

Sun					Venus					Moon a = 0.69					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	179 00.9 +00.2	N 04 31.1 +01.0	177 44.6 -00.4	N 03 40.1 +01.3	298 16.5 -35.7	S 20 05.0 +01.6	00								
01	194 01.1 +00.2	N 04 32.1 +00.9	192 44.2 -00.4	N 03 41.4 +01.2	312 40.8 -35.7	S 20 06.6 +01.5	01								
02	209 01.3 +00.2	N 04 33.0 +01.0	207 43.8 -00.4	N 03 42.6 +01.3	327 05.1 -35.7	S 20 08.1 +01.3	02								
03	224 01.5 +00.1	N 04 34.0 +01.0	222 43.4 -00.4	N 03 43.9 +01.2	341 29.4 -35.7	S 20 09.4 +01.1	03								
04	239 01.6 +00.2	N 04 35.0 +00.9	237 43.0 -00.3	N 03 45.1 +01.3	355 53.7 -35.7	S 20 10.5 +01.1	04								
05	254 01.8 +00.2	N 04 35.9 +01.0	252 42.7 -00.4	N 03 46.4 +01.2	10 18.0 -35.7	S 20 11.6 +00.9	05								
06	269 02.0 +00.2	N 04 36.9 +01.0	267 42.3 -00.4	N 03 47.6 +01.3	24 42.3 -35.7	S 20 12.5 +00.7	06								
07	284 02.2 +00.2	N 04 37.9 +00.9	282 41.9 -00.4	N 03 48.9 +01.2	39 06.6 -35.7	S 20 13.2 +00.7	07								
08	299 02.4 +00.2	N 04 38.8 +01.0	297 41.5 -00.4	N 03 50.1 +01.3	53 30.9 -35.7	S 20 13.9 +00.4	08								
09	314 02.6 +00.2	N 04 39.8 +01.0	312 41.1 -00.4	N 03 51.4 +01.2	67 55.2 -35.6	S 20 14.3 +00.4	09								
10	329 02.8 +00.1	N 04 40.8 +00.9	327 40.7 -00.3	N 03 52.6 +01.3	82 19.6 -35.7	S 20 14.7 +00.2	10								
11	344 02.9 +00.2	N 04 41.7 +01.0	342 40.4 -00.4	N 03 53.9 +01.2	96 43.9 -35.7	S 20 14.9 +00.1	11								
12	359 03.1 +00.2	N 04 42.7 +00.9	357 40.0 -00.4	N 03 55.1 +01.3	111 08.2 -35.6	S 20 15.0 -00.1	12								
13	14 03.3 +00.2	N 04 43.6 +01.0	12 39.6 -00.4	N 03 56.4 +01.2	125 32.6 -35.7	S 20 14.9 -00.2	13								
14	29 03.5 +00.2	N 04 44.6 +01.0	27 39.2 -00.4	N 03 57.6 +01.3	139 56.9 -35.6	S 20 14.7 -00.3	14								
15	44 03.7 +00.2	N 04 45.6 +00.9	42 38.8 -00.4	N 03 58.9 +01.2	154 21.3 -35.6	S 20 14.4 -00.5	15								
16	59 03.9 +00.2	N 04 46.5 +01.0	57 38.4 -00.3	N 04 00.1 +01.3	168 45.7 -35.6	S 20 13.9 -00.6	16								
17	74 04.1 +00.1	N 04 47.5 +01.0	72 38.1 -00.4	N 04 01.4 +01.2	183 10.1 -35.6	S 20 13.3 -00.8	17								
18	89 04.2 +00.2	N 04 48.5 +00.9	87 37.7 -00.4	N 04 02.6 +01.3	197 34.5 -35.5	S 20 12.5 -00.9	18								
19	104 04.4 +00.2	N 04 49.4 +01.0	102 37.3 -00.4	N 04 03.9 +01.2	211 59.0 -35.5	S 20 11.6 -01.0	19								
20	119 04.6 +00.2	N 04 50.4 +00.9	117 36.9 -00.4	N 04 05.1 +01.3	226 23.5 -35.6	S 20 10.6 -01.1	20								
21	134 04.8 +00.2	N 04 51.3 +01.0	132 36.5 -00.4	N 04 06.4 +01.2	240 47.9 -35.5	S 20 09.5 -01.3	21								
22	149 05.0 +00.2	N 04 52.3 +01.0	147 36.1 -00.3	N 04 07.6 +01.2	255 12.4 -35.4	S 20 08.2 -01.5	22								
23	164 05.2 +00.2	N 04 53.3 +00.9	162 35.8 -00.4	N 04 08.8 +01.3	269 37.0 -35.5	S 20 06.7 -01.5	23								
UT 02 06 10 14 18 22	SD 16'0 16'0 16'0 16'0 16'0 16'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:04	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	Greenwich Culmination Time: 12:09	UT 02 06 10 14 18 22	SD 16'2 16'2 16'2 16'2 16'2 16'2	HP 59'6 59'6 59'5 59'5 59'5 59'4	Greenwich Culmination Time: 04:17				

Mars					Jupiter					Saturn					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	175 16.5 +00.7	N 05 28.2 +00.7	119 07.5 +02.0	N 21 49.1 +00.0	330 55.0 +02.7	S 12 20.3 -00.1	00								
01	190 17.2 +00.7	N 05 28.9 +00.8	134 09.5 +02.1	N 21 49.1 +00.1	345 57.7 +02.6	S 12 20.2 -00.1	01								
02	205 17.9 +00.7	N 05 29.7 +00.7	149 11.6 +02.0	N 21 49.2 +00.1	1 00.3 +02.6	S 12 20.1 +00.0	02								
03	220 18.6 +00.7	N 05 30.4 +00.8	164 13.6 +02.0	N 21 49.3 +00.0	16 02.9 +02.6	S 12 20.1 -00.1	03								
04	235 19.3 +00.7	N 05 31.2 +00.8	179 15.6 +02.0	N 21 49.3 +00.1	31 05.5 +02.6	S 12 20.0 +00.0	04								
05	250 20.0 +00.7	N 05 32.0 +00.7	194 17.6 +02.1	N 21 49.4 +00.0	46 08.1 +02.6	S 12 20.0 -00.1	05								
06	265 20.7 +00.7	N 05 32.7 +00.8	209 19.7 +02.0	N 21 49.4 +00.1	61 10.7 +02.6	S 12 19.9 +00.0	06								
07	280 21.4 +00.7	N 05 33.5 +00.7	224 21.7 +02.0	N 21 49.5 +00.1	76 13.3 +02.6	S 12 19.9 -00.1	07								
08	295 22.1 +00.7	N 05 34.2 +00.8	239 23.7 +02.0	N 21 49.6 +00.0	91 15.9 +02.7	S 12 19.8 +00.0	08								
09	310 22.8 +00.7	N 05 35.0 +00.8	254 25.7 +02.0	N 21 49.6 +00.1	106 18.6 +02.6	S 12 19.8 -00.1	09								
10	325 23.5 +00.7	N 05 35.8 +00.7	269 27.7 +02.1	N 21 49.7 +00.1	121 21.2 +02.6	S 12 19.7 +00.0	10								
11	340 24.2 +00.7	N 05 36.5 +00.8	284 29.8 +02.0	N 21 49.8 +00.0	136 23.8 +02.6	S 12 19.7 -00.1	11								
12	355 24.9 +00.7	N 05 37.3 +00.7	299 31.8 +02.0	N 21 49.8 +00.1	151 26.4 +02.6	S 12 19.6 +00.0	12								
13	10 25.6 +00.7	N 05 38.0 +00.8	314 33.8 +02.0	N 21 49.9 +00.0	166 29.0 +02.6	S 12 19.6 -00.1	13								
14	25 26.3 +00.7	N 05 38.8 +00.8	329 35.8 +02.1	N 21 49.9 +00.1	181 31.6 +02.6	S 12 19.5 +00.0	14								
15	40 27.0 +00.7	N 05 39.6 +00.7	344 37.9 +02.0	N 21 50.0 +00.1	196 34.2 +02.6	S 12 19.5 -00.1	15								
16	55 27.7 +00.7	N 05 40.3 +00.8	359 39.9 +02.0	N 21 50.1 +00.0	211 36.8 +02.7	S 12 19.4 +00.0	16								
17	70 28.4 +00.7	N 05 41.1 +00.7	14 41.9 +02.0	N 21 50.1 +00.1	226 39.5 +02.6	S 12 19.4 -00.1	17								
18	85 29.1 +00.7	N 05 41.8 +00.8	29 43.9 +02.0	N 21 50.2 +00.1	241 42.1 +02.6	S 12 19.3 -00.1	18								
19	100 29.8 +00.7	N 05 42.6 +00.7	44 45.9 +02.1	N 21 50.3 +00.0	256 44.7 +02.6	S 12 19.2 +00.0	19								
20	115 30.5 +00.7	N 05 43.3 +00.8	59 48.0 +02.0	N 21 50.3 +00.1	271 47.3 +02.6	S 12 19.2 -00.1	20								
21	130 31.2 +00.7	N 05 44.1 +00.8	74 50.0 +02.0	N 21 50.4 +00.0	286 49.9 +02.6	S 12 19.1 +00.0	21								
22	145 31.9 +00.7	N 05 44.9 +00.7	89 52.0 +02.0	N 21 50.4 +00.1	301 52.5 +02.6	S 12 19.1 -00.1	22								
23	160 32.6 +00.7	N 05 45.6 +00.8	104 54.0 +02.0	N 21 50.5 +00.1	316 55.1 +02.7	S 12 19.0 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:18	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 16:01	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	Greenwich Culmination Time: 01:56				

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.73$				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	179 05.4 +00.1	N 04 54.2 +01.0	177 35.4 -00.4	N 04 10.1 +01.2	284 01.5 -35.4	S 20 05.2 -01.7	00						
01	194 05.5 +00.2	N 04 55.2 +00.9	192 35.0 -00.4	N 04 11.3 +01.3	298 26.1 -35.4	S 20 03.5 -01.9	01						
02	209 05.7 +00.2	N 04 56.1 +01.0	207 34.6 -00.4	N 04 12.6 +01.2	312 50.7 -35.3	S 20 01.6 -01.9	02						
03	224 05.9 +00.2	N 04 57.1 +01.0	222 34.2 -00.4	N 04 13.8 +01.3	327 15.4 -35.3	S 19 59.7 -02.1	03						
04	239 06.1 +00.2	N 04 58.1 +00.9	237 33.8 -00.4	N 04 15.1 +01.2	341 40.1 -35.3	S 19 57.6 -02.2	04						
05	254 06.3 +00.2	N 04 59.0 +01.0	252 33.4 -00.3	N 04 16.3 +01.3	356 04.8 -35.3	S 19 55.4 -02.4	05						
06	269 06.5 +00.2	N 04 60.0 +01.0	267 33.1 -00.4	N 04 17.6 +01.2	10 29.5 -35.2	S 19 53.0 -02.5	06						
07	284 06.7 +00.1	N 05 01.0 +00.9	282 32.7 -00.4	N 04 18.8 +01.3	24 54.3 -35.2	S 19 50.5 -02.6	07						
08	299 06.8 +00.2	N 05 01.9 +01.0	297 32.3 -00.4	N 04 20.1 +01.2	39 19.1 -35.2	S 19 47.9 -02.8	08						
09	314 07.0 +00.2	N 05 02.9 +00.9	312 31.9 -00.4	N 04 21.3 +01.3	53 43.9 -35.1	S 19 45.1 -02.9	09						
10	329 07.2 +00.2	N 05 03.8 +01.0	327 31.5 -00.4	N 04 22.6 +01.2	68 08.8 -35.1	S 19 42.2 -03.0	10						
11	344 07.4 +00.2	N 05 04.8 +01.0	342 31.1 -00.4	N 04 23.8 +01.2	82 33.7 -35.0	S 19 39.2 -03.1	11						
12	359 07.6 +00.2	N 05 05.8 +00.9	357 30.7 -00.3	N 04 25.0 +01.3	96 58.7 -35.1	S 19 36.1 -03.3	12						
13	14 07.8 +00.1	N 05 06.7 +01.0	12 30.4 -00.4	N 04 26.3 +01.2	111 23.6 -34.9	S 19 32.8 -03.4	13						
14	29 07.9 +00.2	N 05 07.7 +00.9	27 30.0 -00.4	N 04 27.5 +01.3	125 48.7 -34.9	S 19 29.4 -03.5	14						
15	44 08.1 +00.2	N 05 08.6 +01.0	42 29.6 -00.4	N 04 28.8 +01.2	140 13.8 -34.9	S 19 25.9 -03.7	15						
16	59 08.3 +00.2	N 05 09.6 +00.9	57 29.2 -00.4	N 04 30.0 +01.3	154 38.9 -34.9	S 19 22.2 -03.7	16						
17	74 08.5 +00.2	N 05 10.5 +01.0	72 28.8 -00.4	N 04 31.3 +01.2	169 04.0 -34.7	S 19 18.5 -03.9	17						
18	89 08.7 +00.2	N 05 11.5 +01.0	87 28.4 -00.4	N 04 32.5 +01.3	183 29.3 -34.8	S 19 14.6 -04.1	18						
19	104 08.9 +00.1	N 05 12.5 +00.9	102 28.0 -00.4	N 04 33.8 +01.2	197 54.5 -34.7	S 19 10.5 -04.1	19						
20	119 09.0 +00.2	N 05 13.4 +01.0	117 27.6 -00.3	N 04 35.0 +01.2	212 19.8 -34.6	S 19 06.4 -04.3	20						
21	134 09.2 +00.2	N 05 14.4 +00.9	132 27.3 -00.4	N 04 36.2 +01.3	226 45.2 -34.6	S 19 02.1 -04.4	21						
22	149 09.4 +00.2	N 05 15.3 +01.0	147 26.9 -00.4	N 04 37.5 +01.2	241 10.6 -34.6	S 18 57.7 -04.5	22						
23	164 09.6 +00.2	N 05 16.3 +01.0	162 26.5 -00.4	N 04 38.7 +01.3	255 36.0 -34.5	S 18 53.2 -04.6	23						
UT 02 06 10 14 18 22	SD 16'0 16'0 16'0 16'0 16'0 16'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:03	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	Greenwich Culmination Time: 12:10	UT 02 06 10 14 18 22	SD 16'2 16'2 16'2 16'1 16'1 16'1	HP 59'4 59'4 59'3 59'3 59'2 59'2	Greenwich Culmination Time: 05:16		

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	175 33.3 +00.7	N 05 46.4 +00.7	119 56.0 +02.1	N 21 50.6 +00.0	331 57.8 +02.6	S 12 19.0 -00.1	00						
01	190 34.0 +00.7	N 05 47.1 +00.8	134 58.1 +02.0	N 21 50.6 +00.1	347 00.4 +02.6	S 12 18.9 +00.0	01						
02	205 34.7 +00.7	N 05 47.9 +00.7	150 00.1 +02.0	N 21 50.7 +00.0	2 03.0 +02.6	S 12 18.9 -00.1	02						
03	220 35.4 +00.7	N 05 48.6 +00.8	165 02.1 +02.0	N 21 50.7 +00.1	17 05.6 +02.6	S 12 18.8 +00.0	03						
04	235 36.1 +00.7	N 05 49.4 +00.8	180 04.1 +02.0	N 21 50.8 +00.1	32 08.2 +02.6	S 12 18.8 -00.1	04						
05	250 36.8 +00.7	N 05 50.2 +00.7	195 06.1 +02.1	N 21 50.9 +00.0	47 10.8 +02.6	S 12 18.7 +00.0	05						
06	265 37.5 +00.7	N 05 50.9 +00.8	210 08.2 +02.0	N 21 50.9 +00.1	62 13.4 +02.7	S 12 18.7 -00.1	06						
07	280 38.2 +00.7	N 05 51.7 +00.7	225 10.2 +02.0	N 21 51.0 +00.1	77 16.1 +02.6	S 12 18.6 +00.0	07						
08	295 38.9 +00.7	N 05 52.4 +00.8	240 12.2 +02.0	N 21 51.1 +00.0	92 18.7 +02.6	S 12 18.6 -00.1	08						
09	310 39.6 +00.7	N 05 53.2 +00.7	255 14.2 +02.0	N 21 51.1 +00.1	107 21.3 +02.6	S 12 18.5 -00.1	09						
10	325 40.3 +00.7	N 05 53.9 +00.8	270 16.2 +02.0	N 21 51.2 +00.0	122 23.9 +02.6	S 12 18.4 +00.0	10						
11	340 41.0 +00.7	N 05 54.7 +00.7	285 18.2 +02.1	N 21 51.2 +00.1	137 26.5 +02.6	S 12 18.4 -00.1	11						
12	355 41.7 +00.7	N 05 55.4 +00.8	300 20.3 +02.0	N 21 51.3 +00.1	152 29.1 +02.6	S 12 18.3 +00.0	12						
13	10 42.4 +00.7	N 05 56.2 +00.8	315 22.3 +02.0	N 21 51.4 +00.0	167 31.7 +02.7	S 12 18.3 -00.1	13						
14	25 43.1 +00.7	N 05 57.0 +00.7	330 24.3 +02.0	N 21 51.4 +00.1	182 34.4 +02.6	S 12 18.2 +00.0	14						
15	40 43.8 +00.7	N 05 57.7 +00.8	345 26.3 +02.0	N 21 51.5 +00.0	197 37.0 +02.6	S 12 18.2 -00.1	15						
16	55 44.5 +00.7	N 05 58.5 +00.7	0 28.3 +02.0	N 21 51.5 +00.1	212 39.6 +02.6	S 12 18.1 +00.0	16						
17	70 45.2 +00.7	N 05 59.2 +00.8	15 30.3 +02.1	N 21 51.6 +00.1	227 42.2 +02.6	S 12 18.1 -00.1	17						
18	85 45.9 +00.7	N 05 60.0 +00.7	30 32.4 +02.0	N 21 51.7 +00.0	242 44.8 +02.6	S 12 18.0 +00.0	18						
19	100 46.6 +00.7	N 06 00.7 +00.8	45 34.4 +02.0	N 21 51.7 +00.1	257 47.4 +02.7	S 12 18.0 -00.1	19						
20	115 47.3 +00.7	N 06 01.5 +00.7	60 36.4 +02.0	N 21 51.8 +00.1	272 50.1 +02.6	S 12 17.9 +00.0	20						
21	130 48.0 +00.7	N 06 02.2 +00.8	75 38.4 +02.0	N 21 51.9 +00.0	287 52.7 +02.6	S 12 17.9 -00.1	21						
22	145 48.7 +00.7	N 06 03.0 +00.8	90 40.4 +02.0	N 21 51.9 +00.1	302 55.3 +02.6	S 12 17.8 -00.1	22						
23	160 49.4 +00.7	N 06 03.8 +00.7	105 42.4 +02.0	N 21 52.0 +00.0	317 57.9 +02.6	S 12 17.7 +00.0	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:17	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 15:58	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	Greenwich Culmination Time: 01:52		

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> $a = 0.77$					UT
UT	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''			
00	179 09.8 +00.2	N 05 17.3 +00.9	177 26.1 -00.4	N 04 40.0 +01.2	270 01.5 -34.5	S 18 48.6 -04.8	00								
01	194 10.0 +00.1	N 05 18.2 +01.0	192 25.7 -00.4	N 04 41.2 +01.3	284 27.0 -34.4	S 18 43.8 -04.8	01								
02	209 10.1 +00.2	N 05 19.2 +00.9	207 25.3 -00.4	N 04 42.5 +01.2	298 52.6 -34.3	S 18 39.0 -05.0	02								
03	224 10.3 +00.2	N 05 20.1 +01.0	222 24.9 -00.4	N 04 43.7 +01.2	313 18.3 -34.3	S 18 34.0 -05.1	03								
04	239 10.5 +00.2	N 05 21.1 +00.9	237 24.5 -00.3	N 04 44.9 +01.3	327 44.0 -34.3	S 18 28.9 -05.2	04								
05	254 10.7 +00.2	N 05 22.0 +01.0	252 24.2 -00.4	N 04 46.2 +01.2	342 09.7 -34.1	S 18 23.7 -05.4	05								
06	269 10.9 +00.2	N 05 23.0 +01.0	267 23.8 -00.4	N 04 47.4 +01.3	356 35.6 -34.2	S 18 18.3 -05.4	06								
07	284 11.1 +00.1	N 05 24.0 +00.9	282 23.4 -00.4	N 04 48.7 +01.2	11 01.4 -34.1	S 18 12.9 -05.6	07								
08	299 11.2 +00.2	N 05 24.9 +01.0	297 23.0 -00.4	N 04 49.9 +01.3	25 27.3 -34.0	S 18 07.3 -05.6	08								
09	314 11.4 +00.2	N 05 25.9 +00.9	312 22.6 -00.4	N 04 51.2 +01.2	39 53.3 -34.0	S 18 01.7 -05.8	09								
10	329 11.6 +00.2	N 05 26.8 +01.0	327 22.2 -00.4	N 04 52.4 +01.2	54 19.3 -33.9	S 17 55.9 -05.9	10								
11	344 11.8 +00.2	N 05 27.8 +00.9	342 21.8 -00.4	N 04 53.6 +01.3	68 45.4 -33.8	S 17 50.0 -06.0	11								
12	359 12.0 +00.2	N 05 28.7 +01.0	357 21.4 -00.4	N 04 54.9 +01.2	83 11.6 -33.8	S 17 44.0 -06.1	12								
13	14 12.2 +00.1	N 05 29.7 +00.9	12 21.0 -00.4	N 04 56.1 +01.3	97 37.8 -33.8	S 17 37.9 -06.3	13								
14	29 12.3 +00.2	N 05 30.6 +01.0	27 20.6 -00.3	N 04 57.4 +01.2	112 04.0 -33.6	S 17 31.6 -06.3	14								
15	44 12.5 +00.2	N 05 31.6 +01.0	42 20.3 -00.4	N 04 58.6 +01.2	126 30.4 -33.7	S 17 25.3 -06.4	15								
16	59 12.7 +00.2	N 05 32.6 +00.9	57 19.9 -00.4	N 04 59.8 +01.3	140 56.7 -33.5	S 17 18.9 -06.5	16								
17	74 12.9 +00.2	N 05 33.5 +01.0	72 19.5 -00.4	N 05 01.1 +01.2	155 23.2 -33.5	S 17 12.4 -06.7	17								
18	89 13.1 +00.2	N 05 34.5 +00.9	87 19.1 -00.4	N 05 02.3 +01.3	169 49.7 -33.5	S 17 05.7 -06.7	18								
19	104 13.3 +00.1	N 05 35.4 +01.0	102 18.7 -00.4	N 05 03.6 +01.2	184 16.2 -33.4	S 16 59.0 -06.9	19								
20	119 13.4 +00.2	N 05 36.4 +00.9	117 18.3 -00.4	N 05 04.8 +01.2	198 42.8 -33.3	S 16 52.1 -06.9	20								
21	134 13.6 +00.2	N 05 37.3 +01.0	132 17.9 -00.4	N 05 06.0 +01.3	213 09.5 -33.2	S 16 45.2 -07.0	21								
22	149 13.8 +00.2	N 05 38.3 +00.9	147 17.5 -00.4	N 05 07.3 +01.2	227 36.3 -33.2	S 16 38.2 -07.2	22								
23	164 14.0 +00.2	N 05 39.2 +01.0	162 17.1 -00.4	N 05 08.5 +01.3	242 03.1 -33.2	S 16 31.0 -07.2	23								
UT 02 06 10 14 18 22	SD 16'0 16'0 16'0 16'0 16'0 16'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:03	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	Greenwich Culmination Time: 12:11	UT 02 06 10 14 18 22	SD 16'1 16'1 16'1 16'1 16'0 16'0	HP 59'1 59'1 59'0 59'0 58'9 58'8	Greenwich Culmination Time: 06:14				

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''			
00	175 50.1 +00.7	N 06 04.5 +00.8	120 44.4 +02.1	N 21 52.0 +00.1	333 00.5 +02.6	S 12 17.7 -00.1	00								
01	190 50.8 +00.7	N 06 05.3 +00.7	135 46.5 +02.0	N 21 52.1 +00.1	348 03.1 +02.7	S 12 17.6 +00.0	01								
02	205 51.5 +00.7	N 06 06.0 +00.8	150 48.5 +02.0	N 21 52.2 +00.0	3 05.8 +02.6	S 12 17.6 -00.1	02								
03	220 52.2 +00.7	N 06 06.8 +00.7	165 50.5 +02.0	N 21 52.2 +00.1	18 08.4 +02.6	S 12 17.5 +00.0	03								
04	235 52.9 +00.7	N 06 07.5 +00.8	180 52.5 +02.0	N 21 52.3 +00.1	33 11.0 +02.6	S 12 17.5 -00.1	04								
05	250 53.6 +00.7	N 06 08.3 +00.7	195 54.5 +02.0	N 21 52.4 +00.0	48 13.6 +02.6	S 12 17.4 +00.0	05								
06	265 54.3 +00.7	N 06 09.0 +00.8	210 56.5 +02.0	N 21 52.4 +00.1	63 16.2 +02.6	S 12 17.4 -00.1	06								
07	280 55.0 +00.7	N 06 09.8 +00.7	225 58.5 +02.1	N 21 52.5 +00.0	78 18.8 +02.7	S 12 17.3 +00.0	07								
08	295 55.7 +00.7	N 06 10.5 +00.8	241 00.6 +02.0	N 21 52.5 +00.1	93 21.5 +02.6	S 12 17.3 -00.1	08								
09	310 56.4 +00.7	N 06 11.3 +00.7	256 02.6 +02.0	N 21 52.6 +00.1	108 24.1 +02.6	S 12 17.2 +00.0	09								
10	325 57.1 +00.7	N 06 12.0 +00.8	271 04.6 +02.0	N 21 52.7 +00.0	123 26.7 +02.6	S 12 17.2 -00.1	10								
11	340 57.8 +00.7	N 06 12.8 +00.7	286 06.6 +02.0	N 21 52.7 +00.1	138 29.3 +02.6	S 12 17.1 -00.1	11								
12	355 58.5 +00.7	N 06 13.5 +00.8	301 08.6 +02.0	N 21 52.8 +00.0	153 31.9 +02.6	S 12 17.0 +00.0	12								
13	10 59.2 +00.7	N 06 14.3 +00.8	316 10.6 +02.0	N 21 52.8 +00.1	168 34.5 +02.7	S 12 17.0 -00.1	13								
14	25 59.9 +00.7	N 06 15.1 +00.7	331 12.6 +02.0	N 21 52.9 +00.1	183 37.2 +02.6	S 12 16.9 +00.0	14								
15	41 00.6 +00.7	N 06 15.8 +00.8	346 14.6 +02.1	N 21 53.0 +00.0	198 39.8 +02.6	S 12 16.9 -00.1	15								
16	56 01.3 +00.7	N 06 16.6 +00.7	1 16.7 +02.0	N 21 53.0 +00.1	213 42.4 +02.6	S 12 16.8 +00.0	16								
17	71 02.0 +00.7	N 06 17.3 +00.8	16 18.7 +02.0	N 21 53.1 +00.1	228 45.0 +02.6	S 12 16.8 -00.1	17								
18	86 02.7 +00.7	N 06 18.1 +00.7	31 20.7 +02.0	N 21 53.2 +00.0	243 47.6 +02.7	S 12 16.7 +00.0	18								
19	101 03.4 +00.7	N 06 18.8 +00.8	46 22.7 +02.0	N 21 53.2 +00.1	258 50.3 +02.6	S 12 16.7 -00.1	19								
20	116 04.1 +00.7	N 06 19.6 +00.7	61 24.7 +02.0	N 21 53.3 +00.0	273 52.9 +02.6	S 12 16.6 +00.0	20								
21	131 04.8 +00.7	N 06 20.3 +00.8	76 26.7 +02.0	N 21 53.3 +00.1	288 55.5 +02.6	S 12 16.6 -00.1	21								
22	146 05.5 +00.7	N 06 21.1 +00.7	91 28.7 +02.0	N 21 53.4 +00.1	303 58.1 +02.6	S 12 16.5 -00.1	22								
23	161 06.2 +00.7	N 06 21.8 +00.8	106 30.7 +02.0	N 21 53.5 +00.0	319 00.7 +02.6	S 12 16.4 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:16	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 15:55	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	Greenwich Culmination Time: 01:48				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.80					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	179 14.2 +00.1	N 05 40.2 +00.9	177 16.7 -00.3	N 05 09.8 +01.2	256 29.9 -33.1	S 16 23.8 -07.4	00								
01	194 14.3 +00.2	N 05 41.1 +01.0	192 16.4 -00.4	N 05 11.0 +01.2	270 56.8 -33.0	S 16 16.4 -07.4	01								
02	209 14.5 +00.2	N 05 42.1 +01.0	207 16.0 -00.4	N 05 12.2 +01.3	285 23.8 -32.9	S 16 09.0 -07.5	02								
03	224 14.7 +00.2	N 05 43.1 +00.9	222 15.6 -00.4	N 05 13.5 +01.2	299 50.9 -32.9	S 16 01.5 -07.6	03								
04	239 14.9 +00.2	N 05 44.0 +01.0	237 15.2 -00.4	N 05 14.7 +01.2	314 18.0 -32.8	S 15 53.9 -07.7	04								
05	254 15.1 +00.2	N 05 45.0 +00.9	252 14.8 -00.4	N 05 15.9 +01.3	328 45.2 -32.8	S 15 46.2 -07.8	05								
06	269 15.3 +00.1	N 05 45.9 +01.0	267 14.4 -00.4	N 05 17.2 +01.2	343 12.4 -32.7	S 15 38.4 -07.9	06								
07	284 15.4 +00.2	N 05 46.9 +00.9	282 14.0 -00.4	N 05 18.4 +01.3	357 39.7 -32.6	S 15 30.5 -08.0	07								
08	299 15.6 +00.2	N 05 47.8 +01.0	297 13.6 -00.4	N 05 19.7 +01.2	12 07.1 -32.6	S 15 22.5 -08.0	08								
09	314 15.8 +00.2	N 05 48.8 +00.9	312 13.2 -00.4	N 05 20.9 +01.2	26 34.5 -32.5	S 15 14.5 -08.2	09								
10	329 16.0 +00.2	N 05 49.7 +01.0	327 12.8 -00.4	N 05 22.1 +01.3	41 02.0 -32.5	S 15 06.3 -08.2	10								
11	344 16.2 +00.1	N 05 50.7 +00.9	342 12.4 -00.4	N 05 23.4 +01.2	55 29.5 -32.4	S 14 58.1 -08.3	11								
12	359 16.3 +00.2	N 05 51.6 +01.0	357 12.0 -00.4	N 05 24.6 +01.2	69 57.1 -32.3	S 14 49.8 -08.4	12								
13	14 16.5 +00.2	N 05 52.6 +00.9	12 11.6 -00.4	N 05 25.8 +01.3	84 24.8 -32.3	S 14 41.4 -08.5	13								
14	29 16.7 +00.2	N 05 53.5 +01.0	27 11.2 -00.3	N 05 27.1 +01.2	98 52.5 -32.2	S 14 32.9 -08.6	14								
15	44 16.9 +00.2	N 05 54.5 +00.9	42 10.9 -00.4	N 05 28.3 +01.3	113 20.3 -32.1	S 14 24.3 -08.6	15								
16	59 17.1 +00.1	N 05 55.4 +01.0	57 10.5 -00.4	N 05 29.6 +01.2	127 48.2 -32.1	S 14 15.7 -08.8	16								
17	74 17.2 +00.2	N 05 56.4 +00.9	72 10.1 -00.4	N 05 30.8 +01.2	142 16.1 -32.0	S 14 06.9 -08.8	17								
18	89 17.4 +00.2	N 05 57.3 +01.0	87 09.7 -00.4	N 05 32.0 +01.3	156 44.1 -32.0	S 13 58.1 -08.8	18								
19	104 17.6 +00.2	N 05 58.3 +00.9	102 09.3 -00.4	N 05 33.3 +01.2	171 12.1 -31.9	S 13 49.3 -09.0	19								
20	119 17.8 +00.2	N 05 59.2 +01.0	117 08.9 -00.4	N 05 34.5 +01.2	185 40.2 -31.8	S 13 40.3 -09.0	20								
21	134 18.0 +00.1	N 06 00.2 +00.9	132 08.5 -00.4	N 05 35.7 +01.3	200 08.4 -31.8	S 13 31.3 -09.1	21								
22	149 18.1 +00.2	N 06 01.1 +01.0	147 08.1 -00.4	N 05 37.0 +01.2	214 36.6 -31.7	S 13 22.2 -09.2	22								
23	164 18.3 +00.2	N 06 02.1 +00.9	162 07.7 -00.4	N 05 38.2 +01.2	229 04.9 -31.6	S 13 13.0 -09.2	23								
UT 02 06 10 14 18 22	SD 16'0 16'0 16'0 16'0 16'0 16'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:03	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	Greenwich Culmination Time: 12:11	UT 02 06 10 14 18 22	SD 16'0 16'0 16'0 16'0 15'9 15'9	HP 58'8 58'7 58'7 58'6 58'5 58'5	Greenwich Culmination Time: 07:10				

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	176 06.9 +00.7	N 06 22.6 +00.7	121 32.7 +02.1	N 21 53.5 +00.1	334 03.3 +02.7	S 12 16.4 -00.1	00								
01	191 07.6 +00.7	N 06 23.3 +00.8	136 34.8 +02.0	N 21 53.6 +00.1	349 06.0 +02.6	S 12 16.3 +00.0	01								
02	206 08.3 +00.7	N 06 24.1 +00.7	151 36.8 +02.0	N 21 53.7 +00.0	4 08.6 +02.6	S 12 16.3 -00.1	02								
03	221 09.0 +00.7	N 06 24.8 +00.8	166 38.8 +02.0	N 21 53.7 +00.1	19 11.2 +02.6	S 12 16.2 +00.0	03								
04	236 09.7 +00.7	N 06 25.6 +00.7	181 40.8 +02.0	N 21 53.8 +00.0	34 13.8 +02.6	S 12 16.2 -00.1	04								
05	251 10.4 +00.7	N 06 26.3 +00.8	196 42.8 +02.0	N 21 53.8 +00.1	49 16.4 +02.7	S 12 16.1 +00.0	05								
06	266 11.1 +00.7	N 06 27.1 +00.7	211 44.8 +02.0	N 21 53.9 +00.1	64 19.1 +02.6	S 12 16.1 -00.1	06								
07	281 11.8 +00.7	N 06 27.8 +00.8	226 46.8 +02.0	N 21 54.0 +00.0	79 21.7 +02.6	S 12 16.0 +00.0	07								
08	296 12.5 +00.7	N 06 28.6 +00.7	241 48.8 +02.0	N 21 54.0 +00.1	94 24.3 +02.6	S 12 16.0 -00.1	08								
09	311 13.2 +00.7	N 06 29.3 +00.8	256 50.8 +02.0	N 21 54.1 +00.0	109 26.9 +02.6	S 12 15.9 -00.1	09								
10	326 13.9 +00.7	N 06 30.1 +00.7	271 52.8 +02.0	N 21 54.1 +00.1	124 29.5 +02.7	S 12 15.8 +00.0	10								
11	341 14.6 +00.7	N 06 30.8 +00.8	286 54.8 +02.0	N 21 54.2 +00.1	139 32.2 +02.6	S 12 15.8 -00.1	11								
12	356 15.3 +00.7	N 06 31.6 +00.7	301 56.8 +02.1	N 21 54.3 +00.0	154 34.8 +02.6	S 12 15.7 +00.0	12								
13	11 16.0 +00.7	N 06 32.3 +00.8	316 58.9 +02.0	N 21 54.3 +00.1	169 37.4 +02.6	S 12 15.7 -00.1	13								
14	26 16.7 +00.7	N 06 33.1 +00.7	332 00.9 +02.0	N 21 54.4 +00.1	184 40.0 +02.6	S 12 15.6 +00.0	14								
15	41 17.4 +00.7	N 06 33.8 +00.8	347 02.9 +02.0	N 21 54.5 +00.0	199 42.6 +02.7	S 12 15.6 -00.1	15								
16	56 18.1 +00.7	N 06 34.6 +00.7	2 04.9 +02.0	N 21 54.5 +00.1	214 45.3 +02.6	S 12 15.5 +00.0	16								
17	71 18.8 +00.7	N 06 35.3 +00.8	17 06.9 +02.0	N 21 54.6 +00.0	229 47.9 +02.6	S 12 15.5 -00.1	17								
18	86 19.5 +00.7	N 06 36.1 +00.7	32 08.9 +02.0	N 21 54.6 +00.1	244 50.5 +02.6	S 12 15.4 +00.0	18								
19	101 20.2 +00.7	N 06 36.8 +00.8	47 10.9 +02.0	N 21 54.7 +00.1	259 53.1 +02.6	S 12 15.4 -00.1	19								
20	116 20.9 +00.7	N 06 37.6 +00.7	62 12.9 +02.0	N 21 54.8 +00.0	274 55.7 +02.7	S 12 15.3 -00.1	20								
21	131 21.6 +00.7	N 06 38.3 +00.8	77 14.9 +02.0	N 21 54.8 +00.1	289 58.4 +02.6	S 12 15.2 +00.0	21								
22	146 22.3 +00.7	N 06 39.1 +00.7	92 16.9 +02.0	N 21 54.9 +00.1	305 01.0 +02.6	S 12 15.2 -00.1	22								
23	161 23.0 +00.7	N 06 39.8 +00.8	107 18.9 +02.0	N 21 55.0 +00.0	320 03.6 +02.6	S 12 15.1 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:15	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 15:52	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	Greenwich Culmination Time: 01:43				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.84					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	179 18.5 +00.2	N 06 03.0 +01.0	177 07.3 -00.4	N 05 39.4 +01.3	243 33.3 -31.6	S 13 03.8 -09.3	00								
01	194 18.7 +00.2	N 06 04.0 +00.9	192 06.9 -00.4	N 05 40.7 +01.2	258 01.7 -31.6	S 12 54.5 -09.4	01								
02	209 18.9 +00.1	N 06 04.9 +01.0	207 06.5 -00.4	N 05 41.9 +01.2	272 30.1 -31.4	S 12 45.1 -09.4	02								
03	224 19.0 +00.2	N 06 05.9 +00.9	222 06.1 -00.4	N 05 43.1 +01.3	286 58.7 -31.4	S 12 35.7 -09.6	03								
04	239 19.2 +00.2	N 06 06.8 +01.0	237 05.7 -00.4	N 05 44.4 +01.2	301 27.3 -31.4	S 12 26.1 -09.5	04								
05	254 19.4 +00.2	N 06 07.8 +00.9	252 05.3 -00.4	N 05 45.6 +01.2	315 55.9 -31.3	S 12 16.6 -09.7	05								
06	269 19.6 +00.2	N 06 08.7 +01.0	267 04.9 -00.4	N 05 46.8 +01.3	330 24.6 -31.2	S 12 06.9 -09.7	06								
07	284 19.8 +00.1	N 06 09.7 +00.9	282 04.5 -00.4	N 05 48.1 +01.2	344 53.4 -31.2	S 11 57.2 -09.7	07								
08	299 19.9 +00.2	N 06 10.6 +01.0	297 04.1 -00.4	N 05 49.3 +01.2	359 22.2 -31.1	S 11 47.5 -09.9	08								
09	314 20.1 +00.2	N 06 11.6 +00.9	312 03.7 -00.4	N 05 50.5 +01.3	13 51.1 -31.1	S 11 37.6 -09.8	09								
10	329 20.3 +00.2	N 06 12.5 +01.0	327 03.3 -00.4	N 05 51.8 +01.2	28 20.0 -31.0	S 11 27.8 -10.0	10								
11	344 20.5 +00.2	N 06 13.5 +00.9	342 02.9 -00.3	N 05 53.0 +01.2	42 49.0 -30.9	S 11 17.8 -10.0	11								
12	359 20.7 +00.1	N 06 14.4 +01.0	357 02.6 -00.4	N 05 54.2 +01.3	57 18.1 -30.9	S 11 07.8 -10.0	12								
13	14 20.8 +00.2	N 06 15.4 +00.9	12 02.2 -00.4	N 05 55.5 +01.2	71 47.2 -30.9	S 10 57.8 -10.1	13								
14	29 21.0 +00.2	N 06 16.3 +01.0	27 01.8 -00.4	N 05 56.7 +01.2	86 16.3 -30.7	S 10 47.7 -10.2	14								
15	44 21.2 +00.2	N 06 17.3 +00.9	42 01.4 -00.4	N 05 57.9 +01.2	100 45.6 -30.8	S 10 37.5 -10.2	15								
16	59 21.4 +00.1	N 06 18.2 +00.9	57 01.0 -00.4	N 05 59.1 +01.3	115 14.8 -30.6	S 10 27.3 -10.3	16								
17	74 21.5 +00.2	N 06 19.1 +01.0	72 00.6 -00.4	N 06 00.4 +01.2	129 44.2 -30.7	S 10 17.0 -10.3	17								
18	89 21.7 +00.2	N 06 20.1 +00.9	87 00.2 -00.4	N 06 01.6 +01.2	144 13.5 -30.5	S 10 06.7 -10.4	18								
19	104 21.9 +00.2	N 06 21.0 +01.0	101 59.8 -00.4	N 06 02.8 +01.3	158 43.0 -30.5	S 09 56.3 -10.4	19								
20	119 22.1 +00.2	N 06 22.0 +00.9	116 59.4 -00.4	N 06 04.1 +01.2	173 12.5 -30.5	S 09 45.9 -10.5	20								
21	134 22.3 +00.1	N 06 22.9 +01.0	131 59.0 -00.4	N 06 05.3 +01.2	187 42.0 -30.4	S 09 35.4 -10.5	21								
22	149 22.4 +00.2	N 06 23.9 +00.9	146 58.6 -00.4	N 06 06.5 +01.3	202 11.6 -30.4	S 09 24.9 -10.5	22								
23	164 22.6 +00.2	N 06 24.8 +01.0	161 58.2 -00.4	N 06 07.8 +01.2	216 41.2 -30.3	S 09 14.4 -10.6	23								
UT 02 06 10 14 18 22	SD 16'0 16'0 16'0 16'0 16'0 16'0	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 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	Greenwich Culmination Time: 12:03	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:12	HP 58'4 58'3 58'3 58'2 58'1 58'0	Greenwich Culmination Time: 08:03										

