
23	166 43.7 +00.2	N 00	37.5 -01.0	206 39.7 -00.4	N 15	33.6 -00.7	119 17.4 -33.1	S 14	12.6 +12.6	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'9 15'9 15'9 15'9 15'9 15'9			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'5 16'5 16'5 16'5 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 60'6 60'5 60'4 60'3						
	SHA 182° 182° 182° 182° 182° 181°			SHA 222° 222° 222° 222° 222° 221°			SHA 146° 144° 142° 139° 137° 135°						
	Greenwich Culmination Time: 11:53			Greenwich Culmination Time: 09:12			Greenwich Culmination Time: 14:44						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	332 26.2 +02.8	N 06	43.9 +00.0	70 20.0 +02.4	S 22	43.0 +00.0	61 54.8 +02.5	S 21	21.3 +00.0	00			
01	347 29.0 +02.8	N 06	43.9 -00.1	85 22.4 +02.4	S 22	43.0 +00.0	76 57.3 +02.5	S 21	21.3 +00.0	01			
02	2 31.8 +02.9	N 06	43.8 -00.1	100 24.8 +02.4	S 22	43.0 -00.1	91 59.8 +02.5	S 21	21.3 +00.0	02			
03	17 34.7 +02.8	N 06	43.7 -00.1	115 27.2 +02.5	S 22	42.9 +00.0	107 02.3 +02.5	S 21	21.3 +00.0	03			
04	32 37.5 +02.8	N 06	43.6 +00.0	130 29.7 +02.4	S 22	42.9 +00.0	122 04.8 +02.5	S 21	21.3 +00.0	04			
05	47 40.3 +02.9	N 06	43.6 -00.1	145 32.1 +02.4	S 22	42.9 +00.0	137 07.3 +02.5	S 21	21.3 +00.0	05			
06	62 43.2 +02.8	N 06	43.5 -00.1	160 34.5 +02.4	S 22	42.9 +00.0	152 09.8 +02.5	S 21	21.3 +00.0	06			
07	77 46.0 +02.9	N 06	43.4 -00.1	175 36.9 +02.4	S 22	42.9 +00.0	167 12.3 +02.5	S 21	21.3 +00.1	07			
08	92 48.9 +02.8	N 06	43.3 +00.0	190 39.3 +02.4	S 22	42.9 +00.0	182 14.8 +02.5	S 21	21.4 +00.0	08			
09	107 51.7 +02.8	N 06	43.3 -00.1	205 41.7 +02.4	S 22	42.9 +00.0	197 17.3 +02.5	S 21	21.4 +00.0	09			
10	122 54.5 +02.9	N 06	43.2 -00.1	220 44.1 +02.4	S 22	42.9 +00.0	212 19.8 +02.5	S 21	21.4 +00.0	10			
11	137 57.4 +02.8	N 06	43.1 -00.1	235 46.5 +02.4	S 22	42.9 +00.0	227 22.3 +02.5	S 21	21.4 +00.0	11			
12	153 00.2 +02.9	N 06	43.0 -00.1	250 48.9 +02.4	S 22	42.9 +00.0	242 24.8 +02.5	S 21	21.4 +00.0	12			
13	168 03.1 +02.8	N 06	42.9 +00.0	265 51.3 +02.4	S 22	42.9 +00.0	257 27.3 +02.5	S 21	21.4 +00.0	13			
14	183 05.9 +02.9	N 06	42.9 -00.1	280 53.7 +02.4	S 22	42.9 +00.0	272 29.8 +02.5	S 21	21.4 +00.0	14			
15	198 08.8 +02.8	N 06	42.8 -00.1	295 56.1 +02.3	S 22	42.9 +00.0	287 32.3 +02.5	S 21	21.4 +00.0	15			
16	213 11.6 +02.9	N 06	42.7 -00.1	310 58.4 +02.4	S 22	42.9 +00.0	302 34.8 +02.5	S 21	21.4 +00.0	16			
17	228 14.5 +02.8	N 06	42.6 -00.1	326 00.8 +02.4	S 22	42.9 +00.0	317 37.3 +02.5	S 21	21.4 +00.0	17			
18	243 17.3 +02.9	N 06	42.5 +00.0	341 03.2 +02.4	S 22	42.9 -00.1	332 39.8 +02.5	S 21	21.4 +00.1	18			
19	258 20.2 +02.8	N 06	42.5 -00.1	356 05.6 +02.4	S 22	42.8 +00.0	347 42.3 +02.5	S 21	21.5 +00.0	19			
20	273 23.0 +02.9	N 06	42.4 -00.1	11 08.0 +02.4	S 22	42.8 +00.0	2 44.8 +02.5	S 21	21.5 +00.0	20			
21	288 25.9 +02.8	N 06	42.3 -00.1	26 10.4 +02.4	S 22	42.8 +00.0	17 47.3 +02.5	S 21	21.5 +00.0	21			
22	303 28.7 +02.9	N 06	42.2 -00.1	41 12.8 +02.4	S 22	42.8 +00.0	32 49.8 +02.5	S 21	21.5 +00.0	22			
23	318 31.6 +02.9	N 06	42.1 -00.1	56 15.2 +02.4	S 22	42.8 +00.0	47 52.3 +02.5	S 21	21.5 +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 333° 333° 333° 333° 333° 333°			SHA 071° 071° 071° 071° 071° 071°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 01:49			Greenwich Culmination Time: 19:15			Greenwich Culmination Time: 19:49						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 43.9 +00.2	N 00	36.5 -01.0	221 39.3 -00.4	N 15	32.9 -00.7	133 44.3 -33.1	S 14	25.2 +12.5	00			
01	196 44.1 +00.2	N 00	35.5 -01.0	236 38.9 -00.4	N 15	32.2 -00.6	148 11.2 -33.2	S 14	37.7 +12.3	01			
02	211 44.3 +00.2	N 00	34.5 -00.9	251 38.5 -00.4	N 15	31.6 -00.7	162 38.0 -33.2	S 14	50.0 +12.3	02			
03	226 44.5 +00.3	N 00	33.6 -01.0	266 38.1 -00.4	N 15	30.9 -00.7	177 04.8 -33.2	S 15	02.3 +12.1	03			
04	241 44.8 +00.2	N 00	32.6 -01.0	281 37.7 -00.4	N 15	30.2 -00.7	191 31.6 -33.3	S 15	14.4 +12.1	04			
05	256 45.0 +00.2	N 00	31.6 -00.9	296 37.3 -00.4	N 15	29.5 -00.7	205 58.3 -33.3	S 15	26.5 +11.9	05			
06	271 45.2 +00.2	N 00	30.7 -01.0	311 36.9 -00.4	N 15	28.8 -00.6	220 25.0 -33.3	S 15	38.4 +11.9	06			
07	286 45.4 +00.2	N 00	29.7 -01.0	326 36.5 -00.4	N 15	28.2 -00.7	234 51.7 -33.4	S 15	50.3 +11.7	07			
08	301 45.6 +00.3	N 00	28.7 -01.0	341 36.1 -00.4	N 15	27.5 -00.7	249 18.3 -33.4	S 16	02.0 +11.6	08			
09	316 45.9 +00.2	N 00	27.7 -00.9	356 35.7 -00.4	N 15	26.8 -00.7	263 44.9 -33.4	S 16	13.6 +11.5	09			
10	331 46.1 +00.2	N 00	26.8 -01.0	11 35.3 -00.4	N 15	26.1 -00.7	278 11.5 -33.5	S 16	25.1 +11.4	10			
11	346 46.3 +00.2	N 00	25.8 -01.0	26 34.9 -00.4	N 15	25.4 -00.7	292 38.0 -33.5	S 16	36.5 +11.3	11			
12	1 46.5 +00.2	N 00	24.8 -01.0	41 34.5 -00.4	N 15	24.7 -00.7	307 04.5 -33.5	S 16	47.8 +11.1	12			
13	16 46.7 +00.3	N 00	23.8 -00.9	56 34.1 -00.4	N 15	24.0 -00.7	321 31.0 -33.6	S 16	58.9 +11.1	13			
14	31 47.0 +00.2	N 00	22.9 -01.0	71 33.7 -00.4	N 15	23.3 -00.7	335 57.4 -33.6	S 17	10.0 +10.9	14			
15	46 47.2 +00.2	N 00	21.9 -01.0	86 33.3 -00.4	N 15	22.6 -00.6	350 23.8 -33.6	S 17	20.9 +10.8	15			
16	61 47.4 +00.2	N 00	20.9 -00.9	101 32.9 -00.4	N 15	22.0 -00.7	4 50.2 -33.7	S 17	31.7 +10.7	16			
17	76 47.6 +00.2	N 00	20.0 -01.0	116 32.5 -00.4	N 15	21.3 -00.7	19 16.5 -33.7	S 17	42.4 +10.5	17			
18	91 47.8 +00.3	N 00	19.0 -01.0	131 32.1 -00.4	N 15	20.6 -00.7	33 42.8 -33.7	S 17	52.9 +10.5	18			
19	106 48.1 +00.2	N 00	18.0 -01.0	146 31.7 -00.5	N 15	19.9 -00.7	48 09.1 -33.8	S 18	03.4 +10.3	19			
20	121 48.3 +00.2	N 00	17.0 -00.9	161 31.2 -00.4	N 15	19.2 -00.7	62 35.3 -33.8	S 18	13.7 +10.2	20			
21	136 48.5 +00.2	N 00	16.1 -01.0	176 30.8 -00.4	N 15	18.5 -00.7	77 01.5 -33.8	S 18	23.9 +10.1	21			
22	151 48.7 +00.2	N 00	15.1 -01.0	191 30.4 -00.4	N 15	17.8 -00.7	91 27.7 -33.9	S 18	34.0 +09.9	22			
23	166 48.9 +00.3	N 00	14.1 -01.0	206 30.0 -00.4	N 15	17.1 -00.7	105 53.8 -33.9	S 18	43.9 +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 15'9 15'9 15'9 15'9 15'9 15'9			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 60'0 59'8 59'7 59'6						
	SHA 181° 181° 181° 181° 181° 181°			SHA 221° 221° 221° 221° 220° 220°			SHA 132° 130° 127° 125° 123° 120°						
	Greenwich Culmination Time: 11:52			Greenwich Culmination Time: 09:13			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	333 34.5 +02.8	N 06	42.0 +00.0	71 17.6 +02.4	S 22	42.8 +00.0	62 54.8 +02.5	S 21	21.5 +00.0	00			
01	348 37.3 +02.9	N 06	42.0 -00.1	86 20.0 +02.4	S 22	42.8 +00.0	77 57.3 +02.5	S 21	21.5 +00.0	01			
02	3 40.2 +02.9	N 06	41.9 -00.1	101 22.4 +02.4	S 22	42.8 +00.0	92 59.8 +02.5	S 21	21.5 +00.0	02			
03	18 43.1 +02.8	N 06	41.8 -00.1	116 24.8 +02.4	S 22	42.8 +00.0	108 02.3 +02.5	S 21	21.5 +00.0	03			
04	33 45.9 +02.9	N 06	41.7 -00.1	131 27.2 +02.4	S 22	42.8 +00.0	123 04.8 +02.5	S 21	21.5 +00.0	04			
05	48 48.8 +02.9	N 06	41.6 -00.1	146 29.6 +02.4	S 22	42.8 +00.0	138 07.3 +02.5	S 21	21.5 +00.0	05			
06	63 51.7 +02.8	N 06	41.5 +00.0	161 32.0 +02.4	S 22	42.8 +00.0	153 09.8 +02.5	S 21	21.5 +00.1	06			
07	78 54.5 +02.9	N 06	41.5 -00.1	176 34.4 +02.4	S 22	42.8 +00.0	168 12.3 +02.5	S 21	21.6 +00.0	07			
08	93 57.4 +02.9	N 06	41.4 -00.1	191 36.8 +02.4	S 22	42.8 +00.0	183 14.8 +02.5	S 21	21.6 +00.0	08			
09	109 00.3 +02.9	N 06	41.3 -00.1	206 39.2 +02.3	S 22	42.8 -00.1	198 17.3 +02.5	S 21	21.6 +00.0	09			
10	124 03.2 +02.8	N 06	41.2 -00.1	221 41.5 +02.4	S 22	42.7 +00.0	213 19.8 +02.5	S 21	21.6 +00.0	10			
11	139 06.0 +02.9	N 06	41.1 -00.1	236 43.9 +02.4	S 22	42.7 +00.0	228 22.3 +02.5	S 21	21.6 +00.0	11			
12	154 08.9 +02.9	N 06	41.0 -00.1	251 46.3 +02.4	S 22	42.7 +00.0	243 24.8 +02.5	S 21	21.6 +00.0	12			
13	169 11.8 +02.9	N 06	40.9 +00.0	266 48.7 +02.4	S 22	42.7 +00.0	258 27.3 +02.5	S 21	21.6 +00.0	13			