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	176 23.7 +00.7	N 06 40.6 +00.7	122 20.9 +02.0	N 21 55.0 +00.1	335 06.2 +02.6	S 12 15.1 -00.1	00								
01	191 24.4 +00.7	N 06 41.3 +00.7	137 22.9 +02.0	N 21 55.1 +00.0	350 08.8 +02.7	S 12 15.0 +00.0	01								
02	206 25.1 +00.7	N 06 42.0 +00.8	152 24.9 +02.0	N 21 55.1 +00.1	5 11.5 +02.6	S 12 15.0 -00.1	02								
03	221 25.8 +00.7	N 06 42.8 +00.7	167 26.9 +02.0	N 21 55.2 +00.1	20 14.1 +02.6	S 12 14.9 +00.0	03								
04	236 26.5 +00.7	N 06 43.5 +00.8	182 28.9 +02.0	N 21 55.3 +00.0	35 16.7 +02.6	S 12 14.9 -00.1	04								
05	251 27.2 +00.7	N 06 44.3 +00.7	197 30.9 +02.1	N 21 55.3 +00.1	50 19.3 +02.7	S 12 14.8 -00.1	05								
06	266 27.9 +00.7	N 06 45.0 +00.8	212 33.0 +02.0	N 21 55.4 +00.0	65 22.0 +02.6	S 12 14.7 +00.0	06								
07	281 28.6 +00.7	N 06 45.8 +00.7	227 35.0 +02.0	N 21 55.4 +00.1	80 24.6 +02.6	S 12 14.7 -00.1	07								
08	296 29.3 +00.7	N 06 46.5 +00.8	242 37.0 +02.0	N 21 55.5 +00.1	95 27.2 +02.6	S 12 14.6 +00.0	08								
09	311 30.0 +00.7	N 06 47.3 +00.7	257 39.0 +02.0	N 21 55.6 +00.0	110 29.8 +02.6	S 12 14.6 -00.1	09								
10	326 30.7 +00.7	N 06 48.0 +00.8	272 41.0 +02.0	N 21 55.6 +00.1	125 32.4 +02.7	S 12 14.5 +00.0	10								
11	341 31.4 +00.7	N 06 48.8 +00.7	287 43.0 +02.0	N 21 55.7 +00.1	140 35.1 +02.6	S 12 14.5 -00.1	11								
12	356 32.1 +00.7	N 06 49.5 +00.8	302 45.0 +02.0	N 21 55.8 +00.0	155 37.7 +02.6	S 12 14.4 +00.0	12								
13	11 32.8 +00.7	N 06 50.3 +00.7	317 47.0 +02.0	N 21 55.8 +00.1	170 40.3 +02.6	S 12 14.4 -00.1	13								
14	26 33.5 +00.7	N 06 51.0 +00.8	332 49.0 +02.0	N 21 55.9 +00.0	185 42.9 +02.7	S 12 14.3 -00.1	14								
15	41 34.2 +00.7	N 06 51.8 +00.7	347 51.0 +02.0	N 21 55.9 +00.1	200 45.6 +02.6	S 12 14.2 +00.0	15								
16	56 34.9 +00.7	N 06 52.5 +00.7	2 53.0 +02.0	N 21 56.0 +00.1	215 48.2 +02.6	S 12 14.2 -00.1	16								
17	71 35.6 +00.7	N 06 53.2 +00.8	17 55.0 +02.0	N 21 56.1 +00.0	230 50.8 +02.6	S 12 14.1 +00.0	17								
18	86 36.3 +00.7	N 06 54.0 +00.7	32 57.0 +02.0	N 21 56.1 +00.1	245 53.4 +02.6	S 12 14.1 -00.1	18								
19	101 37.0 +00.7	N 06 54.7 +00.8	47 59.0 +02.0	N 21 56.2 +00.1	260 56.0 +02.7	S 12 14.0 +00.0	19								
20	116 37.7 +00.7	N 06 55.5 +00.7	63 01.0 +02.0	N 21 56.3 +00.0	275 58.7 +02.6	S 12 14.0 -00.1	20								
21	131 38.4 +00.7	N 06 56.2 +00.8	78 03.0 +02.0	N 21 56.3 +00.1	291 01.3 +02.6	S 12 13.9 +00.0	21								
22	146 39.1 +00.6	N 06 57.0 +00.7	93 05.0 +02.0	N 21 56.4 +00.0	306 03.9 +02.6	S 12 13.9 -00.1	22								
23	161 39.7 +00.7	N 06 57.7 +00.8	108 07.0 +02.0	N 21 56.4 +00.1	321 06.5 +02.7	S 12 13.8 -00.1	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:14	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 15:48	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 01:39										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> <i>a</i> = 0.87				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	179 22.8 +00.2	N 06 25.8 +00.9	176 57.8 -00.4	N 06 09.0 +01.2	231 10.9 -30.2	S 09 03.8 -10.6	00						
01	194 23.0 +00.1	N 06 26.7 +01.0	191 57.4 -00.4	N 06 10.2 +01.2	245 40.7 -30.2	S 08 53.2 -10.7	01						
02	209 23.1 +00.2	N 06 27.7 +00.9	206 57.0 -00.4	N 06 11.4 +01.3	260 10.5 -30.2	S 08 42.5 -10.7	02						
03	224 23.3 +00.2	N 06 28.6 +00.9	221 56.6 -00.4	N 06 12.7 +01.2	274 40.3 -30.1	S 08 31.8 -10.8	03						
04	239 23.5 +00.2	N 06 29.5 +01.0	236 56.2 -00.4	N 06 13.9 +01.2	289 10.2 -30.0	S 08 21.0 -10.8	04						
05	254 23.7 +00.2	N 06 30.5 +00.9	251 55.8 -00.4	N 06 15.1 +01.2	303 40.2 -30.1	S 08 10.2 -10.8	05						
06	269 23.9 +00.1	N 06 31.4 +01.0	266 55.4 -00.4	N 06 16.3 +01.3	318 10.1 -29.9	S 07 59.4 -10.9	06						
07	284 24.0 +00.2	N 06 32.4 +00.9	281 55.0 -00.4	N 06 17.6 +01.2	332 40.2 -29.9	S 07 48.5 -10.9	07						
08	299 24.2 +00.2	N 06 33.3 +01.0	296 54.6 -00.4	N 06 18.8 +01.2	347 10.3 -29.9	S 07 37.6 -11.0	08						
09	314 24.4 +00.2	N 06 34.3 +00.9	311 54.2 -00.4	N 06 20.0 +01.3	1 40.4 -29.8	S 07 26.6 -10.9	09						
10	329 24.6 +00.1	N 06 35.2 +01.0	326 53.8 -00.4	N 06 21.3 +01.2	16 10.6 -29.8	S 07 15.7 -11.0	10						
11	344 24.7 +00.2	N 06 36.2 +00.9	341 53.4 -00.4	N 06 22.5 +01.2	30 40.8 -29.8	S 07 04.7 -11.1	11						
12	359 24.9 +00.2	N 06 37.1 +00.9	356 53.0 -00.4	N 06 23.7 +01.2	45 11.0 -29.7	S 06 53.6 -11.0	12						
13	14 25.1 +00.2	N 06 38.0 +01.0	11 52.6 -00.4	N 06 24.9 +01.3	59 41.3 -29.6	S 06 42.6 -11.1	13						
14	29 25.3 +00.1	N 06 39.0 +00.9	26 52.2 -00.4	N 06 26.2 +01.2	74 11.7 -29.6	S 06 31.5 -11.1	14						
15	44 25.4 +00.2	N 06 39.9 +01.0	41 51.8 -00.4	N 06 27.4 +01.2	88 42.1 -29.6	S 06 20.4 -11.2	15						
16	59 25.6 +00.2	N 06 40.9 +00.9	56 51.4 -00.4	N 06 28.6 +01.2	103 12.5 -29.5	S 06 09.2 -11.2	16						
17	74 25.8 +00.2	N 06 41.8 +01.0	71 51.0 -00.4	N 06 29.8 +01.3	117 43.0 -29.5	S 05 58.0 -11.1	17						
18	89 26.0 +00.1	N 06 42.8 +00.9	86 50.6 -00.5	N 06 31.1 +01.2	132 13.5 -29.5	S 05 46.9 -11.3	18						
19	104 26.1 +00.2	N 06 43.7 +00.9	101 50.1 -00.4	N 06 32.3 +01.2	146 44.0 -29.4	S 05 35.6 -11.2	19						
20	119 26.3 +00.2	N 06 44.6 +01.0	116 49.7 -00.4	N 06 33.5 +01.2	161 14.6 -29.3	S 05 24.4 -11.3	20						
21	134 26.5 +00.2	N 06 45.6 +00.9	131 49.3 -00.4	N 06 34.7 +01.3	175 45.3 -29.4	S 05 13.1 -11.2	21						
22	149 26.7 +00.1	N 06 46.5 +01.0	146 48.9 -00.4	N 06 36.0 +01.2	190 15.9 -29.3	S 05 01.9 -11.3	22						
23	164 26.8 +00.2	N 06 47.5 +00.9	161 48.5 -00.4	N 06 37.2 +01.2	204 46.6 -29.2	S 04 50.6 -11.4	23						
UT 02 06 10 14 18 22 SD 16'0 16'0 16'0 16'0 16'0 16'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 12:02 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 Greenwich Culmination Time: 12:12 UT 02 06 10 14 18 22 SD 15'8 15'8 15'8 15'7 15'7 15'7 HP 58'0 57'9 57'8 57'7 57'7 57'6 Greenwich Culmination Time: 08:53													
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	176 40.4 +00.7	N 06 58.5 +00.7	123 09.0 +02.0	N 21 56.5 +00.1	336 09.2 +02.6	S 12 13.7 +00.0	00						
01	191 41.1 +00.7	N 06 59.2 +00.7	138 11.0 +02.0	N 21 56.6 +00.0	351 11.8 +02.6	S 12 13.7 -00.1	01						
02	206 41.8 +00.7	N 06 59.9 +00.8	153 13.0 +02.0	N 21 56.6 +00.1	6 14.4 +02.6	S 12 13.6 +00.0	02						
03	221 42.5 +00.7	N 07 00.7 +00.7	168 15.0 +02.0	N 21 56.7 +00.0	21 17.0 +02.7	S 12 13.6 -00.1	03						
04	236 43.2 +00.7	N 07 01.4 +00.8	183 17.0 +02.0	N 21 56.7 +00.1	36 19.7 +02.6	S 12 13.5 +00.0	04						
05	251 43.9 +00.7	N 07 02.2 +00.7	198 19.0 +02.0	N 21 56.8 +00.1	51 22.3 +02.6	S 12 13.5 -00.1	05						
06	266 44.6 +00.7	N 07 02.9 +00.8	213 21.0 +02.0	N 21 56.9 +00.0	66 24.9 +02.6	S 12 13.4 +00.0	06						
07	281 45.3 +00.7	N 07 03.7 +00.7	228 23.0 +02.0	N 21 56.9 +00.1	81 27.5 +02.6	S 12 13.4 -00.1	07						
08	296 46.0 +00.7	N 07 04.4 +00.7	243 25.0 +02.0	N 21 57.0 +00.1	96 30.1 +02.7	S 12 13.3 -00.1	08						
09	311 46.7 +00.7	N 07 05.1 +00.8	258 27.0 +02.0	N 21 57.1 +00.0	111 32.8 +02.6	S 12 13.2 +00.0	09						
10	326 47.4 +00.7	N 07 05.9 +00.7	273 29.0 +02.0	N 21 57.1 +00.1	126 35.4 +02.6	S 12 13.2 -00.1	10						
11	341 48.1 +00.7	N 07 06.6 +00.8	288 31.0 +02.0	N 21 57.2 +00.0	141 38.0 +02.6	S 12 13.1 +00.0	11						
12	356 48.8 +00.7	N 07 07.4 +00.7	303 33.0 +02.0	N 21 57.2 +00.1	156 40.6 +02.7	S 12 13.1 -00.1	12						
13	11 49.5 +00.7	N 07 08.1 +00.8	318 35.0 +02.0	N 21 57.3 +00.1	171 43.3 +02.6	S 12 13.0 +00.0	13						
14	26 50.2 +00.7	N 07 08.9 +00.7	333 37.0 +02.0	N 21 57.4 +00.0	186 45.9 +02.6	S 12 13.0 -00.1	14						
15	41 50.9 +00.7	N 07 09.6 +00.7	348 39.0 +02.0	N 21 57.4 +00.1	201 48.5 +02.6	S 12 12.9 +00.0	15						
16	56 51.6 +00.7	N 07 10.3 +00.8	3 41.0 +02.0	N 21 57.5 +00.1	216 51.1 +02.7	S 12 12.9 -00.1	16						
17	71 52.3 +00.7	N 07 11.1 +00.7	18 43.0 +02.0	N 21 57.6 +00.0	231 53.8 +02.6	S 12 12.8 -00.1	17						
18	86 53.0 +00.7	N 07 11.8 +00.8	33 45.0 +02.0	N 21 57.6 +00.1	246 56.4 +02.6	S 12 12.7 +00.0	18						
19	101 53.7 +00.7	N 07 12.6 +00.7	48 47.0 +02.0	N 21 57.7 +00.0	261 59.0 +02.6	S 12 12.7 -00.1	19						
20	116 54.4 +00.7	N 07 13.3 +00.8	63 49.0 +02.0	N 21 57.7 +00.1	277 01.6 +02.7	S 12 12.6 +00.0	20						
21	131 55.1 +00.7	N 07 14.1 +00.7	78 51.0 +02.0	N 21 57.8 +00.1	292 04.3 +02.6	S 12 12.6 -00.1	21						
22	146 55.8 +00.7	N 07 14.8 +00.7	93 53.0 +01.9	N 21 57.9 +00.0	307 06.9 +02.6	S 12 12.5 +00.0	22						
23	161 56.5 +00.7	N 07 15.5 +00.8	108 54.9 +02.0	N 21 57.9 +00.1	322 09.5 +02.6	S 12 12.5 -00.1	23						
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 12:13 UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 15:45 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 Greenwich Culmination Time: 01:35													

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.91					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	179 27.0 +00.2	N 06 48.4 +00.9	176 48.1 -00.4	N 06 38.4 +01.2	219 17.4 -29.3	S 04 39.2 -11.3	00								
01	194 27.2 +00.2	N 06 49.3 +01.0	191 47.7 -00.4	N 06 39.6 +01.2	233 48.1 -29.1	S 04 27.9 -11.3	01								
02	209 27.4 +00.1	N 06 50.3 +00.9	206 47.3 -00.4	N 06 40.8 +01.3	248 19.0 -29.2	S 04 16.6 -11.4	02								
03	224 27.5 +00.2	N 06 51.2 +01.0	221 46.9 -00.4	N 06 42.1 +01.2	262 49.8 -29.1	S 04 05.2 -11.4	03								
04	239 27.7 +00.2	N 06 52.2 +00.9	236 46.5 -00.4	N 06 43.3 +01.2	277 20.7 -29.1	S 03 53.8 -11.4	04								
05	254 27.9 +00.2	N 06 53.1 +00.9	251 46.1 -00.4	N 06 44.5 +01.2	291 51.6 -29.1	S 03 42.4 -11.4	05								
06	269 28.1 +00.1	N 06 54.0 +01.0	266 45.7 -00.4	N 06 45.7 +01.3	306 22.5 -29.0	S 03 31.0 -11.4	06								
07	284 28.2 +00.2	N 06 55.0 +00.9	281 45.3 -00.4	N 06 47.0 +01.2	320 53.5 -29.0	S 03 19.6 -11.4	07								
08	299 28.4 +00.2	N 06 55.9 +01.0	296 44.9 -00.4	N 06 48.2 +01.2	335 24.5 -28.9	S 03 08.2 -11.4	08								
09	314 28.6 +00.2	N 06 56.9 +00.9	311 44.5 -00.4	N 06 49.4 +01.2	349 55.6 -29.0	S 02 56.8 -11.5	09								
10	329 28.8 +00.1	N 06 57.8 +00.9	326 44.1 -00.4	N 06 50.6 +01.2	4 26.6 -28.9	S 02 45.3 -11.4	10								
11	344 28.9 +00.2	N 06 58.7 +01.0	341 43.7 -00.4	N 06 51.8 +01.3	18 57.7 -28.9	S 02 33.9 -11.5	11								
12	359 29.1 +00.2	N 06 59.7 +00.9	356 43.3 -00.4	N 06 53.1 +01.2	33 28.8 -28.8	S 02 22.4 -11.4	12								
13	14 29.3 +00.2	N 07 00.6 +00.9	11 42.9 -00.4	N 06 54.3 +01.2	48 00.0 -28.8	S 02 11.0 -11.5	13								
14	29 29.5 +00.1	N 07 01.5 +01.0	26 42.5 -00.5	N 06 55.5 +01.2	62 31.2 -28.8	S 01 59.5 -11.5	14								
15	44 29.6 +00.2	N 07 02.5 +00.9	41 42.0 -00.4	N 06 56.7 +01.2	77 02.4 -28.8	S 01 48.0 -11.4	15								
16	59 29.8 +00.2	N 07 03.4 +01.0	56 41.6 -00.4	N 06 57.9 +01.2	91 33.6 -28.7	S 01 36.6 -11.5	16								
17	74 30.0 +00.2	N 07 04.4 +00.9	71 41.2 -00.4	N 06 59.1 +01.3	106 04.9 -28.7	S 01 25.1 -11.4	17								
18	89 30.2 +00.1	N 07 05.3 +00.9	86 40.8 -00.4	N 07 00.4 +01.2	120 36.2 -28.7	S 01 13.7 -11.5	18								
19	104 30.3 +00.2	N 07 06.2 +01.0	101 40.4 -00.4	N 07 01.6 +01.2	135 07.5 -28.7	S 01 02.2 -11.5	19								
20	119 30.5 +00.2	N 07 07.2 +00.9	116 40.0 -00.4	N 07 02.8 +01.2	149 38.8 -28.6	S 00 50.7 -11.4	20								
21	134 30.7 +00.1	N 07 08.1 +00.9	131 39.6 -00.4	N 07 04.0 +01.2	164 10.2 -28.7	S 00 39.3 -11.5	21								
22	149 30.8 +00.2	N 07 09.0 +01.0	146 39.2 -00.4	N 07 05.2 +01.3	178 41.5 -28.6	S 00 27.8 -11.4	22								
23	164 31.0 +00.2	N 07 10.0 +00.9	161 38.8 -00.4	N 07 06.5 +01.2	193 12.9 -28.6	S 00 16.4 -11.5	23								
UT 02 06 10 14 18 22	SD 16'0 16'0 16'0 16'0 16'0 16'0	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 15'7 15'6 15'6 15'6 15'6 15'6										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:02	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:13	HP 57'5 57'4 57'4 57'3 57'2 57'1	Greenwich Culmination Time: 09:42										

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	176 57.2 +00.7	N 07 16.3 +00.7	123 56.9 +02.0	N 21 58.0 +00.0	337 12.1 +02.7	S 12 12.4 -00.1	00								
01	191 57.9 +00.7	N 07 17.0 +00.8	138 58.9 +02.0	N 21 58.0 +00.1	352 14.8 +02.6	S 12 12.3 +00.0	01								
02	206 58.6 +00.7	N 07 17.8 +00.7	154 00.9 +02.0	N 21 58.1 +00.1	7 17.4 +02.6	S 12 12.3 -00.1	02								
03	221 59.3 +00.7	N 07 18.5 +00.7	169 02.9 +02.0	N 21 58.2 +00.0	22 20.0 +02.6	S 12 12.2 +00.0	03								
04	236 60.0 +00.7	N 07 19.2 +00.8	184 04.9 +02.0	N 21 58.2 +00.1	37 22.6 +02.7	S 12 12.2 -00.1	04								
05	252 00.7 +00.7	N 07 20.0 +00.7	199 06.9 +02.0	N 21 58.3 +00.1	52 25.3 +02.6	S 12 12.1 +00.0	05								
06	267 01.4 +00.7	N 07 20.7 +00.8	214 08.9 +02.0	N 21 58.4 +00.0	67 27.9 +02.6	S 12 12.1 -00.1	06								
07	282 02.1 +00.7	N 07 21.5 +00.7	229 10.9 +02.0	N 21 58.4 +00.1	82 30.5 +02.7	S 12 12.0 +00.0	07								
08	297 02.8 +00.7	N 07 22.2 +00.7	244 12.9 +02.0	N 21 58.5 +00.0	97 33.2 +02.6	S 12 12.0 -00.1	08								
09	312 03.5 +00.7	N 07 22.9 +00.8	259 14.9 +02.0	N 21 58.5 +00.1	112 35.8 +02.6	S 12 11.9 -00.1	09								
10	327 04.2 +00.7	N 07 23.7 +00.7	274 16.9 +02.0	N 21 58.6 +00.1	127 38.4 +02.6	S 12 11.8 +00.0	10								
11	342 04.9 +00.7	N 07 24.4 +00.8	289 18.9 +02.0	N 21 58.7 +00.0	142 41.0 +02.7	S 12 11.8 -00.1	11								
12	357 05.6 +00.7	N 07 25.2 +00.7	304 20.9 +02.0	N 21 58.7 +00.1	157 43.7 +02.6	S 12 11.7 +00.0	12								
13	12 06.3 +00.7	N 07 25.9 +00.7	319 22.9 +02.0	N 21 58.8 +00.0	172 46.3 +02.6	S 12 11.7 -00.1	13								
14	27 07.0 +00.7	N 07 26.6 +00.8	334 24.9 +02.0	N 21 58.8 +00.1	187 48.9 +02.6	S 12 11.6 +00.0	14								
15	42 07.7 +00.7	N 07 27.4 +00.7	349 26.9 +02.0	N 21 58.9 +00.1	202 51.5 +02.7	S 12 11.6 -00.1	15								
16	57 08.4 +00.7	N 07 28.1 +00.7	4 28.9 +01.9	N 21 59.0 +00.0	217 54.2 +02.6	S 12 11.5 -00.1	16								
17	72 09.1 +00.7	N 07 28.8 +00.8	19 30.8 +02.0	N 21 59.0 +00.1	232 56.8 +02.6	S 12 11.4 +00.0	17								
18	87 09.8 +00.7	N 07 29.6 +00.7	34 32.8 +02.0	N 21 59.1 +00.1	247 59.4 +02.6	S 12 11.4 -00.1	18								
19	102 10.5 +00.7	N 07 30.3 +00.8	49 34.8 +02.0	N 21 59.2 +00.0	263 02.0 +02.7	S 12 11.3 +00.0	19								
20	117 11.2 +00.6	N 07 31.1 +00.7	64 36.8 +02.0	N 21 59.2 +00.1	278 04.7 +02.6	S 12 11.3 -00.1	20								
21	132 11.8 +00.7	N 07 31.8 +00.7	79 38.8 +02.0	N 21 59.3 +00.0	293 07.3 +02.6	S 12 11.2 +00.0	21								
22	147 12.5 +00.7	N 07 32.5 +00.8	94 40.8 +02.0	N 21 59.3 +00.1	308 09.9 +02.7	S 12 11.2 -00.1	22								
23	162 13.2 +00.7	N 07 33.3 +00.7	109 42.8 +02.0	N 21 59.4 +00.1	323 12.6 +02.6	S 12 11.1 -00.1	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:12	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 15:42	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 01:31										

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.94					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	179 31.2 +00.2	N 07 10.9 +00.9	176 38.4 -00.4	N 07 07.7 +01.2	207 44.3 -28.5	S 00 04.9 -11.4	00	01	02	03	04	05	06	07	08
01	194 31.4 +00.1	N 07 11.8 +01.0	191 38.0 -00.4	N 07 08.9 +01.2	222 15.8 -28.6	N 00 06.5 +11.4	01	02	03	04	05	06	07	08	09
02	209 31.5 +00.2	N 07 12.8 +00.9	206 37.6 -00.5	N 07 10.1 +01.2	236 47.2 -28.5	N 00 17.9 +11.4	02	03	04	05	06	07	08	09	10
03	224 31.7 +00.2	N 07 13.7 +00.9	221 37.1 -00.4	N 07 11.3 +01.2	251 18.7 -28.5	N 00 29.3 +11.4	03	04	05	06	07	08	09	10	11
04	239 31.9 +00.2	N 07 14.6 +01.0	236 36.7 -00.4	N 07 12.5 +01.2	265 50.2 -28.5	N 00 40.7 +11.4	04	05	06	07	08	09	10	11	12
05	254 32.1 +00.1	N 07 15.6 +00.9	251 36.3 -00.4	N 07 13.7 +01.3	280 21.7 -28.4	N 00 52.1 +11.4	05	06	07	08	09	10	11	12	13
06	269 32.2 +00.2	N 07 16.5 +01.0	266 35.9 -00.4	N 07 15.0 +01.2	294 53.3 -28.5	N 01 03.5 +11.4	06	07	08	09	10	11	12	13	14
07	284 32.4 +00.2	N 07 17.5 +00.9	281 35.5 -00.4	N 07 16.2 +01.2	309 24.8 -28.4	N 01 14.9 +11.4	07	08	09	10	11	12	13	14	15
08	299 32.6 +00.1	N 07 18.4 +00.9	296 35.1 -00.4	N 07 17.4 +01.2	323 56.4 -28.5	N 01 26.3 +11.3	08	09	10	11	12	13	14	15	16
09	314 32.7 +00.2	N 07 19.3 +01.0	311 34.7 -00.4	N 07 18.6 +01.2	338 27.9 -28.4	N 01 37.6 +11.3	09	10	11	12	13	14	15	16	17
10	329 32.9 +00.2	N 07 20.3 +00.9	326 34.3 -00.4	N 07 19.8 +01.2	352 59.5 -28.4	N 01 48.9 +11.3	10	11	12	13	14	15	16	17	18
11	344 33.1 +00.2	N 07 21.2 +00.9	341 33.9 -00.5	N 07 21.0 +01.2	7 31.1 -28.4	N 02 00.2 +11.3	11	12	13	14	15	16	17	18	19
12	359 33.3 +00.1	N 07 22.1 +01.0	356 33.4 -00.4	N 07 22.2 +01.3	22 02.7 -28.3	N 02 11.5 +11.3	12	13	14	15	16	17	18	19	20
13	14 33.4 +00.2	N 07 23.1 +00.9	11 33.0 -00.4	N 07 23.5 +01.2	36 34.4 -28.4	N 02 22.8 +11.3	13	14	15	16	17	18	19	20	21
14	29 33.6 +00.2	N 07 24.0 +00.9	26 32.6 -00.4	N 07 24.7 +01.2	51 06.0 -28.3	N 02 34.1 +11.2	14	15	16	17	18	19	20	21	22
15	44 33.8 +00.1	N 07 24.9 +00.9	41 32.2 -00.4	N 07 25.9 +01.2	65 37.7 -28.4	N 02 45.3 +11.2	15	16	17	18	19	20	21	22	23
16	59 33.9 +00.2	N 07 25.8 +01.0	56 31.8 -00.4	N 07 27.1 +01.2	80 09.3 -28.3	N 02 56.5 +11.2	16	17	18	19	20	21	22	23	
17	74 34.1 +00.2	N 07 26.8 +00.9	71 31.4 -00.4	N 07 28.3 +01.2	94 41.0 -28.3	N 03 07.7 +11.2	17	18	19	20	21	22	23		
18	89 34.3 +00.2	N 07 27.7 +00.9	86 31.0 -00.4	N 07 29.5 +01.2	109 12.7 -28.3	N 03 18.9 +11.1	18	19	20	21	22	23			
19	104 34.5 +00.1	N 07 28.6 +01.0	101 30.6 -00.5	N 07 30.7 +01.2	123 44.4 -28.3	N 03 30.0 +11.1	19	20	21	22	23				
20	119 34.6 +00.2	N 07 29.6 +00.9	116 30.1 -00.4	N 07 31.9 +01.3	138 16.1 -28.3	N 03 41.1 +11.1	20	21	22	23					
21	134 34.8 +00.2	N 07 30.5 +00.9	131 29.7 -00.4	N 07 33.2 +01.2	152 47.8 -28.3	N 03 52.2 +11.1	21	22	23						
22	149 35.0 +00.1	N 07 31.4 +01.0	146 29.3 -00.4	N 07 34.4 +01.2	167 19.5 -28.2	N 04 03.3 +11.0	22	23							
23	164 35.1 +00.2	N 07 32.4 +00.9	161 28.9 -00.4	N 07 35.6 +01.2	181 51.3 -28.3	N 04 14.3 +11.1	23								
UT 02 06 10 14 18 22	SD 16'0 16'0 16'0 16'0 16'0 16'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:02	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	Greenwich Culmination Time: 12:14	UT 02 06 10 14 18 22	SD 15'5 15'5 15'5 15'5 15'5 15'4	HP 57'0 57'0 56'9 56'8 56'7 56'6	Greenwich Culmination Time: 10:29				

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	177 13.9 +00.7	N 07 34.0 +00.7	124 44.8 +02.0	N 21 59.5 +00.0	338 15.2 +02.6	S 12 11.0 +00.0	00	01	02	03	04	05	06	07	08
01	192 14.6 +00.7	N 07 34.7 +00.8	139 46.8 +02.0	N 21 59.5 +00.1	353 17.8 +02.6	S 12 11.0 -00.1	01	02	03	04	05	06	07	08	09
02	207 15.3 +00.7	N 07 35.5 +00.7	154 48.8 +02.0	N 21 59.6 +00.1	8 20.4 +02.7	S 12 10.9 +00.0	02	03	04	05	06	07	08	09	10
03	222 16.0 +00.7	N 07 36.2 +00.8	169 50.8 +02.0	N 21 59.7 +00.0	23 23.1 +02.6	S 12 10.9 -00.1	03	04	05	06	07	08	09	10	11
04	237 16.7 +00.7	N 07 37.0 +00.7	184 52.8 +01.9	N 21 59.7 +00.1	38 25.7 +02.6	S 12 10.8 +00.0	04	05	06	07	08	09	10	11	12
05	252 17.4 +00.7	N 07 37.7 +00.7	199 54.7 +02.0	N 21 59.8 +00.0	53 28.3 +02.6	S 12 10.8 -00.1	05	06	07	08	09	10	11	12	13
06	267 18.1 +00.7	N 07 38.4 +00.8	214 56.7 +02.0	N 21 59.8 +00.1	68 30.9 +02.7	S 12 10.7 +00.0	06	07	08	09	10	11	12	13	14
07	282 18.8 +00.7	N 07 39.2 +00.7	229 58.7 +02.0	N 21 59.9 +00.1	83 33.6 +02.6	S 12 10.7 -00.1	07	08	09	10	11	12	13	14	15
08	297 19.5 +00.7	N 07 39.9 +00.7	245 00.7 +02.0	N 21 60.0 +00.0	98 36.2 +02.6	S 12 10.6 -00.1	08	09	10	11	12	13	14	15	16
09	312 20.2 +00.7	N 07 40.6 +00.8	260 02.7 +02.0	N 22 00.0 +00.1	113 38.8 +02.7	S 12 10.5 +00.0	09	10	11	12	13	14	15	16	17
10	327 20.9 +00.7	N 07 41.4 +00.7	275 04.7 +02.0	N 22 00.1 +00.0	128 41.5 +02.6	S 12 10.5 -00.1	10	11	12	13	14	15	16	17	18
11	342 21.6 +00.7	N 07 42.1 +00.7	290 06.7 +02.0	N 22 00.1 +00.1	143 44.1 +02.6	S 12 10.4 +00.0	11	12	13	14	15	16	17	18	19
12	357 22.3 +00.7	N 07 42.8 +00.8	305 08.7 +02.0	N 22 00.2 +00.1	158 46.7 +02.6	S 12 10.4 -00.1	12	13	14	15	16	17	18	19	20
13	12 23.0 +00.7	N 07 43.6 +00.7	320 10.7 +01.9	N 22 00.3 +00.0	173 49.3 +02.7	S 12 10.3 +00.0	13	14	15	16	17	18	19	20	21
14	27 23.7 +00.7	N 07 44.3 +00.8	335 12.6 +02.0	N 22 00.3 +00.1	188 52.0 +02.6	S 12 10.3 -00.1	14	15	16	17	18	19	20	21	22
15	42 24.4 +00.7	N 07 45.1 +00.7	350 14.6 +02.0	N 22 00.4 +00.1	203 54.6 +02.6	S 12 10.2 -00.1	15	16	17	18	19	20	21	22	23
16	57 25.1 +00.7	N 07 45.8 +00.7	5 16.6 +02.0	N 22 00.5 +00.0	218 57.2 +02.7	S 12 10.1 +00.0	16	17	18	19	20	21	22	23	
17	72 25.8 +00.7	N 07 46.5 +00.8	20 18.6 +02.0	N 22 00.5 +00.1	233 59.9 +02.6	S 12 10.1 -00.1	17	18	19	20	21	22	23		
18	87 26.5 +00.7	N 07 47.3 +00.7	35 20.6 +02.0	N 22 00.6 +00.0	249 02.5 +02.6	S 12 10.0 +00.0	18	19	20	21	22	23			
19	102 27.2 +00.7	N 07 48.0 +00.7	50 22.6 +02.0	N 22 00.6 +00.1	264 05.1 +02.6	S 12 10.0 -00.1	19	20	21	22	23				
20	117 27.9 +00.7	N 07 48.7 +00.8	65 24.6 +02.0	N 22 00.7 +00.1	279 07.7 +02.7	S 12 09.9 +00.0	20	21	22	23					
21	132 28.6 +00.7	N 07 49.5 +00.7	80 26.6 +02.0	N 22 00.8 +00.0	294 10.4 +02.6	S 12 09.9 -00.1	21	22	23						
22	147 29.3 +00.7	N 07 50.2 +00.7	95 28.6 +01.9	N 22 00.8 +00.1	309 13.0 +02.6	S 12 09.8 -00.1	22	23							
23	162 30.0 +00.7	N 07 50.9 +00.8	110 30.5 +02.0	N 22 00.9 +00.0	324 15.6 +02.7	S 12 09.7 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:11	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 15:39	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	Greenwich Culmination Time: 01:27				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.97					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	179 35.3 +00.2	N 07 33.3 +00.9	176 28.5 -00.4	N 07 36.8 +01.2	196 23.0 -28.3	N 04 25.4 +10.9	00								
01	194 35.5 +00.1	N 07 34.2 +01.0	191 28.1 -00.4	N 07 38.0 +01.2	210 54.7 -28.2	N 04 36.3 +11.0	01								
02	209 35.6 +00.2	N 07 35.2 +00.9	206 27.7 -00.5	N 07 39.2 +01.2	225 26.5 -28.3	N 04 47.3 +10.9	02								
03	224 35.8 +00.2	N 07 36.1 +00.9	221 27.2 -00.4	N 07 40.4 +01.2	239 58.2 -28.2	N 04 58.2 +10.9	03								
04	239 36.0 +00.2	N 07 37.0 +00.9	236 26.8 -00.4	N 07 41.6 +01.2	254 30.0 -28.2	N 05 09.1 +10.9	04								
05	254 36.2 +00.1	N 07 37.9 +01.0	251 26.4 -00.4	N 07 42.8 +01.2	269 01.8 -28.3	N 05 20.0 +10.8	05								
06	269 36.3 +00.2	N 07 38.9 +00.9	266 26.0 -00.4	N 07 44.0 +01.2	283 33.5 -28.2	N 05 30.8 +10.8	06								
07	284 36.5 +00.2	N 07 39.8 +00.9	281 25.6 -00.4	N 07 45.2 +01.2	298 05.3 -28.2	N 05 41.6 +10.8	07								
08	299 36.7 +00.1	N 07 40.7 +01.0	296 25.2 -00.4	N 07 46.4 +01.3	312 37.1 -28.3	N 05 52.4 +10.7	08								
09	314 36.8 +00.2	N 07 41.7 +00.9	311 24.8 -00.5	N 07 47.7 +01.2	327 08.8 -28.2	N 06 03.1 +10.7	09								
10	329 37.0 +00.2	N 07 42.6 +00.9	326 24.3 -00.4	N 07 48.9 +01.2	341 40.6 -28.2	N 06 13.8 +10.6	10								
11	344 37.2 +00.1	N 07 43.5 +00.9	341 23.9 -00.4	N 07 50.1 +01.2	356 12.4 -28.3	N 06 24.4 +10.6	11								
12	359 37.3 +00.2	N 07 44.4 +01.0	356 23.5 -00.4	N 07 51.3 +01.2	10 44.1 -28.2	N 06 35.0 +10.6	12								
13	14 37.5 +00.2	N 07 45.4 +00.9	11 23.1 -00.4	N 07 52.5 +01.2	25 15.9 -28.2	N 06 45.6 +10.5	13								
14	29 37.7 +00.1	N 07 46.3 +00.9	26 22.7 -00.5	N 07 53.7 +01.2	39 47.7 -28.2	N 06 56.1 +10.5	14								
15	44 37.8 +00.2	N 07 47.2 +01.0	41 22.2 -00.4	N 07 54.9 +01.2	54 19.5 -28.3	N 07 06.6 +10.5	15								
16	59 38.0 +00.2	N 07 48.2 +00.9	56 21.8 -00.4	N 07 56.1 +01.2	68 51.2 -28.2	N 07 17.1 +10.4	16								
17	74 38.2 +00.1	N 07 49.1 +00.9	71 21.4 -00.4	N 07 57.3 +01.2	83 23.0 -28.2	N 07 27.5 +10.3	17								
18	89 38.3 +00.2	N 07 50.0 +00.9	86 21.0 -00.4	N 07 58.5 +01.2	97 54.8 -28.3	N 07 37.8 +10.4	18								
19	104 38.5 +00.2	N 07 50.9 +01.0	101 20.6 -00.4	N 07 59.7 +01.2	112 26.5 -28.2	N 07 48.2 +10.2	19								
20	119 38.7 +00.2	N 07 51.9 +00.9	116 20.2 -00.5	N 08 00.9 +01.2	126 58.3 -28.3	N 07 58.4 +10.3	20								
21	134 38.9 +00.1	N 07 52.8 +00.9	131 19.7 -00.4	N 08 02.1 +01.2	141 30.0 -28.2	N 08 08.7 +10.2	21								
22	149 39.0 +00.2	N 07 53.7 +00.9	146 19.3 -00.4	N 08 03.3 +01.2	156 01.8 -28.3	N 08 18.9 +10.1	22								
23	164 39.2 +00.2	N 07 54.6 +01.0	161 18.9 -00.4	N 08 04.5 +01.2	170 33.5 -28.2	N 08 29.0 +10.1	23								
UT 02 06 10 14 18 22					UT 02 06 10 14 18 22					UT 02 06 10 14 18 22					
SD 16'0 16'0 16'0 16'0 16'0 16'0					SD 00'1 00'1 00'1 00'1 00'1 00'1					SD 15'4 15'4 15'4 15'3 15'3 15'3					
HP 00'1 00'1 00'1 00'1 00'1 00'1					HP 00'1 00'1 00'1 00'1 00'1 00'1					HP 56'5 56'5 56'4 56'3 56'2 56'1					
Greenwich Culmination Time: 12:02					Greenwich Culmination Time: 12:14					Greenwich Culmination Time: 11:16					