14	184 14.7 +02.9	N 06	40.9 -00.1	281 51.1 +02.4	S 22	42.7 +00.0	273 29.8 +02.5	S 21	21.6 +00.0	14			
15	199 17.6 +02.8	N 06	40.8 -00.1	296 53.5 +02.4	S 22	42.7 +00.0	288 32.3 +02.5	S 21	21.6 +00.0	15			
16	214 20.4 +02.9	N 06	40.7 -00.1	311 55.9 +02.4	S 22	42.7 +00.0	303 34.8 +02.5	S 21	21.6 +00.0	16			
17	229 23.3 +02.9	N 06	40.6 -00.1	326 58.3 +02.4	S 22	42.7 +00.0	318 37.3 +02.5	S 21	21.6 +00.0	17			
18	244 26.2 +02.9	N 06	40.5 -00.1	342 00.7 +02.4	S 22	42.7 +00.0	333 39.8 +02.5	S 21	21.6 +00.0	18			
19	259 29.1 +02.9	N 06	40.4 -00.1	357 03.1 +02.3	S 22	42.7 +00.0	348 42.3 +02.4	S 21	21.6 +00.1	19			
20	274 32.0 +02.9	N 06	40.3 -00.1	12 05.4 +02.4	S 22	42.7 +00.0	3 44.7 +02.5	S 21	21.7 +00.0	20			
21	289 34.9 +02.9	N 06	40.2 -00.1	27 07.8 +02.4	S 22	42.7 +00.0	18 47.2 +02.5	S 21	21.7 +00.0	21			
22	304 37.8 +02.9	N 06	40.1 +00.0	42 10.2 +02.4	S 22	42.7 -00.1	33 49.7 +02.5	S 21	21.7 +00.0	22			
23	319 40.7 +02.9	N 06	40.1 -00.1	57 12.6 +02.4	S 22	42.6 +00.0	48 52.2 +02.5	S 21	21.7 +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 333° 333° 333° 333° 333° 333°			SHA 071° 071° 071° 071° 071° 071°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 01:45			Greenwich Culmination Time: 19:11			Greenwich Culmination Time: 19:45						

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 49.2 +00.2	N 00	13.1 -00.9	221 29.6 -00.4	N 15	16.4 -00.7	120 19.9 -33.9	S 18	53.7 +09.7	00			
01	196 49.4 +00.2	N 00	12.2 -01.0	236 29.2 -00.4	N 15	15.7 -00.7	134 46.0 -34.0	S 19	03.4 +09.6	01			
02	211 49.6 +00.2	N 00	11.2 -01.0	251 28.8 -00.4	N 15	15.0 -00.7	149 12.0 -34.0	S 19	13.0 +09.4	02			
03	226 49.8 +00.2	N 00	10.2 -00.9	266 28.4 -00.4	N 15	14.3 -00.7	163 38.0 -34.0	S 19	22.4 +09.3	03			
04	241 50.0 +00.3	N 00	09.3 -01.0	281 28.0 -00.4	N 15	13.6 -00.7	178 04.0 -34.0	S 19	31.7 +09.1	04			
05	256 50.3 +00.2	N 00	08.3 -01.0	296 27.6 -00.4	N 15	12.9 -00.7	192 30.0 -34.1	S 19	40.8 +09.1	05			
06	271 50.5 +00.2	N 00	07.3 -01.0	311 27.2 -00.4	N 15	12.2 -00.7	206 55.9 -34.1	S 19	49.9 +08.9	06			
07	286 50.7 +00.2	N 00	06.3 -00.9	326 26.8 -00.4	N 15	11.5 -00.7	221 21.8 -34.1	S 19	58.8 +08.7	07			
08	301 50.9 +00.2	N 00	05.4 -01.0	341 26.4 -00.4	N 15	10.8 -00.7	235 47.7 -34.2	S 20	07.5 +08.7	08			
09	316 51.1 +00.3	N 00	04.4 -01.0	356 26.0 -00.4	N 15	10.1 -00.7	250 13.5 -34.2	S 20	16.2 +08.4	09			
10	331 51.4 +00.2	N 00	03.4 -01.0	11 25.6 -00.4	N 15	09.4 -00.7	264 39.3 -34.2	S 20	24.6 +08.4	10			
11	346 51.6 +00.2	N 00	02.4 -00.9	26 25.2 -00.4	N 15	08.7 -00.7	279 05.1 -34.2	S 20	33.0 +08.2	11			
12	1 51.8 +00.2	N 00	01.5 -01.0	41 24.8 -00.4	N 15	08.0 -00.7	293 30.9 -34.2	S 20	41.2 +08.1	12			
13	16 52.0 +00.2	N 00	00.5 -01.0	56 24.4 -00.4	N 15	07.3 -00.8	307 56.7 -34.3	S 20	49.3 +07.9	13			
14	31 52.2 +00.3	S 00	00.5 +01.0	71 24.0 -00.4	N 15	06.5 -00.7	322 22.4 -34.3	S 20	57.2 +07.8	14			
15	46 52.5 +00.2	S 00	01.5 +00.9	86 23.6 -00.4	N 15	05.8 -00.7	336 48.1 -34.3	S 21	05.0 +07.7	15			
16	61 52.7 +00.2	S 00	02.4 +01.0	101 23.2 -00.4	N 15	05.1 -00.7	351 13.8 -34.4	S 21	12.7 +07.5	16			
17	76 52.9 +00.2	S 00	03.4 +01.0	116 22.8 -00.4	N 15	04.4 -00.7	5 39.4 -34.3	S 21	20.2 +07.4	17			
18	91 53.1 +00.2	S 00	04.4 +00.9	131 22.4 -00.4	N 15	03.7 -00.7	20 05.1 -34.4	S 21	27.6 +07.2	18			
19	106 53.3 +00.3	S 00	05.3 +01.0	146 22.0 -00.4	N 15	03.0 -00.7	34 30.7 -34.4	S 21	34.8 +07.1	19			
20	121 53.6 +00.2	S 00	06.3 +01.0	161 21.6 -00.4	N 15	02.3 -00.7	48 56.3 -34.4	S 21	41.9 +06.9	20			
21	136 53.8 +00.2	S 00	07.3 +01.0	176 21.2 -00.4	N 15	01.6 -00.7	63 21.9 -34.4	S 21	48.8 +06.8	21			
22	151 54.0 +00.2	S 00	08.3 +00.9	191 20.8 -00.4	N 15	00.9 -00.8	77 47.5 -34.5	S 21	55.6 +06.7	22			
23	166 54.2 +00.2	S 00	09.2 +01.0	206 20.4 -00.4	N 15	00.1 -00.7	92 13.0 -34.4	S 22	02.3 +06.5	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'9 15'9 15'9 15'9 15'9 15'9			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'2 16'2 16'1 16'1 16'1 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 59'5 59'4 59'2 59'1 59'0 58'8						
	SHA 180° 180° 180° 180° 180° 180°			SHA 220° 220° 220° 220° 219° 219°			SHA 118° 115° 113° 110° 108° 106°						
	Greenwich Culmination Time: 11:52			Greenwich Culmination Time: 09:14			Greenwich Culmination Time: 16:36						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	334 43.6 +02.8	N 06	40.0 -00.1	72 15.0 +02.4	S 22	42.6 +00.0	63 54.7 +02.5	S 21	21.7 +00.0	00			
01	349 46.4 +02.9	N 06	39.9 -00.1	87 17.4 +02.4	S 22	42.6 +00.0	78 57.2 +02.5	S 21	21.7 +00.0	01			
02	4 49.3 +02.9	N 06	39.8 -00.1	102 19.8 +02.3	S 22	42.6 +00.0	93 59.7 +02.5	S 21	21.7 +00.0	02			
03	19 52.2 +02.9	N 06	39.7 -00.1	117 22.1 +02.4	S 22	42.6 +00.0	109 02.2 +02.5	S 21	21.7 +00.0	03			
04	34 55.1 +02.9	N 06	39.6 -00.1	132 24.5 +02.4	S 22	42.6 +00.0	124 04.7 +02.5	S 21	21.7 +00.0	04			
05	49 58.0 +02.9	N 06	39.5 -00.1	147 26.9 +02.4	S 22	42.6 +00.0	139 07.2 +02.5	S 21	21.7 +00.0	05			
06	65 00.9 +02.9	N 06	39.4 -00.1	162 29.3 +02.4	S 22	42.6 +00.0	154 09.7 +02.5	S 21	21.7 +00.0	06			
07	80 03.8 +02.9	N 06	39.3 -00.1	177 31.7 +02.4	S 22	42.6 +00.0	169 12.2 +02.5	S 21	21.7 +00.0	07			
08	95 06.7 +03.0	N 06	39.2 -00.1	192 34.1 +02.3	S 22	42.6 +00.0	184 14.7 +02.5	S 21	21.7 +00.1	08			
09	110 09.7 +02.9	N 06	39.1 -00.1	207 36.4 +02.4	S 22	42.6 +00.0	199 17.2 +02.5	S 21	21.8 +00.0	09			
10	125 12.6 +02.9	N 06	39.0 +00.0	222 38.8 +02.4	S 22	42.6 +00.0	214 19.7 +02.5	S 21	21.8 +00.0	10			
11	140 15.5 +02.9	N 06	39.0 -00.1	237 41.2 +02.4	S 22	42.6 -00.1	229 22.2 +02.5	S 21	21.8 +00.0	11			
12	155 18.4 +02.9	N 06	38.9 -00.1	252 43.6 +02.4	S 22	42.5 +00.0	244 24.7 +02.4	S 21	21.8 +00.0	12			
13	170 21.3 +02.9	N 06	38.8 -00.1	267 46.0 +02.4	S 22	42.5 +00.0	259 27.1 +02.5	S 21	21.8 +00.0	13			
14	185 24.2 +02.9	N 06	38.7 -00.1	282 48.4 +02.3	S 22	42.5 +00.0	274 29.6 +02.5	S 21	21.8 +00.0	14			
15	200 27.1 +02.9	N 06	38.6 -00.1	297 50.7 +02.4	S 22	42.5 +00.0	289 32.1 +02.5	S 21	21.8 +00.0	15			
16	215 30.0 +02.9	N 06	38.5 -00.1	312 53.1 +02.4	S 22	42.5 +00.0	304 34.6 +02.5	S 21	21.8 +00.0	16			
17	230 32.9 +03.0	N 06	38.4 -00.1	327 55.5 +02.4	S 22	42.5 +00.0	319 37.1 +02.5	S 21	21.8 +00.0	17			
18	245 35.9 +02.9	N 06	38.3 -00.1	342 57.9 +02.4	S 22	42.5 +00.0	334 39.6 +02.5	S 21	21.8 +00.0	18			
19	260 38.8 +02.9	N 06	38.2 -00.1	358 00.3 +02.3	S 22	42.5 +00.0	349 42.1 +02.5	S 21	21.8 +00.0	19			
20	275 41.7 +02.9	N 06	38.1 -00.1	13 02.6 +02.4	S 22	42.5 +00.0	4 44.6 +02.5	S 21	21.8 +00.0	20			
21	290 44.6 +02.9	N 06	38.0 -00.1	28 05.0 +02.4	S 22	42.5 +00.0	19 47.1 +02.5	S 21	21.8 +00.0	21			
22	305 47.5 +03.0	N 06	37.9 -00.1	43 07.4 +02.4	S 22	42.5 -00.1	34 49.6 +02.5	S 21	21.8 +00.1	22			
23	320 50.5 +02.9	N 06	37.8 -00.1	58 09.8 +02.4	S 22	42.4 +00.0	49 52.1 +02.5	S 21	21.9 +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 333° 333° 333° 334° 334° 334°			SHA 071° 071° 071° 071° 071° 071°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 01:40			Greenwich Culmination Time: 19:07			Greenwich Culmination Time: 19:41						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	181 54.4 +00.2	S 00	10.2 +01.0	221 20.0 -00.4	N 14	59.4 -00.7	106 38.6 -34.5	S 22	08.8 +06.3	00										
01	196 54.6 +00.3	S 00	11.2 +01.0	236 19.6 -00.4	N 14	58.7 -00.7	121 04.1 -34.5	S 22	15.1 +06.2	01										
02	211 54.9 +00.2	S 00	12.2 +00.9	251 19.2 -00.4	N 14	58.0 -00.7	135 29.6 -34.5	S 22	21.3 +06.1	02										
03	226 55.1 +00.2	S 00	13.1 +01.0	266 18.8 -00.3	N 14	57.3 -00.8	149 55.1 -34.5	S 22	27.4 +05.9	03										
04	241 55.3 +00.2	S 00	14.1 +01.0	281 18.5 -00.4	N 14	56.5 -00.7	164 20.6 -34.5	S 22	33.3 +05.8	04										
05	256 55.5 +00.2	S 00	15.1 +01.0	296 18.1 -00.4	N 14	55.8 -00.7	178 46.1 -34.5	S 22	39.1 +05.6	05										
06	271 55.7 +00.3	S 00	16.1 +00.9	311 17.7 -00.4	N 14	55.1 -00.7	193 11.6 -34.5	S 22	44.7 +05.5	06										
07	286 56.0 +00.2	S 00	17.0 +01.0	326 17.3 -00.4	N 14	54.4 -00.7	207 37.1 -34.6	S 22	50.2 +05.3	07										
08	301 56.2 +00.2	S 00	18.0 +01.0	341 16.9 -00.4	N 14	53.7 -00.8	222 02.5 -34.5	S 22	55.5 +05.2	08										
09	316 56.4 +00.2	S 00	19.0 +00.9	356 16.5 -00.4	N 14	52.9 -00.7	236 28.0 -34.5	S 23	00.7 +05.1	09										
10	331 56.6 +00.2	S 00	19.9 +01.0	11 16.1 -00.4	N 14	52.2 -00.7	250 53.5 -34.6	S 23	05.8 +04.8	10										
11	346 56.8 +00.3	S 00	20.9 +01.0	26 15.7 -00.4	N 14	51.5 -00.7	265 18.9 -34.5	S 23	10.6 +04.8	11										
12	1 57.1 +00.2	S 00	21.9 +01.0	41 15.3 -00.4	N 14	50.8 -00.8	279 44.4 -34.6	S 23	15.4 +04.5	12										
13	16 57.3 +00.2	S 00	22.9 +00.9	56 14.9 -00.4	N 14	50.0 -00.7	294 09.8 -34.5	S 23	19.9 +04.5	13										
14	31 57.5 +00.2	S 00	23.8 +01.0	71 14.5 -00.4	N 14	49.3 -00.7	308 35.3 -34.6	S 23	24.4 +04.3	14										
15	46 57.7 +00.2	S 00	24.8 +01.0	86 14.1 -00.4	N 14	48.6 -00.7	323 00.7 -34.5	S 23	28.7 +04.1	15										
16	61 57.9 +00.2	S 00	25.8 +01.0	101 13.7 -00.4	N 14	47.9 -00.8	337 26.2 -34.5	S 23	32.8 +04.0	16										
17	76 58.1 +00.3	S 00	26.8 +00.9	116 13.3 -00.4	N 14	47.1 -00.7	351 51.7 -34.6	S 23	36.8 +03.8	17										
18	91 58.4 +00.2	S 00	27.7 +01.0	131 12.9 -00.4	N 14	46.4 -00.7	6 17.1 -34.5	S 23	40.6 +03.7	18										
19	106 58.6 +00.2	S 00	28.7 +01.0	146 12.5 -00.4	N 14	45.7 -00.8	20 42.6 -34.5	S 23	44.3 +03.5	19										
20	121 58.8 +00.2	S 00	29.7 +01.0	161 12.1 -00.4	N 14	44.9 -00.7	35 08.1 -34.5	S 23	47.8 +03.4	20										
21	136 59.0 +00.2	S 00	30.7 +00.9	176 11.7 -00.4	N 14	44.2 -00.7	49 33.6 -34.5	S 23	51.2 +03.2	21										
22	151 59.2 +00.2	S 00	31.6 +01.0	191 11.3 -00.4	N 14	43.5 -00.8	63 59.1 -34.5	S 23	54.4 +03.1	22										
23	166 59.4 +00.3	S 00	32.6 +01.0	206 10.9 -00.4	N 14	42.7 -00.7	78 24.6 -34.4	S 23	57.5 +02.9	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	15'9	15'9	15'9	15'9	15'9	15'9	SD	00'1	00'1	00'1	00'1	00'1	00'1	SD	16'0	16'0	15'9	15'9	15'8	15'8
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	58'7	58'6	58'4	58'3	58'2	58'0
SHA	180°	179°	179°	179°	179°	179°	SHA	219°	219°	219°	218°	218°	218°	SHA	103°	101°	098°	096°	093°	091°
Greenwich Culmination Time: 11:52							Greenwich Culmination Time: 09:14							Greenwich Culmination Time: 17:33						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	335 53.4 +02.9	N 06	37.7 -00.1	73 12.2 +02.3	S 22	42.4 +00.0	64 54.6 +02.4	S 21	21.9 +00.0	00										
01	350 56.3 +03.0	N 06	37.6 -00.1	88 14.5 +02.4	S 22	42.4 +00.0	79 57.0 +02.5	S 21	21.9 +00.0	01										
02	5 59.3 +02.9	N 06	37.5 -00.1	103 16.9 +02.4	S 22	42.4 +00.0	94 59.5 +02.5	S 21	21.9 +00.0	02										
03	21 02.2 +02.9	N 06	37.4 -00.1	118 19.3 +02.4	S 22	42.4 +00.0	110 02.0 +02.5	S 21	21.9 +00.0	03										
04	36 05.1 +02.9	N 06	37.3 -00.1	133 21.7 +02.3	S 22	42.4 +00.0	125 04.5 +02.5	S 21	21.9 +00.0	04										
05	51 08.0 +03.0	N 06	37.2 -00.1	148 24.0 +02.4	S 22	42.4 +00.0	140 07.0 +02.5	S 21	21.9 +00.0	05										
06	66 11.0 +02.9	N 06	37.1 -00.1	163 26.4 +02.4	S 22	42.4 +00.0	155 09.5 +02.5	S 21	21.9 +00.0	06										
07	81 13.9 +02.9	N 06	37.0 -00.1	178 28.8 +02.4	S 22	42.4 +00.0	170 12.0 +02.5	S 21	21.9 +00.0	07										
08	96 16.8 +03.0	N 06	36.9 -00.1	193 31.2 +02.3	S 22	42.4 +00.0	185 14.5 +02.5	S 21	21.9 +00.0	08										
09	111 19.8 +02.9	N 06	36.8 -00.1	208 33.5 +02.4	S 22	42.4 +00.0	200 17.0 +02.5	S 21	21.9 +00.0	09										
10	126 22.7 +03.0	N 06	36.7 -00.1	223 35.9 +02.4	S 22	42.4 -00.1	215 19.5 +02.4	S 21	21.9 +00.0	10										
11	141 25.7 +02.9	N 06	36.6 -00.1	238 38.3 +02.4	S 22	42.3 +00.0	230 21.9 +02.5	S 21	21.9 +00.0	11										
12	156 28.6 +02.9	N 06	36.5 -00.1	253 40.7 +02.3	S 22	42.3 +00.0	245 24.4 +02.5	S 21	21.9 +00.0	12										
13	171 31.5 +03.0	N 06	36.4 -00.1	268 43.0 +02.4	S 22	42.3 +00.0	260 26.9 +02.5	S 21	21.9 +00.1	13										
14	186 34.5 +02.9	N 06	36.3 -00.1	283 45.4 +02.4	S 22	42.3 +00.0	275 29.4 +02.5	S 21	22.0 +00.0	14										
15	201 37.4 +03.0	N 06	36.2 -00.1	298 47.8 +02.3	S 22	42.3 +00.0	290 31.9 +02.5	S 21	22.0 +00.0	15										
16	216 40.4 +02.9	N 06	36.1 -00.1	313 50.1 +02.4	S 22	42.3 +00.0	305 34.4 +02.5	S 21	22.0 +00.0	16										
17	231 43.3 +03.0	N 06	36.0 -00.1	328 52.5 +02.4	S 22	42.3 +00.0	320 36.9 +02.5	S 21	22.0 +00.0	17										
18	246 46.3 +02.9	N 06	35.9 -00.1	343 54.9 +02.4	S 22	42.3 +00.0	335 39.4 +02.4	S 21	22.0 +00.0	18										
19	261 49.2 +03.0	N 06	35.8 -00.1	358 57.3 +02.3	S 22	42.3 +00.0	350 41.8 +02.5	S 21	22.0 +00.0	19										
20	276 52.2 +02.9	N 06	35.7 -00.1	13 59.6 +02.4	S 22	42.3 -00.1	5 44.3 +02.5	S 21	22.0 +00.0	20										
21	291 55.1 +03.0	N 06	35.6 -00.1	29 02.0 +02.4	S 22	42.2 +00.0	20 46.8 +02.5	S 21	22.0 +00.0	21										
22	306 58.1 +02.9	N 06	35.5 -00.1	44 04.4 +02.3	S 22	42.2 +00.0	35 49.3 +02.5	S 21	22.0 +00.0	22										
23	322 01.0 +03.0	N 06	35.4 -00.1	59 06.7 +02.4	S 22	42.2 +00.0	50 51.8 +02.5	S 21	22.0 +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	334°	334°	334°	334°	334°	334°	SHA	071°	071°	071°	071°	071°	071°	SHA	063°	063°	063°	063°	063°	063°
Greenwich Culmination Time: 01:36							Greenwich Culmination Time: 19:04							Greenwich Culmination Time: 19:37						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 59.7 +00.2	S	00 33.6 +00.9	221 10.5 -00.4	N	14 42.0 -00.7	92 50.2 -34.5	S	24 00.4 +02.8				
01	196 59.9 +00.2	S	00 34.5 +01.0	236 10.1 -00.4	N	14 41.3 -00.8	107 15.7 -34.4	S	24 03.2 +02.6				
02	212 00.1 +00.2	S	00 35.5 +01.0	251 09.7 -00.4	N	14 40.5 -00.7	121 41.3 -34.4	S	24 05.8 +02.5				
03	227 00.3 +00.2	S	00 36.5 +01.0	266 09.3 -00.4	N	14 39.8 -00.7	136 06.9 -34.4	S	24 08.3 +02.3				
04	242 00.5 +00.3	S	00 37.5 +00.9	281 08.9 -00.4	N	14 39.1 -00.8	150 32.5 -34.4	S	24 10.6 +02.2				
05	257 00.8 +00.2	S	00 38.4 +01.0	296 08.5 -00.4	N	14 38.3 -00.7	164 58.1 -34.4	S	24 12.8 +02.0				
06	272 01.0 +00.2	S	00 39.4 +01.0	311 08.1 -00.4	N	14 37.6 -00.8	179 23.7 -34.3	S	24 14.8 +01.9				
07	287 01.2 +00.2	S	00 40.4 +01.0	326 07.7 -00.4	N	14 36.8 -00.7	193 49.4 -34.3	S	24 16.7 +01.7				
08	302 01.4 +00.2	S	00 41.4 +00.9	341 07.3 -00.4	N	14 36.1 -00.7	208 15.1 -34.3	S	24 18.4 +01.6				
09	317 01.6 +00.2	S	00 42.3 +01.0	356 06.9 -00.4	N	14 35.4 -00.8	222 40.8 -34.2	S	24 20.0 +01.4				
10	332 01.8 +00.3	S	00 43.3 +01.0	11 06.5 -00.4	N	14 34.6 -00.7	237 06.6 -34.3	S	24 21.4 +01.3				
11	347 02.1 +00.2	S	00 44.3 +01.0	26 06.1 -00.4	N	14 33.9 -00.8	251 32.3 -34.2	S	24 22.7 +01.1				
12	2 02.3 +00.2	S	00 45.3 +00.9	41 05.7 -00.4	N	14 33.1 -00.7	265 58.1 -34.2	S	24 23.8 +01.0				
13	17 02.5 +00.2	S	00 46.2 +01.0	56 05.3 -00.4	N	14 32.4 -00.8	280 23.9 -34.1	S	24 24.8 +00.8				
14	32 02.7 +00.2	S	00 47.2 +01.0	71 04.9 -00.4	N	14 31.6 -00.7	294 49.8 -34.1	S	24 25.6 +00.7				
15	47 02.9 +00.2	S	00 48.2 +01.0	86 04.5 -00.4	N	14 30.9 -00.8	309 15.7 -34.1	S	24 26.3 +00.5				
16	62 03.1 +00.3	S	00 49.2 +00.9	101 04.1 -00.4	N	14 30.1 -00.7	323 41.6 -34.0	S	24 26.8 +00.4				
17	77 03.4 +00.2	S	00 50.1 +01.0	116 03.7 -00.3	N	14 29.4 -00.8	338 07.6 -34.0	S	24 27.2 +00.3				
18	92 03.6 +00.2	S	00 51.1 +01.0	131 03.4 -00.4	N	14 28.6 -00.7	352 33.6 -34.0	S	24 27.5 +00.1				
19	107 03.8 +00.2	S	00 52.1 +00.9	146 03.0 -00.4	N	14 27.9 -00.8	6 59.6 -33.9	S	24 27.6 -00.1				
20	122 04.0 +00.2	S	00 53.0 +01.0	161 02.6 -00.4	N	14 27.1 -00.7	21 25.7 -33.9	S	24 27.5 -00.2				
21	137 04.2 +00.2	S	00 54.0 +01.0	176 02.2 -00.4	N	14 26.4 -00.8	35 51.8 -33.8	S	24 27.3 -00.3				