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	177 30.7 +00.7	N 07 51.7 +00.7	125 32.5 +02.0	N 22 00.9 +00.1	339 18.3 +02.6	S 12 09.7 -00.1	00								
01	192 31.4 +00.7	N 07 52.4 +00.7	140 34.5 +02.0	N 22 01.0 +00.1	354 20.9 +02.6	S 12 09.6 +00.0	01								
02	207 32.1 +00.6	N 07 53.1 +00.8	155 36.5 +02.0	N 22 01.1 +00.0	9 23.5 +02.6	S 12 09.6 -00.1	02								
03	222 32.7 +00.7	N 07 53.9 +00.7	170 38.5 +02.0	N 22 01.1 +00.1	24 26.1 +02.7	S 12 09.5 +00.0	03								
04	237 33.4 +00.7	N 07 54.6 +00.7	185 40.5 +02.0	N 22 01.2 +00.1	39 28.8 +02.6	S 12 09.5 -00.1	04								
05	252 34.1 +00.7	N 07 55.3 +00.8	200 42.5 +01.9	N 22 01.3 +00.0	54 31.4 +02.6	S 12 09.4 -00.1	05								
06	267 34.8 +00.7	N 07 56.1 +00.7	215 44.4 +02.0	N 22 01.3 +00.1	69 34.0 +02.7	S 12 09.3 +00.0	06								
07	282 35.5 +00.7	N 07 56.8 +00.7	230 46.4 +02.0	N 22 01.4 +00.0	84 36.7 +02.6	S 12 09.3 -00.1	07								
08	297 36.2 +00.7	N 07 57.5 +00.8	245 48.4 +02.0	N 22 01.4 +00.1	99 39.3 +02.6	S 12 09.2 +00.0	08								
09	312 36.9 +00.7	N 07 58.3 +00.7	260 50.4 +02.0	N 22 01.5 +00.1	114 41.9 +02.7	S 12 09.2 -00.1	09								
10	327 37.6 +00.7	N 07 59.0 +00.7	275 52.4 +02.0	N 22 01.6 +00.0	129 44.6 +02.6	S 12 09.1 +00.0	10								
11	342 38.3 +00.7	N 07 59.7 +00.8	290 54.4 +02.0	N 22 01.6 +00.1	144 47.2 +02.6	S 12 09.1 -00.1	11								
12	357 39.0 +00.7	N 08 00.5 +00.7	305 56.4 +01.9	N 22 01.7 +00.0	159 49.8 +02.6	S 12 09.0 -00.1	12								
13	12 39.7 +00.7	N 08 01.2 +00.7	320 58.3 +02.0	N 22 01.7 +00.1	174 52.4 +02.7	S 12 08.9 +00.0	13								
14	27 40.4 +00.7	N 08 01.9 +00.7	336 00.3 +02.0	N 22 01.8 +00.1	189 55.1 +02.6	S 12 08.9 -00.1	14								
15	42 41.1 +00.7	N 08 02.6 +00.8	351 02.3 +02.0	N 22 01.9 +00.0	204 57.7 +02.6	S 12 08.8 +00.0	15								
16	57 41.8 +00.7	N 08 03.4 +00.7	6 04.3 +02.0	N 22 01.9 +00.1	220 00.3 +02.7	S 12 08.8 -00.1	16								
17	72 42.5 +00.7	N 08 04.1 +00.7	21 06.3 +02.0	N 22 02.0 +00.1	235 03.0 +02.6	S 12 08.7 +00.0	17								
18	87 43.2 +00.7	N 08 04.8 +00.8	36 08.3 +01.9	N 22 02.1 +00.0	250 05.6 +02.6	S 12 08.7 -00.1	18								
19	102 43.9 +00.7	N 08 05.6 +00.7	51 10.2 +02.0	N 22 02.1 +00.1	265 08.2 +02.7	S 12 08.6 -00.1	19								
20	117 44.6 +00.7	N 08 06.3 +00.7	66 12.2 +02.0	N 22 02.2 +00.0	280 10.9 +02.6	S 12 08.5 +00.0	20								
21	132 45.3 +00.7	N 08 07.0 +00.8	81 14.2 +02.0	N 22 02.2 +00.1	295 13.5 +02.6	S 12 08.5 -00.1	21								
22	147 46.0 +00.7	N 08 07.8 +00.7	96 16.2 +02.0	N 22 02.3 +00.1	310 16.1 +02.7	S 12 08.4 +00.0	22								
23	162 46.7 +00.7	N 08 08.5 +00.7	111 18.2 +02.0	N 22 02.4 +00.0	325 18.8 +02.6	S 12 08.4 -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 00'0 00'0 00'0 00'0 00'0 00'0					SD 00'3 00'3 00'3 00'3 00'3 00'3					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 00'0 00'0 00'0 00'0 00'0 00'0					HP 00'0 00'0 00'0 00'0 00'0 00'0					
Greenwich Culmination Time: 12:09					Greenwich Culmination Time: 15:36					Greenwich Culmination Time: 01:23					

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.00					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	179 39.4 +00.1	N 07 55.6 +00.9	176 18.5 -00.4	N 08 05.7 +01.2	185 05.3 -28.3	N 08 39.1 +10.0	00								
01	194 39.5 +00.2	N 07 56.5 +00.9	191 18.1 -00.5	N 08 06.9 +01.2	199 37.0 -28.2	N 08 49.1 +10.0	01								
02	209 39.7 +00.2	N 07 57.4 +00.9	206 17.6 -00.4	N 08 08.1 +01.2	214 08.8 -28.3	N 08 59.1 +10.0	02								
03	224 39.9 +00.1	N 07 58.3 +01.0	221 17.2 -00.4	N 08 09.3 +01.2	228 40.5 -28.3	N 09 09.1 +09.9	03								
04	239 40.0 +00.2	N 07 59.3 +00.9	236 16.8 -00.4	N 08 10.5 +01.2	243 12.2 -28.3	N 09 19.0 +09.8	04								
05	254 40.2 +00.2	N 08 00.2 +00.9	251 16.4 -00.4	N 08 11.7 +01.2	257 43.9 -28.3	N 09 28.8 +09.8	05								
06	269 40.4 +00.1	N 08 01.1 +00.9	266 16.0 -00.5	N 08 12.9 +01.2	272 15.6 -28.3	N 09 38.6 +09.7	06								
07	284 40.5 +00.2	N 08 02.0 +01.0	281 15.5 -00.4	N 08 14.1 +01.2	286 47.3 -28.3	N 09 48.3 +09.7	07								
08	299 40.7 +00.2	N 08 03.0 +00.9	296 15.1 -00.4	N 08 15.3 +01.2	301 19.0 -28.3	N 09 58.0 +09.6	08								
09	314 40.9 +00.1	N 08 03.9 +00.9	311 14.7 -00.4	N 08 16.5 +01.2	315 50.7 -28.3	N 10 07.6 +09.6	09								
10	329 41.0 +00.2	N 08 04.8 +00.9	326 14.3 -00.5	N 08 17.7 +01.2	330 22.4 -28.3	N 10 17.2 +09.5	10								
11	344 41.2 +00.2	N 08 05.7 +00.9	341 13.8 -00.4	N 08 18.9 +01.2	344 54.1 -28.4	N 10 26.7 +09.5	11								
12	359 41.4 +00.1	N 08 06.6 +01.0	356 13.4 -00.4	N 08 20.1 +01.2	359 25.7 -28.3	N 10 36.2 +09.4	12								
13	14 41.5 +00.2	N 08 07.6 +00.9	11 13.0 -00.4	N 08 21.3 +01.2	13 57.4 -28.4	N 10 45.6 +09.3	13								
14	29 41.7 +00.2	N 08 08.5 +00.9	26 12.6 -00.5	N 08 22.5 +01.2	28 29.0 -28.3	N 10 54.9 +09.3	14								
15	44 41.9 +00.1	N 08 09.4 +00.9	41 12.1 -00.4	N 08 23.7 +01.2	43 00.7 -28.4	N 11 04.2 +09.2	15								
16	59 42.0 +00.2	N 08 10.3 +00.9	56 11.7 -00.4	N 08 24.9 +01.2	57 32.3 -28.4	N 11 13.4 +09.2	16								
17	74 42.2 +00.1	N 08 11.2 +01.0	71 11.3 -00.4	N 08 26.1 +01.2	72 03.9 -28.4	N 11 22.6 +09.1	17								
18	89 42.3 +00.2	N 08 12.2 +00.9	86 10.9 -00.5	N 08 27.3 +01.2	86 35.5 -28.4	N 11 31.7 +09.1	18								
19	104 42.5 +00.2	N 08 13.1 +00.9	101 10.4 -00.4	N 08 28.5 +01.2	101 07.1 -28.4	N 11 40.8 +09.0	19								
20	119 42.7 +00.1	N 08 14.0 +00.9	116 10.0 -00.4	N 08 29.7 +01.2	115 38.7 -28.4	N 11 49.8 +08.9	20								
21	134 42.8 +00.2	N 08 14.9 +00.9	131 09.6 -00.4	N 08 30.9 +01.2	130 10.3 -28.5	N 11 58.7 +08.8	21								
22	149 43.0 +00.2	N 08 15.8 +01.0	146 09.2 -00.5	N 08 32.1 +01.2	144 41.8 -28.4	N 12 07.5 +08.8	22								
23	164 43.2 +00.1	N 08 16.8 +00.9	161 08.7 -00.4	N 08 33.3 +01.2	159 13.4 -28.5	N 12 16.3 +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 15'3 15'2 15'2 15'2 15'2 15'2					
HP 00'1 00'1 00'1 00'1 00'1 00'1					HP 00'1 00'1 00'1 00'1 00'1 00'1					HP 56'0 56'0 55'9 55'8 55'7 55'6					
Greenwich Culmination Time: 12:01					Greenwich Culmination Time: 12:15					Greenwich Culmination Time: 12:02					

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	177 47.4 +00.7	N 08 09.2 +00.7	126 20.2 +01.9	N 22 02.4 +00.1	340 21.4 +02.6	S 12 08.3 -00.1	00								
01	192 48.1 +00.6	N 08 09.9 +00.8	141 22.1 +02.0	N 22 02.5 +00.0	355 24.0 +02.7	S 12 08.2 +00.0	01								
02	207 48.7 +00.7	N 08 10.7 +00.7	156 24.1 +02.0	N 22 02.5 +00.1	10 26.7 +02.6	S 12 08.2 -00.1	02								
03	222 49.4 +00.7	N 08 11.4 +00.7	171 26.1 +02.0	N 22 02.6 +00.1	25 29.3 +02.6	S 12 08.1 +00.0	03								
04	237 50.1 +00.7	N 08 12.1 +00.8	186 28.1 +02.0	N 22 02.7 +00.0	40 31.9 +02.6	S 12 08.1 -00.1	04								
05	252 50.8 +00.7	N 08 12.9 +00.7	201 30.1 +01.9	N 22 02.7 +00.1	55 34.5 +02.7	S 12 08.0 +00.0	05								
06	267 51.5 +00.7	N 08 13.6 +00.7	216 32.0 +02.0	N 22 02.8 +00.1	70 37.2 +02.6	S 12 08.0 -00.1	06								
07	282 52.2 +00.7	N 08 14.3 +00.7	231 34.0 +02.0	N 22 02.9 +00.0	85 39.8 +02.6	S 12 07.9 -00.1	07								
08	297 52.9 +00.7	N 08 15.0 +00.8	246 36.0 +02.0	N 22 02.9 +00.1	100 42.4 +02.7	S 12 07.8 +00.0	08								
09	312 53.6 +00.7	N 08 15.8 +00.7	261 38.0 +02.0	N 22 03.0 +00.0	115 45.1 +02.6	S 12 07.8 -00.1	09								
10	327 54.3 +00.7	N 08 16.5 +00.7	276 40.0 +02.0	N 22 03.0 +00.1	130 47.7 +02.6	S 12 07.7 +00.0	10								
11	342 55.0 +00.7	N 08 17.2 +00.8	291 42.0 +01.9	N 22 03.1 +00.1	145 50.3 +02.7	S 12 07.7 -00.1	11								
12	357 55.7 +00.7	N 08 18.0 +00.7	306 43.9 +02.0	N 22 03.2 +00.0	160 53.0 +02.6	S 12 07.6 +00.0	12								
13	12 56.4 +00.7	N 08 18.7 +00.7	321 45.9 +02.0	N 22 03.2 +00.1	175 55.6 +02.6	S 12 07.6 -00.1	13								
14	27 57.1 +00.7	N 08 19.4 +00.7	336 47.9 +02.0	N 22 03.3 +00.0	190 58.2 +02.7	S 12 07.5 -00.1	14								
15	42 57.8 +00.7	N 08 20.1 +00.8	351 49.9 +02.0	N 22 03.3 +00.1	206 00.9 +02.6	S 12 07.4 +00.0	15								
16	57 58.5 +00.7	N 08 20.9 +00.7	6 51.9 +01.9	N 22 03.4 +00.1	221 03.5 +02.6	S 12 07.4 -00.1	16								
17	72 59.2 +00.7	N 08 21.6 +00.7	21 53.8 +02.0	N 22 03.5 +00.0	236 06.1 +02.7	S 12 07.3 +00.0	17								
18	87 59.9 +00.7	N 08 22.3 +00.8	36 55.8 +02.0	N 22 03.5 +00.1	251 08.8 +02.6	S 12 07.3 -00.1	18								
19	103 00.6 +00.7	N 08 23.1 +00.7	51 57.8 +02.0	N 22 03.6 +00.0	266 11.4 +02.6	S 12 07.2 +00.0	19								
20	118 01.3 +00.7	N 08 23.8 +00.7	66 59.8 +01.9	N 22 03.6 +00.1	281 14.0 +02.7	S 12 07.2 -00.1	20								
21	133 02.0 +00.6	N 08 24.5 +00.7	82 01.7 +02.0	N 22 03.7 +00.1	296 16.7 +02.6	S 12 07.1 -00.1	21								
22	148 02.6 +00.7	N 08 25.2 +00.8	97 03.7 +02.0	N 22 03.8 +00.0	311 19.3 +02.6	S 12 07.0 +00.0	22								
23	163 03.3 +00.7	N 08 26.0 +00.7	112 05.7 +02.0	N 22 03.8 +00.1	326 21.9 +02.7	S 12 07.0 -00.1	23								
UT 02 06 10 14 18 22					UT 02 06 10 14 18 22					UT 02 06 10 14 18 22					
SD 00'0 00'0 00'0 00'0 00'0 00'0					SD 00'3 00'3 00'3 00'3 00'3 00'3					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 00'0 00'0 00'0 00'0 00'0 00'0					HP 00'0 00'0 00'0 00'0 00'0 00'0					
Greenwich Culmination Time: 12:08					Greenwich Culmination Time: 15:33					Greenwich Culmination Time: 01:18					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> <i>a</i> = 0.03				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	179 43.3 +00.2	N 08	17.7 +00.9		176 08.3 -00.4	N 08	34.5 +01.2		173 44.9 -28.4	N 12	25.1 +08.6		00
01	194 43.5 +00.2	N 08	18.6 +00.9		191 07.9 -00.4	N 08	35.7 +01.2		188 16.5 -28.5	N 12	33.7 +08.6		01
02	209 43.7 +00.1	N 08	19.5 +00.9		206 07.5 -00.5	N 08	36.9 +01.2		202 48.0 -28.5	N 12	42.3 +08.6		02
03	224 43.8 +00.2	N 08	20.4 +01.0		221 07.0 -00.4	N 08	38.1 +01.2		217 19.5 -28.5	N 12	50.9 +08.4		03
04	239 44.0 +00.2	N 08	21.4 +00.9		236 06.6 -00.4	N 08	39.3 +01.1		231 51.0 -28.5	N 12	59.3 +08.4		04
05	254 44.2 +00.1	N 08	22.3 +00.9		251 06.2 -00.4	N 08	40.4 +01.2		246 22.5 -28.6	N 13	07.7 +08.4		05
06	269 44.3 +00.2	N 08	23.2 +00.9		266 05.8 -00.5	N 08	41.6 +01.2		260 53.9 -28.5	N 13	16.1 +08.2		06
07	284 44.5 +00.1	N 08	24.1 +00.9		281 05.3 -00.4	N 08	42.8 +01.2		275 25.4 -28.6	N 13	24.3 +08.2		07
08	299 44.6 +00.2	N 08	25.0 +01.0		296 04.9 -00.4	N 08	44.0 +01.2		289 56.8 -28.5	N 13	32.5 +08.1		08
09	314 44.8 +00.2	N 08	26.0 +00.9		311 04.5 -00.5	N 08	45.2 +01.2		304 28.3 -28.6	N 13	40.6 +08.1		09
10	329 45.0 +00.1	N 08	26.9 +00.9		326 04.0 -00.4	N 08	46.4 +01.2		318 59.7 -28.6	N 13	48.7 +08.0		10
11	344 45.1 +00.2	N 08	27.8 +00.9		341 03.6 -00.4	N 08	47.6 +01.2		333 31.1 -28.6	N 13	56.7 +07.9		11
12	359 45.3 +00.2	N 08	28.7 +00.9		356 03.2 -00.4	N 08	48.8 +01.2		348 02.5 -28.6	N 14	04.6 +07.8		12
13	14 45.5 +00.1	N 08	29.6 +00.9		11 02.8 -00.5	N 08	50.0 +01.2		2 33.9 -28.7	N 14	12.4 +07.8		13
14	29 45.6 +00.2	N 08	30.5 +00.9		26 02.3 -00.4	N 08	51.2 +01.2		17 05.2 -28.6	N 14	20.2 +07.7		14
15	44 45.8 +00.1	N 08	31.4 +01.0		41 01.9 -00.4	N 08	52.4 +01.1		31 36.6 -28.7	N 14	27.9 +07.6		15
16	59 45.9 +00.2	N 08	32.4 +00.9		56 01.5 -00.5	N 08	53.5 +01.2		46 07.9 -28.6	N 14	35.5 +07.5		16
17	74 46.1 +00.2	N 08	33.3 +00.9		71 01.0 -00.4	N 08	54.7 +01.2		60 39.3 -28.7	N 14	43.0 +07.5		17
18	89 46.3 +00.1	N 08	34.2 +00.9		86 00.6 -00.4	N 08	55.9 +01.2		75 10.6 -28.7	N 14	50.5 +07.4		18
19	104 46.4 +00.2	N 08	35.1 +00.9		101 00.2 -00.5	N 08	57.1 +01.2		89 41.9 -28.7	N 14	57.9 +07.3		19
20	119 46.6 +00.2	N 08	36.0 +00.9		115 59.7 -00.4	N 08	58.3 +01.2		104 13.2 -28.7	N 15	05.2 +07.2		20
21	134 46.8 +00.1	N 08	36.9 +01.0		130 59.3 -00.4	N 08	59.5 +01.2		118 44.5 -28.8	N 15	12.4 +07.2		21
22	149 46.9 +00.2	N 08	37.9 +00.9		145 58.9 -00.5	N 09	00.7 +01.2		133 15.7 -28.7	N 15	19.6 +07.1		22
23	164 47.1 +00.1	N 08	38.8 +00.9		160 58.4 -00.4	N 09	01.9 +01.1		147 47.0 -28.8	N 15	26.7 +07.0		23
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 15'1 15'1 15'1 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 55'5 55'5 55'4 55'3 55'2 55'2			
	Greenwich Culmination Time: 12:01					Greenwich Culmination Time: 12:16				Greenwich Culmination Time: 12:49			

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	178 04.0 +00.7	N 08	26.7 +00.7		127 07.7 +02.0	N 22	03.9 +00.1		341 24.6 +02.6	S 12	06.9 +00.0		00
01	193 04.7 +00.7	N 08	27.4 +00.7		142 09.7 +01.9	N 22	04.0 +00.0		356 27.2 +02.6	S 12	06.9 -00.1		01
02	208 05.4 +00.7	N 08	28.1 +00.8		157 11.6 +02.0	N 22	04.0 +00.1		11 29.8 +02.7	S 12	06.8 -00.1		02
03	223 06.1 +00.7	N 08	28.9 +00.7		172 13.6 +02.0	N 22	04.1 +00.0		26 32.5 +02.6	S 12	06.7 +00.0		03
04	238 06.8 +00.7	N 08	29.6 +00.7		187 15.6 +02.0	N 22	04.1 +00.1		41 35.1 +02.6	S 12	06.7 -00.1		04
05	253 07.5 +00.7	N 08	30.3 +00.7		202 17.6 +01.9	N 22	04.2 +00.1		56 37.7 +02.7	S 12	06.6 +00.0		05
06	268 08.2 +00.7	N 08	31.0 +00.8		217 19.5 +02.0	N 22	04.3 +00.0		71 40.4 +02.6	S 12	06.6 -00.1		06
07	283 08.9 +00.7	N 08	31.8 +00.7		232 21.5 +02.0	N 22	04.3 +00.1		86 43.0 +02.6	S 12	06.5 +00.0		07
08	298 09.6 +00.7	N 08	32.5 +00.7		247 23.5 +02.0	N 22	04.4 +00.0		101 45.6 +02.7	S 12	06.5 -00.1		08
09	313 10.3 +00.7	N 08	33.2 +00.7		262 25.5 +02.0	N 22	04.4 +00.1		116 48.3 +02.6	S 12	06.4 -00.1		09
10	328 11.0 +00.7	N 08	33.9 +00.8		277 27.5 +01.9	N 22	04.5 +00.1		131 50.9 +02.6	S 12	06.3 +00.0		10
11	343 11.7 +00.7	N 08	34.7 +00.7		292 29.4 +02.0	N 22	04.6 +00.0		146 53.5 +02.7	S 12	06.3 -00.1		11
12	358 12.4 +00.7	N 08	35.4 +00.7		307 31.4 +02.0	N 22	04.6 +00.1		161 56.2 +02.6	S 12	06.2 +00.0		12
13	13 13.1 +00.7	N 08	36.1 +00.7		322 33.4 +02.0	N 22	04.7 +00.1		176 58.8 +02.6	S 12	06.2 -00.1		13
14	28 13.8 +00.7	N 08	36.8 +00.7		337 35.4 +01.9	N 22	04.8 +00.0		192 01.4 +02.7	S 12	06.1 -00.1		14
15	43 14.5 +00.6	N 08	37.5 +00.8		352 37.3 +02.0	N 22	04.8 +00.1		207 04.1 +02.6	S 12	06.0 +00.0		15
16	58 15.1 +00.7	N 08	38.3 +00.7		7 39.3 +02.0	N 22	04.9 +00.0		222 06.7 +02.6	S 12	06.0 -00.1		16
17	73 15.8 +00.7	N 08	39.0 +00.7		22 41.3 +02.0	N 22	04.9 +00.1		237 09.3 +02.7	S 12	05.9 +00.0		17
18	88 16.5 +00.7	N 08	39.7 +00.7		37 43.3 +01.9	N 22	05.0 +00.1		252 12.0 +02.6	S 12	05.9 -00.1		18
19	103 17.2 +00.7	N 08	40.4 +00.8		52 45.2 +02.0	N 22	05.1 +00.0		267 14.6 +02.6	S 12	05.8 +00.0		19
20	118 17.9 +00.7	N 08	41.2 +00.7		67 47.2 +02.0	N 22	05.1 +00.1		282 17.2 +02.7	S 12	05.8 -00.1		20
21	133 18.6 +00.7	N 08	41.9 +00.7		82 49.2 +02.0	N 22	05.2 +00.0		297 19.9 +02.6	S 12	05.7 -00.1		21
22	148 19.3 +00.7	N 08	42.6 +00.7		97 51.2 +01.9	N 22	05.2 +00.1		312 22.5 +02.6	S 12	05.6 +00.0		22
23	163 20.0 +00.7	N 08	43.3 +00.7		112 53.1 +02.0	N 22	05.3 +00.1		327 25.1 +02.7	S 12	05.6 -00.1		23
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0					SD 00'3 00'3 00'3 00'3 00'3 00'3				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 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0			
	Greenwich Culmination Time: 12:07					Greenwich Culmination Time: 15:29				Greenwich Culmination Time: 01:14			

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.06					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	179 47.2 +00.2	N 08 39.7 +00.9	175 58.0 -00.4	N 09 03.0 +01.2	162 18.2 -28.8	N 15 33.7 +06.9	00								
01	194 47.4 +00.2	N 08 40.6 +00.9	190 57.6 -00.5	N 09 04.2 +01.2	176 49.4 -28.8	N 15 40.6 +06.9	01								
02	209 47.6 +00.1	N 08 41.5 +00.9	205 57.1 -00.4	N 09 05.4 +01.2	191 20.6 -28.8	N 15 47.5 +06.7	02								
03	224 47.7 +00.2	N 08 42.4 +00.9	220 56.7 -00.4	N 09 06.6 +01.2	205 51.8 -28.8	N 15 54.2 +06.7	03								
04	239 47.9 +00.1	N 08 43.3 +00.9	235 56.3 -00.5	N 09 07.8 +01.2	220 23.0 -28.8	N 16 00.9 +06.6	04								
05	254 48.0 +00.2	N 08 44.2 +01.0	250 55.8 -00.4	N 09 09.0 +01.2	234 54.2 -28.8	N 16 07.5 +06.6	05								
06	269 48.2 +00.2	N 08 45.2 +00.9	265 55.4 -00.4	N 09 10.2 +01.1	249 25.4 -28.9	N 16 14.1 +06.4	06								
07	284 48.4 +00.1	N 08 46.1 +00.9	280 55.0 -00.5	N 09 11.3 +01.2	263 56.5 -28.9	N 16 20.5 +06.4	07								
08	299 48.5 +00.2	N 08 47.0 +00.9	295 54.5 -00.4	N 09 12.5 +01.2	278 27.6 -28.8	N 16 26.9 +06.3	08								
09	314 48.7 +00.1	N 08 47.9 +00.9	310 54.1 -00.4	N 09 13.7 +01.2	292 58.8 -28.9	N 16 33.2 +06.2	09								
10	329 48.8 +00.2	N 08 48.8 +00.9	325 53.7 -00.5	N 09 14.9 +01.2	307 29.9 -28.9	N 16 39.4 +06.1	10								
11	344 49.0 +00.2	N 08 49.7 +00.9	340 53.2 -00.4	N 09 16.1 +01.2	322 01.0 -28.9	N 16 45.5 +06.0	11								
12	359 49.2 +00.1	N 08 50.6 +00.9	355 52.8 -00.4	N 09 17.3 +01.1	336 32.1 -29.0	N 16 51.5 +06.0	12								
13	14 49.3 +00.2	N 08 51.5 +00.9	10 52.4 -00.5	N 09 18.4 +01.2	351 03.1 -28.9	N 16 57.5 +05.8	13								
14	29 49.5 +00.1	N 08 52.4 +00.9	25 51.9 -00.4	N 09 19.6 +01.2	5 34.2 -28.9	N 17 03.3 +05.8	14								
15	44 49.6 +00.2	N 08 53.3 +01.0	40 51.5 -00.5	N 09 20.8 +01.2	20 05.3 -29.0	N 17 09.1 +05.7	15								
16	59 49.8 +00.2	N 08 54.3 +00.9	55 51.0 -00.4	N 09 22.0 +01.2	34 36.3 -29.0	N 17 14.8 +05.6	16								
17	74 50.0 +00.1	N 08 55.2 +00.9	70 50.6 -00.4	N 09 23.2 +01.1	49 07.3 -29.0	N 17 20.4 +05.6	17								
18	89 50.1 +00.2	N 08 56.1 +00.9	85 50.2 -00.5	N 09 24.3 +01.2	63 38.3 -29.0	N 17 26.0 +05.4	18								
19	104 50.3 +00.1	N 08 57.0 +00.9	100 49.7 -00.4	N 09 25.5 +01.2	78 09.3 -29.0	N 17 31.4 +05.4	19								
20	119 50.4 +00.2	N 08 57.9 +00.9	115 49.3 -00.4	N 09 26.7 +01.2	92 40.3 -29.0	N 17 36.8 +05.2	20								
21	134 50.6 +00.2	N 08 58.8 +00.9	130 48.9 -00.5	N 09 27.9 +01.1	107 11.3 -29.0	N 17 42.0 +05.2	21								
22	149 50.8 +00.1	N 08 59.7 +00.9	145 48.4 -00.4	N 09 29.0 +01.2	121 42.3 -29.0	N 17 47.2 +05.1	22								
23	164 50.9 +00.2	N 09 00.6 +00.9	160 48.0 -00.5	N 09 30.2 +01.2	136 13.3 -29.1	N 17 52.3 +05.0	23								
UT 02 06 10 14 18 22					UT 02 06 10 14 18 22					UT 02 06 10 14 18 22					
SD 16'0 16'0 16'0 16'0 16'0 16'0					SD 00'1 00'1 00'1 00'1 00'1 00'1					SD 15'0 15'0 15'0 15'0 14'9 14'9					
HP 00'1 00'1 00'1 00'1 00'1 00'1					HP 00'1 00'1 00'1 00'1 00'1 00'1					HP 55'1 55'0 54'9 54'9 54'8 54'7					
Greenwich Culmination Time: 12:01					Greenwich Culmination Time: 12:16					Greenwich Culmination Time: 13:37					

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	178 20.7 +00.7	N 08 44.0 +00.8	127 55.1 +02.0	N 22 05.4 +00.0	342 27.8 +02.6	S 12 05.5 +00.0	00								
01	193 21.4 +00.7	N 08 44.8 +00.7	142 57.1 +02.0	N 22 05.4 +00.1	357 30.4 +02.6	S 12 05.5 -00.1	01								
02	208 22.1 +00.7	N 08 45.5 +00.7	157 59.1 +01.9	N 22 05.5 +00.0	12 33.0 +02.7	S 12 05.4 -00.1	02								
03	223 22.8 +00.7	N 08 46.2 +00.7	173 01.0 +02.0	N 22 05.5 +00.1	27 35.7 +02.6	S 12 05.3 +00.0	03								
04	238 23.5 +00.7	N 08 46.9 +00.8	188 03.0 +02.0	N 22 05.6 +00.1	42 38.3 +02.6	S 12 05.3 -00.1	04								
05	253 24.2 +00.7	N 08 47.7 +00.7	203 05.0 +01.9	N 22 05.7 +00.0	57 40.9 +02.7	S 12 05.2 +00.0	05								
06	268 24.9 +00.7	N 08 48.4 +00.7	218 06.9 +02.0	N 22 05.7 +00.1	72 43.6 +02.6	S 12 05.2 -00.1	06								
07	283 25.6 +00.6	N 08 49.1 +00.7	233 08.9 +02.0	N 22 05.8 +00.1	87 46.2 +02.6	S 12 05.1 +00.0	07								
08	298 26.2 +00.7	N 08 49.8 +00.7	248 10.9 +02.0	N 22 05.9 +00.0	102 48.8 +02.7	S 12 05.1 -00.1	08								
09	313 26.9 +00.7	N 08 50.5 +00.8	263 12.9 +01.9	N 22 05.9 +00.1	117 51.5 +02.6	S 12 05.0 -00.1	09								
10	328 27.6 +00.7	N 08 51.3 +00.7	278 14.8 +02.0	N 22 06.0 +00.0	132 54.1 +02.7	S 12 04.9 +00.0	10								
11	343 28.3 +00.7	N 08 52.0 +00.7	293 16.8 +02.0	N 22 06.0 +00.1	147 56.8 +02.6	S 12 04.9 -00.1	11								
12	358 29.0 +00.7	N 08 52.7 +00.7	308 18.8 +02.0	N 22 06.1 +00.1	162 59.4 +02.6	S 12 04.8 +00.0	12								
13	13 29.7 +00.7	N 08 53.4 +00.7	323 20.8 +01.9	N 22 06.2 +00.0	178 02.0 +02.7	S 12 04.8 -00.1	13								
14	28 30.4 +00.7	N 08 54.1 +00.8	338 22.7 +02.0	N 22 06.2 +00.1	193 04.7 +02.6	S 12 04.7 -00.1	14								
15	43 31.1 +00.7	N 08 54.9 +00.7	353 24.7 +02.0	N 22 06.3 +00.0	208 07.3 +02.6	S 12 04.6 +00.0	15								
16	58 31.8 +00.7	N 08 55.6 +00.7	8 26.7 +01.9	N 22 06.3 +00.1	223 09.9 +02.7	S 12 04.6 -00.1	16								
17	73 32.5 +00.7	N 08 56.3 +00.7	23 28.6 +02.0	N 22 06.4 +00.1	238 12.6 +02.6	S 12 04.5 +00.0	17								
18	88 33.2 +00.7	N 08 57.0 +00.7	38 30.6 +02.0	N 22 06.5 +00.0	253 15.2 +02.6	S 12 04.5 -00.1	18								
19	103 33.9 +00.7	N 08 57.7 +00.7	53 32.6 +01.9	N 22 06.5 +00.1	268 17.8 +02.7	S 12 04.4 +00.0	19								
20	118 34.6 +00.7	N 08 58.4 +00.8	68 34.5 +02.0	N 22 06.6 +00.0	283 20.5 +02.6	S 12 04.4 -00.1	20								
21	133 35.3 +00.6	N 08 59.2 +00.7	83 36.5 +02.0	N 22 06.6 +00.1	298 23.1 +02.6	S 12 04.3 -00.1	21								
22	148 35.9 +00.7	N 08 59.9 +00.7	98 38.5 +02.0	N 22 06.7 +00.1	313 25.7 +02.7	S 12 04.2 +00.0	22								
23	163 36.6 +00.7	N 09 00.6 +00.7	113 40.5 +01.9	N 22 06.8 +00.0	328 28.4 +02.6	S 12 04.2 -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 00'0 00'0 00'0 00'0 00'0 00'0					SD 00'3 00'3 00'3 00'3 00'3 00'3					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 00'0 00'0 00'0 00'0 00'0 00'0					HP 00'0 00'0 00'0 00'0 00'0 00'0					
Greenwich Culmination Time: 12:06					Greenwich Culmination Time: 15:26					Greenwich Culmination Time: 01:10					

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> $a = 0.09$					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	179 51.1 +00.1	N 09 01.5 +00.9	175 47.5 -00.4	N 09 31.4 +01.2	150 44.2 -29.0	N 17 57.3 +04.9	00								
01	194 51.2 +00.2	N 09 02.4 +00.9	190 47.1 -00.4	N 09 32.6 +01.2	165 15.2 -29.1	N 18 02.2 +04.9	01								
02	209 51.4 +00.2	N 09 03.3 +00.9	205 46.7 -00.5	N 09 33.8 +01.1	179 46.1 -29.1	N 18 07.1 +04.7	02								
03	224 51.6 +00.1	N 09 04.2 +00.9	220 46.2 -00.4	N 09 34.9 +01.2	194 17.0 -29.1	N 18 11.8 +04.6	03								
04	239 51.7 +00.2	N 09 05.1 +01.0	235 45.8 -00.5	N 09 36.1 +01.2	208 47.9 -29.0	N 18 16.4 +04.6	04								
05	254 51.9 +00.1	N 09 06.1 +00.9	250 45.3 -00.4	N 09 37.3 +01.2	223 18.9 -29.1	N 18 21.0 +04.5	05								
06	269 52.0 +00.2	N 09 07.0 +00.9	265 44.9 -00.4	N 09 38.5 +01.1	237 49.8 -29.2	N 18 25.5 +04.4	06								
07	284 52.2 +00.1	N 09 07.9 +00.9	280 44.5 -00.5	N 09 39.6 +01.2	252 20.6 -29.1	N 18 29.9 +04.3	07								
08	299 52.3 +00.2	N 09 08.8 +00.9	295 44.0 -00.4	N 09 40.8 +01.2	266 51.5 -29.1	N 18 34.2 +04.2	08								
09	314 52.5 +00.2	N 09 09.7 +00.9	310 43.6 -00.5	N 09 42.0 +01.2	281 22.4 -29.1	N 18 38.4 +04.1	09								
10	329 52.7 +00.1	N 09 10.6 +00.9	325 43.1 -00.4	N 09 43.2 +01.1	295 53.3 -29.2	N 18 42.5 +04.0	10								
11	344 52.8 +00.2	N 09 11.5 +00.9	340 42.7 -00.5	N 09 44.3 +01.2	310 24.1 -29.1	N 18 46.5 +03.9	11								
12	359 53.0 +00.1	N 09 12.4 +00.9	355 42.2 -00.4	N 09 45.5 +01.2	324 55.0 -29.1	N 18 50.4 +03.9	12								
13	14 53.1 +00.2	N 09 13.3 +00.9	10 41.8 -00.4	N 09 46.7 +01.1	339 25.9 -29.2	N 18 54.3 +03.7	13								
14	29 53.3 +00.1	N 09 14.2 +00.9	25 41.4 -00.5	N 09 47.8 +01.2	353 56.7 -29.2	N 18 58.0 +03.7	14								
15	44 53.4 +00.2	N 09 15.1 +00.9	40 40.9 -00.4	N 09 49.0 +01.2	8 27.5 -29.1	N 19 01.7 +03.5	15								
16	59 53.6 +00.1	N 09 16.0 +00.9	55 40.5 -00.5	N 09 50.2 +01.2	22 58.4 -29.2	N 19 05.2 +03.5	16								
17	74 53.7 +00.2	N 09 16.9 +00.9	70 40.0 -00.4	N 09 51.4 +01.1	37 29.2 -29.2	N 19 08.7 +03.4	17								
18	89 53.9 +00.2	N 09 17.8 +00.9	85 39.6 -00.5	N 09 52.5 +01.2	52 00.0 -29.2	N 19 12.1 +03.3	18								
19	104 54.1 +00.1	N 09 18.7 +00.9	100 39.1 -00.4	N 09 53.7 +01.2	66 30.8 -29.2	N 19 15.4 +03.2	19								
20	119 54.2 +00.2	N 09 19.6 +00.9	115 38.7 -00.5	N 09 54.9 +01.1	81 01.6 -29.1	N 19 18.6 +03.1	20								
21	134 54.4 +00.1	N 09 20.5 +00.9	130 38.2 -00.4	N 09 56.0 +01.2	95 32.5 -29.2	N 19 21.7 +03.0	21								
22	149 54.5 +00.2	N 09 21.4 +00.9	145 37.8 -00.4	N 09 57.2 +01.2	110 03.3 -29.2	N 19 24.7 +02.9	22								
23	164 54.7 +00.1	N 09 22.3 +00.9	160 37.4 -00.5	N 09 58.4 +01.1	124 34.1 -29.2	N 19 27.6 +02.8	23								
UT 02 06 10 14 18 22	SD 16'0 15'9 15'9 15'9 15'9 15'9	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:00	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	Greenwich Culmination Time: 12:17	UT 02 06 10 14 18 22	SD 14'9 14'9 14'9 14'9 14'8 14'8	HP 54'7 54'6 54'6 54'5 54'5 54'4	Greenwich Culmination Time: 14:25				