22	152 04.4 +00.3	S	00 55.0 +01.0	191 01.8 -00.4	N	14 25.6 -00.7	50 18.0 -33.8	S	24 27.0 -00.5				
23	167 04.7 +00.2	S	00 56.0 +00.9	206 01.4 -00.4	N	14 24.9 -00.8	64 44.2 -33.8	S	24 26.5 -00.6				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'9 15'9 15'9 15'9 15'9 15'9			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'8 15'7 15'7 15'7 15'6 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 57'9 57'8 57'6 57'5 57'4 57'3						
	SHA 179° 178° 178° 178° 178° 178°			SHA 218° 218° 217° 217° 217° 217°			SHA 088° 086° 083° 081° 079° 076°						
	Greenwich Culmination Time: 11:51			Greenwich Culmination Time: 09:15			Greenwich Culmination Time: 18:30						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	337 04.0 +02.9	N	06 35.3 -00.1	74 09.1 +02.4	S	22 42.2 +00.0	65 54.3 +02.5	S	21 22.0 +00.0				
01	352 06.9 +03.0	N	06 35.2 -00.1	89 11.5 +02.4	S	22 42.2 +00.0	80 56.8 +02.4	S	21 22.0 +00.0				
02	7 09.9 +03.0	N	06 35.1 -00.1	104 13.9 +02.3	S	22 42.2 +00.0	95 59.2 +02.5	S	21 22.0 +00.0				
03	22 12.9 +02.9	N	06 35.0 -00.1	119 16.2 +02.4	S	22 42.2 +00.0	111 01.7 +02.5	S	21 22.0 +00.0				
04	37 15.8 +03.0	N	06 34.9 -00.1	134 18.6 +02.4	S	22 42.2 +00.0	126 04.2 +02.5	S	21 22.0 +00.0				
05	52 18.8 +03.0	N	06 34.8 -00.2	149 21.0 +02.3	S	22 42.2 +00.0	141 06.7 +02.5	S	21 22.0 +00.1				
06	67 21.8 +02.9	N	06 34.6 -00.1	164 23.3 +02.4	S	22 42.2 -00.1	156 09.2 +02.5	S	21 22.1 +00.0				
07	82 24.7 +03.0	N	06 34.5 -00.1	179 25.7 +02.4	S	22 42.1 +00.0	171 11.7 +02.5	S	21 22.1 +00.0				
08	97 27.7 +02.9	N	06 34.4 -00.1	194 28.1 +02.3	S	22 42.1 +00.0	186 14.2 +02.4	S	21 22.1 +00.0				
09	112 30.6 +03.0	N	06 34.3 -00.1	209 30.4 +02.4	S	22 42.1 +00.0	201 16.6 +02.5	S	21 22.1 +00.0				
10	127 33.6 +03.0	N	06 34.2 -00.1	224 32.8 +02.4	S	22 42.1 +00.0	216 19.1 +02.5	S	21 22.1 +00.0				
11	142 36.6 +03.0	N	06 34.1 -00.1	239 35.2 +02.3	S	22 42.1 +00.0	231 21.6 +02.5	S	21 22.1 +00.0				
12	157 39.6 +02.9	N	06 34.0 -00.1	254 37.5 +02.4	S	22 42.1 +00.0	246 24.1 +02.5	S	21 22.1 +00.0				
13	172 42.5 +03.0	N	06 33.9 -00.1	269 39.9 +02.3	S	22 42.1 +00.0	261 26.6 +02.5	S	21 22.1 +00.0				
14	187 45.5 +03.0	N	06 33.8 -00.1	284 42.2 +02.4	S	22 42.1 +00.0	276 29.1 +02.5	S	21 22.1 +00.0				
15	202 48.5 +03.0	N	06 33.7 -00.1	299 44.6 +02.4	S	22 42.1 +00.0	291 31.6 +02.4	S	21 22.1 +00.0				
16	217 51.5 +02.9	N	06 33.6 -00.1	314 47.0 +02.3	S	22 42.1 -00.1	306 34.0 +02.5	S	21 22.1 +00.0				
17	232 54.4 +03.0	N	06 33.5 -00.2	329 49.3 +02.4	S	22 42.0 +00.0	321 36.5 +02.5	S	21 22.1 +00.0				
18	247 57.4 +03.0	N	06 33.3 -00.1	344 51.7 +02.4	S	22 42.0 +00.0	336 39.0 +02.5	S	21 22.1 +00.0				
19	263 00.4 +03.0	N	06 33.2 -00.1	359 54.1 +02.3	S	22 42.0 +00.0	351 41.5 +02.5	S	21 22.1 +00.0				
20	278 03.4 +02.9	N	06 33.1 -00.1	14 56.4 +02.4	S	22 42.0 +00.0	6 44.0 +02.4	S	21 22.1 +00.0				
21	293 06.3 +03.0	N	06 33.0 -00.1	29 58.8 +02.3	S	22 42.0 +00.0	21 46.4 +02.5	S	21 22.1 +00.0				
22	308 09.3 +03.0	N	06 32.9 -00.1	45 01.1 +02.4	S	22 42.0 +00.0	36 48.9 +02.5	S	21 22.1 +00.0				
23	323 12.3 +03.0	N	06 32.8 -00.1	60 03.5 +02.4	S	22 42.0 +00.0	51 51.4 +02.5	S	21 22.1 +00.1				
	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 334° 334° 334° 334° 334° 334°			SHA 071° 071° 071° 071° 071° 071°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 01:31			Greenwich Culmination Time: 19:00			Greenwich Culmination Time: 19:33						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	182 04.9 +00.2	S 00	56.9 +01.0	221 01.0 -00.4	N 14	24.1 -00.7	79 10.4 -33.7	S 24	25.9 -00.8	00										
01	197 05.1 +00.2	S 00	57.9 +01.0	236 00.6 -00.4	N 14	23.4 -00.8	93 36.7 -33.7	S 24	25.1 -00.9	01										
02	212 05.3 +00.2	S 00	58.9 +01.0	251 00.2 -00.4	N 14	22.6 -00.7	108 03.0 -33.6	S 24	24.2 -01.0	02										
03	227 05.5 +00.2	S 00	59.9 +00.9	265 59.8 -00.4	N 14	21.9 -00.8	122 29.4 -33.6	S 24	23.2 -01.2	03										
04	242 05.7 +00.3	S 01	00.8 +01.0	280 59.4 -00.4	N 14	21.1 -00.7	136 55.8 -33.5	S 24	22.0 -01.4	04										
05	257 06.0 +00.2	S 01	01.8 +01.0	295 59.0 -00.4	N 14	20.4 -00.8	151 22.3 -33.5	S 24	20.6 -01.4	05										
06	272 06.2 +00.2	S 01	02.8 +01.0	310 58.6 -00.4	N 14	19.6 -00.7	165 48.8 -33.4	S 24	19.2 -01.6	06										
07	287 06.4 +00.2	S 01	03.8 +00.9	325 58.2 -00.4	N 14	18.9 -00.8	180 15.4 -33.4	S 24	17.6 -01.8	07										
08	302 06.6 +00.2	S 01	04.7 +01.0	340 57.8 -00.4	N 14	18.1 -00.8	194 42.0 -33.3	S 24	15.8 -01.9	08										
09	317 06.8 +00.2	S 01	05.7 +01.0	355 57.4 -00.4	N 14	17.3 -00.7	209 08.7 -33.3	S 24	13.9 -02.0	09										
10	332 07.0 +00.2	S 01	06.7 +01.0	10 57.0 -00.4	N 14	16.6 -00.8	223 35.4 -33.2	S 24	11.9 -02.2	10										
11	347 07.2 +00.3	S 01	07.7 +00.9	25 56.6 -00.4	N 14	15.8 -00.7	238 02.2 -33.1	S 24	09.7 -02.3	11										
12	2 07.5 +00.2	S 01	08.6 +01.0	40 56.2 -00.4	N 14	15.1 -00.8	252 29.1 -33.1	S 24	07.4 -02.4	12										
13	17 07.7 +00.2	S 01	09.6 +01.0	55 55.8 -00.3	N 14	14.3 -00.8	266 56.0 -33.1	S 24	05.0 -02.6	13										
14	32 07.9 +00.2	S 01	10.6 +00.9	70 55.5 -00.4	N 14	13.5 -00.7	281 22.9 -32.9	S 24	02.4 -02.7	14										
15	47 08.1 +00.2	S 01	11.5 +01.0	85 55.1 -00.4	N 14	12.8 -00.8	295 50.0 -33.0	S 23	59.7 -02.8	15										
16	62 08.3 +00.2	S 01	12.5 +01.0	100 54.7 -00.4	N 14	12.0 -00.8	310 17.0 -32.8	S 23	56.9 -03.0	16										
17	77 08.5 +00.3	S 01	13.5 +01.0	115 54.3 -00.4	N 14	11.2 -00.7	324 44.2 -32.8	S 23	53.9 -03.1	17										
18	92 08.8 +00.2	S 01	14.5 +00.9	130 53.9 -00.4	N 14	10.5 -00.8	339 11.4 -32.8	S 23	50.8 -03.2	18										
19	107 09.0 +00.2	S 01	15.4 +01.0	145 53.5 -00.4	N 14	09.7 -00.8	353 38.6 -32.6	S 23	47.6 -03.4	19										
20	122 09.2 +00.2	S 01	16.4 +01.0	160 53.1 -00.4	N 14	08.9 -00.7	8 06.0 -32.6	S 23	44.2 -03.4	20										
21	137 09.4 +00.2	S 01	17.4 +01.0	175 52.7 -00.4	N 14	08.2 -00.8	22 33.4 -32.6	S 23	40.8 -03.7	21										
22	152 09.6 +00.2	S 01	18.4 +00.9	190 52.3 -00.4	N 14	07.4 -00.8	37 00.8 -32.5	S 23	37.1 -03.7	22										
23	167 09.8 +00.2	S 01	19.3 +01.0	205 51.9 -00.4	N 14	06.6 -00.7	51 28.3 -32.4	S 23	33.4 -03.9	23										
UT	02	06	10	14	18	22	UT	02	06	10	14	18	22	UT						
SD	15'9	15'9	15'9	16'0	16'0	16'0	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	57'1	57'0	56'9	56'8	56'7	56'5
SHA	178°	178°	177°	177°	177°	177°	SHA	217°	216°	216°	216°	216°	216°	SHA	074°	071°	069°	067°	064°	062°
Greenwich Culmination Time: 11:51							Greenwich Culmination Time: 09:16							Greenwich Culmination Time: 19:26						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT							
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec								
00	338 15.3 +03.0	N 06	32.7 -00.1	75 05.9 +02.3	S 22	42.0 +00.0	66 53.9 +02.5	S 21	22.2 +00.0	00										
01	353 18.3 +03.0	N 06	32.6 -00.1	90 08.2 +02.4	S 22	42.0 -00.1	81 56.4 +02.5	S 21	22.2 +00.0	01										
02	8 21.3 +03.0	N 06	32.5 -00.1	105 10.6 +02.4	S 22	41.9 +00.0	96 58.9 +02.4	S 21	22.2 +00.0	02										
03	23 24.3 +03.0	N 06	32.4 -00.2	120 13.0 +02.3	S 22	41.9 +00.0	112 01.3 +02.5	S 21	22.2 +00.0	03										
04	38 27.3 +02.9	N 06	32.2 -00.1	135 15.3 +02.4	S 22	41.9 +00.0	127 03.8 +02.5	S 21	22.2 +00.0	04										
05	53 30.2 +03.0	N 06	32.1 -00.1	150 17.7 +02.3	S 22	41.9 +00.0	142 06.3 +02.5	S 21	22.2 +00.0	05										
06	68 33.2 +03.0	N 06	32.0 -00.1	165 20.0 +02.4	S 22	41.9 +00.0	157 08.8 +02.5	S 21	22.2 +00.0	06										
07	83 36.2 +03.0	N 06	31.9 -00.1	180 22.4 +02.3	S 22	41.9 +00.0	172 11.3 +02.4	S 21	22.2 +00.0	07										
08	98 39.2 +03.0	N 06	31.8 -00.1	195 24.7 +02.4	S 22	41.9 +00.0	187 13.7 +02.5	S 21	22.2 +00.0	08										