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	178 37.3 +00.7	N 09 01.3 +00.7	128 42.4 +02.0	N 22 06.8 +00.1	343 31.0 +02.7	S 12 04.1 +00.0	00								
01	193 38.0 +00.7	N 09 02.0 +00.8	143 44.4 +02.0	N 22 06.9 +00.0	358 33.7 +02.6	S 12 04.1 -00.1	01								
02	208 38.7 +00.7	N 09 02.8 +00.7	158 46.4 +01.9	N 22 06.9 +00.1	13 36.3 +02.6	S 12 04.0 -00.1	02								
03	223 39.4 +00.7	N 09 03.5 +00.7	173 48.3 +02.0	N 22 07.0 +00.1	28 38.9 +02.7	S 12 03.9 +00.0	03								
04	238 40.1 +00.7	N 09 04.2 +00.7	188 50.3 +02.0	N 22 07.1 +00.0	43 41.6 +02.6	S 12 03.9 -00.1	04								
05	253 40.8 +00.7	N 09 04.9 +00.7	203 52.3 +01.9	N 22 07.1 +00.1	58 44.2 +02.6	S 12 03.8 +00.0	05								
06	268 41.5 +00.7	N 09 05.6 +00.7	218 54.2 +02.0	N 22 07.2 +00.1	73 46.8 +02.7	S 12 03.8 -00.1	06								
07	283 42.2 +00.7	N 09 06.3 +00.8	233 56.2 +02.0	N 22 07.3 +00.0	88 49.5 +02.6	S 12 03.7 -00.1	07								
08	298 42.9 +00.7	N 09 07.1 +00.7	248 58.2 +01.9	N 22 07.3 +00.1	103 52.1 +02.6	S 12 03.6 +00.0	08								
09	313 43.6 +00.7	N 09 07.8 +00.7	264 00.1 +02.0	N 22 07.4 +00.0	118 54.7 +02.7	S 12 03.6 -00.1	09								
10	328 44.3 +00.6	N 09 08.5 +00.7	279 02.1 +02.0	N 22 07.4 +00.1	133 57.4 +02.6	S 12 03.5 +00.0	10								
11	343 44.9 +00.7	N 09 09.2 +00.7	294 04.1 +02.0	N 22 07.5 +00.1	149 00.0 +02.7	S 12 03.5 -00.1	11								
12	358 45.6 +00.7	N 09 09.9 +00.7	309 06.1 +01.9	N 22 07.6 +00.0	164 02.7 +02.6	S 12 03.4 +00.0	12								
13	13 46.3 +00.7	N 09 10.6 +00.7	324 08.0 +02.0	N 22 07.6 +00.1	179 05.3 +02.6	S 12 03.4 -00.1	13								
14	28 47.0 +00.7	N 09 11.3 +00.8	339 10.0 +02.0	N 22 07.7 +00.0	194 07.9 +02.7	S 12 03.3 -00.1	14								
15	43 47.7 +00.7	N 09 12.1 +00.7	354 12.0 +01.9	N 22 07.7 +00.1	209 10.6 +02.6	S 12 03.2 +00.0	15								
16	58 48.4 +00.7	N 09 12.8 +00.7	9 13.9 +02.0	N 22 07.8 +00.1	224 13.2 +02.6	S 12 03.2 -00.1	16								
17	73 49.1 +00.7	N 09 13.5 +00.7	24 15.9 +02.0	N 22 07.9 +00.0	239 15.8 +02.7	S 12 03.1 +00.0	17								
18	88 49.8 +00.7	N 09 14.2 +00.7	39 17.9 +01.9	N 22 07.9 +00.1	254 18.5 +02.6	S 12 03.1 -00.1	18								
19	103 50.5 +00.7	N 09 14.9 +00.7	54 19.8 +02.0	N 22 08.0 +00.0	269 21.1 +02.7	S 12 03.0 -00.1	19								
20	118 51.2 +00.7	N 09 15.6 +00.7	69 21.8 +02.0	N 22 08.0 +00.1	284 23.8 +02.6	S 12 02.9 +00.0	20								
21	133 51.9 +00.7	N 09 16.3 +00.8	84 23.8 +01.9	N 22 08.1 +00.1	299 26.4 +02.6	S 12 02.9 -00.1	21								
22	148 52.6 +00.7	N 09 17.1 +00.7	99 25.7 +02.0	N 22 08.2 +00.0	314 29.0 +02.7	S 12 02.8 +00.0	22								
23	163 53.3 +00.6	N 09 17.8 +00.7	114 27.7 +02.0	N 22 08.2 +00.1	329 31.7 +02.6	S 12 02.8 -00.1	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	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 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 15:23	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	Greenwich Culmination Time: 01:06				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> $a = 0.13$					UT
UT	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''			
00	179 54.8 +00.2	N 09 23.2 +00.9	175 36.9 -00.4	N 09 59.5 +01.2	139 04.9 -29.2	N 19 30.4 +02.8	00								
01	194 55.0 +00.1	N 09 24.1 +00.9	190 36.5 -00.5	N 10 00.7 +01.2	153 35.7 -29.2	N 19 33.2 +02.6	01								
02	209 55.1 +00.2	N 09 25.0 +00.9	205 36.0 -00.4	N 10 01.9 +01.1	168 06.5 -29.2	N 19 35.8 +02.5	02								
03	224 55.3 +00.1	N 09 25.9 +00.9	220 35.6 -00.5	N 10 03.0 +01.2	182 37.3 -29.3	N 19 38.3 +02.5	03								
04	239 55.4 +00.2	N 09 26.8 +00.9	235 35.1 -00.4	N 10 04.2 +01.2	197 08.0 -29.2	N 19 40.8 +02.3	04								
05	254 55.6 +00.2	N 09 27.7 +00.9	250 34.7 -00.5	N 10 05.4 +01.1	211 38.8 -29.2	N 19 43.1 +02.3	05								
06	269 55.8 +00.1	N 09 28.6 +00.9	265 34.2 -00.4	N 10 06.5 +01.2	226 09.6 -29.2	N 19 45.4 +02.2	06								
07	284 55.9 +00.2	N 09 29.5 +00.9	280 33.8 -00.5	N 10 07.7 +01.2	240 40.4 -29.2	N 19 47.6 +02.0	07								
08	299 56.1 +00.1	N 09 30.4 +00.9	295 33.3 -00.4	N 10 08.9 +01.1	255 11.2 -29.2	N 19 49.6 +02.0	08								
09	314 56.2 +00.2	N 09 31.3 +00.9	310 32.9 -00.5	N 10 10.0 +01.2	269 42.0 -29.2	N 19 51.6 +01.9	09								
10	329 56.4 +00.1	N 09 32.2 +00.9	325 32.4 -00.4	N 10 11.2 +01.2	284 12.8 -29.2	N 19 53.5 +01.8	10								
11	344 56.5 +00.2	N 09 33.1 +00.9	340 32.0 -00.5	N 10 12.4 +01.1	298 43.6 -29.2	N 19 55.3 +01.7	11								
12	359 56.7 +00.1	N 09 34.0 +00.9	355 31.5 -00.4	N 10 13.5 +01.2	313 14.4 -29.2	N 19 57.0 +01.6	12								
13	14 56.8 +00.2	N 09 34.9 +00.9	10 31.1 -00.5	N 10 14.7 +01.1	327 45.2 -29.2	N 19 58.6 +01.5	13								
14	29 57.0 +00.1	N 09 35.8 +00.9	25 30.6 -00.4	N 10 15.8 +01.2	342 16.0 -29.2	N 20 00.1 +01.4	14								
15	44 57.1 +00.2	N 09 36.7 +00.9	40 30.2 -00.5	N 10 17.0 +01.2	356 46.8 -29.2	N 20 01.5 +01.3	15								
16	59 57.3 +00.1	N 09 37.6 +00.9	55 29.7 -00.4	N 10 18.2 +01.1	11 17.6 -29.2	N 20 02.8 +01.3	16								
17	74 57.4 +00.2	N 09 38.5 +00.9	70 29.3 -00.5	N 10 19.3 +01.2	25 48.4 -29.2	N 20 04.1 +01.1	17								
18	89 57.6 +00.1	N 09 39.4 +00.9	85 28.8 -00.4	N 10 20.5 +01.1	40 19.2 -29.2	N 20 05.2 +01.0	18								
19	104 57.7 +00.2	N 09 40.3 +00.9	100 28.4 -00.5	N 10 21.6 +01.2	54 50.0 -29.2	N 20 06.2 +01.0	19								
20	119 57.9 +00.2	N 09 41.2 +00.9	115 27.9 -00.4	N 10 22.8 +01.2	69 20.8 -29.2	N 20 07.2 +00.8	20								
21	134 58.1 +00.1	N 09 42.1 +00.9	130 27.5 -00.5	N 10 24.0 +01.1	83 51.6 -29.2	N 20 08.0 +00.8	21								
22	149 58.2 +00.2	N 09 43.0 +00.9	145 27.0 -00.5	N 10 25.1 +01.2	98 22.4 -29.1	N 20 08.8 +00.6	22								
23	164 58.4 +00.1	N 09 43.9 +00.9	160 26.5 -00.4	N 10 26.3 +01.1	112 53.3 -29.2	N 20 09.4 +00.6	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 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	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	Greenwich Culmination Time: 12:00	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:18	HP 54'4 54'3 54'3 54'3 54'2 54'2	Greenwich Culmination Time: 15:13										

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''			
00	178 53.9 +00.7	N 09 18.5 +00.7	129 29.7 +01.9	N 22 08.3 +00.0	344 34.3 +02.6	S 12 02.7 -00.1	00								
01	193 54.6 +00.7	N 09 19.2 +00.7	144 31.6 +02.0	N 22 08.3 +00.1	359 36.9 +02.7	S 12 02.6 +00.0	01								
02	208 55.3 +00.7	N 09 19.9 +00.7	159 33.6 +01.9	N 22 08.4 +00.1	14 39.6 +02.6	S 12 02.6 -00.1	02								
03	223 56.0 +00.7	N 09 20.6 +00.7	174 35.5 +02.0	N 22 08.5 +00.0	29 42.2 +02.7	S 12 02.5 +00.0	03								
04	238 56.7 +00.7	N 09 21.3 +00.7	189 37.5 +02.0	N 22 08.5 +00.1	44 44.9 +02.6	S 12 02.5 -00.1	04								
05	253 57.4 +00.7	N 09 22.0 +00.8	204 39.5 +01.9	N 22 08.6 +00.0	59 47.5 +02.6	S 12 02.4 +00.0	05								
06	268 58.1 +00.7	N 09 22.8 +00.7	219 41.4 +02.0	N 22 08.6 +00.1	74 50.1 +02.7	S 12 02.4 -00.1	06								
07	283 58.8 +00.7	N 09 23.5 +00.7	234 43.4 +02.0	N 22 08.7 +00.1	89 52.8 +02.6	S 12 02.3 -00.1	07								
08	298 59.5 +00.7	N 09 24.2 +00.7	249 45.4 +01.9	N 22 08.8 +00.0	104 55.4 +02.6	S 12 02.2 +00.0	08								
09	314 00.2 +00.7	N 09 24.9 +00.7	264 47.3 +02.0	N 22 08.8 +00.1	119 58.0 +02.7	S 12 02.2 -00.1	09								
10	329 00.9 +00.6	N 09 25.6 +00.7	279 49.3 +02.0	N 22 08.9 +00.1	135 00.7 +02.6	S 12 02.1 +00.0	10								
11	344 01.5 +00.7	N 09 26.3 +00.7	294 51.3 +01.9	N 22 09.0 +00.0	150 03.3 +02.7	S 12 02.1 -00.1	11								
12	359 02.2 +00.7	N 09 27.0 +00.7	309 53.2 +02.0	N 22 09.0 +00.1	165 06.0 +02.6	S 12 02.0 -00.1	12								
13	14 02.9 +00.7	N 09 27.7 +00.7	324 55.2 +02.0	N 22 09.1 +00.0	180 08.6 +02.6	S 12 01.9 +00.0	13								
14	29 03.6 +00.7	N 09 28.4 +00.8	339 57.2 +01.9	N 22 09.1 +00.1	195 11.2 +02.7	S 12 01.9 -00.1	14								
15	44 04.3 +00.7	N 09 29.2 +00.7	354 59.1 +02.0	N 22 09.2 +00.1	210 13.9 +02.6	S 12 01.8 +00.0	15								
16	59 05.0 +00.7	N 09 29.9 +00.7	10 01.1 +01.9	N 22 09.3 +00.0	225 16.5 +02.6	S 12 01.8 -00.1	16								
17	74 05.7 +00.7	N 09 30.6 +00.7	25 03.0 +02.0	N 22 09.3 +00.1	240 19.1 +02.7	S 12 01.7 -00.1	17								
18	89 06.4 +00.7	N 09 31.3 +00.7	40 05.0 +02.0	N 22 09.4 +00.0	255 21.8 +02.6	S 12 01.6 +00.0	18								
19	104 07.1 +00.7	N 09 32.0 +00.7	55 07.0 +01.9	N 22 09.4 +00.1	270 24.4 +02.7	S 12 01.6 -00.1	19								
20	119 07.8 +00.7	N 09 32.7 +00.7	70 08.9 +02.0	N 22 09.5 +00.1	285 27.1 +02.6	S 12 01.5 +00.0	20								
21	134 08.5 +00.7	N 09 33.4 +00.7	85 10.9 +02.0	N 22 09.6 +00.0	300 29.7 +02.6	S 12 01.5 -00.1	21								
22	149 09.2 +00.6	N 09 34.1 +00.7	100 12.9 +01.9	N 22 09.6 +00.1	315 32.3 +02.7	S 12 01.4 -00.1	22								
23	164 09.8 +00.7	N 09 34.8 +00.7	115 14.8 +02.0	N 22 09.7 +00.0	330 35.0 +02.6	S 12 01.3 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:04	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 15:20	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 01:02										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.16$				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	179 58.5 +00.2	N 09 44.8 +00.8	175 26.1 -00.5	N 10 27.4 +01.2	127 24.1 -29.1	N 20 10.0 +00.5	00						
01	194 58.7 +00.1	N 09 45.6 +00.9	190 25.6 -00.4	N 10 28.6 +01.2	141 55.0 -29.2	N 20 10.5 +00.3	01						
02	209 58.8 +00.2	N 09 46.5 +00.9	205 25.2 -00.5	N 10 29.8 +01.1	156 25.8 -29.1	N 20 10.8 +00.3	02						
03	224 59.0 +00.1	N 09 47.4 +00.9	220 24.7 -00.4	N 10 30.9 +01.2	170 56.7 -29.2	N 20 11.1 +00.2	03						
04	239 59.1 +00.2	N 09 48.3 +00.9	235 24.3 -00.5	N 10 32.1 +01.1	185 27.5 -29.1	N 20 11.3 +00.1	04						
05	254 59.3 +00.1	N 09 49.2 +00.9	250 23.8 -00.4	N 10 33.2 +01.2	199 58.4 -29.1	N 20 11.4 +00.0	05						
06	269 59.4 +00.2	N 09 50.1 +00.9	265 23.4 -00.5	N 10 34.4 +01.1	214 29.3 -29.1	N 20 11.4 -00.1	06						
07	284 59.6 +00.1	N 09 51.0 +00.9	280 22.9 -00.5	N 10 35.5 +01.2	229 00.2 -29.2	N 20 11.3 -00.2	07						
08	299 59.7 +00.2	N 09 51.9 +00.9	295 22.4 -00.4	N 10 36.7 +01.1	243 31.0 -29.1	N 20 11.1 -00.3	08						
09	314 59.9 +00.1	N 09 52.8 +00.9	310 22.0 -00.5	N 10 37.8 +01.2	258 01.9 -29.0	N 20 10.8 -00.4	09						
10	330 00.0 +00.2	N 09 53.7 +00.9	325 21.5 -00.4	N 10 39.0 +01.1	272 32.9 -29.1	N 20 10.4 -00.4	10						
11	345 00.2 +00.1	N 09 54.6 +00.9	340 21.1 -00.5	N 10 40.1 +01.2	287 03.8 -29.1	N 20 10.0 -00.6	11						
12	0 00.3 +00.2	N 09 55.5 +00.9	355 20.6 -00.4	N 10 41.3 +01.2	301 34.7 -29.1	N 20 09.4 -00.6	12						
13	15 00.5 +00.1	N 09 56.4 +00.8	10 20.2 -00.5	N 10 42.5 +01.1	316 05.6 -29.0	N 20 08.8 -00.8	13						
14	30 00.6 +00.2	N 09 57.2 +00.9	25 19.7 -00.5	N 10 43.6 +01.2	330 36.6 -29.0	N 20 08.0 -00.8	14						
15	45 00.8 +00.1	N 09 58.1 +00.9	40 19.2 -00.4	N 10 44.8 +01.1	345 07.6 -29.1	N 20 07.2 -01.0	15						
16	60 00.9 +00.2	N 09 59.0 +00.9	55 18.8 -00.5	N 10 45.9 +01.2	359 38.5 -29.0	N 20 06.2 -01.0	16						
17	75 01.1 +00.1	N 09 59.9 +00.9	70 18.3 -00.4	N 10 47.1 +01.1	14 09.5 -29.0	N 20 05.2 -01.1	17						
18	90 01.2 +00.2	N 10 00.8 +00.9	85 17.9 -00.5	N 10 48.2 +01.2	28 40.5 -29.0	N 20 04.1 -01.3	18						
19	105 01.4 +00.1	N 10 01.7 +00.9	100 17.4 -00.5	N 10 49.4 +01.1	43 11.5 -29.0	N 20 02.8 -01.3	19						
20	120 01.5 +00.2	N 10 02.6 +00.9	115 16.9 -00.4	N 10 50.5 +01.2	57 42.5 -29.0	N 20 01.5 -01.4	20						
21	135 01.7 +00.1	N 10 03.5 +00.9	130 16.5 -00.5	N 10 51.7 +01.1	72 13.5 -28.9	N 20 00.1 -01.5	21						
22	150 01.8 +00.1	N 10 04.4 +00.8	145 16.0 -00.4	N 10 52.8 +01.2	86 44.6 -29.0	N 19 58.6 -01.6	22						
23	165 01.9 +00.2	N 10 05.2 +00.9	160 15.6 -00.5	N 10 54.0 +01.1	101 15.6 -28.9	N 19 57.0 -01.6	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 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 14'8 14'8 14'8 14'8 14'7 14'7								
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:00	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:19	HP 54'2 54'2 54'2 54'1 54'1 54'1	Greenwich Culmination Time: 16:01								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	179 10.5 +00.7	N 09 35.5 +00.8	130 16.8 +01.9	N 22 09.7 +00.1	345 37.6 +02.7	S 12 01.3 -00.1	00						
01	194 11.2 +00.7	N 09 36.3 +00.7	145 18.7 +02.0	N 22 09.8 +00.1	0 40.3 +02.6	S 12 01.2 +00.0	01						
02	209 11.9 +00.7	N 09 37.0 +00.7	160 20.7 +02.0	N 22 09.9 +00.0	15 42.9 +02.6	S 12 01.2 -00.1	02						
03	224 12.6 +00.7	N 09 37.7 +00.7	175 22.7 +01.9	N 22 09.9 +00.1	30 45.5 +02.7	S 12 01.1 +00.0	03						
04	239 13.3 +00.7	N 09 38.4 +00.7	190 24.6 +02.0	N 22 10.0 +00.0	45 48.2 +02.6	S 12 01.1 -00.1	04						
05	254 14.0 +00.7	N 09 39.1 +00.7	205 26.6 +01.9	N 22 10.0 +00.1	60 50.8 +02.7	S 12 01.0 -00.1	05						
06	269 14.7 +00.7	N 09 39.8 +00.7	220 28.5 +02.0	N 22 10.1 +00.1	75 53.5 +02.6	S 12 00.9 +00.0	06						
07	284 15.4 +00.7	N 09 40.5 +00.7	235 30.5 +02.0	N 22 10.2 +00.0	90 56.1 +02.6	S 12 00.9 -00.1	07						
08	299 16.1 +00.6	N 09 41.2 +00.7	250 32.5 +01.9	N 22 10.2 +00.1	105 58.7 +02.7	S 12 00.8 +00.0	08						
09	314 16.7 +00.7	N 09 41.9 +00.7	265 34.4 +02.0	N 22 10.3 +00.0	121 01.4 +02.6	S 12 00.8 -00.1	09						
10	329 17.4 +00.7	N 09 42.6 +00.7	280 36.4 +01.9	N 22 10.3 +00.1	136 04.0 +02.6	S 12 00.7 -00.1	10						
11	344 18.1 +00.7	N 09 43.3 +00.7	295 38.3 +02.0	N 22 10.4 +00.1	151 06.6 +02.7	S 12 00.6 +00.0	11						
12	359 18.8 +00.7	N 09 44.0 +00.7	310 40.3 +02.0	N 22 10.5 +00.0	166 09.3 +02.6	S 12 00.6 -00.1	12						
13	14 19.5 +00.7	N 09 44.7 +00.7	325 42.3 +01.9	N 22 10.5 +00.1	181 11.9 +02.7	S 12 00.5 +00.0	13						
14	29 20.2 +00.7	N 09 45.4 +00.8	340 44.2 +02.0	N 22 10.6 +00.0	196 14.6 +02.6	S 12 00.5 -00.1	14						
15	44 20.9 +00.7	N 09 46.2 +00.7	355 46.2 +01.9	N 22 10.6 +00.1	211 17.2 +02.6	S 12 00.4 -00.1	15						
16	59 21.6 +00.7	N 09 46.9 +00.7	10 48.1 +02.0	N 22 10.7 +00.1	226 19.8 +02.7	S 12 00.3 +00.0	16						
17	74 22.3 +00.7	N 09 47.6 +00.7	25 50.1 +02.0	N 22 10.8 +00.0	241 22.5 +02.6	S 12 00.3 -00.1	17						
18	89 23.0 +00.6	N 09 48.3 +00.7	40 52.1 +01.9	N 22 10.8 +00.1	256 25.1 +02.7	S 12 00.2 +00.0	18						
19	104 23.6 +00.7	N 09 49.0 +00.7	55 54.0 +02.0	N 22 10.9 +00.0	271 27.8 +02.6	S 12 00.2 -00.1	19						
20	119 24.3 +00.7	N 09 49.7 +00.7	70 56.0 +01.9	N 22 10.9 +00.1	286 30.4 +02.6	S 12 00.1 -00.1	20						
21	134 25.0 +00.7	N 09 50.4 +00.7	85 57.9 +02.0	N 22 11.0 +00.1	301 33.0 +02.7	S 12 00.0 +00.0	21						
22	149 25.7 +00.7	N 09 51.1 +00.7	100 59.9 +02.0	N 22 11.1 +00.0	316 35.7 +02.6	S 11 60.0 -00.1	22						
23	164 26.4 +00.7	N 09 51.8 +00.7	116 01.9 +01.9	N 22 11.1 +00.1	331 38.3 +02.7	S 11 59.9 +00.0	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2								
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:03	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 15:17	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 00:57								

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.20					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 02.1 +00.1	N 10	06.1 +00.9		175 15.1 -00.5	N 10	55.1 +01.1		115 46.7 -28.9	N 19	55.4 -01.8		00		
01	195 02.2 +00.2	N 10	07.0 +00.9		190 14.6 -00.4	N 10	56.2 +01.2		130 17.8 -28.9	N 19	53.6 -01.9		01		
02	210 02.4 +00.1	N 10	07.9 +00.9		205 14.2 -00.5	N 10	57.4 +01.1		144 48.9 -28.9	N 19	51.7 -01.9		02		
03	225 02.5 +00.2	N 10	08.8 +00.9		220 13.7 -00.5	N 10	58.5 +01.2		159 20.0 -28.9	N 19	49.8 -02.1		03		
04	240 02.7 +00.1	N 10	09.7 +00.9		235 13.2 -00.4	N 10	59.7 +01.1		173 51.1 -28.9	N 19	47.7 -02.1		04		
05	255 02.8 +00.2	N 10	10.6 +00.8		250 12.8 -00.5	N 11	00.8 +01.2		188 22.2 -28.8	N 19	45.6 -02.2		05		
06	270 03.0 +00.1	N 10	11.4 +00.9		265 12.3 -00.5	N 11	02.0 +01.1		202 53.4 -28.8	N 19	43.4 -02.4		06		
07	285 03.1 +00.2	N 10	12.3 +00.9		280 11.8 -00.4	N 11	03.1 +01.2		217 24.6 -28.9	N 19	41.0 -02.4		07		
08	300 03.3 +00.1	N 10	13.2 +00.9		295 11.4 -00.5	N 11	04.3 +01.1		231 55.7 -28.8	N 19	38.6 -02.5		08		
09	315 03.4 +00.2	N 10	14.1 +00.9		310 10.9 -00.4	N 11	05.4 +01.1		246 26.9 -28.8	N 19	36.1 -02.5		09		
10	330 03.6 +00.1	N 10	15.0 +00.9		325 10.5 -00.5	N 11	06.5 +01.2		260 58.1 -28.7	N 19	33.6 -02.7		10		
11	345 03.7 +00.2	N 10	15.9 +00.9		340 10.0 -00.5	N 11	07.7 +01.1		275 29.4 -28.8	N 19	30.9 -02.8		11		
12	0 03.9 +00.1	N 10	16.8 +00.8		355 09.5 -00.4	N 11	08.8 +01.2		290 00.6 -28.7	N 19	28.1 -02.9		12		
13	15 04.0 +00.1	N 10	17.6 +00.9		10 09.1 -00.5	N 11	10.0 +01.1		304 31.9 -28.8	N 19	25.2 -02.9		13		
14	30 04.1 +00.2	N 10	18.5 +00.9		25 08.6 -00.5	N 11	11.1 +01.2		319 03.1 -28.7	N 19	22.3 -03.0		14		
15	45 04.3 +00.1	N 10	19.4 +00.9		40 08.1 -00.4	N 11	12.3 +01.1		333 34.4 -28.7	N 19	19.3 -03.2		15		
16	60 04.4 +00.2	N 10	20.3 +00.9		55 07.7 -00.5	N 11	13.4 +01.1		348 05.7 -28.7	N 19	16.1 -03.2		16		
17	75 04.6 +00.1	N 10	21.2 +00.8		70 07.2 -00.5	N 11	14.5 +01.2		2 37.0 -28.6	N 19	12.9 -03.3		17		
18	90 04.7 +00.2	N 10	22.0 +00.9		85 06.7 -00.5	N 11	15.7 +01.1		17 08.4 -28.7	N 19	09.6 -03.4		18		
19	105 04.9 +00.1	N 10	22.9 +00.9		100 06.2 -00.4	N 11	16.8 +01.2		31 39.7 -28.6	N 19	06.2 -03.4		19		
20	120 05.0 +00.2	N 10	23.8 +00.9		115 05.8 -00.5	N 11	18.0 +01.1		46 11.1 -28.6	N 19	02.8 -03.6		20		
21	135 05.2 +00.1	N 10	24.7 +00.9		130 05.3 -00.5	N 11	19.1 +01.1		60 42.5 -28.6	N 18	59.2 -03.7		21		
22	150 05.3 +00.2	N 10	25.6 +00.9		145 04.8 -00.4	N 11	20.2 +01.2		75 13.9 -28.6	N 18	55.5 -03.7		22		
23	165 05.5 +00.1	N 10	26.5 +00.8		160 04.4 -00.5	N 11	21.4 +01.1		89 45.3 -28.6	N 18	51.8 -03.8		23		
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 14'7 14'8 14'8 14'8 14'8 14'8						
	HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 54'1 54'1 54'2 54'2 54'2 54'2						
	Greenwich Culmination Time: 12:00				Greenwich Culmination Time: 12:19				Greenwich Culmination Time: 16:49						

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	179 27.1 +00.7	N 09	52.5 +00.7		131 03.8 +02.0	N 22	11.2 +00.0		346 41.0 +02.6	S 11	59.9 -00.1		00		
01	194 27.8 +00.7	N 09	53.2 +00.7		146 05.8 +01.9	N 22	11.2 +00.1		1 43.6 +02.6	S 11	59.8 -00.1		01		
02	209 28.5 +00.7	N 09	53.9 +00.7		161 07.7 +02.0	N 22	11.3 +00.1		16 46.2 +02.7	S 11	59.7 +00.0		02		
03	224 29.2 +00.7	N 09	54.6 +00.7		176 09.7 +01.9	N 22	11.4 +00.0		31 48.9 +02.6	S 11	59.7 -00.1		03		
04	239 29.9 +00.6	N 09	55.3 +00.7		191 11.6 +02.0	N 22	11.4 +00.1		46 51.5 +02.7	S 11	59.6 +00.0		04		
05	254 30.5 +00.7	N 09	56.0 +00.7		206 13.6 +02.0	N 22	11.5 +00.0		61 54.2 +02.6	S 11	59.6 -00.1		05		
06	269 31.2 +00.7	N 09	56.7 +00.7		221 15.6 +01.9	N 22	11.5 +00.1		76 56.8 +02.6	S 11	59.5 +00.0		06		
07	284 31.9 +00.7	N 09	57.4 +00.7		236 17.5 +02.0	N 22	11.6 +00.1		91 59.4 +02.7	S 11	59.5 -00.1		07		
08	299 32.6 +00.7	N 09	58.1 +00.7		251 19.5 +01.9	N 22	11.7 +00.0		107 02.1 +02.6	S 11	59.4 -00.1		08		
09	314 33.3 +00.7	N 09	58.8 +00.7		266 21.4 +02.0	N 22	11.7 +00.1		122 04.7 +02.7	S 11	59.3 +00.0		09		
10	329 34.0 +00.7	N 09	59.5 +00.7		281 23.4 +01.9	N 22	11.8 +00.0		137 07.4 +02.6	S 11	59.3 -00.1		10		
11	344 34.7 +00.7	N 10	00.2 +00.7		296 25.3 +02.0	N 22	11.8 +00.1		152 10.0 +02.7	S 11	59.2 +00.0		11		
12	359 35.4 +00.7	N 10	00.9 +00.7		311 27.3 +01.9	N 22	11.9 +00.1		167 12.7 +02.6	S 11	59.2 -00.1		12		
13	14 36.1 +00.6	N 10	01.6 +00.7		326 29.2 +02.0	N 22	12.0 +00.0		182 15.3 +02.6	S 11	59.1 -00.1		13		
14	29 36.7 +00.7	N 10	02.3 +00.7		341 31.2 +02.0	N 22	12.0 +00.1		197 17.9 +02.7	S 11	59.0 +00.0		14		
15	44 37.4 +00.7	N 10	03.0 +00.7		356 33.2 +01.9	N 22	12.1 +00.0		212 20.6 +02.6	S 11	59.0 -00.1		15		
16	59 38.1 +00.7	N 10	03.7 +00.7		11 35.1 +02.0	N 22	12.1 +00.1		227 23.2 +02.7	S 11	58.9 +00.0		16		
17	74 38.8 +00.7	N 10	04.4 +00.7		26 37.1 +01.9	N 22	12.2 +00.1		242 25.9 +02.6	S 11	58.9 -00.1		17		
18	89 39.5 +00.7	N 10	05.1 +00.7		41 39.0 +02.0	N 22	12.3 +00.0		257 28.5 +02.6	S 11	58.8 -00.1		18		
19	104 40.2 +00.7	N 10	05.8 +00.7		56 41.0 +01.9	N 22	12.3 +00.1		272 31.1 +02.7	S 11	58.7 +00.0		19		
20	119 40.9 +00.7	N 10	06.5 +00.7		71 42.9 +02.0	N 22	12.4 +00.0		287 33.8 +02.6	S 11	58.7 -00.1		20		
21	134 41.6 +00.7	N 10	07.2 +00.7		86 44.9 +01.9	N 22	12.4 +00.1		302 36.4 +02.7	S 11	58.6 +00.0		21		
22	149 42.3 +00.6	N 10	07.9 +00.7		101 46.8 +02.0	N 22	12.5 +00.1		317 39.1 +02.6	S 11	58.6 -00.1		22		
23	164 42.9 +00.7	N 10	08.6 +00.7		116 48.8 +02.0	N 22	12.6 +00.0		332 41.7 +02.6	S 11	58.5 -00.1		23		
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0				SD 00'3 00'3 00'3 00'3 00'3 00'3				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 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0						
	Greenwich Culmination Time: 12:02				Greenwich Culmination Time: 15:14				Greenwich Culmination Time: 00:53						

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.23					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 05.6 +00.1	N 10	27.3 +00.9		175 03.9 -00.5	N 11	22.5 +01.1		104 16.7 -28.5	N 18	48.0 -03.9		00		
01	195 05.7 +00.2	N 10	28.2 +00.9		190 03.4 -00.4	N 11	23.6 +01.2		118 48.2 -28.5	N 18	44.1 -04.0		01		
02	210 05.9 +00.1	N 10	29.1 +00.9		205 03.0 -00.5	N 11	24.8 +01.1		133 19.7 -28.6	N 18	40.1 -04.1		02		
03	225 06.0 +00.2	N 10	30.0 +00.9		220 02.5 -00.5	N 11	25.9 +01.1		147 51.1 -28.5	N 18	36.0 -04.2		03		
04	240 06.2 +00.1	N 10	30.9 +00.8		235 02.0 -00.5	N 11	27.0 +01.2		162 22.6 -28.4	N 18	31.8 -04.2		04		
05	255 06.3 +00.2	N 10	31.7 +00.9		250 01.5 -00.4	N 11	28.2 +01.1		176 54.2 -28.5	N 18	27.6 -04.4		05		
06	270 06.5 +00.1	N 10	32.6 +00.9		265 01.1 -00.5	N 11	29.3 +01.1		191 25.7 -28.4	N 18	23.2 -04.4		06		
07	285 06.6 +00.1	N 10	33.5 +00.9		280 00.6 -00.5	N 11	30.4 +01.2		205 57.3 -28.5	N 18	18.8 -04.5		07		
08	300 06.7 +00.2	N 10	34.4 +00.8		295 00.1 -00.4	N 11	31.6 +01.1		220 28.8 -28.4	N 18	14.3 -04.6		08		
09	315 06.9 +00.1	N 10	35.2 +00.9		309 59.7 -00.5	N 11	32.7 +01.1		235 00.4 -28.4	N 18	09.7 -04.7		09		
10	330 07.0 +00.2	N 10	36.1 +00.9		324 59.2 -00.5	N 11	33.8 +01.2		249 32.0 -28.4	N 18	05.0 -04.7		10		
11	345 07.2 +00.1	N 10	37.0 +00.9		339 58.7 -00.5	N 11	35.0 +01.1		264 03.6 -28.3	N 18	00.3 -04.8		11		
12	0 07.3 +00.2	N 10	37.9 +00.8		354 58.2 -00.4	N 11	36.1 +01.1		278 35.3 -28.4	N 17	55.5 -05.0		12		
13	15 07.5 +00.1	N 10	38.7 +00.9		9 57.8 -00.5	N 11	37.2 +01.2		293 06.9 -28.3	N 17	50.5 -05.0		13		
14	30 07.6 +00.1	N 10	39.6 +00.9		24 57.3 -00.5	N 11	38.4 +01.1		307 38.6 -28.3	N 17	45.5 -05.1		14		
15	45 07.7 +00.2	N 10	40.5 +00.9		39 56.8 -00.5	N 11	39.5 +01.1		322 10.3 -28.3	N 17	40.4 -05.1		15		
16	60 07.9 +00.1	N 10	41.4 +00.8		54 56.3 -00.4	N 11	40.6 +01.1		336 42.0 -28.3	N 17	35.3 -05.3		16		
17	75 08.0 +00.2	N 10	42.2 +00.9		69 55.9 -00.5	N 11	41.7 +01.2		351 13.7 -28.2	N 17	30.0 -05.3		17		
18	90 08.2 +00.1	N 10	43.1 +00.9		84 55.4 -00.5	N 11	42.9 +01.1		5 45.5 -28.3	N 17	24.7 -05.4		18		
19	105 08.3 +00.1	N 10	44.0 +00.9		99 54.9 -00.5	N 11	44.0 +01.1		20 17.2 -28.2	N 17	19.3 -05.5		19		
20	120 08.4 +00.2	N 10	44.9 +00.8		114 54.4 -00.5	N 11	45.1 +01.2		34 49.0 -28.2	N 17	13.8 -05.6		20		
21	135 08.6 +00.1	N 10	45.7 +00.9		129 53.9 -00.4	N 11	46.3 +01.1		49 20.8 -28.2	N 17	08.2 -05.6		21		
22	150 08.7 +00.2	N 10	46.6 +00.9		144 53.5 -00.5	N 11	47.4 +01.1		63 52.6 -28.2	N 17	02.6 -05.8		22		
23	165 08.9 +00.1	N 10	47.5 +00.9		159 53.0 -00.5	N 11	48.5 +01.1		78 24.4 -28.1	N 16	56.8 -05.8		23		
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 14'8 14'8 14'8 14'8 14'8 14'8						
	HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 54'2 54'3 54'3 54'4 54'4 54'5						
	Greenwich Culmination Time: 12:00				Greenwich Culmination Time: 12:20				Greenwich Culmination Time: 17:36						

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	179 43.6 +00.7	N 10	09.3 +00.7		131 50.8 +01.9	N 22	12.6 +00.1		347 44.3 +02.7	S 11	58.4 +00.0		00		
01	194 44.3 +00.7	N 10	10.0 +00.7		146 52.7 +02.0	N 22	12.7 +00.0		2 47.0 +02.6	S 11	58.4 -00.1		01		
02	209 45.0 +00.7	N 10	10.7 +00.7		161 54.7 +01.9	N 22	12.7 +00.1		17 49.6 +02.7	S 11	58.3 +00.0		02		
03	224 45.7 +00.7	N 10	11.4 +00.7		176 56.6 +02.0	N 22	12.8 +00.1		32 52.3 +02.6	S 11	58.3 -00.1		03		
04	239 46.4 +00.7	N 10	12.1 +00.7		191 58.6 +01.9	N 22	12.9 +00.0		47 54.9 +02.7	S 11	58.2 -00.1		04		
05	254 47.1 +00.7	N 10	12.8 +00.7		207 00.5 +02.0	N 22	12.9 +00.1		62 57.6 +02.6	S 11	58.1 +00.0		05		
06	269 47.8 +00.6	N 10	13.5 +00.7		222 02.5 +01.9	N 22	13.0 +00.0		78 00.2 +02.6	S 11	58.1 -00.1		06		
07	284 48.4 +00.7	N 10	14.2 +00.7		237 04.4 +02.0	N 22	13.0 +00.1		93 02.8 +02.7	S 11	58.0 +00.0		07		
08	299 49.1 +00.7	N 10	14.9 +00.7		252 06.4 +01.9	N 22	13.1 +00.1		108 05.5 +02.6	S 11	58.0 -00.1		08		
09	314 49.8 +00.7	N 10	15.6 +00.7		267 08.3 +02.0	N 22	13.2 +00.0		123 08.1 +02.7	S 11	57.9 -00.1		09		
10	329 50.5 +00.7	N 10	16.3 +00.7		282 10.3 +01.9	N 22	13.2 +00.1		138 10.8 +02.6	S 11	57.8 +00.0		10		
11	344 51.2 +00.7	N 10	17.0 +00.7		297 12.2 +02.0	N 22	13.3 +00.0		153 13.4 +02.6	S 11	57.8 -00.1		11		
12	359 51.9 +00.7	N 10	17.7 +00.7		312 14.2 +01.9	N 22	13.3 +00.1		168 16.0 +02.7	S 11	57.7 +00.0		12		
13	14 52.6 +00.7	N 10	18.4 +00.7		327 16.1 +02.0	N 22	13.4 +00.1		183 18.7 +02.6	S 11	57.7 -00.1		13		
14	29 53.3 +00.6	N 10	19.1 +00.7		342 18.1 +01.9	N 22	13.5 +00.0		198 21.3 +02.7	S 11	57.6 -00.1		14		
15	44 53.9 +00.7	N 10	19.8 +00.7		357 20.0 +02.0	N 22	13.5 +00.1		213 24.0 +02.6	S 11	57.5 +00.0		15		
16	59 54.6 +00.7	N 10	20.5 +00.7		12 22.0 +01.9	N 22	13.6 +00.0		228 26.6 +02.7	S 11	57.5 -00.1		16		
17	74 55.3 +00.7	N 10	21.2 +00.7		27 23.9 +02.0	N 22	13.6 +00.1		243 29.3 +02.6	S 11	57.4 +00.0		17		
18	89 56.0 +00.7	N 10	21.9 +00.7		42 25.9 +01.9	N 22	13.7 +00.1		258 31.9 +02.6	S 11	57.4 -00.1		18		
19	104 56.7 +00.7	N 10	22.6 +00.7		57 27.8 +02.0	N 22	13.8 +00.0		273 34.5 +02.7	S 11	57.3 -00.1		19		
20	119 57.4 +00.7	N 10	23.3 +00.7		72 29.8 +01.9	N 22	13.8 +00.1		288 37.2 +02.6	S 11	57.2 +00.0		20		
21	134 58.1 +00.7	N 10	24.0 +00.7		87 31.7 +02.0	N 22	13.9 +00.0		303 39.8 +02.7	S 11	57.2 -00.1		21		
22	149 58.8 +00.7	N 10	24.7 +00.7		102 33.7 +01.9	N 22	13.9 +00.1		318 42.5 +02.6	S 11	57.1 +00.0		22		
23	164 59.5 +00.6	N 10	25.4 +00.7		117 35.6 +02.0	N 22	14.0 +00.1		333 45.1 +02.7	S 11	57.1 -00.1		23		
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0				SD 00'3 00'3 00'3 00'3 00'3 00'3				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 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0						
	Greenwich Culmination Time: 12:01				Greenwich Culmination Time: 15:11				Greenwich Culmination Time: 00:49						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.26$				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 09.0 +00.1	N 10	48.4 +00.8		174 52.5 -00.5	N 11	49.6 +01.2		92 56.3 -28.2	N 16	51.0 -05.9		00
01	195 09.1 +00.2	N 10	49.2 +00.9		189 52.0 -00.5	N 11	50.8 +01.1		107 28.1 -28.1	N 16	45.1 -05.9		01
02	210 09.3 +00.1	N 10	50.1 +00.9		204 51.5 -00.4	N 11	51.9 +01.1		122 00.0 -28.1	N 16	39.2 -06.1		02
03	225 09.4 +00.2	N 10	51.0 +00.9		219 51.1 -00.5	N 11	53.0 +01.1		136 31.9 -28.1	N 16	33.1 -06.1		03
04	240 09.6 +00.1	N 10	51.9 +00.8		234 50.6 -00.5	N 11	54.1 +01.1		151 03.8 -28.1	N 16	27.0 -06.2		04
05	255 09.7 +00.1	N 10	52.7 +00.9		249 50.1 -00.5	N 11	55.2 +01.2		165 35.7 -28.0	N 16	20.8 -06.3		05
06	270 09.8 +00.2	N 10	53.6 +00.9		264 49.6 -00.5	N 11	56.4 +01.1		180 07.7 -28.1	N 16	14.5 -06.3		06
07	285 10.0 +00.1	N 10	54.5 +00.8		279 49.1 -00.4	N 11	57.5 +01.1		194 39.6 -28.0	N 16	08.2 -06.5		07
08	300 10.1 +00.2	N 10	55.3 +00.9		294 48.7 -00.5	N 11	58.6 +01.1		209 11.6 -28.0	N 16	01.7 -06.5		08
09	315 10.3 +00.1	N 10	56.2 +00.9		309 48.2 -00.5	N 11	59.7 +01.2		223 43.6 -28.1	N 15	55.2 -06.6		09
10	330 10.4 +00.1	N 10	57.1 +00.8		324 47.7 -00.5	N 12	00.9 +01.1		238 15.5 -27.9	N 15	48.6 -06.6		10
11	345 10.5 +00.2	N 10	57.9 +00.9		339 47.2 -00.5	N 12	02.0 +01.1		252 47.6 -28.0	N 15	42.0 -06.7		11
12	0 10.7 +00.1	N 10	58.8 +00.9		354 46.7 -00.4	N 12	03.1 +01.1		267 19.6 -28.0	N 15	35.3 -06.8		12
13	15 10.8 +00.2	N 10	59.7 +00.9		9 46.3 -00.5	N 12	04.2 +01.1		281 51.6 -27.9	N 15	28.5 -06.9		13
14	30 11.0 +00.1	N 11	00.6 +00.8		24 45.8 -00.5	N 12	05.3 +01.1		296 23.7 -28.0	N 15	21.6 -07.0		14
15	45 11.1 +00.1	N 11	01.4 +00.9		39 45.3 -00.5	N 12	06.4 +01.2		310 55.7 -27.9	N 15	14.6 -07.0		15
16	60 11.2 +00.2	N 11	02.3 +00.9		54 44.8 -00.5	N 12	07.6 +01.1		325 27.8 -27.9	N 15	07.6 -07.1		16
17	75 11.4 +00.1	N 11	03.2 +00.8		69 44.3 -00.5	N 12	08.7 +01.1		339 59.9 -27.9	N 15	00.5 -07.2		17
18	90 11.5 +00.1	N 11	04.0 +00.9		84 43.8 -00.5	N 12	09.8 +01.1		354 32.0 -27.9	N 14	53.3 -07.2		18
19	105 11.6 +00.2	N 11	04.9 +00.9		99 43.3 -00.4	N 12	10.9 +01.1		9 04.1 -27.9	N 14	46.1 -07.3		19
20	120 11.8 +00.1	N 11	05.8 +00.8		114 42.9 -00.5	N 12	12.0 +01.1		23 36.2 -27.9	N 14	38.8 -07.4		20
21	135 11.9 +00.1	N 11	06.6 +00.9		129 42.4 -00.5	N 12	13.1 +01.2		38 08.3 -27.8	N 14	31.4 -07.5		21
22	150 12.0 +00.2	N 11	07.5 +00.9		144 41.9 -00.5	N 12	14.3 +01.1		52 40.5 -27.9	N 14	23.9 -07.5		22
23	165 12.2 +00.1	N 11	08.4 +00.8		159 41.4 -00.5	N 12	15.4 +01.1		67 12.6 -27.8	N 14	16.4 -07.6		23
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 14'9 14'9 14'9 14'9 14'9 15'0				
	HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 54'5 54'6 54'6 54'7 54'8 54'9				
	Greenwich Culmination Time: 11:59				Greenwich Culmination Time: 12:21				Greenwich Culmination Time: 18:23				

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 00.1 +00.7	N 10	26.1 +00.7		132 37.6 +01.9	N 22	14.1 +00.0		348 47.8 +02.6	S 11	57.0 -00.1		00
01	195 00.8 +00.7	N 10	26.8 +00.7		147 39.5 +02.0	N 22	14.1 +00.1		3 50.4 +02.6	S 11	56.9 +00.0		01
02	210 01.5 +00.7	N 10	27.5 +00.7		162 41.5 +01.9	N 22	14.2 +00.0		18 53.0 +02.7	S 11	56.9 -00.1		02
03	225 02.2 +00.7	N 10	28.2 +00.7		177 43.4 +02.0	N 22	14.2 +00.1		33 55.7 +02.6	S 11	56.8 +00.0		03
04	240 02.9 +00.7	N 10	28.9 +00.6		192 45.4 +01.9	N 22	14.3 +00.1		48 58.3 +02.7	S 11	56.8 -00.1		04
05	255 03.6 +00.7	N 10	29.5 +00.7		207 47.3 +02.0	N 22	14.4 +00.0		64 01.0 +02.6	S 11	56.7 -00.1		05
06	270 04.3 +00.6	N 10	30.2 +00.7		222 49.3 +01.9	N 22	14.4 +00.1		79 03.6 +02.6	S 11	56.6 +00.0		06
07	285 04.9 +00.7	N 10	30.9 +00.7		237 51.2 +02.0	N 22	14.5 +00.0		94 06.2 +02.7	S 11	56.6 -00.1		07
08	300 05.6 +00.7	N 10	31.6 +00.7		252 53.2 +01.9	N 22	14.5 +00.1		109 08.9 +02.6	S 11	56.5 +00.0		08
09	315 06.3 +00.7	N 10	32.3 +00.7		267 55.1 +02.0	N 22	14.6 +00.1		124 11.5 +02.7	S 11	56.5 -00.1		09
10	330 07.0 +00.7	N 10	33.0 +00.7		282 57.1 +01.9	N 22	14.7 +00.0		139 14.2 +02.6	S 11	56.4 -00.1		10
11	345 07.7 +00.7	N 10	33.7 +00.7		297 59.0 +02.0	N 22	14.7 +00.1		154 16.8 +02.7	S 11	56.3 +00.0		11
12	0 08.4 +00.7	N 10	34.4 +00.7		313 01.0 +01.9	N 22	14.8 +00.0		169 19.5 +02.6	S 11	56.3 -00.1		12
13	15 09.1 +00.7	N 10	35.1 +00.7		328 02.9 +02.0	N 22	14.8 +00.1		184 22.1 +02.6	S 11	56.2 +00.0		13
14	30 09.8 +00.6	N 10	35.8 +00.7		343 04.9 +01.9	N 22	14.9 +00.1		199 24.7 +02.7	S 11	56.2 -00.1		14
15	45 10.4 +00.7	N 10	36.5 +00.7		358 06.8 +02.0	N 22	15.0 +00.0		214 27.4 +02.6	S 11	56.1 -00.1		15
16	60 11.1 +00.7	N 10	37.2 +00.7		13 08.8 +01.9	N 22	15.0 +00.1		229 30.0 +02.7	S 11	56.0 +00.0		16
17	75 11.8 +00.7	N 10	37.9 +00.7		28 10.7 +02.0	N 22	15.1 +00.0		244 32.7 +02.6	S 11	56.0 -00.1		17
18	90 12.5 +00.7	N 10	38.6 +00.6		43 12.7 +01.9	N 22	15.1 +00.1		259 35.3 +02.7	S 11	55.9 +00.0		18
19	105 13.2 +00.7	N 10	39.2 +00.7		58 14.6 +02.0	N 22	15.2 +00.0		274 38.0 +02.6	S 11	55.9 -00.1		19
20	120 13.9 +00.7	N 10	39.9 +00.7		73 16.6 +01.9	N 22	15.2 +00.1		289 40.6 +02.7	S 11	55.8 -00.1		20
21	135 14.6 +00.7	N 10	40.6 +00.7		88 18.5 +02.0	N 22	15.3 +00.1		304 43.3 +02.6	S 11	55.7 +00.0		21
22	150 15.3 +00.6	N 10	41.3 +00.7		103 20.5 +01.9	N 22	15.4 +00.0		319 45.9 +02.6	S 11	55.7 -00.1		22
23	165 15.9 +00.7	N 10	42.0 +00.7		118 22.4 +02.0	N 22	15.4 +00.1		334 48.5 +02.7	S 11	55.6 +00.0		23
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0				SD 00'3 00'3 00'3 00'3 00'3 00'3				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 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0				
	Greenwich Culmination Time: 11:59				Greenwich Culmination Time: 15:08				Greenwich Culmination Time: 00:45				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.29					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 12.3 +00.2	N 11 09.2 +00.9	174 40.9 -00.5	N 12 16.5 +01.1	81 44.8 -27.8	N 14 08.8 -07.6	00								
01	195 12.5 +00.1	N 11 10.1 +00.8	189 40.4 -00.5	N 12 17.6 +01.1	96 17.0 -27.8	N 14 01.2 -07.8	01								
02	210 12.6 +00.1	N 11 10.9 +00.9	204 39.9 -00.5	N 12 18.7 +01.1	110 49.2 -27.9	N 13 53.4 -07.8	02								
03	225 12.7 +00.2	N 11 11.8 +00.9	219 39.4 -00.4	N 12 19.8 +01.1	125 21.3 -27.8	N 13 45.6 -07.8	03								
04	240 12.9 +00.1	N 11 12.7 +00.8	234 39.0 -00.5	N 12 20.9 +01.1	139 53.5 -27.7	N 13 37.8 -08.0	04								
05	255 13.0 +00.1	N 11 13.5 +00.9	249 38.5 -00.5	N 12 22.0 +01.1	154 25.8 -27.8	N 13 29.8 -08.0	05								
06	270 13.1 +00.2	N 11 14.4 +00.9	264 38.0 -00.5	N 12 23.1 +01.2	168 58.0 -27.8	N 13 21.8 -08.1	06								
07	285 13.3 +00.1	N 11 15.3 +00.8	279 37.5 -00.5	N 12 24.3 +01.1	183 30.2 -27.8	N 13 13.7 -08.1	07								
08	300 13.4 +00.1	N 11 16.1 +00.9	294 37.0 -00.5	N 12 25.4 +01.1	198 02.4 -27.7	N 13 05.6 -08.2	08								
09	315 13.5 +00.2	N 11 17.0 +00.9	309 36.5 -00.5	N 12 26.5 +01.1	212 34.7 -27.8	N 12 57.4 -08.3	09								
10	330 13.7 +00.1	N 11 17.9 +00.8	324 36.0 -00.5	N 12 27.6 +01.1	227 06.9 -27.7	N 12 49.1 -08.3	10								
11	345 13.8 +00.1	N 11 18.7 +00.9	339 35.5 -00.5	N 12 28.7 +01.1	241 39.2 -27.8	N 12 40.8 -08.4	11								
12	0 13.9 +00.2	N 11 19.6 +00.8	354 35.0 -00.5	N 12 29.8 +01.1	256 11.4 -27.7	N 12 32.4 -08.4	12								
13	15 14.1 +00.1	N 11 20.4 +00.9	9 34.5 -00.5	N 12 30.9 +01.1	270 43.7 -27.7	N 12 24.0 -08.6	13								
14	30 14.2 +00.1	N 11 21.3 +00.9	24 34.0 -00.4	N 12 32.0 +01.1	285 16.0 -27.8	N 12 15.4 -08.6	14								
15	45 14.3 +00.2	N 11 22.2 +00.8	39 33.6 -00.5	N 12 33.1 +01.1	299 48.2 -27.7	N 12 06.8 -08.6	15								
16	60 14.5 +00.1	N 11 23.0 +00.9	54 33.1 -00.5	N 12 34.2 +01.1	314 20.5 -27.7	N 11 58.2 -08.7	16								
17	75 14.6 +00.1	N 11 23.9 +00.8	69 32.6 -00.5	N 12 35.3 +01.1	328 52.8 -27.7	N 11 49.5 -08.8	17								
18	90 14.7 +00.2	N 11 24.7 +00.9	84 32.1 -00.5	N 12 36.4 +01.1	343 25.1 -27.8	N 11 40.7 -08.8	18								
19	105 14.9 +00.1	N 11 25.6 +00.9	99 31.6 -00.5	N 12 37.5 +01.1	357 57.3 -27.7	N 11 31.9 -08.9	19								
20	120 15.0 +00.1	N 11 26.5 +00.8	114 31.1 -00.5	N 12 38.6 +01.1	12 29.6 -27.7	N 11 23.0 -09.0	20								
21	135 15.1 +00.2	N 11 27.3 +00.9	129 30.6 -00.5	N 12 39.7 +01.1	27 01.9 -27.7	N 11 14.0 -09.0	21								
22	150 15.3 +00.1	N 11 28.2 +00.8	144 30.1 -00.5	N 12 40.8 +01.1	41 34.2 -27.7	N 11 05.0 -09.1	22								
23	165 15.4 +00.1	N 11 29.0 +00.9	159 29.6 -00.5	N 12 41.9 +01.1	56 06.5 -27.7	N 10 55.9 -09.1	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 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 15'0 15'0 15'0 15'1 15'1 15'1										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:59	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:22	HP 55'0 55'0 55'1 55'2 55'3 55'4	Greenwich Culmination Time: 19:08										

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 16.6 +00.7	N 10 42.7 +00.7	133 24.4 +01.9	N 22 15.5 +00.0	349 51.2 +02.6	S 11 55.6 -00.1	00								
01	195 17.3 +00.7	N 10 43.4 +00.7	148 26.3 +02.0	N 22 15.5 +00.1	4 53.8 +02.7	S 11 55.5 -00.1	01								
02	210 18.0 +00.7	N 10 44.1 +00.7	163 28.3 +01.9	N 22 15.6 +00.1	19 56.5 +02.6	S 11 55.4 +00.0	02								
03	225 18.7 +00.7	N 10 44.8 +00.7	178 30.2 +01.9	N 22 15.7 +00.0	34 59.1 +02.7	S 11 55.4 -00.1	03								
04	240 19.4 +00.7	N 10 45.5 +00.6	193 32.1 +02.0	N 22 15.7 +00.1	50 01.8 +02.6	S 11 55.3 +00.0	04								
05	255 20.1 +00.6	N 10 46.1 +00.7	208 34.1 +01.9	N 22 15.8 +00.0	65 04.4 +02.6	S 11 55.3 -00.1	05								
06	270 20.7 +00.7	N 10 46.8 +00.7	223 36.0 +02.0	N 22 15.8 +00.1	80 07.0 +02.7	S 11 55.2 -00.1	06								
07	285 21.4 +00.7	N 10 47.5 +00.7	238 38.0 +01.9	N 22 15.9 +00.1	95 09.7 +02.6	S 11 55.1 +00.0	07								
08	300 22.1 +00.7	N 10 48.2 +00.7	253 39.9 +02.0	N 22 16.0 +00.0	110 12.3 +02.7	S 11 55.1 -00.1	08								
09	315 22.8 +00.7	N 10 48.9 +00.7	268 41.9 +01.9	N 22 16.0 +00.1	125 15.0 +02.6	S 11 55.0 +00.0	09								
10	330 23.5 +00.7	N 10 49.6 +00.7	283 43.8 +02.0	N 22 16.1 +00.0	140 17.6 +02.7	S 11 55.0 -00.1	10								
11	345 24.2 +00.7	N 10 50.3 +00.7	298 45.8 +01.9	N 22 16.1 +00.1	155 20.3 +02.6	S 11 54.9 -00.1	11								
12	0 24.9 +00.6	N 10 51.0 +00.7	313 47.7 +02.0	N 22 16.2 +00.1	170 22.9 +02.6	S 11 54.8 +00.0	12								
13	15 25.5 +00.7	N 10 51.7 +00.6	328 49.7 +01.9	N 22 16.3 +00.0	185 25.5 +02.7	S 11 54.8 -00.1	13								
14	30 26.2 +00.7	N 10 52.3 +00.7	343 51.6 +01.9	N 22 16.3 +00.1	200 28.2 +02.6	S 11 54.7 +00.0	14								
15	45 26.9 +00.7	N 10 53.0 +00.7	358 53.5 +02.0	N 22 16.4 +00.0	215 30.8 +02.7	S 11 54.7 -00.1	15								
16	60 27.6 +00.7	N 10 53.7 +00.7	13 55.5 +01.9	N 22 16.4 +00.1	230 33.5 +02.6	S 11 54.6 -00.1	16								
17	75 28.3 +00.7	N 10 54.4 +00.7	28 57.4 +02.0	N 22 16.5 +00.0	245 36.1 +02.7	S 11 54.5 +00.0	17								
18	90 29.0 +00.6	N 10 55.1 +00.7	43 59.4 +01.9	N 22 16.5 +00.1	260 38.8 +02.6	S 11 54.5 -00.1	18								
19	105 29.6 +00.7	N 10 55.8 +00.7	59 01.3 +02.0	N 22 16.6 +00.1	275 41.4 +02.7	S 11 54.4 +00.0	19								
20	120 30.3 +00.7	N 10 56.5 +00.6	74 03.3 +01.9	N 22 16.7 +00.0	290 44.1 +02.6	S 11 54.4 -00.1	20								
21	135 31.0 +00.7	N 10 57.1 +00.7	89 05.2 +01.9	N 22 16.7 +00.1	305 46.7 +02.6	S 11 54.3 -00.1	21								
22	150 31.7 +00.7	N 10 57.8 +00.7	104 07.1 +02.0	N 22 16.8 +00.0	320 49.3 +02.7	S 11 54.2 +00.0	22								
23	165 32.4 +00.7	N 10 58.5 +00.7	119 09.1 +01.9	N 22 16.8 +00.1	335 52.0 +02.6	S 11 54.2 -00.1	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:58	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 15:04	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 00:40										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> <i>a</i> = 0.32				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	180 15.5 +00.2	N 11	29.9 +00.8		174 29.1 -00.5	N 12	43.0 +01.1		70 38.8 -27.7	N 10	46.8 -09.2		00
01	195 15.7 +00.1	N 11	30.7 +00.9		189 28.6 -00.5	N 12	44.1 +01.1		85 11.1 -27.8	N 10	37.6 -09.2		01
02	210 15.8 +00.1	N 11	31.6 +00.9		204 28.1 -00.5	N 12	45.2 +01.1		99 43.3 -27.7	N 10	28.4 -09.4		02
03	225 15.9 +00.2	N 11	32.5 +00.8		219 27.6 -00.5	N 12	46.3 +01.1		114 15.6 -27.7	N 10	19.0 -09.3		03
04	240 16.1 +00.1	N 11	33.3 +00.9		234 27.1 -00.5	N 12	47.4 +01.1		128 47.9 -27.7	N 10	09.7 -09.4		04
05	255 16.2 +00.1	N 11	34.2 +00.8		249 26.6 -00.5	N 12	48.5 +01.1		143 20.2 -27.8	N 10	00.3 -09.5		05
06	270 16.3 +00.2	N 11	35.0 +00.9		264 26.1 -00.5	N 12	49.6 +01.1		157 52.4 -27.7	N 09	50.8 -09.5		06
07	285 16.5 +00.1	N 11	35.9 +00.8		279 25.6 -00.5	N 12	50.7 +01.1		172 24.7 -27.7	N 09	41.3 -09.6		07
08	300 16.6 +00.1	N 11	36.7 +00.9		294 25.1 -00.5	N 12	51.8 +01.1		186 57.0 -27.8	N 09	31.7 -09.7		08
09	315 16.7 +00.2	N 11	37.6 +00.8		309 24.6 -00.5	N 12	52.9 +01.1		201 29.2 -27.7	N 09	22.0 -09.7		09
10	330 16.9 +00.1	N 11	38.4 +00.9		324 24.1 -00.5	N 12	54.0 +01.1		216 01.5 -27.8	N 09	12.3 -09.7		10
11	345 17.0 +00.1	N 11	39.3 +00.8		339 23.6 -00.5	N 12	55.1 +01.1		230 33.7 -27.7	N 09	02.6 -09.8		11
12	0 17.1 +00.1	N 11	40.1 +00.9		354 23.1 -00.5	N 12	56.2 +01.1		245 06.0 -27.8	N 08	52.8 -09.8		12
13	15 17.2 +00.2	N 11	41.0 +00.9		9 22.6 -00.5	N 12	57.3 +01.1		259 38.2 -27.8	N 08	43.0 -09.9		13
14	30 17.4 +00.1	N 11	41.9 +00.8		24 22.1 -00.5	N 12	58.4 +01.1		274 10.4 -27.7	N 08	33.1 -10.0		14
15	45 17.5 +00.1	N 11	42.7 +00.9		39 21.6 -00.5	N 12	59.5 +01.1		288 42.7 -27.8	N 08	23.1 -10.0		15
16	60 17.6 +00.2	N 11	43.6 +00.8		54 21.1 -00.5	N 13	00.6 +01.1		303 14.9 -27.8	N 08	13.1 -10.0		16
17	75 17.8 +00.1	N 11	44.4 +00.9		69 20.6 -00.5	N 13	01.7 +01.1		317 47.1 -27.9	N 08	03.1 -10.1		17
18	90 17.9 +00.1	N 11	45.3 +00.8		84 20.1 -00.5	N 13	02.8 +01.0		332 19.2 -27.8	N 07	53.0 -10.2		18
19	105 18.0 +00.1	N 11	46.1 +00.9		99 19.6 -00.5	N 13	03.8 +01.1		346 51.4 -27.8	N 07	42.8 -10.2		19
20	120 18.1 +00.2	N 11	47.0 +00.8		114 19.1 -00.5	N 13	04.9 +01.1		1 23.6 -27.9	N 07	32.6 -10.2		20
21	135 18.3 +00.1	N 11	47.8 +00.9		129 18.6 -00.5	N 13	06.0 +01.1		15 55.7 -27.8	N 07	22.4 -10.3		21
22	150 18.4 +00.1	N 11	48.7 +00.8		144 18.1 -00.5	N 13	07.1 +01.1		30 27.9 -27.9	N 07	12.1 -10.3		22
23	165 18.5 +00.2	N 11	49.5 +00.9		159 17.6 -00.5	N 13	08.2 +01.1		44 60.0 -27.9	N 07	01.8 -10.4		23
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 15'1 15'2 15'2 15'2 15'3 15'3			
	HP 00'1 00'1 00'1 00'1 00'1 00'1					HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 55'6 55'7 55'8 55'9 56'0 56'2			
	Greenwich Culmination Time: 11:59					Greenwich Culmination Time: 12:22				Greenwich Culmination Time: 19:54			

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	180 33.1 +00.7	N 10	59.2 +00.7		134 11.0 +02.0	N 22	16.9 +00.1		350 54.6 +02.7	S 11	54.1 +00.0		00
01	195 33.8 +00.6	N 10	59.9 +00.7		149 13.0 +01.9	N 22	17.0 +00.0		5 57.3 +02.6	S 11	54.1 -00.1		01
02	210 34.4 +00.7	N 11	00.6 +00.7		164 14.9 +02.0	N 22	17.0 +00.1		20 59.9 +02.7	S 11	54.0 -00.1		02
03	225 35.1 +00.7	N 11	01.3 +00.6		179 16.9 +01.9	N 22	17.1 +00.0		36 02.6 +02.6	S 11	53.9 +00.0		03
04	240 35.8 +00.7	N 11	01.9 +00.7		194 18.8 +01.9	N 22	17.1 +00.1		51 05.2 +02.7	S 11	53.9 -00.1		04
05	255 36.5 +00.7	N 11	02.6 +00.7		209 20.7 +02.0	N 22	17.2 +00.1		66 07.9 +02.6	S 11	53.8 +00.0		05
06	270 37.2 +00.7	N 11	03.3 +00.7		224 22.7 +01.9	N 22	17.3 +00.0		81 10.5 +02.6	S 11	53.8 -00.1		06
07	285 37.9 +00.6	N 11	04.0 +00.7		239 24.6 +02.0	N 22	17.3 +00.1		96 13.1 +02.7	S 11	53.7 -00.1		07
08	300 38.5 +00.7	N 11	04.7 +00.7		254 26.6 +01.9	N 22	17.4 +00.0		111 15.8 +02.6	S 11	53.6 +00.0		08
09	315 39.2 +00.7	N 11	05.4 +00.6		269 28.5 +02.0	N 22	17.4 +00.1		126 18.4 +02.7	S 11	53.6 -00.1		09
10	330 39.9 +00.7	N 11	06.0 +00.7		284 30.5 +01.9	N 22	17.5 +00.0		141 21.1 +02.6	S 11	53.5 +00.0		10
11	345 40.6 +00.7	N 11	06.7 +00.7		299 32.4 +01.9	N 22	17.5 +00.1		156 23.7 +02.7	S 11	53.5 -00.1		11
12	0 41.3 +00.7	N 11	07.4 +00.7		314 34.3 +02.0	N 22	17.6 +00.1		171 26.4 +02.6	S 11	53.4 -00.1		12
13	15 42.0 +00.7	N 11	08.1 +00.7		329 36.3 +01.9	N 22	17.7 +00.0		186 29.0 +02.7	S 11	53.3 +00.0		13
14	30 42.7 +00.6	N 11	08.8 +00.7		344 38.2 +02.0	N 22	17.7 +00.1		201 31.7 +02.6	S 11	53.3 -00.1		14
15	45 43.3 +00.7	N 11	09.5 +00.6		359 40.2 +01.9	N 22	17.8 +00.0		216 34.3 +02.6	S 11	53.2 +00.0		15
16	60 44.0 +00.7	N 11	10.1 +00.7		14 42.1 +01.9	N 22	17.8 +00.1		231 36.9 +02.7	S 11	53.2 -00.1		16
17	75 44.7 +00.7	N 11	10.8 +00.7		29 44.0 +02.0	N 22	17.9 +00.1		246 39.6 +02.6	S 11	53.1 -00.1		17
18	90 45.4 +00.7	N 11	11.5 +00.7		44 46.0 +01.9	N 22	18.0 +00.0		261 42.2 +02.7	S 11	53.0 +00.0		18
19	105 46.1 +00.7	N 11	12.2 +00.7		59 47.9 +02.0	N 22	18.0 +00.1		276 44.9 +02.6	S 11	53.0 -00.1		19
20	120 46.8 +00.6	N 11	12.9 +00.6		74 49.9 +01.9	N 22	18.1 +00.0		291 47.5 +02.7	S 11	52.9 +00.0		20
21	135 47.4 +00.7	N 11	13.5 +00.7		89 51.8 +01.9	N 22	18.1 +00.1		306 50.2 +02.6	S 11	52.9 -00.1		21
22	150 48.1 +00.7	N 11	14.2 +00.7		104 53.7 +02.0	N 22	18.2 +00.1		321 52.8 +02.7	S 11	52.8 -00.1		22
23	165 48.8 +00.7	N 11	14.9 +00.7		119 55.7 +01.9	N 22	18.3 +00.0		336 55.5 +02.6	S 11	52.7 +00.0		23
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0					SD 00'3 00'3 00'3 00'3 00'3 00'3				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 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0			
	Greenwich Culmination Time: 11:57					Greenwich Culmination Time: 15:01				Greenwich Culmination Time: 00:36			

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.35$				UT	
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "		
00	180 18.7 +00.1	N 11	50.4 +00.8	174 17.1 -00.5	N 13	09.3 +01.1	59 32.1 -27.9	N 06	51.4 -10.4	00				
01	195 18.8 +00.1	N 11	51.2 +00.9	189 16.6 -00.6	N 13	10.4 +01.1	74 04.2 -27.9	N 06	41.0 -10.5	01				
02	210 18.9 +00.1	N 11	52.1 +00.8	204 16.0 -00.5	N 13	11.5 +01.0	88 36.3 -28.0	N 06	30.5 -10.5	02				
03	225 19.0 +00.2	N 11	52.9 +00.9	219 15.5 -00.5	N 13	12.5 +01.1	103 08.3 -27.9	N 06	20.0 -10.6	03				
04	240 19.2 +00.1	N 11	53.8 +00.8	234 15.0 -00.5	N 13	13.6 +01.1	117 40.4 -28.0	N 06	09.4 -10.6	04				
05	255 19.3 +00.1	N 11	54.6 +00.9	249 14.5 -00.5	N 13	14.7 +01.1	132 12.4 -28.0	N 05	58.8 -10.6	05				
06	270 19.4 +00.1	N 11	55.5 +00.8	264 14.0 -00.5	N 13	15.8 +01.1	146 44.4 -28.0	N 05	48.2 -10.7	06				
07	285 19.5 +00.2	N 11	56.3 +00.8	279 13.5 -00.5	N 13	16.9 +01.1	161 16.4 -28.1	N 05	37.5 -10.7	07				
08	300 19.7 +00.1	N 11	57.1 +00.9	294 13.0 -00.5	N 13	18.0 +01.0	175 48.3 -28.0	N 05	26.8 -10.8	08				
09	315 19.8 +00.1	N 11	58.0 +00.8	309 12.5 -00.5	N 13	19.0 +01.1	190 20.3 -28.1	N 05	16.0 -10.7	09				
10	330 19.9 +00.1	N 11	58.8 +00.9	324 12.0 -00.5	N 13	20.1 +01.1	204 52.2 -28.1	N 05	05.3 -10.9	10				
11	345 20.0 +00.2	N 11	59.7 +00.8	339 11.5 -00.5	N 13	21.2 +01.1	219 24.1 -28.1	N 04	54.4 -10.8	11				
12	0 20.2 +00.1	N 12	00.5 +00.9	354 11.0 -00.6	N 13	22.3 +01.1	233 56.0 -28.2	N 04	43.6 -11.0	12				
13	15 20.3 +00.1	N 12	01.4 +00.8	9 10.4 -00.5	N 13	23.4 +01.0	248 27.8 -28.1	N 04	32.6 -10.9	13				
14	30 20.4 +00.2	N 12	02.2 +00.9	24 09.9 -00.5	N 13	24.4 +01.1	262 59.7 -28.2	N 04	21.7 -11.0	14				
15	45 20.6 +00.1	N 12	03.1 +00.8	39 09.4 -00.5	N 13	25.5 +01.1	277 31.5 -28.2	N 04	10.7 -11.0	15				
16	60 20.7 +00.1	N 12	03.9 +00.9	54 08.9 -00.5	N 13	26.6 +01.1	292 03.3 -28.3	N 03	59.7 -11.0	16				
17	75 20.8 +00.1	N 12	04.8 +00.8	69 08.4 -00.5	N 13	27.7 +01.1	306 35.0 -28.3	N 03	48.7 -11.1	17				
18	90 20.9 +00.1	N 12	05.6 +00.8	84 07.9 -00.5	N 13	28.8 +01.0	321 06.7 -28.3	N 03	37.6 -11.1	18				
19	105 21.0 +00.2	N 12	06.4 +00.9	99 07.4 -00.5	N 13	29.8 +01.1	335 38.4 -28.3	N 03	26.5 -11.1	19				
20	120 21.2 +00.1	N 12	07.3 +00.8	114 06.9 -00.6	N 13	30.9 +01.1	350 10.1 -28.3	N 03	15.4 -11.2	20				
21	135 21.3 +00.1	N 12	08.1 +00.9	129 06.3 -00.5	N 13	32.0 +01.1	4 41.8 -28.4	N 03	04.2 -11.2	21				
22	150 21.4 +00.1	N 12	09.0 +00.8	144 05.8 -00.5	N 13	33.1 +01.0	19 13.4 -28.5	N 02	53.0 -11.2	22				
23	165 21.5 +00.2	N 12	09.8 +00.8	159 05.3 -00.5	N 13	34.1 +01.1	33 44.9 -28.4	N 02	41.8 -11.3	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	Greenwich Culmination Time: 11:59		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	Greenwich Culmination Time: 12:23		UT 02 06 10 14 18 22	SD 15'3 15'4 15'4 15'4 15'5 15'5	HP 56'3 56'4 56'6 56'7 56'8 57'0	Greenwich Culmination Time: 20:41	

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT	
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "		
00	180 49.5 +00.7	N 11	15.6 +00.7	134 57.6 +02.0	N 22	18.3 +00.1	351 58.1 +02.6	S 11	52.7 -00.1	00				
01	195 50.2 +00.7	N 11	16.3 +00.6	149 59.6 +01.9	N 22	18.4 +00.0	7 00.7 +02.7	S 11	52.6 +00.0	01				
02	210 50.9 +00.6	N 11	16.9 +00.7	165 01.5 +01.9	N 22	18.4 +00.1	22 03.4 +02.6	S 11	52.6 -00.1	02				
03	225 51.5 +00.7	N 11	17.6 +00.7	180 03.4 +02.0	N 22	18.5 +00.0	37 06.0 +02.7	S 11	52.5 -00.1	03				
04	240 52.2 +00.7	N 11	18.3 +00.7	195 05.4 +01.9	N 22	18.5 +00.1	52 08.7 +02.6	S 11	52.4 +00.0	04				
05	255 52.9 +00.7	N 11	19.0 +00.7	210 07.3 +02.0	N 22	18.6 +00.1	67 11.3 +02.7	S 11	52.4 -00.1	05				
06	270 53.6 +00.7	N 11	19.7 +00.6	225 09.3 +01.9	N 22	18.7 +00.0	82 14.0 +02.6	S 11	52.3 +00.0	06				
07	285 54.3 +00.7	N 11	20.3 +00.7	240 11.2 +01.9	N 22	18.7 +00.1	97 16.6 +02.7	S 11	52.3 -00.1	07				
08	300 55.0 +00.6	N 11	21.0 +00.7	255 13.1 +02.0	N 22	18.8 +00.0	112 19.3 +02.6	S 11	52.2 -00.1	08				
09	315 55.6 +00.7	N 11	21.7 +00.7	270 15.1 +01.9	N 22	18.8 +00.1	127 21.9 +02.7	S 11	52.1 +00.0	09				
10	330 56.3 +00.7	N 11	22.4 +00.7	285 17.0 +01.9	N 22	18.9 +00.1	142 24.6 +02.6	S 11	52.1 -00.1	10				
11	345 57.0 +00.7	N 11	23.1 +00.6	300 18.9 +02.0	N 22	19.0 +00.0	157 27.2 +02.6	S 11	52.0 +00.0	11				
12	0 57.7 +00.7	N 11	23.7 +00.7	315 20.9 +01.9	N 22	19.0 +00.1	172 29.8 +02.7	S 11	52.0 -00.1	12				
13	15 58.4 +00.7	N 11	24.4 +00.7	330 22.8 +02.0	N 22	19.1 +00.0	187 32.5 +02.6	S 11	51.9 -00.1	13				
14	30 59.1 +00.6	N 11	25.1 +00.7	345 24.8 +01.9	N 22	19.1 +00.1	202 35.1 +02.7	S 11	51.8 +00.0	14				
15	45 59.7 +00.7	N 11	25.8 +00.6	0 26.7 +01.9	N 22	19.2 +00.0	217 37.8 +02.6	S 11	51.8 -00.1	15				
16	61 00.4 +00.7	N 11	26.4 +00.7	15 28.6 +02.0	N 22	19.2 +00.1	232 40.4 +02.7	S 11	51.7 +00.0	16				
17	76 01.1 +00.7	N 11	27.1 +00.7	30 30.6 +01.9	N 22	19.3 +00.1	247 43.1 +02.6	S 11	51.7 -00.1	17				
18	91 01.8 +00.7	N 11	27.8 +00.7	45 32.5 +01.9	N 22	19.4 +00.0	262 45.7 +02.7	S 11	51.6 -00.1	18				
19	106 02.5 +00.6	N 11	28.5 +00.7	60 34.4 +02.0	N 22	19.4 +00.1	277 48.4 +02.6	S 11	51.5 +00.0	19				
20	121 03.1 +00.7	N 11	29.2 +00.6	75 36.4 +01.9	N 22	19.5 +00.0	292 51.0 +02.7	S 11	51.5 -00.1	20				
21	136 03.8 +00.7	N 11	29.8 +00.7	90 38.3 +01.9	N 22	19.5 +00.1	307 53.7 +02.6	S 11	51.4 +00.0	21				
22	151 04.5 +00.7	N 11	30.5 +00.7	105 40.2 +02.0	N 22	19.6 +00.0	322 56.3 +02.6	S 11	51.4 -00.1	22				
23	166 05.2 +00.7	N 11	31.2 +00.7	120 42.2 +01.9	N 22	19.6 +00.1	337 58.9 +02.7	S 11	51.3 -00.1	23				
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:56		UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:58		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	Greenwich Culmination Time: 00:32	