09	113 42.2 +03.0	N 06	31.7 -00.1	210 27.1 +02.4	S 22	41.9 +00.0	202 16.2 +02.5	S 21	22.2 +00.0	09										
10	128 45.2 +03.0	N 06	31.6 -00.2	225 29.5 +02.3	S 22	41.9 -00.1	217 18.7 +02.5	S 21	22.2 +00.0	10										
11	143 48.2 +03.0	N 06	31.4 -00.1	240 31.8 +02.4	S 22	41.8 +00.0	232 21.2 +02.5	S 21	22.2 +00.0	11										
12	158 51.2 +03.0	N 06	31.3 -00.1	255 34.2 +02.3	S 22	41.8 +00.0	247 23.7 +02.4	S 21	22.2 +00.0	12										
13	173 54.2 +03.0	N 06	31.2 -00.1	270 36.5 +02.4	S 22	41.8 +00.0	262 26.1 +02.5	S 21	22.2 +00.0	13										
14	188 57.2 +03.0	N 06	31.1 -00.1	285 38.9 +02.3	S 22	41.8 +00.0	277 28.6 +02.5	S 21	22.2 +00.0	14										
15	204 00.2 +03.0	N 06	31.0 -00.1	300 41.2 +02.4	S 22	41.8 +00.0	292 31.1 +02.5	S 21	22.2 +00.0	15										
16	219 03.2 +03.0	N 06	30.9 -00.1	315 43.6 +02.3	S 22	41.8 +00.0	307 33.6 +02.5	S 21	22.2 +00.0	16										
17	234 06.2 +03.0	N 06	30.8 -00.2	330 45.9 +02.4	S 22	41.8 +00.0	322 36.1 +02.4	S 21	22.2 +00.0	17										
18	249 09.2 +03.1	N 06	30.6 -00.1	345 48.3 +02.4	S 22	41.8 -00.1	337 38.5 +02.5	S 21	22.2 +00.0	18										
19	264 12.3 +03.0	N 06	30.5 -00.1	0 50.7 +02.3	S 22	41.7 +00.0	352 41.0 +02.5	S 21	22.2 +00.1	19										
20	279 15.3 +03.0	N 06	30.4 -00.1	15 53.0 +02.4	S 22	41.7 +00.0	7 43.5 +02.5	S 21	22.3 +00.0	20										
21	294 18.3 +03.0	N 06	30.3 -00.1	30 55.4 +02.3	S 22	41.7 +00.0	22 46.0 +02.5	S 21	22.3 +00.0	21										
22	309 21.3 +03.0	N 06	30.2 -00.1	45 57.7 +02.4	S 22	41.7 +00.0	37 48.5 +02.4	S 21	22.3 +00.0	22										
23	324 24.3 +03.0	N 06	30.1 -00.2	61 00.1 +02.3	S 22	41.7 +00.0	52 50.9 +02.5	S 21	22.3 +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	334°	334°	334°	334°	334°	334°	SHA	071°	071°	071°	071°	071°	071°	SHA	063°	063°	063°	063°	063°	063°
Greenwich Culmination Time: 01:26							Greenwich Culmination Time: 18:56							Greenwich Culmination Time: 19:29						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 10.0 +00.3	S 01 20.3 +01.0	220 51.5 -00.4	N 14 05.9 -00.8	65 55.9 -32.3	S 23 29.5 -04.0	00						
01	197 10.3 +00.2	S 01 21.3 +01.0	235 51.1 -00.4	N 14 05.1 -00.8	80 23.6 -32.3	S 23 25.5 -04.1	01						
02	212 10.5 +00.2	S 01 22.3 +00.9	250 50.7 -00.4	N 14 04.3 -00.8	94 51.3 -32.2	S 23 21.4 -04.2	02						
03	227 10.7 +00.2	S 01 23.2 +01.0	265 50.3 -00.4	N 14 03.5 -00.7	109 19.1 -32.2	S 23 17.2 -04.4	03						
04	242 10.9 +00.2	S 01 24.2 +01.0	280 49.9 -00.4	N 14 02.8 -00.8	123 46.9 -32.0	S 23 12.8 -04.5	04						
05	257 11.1 +00.2	S 01 25.2 +00.9	295 49.5 -00.3	N 14 02.0 -00.8	138 14.9 -32.0	S 23 08.3 -04.6	05						
06	272 11.3 +00.2	S 01 26.1 +01.0	310 49.2 -00.4	N 14 01.2 -00.8	152 42.9 -32.0	S 23 03.7 -04.7	06						
07	287 11.5 +00.3	S 01 27.1 +01.0	325 48.8 -00.4	N 14 00.4 -00.7	167 10.9 -31.8	S 22 59.0 -04.9	07						
08	302 11.8 +00.2	S 01 28.1 +01.0	340 48.4 -00.4	N 13 59.7 -00.8	181 39.1 -31.8	S 22 54.1 -05.0	08						
09	317 12.0 +00.2	S 01 29.1 +00.9	355 48.0 -00.4	N 13 58.9 -00.8	196 07.3 -31.7	S 22 49.1 -05.0	09						
10	332 12.2 +00.2	S 01 30.0 +01.0	10 47.6 -00.4	N 13 58.1 -00.8	210 35.6 -31.7	S 22 44.1 -05.2	10						
11	347 12.4 +00.2	S 01 31.0 +01.0	25 47.2 -00.4	N 13 57.3 -00.7	225 03.9 -31.6	S 22 38.9 -05.4	11						
12	2 12.6 +00.2	S 01 32.0 +01.0	40 46.8 -00.4	N 13 56.6 -00.8	239 32.3 -31.5	S 22 33.5 -05.4	12						
13	17 12.8 +00.2	S 01 33.0 +00.9	55 46.4 -00.4	N 13 55.8 -00.8	254 00.8 -31.4	S 22 28.1 -05.5	13						
14	32 13.0 +00.3	S 01 33.9 +01.0	70 46.0 -00.4	N 13 55.0 -00.8	268 29.4 -31.3	S 22 22.6 -05.7	14						
15	47 13.3 +00.2	S 01 34.9 +01.0	85 45.6 -00.4	N 13 54.2 -00.8	282 58.1 -31.3	S 22 16.9 -05.8	15						
16	62 13.5 +00.2	S 01 35.9 +01.0	100 45.2 -00.4	N 13 53.4 -00.8	297 26.8 -31.2	S 22 11.1 -05.9	16						
17	77 13.7 +00.2	S 01 36.9 +00.9	115 44.8 -00.3	N 13 52.6 -00.7	311 55.6 -31.1	S 22 05.2 -06.0	17						
18	92 13.9 +00.2	S 01 37.8 +01.0	130 44.5 -00.4	N 13 51.9 -00.8	326 24.5 -31.1	S 21 59.2 -06.1	18						
19	107 14.1 +00.2	S 01 38.8 +01.0	145 44.1 -00.4	N 13 51.1 -00.8	340 53.4 -31.0	S 21 53.1 -06.2	19						
20	122 14.3 +00.2	S 01 39.8 +00.9	160 43.7 -00.4	N 13 50.3 -00.8	355 22.4 -30.9	S 21 46.9 -06.3	20						
21	137 14.5 +00.2	S 01 40.7 +01.0	175 43.3 -00.4	N 13 49.5 -00.8	9 51.5 -30.8	S 21 40.6 -06.4	21						
22	152 14.7 +00.3	S 01 41.7 +01.0	190 42.9 -00.4	N 13 48.7 -00.8	24 20.7 -30.8	S 21 34.2 -06.5	22						
23	167 15.0 +00.2	S 01 42.7 +01.0	205 42.5 -00.4	N 13 47.9 -00.8	38 49.9 -30.6	S 21 27.7 -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 16'0 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 15'3 15'3 15'3 15'3 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 56'3 56'2 56'1 56'0 55'9								
	SHA 177° 177° 177° 176° 176° 176°		SHA 216° 215° 215° 215° 215° 215°		SHA 060° 057° 055° 053° 050° 048°								
	Greenwich Culmination Time: 11:51		Greenwich Culmination Time: 09:16		Greenwich Culmination Time: 20:19								
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	339 27.3 +03.0	N 06 29.9 -00.1	76 02.4 +02.4	S 22 41.7 +00.0	67 53.4 +02.5	S 21 22.3 +00.0	00						
01	354 30.3 +03.0	N 06 29.8 -00.1	91 04.8 +02.3	S 22 41.7 +00.0	82 55.9 +02.5	S 21 22.3 +00.0	01						
02	9 33.3 +03.1	N 06 29.7 -00.1	106 07.1 +02.4	S 22 41.7 +00.0	97 58.4 +02.4	S 21 22.3 +00.0	02						
03	24 36.4 +03.0	N 06 29.6 -00.1	121 09.5 +02.3	S 22 41.7 -00.1	113 00.8 +02.5	S 21 22.3 +00.0	03						
04	39 39.4 +03.0	N 06 29.5 -00.1	136 11.8 +02.4	S 22 41.6 +00.0	128 03.3 +02.5	S 21 22.3 +00.0	04						
05	54 42.4 +03.0	N 06 29.4 -00.2	151 14.2 +02.3	S 22 41.6 +00.0	143 05.8 +02.5	S 21 22.3 +00.0	05						
06	69 45.4 +03.0	N 06 29.2 -00.1	166 16.5 +02.4	S 22 41.6 +00.0	158 08.3 +02.4	S 21 22.3 +00.0	06						
07	84 48.4 +03.1	N 06 29.1 -00.1	181 18.9 +02.3	S 22 41.6 +00.0	173 10.7 +02.5	S 21 22.3 +00.0	07						
08	99 51.5 +03.0	N 06 29.0 -00.1	196 21.2 +02.4	S 22 41.6 +00.0	188 13.2 +02.5	S 21 22.3 +00.0	08						
09	114 54.5 +03.0	N 06 28.9 -00.1	211 23.6 +02.3	S 22 41.6 +00.0	203 15.7 +02.5	S 21 22.3 +00.0	09						
10	129 57.5 +03.0	N 06 28.8 -00.2	226 25.9 +02.4	S 22 41.6 +00.0	218 18.2 +02.5	S 21 22.3 +00.0	10						
11	145 00.5 +03.1	N 06 28.6 -00.1	241 28.3 +02.3	S 22 41.6 -00.1	233 20.7 +02.4	S 21 22.3 +00.0	11						
12	160 03.6 +03.0	N 06 28.5 -00.1	256 30.6 +02.4	S 22 41.5 +00.0	248 23.1 +02.5	S 21 22.3 +00.0	12						
13	175 06.6 +03.0	N 06 28.4 -00.1	271 33.0 +02.3	S 22 41.5 +00.0	263 25.6 +02.5	S 21 22.3 +00.0	13						
14	190 09.6 +03.1	N 06 28.3 -00.1	286 35.3 +02.4	S 22 41.5 +00.0	278 28.1 +02.5	S 21 22.3 +00.0	14						
15	205 12.7 +03.0	N 06 28.2 -00.2	301 37.7 +02.3	S 22 41.5 +00.0	293 30.6 +02.4	S 21 22.3 +00.0	15						
16	220 15.7 +03.0	N 06 28.0 -00.1	316 40.0 +02.4	S 22 41.5 +00.0	308 33.0 +02.5	S 21 22.3 +00.0	16						
17	235 18.7 +03.1	N 06 27.9 -00.1	331 42.4 +02.3	S 22 41.5 +00.0	323 35.5 +02.5	S 21 22.3 +00.0	17						
18	250 21.8 +03.0	N 06 27.8 -00.1	346 44.7 +02.4	S 22 41.5 +00.0	338 38.0 +02.5	S 21 22.3 +00.1	18						
19	265 24.8 +03.0	N 06 27.7 -00.2	1 47.1 +02.3	S 22 41.5 -00.1	353 40.5 +02.4	S 21 22.4 +00.0	19						
20	280 27.8 +03.1	N 06 27.5 -00.1	16 49.4 +02.3	S 22 41.4 +00.0	8 42.9 +02.5	S 21 22.4 +00.0	20						
21	295 30.9 +03.0	N 06 27.4 -00.1	31 51.7 +02.4	S 22 41.4 +00.0	23 45.4 +02.5	S 21 22.4 +00.0	21						
22	310 33.9 +03.0	N 06 27.3 -00.1	46 54.1 +02.3	S 22 41.4 +00.0	38 47.9 +02.4	S 21 22.4 +00.0	22						
23	325 36.9 +03.1	N 06 27.2 -00.1	61 56.4 +02.4	S 22 41.4 +00.0	53 50.3 +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 00'3 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 334° 334° 334° 334° 334° 334°		SHA 071° 071° 071° 071° 071° 071°		SHA 063° 063° 063° 063° 063° 063°								