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.38					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 21.7 +00.1	N 12 10.6 +00.9	174 04.8 -00.5	N 13 35.2 +01.1	48 16.5 -28.5	N 02 30.5 -11.3	00								
01	195 21.8 +00.1	N 12 11.5 +00.8	189 04.3 -00.5	N 13 36.3 +01.1	62 48.0 -28.5	N 02 19.2 -11.3	01								
02	210 21.9 +00.1	N 12 12.3 +00.9	204 03.8 -00.6	N 13 37.4 +01.0	77 19.5 -28.6	N 02 07.9 -11.3	02								
03	225 22.0 +00.2	N 12 13.2 +00.8	219 03.2 -00.5	N 13 38.4 +01.1	91 50.9 -28.5	N 01 56.6 -11.4	03								
04	240 22.2 +00.1	N 12 14.0 +00.8	234 02.7 -00.5	N 13 39.5 +01.1	106 22.4 -28.7	N 01 45.2 -11.4	04								
05	255 22.3 +00.1	N 12 14.8 +00.9	249 02.2 -00.5	N 13 40.6 +01.0	120 53.7 -28.6	N 01 33.8 -11.4	05								
06	270 22.4 +00.1	N 12 15.7 +00.8	264 01.7 -00.5	N 13 41.6 +01.1	135 25.1 -28.7	N 01 22.4 -11.4	06								
07	285 22.5 +00.1	N 12 16.5 +00.9	279 01.2 -00.5	N 13 42.7 +01.1	149 56.4 -28.7	N 01 11.0 -11.4	07								
08	300 22.6 +00.2	N 12 17.4 +00.8	294 00.7 -00.6	N 13 43.8 +01.0	164 27.7 -28.8	N 00 59.6 -11.5	08								
09	315 22.8 +00.1	N 12 18.2 +00.8	309 00.1 -00.5	N 13 44.8 +01.1	178 58.9 -28.8	N 00 48.1 -11.5	09								
10	330 22.9 +00.1	N 12 19.0 +00.9	323 59.6 -00.5	N 13 45.9 +01.1	193 30.1 -28.9	N 00 36.6 -11.5	10								
11	345 23.0 +00.1	N 12 19.9 +00.8	338 59.1 -00.5	N 13 47.0 +01.1	208 01.2 -28.9	N 00 25.1 -11.5	11								
12	0 23.1 +00.2	N 12 20.7 +00.8	353 58.6 -00.5	N 13 48.1 +01.0	222 32.3 -28.9	N 00 13.6 -11.6	12								
13	15 23.3 +00.1	N 12 21.5 +00.9	8 58.1 -00.6	N 13 49.1 +01.1	237 03.4 -29.0	N 00 02.0 -11.5	13								
14	30 23.4 +00.1	N 12 22.4 +00.8	23 57.5 -00.5	N 13 50.2 +01.0	251 34.4 -29.0	S 00 09.5 +11.6	14								
15	45 23.5 +00.1	N 12 23.2 +00.9	38 57.0 -00.5	N 13 51.2 +01.1	266 05.4 -29.0	S 00 21.1 +11.6	15								
16	60 23.6 +00.1	N 12 24.1 +00.8	53 56.5 -00.5	N 13 52.3 +01.1	280 36.4 -29.1	S 00 32.7 +11.6	16								
17	75 23.7 +00.2	N 12 24.9 +00.8	68 56.0 -00.6	N 13 53.4 +01.0	295 07.3 -29.2	S 00 44.3 +11.6	17								
18	90 23.9 +00.1	N 12 25.7 +00.9	83 55.4 -00.5	N 13 54.4 +01.1	309 38.1 -29.2	S 00 55.9 +11.6	18								
19	105 24.0 +00.1	N 12 26.6 +00.8	98 54.9 -00.5	N 13 55.5 +01.1	324 08.9 -29.2	S 01 07.5 +11.6	19								
20	120 24.1 +00.1	N 12 27.4 +00.8	113 54.4 -00.5	N 13 56.6 +01.0	338 39.7 -29.3	S 01 19.1 +11.7	20								
21	135 24.2 +00.1	N 12 28.2 +00.9	128 53.9 -00.6	N 13 57.6 +01.1	353 10.4 -29.3	S 01 30.8 +11.6	21								
22	150 24.3 +00.2	N 12 29.1 +00.8	143 53.3 -00.5	N 13 58.7 +01.0	7 41.1 -29.4	S 01 42.4 +11.7	22								
23	165 24.5 +00.1	N 12 29.9 +00.8	158 52.8 -00.5	N 13 59.7 +01.1	22 11.7 -29.5	S 01 54.1 +11.6	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 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 15'6 15'6 15'6 15'7 15'7 15'8										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:58	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:24	HP 57'1 57'3 57'4 57'6 57'7 57'9	Greenwich Culmination Time: 21:28										

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	181 05.9 +00.7	N 11 31.9 +00.6	135 44.1 +02.0	N 22 19.7 +00.1	353 01.6 +02.6	S 11 51.2 +00.0	00								
01	196 06.6 +00.6	N 11 32.5 +00.7	150 46.1 +01.9	N 22 19.8 +00.0	8 04.2 +02.7	S 11 51.2 -00.1	01								
02	211 07.2 +00.7	N 11 33.2 +00.7	165 48.0 +01.9	N 22 19.8 +00.1	23 06.9 +02.6	S 11 51.1 +00.0	02								
03	226 07.9 +00.7	N 11 33.9 +00.7	180 49.9 +02.0	N 22 19.9 +00.0	38 09.5 +02.7	S 11 51.1 -00.1	03								
04	241 08.6 +00.7	N 11 34.6 +00.6	195 51.9 +01.9	N 22 19.9 +00.1	53 12.2 +02.6	S 11 51.0 -00.1	04								
05	256 09.3 +00.7	N 11 35.2 +00.7	210 53.8 +01.9	N 22 20.0 +00.1	68 14.8 +02.7	S 11 50.9 +00.0	05								
06	271 10.0 +00.6	N 11 35.9 +00.7	225 55.7 +02.0	N 22 20.1 +00.0	83 17.5 +02.6	S 11 50.9 -00.1	06								
07	286 10.6 +00.7	N 11 36.6 +00.6	240 57.7 +01.9	N 22 20.1 +00.1	98 20.1 +02.7	S 11 50.8 +00.0	07								
08	301 11.3 +00.7	N 11 37.2 +00.7	255 59.6 +01.9	N 22 20.2 +00.0	113 22.8 +02.6	S 11 50.8 -00.1	08								
09	316 12.0 +00.7	N 11 37.9 +00.7	271 01.5 +02.0	N 22 20.2 +00.1	128 25.4 +02.7	S 11 50.7 -00.1	09								
10	331 12.7 +00.7	N 11 38.6 +00.7	286 03.5 +01.9	N 22 20.3 +00.0	143 28.1 +02.6	S 11 50.6 +00.0	10								
11	346 13.4 +00.7	N 11 39.3 +00.6	301 05.4 +01.9	N 22 20.3 +00.1	158 30.7 +02.6	S 11 50.6 -00.1	11								
12	1 14.1 +00.6	N 11 39.9 +00.7	316 07.3 +02.0	N 22 20.4 +00.1	173 33.3 +02.7	S 11 50.5 +00.0	12								
13	16 14.7 +00.7	N 11 40.6 +00.7	331 09.3 +01.9	N 22 20.5 +00.0	188 36.0 +02.6	S 11 50.5 -00.1	13								
14	31 15.4 +00.7	N 11 41.3 +00.7	346 11.2 +01.9	N 22 20.5 +00.1	203 38.6 +02.7	S 11 50.4 -00.1	14								
15	46 16.1 +00.7	N 11 42.0 +00.6	1 13.1 +02.0	N 22 20.6 +00.0	218 41.3 +02.6	S 11 50.3 +00.0	15								
16	61 16.8 +00.7	N 11 42.6 +00.7	16 15.1 +01.9	N 22 20.6 +00.1	233 43.9 +02.7	S 11 50.3 -00.1	16								
17	76 17.5 +00.6	N 11 43.3 +00.7	31 17.0 +01.9	N 22 20.7 +00.0	248 46.6 +02.6	S 11 50.2 +00.0	17								
18	91 18.1 +00.7	N 11 44.0 +00.6	46 18.9 +02.0	N 22 20.7 +00.1	263 49.2 +02.7	S 11 50.2 -00.1	18								
19	106 18.8 +00.7	N 11 44.6 +00.7	61 20.9 +01.9	N 22 20.8 +00.1	278 51.9 +02.6	S 11 50.1 -00.1	19								
20	121 19.5 +00.7	N 11 45.3 +00.7	76 22.8 +01.9	N 22 20.9 +00.0	293 54.5 +02.7	S 11 50.0 +00.0	20								
21	136 20.2 +00.7	N 11 46.0 +00.7	91 24.7 +02.0	N 22 20.9 +00.1	308 57.2 +02.6	S 11 50.0 -00.1	21								
22	151 20.9 +00.6	N 11 46.7 +00.6	106 26.7 +01.9	N 22 21.0 +00.0	323 59.8 +02.6	S 11 49.9 +00.0	22								
23	166 21.5 +00.7	N 11 47.3 +00.7	121 28.6 +01.9	N 22 21.0 +00.1	339 02.4 +02.7	S 11 49.9 -00.1	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:55	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:55	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 00:28										

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.42					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 24.6 +00.1	N 12 30.7 +00.9	173 52.3 -00.5	N 14 00.8 +01.1	36 42.2 -29.4	S 02 05.7 +11.7	00								
01	195 24.7 +00.1	N 12 31.6 +00.8	188 51.8 -00.6	N 14 01.9 +01.0	51 12.8 -29.6	S 02 17.4 +11.7	01								
02	210 24.8 +00.1	N 12 32.4 +00.8	203 51.2 -00.5	N 14 02.9 +01.1	65 43.2 -29.6	S 02 29.1 +11.6	02								
03	225 24.9 +00.1	N 12 33.2 +00.9	218 50.7 -00.5	N 14 04.0 +01.0	80 13.6 -29.6	S 02 40.7 +11.7	03								
04	240 25.0 +00.2	N 12 34.1 +00.8	233 50.2 -00.5	N 14 05.0 +01.1	94 44.0 -29.7	S 02 52.4 +11.7	04								
05	255 25.2 +00.1	N 12 34.9 +00.8	248 49.7 -00.6	N 14 06.1 +01.1	109 14.3 -29.7	S 03 04.1 +11.6	05								
06	270 25.3 +00.1	N 12 35.7 +00.8	263 49.1 -00.5	N 14 07.2 +01.0	123 44.6 -29.8	S 03 15.7 +11.7	06								
07	285 25.4 +00.1	N 12 36.5 +00.9	278 48.6 -00.5	N 14 08.2 +01.1	138 14.8 -29.9	S 03 27.4 +11.7	07								
08	300 25.5 +00.1	N 12 37.4 +00.8	293 48.1 -00.5	N 14 09.3 +01.0	152 44.9 -29.9	S 03 39.1 +11.6	08								
09	315 25.6 +00.1	N 12 38.2 +00.8	308 47.6 -00.6	N 14 10.3 +01.1	167 15.0 -30.0	S 03 50.7 +11.7	09								
10	330 25.7 +00.2	N 12 39.0 +00.9	323 47.0 -00.5	N 14 11.4 +01.0	181 45.0 -30.0	S 04 02.4 +11.6	10								
11	345 25.9 +00.1	N 12 39.9 +00.8	338 46.5 -00.5	N 14 12.4 +01.1	196 15.0 -30.1	S 04 14.0 +11.7	11								
12	0 26.0 +00.1	N 12 40.7 +00.8	353 46.0 -00.6	N 14 13.5 +01.0	210 44.9 -30.1	S 04 25.7 +11.6	12								
13	15 26.1 +00.1	N 12 41.5 +00.8	8 45.4 -00.5	N 14 14.5 +01.1	225 14.8 -30.2	S 04 37.3 +11.6	13								
14	30 26.2 +00.1	N 12 42.3 +00.9	23 44.9 -00.5	N 14 15.6 +01.0	239 44.6 -30.3	S 04 48.9 +11.6	14								
15	45 26.3 +00.1	N 12 43.2 +00.8	38 44.4 -00.6	N 14 16.6 +01.1	254 14.3 -30.3	S 05 00.5 +11.6	15								
16	60 26.4 +00.2	N 12 44.0 +00.8	53 43.8 -00.5	N 14 17.7 +01.0	268 44.0 -30.4	S 05 12.1 +11.6	16								
17	75 26.6 +00.1	N 12 44.8 +00.9	68 43.3 -00.5	N 14 18.7 +01.1	283 13.6 -30.4	S 05 23.7 +11.6	17								
18	90 26.7 +00.1	N 12 45.7 +00.8	83 42.8 -00.6	N 14 19.8 +01.0	297 43.2 -30.5	S 05 35.3 +11.5	18								
19	105 26.8 +00.1	N 12 46.5 +00.8	98 42.2 -00.5	N 14 20.8 +01.1	312 12.7 -30.6	S 05 46.8 +11.5	19								
20	120 26.9 +00.1	N 12 47.3 +00.8	113 41.7 -00.5	N 14 21.9 +01.0	326 42.1 -30.6	S 05 58.3 +11.6	20								
21	135 27.0 +00.1	N 12 48.1 +00.9	128 41.2 -00.6	N 14 22.9 +01.1	341 11.5 -30.7	S 06 09.9 +11.5	21								
22	150 27.1 +00.1	N 12 49.0 +00.8	143 40.6 -00.5	N 14 24.0 +01.0	355 40.8 -30.8	S 06 21.4 +11.4	22								
23	165 27.2 +00.2	N 12 49.8 +00.8	158 40.1 -00.5	N 14 25.0 +01.1	10 10.0 -30.8	S 06 32.8 +11.5	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	Greenwich Culmination Time: 11:58	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	Greenwich Culmination Time: 12:25	UT 02 06 10 14 18 22	SD 15'8 15'8 15'9 15'9 16'0 16'0	HP 58'0 58'1 58'3 58'4 58'6 58'7	Greenwich Culmination Time: 22:18				

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	181 22.2 +00.7	N 11 48.0 +00.7	136 30.5 +02.0	N 22 21.1 +00.1	354 05.1 +02.6	S 11 49.8 -00.1	00								
01	196 22.9 +00.7	N 11 48.7 +00.6	151 32.5 +01.9	N 22 21.2 +00.0	9 07.7 +02.7	S 11 49.7 +00.0	01								
02	211 23.6 +00.7	N 11 49.3 +00.7	166 34.4 +01.9	N 22 21.2 +00.1	24 10.4 +02.6	S 11 49.7 -00.1	02								
03	226 24.3 +00.6	N 11 50.0 +00.7	181 36.3 +02.0	N 22 21.3 +00.0	39 13.0 +02.7	S 11 49.6 +00.0	03								
04	241 24.9 +00.7	N 11 50.7 +00.6	196 38.3 +01.9	N 22 21.3 +00.1	54 15.7 +02.6	S 11 49.6 -00.1	04								
05	256 25.6 +00.7	N 11 51.3 +00.7	211 40.2 +01.9	N 22 21.4 +00.0	69 18.3 +02.7	S 11 49.5 -00.1	05								
06	271 26.3 +00.7	N 11 52.0 +00.7	226 42.1 +02.0	N 22 21.4 +00.1	84 21.0 +02.6	S 11 49.4 +00.0	06								
07	286 27.0 +00.7	N 11 52.7 +00.6	241 44.1 +01.9	N 22 21.5 +00.1	99 23.6 +02.7	S 11 49.4 -00.1	07								
08	301 27.7 +00.6	N 11 53.3 +00.7	256 46.0 +01.9	N 22 21.6 +00.0	114 26.3 +02.6	S 11 49.3 +00.0	08								
09	316 28.3 +00.7	N 11 54.0 +00.7	271 47.9 +02.0	N 22 21.6 +00.1	129 28.9 +02.7	S 11 49.3 -00.1	09								
10	331 29.0 +00.7	N 11 54.7 +00.6	286 49.9 +01.9	N 22 21.7 +00.0	144 31.6 +02.6	S 11 49.2 -00.1	10								
11	346 29.7 +00.7	N 11 55.3 +00.7	301 51.8 +01.9	N 22 21.7 +00.1	159 34.2 +02.7	S 11 49.1 +00.0	11								
12	1 30.4 +00.7	N 11 56.0 +00.7	316 53.7 +02.0	N 22 21.8 +00.0	174 36.9 +02.6	S 11 49.1 -00.1	12								
13	16 31.1 +00.6	N 11 56.7 +00.6	331 55.7 +01.9	N 22 21.8 +00.1	189 39.5 +02.6	S 11 49.0 +00.0	13								
14	31 31.7 +00.7	N 11 57.3 +00.7	346 57.6 +01.9	N 22 21.9 +00.1	204 42.1 +02.7	S 11 49.0 -00.1	14								
15	46 32.4 +00.7	N 11 58.0 +00.7	1 59.5 +01.9	N 22 22.0 +00.0	219 44.8 +02.6	S 11 48.9 -00.1	15								
16	61 33.1 +00.7	N 11 58.7 +00.6	17 01.4 +02.0	N 22 22.0 +00.1	234 47.4 +02.7	S 11 48.8 +00.0	16								
17	76 33.8 +00.7	N 11 59.3 +00.7	32 03.4 +01.9	N 22 22.1 +00.0	249 50.1 +02.6	S 11 48.8 -00.1	17								
18	91 34.5 +00.6	N 12 00.0 +00.7	47 05.3 +01.9	N 22 22.1 +00.1	264 52.7 +02.7	S 11 48.7 -00.1	18								
19	106 35.1 +00.7	N 12 00.7 +00.6	62 07.2 +02.0	N 22 22.2 +00.0	279 55.4 +02.6	S 11 48.6 +00.0	19								
20	121 35.8 +00.7	N 12 01.3 +00.7	77 09.2 +01.9	N 22 22.2 +00.1	294 58.0 +02.7	S 11 48.6 -00.1	20								
21	136 36.5 +00.7	N 12 02.0 +00.7	92 11.1 +01.9	N 22 22.3 +00.1	310 00.7 +02.6	S 11 48.5 +00.0	21								
22	151 37.2 +00.7	N 12 02.7 +00.6	107 13.0 +02.0	N 22 22.4 +00.0	325 03.3 +02.7	S 11 48.5 -00.1	22								
23	166 37.9 +00.6	N 12 03.3 +00.7	122 15.0 +01.9	N 22 22.4 +00.1	340 06.0 +02.6	S 11 48.4 -00.1	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:54	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:52	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	Greenwich Culmination Time: 00:24				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.45					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 27.4 +00.1	N 12 50.6 +00.8	173 39.6 -00.6	N 14 26.1 +01.0	24 39.2 -30.9	S 06 44.3 +11.4	00								
01	195 27.5 +00.1	N 12 51.4 +00.8	188 39.0 -00.5	N 14 27.1 +01.0	39 08.3 -31.0	S 06 55.7 +11.4	01								
02	210 27.6 +00.1	N 12 52.2 +00.9	203 38.5 -00.5	N 14 28.1 +01.1	53 37.3 -31.0	S 07 07.1 +11.4	02								
03	225 27.7 +00.1	N 12 53.1 +00.8	218 38.0 -00.6	N 14 29.2 +01.0	68 06.3 -31.1	S 07 18.5 +11.3	03								
04	240 27.8 +00.1	N 12 53.9 +00.8	233 37.4 -00.5	N 14 30.2 +01.1	82 35.2 -31.2	S 07 29.8 +11.3	04								
05	255 27.9 +00.1	N 12 54.7 +00.8	248 36.9 -00.6	N 14 31.3 +01.0	97 04.0 -31.2	S 07 41.1 +11.3	05								
06	270 28.0 +00.2	N 12 55.5 +00.9	263 36.3 -00.5	N 14 32.3 +01.1	111 32.8 -31.3	S 07 52.4 +11.3	06								
07	285 28.2 +00.1	N 12 56.4 +00.8	278 35.8 -00.5	N 14 33.4 +01.0	126 01.5 -31.4	S 08 03.7 +11.2	07								
08	300 28.3 +00.1	N 12 57.2 +00.8	293 35.3 -00.6	N 14 34.4 +01.0	140 30.1 -31.4	S 08 14.9 +11.2	08								
09	315 28.4 +00.1	N 12 58.0 +00.8	308 34.7 -00.5	N 14 35.4 +01.1	154 58.7 -31.5	S 08 26.1 +11.1	09								
10	330 28.5 +00.1	N 12 58.8 +00.8	323 34.2 -00.6	N 14 36.5 +01.0	169 27.2 -31.6	S 08 37.2 +11.1	10								
11	345 28.6 +00.1	N 12 59.6 +00.9	338 33.6 -00.5	N 14 37.5 +01.0	183 55.6 -31.7	S 08 48.3 +11.1	11								
12	0 28.7 +00.1	N 13 00.5 +00.8	353 33.1 -00.5	N 14 38.5 +01.1	198 23.9 -31.7	S 08 59.4 +11.0	12								
13	15 28.8 +00.1	N 13 01.3 +00.8	8 32.6 -00.6	N 14 39.6 +01.0	212 52.2 -31.8	S 09 10.4 +11.0	13								
14	30 28.9 +00.1	N 13 02.1 +00.8	23 32.0 -00.5	N 14 40.6 +01.1	227 20.4 -31.9	S 09 21.4 +11.0	14								
15	45 29.0 +00.2	N 13 02.9 +00.8	38 31.5 -00.6	N 14 41.7 +01.0	241 48.5 -31.9	S 09 32.4 +10.9	15								
16	60 29.2 +00.1	N 13 03.7 +00.8	53 30.9 -00.5	N 14 42.7 +01.0	256 16.6 -32.1	S 09 43.3 +10.8	16								
17	75 29.3 +00.1	N 13 04.5 +00.9	68 30.4 -00.6	N 14 43.7 +01.1	270 44.5 -32.1	S 09 54.1 +10.9	17								
18	90 29.4 +00.1	N 13 05.4 +00.8	83 29.8 -00.5	N 14 44.8 +01.0	285 12.4 -32.1	S 10 05.0 +10.7	18								
19	105 29.5 +00.1	N 13 06.2 +00.8	98 29.3 -00.5	N 14 45.8 +01.0	299 40.3 -32.3	S 10 15.7 +10.7	19								
20	120 29.6 +00.1	N 13 07.0 +00.8	113 28.8 -00.6	N 14 46.8 +01.1	314 08.0 -32.3	S 10 26.4 +10.7	20								
21	135 29.7 +00.1	N 13 07.8 +00.8	128 28.2 -00.5	N 14 47.9 +01.0	328 35.7 -32.4	S 10 37.1 +10.6	21								
22	150 29.8 +00.1	N 13 08.6 +00.8	143 27.7 -00.6	N 14 48.9 +01.0	343 03.3 -32.5	S 10 47.7 +10.5	22								
23	165 29.9 +00.1	N 13 09.4 +00.9	158 27.1 -00.5	N 14 49.9 +01.1	357 30.8 -32.5	S 10 58.2 +10.5	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	Greenwich Culmination Time: 11:58	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	Greenwich Culmination Time: 12:26	UT 02 06 10 14 18 22	SD 16'0 16'1 16'1 16'1 16'2 16'2	HP 58'8 59'0 59'1 59'2 59'3 59'5	Greenwich Culmination Time: 23:10				

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	181 38.5 +00.7	N 12 04.0 +00.7	137 16.9 +01.9	N 22 22.5 +00.0	355 08.6 +02.7	S 11 48.3 +00.0	00								
01	196 39.2 +00.7	N 12 04.7 +00.6	152 18.8 +01.9	N 22 22.5 +00.1	10 11.3 +02.6	S 11 48.3 -00.1	01								
02	211 39.9 +00.7	N 12 05.3 +00.7	167 20.7 +02.0	N 22 22.6 +00.0	25 13.9 +02.7	S 11 48.2 +00.0	02								
03	226 40.6 +00.6	N 12 06.0 +00.7	182 22.7 +01.9	N 22 22.6 +00.1	40 16.6 +02.6	S 11 48.2 -00.1	03								
04	241 41.2 +00.7	N 12 06.7 +00.6	197 24.6 +01.9	N 22 22.7 +00.1	55 19.2 +02.6	S 11 48.1 -00.1	04								
05	256 41.9 +00.7	N 12 07.3 +00.7	212 26.5 +02.0	N 22 22.8 +00.0	70 21.8 +02.7	S 11 48.0 +00.0	05								
06	271 42.6 +00.7	N 12 08.0 +00.6	227 28.5 +01.9	N 22 22.8 +00.1	85 24.5 +02.6	S 11 48.0 -00.1	06								
07	286 43.3 +00.7	N 12 08.6 +00.7	242 30.4 +01.9	N 22 22.9 +00.0	100 27.1 +02.7	S 11 47.9 +00.0	07								
08	301 44.0 +00.6	N 12 09.3 +00.7	257 32.3 +01.9	N 22 22.9 +00.1	115 29.8 +02.6	S 11 47.9 -00.1	08								
09	316 44.6 +00.7	N 12 10.0 +00.6	272 34.2 +02.0	N 22 23.0 +00.0	130 32.4 +02.7	S 11 47.8 -00.1	09								
10	331 45.3 +00.7	N 12 10.6 +00.7	287 36.2 +01.9	N 22 23.0 +00.1	145 35.1 +02.6	S 11 47.7 +00.0	10								
11	346 46.0 +00.7	N 12 11.3 +00.7	302 38.1 +01.9	N 22 23.1 +00.1	160 37.7 +02.7	S 11 47.7 -00.1	11								
12	1 46.7 +00.7	N 12 12.0 +00.6	317 40.0 +02.0	N 22 23.2 +00.0	175 40.4 +02.6	S 11 47.6 +00.0	12								
13	16 47.4 +00.6	N 12 12.6 +00.7	332 42.0 +01.9	N 22 23.2 +00.1	190 43.0 +02.7	S 11 47.6 -00.1	13								
14	31 48.0 +00.7	N 12 13.3 +00.6	347 43.9 +01.9	N 22 23.3 +00.0	205 45.7 +02.6	S 11 47.5 -00.1	14								
15	46 48.7 +00.7	N 12 13.9 +00.7	2 45.8 +01.9	N 22 23.3 +00.1	220 48.3 +02.7	S 11 47.4 +00.0	15								
16	61 49.4 +00.7	N 12 14.6 +00.7	17 47.7 +02.0	N 22 23.4 +00.0	235 51.0 +02.6	S 11 47.4 -00.1	16								
17	76 50.1 +00.6	N 12 15.3 +00.6	32 49.7 +01.9	N 22 23.4 +00.1	250 53.6 +02.7	S 11 47.3 +00.0	17								
18	91 50.7 +00.7	N 12 15.9 +00.7	47 51.6 +01.9	N 22 23.5 +00.1	265 56.3 +02.6	S 11 47.3 -00.1	18								
19	106 51.4 +00.7	N 12 16.6 +00.6	62 53.5 +01.9	N 22 23.6 +00.0	280 58.9 +02.7	S 11 47.2 -00.1	19								
20	121 52.1 +00.7	N 12 17.2 +00.7	77 55.4 +02.0	N 22 23.6 +00.1	296 01.6 +02.6	S 11 47.1 +00.0	20								
21	136 52.8 +00.7	N 12 17.9 +00.7	92 57.4 +01.9	N 22 23.7 +00.0	311 04.2 +02.6	S 11 47.1 -00.1	21								
22	151 53.5 +00.6	N 12 18.6 +00.6	107 59.3 +01.9	N 22 23.7 +00.1	326 06.8 +02.7	S 11 47.0 +00.0	22								
23	166 54.1 +00.7	N 12 19.2 +00.7	123 01.2 +01.9	N 22 23.8 +00.0	341 09.5 +02.6	S 11 47.0 -00.1	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:53	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:49	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	Greenwich Culmination Time: 00:19				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.49					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 30.0 +00.1	N 13 10.3 +00.8	173 26.6 -00.6	N 14 51.0 +01.0	11 58.3 -32.6	S 11 08.7 +10.5	00								
01	195 30.1 +00.2	N 13 11.1 +00.8	188 26.0 -00.5	N 14 52.0 +01.0	26 25.7 -32.7	S 11 19.2 +10.3	01								
02	210 30.3 +00.1	N 13 11.9 +00.8	203 25.5 -00.6	N 14 53.0 +01.0	40 53.0 -32.8	S 11 29.5 +10.3	02								
03	225 30.4 +00.1	N 13 12.7 +00.8	218 24.9 -00.5	N 14 54.0 +01.1	55 20.2 -32.8	S 11 39.8 +10.3	03								
04	240 30.5 +00.1	N 13 13.5 +00.8	233 24.4 -00.6	N 14 55.1 +01.0	69 47.4 -33.0	S 11 50.1 +10.2	04								
05	255 30.6 +00.1	N 13 14.3 +00.8	248 23.8 -00.5	N 14 56.1 +01.0	84 14.4 -33.0	S 12 00.3 +10.1	05								
06	270 30.7 +00.1	N 13 15.1 +00.9	263 23.3 -00.6	N 14 57.1 +01.0	98 41.4 -33.0	S 12 10.4 +10.1	06								
07	285 30.8 +00.1	N 13 16.0 +00.8	278 22.7 -00.5	N 14 58.1 +01.1	113 08.4 -33.2	S 12 20.5 +10.0	07								
08	300 30.9 +00.1	N 13 16.8 +00.8	293 22.2 -00.6	N 14 59.2 +01.0	127 35.2 -33.2	S 12 30.5 +09.9	08								
09	315 31.0 +00.1	N 13 17.6 +00.8	308 21.6 -00.5	N 15 00.2 +01.0	142 02.0 -33.3	S 12 40.4 +09.8	09								
10	330 31.1 +00.1	N 13 18.4 +00.8	323 21.1 -00.6	N 15 01.2 +01.0	156 28.7 -33.4	S 12 50.2 +09.8	10								
11	345 31.2 +00.1	N 13 19.2 +00.8	338 20.5 -00.5	N 15 02.2 +01.1	170 55.3 -33.5	S 12 60.0 +09.7	11								
12	0 31.3 +00.1	N 13 20.0 +00.8	353 20.0 -00.6	N 15 03.3 +01.0	185 21.8 -33.5	S 13 09.7 +09.6	12								
13	15 31.4 +00.1	N 13 20.8 +00.8	8 19.4 -00.5	N 15 04.3 +01.0	199 48.3 -33.6	S 13 19.3 +09.6	13								
14	30 31.5 +00.1	N 13 21.6 +00.8	23 18.9 -00.6	N 15 05.3 +01.0	214 14.7 -33.7	S 13 28.9 +09.4	14								
15	45 31.6 +00.2	N 13 22.4 +00.9	38 18.3 -00.5	N 15 06.3 +01.0	228 41.0 -33.8	S 13 38.3 +09.4	15								
16	60 31.8 +00.1	N 13 23.3 +00.8	53 17.8 -00.6	N 15 07.3 +01.1	243 07.2 -33.8	S 13 47.7 +09.3	16								
17	75 31.9 +00.1	N 13 24.1 +00.8	68 17.2 -00.5	N 15 08.4 +01.0	257 33.4 -33.9	S 13 57.0 +09.3	17								
18	90 32.0 +00.1	N 13 24.9 +00.8	83 16.7 -00.6	N 15 09.4 +01.0	271 59.5 -34.0	S 14 06.3 +09.1	18								
19	105 32.1 +00.1	N 13 25.7 +00.8	98 16.1 -00.5	N 15 10.4 +01.0	286 25.5 -34.1	S 14 15.4 +09.0	19								
20	120 32.2 +00.1	N 13 26.5 +00.8	113 15.6 -00.6	N 15 11.4 +01.0	300 51.4 -34.1	S 14 24.4 +09.0	20								
21	135 32.3 +00.1	N 13 27.3 +00.8	128 15.0 -00.6	N 15 12.4 +01.0	315 17.3 -34.2	S 14 33.4 +08.9	21								
22	150 32.4 +00.1	N 13 28.1 +00.8	143 14.4 -00.5	N 15 13.4 +01.1	329 43.1 -34.3	S 14 42.3 +08.8	22								
23	165 32.5 +00.1	N 13 28.9 +00.8	158 13.9 -00.6	N 15 14.5 +01.0	344 08.8 -34.4	S 14 51.1 +08.7	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	Greenwich Culmination Time: 11:58	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	Greenwich Culmination Time: 12:27	UT 02 06 10 14 18 22	SD 16'2 16'3 16'3 16'3 16'3 16'4	HP 59'6 59'7 59'8 59'9 60'0 60'0	Greenwich Culmination Time: --:--				

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	181 54.8 +00.7	N 12 19.9 +00.6	138 03.1 +02.0	N 22 23.8 +00.1	356 12.1 +02.7	S 11 46.9 -00.1	00								
01	196 55.5 +00.7	N 12 20.5 +00.7	153 05.1 +01.9	N 22 23.9 +00.1	11 14.8 +02.6	S 11 46.8 +00.0	01								
02	211 56.2 +00.6	N 12 21.2 +00.7	168 07.0 +01.9	N 22 24.0 +00.0	26 17.4 +02.7	S 11 46.8 -00.1	02								
03	226 56.8 +00.7	N 12 21.9 +00.6	183 08.9 +01.9	N 22 24.0 +00.1	41 20.1 +02.6	S 11 46.7 +00.0	03								
04	241 57.5 +00.7	N 12 22.5 +00.7	198 10.8 +02.0	N 22 24.1 +00.0	56 22.7 +02.7	S 11 46.7 -00.1	04								
05	256 58.2 +00.7	N 12 23.2 +00.6	213 12.8 +01.9	N 22 24.1 +00.1	71 25.4 +02.6	S 11 46.6 -00.1	05								
06	271 58.9 +00.7	N 12 23.8 +00.7	228 14.7 +01.9	N 22 24.2 +00.0	86 28.0 +02.7	S 11 46.5 +00.0	06								
07	286 59.6 +00.6	N 12 24.5 +00.7	243 16.6 +01.9	N 22 24.2 +00.1	101 30.7 +02.6	S 11 46.5 -00.1	07								
08	302 00.2 +00.7	N 12 25.2 +00.6	258 18.5 +02.0	N 22 24.3 +00.0	116 33.3 +02.7	S 11 46.4 +00.0	08								
09	317 00.9 +00.7	N 12 25.8 +00.7	273 20.5 +01.9	N 22 24.3 +00.1	131 36.0 +02.6	S 11 46.4 -00.1	09								
10	332 01.6 +00.7	N 12 26.5 +00.6	288 22.4 +01.9	N 22 24.4 +00.1	146 38.6 +02.7	S 11 46.3 -00.1	10								
11	347 02.3 +00.6	N 12 27.1 +00.7	303 24.3 +01.9	N 22 24.5 +00.0	161 41.3 +02.6	S 11 46.2 +00.0	11								
12	2 02.9 +00.7	N 12 27.8 +00.6	318 26.2 +02.0	N 22 24.5 +00.1	176 43.9 +02.7	S 11 46.2 -00.1	12								
13	17 03.6 +00.7	N 12 28.4 +00.7	333 28.2 +01.9	N 22 24.6 +00.0	191 46.6 +02.6	S 11 46.1 +00.0	13								
14	32 04.3 +00.7	N 12 29.1 +00.6	348 30.1 +01.9	N 22 24.6 +00.1	206 49.2 +02.7	S 11 46.1 -00.1	14								
15	47 05.0 +00.6	N 12 29.7 +00.7	3 32.0 +01.9	N 22 24.7 +00.0	221 51.9 +02.6	S 11 46.0 -00.1	15								
16	62 05.6 +00.7	N 12 30.4 +00.7	18 33.9 +02.0	N 22 24.7 +00.1	236 54.5 +02.6	S 11 45.9 +00.0	16								
17	77 06.3 +00.7	N 12 31.1 +00.6	33 35.9 +01.9	N 22 24.8 +00.1	251 57.1 +02.7	S 11 45.9 -00.1	17								
18	92 07.0 +00.7	N 12 31.7 +00.7	48 37.8 +01.9	N 22 24.9 +00.0	266 59.8 +02.6	S 11 45.8 +00.0	18								
19	107 07.7 +00.6	N 12 32.4 +00.6	63 39.7 +01.9	N 22 24.9 +00.1	282 02.4 +02.7	S 11 45.8 -00.1	19								
20	122 08.3 +00.7	N 12 33.0 +00.7	78 41.6 +02.0	N 22 25.0 +00.0	297 05.1 +02.6	S 11 45.7 -00.1	20								
21	137 09.0 +00.7	N 12 33.7 +00.6	93 43.6 +01.9	N 22 25.0 +00.1	312 07.7 +02.7	S 11 45.6 +00.0	21								
22	152 09.7 +00.7	N 12 34.3 +00.7	108 45.5 +01.9	N 22 25.1 +00.0	327 10.4 +02.6	S 11 45.6 -00.1	22								
23	167 10.4 +00.6	N 12 35.0 +00.6	123 47.4 +01.9	N 22 25.1 +00.1	342 13.0 +02.7	S 11 45.5 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:52	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:46	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	Greenwich Culmination Time: 00:15				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.53					UT									
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "												
00	180 32.6 +00.1	N 13	29.7 +00.8		173 13.3 -00.5	N 15	15.5 +01.0		358 34.4 -34.4	S 14	59.8 +08.6		00											
01	195 32.7 +00.1	N 13	30.5 +00.8		188 12.8 -00.6	N 15	16.5 +01.0		13 00.0 -34.5	S 15	08.4 +08.5		01											
02	210 32.8 +00.1	N 13	31.3 +00.8		203 12.2 -00.5	N 15	17.5 +01.0		27 25.5 -34.6	S 15	16.9 +08.4		02											
03	225 32.9 +00.1	N 13	32.1 +00.8		218 11.7 -00.6	N 15	18.5 +01.0		41 50.9 -34.6	S 15	25.3 +08.3		03											
04	240 33.0 +00.1	N 13	32.9 +00.8		233 11.1 -00.6	N 15	19.5 +01.0		56 16.3 -34.7	S 15	33.6 +08.2		04											
05	255 33.1 +00.1	N 13	33.7 +00.8		248 10.5 -00.5	N 15	20.5 +01.0		70 41.6 -34.8	S 15	41.8 +08.1		05											
06	270 33.2 +00.1	N 13	34.5 +00.8		263 10.0 -00.6	N 15	21.5 +01.1		85 06.8 -34.9	S 15	49.9 +08.0		06											
07	285 33.3 +00.1	N 13	35.3 +00.8		278 09.4 -00.5	N 15	22.6 +01.0		99 31.9 -34.9	S 15	57.9 +07.9		07											
08	300 33.4 +00.1	N 13	36.1 +00.8		293 08.9 -00.6	N 15	23.6 +01.0		113 57.0 -35.0	S 16	05.8 +07.8		08											
09	315 33.5 +00.1	N 13	36.9 +00.8		308 08.3 -00.6	N 15	24.6 +01.0		128 22.0 -35.1	S 16	13.6 +07.7		09											
10	330 33.6 +00.1	N 13	37.7 +00.8		323 07.7 -00.5	N 15	25.6 +01.0		142 46.9 -35.1	S 16	21.3 +07.6		10											
11	345 33.7 +00.1	N 13	38.5 +00.8		338 07.2 -00.6	N 15	26.6 +01.0		157 11.8 -35.2	S 16	28.9 +07.5		11											
12	0 33.8 +00.1	N 13	39.3 +00.8		353 06.6 -00.5	N 15	27.6 +01.0		171 36.6 -35.3	S 16	36.4 +07.4		12											
13	15 33.9 +00.1	N 13	40.1 +00.8		8 06.1 -00.6	N 15	28.6 +01.0		186 01.3 -35.3	S 16	43.8 +07.2		13											
14	30 34.0 +00.1	N 13	40.9 +00.8		23 05.5 -00.6	N 15	29.6 +01.0		200 26.0 -35.4	S 16	51.0 +07.2		14											
15	45 34.1 +00.1	N 13	41.7 +00.8		38 04.9 -00.5	N 15	30.6 +01.0		214 50.6 -35.4	S 16	58.2 +07.0		15											
16	60 34.2 +00.1	N 13	42.5 +00.8		53 04.4 -00.6	N 15	31.6 +01.0		229 15.2 -35.5	S 17	05.2 +06.9		16											
17	75 34.3 +00.1	N 13	43.3 +00.8		68 03.8 -00.6	N 15	32.6 +01.0		243 39.7 -35.6	S 17	12.1 +06.8		17											
18	90 34.4 +00.1	N 13	44.1 +00.8		83 03.2 -00.5	N 15	33.6 +01.0		258 04.1 -35.7	S 17	18.9 +06.7		18											
19	105 34.5 +00.1	N 13	44.9 +00.8		98 02.7 -00.6	N 15	34.6 +01.0		272 28.4 -35.7	S 17	25.6 +06.6		19											
20	120 34.6 +00.1	N 13	45.7 +00.8		113 02.1 -00.6	N 15	35.6 +01.0		286 52.7 -35.7	S 17	32.2 +06.4		20											
21	135 34.7 +00.1	N 13	46.5 +00.8		128 01.5 -00.5	N 15	36.6 +01.0		301 17.0 -35.8	S 17	38.6 +06.3		21											
22	150 34.8 +00.1	N 13	47.3 +00.8		143 01.0 -00.6	N 15	37.6 +01.0		315 41.2 -35.9	S 17	44.9 +06.2		22											
23	165 34.9 +00.1	N 13	48.1 +00.8		158 00.4 -00.6	N 15	38.6 +01.0		330 05.3 -35.9	S 17	51.1 +06.1		23											
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	16'4	16'4	16'5				
HP	00'1	00'1	00'1	00'1	00'1	00'1	HP	00'1	00'1	00'1	00'1	00'1	00'1	HP	60'1	60'2	60'2	60'3	60'4	60'4				
Greenwich Culmination Time: 11:58					Greenwich Culmination Time: 12:28					Greenwich Culmination Time: 00:06														

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT									
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "												
00	182 11.0 +00.7	N 12	35.6 +00.7		138 49.3 +02.0	N 22	25.2 +00.1		357 15.7 +02.6	S 11	45.5 -00.1		00											
01	197 11.7 +00.7	N 12	36.3 +00.6		153 51.3 +01.9	N 22	25.3 +00.0		12 18.3 +02.7	S 11	45.4 -00.1		01											
02	212 12.4 +00.7	N 12	36.9 +00.7		168 53.2 +01.9	N 22	25.3 +00.1		27 21.0 +02.6	S 11	45.3 +00.0		02											
03	227 13.1 +00.7	N 12	37.6 +00.7		183 55.1 +01.9	N 22	25.4 +00.0		42 23.6 +02.7	S 11	45.3 -00.1		03											
04	242 13.8 +00.6	N 12	38.3 +00.6		198 57.0 +01.9	N 22	25.4 +00.1		57 26.3 +02.6	S 11	45.2 +00.0		04											
05	257 14.4 +00.7	N 12	38.9 +00.7		213 58.9 +02.0	N 22	25.5 +00.0		72 28.9 +02.7	S 11	45.2 -00.1		05											
06	272 15.1 +00.7	N 12	39.6 +00.6		229 00.9 +01.9	N 22	25.5 +00.1		87 31.6 +02.6	S 11	45.1 -00.1		06											
07	287 15.8 +00.7	N 12	40.2 +00.7		244 02.8 +01.9	N 22	25.6 +00.0		102 34.2 +02.7	S 11	45.0 +00.0		07											
08	302 16.5 +00.6	N 12	40.9 +00.6		259 04.7 +01.9	N 22	25.6 +00.1		117 36.9 +02.6	S 11	45.0 -00.1		08											
09	317 17.1 +00.7	N 12	41.5 +00.7		274 06.6 +02.0	N 22	25.7 +00.1		132 39.5 +02.7	S 11	44.9 +00.0		09											
10	332 17.8 +00.7	N 12	42.2 +00.6		289 08.6 +01.9	N 22	25.8 +00.0		147 42.2 +02.6	S 11	44.9 -00.1		10											
11	347 18.5 +00.7	N 12	42.8 +00.7		304 10.5 +01.9	N 22	25.8 +00.1		162 44.8 +02.6	S 11	44.8 -00.1		11											
12	2 19.2 +00.6	N 12	43.5 +00.6		319 12.4 +01.9	N 22	25.9 +00.0		177 47.4 +02.7	S 11	44.7 +00.0		12											
13	17 19.8 +00.7	N 12	44.1 +00.7		334 14.3 +01.9	N 22	25.9 +00.1		192 50.1 +02.6	S 11	44.7 -00.1		13											
14	32 20.5 +00.7	N 12	44.8 +00.6		349 16.2 +02.0	N 22	26.0 +00.0		207 52.7 +02.7	S 11	44.6 +00.0		14											
15	47 21.2 +00.7	N 12	45.4 +00.7		4 18.2 +01.9	N 22	26.0 +00.1		222 55.4 +02.6	S 11	44.6 -00.1		15											
16	62 21.9 +00.6	N 12	46.1 +00.6		19 20.1 +01.9	N 22	26.1 +00.0		237 58.0 +02.7	S 11	44.5 -00.1		16											
17	77 22.5 +00.7	N 12	46.7 +00.7		34 22.0 +01.9	N 22	26.1 +00.1		253 00.7 +02.6	S 11	44.4 +00.0		17											
18	92 23.2 +00.7	N 12	47.4 +00.6		49 23.9 +01.9	N 22	26.2 +00.1		268 03.3 +02.7	S 11	44.4 -00.1		18											
19	107 23.9 +00.6	N 12	48.0 +00.7		64 25.8 +02.0	N 22	26.3 +00.0		283 06.0 +02.6	S 11	44.3 +00.0		19											
20	122 24.5 +00.7	N 12	48.7 +00.6		79 27.8 +01.9	N 22	26.3 +00.1		298 08.6 +02.7	S 11	44.3 -00.1		20											
21	137 25.2 +00.7	N 12	49.3 +00.7		94 29.7 +01.9	N 22	26.4 +00.0		313 11.3 +02.6	S 11	44.2 -00.1		21											
22	152 25.9 +00.7	N 12	50.0 +00.6		109 31.6 +01.9	N 22	26.4 +00.1		328 13.9 +02.7	S 11	44.1 +00.0		22											
23	167 26.6 +00.6	N 12	50.6 +00.7		124 33.5 +01.9	N 22	26.5 +00.0		343 16.6 +02.6	S 11	44.1 -00.1		23											
UT	02	06	10	14	18	22																		
SD	00'0	00'0	00'0	00'0	00'0	00'0	SD	00'3	00'3	00'3	00'3	00'3	00'3	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	00'0	00'0	00'0	00'0	00'0	00'0	HP	00'0	00'0	00'0	00'0	00'0	00'0				
Greenwich Culmination Time: 11:51					Greenwich Culmination Time: 14:43					Greenwich Culmination Time: 00:11														

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> $a = 0.57$					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 35.0 +00.1	N 13 48.9 +00.8	172 59.8 -00.5	N 15 39.6 +01.0	344 29.4 -36.0	S 17 57.2 +06.0	00								
01	195 35.1 +00.1	N 13 49.7 +00.8	187 59.3 -00.6	N 15 40.6 +01.0	358 53.4 -36.0	S 18 03.2 +05.8	01								
02	210 35.2 +00.1	N 13 50.5 +00.8	202 58.7 -00.6	N 15 41.6 +01.0	13 17.4 -36.1	S 18 09.0 +05.7	02								
03	225 35.3 +00.1	N 13 51.3 +00.8	217 58.1 -00.5	N 15 42.6 +01.0	27 41.3 -36.1	S 18 14.7 +05.6	03								
04	240 35.4 +00.1	N 13 52.1 +00.8	232 57.6 -00.6	N 15 43.6 +01.0	42 05.2 -36.2	S 18 20.3 +05.4	04								
05	255 35.5 +00.1	N 13 52.9 +00.8	247 57.0 -00.6	N 15 44.6 +01.0	56 29.0 -36.2	S 18 25.7 +05.3	05								
06	270 35.6 +00.1	N 13 53.7 +00.8	262 56.4 -00.5	N 15 45.6 +01.0	70 52.8 -36.3	S 18 31.0 +05.2	06								
07	285 35.7 +00.1	N 13 54.5 +00.8	277 55.9 -00.6	N 15 46.6 +01.0	85 16.5 -36.3	S 18 36.2 +05.1	07								
08	300 35.8 +00.1	N 13 55.3 +00.8	292 55.3 -00.6	N 15 47.6 +01.0	99 40.2 -36.3	S 18 41.3 +04.9	08								
09	315 35.9 +00.1	N 13 56.1 +00.8	307 54.7 -00.6	N 15 48.6 +01.0	114 03.9 -36.4	S 18 46.2 +04.8	09								
10	330 36.0 +00.1	N 13 56.9 +00.8	322 54.1 -00.5	N 15 49.6 +01.0	128 27.5 -36.5	S 18 51.0 +04.6	10								
11	345 36.1 +00.1	N 13 57.7 +00.8	337 53.6 -00.6	N 15 50.6 +00.9	142 51.0 -36.4	S 18 55.6 +04.6	11								
12	0 36.2 +00.1	N 13 58.5 +00.8	352 53.0 -00.6	N 15 51.5 +01.0	157 14.6 -36.6	S 19 00.2 +04.3	12								
13	15 36.3 +00.1	N 13 59.3 +00.7	7 52.4 -00.6	N 15 52.5 +01.0	171 38.0 -36.5	S 19 04.5 +04.3	13								
14	30 36.4 +00.1	N 14 00.0 +00.8	22 51.8 -00.5	N 15 53.5 +01.0	186 01.5 -36.6	S 19 08.8 +04.1	14								
15	45 36.5 +00.1	N 14 00.8 +00.8	37 51.3 -00.6	N 15 54.5 +01.0	200 24.9 -36.6	S 19 12.9 +04.0	15								
16	60 36.6 +00.1	N 14 01.6 +00.8	52 50.7 -00.6	N 15 55.5 +01.0	214 48.3 -36.6	S 19 16.9 +03.8	16								
17	75 36.7 +00.1	N 14 02.4 +00.8	67 50.1 -00.6	N 15 56.5 +01.0	229 11.7 -36.7	S 19 20.7 +03.7	17								
18	90 36.8 +00.1	N 14 03.2 +00.8	82 49.5 -00.5	N 15 57.5 +01.0	243 35.0 -36.7	S 19 24.4 +03.6	18								
19	105 36.9 +00.1	N 14 04.0 +00.8	97 49.0 -00.6	N 15 58.5 +00.9	257 58.3 -36.8	S 19 28.0 +03.4	19								
20	120 37.0 +00.1	N 14 04.8 +00.8	112 48.4 -00.6	N 15 59.4 +01.0	272 21.5 -36.7	S 19 31.4 +03.2	20								
21	135 37.1 +00.0	N 14 05.6 +00.8	127 47.8 -00.6	N 16 00.4 +01.0	286 44.8 -36.8	S 19 34.6 +03.2	21								
22	150 37.1 +00.1	N 14 06.4 +00.7	142 47.2 -00.5	N 16 01.4 +01.0	301 08.0 -36.8	S 19 37.8 +03.0	22								
23	165 37.2 +00.1	N 14 07.1 +00.8	157 46.7 -00.6	N 16 02.4 +01.0	315 31.2 -36.8	S 19 40.8 +02.8	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	Greenwich Culmination Time: 11:58	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	Greenwich Culmination Time: 12:28	UT 02 06 10 14 18 22	SD 16'5 16'5 16'5 16'5 16'5 16'5	HP 60'4 60'5 60'5 60'5 60'5 60'5	Greenwich Culmination Time: 01:05				

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	182 27.2 +00.7	N 12 51.3 +00.6	139 35.4 +02.0	N 22 26.5 +00.1	358 19.2 +02.7	S 11 44.0 +00.0	00								
01	197 27.9 +00.7	N 12 51.9 +00.7	154 37.4 +01.9	N 22 26.6 +00.0	13 21.9 +02.6	S 11 44.0 -00.1	01								
02	212 28.6 +00.7	N 12 52.6 +00.6	169 39.3 +01.9	N 22 26.6 +00.1	28 24.5 +02.7	S 11 43.9 -00.1	02								
03	227 29.3 +00.6	N 12 53.2 +00.7	184 41.2 +01.9	N 22 26.7 +00.1	43 27.2 +02.6	S 11 43.8 +00.0	03								
04	242 29.9 +00.7	N 12 53.9 +00.6	199 43.1 +01.9	N 22 26.8 +00.0	58 29.8 +02.7	S 11 43.8 -00.1	04								
05	257 30.6 +00.7	N 12 54.5 +00.6	214 45.0 +02.0	N 22 26.8 +00.1	73 32.5 +02.6	S 11 43.7 +00.0	05								
06	272 31.3 +00.7	N 12 55.1 +00.7	229 47.0 +01.9	N 22 26.9 +00.0	88 35.1 +02.7	S 11 43.7 -00.1	06								
07	287 32.0 +00.6	N 12 55.8 +00.6	244 48.9 +01.9	N 22 26.9 +00.1	103 37.8 +02.6	S 11 43.6 -00.1	07								
08	302 32.6 +00.7	N 12 56.4 +00.7	259 50.8 +01.9	N 22 27.0 +00.0	118 40.4 +02.6	S 11 43.5 +00.0	08								
09	317 33.3 +00.7	N 12 57.1 +00.6	274 52.7 +01.9	N 22 27.0 +00.1	133 43.0 +02.7	S 11 43.5 -00.1	09								
10	332 34.0 +00.7	N 12 57.7 +00.7	289 54.6 +01.9	N 22 27.1 +00.0	148 45.7 +02.6	S 11 43.4 +00.0	10								
11	347 34.7 +00.6	N 12 58.4 +00.6	304 56.5 +02.0	N 22 27.1 +00.1	163 48.3 +02.7	S 11 43.4 -00.1	11								
12	2 35.3 +00.7	N 12 59.0 +00.7	319 58.5 +01.9	N 22 27.2 +00.1	178 51.0 +02.6	S 11 43.3 -00.1	12								
13	17 36.0 +00.7	N 12 59.7 +00.6	335 00.4 +01.9	N 22 27.3 +00.0	193 53.6 +02.7	S 11 43.2 +00.0	13								
14	32 36.7 +00.6	N 13 00.3 +00.7	350 02.3 +01.9	N 22 27.3 +00.1	208 56.3 +02.6	S 11 43.2 -00.1	14								
15	47 37.3 +00.7	N 13 01.0 +00.6	5 04.2 +01.9	N 22 27.4 +00.0	223 58.9 +02.7	S 11 43.1 +00.0	15								
16	62 38.0 +00.7	N 13 01.6 +00.6	20 06.1 +02.0	N 22 27.4 +00.1	239 01.6 +02.6	S 11 43.1 -00.1	16								
17	77 38.7 +00.7	N 13 02.2 +00.7	35 08.1 +01.9	N 22 27.5 +00.0	254 04.2 +02.7	S 11 43.0 -00.1	17								
18	92 39.4 +00.6	N 13 02.9 +00.6	50 10.0 +01.9	N 22 27.5 +00.1	269 06.9 +02.6	S 11 42.9 +00.0	18								
19	107 40.0 +00.7	N 13 03.5 +00.7	65 11.9 +01.9	N 22 27.6 +00.0	284 09.5 +02.7	S 11 42.9 -00.1	19								
20	122 40.7 +00.7	N 13 04.2 +00.6	80 13.8 +01.9	N 22 27.6 +00.1	299 12.2 +02.6	S 11 42.8 +00.0	20								
21	137 41.4 +00.7	N 13 04.8 +00.7	95 15.7 +01.9	N 22 27.7 +00.1	314 14.8 +02.7	S 11 42.8 -00.1	21								
22	152 42.1 +00.6	N 13 05.5 +00.6	110 17.6 +02.0	N 22 27.8 +00.0	329 17.5 +02.6	S 11 42.7 -00.1	22								
23	167 42.7 +00.7	N 13 06.1 +00.6	125 19.6 +01.9	N 22 27.8 +00.1	344 20.1 +02.7	S 11 42.6 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:50	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:40	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	Greenwich Culmination Time: 00:07				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> $a = 0.61$					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 37.3 +00.1	N 14 07.9 +00.8	172 46.1 -00.6	N 16 03.4 +01.0	329 54.4 -36.8	S 19 43.6 +02.7	00								
01	195 37.4 +00.1	N 14 08.7 +00.8	187 45.5 -00.6	N 16 04.4 +00.9	344 17.6 -36.9	S 19 46.3 +02.6	01								
02	210 37.5 +00.1	N 14 09.5 +00.8	202 44.9 -00.6	N 16 05.3 +01.0	358 40.7 -36.9	S 19 48.9 +02.4	02								
03	225 37.6 +00.1	N 14 10.3 +00.8	217 44.3 -00.5	N 16 06.3 +01.0	13 03.8 -36.8	S 19 51.3 +02.3	03								
04	240 37.7 +00.1	N 14 11.1 +00.8	232 43.8 -00.6	N 16 07.3 +01.0	27 27.0 -36.9	S 19 53.6 +02.1	04								
05	255 37.8 +00.1	N 14 11.9 +00.7	247 43.2 -00.6	N 16 08.3 +00.9	41 50.1 -36.9	S 19 55.7 +02.0	05								
06	270 37.9 +00.1	N 14 12.6 +00.8	262 42.6 -00.6	N 16 09.2 +01.0	56 13.2 -37.0	S 19 57.7 +01.8	06								
07	285 38.0 +00.1	N 14 13.4 +00.8	277 42.0 -00.6	N 16 10.2 +01.0	70 36.2 -36.9	S 19 59.5 +01.7	07								
08	300 38.1 +00.1	N 14 14.2 +00.8	292 41.4 -00.6	N 16 11.2 +01.0	84 59.3 -36.9	S 20 01.2 +01.6	08								
09	315 38.2 +00.1	N 14 15.0 +00.8	307 40.8 -00.5	N 16 12.2 +01.0	99 22.4 -36.9	S 20 02.8 +01.4	09								
10	330 38.3 +00.0	N 14 15.8 +00.8	322 40.3 -00.6	N 16 13.2 +00.9	113 45.5 -36.9	S 20 04.2 +01.2	10								
11	345 38.3 +00.1	N 14 16.6 +00.7	337 39.7 -00.6	N 16 14.1 +01.0	128 08.6 -37.0	S 20 05.4 +01.1	11								
12	0 38.4 +00.1	N 14 17.3 +00.8	352 39.1 -00.6	N 16 15.1 +01.0	142 31.6 -36.9	S 20 06.5 +01.0	12								
13	15 38.5 +00.1	N 14 18.1 +00.8	7 38.5 -00.6	N 16 16.1 +00.9	156 54.7 -36.9	S 20 07.5 +00.8	13								
14	30 38.6 +00.1	N 14 18.9 +00.8	22 37.9 -00.6	N 16 17.0 +01.0	171 17.8 -36.9	S 20 08.3 +00.7	14								
15	45 38.7 +00.1	N 14 19.7 +00.8	37 37.3 -00.5	N 16 18.0 +01.0	185 40.9 -36.9	S 20 09.0 +00.5	15								
16	60 38.8 +00.1	N 14 20.5 +00.7	52 36.8 -00.6	N 16 19.0 +01.0	200 04.0 -36.9	S 20 09.5 +00.4	16								
17	75 38.9 +00.1	N 14 21.2 +00.8	67 36.2 -00.6	N 16 20.0 +00.9	214 27.1 -36.9	S 20 09.9 +00.2	17								
18	90 39.0 +00.1	N 14 22.0 +00.8	82 35.6 -00.6	N 16 20.9 +01.0	228 50.2 -36.8	S 20 10.1 +00.1	18								
19	105 39.1 +00.1	N 14 22.8 +00.8	97 35.0 -00.6	N 16 21.9 +01.0	243 13.4 -36.9	S 20 10.2 -00.1	19								
20	120 39.2 +00.0	N 14 23.6 +00.8	112 34.4 -00.6	N 16 22.9 +00.9	257 36.5 -36.8	S 20 10.1 -00.2	20								
21	135 39.2 +00.1	N 14 24.4 +00.7	127 33.8 -00.6	N 16 23.8 +01.0	271 59.7 -36.8	S 20 09.9 -00.3	21								
22	150 39.3 +00.1	N 14 25.1 +00.8	142 33.2 -00.6	N 16 24.8 +01.0	286 22.9 -36.8	S 20 09.6 -00.5	22								
23	165 39.4 +00.1	N 14 25.9 +00.8	157 32.6 -00.6	N 16 25.8 +00.9	300 46.1 -36.8	S 20 09.1 -00.7	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 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 16'5 16'5 16'5 16'5 16'5 16'4										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:57	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:29	HP 60'5 60'5 60'5 60'4 60'4 60'4	Greenwich Culmination Time: 02:06										

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	182 43.4 +00.7	N 13 06.7 +00.7	140 21.5 +01.9	N 22 27.9 +00.0	359 22.8 +02.6	S 11 42.6 -00.1	00								
01	197 44.1 +00.6	N 13 07.4 +00.6	155 23.4 +01.9	N 22 27.9 +00.1	14 25.4 +02.7	S 11 42.5 +00.0	01								
02	212 44.7 +00.7	N 13 08.0 +00.7	170 25.3 +01.9	N 22 28.0 +00.0	29 28.1 +02.6	S 11 42.5 -00.1	02								
03	227 45.4 +00.7	N 13 08.7 +00.6	185 27.2 +01.9	N 22 28.0 +00.1	44 30.7 +02.7	S 11 42.4 -00.1	03								
04	242 46.1 +00.7	N 13 09.3 +00.7	200 29.1 +02.0	N 22 28.1 +00.0	59 33.4 +02.6	S 11 42.3 +00.0	04								
05	257 46.8 +00.6	N 13 10.0 +00.6	215 31.1 +01.9	N 22 28.1 +00.1	74 36.0 +02.7	S 11 42.3 -00.1	05								
06	272 47.4 +00.7	N 13 10.6 +00.6	230 33.0 +01.9	N 22 28.2 +00.1	89 38.7 +02.6	S 11 42.2 +00.0	06								
07	287 48.1 +00.7	N 13 11.2 +00.7	245 34.9 +01.9	N 22 28.3 +00.0	104 41.3 +02.6	S 11 42.2 -00.1	07								
08	302 48.8 +00.7	N 13 11.9 +00.6	260 36.8 +01.9	N 22 28.3 +00.1	119 43.9 +02.7	S 11 42.1 -00.1	08								
09	317 49.5 +00.6	N 13 12.5 +00.7	275 38.7 +01.9	N 22 28.4 +00.0	134 46.6 +02.6	S 11 42.0 +00.0	09								
10	332 50.1 +00.7	N 13 13.2 +00.6	290 40.6 +01.9	N 22 28.4 +00.1	149 49.2 +02.7	S 11 42.0 -00.1	10								
11	347 50.8 +00.7	N 13 13.8 +00.6	305 42.5 +02.0	N 22 28.5 +00.0	164 51.9 +02.6	S 11 41.9 +00.0	11								
12	2 51.5 +00.6	N 13 14.4 +00.7	320 44.5 +01.9	N 22 28.5 +00.1	179 54.5 +02.7	S 11 41.9 -00.1	12								
13	17 52.1 +00.7	N 13 15.1 +00.6	335 46.4 +01.9	N 22 28.6 +00.0	194 57.2 +02.6	S 11 41.8 -00.1	13								
14	32 52.8 +00.7	N 13 15.7 +00.7	350 48.3 +01.9	N 22 28.6 +00.1	209 59.8 +02.7	S 11 41.7 +00.0	14								
15	47 53.5 +00.7	N 13 16.4 +00.6	5 50.2 +01.9	N 22 28.7 +00.0	225 02.5 +02.6	S 11 41.7 -00.1	15								
16	62 54.2 +00.6	N 13 17.0 +00.6	20 52.1 +01.9	N 22 28.7 +00.1	240 05.1 +02.7	S 11 41.6 +00.0	16								
17	77 54.8 +00.7	N 13 17.6 +00.7	35 54.0 +02.0	N 22 28.8 +00.1	255 07.8 +02.6	S 11 41.6 -00.1	17								
18	92 55.5 +00.7	N 13 18.3 +00.6	50 56.0 +01.9	N 22 28.9 +00.0	270 10.4 +02.7	S 11 41.5 -00.1	18								
19	107 56.2 +00.6	N 13 18.9 +00.6	65 57.9 +01.9	N 22 28.9 +00.1	285 13.1 +02.6	S 11 41.4 +00.0	19								
20	122 56.8 +00.7	N 13 19.5 +00.7	80 59.8 +01.9	N 22 29.0 +00.0	300 15.7 +02.7	S 11 41.4 -00.1	20								
21	137 57.5 +00.7	N 13 20.2 +00.6	96 01.7 +01.9	N 22 29.0 +00.1	315 18.4 +02.6	S 11 41.3 +00.0	21								
22	152 58.2 +00.6	N 13 20.8 +00.7	111 03.6 +01.9	N 22 29.1 +00.0	330 21.0 +02.7	S 11 41.3 -00.1	22								
23	167 58.8 +00.7	N 13 21.5 +00.6	126 05.5 +01.9	N 22 29.1 +00.1	345 23.7 +02.6	S 11 41.2 -00.1	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:49	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:37	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 00:02										

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.65					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 39.5 +00.1	N 14 26.7 +00.8	172 32.0 -00.5	N 16 26.7 +01.0	315 09.3 -36.8	S 20 08.4 -00.7	00								
01	195 39.6 +00.1	N 14 27.5 +00.7	187 31.5 -00.6	N 16 27.7 +00.9	329 32.5 -36.7	S 20 07.7 -01.0	01								
02	210 39.7 +00.1	N 14 28.2 +00.8	202 30.9 -00.6	N 16 28.6 +01.0	343 55.8 -36.7	S 20 06.7 -01.0	02								
03	225 39.8 +00.1	N 14 29.0 +00.8	217 30.3 -00.6	N 16 29.6 +01.0	358 19.1 -36.7	S 20 05.7 -01.3	03								
04	240 39.9 +00.0	N 14 29.8 +00.8	232 29.7 -00.6	N 16 30.6 +00.9	12 42.4 -36.6	S 20 04.4 -01.3	04								
05	255 39.9 +00.1	N 14 30.6 +00.8	247 29.1 -00.6	N 16 31.5 +01.0	27 05.8 -36.6	S 20 03.1 -01.5	05								
06	270 40.0 +00.1	N 14 31.4 +00.7	262 28.5 -00.6	N 16 32.5 +01.0	41 29.2 -36.6	S 20 01.6 -01.7	06								
07	285 40.1 +00.1	N 14 32.1 +00.8	277 27.9 -00.6	N 16 33.5 +00.9	55 52.6 -36.5	S 19 59.9 -01.7	07								
08	300 40.2 +00.1	N 14 32.9 +00.8	292 27.3 -00.6	N 16 34.4 +01.0	70 16.1 -36.5	S 19 58.2 -02.0	08								
09	315 40.3 +00.1	N 14 33.7 +00.7	307 26.7 -00.6	N 16 35.4 +00.9	84 39.6 -36.5	S 19 56.2 -02.0	09								
10	330 40.4 +00.1	N 14 34.4 +00.8	322 26.1 -00.6	N 16 36.3 +01.0	99 03.1 -36.4	S 19 54.2 -02.2	10								
11	345 40.5 +00.0	N 14 35.2 +00.8	337 25.5 -00.6	N 16 37.3 +00.9	113 26.7 -36.4	S 19 52.0 -02.4	11								
12	0 40.5 +00.1	N 14 36.0 +00.8	352 24.9 -00.6	N 16 38.2 +01.0	127 50.3 -36.4	S 19 49.6 -02.5	12								
13	15 40.6 +00.1	N 14 36.8 +00.7	7 24.3 -00.6	N 16 39.2 +00.9	142 13.9 -36.3	S 19 47.1 -02.6	13								
14	30 40.7 +00.1	N 14 37.5 +00.8	22 23.7 -00.6	N 16 40.1 +01.0	156 37.6 -36.2	S 19 44.5 -02.7	14								
15	45 40.8 +00.1	N 14 38.3 +00.8	37 23.1 -00.6	N 16 41.1 +01.0	171 01.4 -36.3	S 19 41.8 -02.9	15								
16	60 40.9 +00.1	N 14 39.1 +00.7	52 22.5 -00.6	N 16 42.1 +00.9	185 25.1 -36.1	S 19 38.9 -03.1	16								
17	75 41.0 +00.1	N 14 39.8 +00.8	67 21.9 -00.6	N 16 43.0 +01.0	199 49.0 -36.1	S 19 35.8 -03.1	17								
18	90 41.1 +00.0	N 14 40.6 +00.8	82 21.3 -00.6	N 16 44.0 +00.9	214 12.9 -36.1	S 19 32.7 -03.3	18								
19	105 41.1 +00.1	N 14 41.4 +00.8	97 20.7 -00.6	N 16 44.9 +01.0	228 36.8 -36.0	S 19 29.4 -03.5	19								
20	120 41.2 +00.1	N 14 42.2 +00.7	112 20.1 -00.6	N 16 45.9 +00.9	243 00.8 -36.0	S 19 25.9 -03.5	20								
21	135 41.3 +00.1	N 14 42.9 +00.8	127 19.5 -00.6	N 16 46.8 +01.0	257 24.8 -35.9	S 19 22.4 -03.7	21								
22	150 41.4 +00.1	N 14 43.7 +00.8	142 18.9 -00.6	N 16 47.8 +00.9	271 48.9 -35.8	S 19 18.7 -03.9	22								
23	165 41.5 +00.0	N 14 44.5 +00.7	157 18.3 -00.6	N 16 48.7 +01.0	286 13.1 -35.8	S 19 14.8 -03.9	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 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 16'4 16'4 16'4 16'4 16'4 16'3										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:57	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:30	HP 60'3 60'3 60'2 60'1 60'1 60'0	Greenwich Culmination Time: 03:07										

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	182 59.5 +00.7	N 13 22.1 +00.6	141 07.4 +01.9	N 22 29.2 +00.0	0 26.3 +02.7	S 11 41.1 +00.0	00								
01	198 00.2 +00.7	N 13 22.7 +00.7	156 09.3 +02.0	N 22 29.2 +00.1	15 29.0 +02.6	S 11 41.1 -00.1	01								
02	213 00.9 +00.6	N 13 23.4 +00.6	171 11.3 +01.9	N 22 29.3 +00.1	30 31.6 +02.7	S 11 41.0 +00.0	02								
03	228 01.5 +00.7	N 13 24.0 +00.6	186 13.2 +01.9	N 22 29.4 +00.0	45 34.3 +02.6	S 11 41.0 -00.1	03								
04	243 02.2 +00.7	N 13 24.6 +00.7	201 15.1 +01.9	N 22 29.4 +00.1	60 36.9 +02.7	S 11 40.9 -00.1	04								
05	258 02.9 +00.6	N 13 25.3 +00.6	216 17.0 +01.9	N 22 29.5 +00.0	75 39.6 +02.6	S 11 40.8 +00.0	05								
06	273 03.5 +00.7	N 13 25.9 +00.6	231 18.9 +01.9	N 22 29.5 +00.1	90 42.2 +02.7	S 11 40.8 -00.1	06								
07	288 04.2 +00.7	N 13 26.5 +00.7	246 20.8 +01.9	N 22 29.6 +00.0	105 44.9 +02.6	S 11 40.7 +00.0	07								
08	303 04.9 +00.6	N 13 27.2 +00.6	261 22.7 +02.0	N 22 29.6 +00.1	120 47.5 +02.6	S 11 40.7 -00.1	08								
09	318 05.5 +00.7	N 13 27.8 +00.6	276 24.7 +01.9	N 22 29.7 +00.0	135 50.1 +02.7	S 11 40.6 -00.1	09								
10	333 06.2 +00.7	N 13 28.4 +00.7	291 26.6 +01.9	N 22 29.7 +00.1	150 52.8 +02.6	S 11 40.5 +00.0	10								
11	348 06.9 +00.7	N 13 29.1 +00.6	306 28.5 +01.9	N 22 29.8 +00.0	165 55.4 +02.7	S 11 40.5 -00.1	11								
12	3 07.6 +00.6	N 13 29.7 +00.7	321 30.4 +01.9	N 22 29.8 +00.1	180 58.1 +02.6	S 11 40.4 +00.0	12								
13	18 08.2 +00.7	N 13 30.4 +00.6	336 32.3 +01.9	N 22 29.9 +00.0	196 00.7 +02.7	S 11 40.4 -00.1	13								
14	33 08.9 +00.7	N 13 31.0 +00.6	351 34.2 +01.9	N 22 29.9 +00.1	211 03.4 +02.6	S 11 40.3 -00.1	14								
15	48 09.6 +00.6	N 13 31.6 +00.7	6 36.1 +01.9	N 22 30.0 +00.1	226 06.0 +02.7	S 11 40.2 +00.0	15								
16	63 10.2 +00.7	N 13 32.3 +00.6	21 38.0 +01.9	N 22 30.1 +00.0	241 08.7 +02.6	S 11 40.2 -00.1	16								
17	78 10.9 +00.7	N 13 32.9 +00.6	36 39.9 +02.0	N 22 30.1 +00.1	256 11.3 +02.7	S 11 40.1 +00.0	17								
18	93 11.6 +00.6	N 13 33.5 +00.6	51 41.9 +01.9	N 22 30.2 +00.0	271 14.0 +02.6	S 11 40.1 -00.1	18								
19	108 12.2 +00.7	N 13 34.1 +00.7	66 43.8 +01.9	N 22 30.2 +00.1	286 16.6 +02.7	S 11 40.0 +00.0	19								
20	123 12.9 +00.7	N 13 34.8 +00.6	81 45.7 +01.9	N 22 30.3 +00.0	301 19.3 +02.6	S 11 40.0 -00.1	20								
21	138 13.6 +00.7	N 13 35.4 +00.6	96 47.6 +01.9	N 22 30.3 +00.1	316 21.9 +02.7	S 11 39.9 -00.1	21								
22	153 14.3 +00.6	N 13 36.0 +00.7	111 49.5 +01.9	N 22 30.4 +00.0	331 24.6 +02.6	S 11 39.8 +00.0	22								
23	168 14.9 +00.7	N 13 36.7 +00.6	126 51.4 +01.9	N 22 30.4 +00.1	346 27.2 +02.7	S 11 39.8 -00.1	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:48	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:34	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 23:54										

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> $a = 0.69$					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 41.5 +00.1	N 14 45.2 +00.8	172 17.7 -00.6	N 16 49.7 +00.9	300 37.3 -35.8	S 19 10.9 -04.1	00								
01	195 41.6 +00.1	N 14 46.0 +00.8	187 17.1 -00.6	N 16 50.6 +00.9	315 01.5 -35.6	S 19 06.8 -04.2	01								
02	210 41.7 +00.1	N 14 46.8 +00.7	202 16.5 -00.6	N 16 51.5 +01.0	329 25.9 -35.7	S 19 02.6 -04.4	02								
03	225 41.8 +00.1	N 14 47.5 +00.8	217 15.9 -00.6	N 16 52.5 +00.9	343 50.2 -35.5	S 18 58.2 -04.4	03								
04	240 41.9 +00.1	N 14 48.3 +00.8	232 15.3 -00.6	N 16 53.4 +01.0	358 14.7 -35.5	S 18 53.8 -04.6	04								
05	255 42.0 +00.0	N 14 49.1 +00.7	247 14.7 -00.6	N 16 54.4 +00.9	12 39.2 -35.5	S 18 49.2 -04.8	05								
06	270 42.0 +00.1	N 14 49.8 +00.8	262 14.1 -00.6	N 16 55.3 +01.0	27 03.7 -35.3	S 18 44.4 -04.8	06								
07	285 42.1 +00.1	N 14 50.6 +00.7	277 13.5 -00.6	N 16 56.3 +00.9	41 28.4 -35.3	S 18 39.6 -05.0	07								
08	300 42.2 +00.1	N 14 51.3 +00.8	292 12.9 -00.6	N 16 57.2 +00.9	55 53.1 -35.3	S 18 34.6 -05.0	08								
09	315 42.3 +00.1	N 14 52.1 +00.8	307 12.3 -00.6	N 16 58.1 +01.0	70 17.8 -35.1	S 18 29.6 -05.3	09								
10	330 42.4 +00.0	N 14 52.9 +00.7	322 11.7 -00.6	N 16 59.1 +00.9	84 42.7 -35.2	S 18 24.3 -05.3	10								
11	345 42.4 +00.1	N 14 53.6 +00.8	337 11.1 -00.6	N 17 00.0 +01.0	99 07.5 -35.0	S 18 19.0 -05.4	11								
12	0 42.5 +00.1	N 14 54.4 +00.8	352 10.5 -00.6	N 17 01.0 +00.9	113 32.5 -35.0	S 18 13.6 -05.6	12								
13	15 42.6 +00.1	N 14 55.2 +00.7	7 09.9 -00.6	N 17 01.9 +00.9	127 57.5 -34.9	S 18 08.0 -05.7	13								
14	30 42.7 +00.1	N 14 55.9 +00.8	22 09.3 -00.6	N 17 02.8 +01.0	142 22.6 -34.8	S 18 02.3 -05.8	14								
15	45 42.8 +00.0	N 14 56.7 +00.7	37 08.7 -00.6	N 17 03.8 +00.9	156 47.8 -34.8	S 17 56.5 -05.9	15								
16	60 42.8 +00.1	N 14 57.4 +00.8	52 08.1 -00.6	N 17 04.7 +00.9	171 13.0 -34.7	S 17 50.6 -06.0	16								
17	75 42.9 +00.1	N 14 58.2 +00.8	67 07.5 -00.7	N 17 05.6 +01.0	185 38.3 -34.6	S 17 44.6 -06.1	17								
18	90 43.0 +00.1	N 14 59.0 +00.7	82 06.8 -00.6	N 17 06.6 +00.9	200 03.7 -34.5	S 17 38.5 -06.3	18								
19	105 43.1 +00.0	N 14 59.7 +00.8	97 06.2 -00.6	N 17 07.5 +00.9	214 29.2 -34.5	S 17 32.2 -06.3	19								
20	120 43.1 +00.1	N 15 00.5 +00.7	112 05.6 -00.6	N 17 08.4 +01.0	228 54.7 -34.4	S 17 25.9 -06.5	20								
21	135 43.2 +00.1	N 15 01.2 +00.8	127 05.0 -00.6	N 17 09.4 +00.9	243 20.3 -34.3	S 17 19.4 -06.5	21								
22	150 43.3 +00.1	N 15 02.0 +00.8	142 04.4 -00.6	N 17 10.3 +00.9	257 46.0 -34.3	S 17 12.9 -06.7	22								
23	165 43.4 +00.1	N 15 02.8 +00.7	157 03.8 -00.6	N 17 11.2 +00.9	272 11.7 -34.1	S 17 06.2 -06.8	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	Greenwich Culmination Time: 11:57	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	Greenwich Culmination Time: 12:31	UT 02 06 10 14 18 22	SD 16'3 16'3 16'3 16'3 16'2 16'2	HP 59'9 59'9 59'8 59'7 59'6 59'5	Greenwich Culmination Time: 04:07				