	Greenwich Culmination Time: 01:21		Greenwich Culmination Time: 18:52		Greenwich Culmination Time: 19:25								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 15.2 +00.2	S	01 43.7 +00.9	220 42.1 -00.4	N	13 47.1 -00.7	53 19.3 -30.6	S	21 21.0 -06.7	00			
01	197 15.4 +00.2	S	01 44.6 +01.0	235 41.7 -00.4	N	13 46.4 -00.8	67 48.7 -30.6	S	21 14.3 -06.9	01			
02	212 15.6 +00.2	S	01 45.6 +01.0	250 41.3 -00.4	N	13 45.6 -00.8	82 18.1 -30.4	S	21 07.4 -06.9	02			
03	227 15.8 +00.2	S	01 46.6 +01.0	265 40.9 -00.4	N	13 44.8 -00.8	96 47.7 -30.4	S	21 00.5 -07.0	03			
04	242 16.0 +00.2	S	01 47.6 +00.9	280 40.5 -00.4	N	13 44.0 -00.8	111 17.3 -30.3	S	20 53.5 -07.2	04			
05	257 16.2 +00.2	S	01 48.5 +01.0	295 40.1 -00.3	N	13 43.2 -00.8	125 47.0 -30.2	S	20 46.3 -07.2	05			
06	272 16.4 +00.3	S	01 49.5 +01.0	310 39.8 -00.4	N	13 42.4 -00.8	140 16.8 -30.1	S	20 39.1 -07.3	06			
07	287 16.7 +00.2	S	01 50.5 +00.9	325 39.4 -00.4	N	13 41.6 -00.8	154 46.7 -30.1	S	20 31.8 -07.5	07			
08	302 16.9 +00.2	S	01 51.4 +01.0	340 39.0 -00.4	N	13 40.8 -00.8	169 16.6 -30.0	S	20 24.3 -07.5	08			
09	317 17.1 +00.2	S	01 52.4 +01.0	355 38.6 -00.4	N	13 40.0 -00.8	183 46.6 -29.9	S	20 16.8 -07.6	09			
10	332 17.3 +00.2	S	01 53.4 +01.0	10 38.2 -00.4	N	13 39.2 -00.8	198 16.7 -29.8	S	20 09.2 -07.7	10			
11	347 17.5 +00.2	S	01 54.4 +00.9	25 37.8 -00.4	N	13 38.4 -00.8	212 46.9 -29.8	S	20 01.5 -07.8	11			
12	2 17.7 +00.2	S	01 55.3 +01.0	40 37.4 -00.4	N	13 37.6 -00.8	227 17.1 -29.7	S	19 53.7 -07.9	12			
13	17 17.9 +00.2	S	01 56.3 +01.0	55 37.0 -00.4	N	13 36.8 -00.8	241 47.4 -29.6	S	19 45.8 -08.0	13			
14	32 18.1 +00.2	S	01 57.3 +01.0	70 36.6 -00.4	N	13 36.0 -00.8	256 17.8 -29.5	S	19 37.8 -08.1	14			
15	47 18.3 +00.3	S	01 58.3 +00.9	85 36.2 -00.3	N	13 35.2 -00.8	270 48.3 -29.5	S	19 29.7 -08.2	15			
16	62 18.6 +00.2	S	01 59.2 +01.0	100 35.9 -00.4	N	13 34.4 -00.8	285 18.8 -29.3	S	19 21.5 -08.2	16			
17	77 18.8 +00.2	S	02 00.2 +01.0	115 35.5 -00.4	N	13 33.6 -00.8	299 49.5 -29.3	S	19 13.3 -08.3	17			
18	92 19.0 +00.2	S	02 01.2 +00.9	130 35.1 -00.4	N	13 32.8 -00.8	314 20.2 -29.3	S	19 05.0 -08.5	18			
19	107 19.2 +00.2	S	02 02.1 +01.0	145 34.7 -00.4	N	13 32.0 -00.8	328 50.9 -29.1	S	18 56.5 -08.5	19			
20	122 19.4 +00.2	S	02 03.1 +01.0	160 34.3 -00.4	N	13 31.2 -00.8	343 21.8 -29.1	S	18 48.0 -08.6	20			
21	137 19.6 +00.2	S	02 04.1 +01.0	175 33.9 -00.4	N	13 30.4 -00.8	357 52.7 -29.0	S	18 39.4 -08.6	21			
22	152 19.8 +00.2	S	02 05.1 +00.9	190 33.5 -00.4	N	13 29.6 -00.8	12 23.7 -28.9	S	18 30.8 -08.8	22			
23	167 20.0 +00.2	S	02 06.0 +01.0	205 33.1 -00.4	N	13 28.8 -00.8	26 54.8 -28.9	S	18 22.0 -08.8	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 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 55'8 55'7 55'6 55'6 55'5 55'4						
	SHA 176° 176° 176° 175° 175° 175°			SHA 214° 214° 214° 214° 214° 213°			SHA 046° 044° 042° 039° 037° 035°						
	Greenwich Culmination Time: 11:50			Greenwich Culmination Time: 09:17			Greenwich Culmination Time: 21:08						

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	340 40.0 +03.0	N	06 27.1 -00.2	76 58.8 +02.3	S	22 41.4 +00.0	68 52.8 +02.5	S	21 22.4 +00.0	00			
01	355 43.0 +03.1	N	06 26.9 -00.1	92 01.1 +02.4	S	22 41.4 +00.0	83 55.3 +02.5	S	21 22.4 +00.0	01			
02	10 46.1 +03.0	N	06 26.8 -00.1	107 03.5 +02.3	S	22 41.4 -00.1	98 57.8 +02.4	S	21 22.4 +00.0	02			
03	25 49.1 +03.1	N	06 26.7 -00.1	122 05.8 +02.3	S	22 41.3 +00.0	114 00.2 +02.5	S	21 22.4 +00.0	03			
04	40 52.2 +03.0	N	06 26.6 -00.2	137 08.1 +02.4	S	22 41.3 +00.0	129 02.7 +02.5	S	21 22.4 +00.0	04			
05	55 55.2 +03.1	N	06 26.4 -00.1	152 10.5 +02.3	S	22 41.3 +00.0	144 05.2 +02.5	S	21 22.4 +00.0	05			
06	70 58.3 +03.0	N	06 26.3 -00.1	167 12.8 +02.4	S	22 41.3 +00.0	159 07.7 +02.4	S	21 22.4 +00.0	06			
07	86 01.3 +03.1	N	06 26.2 -00.1	182 15.2 +02.3	S	22 41.3 +00.0	174 10.1 +02.5	S	21 22.4 +00.0	07			
08	101 04.4 +03.0	N	06 26.1 -00.2	197 17.5 +02.4	S	22 41.3 +00.0	189 12.6 +02.5	S	21 22.4 +00.0	08			
09	116 07.4 +03.1	N	06 25.9 -00.1	212 19.9 +02.3	S	22 41.3 +00.0	204 15.1 +02.4	S	21 22.4 +00.0	09			
10	131 10.5 +03.0	N	06 25.8 -00.1	227 22.2 +02.3	S	22 41.3 -00.1	219 17.5 +02.5	S	21 22.4 +00.0	10			
11	146 13.5 +03.1	N	06 25.7 -00.1	242 24.5 +02.4	S	22 41.2 +00.0	234 20.0 +02.5	S	21 22.4 +00.0	11			
12	161 16.6 +03.0	N	06 25.6 -00.2	257 26.9 +02.3	S	22 41.2 +00.0	249 22.5 +02.5	S	21 22.4 +00.0	12			
13	176 19.6 +03.1	N	06 25.4 -00.1	272 29.2 +02.4	S	22 41.2 +00.0	264 25.0 +02.4	S	21 22.4 +00.0	13			
14	191 22.7 +03.0	N	06 25.3 -00.1	287 31.6 +02.3	S	22 41.2 +00.0	279 27.4 +02.5	S	21 22.4 +00.0	14			
15	206 25.7 +03.1	N	06 25.2 -00.1	302 33.9 +02.3	S	22 41.2 +00.0	294 29.9 +02.5	S	21 22.4 +00.0	15			
16	221 28.8 +03.1	N	06 25.1 -00.2	317 36.2 +02.4	S	22 41.2 +00.0	309 32.4 +02.4	S	21 22.4 +00.0	16			
17	236 31.9 +03.0	N	06 24.9 -00.1	332 38.6 +02.3	S	22 41.2 -00.1	324 34.8 +02.5	S	21 22.4 +00.0	17			
18	251 34.9 +03.1	N	06 24.8 -00.1	347 40.9 +02.3	S	22 41.1 +00.0	339 37.3 +02.5	S	21 22.4 +00.0	18			
19	266 38.0 +03.0	N	06 24.7 -00.2	2 43.2 +02.4	S	22 41.1 +00.0	354 39.8 +02.4	S	21 22.4 +00.0	19			
20	281 41.0 +03.1	N	06 24.5 -00.1	17 45.6 +02.3	S	22 41.1 +00.0	9 42.2 +02.5	S	21 22.4 +00.0	20			
21	296 44.1 +03.1	N	06 24.4 -00.1	32 47.9 +02.4	S	22 41.1 +00.0	24 44.7 +02.5	S	21 22.4 +00.0	21			
22	311 47.2 +03.0	N	06 24.3 -00.1	47 50.3 +02.3	S	22 41.1 +00.0	39 47.2 +02.5	S	21 22.4 +00.1	22			
23	326 50.2 +03.1	N	06 24.2 -00.2	62 52.6 +02.3	S	22 41.1 +00.0	54 49.7 +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 00'3 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 334° 334° 335° 335° 335° 335°			SHA 071° 071° 071° 071° 071° 071°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 01:17			Greenwich Culmination Time: 18:49			Greenwich Culmination Time: 19:21						

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 20.2 +00.3	S	02 07.0 +01.0	220 32.7 -00.3	N	13 28.0 -00.8	41 25.9 -28.8	S	18 13.2 -08.9	00			
01	197 20.5 +00.2	S	02 08.0 +00.9	235 32.4 -00.4	N	13 27.2 -00.8	55 57.1 -28.7	S	18 04.3 -09.0	01			
02	212 20.7 +00.2	S	02 08.9 +01.0	250 32.0 -00.4	N	13 26.4 -00.8	70 28.4 -28.6	S	17 55.3 -09.1	02			
03	227 20.9 +00.2	S	02 09.9 +01.0	265 31.6 -00.4	N	13 25.6 -00.8	84 59.8 -28.6	S	17 46.2 -09.1	03			
04	242 21.1 +00.2	S	02 10.9 +01.0	280 31.2 -00.4	N	13 24.8 -00.8	99 31.2 -28.5	S	17 37.1 -09.2	04			
05	257 21.3 +00.2	S	02 11.9 +00.9	295 30.8 -00.4	N	13 24.0 -00.8	114 02.7 -28.4	S	17 27.9 -09.3	05			
06	272 21.5 +00.2	S	02 12.8 +01.0	310 30.4 -00.4	N	13 23.2 -00.8	128 34.3 -28.4	S	17 18.6 -09.4	06			
07	287 21.7 +00.2	S	02 13.8 +01.0	325 30.0 -00.4	N	13 22.4 -00.8	143 05.9 -28.2	S	17 09.2 -09.4	07			
08	302 21.9 +00.2	S	02 14.8 +01.0	340 29.6 -00.3	N	13 21.6 -00.9	157 37.7 -28.2	S	16 59.8 -09.5	08			
09	317 22.1 +00.2	S	02 15.8 +00.9	355 29.3 -00.4	N	13 20.7 -00.8	172 09.5 -28.2	S	16 50.3 -09.6	09			
10	332 22.3 +00.3	S	02 16.7 +01.0	10 28.9 -00.4	N	13 19.9 -00.8	186 41.3 -28.0	S	16 40.7 -09.7	10			
11	347 22.6 +00.2	S	02 17.7 +01.0	25 28.5 -00.4	N	13 19.1 -00.8	201 13.3 -28.0	S	16 31.0 -09.7	11			
12	2 22.8 +00.2	S	02 18.7 +00.9	40 28.1 -00.4	N	13 18.3 -00.8	215 45.3 -28.0	S	16 21.3 -09.8	12			
13	17 23.0 +00.2	S	02 19.6 +01.0	55 27.7 -00.4	N	13 17.5 -00.8	230 17.3 -27.8	S	16 11.5 -09.8	13			
14	32 23.2 +00.2	S	02 20.6 +01.0	70 27.3 -00.4	N	13 16.7 -00.8	244 49.5 -27.8	S	16 01.7 -09.9	14			
15	47 23.4 +00.2	S	02 21.6 +01.0	85 26.9 -00.4	N	13 15.9 -00.9	259 21.7 -27.8	S	15 51.8 -10.0	15			
16	62 23.6 +00.2	S	02 22.6 +00.9	100 26.5 -00.3	N	13 15.0 -00.8	273 53.9 -27.6	S	15 41.8 -10.1	16			
17	77 23.8 +00.2	S	02 23.5 +01.0	115 26.2 -00.4	N	13 14.2 -00.8	288 26.3 -27.6	S	15 31.7 -10.1	17			
18	92 24.0 +00.2	S	02 24.5 +01.0	130 25.8 -00.4	N	13 13.4 -00.8	302 58.7 -27.6	S	15 21.6 -10.1	18			
19	107 24.2 +00.2	S	02 25.5 +00.9	145 25.4 -00.4	N	13 12.6 -00.8	317 31.1 -27.4	S	15 11.5 -10.3	19			
20	122 24.4 +00.2	S	02 26.4 +01.0	160 25.0 -00.4	N	13 11.8 -00.8	332 03.7 -27.4	S	15 01.2 -10.3	20			
21	137 24.6 +00.2	S	02 27.4 +01.0	175 24.6 -00.4	N	13 11.0 -00.9	346 36.3 -27.4	S	14 50.9 -10.3	21			
22	152 24.8 +00.3	S	02 28.4 +01.0	190 24.2 -00.4	N	13 10.1 -00.8	1 08.9 -27.2	S	14 40.6 -10.4	22			
23	167 25.1 +00.2	S	02 29.4 +00.9	205 23.8 -00.4	N	13 09.3 -00.8	15 41.7 -27.2	S	14 30.2 -10.5	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 15'1 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 55'3 55'2 55'1 55'1 55'0 54'9						
	SHA 175° 175° 175° 175° 174° 174°			SHA 213° 213° 213° 213° 212° 212°			SHA 033° 031° 029° 027° 025° 023°						
	Greenwich Culmination Time: 11:50			Greenwich Culmination Time: 09:18			Greenwich Culmination Time: 21:55						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	341 53.3 +03.1	N	06 24.0 -00.1	77 54.9 +02.4	S	22 41.1 -00.1	69 52.1 +02.5	S	21 22.5 +00.0	00			
01	356 56.4 +03.0	N	06 23.9 -00.1	92 57.3 +02.3	S	22 41.0 +00.0	84 54.6 +02.5	S	21 22.5 +00.0	01			
02	11 59.4 +03.1	N	06 23.8 -00.2	107 59.6 +02.3	S	22 41.0 +00.0	99 57.1 +02.4	S	21 22.5 +00.0	02			
03	27 02.5 +03.1	N	06 23.6 -00.1	123 01.9 +02.4	S	22 41.0 +00.0	114 59.5 +02.5	S	21 22.5 +00.0	03			
04	42 05.6 +03.1	N	06 23.5 -00.1	138 04.3 +02.3	S	22 41.0 +00.0	130 02.0 +02.5	S	21 22.5 +00.0	04			
05	57 08.7 +03.0	N	06 23.4 -00.1	153 06.6 +02.3	S	22 41.0 +00.0	145 04.5 +02.4	S	21 22.5 +00.0	05			
06	72 11.7 +03.1	N	06 23.3 -00.2	168 08.9 +02.4	S	22 41.0 +00.0	160 06.9 +02.5	S	21 22.5 +00.0	06			
07	87 14.8 +03.1	N	06 23.1 -00.1	183 11.3 +02.3	S	22 41.0 -00.1	175 09.4 +02.5	S	21 22.5 +00.0	07			
08	102 17.9 +03.1	N	06 23.0 -00.1	198 13.6 +02.3	S	22 40.9 +00.0	190 11.9 +02.4	S	21 22.5 +00.0	08			
09	117 21.0 +03.0	N	06 22.9 -00.2	213 15.9 +02.4	S	22 40.9 +00.0	205 14.3 +02.5	S	21 22.5 +00.0	09			
10	132 24.0 +03.1	N	06 22.7 -00.1	228 18.3 +02.3	S	22 40.9 +00.0	220 16.8 +02.5	S	21 22.5 +00.0	10			
11	147 27.1 +03.1	N	06 22.6 -00.1	243 20.6 +02.3	S	22 40.9 +00.0	235 19.3 +02.4	S	21 22.5 +00.0	11			
12	162 30.2 +03.1	N	06 22.5 -00.2	258 22.9 +02.4	S	22 40.9 +00.0	250 21.7 +02.5	S	21 22.5 +00.0	12			
13	177 33.3 +03.1	N	06 22.3 -00.1	273 25.3 +02.3	S	22 40.9 +00.0	265 24.2 +02.5	S	21 22.5 +00.0	13			
14	192 36.4 +03.0	N	06 22.2 -00.1	288 27.6 +02.3	S	22 40.9 -00.1	280 26.7 +02.4	S	21 22.5 +00.0	14			
15	207 39.4 +03.1	N	06 22.1 -00.2	303 29.9 +02.4	S	22 40.8 +00.0	295 29.1 +02.5	S	21 22.5 +00.0	15			
16	222 42.5 +03.1	N	06 21.9 -00.1	318 32.3 +02.3	S	22 40.8 +00.0	310 31.6 +02.5	S	21 22.5 +00.0	16			
17	237 45.6 +03.1	N	06 21.8 -00.1	333 34.6 +02.3	S	22 40.8 +00.0	325 34.1 +02.4	S	21 22.5 +00.0	17			
18	252 48.7 +03.1	N	06 21.7 -00.2	348 36.9 +02.3	S	22 40.8 +00.0	340 36.5 +02.5	S	21 22.5 +00.0	18			
19	267 51.8 +03.1	N	06 21.5 -00.1	3 39.2 +02.4	S	22 40.8 +00.0	355 39.0 +02.5	S	21 22.5 +00.0	19			
20	282 54.9 +03.1	N	06 21.4 -00.1	18 41.6 +02.3	S	22 40.8 +00.0	10 41.5 +02.4	S	21 22.5 +00.0	20			
21	297 58.0 +03.1	N	06 21.3 -00.2	33 43.9 +02.3	S	22 40.8 -00.1	25 43.9 +02.5	S	21 22.5 +00.0	21			
22	313 01.1 +03.0	N	06 21.1 -00.1	48 46.2 +02.4	S	22 40.7 +00.0	40 46.4 +02.5	S	21 22.5 +00.0	22			
23	328 04.1 +03.1	N	06 21.0 -00.1	63 48.6 +02.3	S	22 40.7 +00.0	55 48.9 +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 00'3 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 335° 335° 335° 335° 335° 335°			SHA 071° 071° 071° 071° 071° 071°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 01:12			Greenwich Culmination Time: 18:45			Greenwich Culmination Time: 19:17						

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 25.3 +00.2	S	02 30.3 +01.0	220 23.4 -00.3	N	13 08.5 -00.8	30 14.5 -27.2	S	14 19.7 -10.5	00			
01	197 25.5 +00.2	S	02 31.3 +01.0	235 23.1 -00.4	N	13 07.7 -00.9	44 47.3 -27.1	S	14 09.2 -10.6	01			
02	212 25.7 +00.2	S	02 32.3 +00.9	250 22.7 -00.4	N	13 06.8 -00.8	59 20.2 -27.0	S	13 58.6 -10.6	02			
03	227 25.9 +00.2	S	02 33.2 +01.0	265 22.3 -00.4	N	13 06.0 -00.8	73 53.2 -27.0	S	13 48.0 -10.7	03			
04	242 26.1 +00.2	S	02 34.2 +01.0	280 21.9 -00.4	N	13 05.2 -00.8	88 26.2 -26.9	S	13 37.3 -10.7	04			
05	257 26.3 +00.2	S	02 35.2 +01.0	295 21.5 -00.4	N	13 04.4 -00.9	102 59.3 -26.8	S	13 26.6 -10.8	05			
06	272 26.5 +00.2	S	02 36.2 +00.9	310 21.1 -00.4	N	13 03.5 -00.8	117 32.5 -26.8	S	13 15.8 -10.8	06			
07	287 26.7 +00.2	S	02 37.1 +01.0	325 20.7 -00.3	N	13 02.7 -00.8	132 05.7 -26.8	S	13 05.0 -10.9	07			
08	302 26.9 +00.2	S	02 38.1 +01.0	340 20.4 -00.4	N	13 01.9 -00.8	146 38.9 -26.6	S	12 54.1 -11.0	08			
09	317 27.1 +00.2	S	02 39.1 +00.9	355 20.0 -00.4	N	13 01.1 -00.9	161 12.3 -26.7	S	12 43.1 -10.9	09			
10	332 27.3 +00.2	S	02 40.0 +01.0	10 19.6 -00.4	N	13 00.2 -00.8	175 45.6 -26.5	S	12 32.2 -11.1	10			
11	347 27.5 +00.2	S	02 41.0 +01.0	25 19.2 -00.4	N	12 59.4 -00.8	190 19.1 -26.5	S	12 21.1 -11.0	11			
12	2 27.7 +00.3	S	02 42.0 +00.9	40 18.8 -00.4	N	12 58.6 -00.9	204 52.6 -26.5	S	12 10.1 -11.2	12			
13	17 28.0 +00.2	S	02 42.9 +01.0	55 18.4 -00.3	N	12 57.7 -00.8	219 26.1 -26.4	S	11 58.9 -11.1	13			
14	32 28.2 +00.2	S	02 43.9 +01.0	70 18.1 -00.4	N	12 56.9 -00.8	233 59.7 -26.3	S	11 47.8 -11.2	14			
15	47 28.4 +00.2	S	02 44.9 +01.0	85 17.7 -00.4	N	12 56.1 -00.9	248 33.4 -26.3	S	11 36.6 -11.3	15			
16	62 28.6 +00.2	S	02 45.9 +00.9	100 17.3 -00.4	N	12 55.2 -00.8	263 07.1 -26.3	S	11 25.3 -11.3	16			
17	77 28.8 +00.2	S	02 46.8 +01.0	115 16.9 -00.4	N	12 54.4 -00.8	277 40.8 -26.2	S	11 14.0 -11.3	17			
18	92 29.0 +00.2	S	02 47.8 +01.0	130 16.5 -00.4	N	12 53.6 -00.9	292 14.6 -26.1	S	11 02.7 -11.4	18			
19	107 29.2 +00.2	S	02 48.8 +00.9	145 16.1 -00.4	N	12 52.7 -00.8	306 48.5 -26.1	S	10 51.3 -11.4	19			
20	122 29.4 +00.2	S	02 49.7 +01.0	160 15.7 -00.3	N	12 51.9 -00.8	321 22.4 -26.1	S	10 39.9 -11.5	20			
21	137 29.6 +00.2	S	02 50.7 +01.0	175 15.4 -00.4	N	12 51.1 -00.9	335 56.3 -26.0	S	10 28.4 -11.5	21			
22	152 29.8 +00.2	S	02 51.7 +01.0	190 15.0 -00.4	N	12 50.2 -00.8	350 30.3 -25.9	S	10 16.9 -11.5	22			
23	167 30.0 +00.2	S	02 52.7 +00.9	205 14.6 -00.4	N	12 49.4 -00.8	5 04.4 -25.9	S	10 05.4 -11.6	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 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 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 54'9 54'8 54'7 54'7 54'6 54'6						
	SHA 174° 174° 174° 174° 174° 173°			SHA 212° 212° 212° 212° 211° 211°			SHA 021° 019° 017° 015° 013° 011°						
	Greenwich Culmination Time: 11:50			Greenwich Culmination Time: 09:18			Greenwich Culmination Time: 22:39						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	343 07.2 +03.1	N	06 20.9 -00.2	78 50.9 +02.3	S	22 40.7 +00.0	70 51.3 +02.5	S	21 22.5 +00.0	00			
01	358 10.3 +03.1	N	06 20.7 -00.1	93 53.2 +02.3	S	22 40.7 +00.0	85 53.8 +02.5	S	21 22.5 +00.0	01			
02	13 13.4 +03.1	N	06 20.6 -00.1	108 55.5 +02.4	S	22 40.7 +00.0	100 56.3 +02.4	S	21 22.5 +00.0	02			
03	28 16.5 +03.1	N	06 20.5 -00.2	123 57.9 +02.3	S	22 40.7 -00.1	115 58.7 +02.5	S	21 22.5 +00.0	03			
04	43 19.6 +03.1	N	06 20.3 -00.1	139 00.2 +02.3	S	22 40.6 +00.0	131 01.2 +02.4	S	21 22.5 +00.0	04			
05	58 22.7 +03.1	N	06 20.2 -00.1	154 02.5 +02.3	S	22 40.6 +00.0	146 03.6 +02.5	S	21 22.5 +00.0	05			
06	73 25.8 +03.1	N	06 20.1 -00.2	169 04.8 +02.4	S	22 40.6 +00.0	161 06.1 +02.5	S	21 22.5 +00.0	06			
07	88 28.9 +03.1	N	06 19.9 -00.1	184 07.2 +02.3	S	22 40.6 +00.0	176 08.6 +02.4	S	21 22.5 +00.0	07			
08	103 32.0 +03.1	N	06 19.8 -00.1	199 09.5 +02.3	S	22 40.6 +00.0	191 11.0 +02.5	S	21 22.5 +00.0	08			
09	118 35.1 +03.1	N	06 19.7 -00.2	214 11.8 +02.3	S	22 40.6 +00.0	206 13.5 +02.5	S	21 22.5 +00.0	09			
10	133 38.2 +03.1	N	06 19.5 -00.1	229 14.1 +02.4	S	22 40.6 -00.1	221 16.0 +02.4	S	21 22.5 +00.0	10			
11	148 41.3 +03.1	N	06 19.4 -00.1	244 16.5 +02.3	S	22 40.5 +00.0	236 18.4 +02.5	S	21 22.5 +00.0	11			
12	163 44.4 +03.1	N	06 19.3 -00.2	259 18.8 +02.3	S	22 40.5 +00.0	251 20.9 +02.5	S	21 22.5 +00.0	12			
13	178 47.5 +03.1	N	06 19.1 -00.1	274 21.1 +02.3	S	22 40.5 +00.0	266 23.4 +02.4	S	21 22.5 +00.0	13			
14	193 50.6 +03.1	N	06 19.0 -00.1	289 23.4 +02.4	S	22 40.5 +00.0	281 25.8 +02.5	S	21 22.5 +00.0	14			
15	208 53.7 +03.1	N	06 18.9 -00.2	304 25.8 +02.3	S	22 40.5 +00.0	296 28.3 +02.4	S	21 22.5 +00.1	15			
16	223 56.8 +03.2	N	06 18.7 -00.1	319 28.1 +02.3	S	22 40.5 -00.1	311 30.7 +02.5	S	21 22.6 +00.0	16			
17	238 60.0 +03.1	N	06 18.6 -00.2	334 30.4 +02.3	S	22 40.4 +00.0	326 33.2 +02.5	S	21 22.6 +00.0	17			
18	254 03.1 +03.1	N	06 18.4 -00.1	349 32.7 +02.3	S	22 40.4 +00.0	341 35.7 +02.4	S	21 22.6 +00.0	18			
19	269 06.2 +03.1	N	06 18.3 -00.1	4 35.0 +02.4	S	22 40.4 +00.0	356 38.1 +02.5	S	21 22.6 +00.0	19			
20	284 09.3 +03.1	N	06 18.2 -00.2	19 37.4 +02.3	S	22 40.4 +00.0	11 40.6 +02.4	S	21 22.6 +00.0	20			
21	299 12.4 +03.1	N	06 18.0 -00.1	34 39.7 +02.3	S	22 40.4 +00.0	26 43.0 +02.5	S	21 22.6 +00.0	21			
22	314 15.5 +03.1	N	06 17.9 -00.1	49 42.0 +02.3	S	22 40.4 -00.1	41 45.5 +02.5	S	21 22.6 +00.0	22			
23	329 18.6 +03.1	N	06 17.8 -00.2	64 44.3 +02.3	S	22 40.3 +00.0	56 48.0 +02.4	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 00'3 00'3 00'3 00'3 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 335° 335° 335° 335° 335° 335°			SHA 071° 071° 071° 071° 071° 071°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 01:07			Greenwich Culmination Time: 18:41			Greenwich Culmination Time: 19:13						

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 30.2 +00.2	S	02 53.6 +01.0	220 14.2 -00.4	N	12 48.6 -00.9	19 38.5 -25.9	S	09 53.8 -11.6	00			
01	197 30.4 +00.2	S	02 54.6 +01.0	235 13.8 -00.4	N	12 47.7 -00.8	34 12.6 -25.8	S	09 42.2 -11.6	01			
02	212 30.6 +00.2	S	02 55.6 +00.9	250 13.4 -00.3	N	12 46.9 -00.9	48 46.8 -25.8	S	09 30.6 -11.7	02			
03	227 30.8 +00.2	S	02 56.5 +01.0	265 13.1 -00.4	N	12 46.0 -00.8	63 21.0 -25.7	S	09 18.9 -11.7	03			
04	242 31.0 +00.2	S	02 57.5 +01.0	280 12.7 -00.4	N	12 45.2 -00.8	77 55.3 -25.7	S	09 07.2 -11.7	04			
05	257 31.2 +00.3	S	02 58.5 +00.9	295 12.3 -00.4	N	12 44.4 -00.9	92 29.6 -25.6	S	08 55.5 -11.7	05			
06	272 31.5 +00.2	S	02 59.4 +01.0	310 11.9 -00.4	N	12 43.5 -00.8	107 04.0 -25.6	S	08 43.8 -11.8	06			
07	287 31.7 +00.2	S	03 00.4 +01.0	325 11.5 -00.4	N	12 42.7 -00.9	121 38.4 -25.6	S	08 32.0 -11.9	07			
08	302 31.9 +00.2	S	03 01.4 +01.0	340 11.1 -00.3	N	12 41.8 -00.8	136 12.8 -25.5	S	08 20.1 -11.8	08			
09	317 32.1 +00.2	S	03 02.4 +00.9	355 10.8 -00.4	N	12 41.0 -00.9	150 47.3 -25.5	S	08 08.3 -11.9	09			
10	332 32.3 +00.2	S	03 03.3 +01.0	10 10.4 -00.4	N	12 40.1 -00.8	165 21.8 -25.5	S	07 56.4 -11.9	10			
11	347 32.5 +00.2	S	03 04.3 +01.0	25 10.0 -00.4	N	12 39.3 -00.9	179 56.3 -25.4	S	07 44.5 -11.9	11			
12	2 32.7 +00.2	S	03 05.3 +00.9	40 09.6 -00.4	N	12 38.4 -00.8	194 30.9 -25.4	S	07 32.6 -12.0	12			
13	17 32.9 +00.2	S	03 06.2 +01.0	55 09.2 -00.4	N	12 37.6 -00.9	209 05.5 -25.3	S	07 20.6 -12.0	13			
14	32 33.1 +00.2	S	03 07.2 +01.0	70 08.8 -00.3	N	12 36.7 -00.8	223 40.2 -25.3	S	07 08.6 -12.0	14			
15	47 33.3 +00.2	S	03 08.2 +00.9	85 08.5 -00.4	N	12 35.9 -00.9	238 14.9 -25.3	S	06 56.6 -12.0	15			
16	62 33.5 +00.2	S	03 09.1 +01.0	100 08.1 -00.4	N	12 35.0 -00.8	252 49.6 -25.2	S	06 44.6 -12.0	16			
17	77 33.7 +00.2	S	03 10.1 +01.0	115 07.7 -00.4	N	12 34.2 -00.9	267 24.4 -25.2	S	06 32.6 -12.1	17			
18	92 33.9 +00.2	S	03 11.1 +00.9	130 07.3 -00.4	N	12 33.3 -00.8	281 59.2 -25.2	S	06 20.5 -12.1	18			
19	107 34.1 +00.2	S	03 12.0 +01.0	145 06.9 -00.3	N	12 32.5 -00.9	296 34.0 -25.1	S	06 08.4 -12.1	19			
20	122 34.3 +00.2	S	03 13.0 +01.0	160 06.6 -00.4	N	12 31.6 -00.8	311 08.9 -25.1	S	05 56.3 -12.1	20			
21	137 34.5 +00.2	S	03 14.0 +00.9	175 06.2 -00.4	N	12 30.8 -00.9	325 43.8 -25.1	S	05 44.2 -12.2	21			
22	152 34.7 +00.2	S	03 14.9 +01.0	190 05.8 -00.4	N	12 29.9 -00.8	340 18.7 -25.1	S	05 32.0 -12.1	22			
23	167 34.9 +00.2	S	03 15.9 +01.0	205 05.4 -00.4	N	12 29.1 -00.9	354 53.6 -25.0	S	05 19.9 -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 16'0 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 14'8 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 54'5 54'5 54'4 54'4 54'3 54'3						
	SHA 173° 173° 173° 173° 173° 172°			SHA 211° 211° 211° 210° 210° 210°			SHA 009° 008° 006° 004° 002° 000°						
	Greenwich Culmination Time: 11:49			Greenwich Culmination Time: 09:19			Greenwich Culmination Time: 23:21						

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	344 21.7 +03.2	N	06 17.6 -00.1	79 46.6 +02.4	S	22 40.3 +00.0	71 50.4 +02.5	S	21 22.6 +00.0	00			
01	359 24.9 +03.1	N	06 17.5 -00.2	94 49.0 +02.3	S	22 40.3 +00.0	86 52.9 +02.4	S	21 22.6 +00.0	01			
02	14 28.0 +03.1	N	06 17.3 -00.1	109 51.3 +02.3	S	22 40.3 +00.0	101 55.3 +02.5	S	21 22.6 +00.0	02			
03	29 31.1 +03.1	N	06 17.2 -00.1	124 53.6 +02.3	S	22 40.3 +00.0	116 57.8 +02.5	S	21 22.6 +00.0	03			
04	44 34.2 +03.1	N	06 17.1 -00.2	139 55.9 +02.3	S	22 40.3 -00.1	132 00.3 +02.4	S	21 22.6 +00.0	04			
05	59 37.3 +03.2	N	06 16.9 -00.1	154 58.2 +02.3	S	22 40.2 +00.0	147 02.7 +02.5	S	21 22.6 +00.0	05			
06	74 40.5 +03.1	N	06 16.8 -00.2	170 00.5 +02.4	S	22 40.2 +00.0	162 05.2 +02.4	S	21 22.6 +00.0	06			
07	89 43.6 +03.1	N	06 16.6 -00.1	185 02.9 +02.3	S	22 40.2 +00.0	177 07.6 +02.5	S	21 22.6 +00.0	07			
08	104 46.7 +03.1	N	06 16.5 -00.1	200 05.2 +02.3	S	22 40.2 +00.0	192 10.1 +02.5	S	21 22.6 +00.0	08			
09	119 49.8 +03.2	N	06 16.4 -00.2	215 07.5 +02.3	S	22 40.2 +00.0	207 12.6 +02.4	S	21 22.6 +00.0	09			
10	134 53.0 +03.1	N	06 16.2 -00.1	230 09.8 +02.3	S	22 40.2 -00.1	222 15.0 +02.5	S	21 22.6 +00.0	10			
11	149 56.1 +03.1	N	06 16.1 -00.2	245 12.1 +02.3	S	22 40.1 +00.0	237 17.5 +02.4	S	21 22.6 +00.0	11			
12	164 59.2 +03.1	N	06 15.9 -00.1	260 14.4 +02.4	S	22 40.1 +00.0	252 19.9 +02.5	S	21 22.6 +00.0	12			
13	180 02.3 +03.2	N	06 15.8 -00.1	275 16.8 +02.3	S	22 40.1 +00.0	267 22.4 +02.5	S	21 22.6 +00.0	13			
14	195 05.5 +03.1	N	06 15.7 -00.2	290 19.1 +02.3	S	22 40.1 +00.0	282 24.9 +02.4	S	21 22.6 +00.0	14			
15	210 08.6 +03.1	N	06 15.5 -00.1	305 21.4 +02.3	S	22 40.1 +00.0	297 27.3 +02.5	S	21 22.6 +00.0	15			
16	225 11.7 +03.2	N	06 15.4 -00.2	320 23.7 +02.3	S	22 40.1 -00.1	312 29.8 +02.4	S	21 22.6 +00.0	16			
17	240 14.9 +03.1	N	06 15.2 -00.1	335 26.0 +02.3	S	22 40.0 +00.0	327 32.2 +02.5	S	21 22.6 +00.0	17			
18	255 18.0 +03.1	N	06 15.1 -00.1	350 28.3 +02.3	S	22 40.0 +00.0	342 34.7 +02.4	S	21 22.6 +00.0	18			
19	270 21.1 +03.2	N	06 15.0 -00.2	5 30.6 +02.4	S	22 40.0 +00.0	357 37.1 +02.5	S	21 22.6 +00.0	19			
20	285 24.3 +03.1	N	06 14.8 -00.1	20 33.0 +02.3	S	22 40.0 +00.0	12 39.6 +02.4	S	21 22.6 +00.0	20			
21	300 27.4 +03.1	N	06 14.7 -00.2	35 35.3 +02.3	S	22 40.0 +00.0	27 42.0 +02.5	S	21 22.6 +00.0	21			
22	315 30.5 +03.2	N	06 14.5 -00.1	50 37.6 +02.3	S	22 40.0 -00.1	42 44.5 +02.5	S	21 22.6 +00.0	22			
23	330 33.7 +03.1	N	06 14.4 -00.1	65 39.9 +02.3	S	22 39.9 +00.0	57 47.0 +02.4	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 335° 335° 335° 335° 335° 335°			SHA 071° 071° 071° 071° 071° 071°			SHA 063° 063° 063° 063° 063° 063°						
	Greenwich Culmination Time: 01:02			Greenwich Culmination Time: 18:38			Greenwich Culmination Time: 19:09						