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	183 15.6 +00.7	N 13 37.3 +00.6	141 53.3 +01.9	N 22 30.5 +00.0	1 29.9 +02.6	S 11 39.7 +00.0	00								
01	198 16.3 +00.6	N 13 37.9 +00.7	156 55.2 +01.9	N 22 30.5 +00.1	16 32.5 +02.7	S 11 39.7 -00.1	01								
02	213 16.9 +00.7	N 13 38.6 +00.6	171 57.1 +02.0	N 22 30.6 +00.1	31 35.2 +02.6	S 11 39.6 -00.1	02								
03	228 17.6 +00.7	N 13 39.2 +00.6	186 59.1 +01.9	N 22 30.7 +00.0	46 37.8 +02.7	S 11 39.5 +00.0	03								
04	243 18.3 +00.6	N 13 39.8 +00.7	202 01.0 +01.9	N 22 30.7 +00.1	61 40.5 +02.6	S 11 39.5 -00.1	04								
05	258 18.9 +00.7	N 13 40.5 +00.6	217 02.9 +01.9	N 22 30.8 +00.0	76 43.1 +02.7	S 11 39.4 +00.0	05								
06	273 19.6 +00.7	N 13 41.1 +00.6	232 04.8 +01.9	N 22 30.8 +00.1	91 45.8 +02.6	S 11 39.4 -00.1	06								
07	288 20.3 +00.6	N 13 41.7 +00.6	247 06.7 +01.9	N 22 30.9 +00.0	106 48.4 +02.6	S 11 39.3 -00.1	07								
08	303 20.9 +00.7	N 13 42.3 +00.7	262 08.6 +01.9	N 22 30.9 +00.1	121 51.0 +02.7	S 11 39.2 +00.0	08								
09	318 21.6 +00.7	N 13 43.0 +00.6	277 10.5 +01.9	N 22 31.0 +00.0	136 53.7 +02.6	S 11 39.2 -00.1	09								
10	333 22.3 +00.6	N 13 43.6 +00.6	292 12.4 +01.9	N 22 31.0 +00.1	151 56.3 +02.7	S 11 39.1 +00.0	10								
11	348 22.9 +00.7	N 13 44.2 +00.7	307 14.3 +01.9	N 22 31.1 +00.0	166 59.0 +02.6	S 11 39.1 -00.1	11								
12	3 23.6 +00.7	N 13 44.9 +00.6	322 16.2 +02.0	N 22 31.1 +00.1	182 01.6 +02.7	S 11 39.0 -00.1	12								
13	18 24.3 +00.6	N 13 45.5 +00.6	337 18.2 +01.9	N 22 31.2 +00.0	197 04.3 +02.6	S 11 38.9 +00.0	13								
14	33 24.9 +00.7	N 13 46.1 +00.6	352 20.1 +01.9	N 22 31.2 +00.1	212 06.9 +02.7	S 11 38.9 -00.1	14								
15	48 25.6 +00.7	N 13 46.7 +00.7	7 22.0 +01.9	N 22 31.3 +00.1	227 09.6 +02.6	S 11 38.8 +00.0	15								
16	63 26.3 +00.6	N 13 47.4 +00.6	22 23.9 +01.9	N 22 31.4 +00.0	242 12.2 +02.7	S 11 38.8 -00.1	16								
17	78 26.9 +00.7	N 13 48.0 +00.6	37 25.8 +01.9	N 22 31.4 +00.1	257 14.9 +02.6	S 11 38.7 -00.1	17								
18	93 27.6 +00.7	N 13 48.6 +00.6	52 27.7 +01.9	N 22 31.5 +00.0	272 17.5 +02.7	S 11 38.6 +00.0	18								
19	108 28.3 +00.6	N 13 49.2 +00.7	67 29.6 +01.9	N 22 31.5 +00.1	287 20.2 +02.6	S 11 38.6 -00.1	19								
20	123 28.9 +00.7	N 13 49.9 +00.6	82 31.5 +01.9	N 22 31.6 +00.0	302 22.8 +02.7	S 11 38.5 +00.0	20								
21	138 29.6 +00.7	N 13 50.5 +00.6	97 33.4 +01.9	N 22 31.6 +00.1	317 25.5 +02.6	S 11 38.5 -00.1	21								
22	153 30.3 +00.6	N 13 51.1 +00.6	112 35.3 +01.9	N 22 31.7 +00.0	332 28.1 +02.7	S 11 38.4 -00.1	22								
23	168 30.9 +00.7	N 13 51.7 +00.7	127 37.2 +01.9	N 22 31.7 +00.1	347 30.8 +02.6	S 11 38.3 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:46	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:31	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	Greenwich Culmination Time: 23:50				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> $a = 0.72$					UT
UT	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''			
00	180 43.5 +00.0	N 15 03.5 +00.8	172 03.2 -00.6	N 17 12.1 +01.0	286 37.6 -34.1	S 16 59.4 -06.9	00								
01	195 43.5 +00.1	N 15 04.3 +00.7	187 02.6 -00.7	N 17 13.1 +00.9	301 03.5 -34.1	S 16 52.5 -06.9	01								
02	210 43.6 +00.1	N 15 05.0 +00.8	202 01.9 -00.6	N 17 14.0 +00.9	315 29.4 -33.9	S 16 45.6 -07.1	02								
03	225 43.7 +00.1	N 15 05.8 +00.7	217 01.3 -00.6	N 17 14.9 +01.0	329 55.5 -33.9	S 16 38.5 -07.2	03								
04	240 43.8 +00.0	N 15 06.5 +00.8	232 00.7 -00.6	N 17 15.9 +00.9	344 21.6 -33.8	S 16 31.3 -07.3	04								
05	255 43.8 +00.1	N 15 07.3 +00.7	247 00.1 -00.6	N 17 16.8 +00.9	358 47.8 -33.7	S 16 24.0 -07.3	05								
06	270 43.9 +00.1	N 15 08.0 +00.8	261 59.5 -00.6	N 17 17.7 +00.9	13 14.1 -33.7	S 16 16.7 -07.5	06								
07	285 44.0 +00.1	N 15 08.8 +00.8	276 58.9 -00.6	N 17 18.6 +01.0	27 40.4 -33.5	S 16 09.2 -07.6	07								
08	300 44.1 +00.0	N 15 09.6 +00.7	291 58.3 -00.7	N 17 19.6 +00.9	42 06.9 -33.5	S 16 01.6 -07.6	08								
09	315 44.1 +00.1	N 15 10.3 +00.8	306 57.6 -00.6	N 17 20.5 +00.9	56 33.4 -33.4	S 15 54.0 -07.8	09								
10	330 44.2 +00.1	N 15 11.1 +00.7	321 57.0 -00.6	N 17 21.4 +00.9	70 60.0 -33.4	S 15 46.2 -07.8	10								
11	345 44.3 +00.1	N 15 11.8 +00.8	336 56.4 -00.6	N 17 22.3 +00.9	85 26.6 -33.2	S 15 38.4 -08.0	11								
12	0 44.4 +00.0	N 15 12.6 +00.7	351 55.8 -00.6	N 17 23.2 +01.0	99 53.4 -33.2	S 15 30.4 -08.0	12								
13	15 44.4 +00.1	N 15 13.3 +00.8	6 55.2 -00.7	N 17 24.2 +00.9	114 20.2 -33.1	S 15 22.4 -08.1	13								
14	30 44.5 +00.1	N 15 14.1 +00.7	21 54.5 -00.6	N 17 25.1 +00.9	128 47.1 -33.0	S 15 14.3 -08.2	14								
15	45 44.6 +00.0	N 15 14.8 +00.8	36 53.9 -00.6	N 17 26.0 +00.9	143 14.1 -33.0	S 15 06.1 -08.3	15								
16	60 44.6 +00.1	N 15 15.6 +00.7	51 53.3 -00.6	N 17 26.9 +00.9	157 41.1 -32.8	S 14 57.8 -08.3	16								
17	75 44.7 +00.1	N 15 16.3 +00.8	66 52.7 -00.6	N 17 27.8 +00.9	172 08.3 -32.8	S 14 49.5 -08.5	17								
18	90 44.8 +00.1	N 15 17.1 +00.7	81 52.1 -00.7	N 17 28.7 +00.9	186 35.5 -32.8	S 14 41.0 -08.5	18								
19	105 44.9 +00.0	N 15 17.8 +00.8	96 51.4 -00.6	N 17 29.6 +01.0	201 02.7 -32.6	S 14 32.5 -08.6	19								
20	120 44.9 +00.1	N 15 18.6 +00.7	111 50.8 -00.6	N 17 30.6 +00.9	215 30.1 -32.6	S 14 23.9 -08.7	20								
21	135 45.0 +00.1	N 15 19.3 +00.8	126 50.2 -00.6	N 17 31.5 +00.9	229 57.5 -32.4	S 14 15.2 -08.8	21								
22	150 45.1 +00.0	N 15 20.1 +00.7	141 49.6 -00.7	N 17 32.4 +00.9	244 25.1 -32.5	S 14 06.4 -08.8	22								
23	165 45.1 +00.1	N 15 20.8 +00.8	156 48.9 -00.6	N 17 33.3 +00.9	258 52.6 -32.3	S 13 57.6 -08.9	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 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	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	Greenwich Culmination Time: 11:57	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:32	HP 59'4 59'3 59'2 59'1 59'0 58'9	Greenwich Culmination Time: 05:05										

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''			
00	183 31.6 +00.7	N 13 52.4 +00.6	142 39.1 +02.0	N 22 31.8 +00.0	2 33.4 +02.7	S 11 38.3 -00.1	00								
01	198 32.3 +00.6	N 13 53.0 +00.6	157 41.1 +01.9	N 22 31.8 +00.1	17 36.1 +02.6	S 11 38.2 +00.0	01								
02	213 32.9 +00.7	N 13 53.6 +00.6	172 43.0 +01.9	N 22 31.9 +00.0	32 38.7 +02.7	S 11 38.2 -00.1	02								
03	228 33.6 +00.7	N 13 54.2 +00.7	187 44.9 +01.9	N 22 31.9 +00.1	47 41.4 +02.6	S 11 38.1 +00.0	03								
04	243 34.3 +00.6	N 13 54.9 +00.6	202 46.8 +01.9	N 22 32.0 +00.1	62 44.0 +02.7	S 11 38.1 -00.1	04								
05	258 34.9 +00.7	N 13 55.5 +00.6	217 48.7 +01.9	N 22 32.1 +00.0	77 46.7 +02.6	S 11 38.0 -00.1	05								
06	273 35.6 +00.7	N 13 56.1 +00.6	232 50.6 +01.9	N 22 32.1 +00.1	92 49.3 +02.6	S 11 37.9 +00.0	06								
07	288 36.3 +00.6	N 13 56.7 +00.7	247 52.5 +01.9	N 22 32.2 +00.0	107 51.9 +02.7	S 11 37.9 -00.1	07								
08	303 36.9 +00.7	N 13 57.4 +00.6	262 54.4 +01.9	N 22 32.2 +00.1	122 54.6 +02.6	S 11 37.8 +00.0	08								
09	318 37.6 +00.7	N 13 58.0 +00.6	277 56.3 +01.9	N 22 32.3 +00.0	137 57.2 +02.7	S 11 37.8 -00.1	09								
10	333 38.3 +00.6	N 13 58.6 +00.6	292 58.2 +01.9	N 22 32.3 +00.1	152 59.9 +02.6	S 11 37.7 -00.1	10								
11	348 38.9 +00.7	N 13 59.2 +00.7	308 00.1 +01.9	N 22 32.4 +00.0	168 02.5 +02.7	S 11 37.6 +00.0	11								
12	3 39.6 +00.7	N 13 59.9 +00.6	323 02.0 +01.9	N 22 32.4 +00.1	183 05.2 +02.6	S 11 37.6 -00.1	12								
13	18 40.3 +00.6	N 14 00.5 +00.6	338 03.9 +01.9	N 22 32.5 +00.0	198 07.8 +02.7	S 11 37.5 +00.0	13								
14	33 40.9 +00.7	N 14 01.1 +00.6	353 05.8 +01.9	N 22 32.5 +00.1	213 10.5 +02.6	S 11 37.5 -00.1	14								
15	48 41.6 +00.7	N 14 01.7 +00.6	8 07.7 +02.0	N 22 32.6 +00.0	228 13.1 +02.7	S 11 37.4 -00.1	15								
16	63 42.3 +00.6	N 14 02.3 +00.7	23 09.7 +01.9	N 22 32.6 +00.1	243 15.8 +02.6	S 11 37.3 +00.0	16								
17	78 42.9 +00.7	N 14 03.0 +00.6	38 11.6 +01.9	N 22 32.7 +00.0	258 18.4 +02.7	S 11 37.3 -00.1	17								
18	93 43.6 +00.7	N 14 03.6 +00.6	53 13.5 +01.9	N 22 32.7 +00.1	273 21.1 +02.6	S 11 37.2 +00.0	18								
19	108 44.3 +00.6	N 14 04.2 +00.6	68 15.4 +01.9	N 22 32.8 +00.1	288 23.7 +02.7	S 11 37.2 -00.1	19								
20	123 44.9 +00.7	N 14 04.8 +00.6	83 17.3 +01.9	N 22 32.9 +00.0	303 26.4 +02.6	S 11 37.1 -00.1	20								
21	138 45.6 +00.7	N 14 05.4 +00.7	98 19.2 +01.9	N 22 32.9 +00.1	318 29.0 +02.7	S 11 37.0 +00.0	21								
22	153 46.3 +00.6	N 14 06.1 +00.6	113 21.1 +01.9	N 22 33.0 +00.0	333 31.7 +02.6	S 11 37.0 -00.1	22								
23	168 46.9 +00.7	N 14 06.7 +00.6	128 23.0 +01.9	N 22 33.0 +00.1	348 34.3 +02.7	S 11 36.9 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:45	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:28	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 23:46										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.76$				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	
00	180 45.2 +00.1	N 15 21.6 +00.7	171 48.3 -00.6	N 17 34.2 +00.9	273 20.3 -32.3	S 13 48.7 -09.0	00						
01	195 45.3 +00.1	N 15 22.3 +00.7	186 47.7 -00.6	N 17 35.1 +00.9	287 48.0 -32.1	S 13 39.7 -09.0	01						
02	210 45.4 +00.0	N 15 23.0 +00.8	201 47.1 -00.7	N 17 36.0 +00.9	302 15.9 -32.1	S 13 30.7 -09.2	02						
03	225 45.4 +00.1	N 15 23.8 +00.7	216 46.4 -00.6	N 17 36.9 +00.9	316 43.8 -32.1	S 13 21.5 -09.2	03						
04	240 45.5 +00.1	N 15 24.5 +00.8	231 45.8 -00.6	N 17 37.8 +00.9	331 11.7 -31.9	S 13 12.3 -09.2	04						
05	255 45.6 +00.0	N 15 25.3 +00.7	246 45.2 -00.6	N 17 38.7 +01.0	345 39.8 -31.9	S 13 03.1 -09.4	05						
06	270 45.6 +00.1	N 15 26.0 +00.8	261 44.6 -00.7	N 17 39.7 +00.9	0 07.9 -31.8	S 12 53.7 -09.4	06						
07	285 45.7 +00.1	N 15 26.8 +00.7	276 43.9 -00.6	N 17 40.6 +00.9	14 36.1 -31.8	S 12 44.3 -09.4	07						
08	300 45.8 +00.0	N 15 27.5 +00.7	291 43.3 -00.6	N 17 41.5 +00.9	29 04.3 -31.6	S 12 34.9 -09.5	08						
09	315 45.8 +00.1	N 15 28.2 +00.8	306 42.7 -00.7	N 17 42.4 +00.9	43 32.7 -31.6	S 12 25.4 -09.6	09						
10	330 45.9 +00.1	N 15 29.0 +00.7	321 42.0 -00.6	N 17 43.3 +00.9	58 01.1 -31.5	S 12 15.8 -09.7	10						
11	345 46.0 +00.0	N 15 29.7 +00.8	336 41.4 -00.6	N 17 44.2 +00.9	72 29.6 -31.5	S 12 06.1 -09.7	11						
12	0 46.0 +00.1	N 15 30.5 +00.7	351 40.8 -00.6	N 17 45.1 +00.9	86 58.1 -31.3	S 11 56.4 -09.8	12						
13	15 46.1 +00.1	N 15 31.2 +00.8	6 40.2 -00.7	N 17 46.0 +00.9	101 26.8 -31.3	S 11 46.6 -09.8	13						
14	30 46.2 +00.0	N 15 32.0 +00.7	21 39.5 -00.6	N 17 46.9 +00.9	115 55.5 -31.3	S 11 36.8 -09.9	14						
15	45 46.2 +00.1	N 15 32.7 +00.7	36 38.9 -00.6	N 17 47.8 +00.9	130 24.2 -31.1	S 11 26.9 -09.9	15						
16	60 46.3 +00.1	N 15 33.4 +00.8	51 38.3 -00.7	N 17 48.7 +00.9	144 53.1 -31.1	S 11 17.0 -10.0	16						
17	75 46.4 +00.0	N 15 34.2 +00.7	66 37.6 -00.6	N 17 49.6 +00.9	159 22.0 -31.1	S 11 07.0 -10.0	17						
18	90 46.4 +00.1	N 15 34.9 +00.8	81 37.0 -00.6	N 17 50.5 +00.8	173 50.9 -30.9	S 10 57.0 -10.1	18						
19	105 46.5 +00.1	N 15 35.7 +00.7	96 36.4 -00.7	N 17 51.3 +00.9	188 20.0 -30.9	S 10 46.9 -10.2	19						
20	120 46.6 +00.0	N 15 36.4 +00.7	111 35.7 -00.6	N 17 52.2 +00.9	202 49.1 -30.8	S 10 36.7 -10.2	20						
21	135 46.6 +00.1	N 15 37.1 +00.8	126 35.1 -00.6	N 17 53.1 +00.9	217 18.3 -30.8	S 10 26.5 -10.2	21						
22	150 46.7 +00.1	N 15 37.9 +00.7	141 34.5 -00.7	N 17 54.0 +00.9	231 47.5 -30.7	S 10 16.3 -10.3	22						
23	165 46.8 +00.0	N 15 38.6 +00.7	156 33.8 -00.6	N 17 54.9 +00.9	246 16.8 -30.6	S 10 06.0 -10.4	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 Greenwich Culmination Time: 11:57 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 Greenwich Culmination Time: 12:33 UT 02 06 10 14 18 22 SD 16'0 16'0 16'0 15'9 15'9 15'9 HP 58'8 58'7 58'6 58'5 58'4 58'3 Greenwich Culmination Time: 05:59													
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	
00	183 47.6 +00.7	N 14 07.3 +00.6	143 24.9 +01.9	N 22 33.1 +00.0	3 37.0 +02.6	S 11 36.9 -00.1	00						
01	198 48.3 +00.6	N 14 07.9 +00.6	158 26.8 +01.9	N 22 33.1 +00.1	18 39.6 +02.7	S 11 36.8 +00.0	01						
02	213 48.9 +00.7	N 14 08.5 +00.7	173 28.7 +01.9	N 22 33.2 +00.0	33 42.3 +02.6	S 11 36.8 -00.1	02						
03	228 49.6 +00.7	N 14 09.2 +00.6	188 30.6 +01.9	N 22 33.2 +00.1	48 44.9 +02.6	S 11 36.7 -00.1	03						
04	243 50.3 +00.6	N 14 09.8 +00.6	203 32.5 +01.9	N 22 33.3 +00.0	63 47.5 +02.7	S 11 36.6 +00.0	04						
05	258 50.9 +00.7	N 14 10.4 +00.6	218 34.4 +01.9	N 22 33.3 +00.1	78 50.2 +02.6	S 11 36.6 -00.1	05						
06	273 51.6 +00.6	N 14 11.0 +00.6	233 36.3 +01.9	N 22 33.4 +00.0	93 52.8 +02.7	S 11 36.5 +00.0	06						
07	288 52.2 +00.7	N 14 11.6 +00.6	248 38.2 +01.9	N 22 33.4 +00.1	108 55.5 +02.6	S 11 36.5 -00.1	07						
08	303 52.9 +00.7	N 14 12.2 +00.7	263 40.1 +01.9	N 22 33.5 +00.0	123 58.1 +02.7	S 11 36.4 -00.1	08						
09	318 53.6 +00.6	N 14 12.9 +00.6	278 42.0 +01.9	N 22 33.5 +00.1	139 00.8 +02.6	S 11 36.3 +00.0	09						
10	333 54.2 +00.7	N 14 13.5 +00.6	293 43.9 +01.9	N 22 33.6 +00.0	154 03.4 +02.7	S 11 36.3 -00.1	10						
11	348 54.9 +00.7	N 14 14.1 +00.6	308 45.8 +01.9	N 22 33.6 +00.1	169 06.1 +02.6	S 11 36.2 +00.0	11						
12	3 55.6 +00.6	N 14 14.7 +00.6	323 47.7 +01.9	N 22 33.7 +00.0	184 08.7 +02.7	S 11 36.2 -00.1	12						
13	18 56.2 +00.7	N 14 15.3 +00.6	338 49.6 +01.9	N 22 33.7 +00.1	199 11.4 +02.6	S 11 36.1 -00.1	13						
14	33 56.9 +00.7	N 14 15.9 +00.7	353 51.5 +02.0	N 22 33.8 +00.1	214 14.0 +02.7	S 11 36.0 +00.0	14						
15	48 57.6 +00.6	N 14 16.6 +00.6	8 53.5 +01.9	N 22 33.9 +00.0	229 16.7 +02.6	S 11 36.0 -00.1	15						
16	63 58.2 +00.7	N 14 17.2 +00.6	23 55.4 +01.9	N 22 33.9 +00.1	244 19.3 +02.7	S 11 35.9 +00.0	16						
17	78 58.9 +00.6	N 14 17.8 +00.6	38 57.3 +01.9	N 22 34.0 +00.0	259 22.0 +02.6	S 11 35.9 -00.1	17						
18	93 59.5 +00.7	N 14 18.4 +00.6	53 59.2 +01.9	N 22 34.0 +00.1	274 24.6 +02.7	S 11 35.8 -00.1	18						
19	109 00.2 +00.7	N 14 19.0 +00.6	69 01.1 +01.9	N 22 34.1 +00.0	289 27.3 +02.6	S 11 35.7 +00.0	19						
20	124 00.9 +00.6	N 14 19.6 +00.6	84 03.0 +01.9	N 22 34.1 +00.1	304 29.9 +02.7	S 11 35.7 -00.1	20						
21	139 01.5 +00.7	N 14 20.2 +00.6	99 04.9 +01.9	N 22 34.2 +00.0	319 32.6 +02.6	S 11 35.6 +00.0	21						
22	154 02.2 +00.7	N 14 20.8 +00.7	114 06.8 +01.9	N 22 34.2 +00.1	334 35.2 +02.6	S 11 35.6 -00.1	22						
23	169 02.9 +00.6	N 14 21.5 +00.6	129 08.7 +01.9	N 22 34.3 +00.0	349 37.8 +02.7	S 11 35.5 +00.0	23						
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:44 UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 14:25 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 Greenwich Culmination Time: 23:41													

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.80					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 46.8 +00.1	N 15 39.3 +00.8	171 33.2 -00.7	N 17 55.8 +00.9	260 46.2 -30.6	S 09 55.6 -10.3	00						00		
01	195 46.9 +00.1	N 15 40.1 +00.7	186 32.5 -00.6	N 17 56.7 +00.9	275 15.6 -30.4	S 09 45.3 -10.5	01						01		
02	210 47.0 +00.0	N 15 40.8 +00.7	201 31.9 -00.6	N 17 57.6 +00.9	289 45.2 -30.5	S 09 34.8 -10.4	02						02		
03	225 47.0 +00.1	N 15 41.5 +00.8	216 31.3 -00.7	N 17 58.5 +00.9	304 14.7 -30.3	S 09 24.4 -10.5	03						03		
04	240 47.1 +00.1	N 15 42.3 +00.7	231 30.6 -00.6	N 17 59.4 +00.9	318 44.4 -30.4	S 09 13.9 -10.6	04						04		
05	255 47.2 +00.0	N 15 43.0 +00.7	246 30.0 -00.6	N 18 00.3 +00.8	333 14.0 -30.2	S 09 03.3 -10.6	05						05		
06	270 47.2 +00.1	N 15 43.7 +00.8	261 29.4 -00.7	N 18 01.1 +00.9	347 43.8 -30.2	S 08 52.7 -10.6	06						06		
07	285 47.3 +00.1	N 15 44.5 +00.7	276 28.7 -00.6	N 18 02.0 +00.9	2 13.6 -30.1	S 08 42.1 -10.7	07						07		
08	300 47.4 +00.0	N 15 45.2 +00.7	291 28.1 -00.7	N 18 02.9 +00.9	16 43.5 -30.1	S 08 31.4 -10.6	08						08		
09	315 47.4 +00.1	N 15 45.9 +00.8	306 27.4 -00.6	N 18 03.8 +00.9	31 13.4 -30.0	S 08 20.8 -10.8	09						09		
10	330 47.5 +00.0	N 15 46.7 +00.7	321 26.8 -00.6	N 18 04.7 +00.9	45 43.4 -29.9	S 08 10.0 -10.7	10						10		
11	345 47.5 +00.1	N 15 47.4 +00.7	336 26.2 -00.7	N 18 05.6 +00.8	60 13.5 -29.9	S 07 59.3 -10.8	11						11		
12	0 47.6 +00.1	N 15 48.1 +00.8	351 25.5 -00.6	N 18 06.4 +00.9	74 43.6 -29.9	S 07 48.5 -10.9	12						12		
13	15 47.7 +00.0	N 15 48.9 +00.7	6 24.9 -00.7	N 18 07.3 +00.9	89 13.7 -29.7	S 07 37.6 -10.8	13						13		
14	30 47.7 +00.1	N 15 49.6 +00.7	21 24.2 -00.6	N 18 08.2 +00.9	103 44.0 -29.8	S 07 26.8 -10.9	14						14		
15	45 47.8 +00.0	N 15 50.3 +00.7	36 23.6 -00.7	N 18 09.1 +00.9	118 14.2 -29.6	S 07 15.9 -10.9	15						15		
16	60 47.8 +00.1	N 15 51.0 +00.8	51 22.9 -00.6	N 18 10.0 +00.8	132 44.6 -29.7	S 07 05.0 -11.0	16						16		
17	75 47.9 +00.1	N 15 51.8 +00.7	66 22.3 -00.7	N 18 10.8 +00.9	147 14.9 -29.5	S 06 54.0 -11.0	17						17		
18	90 48.0 +00.0	N 15 52.5 +00.7	81 21.6 -00.6	N 18 11.7 +00.9	161 45.4 -29.5	S 06 43.0 -11.0	18						18		
19	105 48.0 +00.1	N 15 53.2 +00.8	96 21.0 -00.6	N 18 12.6 +00.9	176 15.9 -29.5	S 06 32.0 -11.0	19						19		
20	120 48.1 +00.0	N 15 54.0 +00.7	111 20.4 -00.7	N 18 13.5 +00.8	190 46.4 -29.4	S 06 21.0 -11.0	20						20		
21	135 48.1 +00.1	N 15 54.7 +00.7	126 19.7 -00.6	N 18 14.3 +00.9	205 17.0 -29.4	S 06 10.0 -11.1	21						21		
22	150 48.2 +00.1	N 15 55.4 +00.7	141 19.1 -00.7	N 18 15.2 +00.9	219 47.6 -29.3	S 05 58.9 -11.1	22						22		
23	165 48.3 +00.0	N 15 56.1 +00.8	156 18.4 -00.6	N 18 16.1 +00.8	234 18.3 -29.2	S 05 47.8 -11.1	23						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	Greenwich Culmination Time: 11:57	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	Greenwich Culmination Time: 12:34	UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'7 15'7	HP 58'2 58'1 58'0 57'8 57'7 57'6	Greenwich Culmination Time: 06:51				

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	184 03.5 +00.7	N 14 22.1 +00.6	144 10.6 +01.9	N 22 34.3 +00.1	4 40.5 +02.6	S 11 35.5 -00.1	00						00		
01	199 04.2 +00.7	N 14 22.7 +00.6	159 12.5 +01.9	N 22 34.4 +00.0	19 43.1 +02.7	S 11 35.4 -00.1	01						01		
02	214 04.9 +00.6	N 14 23.3 +00.6	174 14.4 +01.9	N 22 34.4 +00.1	34 45.8 +02.6	S 11 35.3 +00.0	02						02		
03	229 05.5 +00.7	N 14 23.9 +00.6	189 16.3 +01.9	N 22 34.5 +00.0	49 48.4 +02.7	S 11 35.3 -00.1	03						03		
04	244 06.2 +00.6	N 14 24.5 +00.6	204 18.2 +01.9	N 22 34.5 +00.1	64 51.1 +02.6	S 11 35.2 +00.0	04						04		
05	259 06.8 +00.7	N 14 25.1 +00.6	219 20.1 +01.9	N 22 34.6 +00.0	79 53.7 +02.7	S 11 35.2 -00.1	05						05		
06	274 07.5 +00.7	N 14 25.7 +00.7	234 22.0 +01.9	N 22 34.6 +00.1	94 56.4 +02.6	S 11 35.1 -00.1	06						06		
07	289 08.2 +00.6	N 14 26.4 +00.6	249 23.9 +01.9	N 22 34.7 +00.0	109 59.0 +02.7	S 11 35.0 +00.0	07						07		
08	304 08.8 +00.7	N 14 27.0 +00.6	264 25.8 +01.9	N 22 34.7 +00.1	125 01.7 +02.6	S 11 35.0 -00.1	08						08		
09	319 09.5 +00.7	N 14 27.6 +00.6	279 27.7 +01.9	N 22 34.8 +00.0	140 04.3 +02.7	S 11 34.9 +00.0	09						09		
10	334 10.2 +00.6	N 14 28.2 +00.6	294 29.6 +01.9	N 22 34.8 +00.1	155 07.0 +02.6	S 11 34.9 -00.1	10						10		
11	349 10.8 +00.7	N 14 28.8 +00.6	309 31.5 +01.9	N 22 34.9 +00.1	170 09.6 +02.7	S 11 34.8 +00.0	11						11		
12	4 11.5 +00.6	N 14 29.4 +00.6	324 33.4 +01.9	N 22 35.0 +00.0	185 12.3 +02.6	S 11 34.8 -00.1	12						12		
13	19 12.1 +00.7	N 14 30.0 +00.6	339 35.3 +01.9	N 22 35.0 +00.1	200 14.9 +02.7	S 11 34.7 -00.1	13						13		
14	34 12.8 +00.7	N 14 30.6 +00.6	354 37.2 +01.9	N 22 35.1 +00.0	215 17.6 +02.6	S 11 34.6 +00.0	14						14		
15	49 13.5 +00.6	N 14 31.2 +00.6	9 39.1 +01.9	N 22 35.1 +00.1	230 20.2 +02.6	S 11 34.6 -00.1	15						15		
16	64 14.1 +00.7	N 14 31.8 +00.7	24 41.0 +01.9	N 22 35.2 +00.0	245 22.8 +02.7	S 11 34.5 +00.0	16						16		
17	79 14.8 +00.6	N 14 32.5 +00.6	39 42.9 +01.9	N 22 35.2 +00.1	260 25.5 +02.6	S 11 34.5 -00.1	17						17		
18	94 15.4 +00.7	N 14 33.1 +00.6	54 44.8 +01.9	N 22 35.3 +00.0	275 28.1 +02.7	S 11 34.4 -00.1	18						18		
19	109 16.1 +00.7	N 14 33.7 +00.6	69 46.7 +01.9	N 22 35.3 +00.1	290 30.8 +02.6	S 11 34.3 +00.0	19						19		
20	124 16.8 +00.6	N 14 34.3 +00.6	84 48.6 +01.9	N 22 35.4 +00.0	305 33.4 +02.7	S 11 34.3 -00.1	20						20		
21	139 17.4 +00.7	N 14 34.9 +00.6	99 50.5 +01.9	N 22 35.4 +00.1	320 36.1 +02.6	S 11 34.2 +00.0	21						21		
22	154 18.1 +00.7	N 14 35.5 +00.6	114 52.4 +01.9	N 22 35.5 +00.0	335 38.7 +02.7	S 11 34.2 -00.1	22						22		
23	169 18.8 +00.6	N 14 36.1 +00.6	129 54.3 +01.9	N 22 35.5 +00.1	350 41.4 +02.6	S 11 34.1 -00.1	23						23		
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:43	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:21	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	Greenwich Culmination Time: 23:37				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.83					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 48.3 +00.1	N 15 56.9 +00.7	171 17.8 -00.7	N 18 16.9 +00.9	248 49.1 -29.3	S 05 36.7 -11.1	00								
01	195 48.4 +00.0	N 15 57.6 +00.7	186 17.1 -00.6	N 18 17.8 +00.9	263 19.8 -29.1	S 05 25.6 -11.1	01								
02	210 48.4 +00.1	N 15 58.3 +00.7	201 16.5 -00.7	N 18 18.7 +00.9	277 50.7 -29.2	S 05 14.5 -11.2	02								
03	225 48.5 +00.1	N 15 59.0 +00.8	216 15.8 -00.6	N 18 19.6 +00.8	292 21.5 -29.0	S 05 03.3 -11.2	03								
04	240 48.6 +00.0	N 15 59.8 +00.7	231 15.2 -00.7	N 18 20.4 +00.9	306 52.5 -29.1	S 04 52.1 -11.2	04								
05	255 48.6 +00.1	N 16 00.5 +00.7	246 14.5 -00.6	N 18 21.3 +00.9	321 23.4 -29.0	S 04 40.9 -11.2	05								
06	270 48.7 +00.0	N 16 01.2 +00.7	261 13.9 -00.7	N 18 22.2 +00.8	335 54.4 -28.9	S 04 29.7 -11.2	06								
07	285 48.7 +00.1	N 16 01.9 +00.7	276 13.2 -00.6	N 18 23.0 +00.9	350 25.5 -28.9	S 04 18.5 -11.2	07								
08	300 48.8 +00.0	N 16 02.6 +00.8	291 12.6 -00.7	N 18 23.9 +00.8	4 56.6 -28.9	S 04 07.3 -11.3	08								
09	315 48.8 +00.1	N 16 03.4 +00.7	306 11.9 -00.6	N 18 24.7 +00.9	19 27.7 -28.8	S 03 56.0 -11.2	09								
10	330 48.9 +00.1	N 16 04.1 +00.7	321 11.3 -00.7	N 18 25.6 +00.9	33 58.9 -28.8	S 03 44.8 -11.3	10								
11	345 49.0 +00.0	N 16 04.8 +00.7	336 10.6 -00.6	N 18 26.5 +00.8	48 30.1 -28.8	S 03 33.5 -11.2	11								
12	0 49.0 +00.1	N 16 05.5 +00.7	351 10.0 -00.7	N 18 27.3 +00.9	63 01.3 -28.7	S 03 22.3 -11.3	12								
13	15 49.1 +00.0	N 16 06.2 +00.8	6 09.3 -00.7	N 18 28.2 +00.9	77 32.6 -28.7	S 03 11.0 -11.3	13								
14	30 49.1 +00.1	N 16 07.0 +00.7	21 08.6 -00.6	N 18 29.1 +00.8	92 03.9 -28.6	S 02 59.7 -11.3	14								
15	45 49.2 +00.0	N 16 07.7 +00.7	36 08.0 -00.7	N 18 29.9 +00.9	106 35.3 -28.6	S 02 48.4 -11.3	15								
16	60 49.2 +00.1	N 16 08.4 +00.7	51 07.3 -00.6	N 18 30.8 +00.8	121 06.7 -28.6	S 02 37.1 -11.3	16								
17	75 49.3 +00.0	N 16 09.1 +00.7	66 06.7 -00.7	N 18 31.6 +00.9	135 38.1 -28.5	S 02 25.8 -11.3	17								
18	90 49.3 +00.1	N 16 09.8 +00.8	81 06.0 -00.6	N 18 32.5 +00.8	150 09.6 -28.5	S 02 14.5 -11.3	18								
19	105 49.4 +00.0	N 16 10.6 +00.7	96 05.4 -00.7	N 18 33.3 +00.9	164 41.1 -28.5	S 02 03.2 -11.3	19								
20	120 49.4 +00.1	N 16 11.3 +00.7	111 04.7 -00.6	N 18 34.2 +00.8	179 12.6 -28.4	S 01 51.9 -11.3	20								
21	135 49.5 +00.1	N 16 12.0 +00.7	126 04.1 -00.7	N 18 35.0 +00.9	193 44.2 -28.4	S 01 40.6 -11.3	21								
22	150 49.6 +00.0	N 16 12.7 +00.7	141 03.4 -00.7	N 18 35.9 +00.9	208 15.8 -28.4	S 01 29.3 -11.3	22								
23	165 49.6 +00.1	N 16 13.4 +00.7	156 02.7 -00.6	N 18 36.8 +00.8	222 47.4 -28.4	S 01 18.0 -11.3	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 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 15'7 15'6 15'6 15'6 15'6 15'5	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 57'5 57'4 57'3 57'2 57'1 57'0						
Greenwich Culmination Time: 11:57					Greenwich Culmination Time: 12:35					Greenwich Culmination Time: 07:40					

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	184 19.4 +00.7	N 14 36.7 +00.6	144 56.2 +01.9	N 22 35.6 +00.0	5 44.0 +02.7	S 11 34.0 +00.0	00								
01	199 20.1 +00.6	N 14 37.3 +00.6	159 58.1 +01.9	N 22 35.6 +00.1	20 46.7 +02.6	S 11 34.0 -00.1	01								
02	214 20.7 +00.7	N 14 37.9 +00.6	174 60.0 +01.9	N 22 35.7 +00.0	35 49.3 +02.7	S 11 33.9 +00.0	02								
03	229 21.4 +00.7	N 14 38.5 +00.6	190 01.9 +01.9	N 22 35.7 +00.1	50 52.0 +02.6	S 11 33.9 -00.1	03								
04	244 22.1 +00.6	N 14 39.1 +00.6	205 03.8 +01.9	N 22 35.8 +00.0	65 54.6 +02.7	S 11 33.8 +00.0	04								
05	259 22.7 +00.7	N 14 39.7 +00.6	220 05.7 +01.9	N 22 35.8 +00.1	80 57.3 +02.6	S 11 33.8 -00.1	05								
06	274 23.4 +00.6	N 14 40.3 +00.6	235 07.6 +01.9	N 22 35.9 +00.0	95 59.9 +02.6	S 11 33.7 -00.1	06								
07	289 24.0 +00.7	N 14 40.9 +00.6	250 09.5 +01.9	N 22 35.9 +00.1	111 02.5 +02.7	S 11 33.6 +00.0	07								
08	304 24.7 +00.7	N 14 41.5 +00.7	265 11.4 +01.9	N 22 36.0 +00.0	126 05.2 +02.6	S 11 33.6 -00.1	08								
09	319 25.4 +00.6	N 14 42.2 +00.6	280 13.3 +01.9	N 22 36.0 +00.1	141 07.8 +02.7	S 11 33.5 +00.0	09								
10	334 26.0 +00.7	N 14 42.8 +00.6	295 15.2 +01.9	N 22 36.1 +00.0	156 10.5 +02.6	S 11 33.5 -00.1	10								
11	349 26.7 +00.6	N 14 43.4 +00.6	310 17.1 +01.9	N 22 36.1 +00.1	171 13.1 +02.7	S 11 33.4 -00.1	11								
12	4 27.3 +00.7	N 14 44.0 +00.6	325 19.0 +01.9	N 22 36.2 +00.0	186 15.8 +02.6	S 11 33.3 +00.0	12								
13	19 28.0 +00.7	N 14 44.6 +00.6	340 20.9 +01.9	N 22 36.2 +00.1	201 18.4 +02.7	S 11 33.3 -00.1	13								
14	34 28.7 +00.6	N 14 45.2 +00.6	355 22.8 +01.9	N 22 36.3 +00.0	216 21.1 +02.6	S 11 33.2 +00.0	14								
15	49 29.3 +00.7	N 14 45.8 +00.6	10 24.7 +01.9	N 22 36.3 +00.1	231 23.7 +02.7	S 11 33.2 -00.1	15								
16	64 30.0 +00.6	N 14 46.4 +00.6	25 26.6 +01.9	N 22 36.4 +00.1	246 26.4 +02.6	S 11 33.1 +00.0	16								
17	79 30.6 +00.7	N 14 47.0 +00.6	40 28.5 +01.9	N 22 36.5 +00.0	261 29.0 +02.7	S 11 33.1 -00.1	17								
18	94 31.3 +00.7	N 14 47.6 +00.6	55 30.4 +01.9	N 22 36.5 +00.1	276 31.7 +02.6	S 11 33.0 -00.1	18								
19	109 32.0 +00.6	N 14 48.2 +00.6	70 32.3 +01.9	N 22 36.6 +00.0	291 34.3 +02.7	S 11 32.9 +00.0	19								
20	124 32.6 +00.7	N 14 48.8 +00.6	85 34.2 +01.9	N 22 36.6 +00.1	306 37.0 +02.6	S 11 32.9 -00.1	20								
21	139 33.3 +00.6	N 14 49.4 +00.6	100 36.1 +01.8	N 22 36.7 +00.0	321 39.6 +02.6	S 11 32.8 +00.0	21								
22	154 33.9 +00.7	N 14 50.0 +00.6	115 37.9 +01.9	N 22 36.7 +00.1	336 42.2 +02.7	S 11 32.8 -00.1	22								
23	169 34.6 +00.7	N 14 50.6 +00.6	130 39.8 +01.9	N 22 36.8 +00.0	351 44.9 +02.6	S 11 32.7 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0						
Greenwich Culmination Time: 11:42					Greenwich Culmination Time: 14:18					Greenwich Culmination Time: 23:33					

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> $a = 0.86$					UT
UT	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''			
00	180 49.7 +00.0	N 16 14.1 +00.7	171 02.1 -00.7	N 18 37.6 +00.9	237 19.0 -28.3	S 01 06.7 -11.2	00						00		
01	195 49.7 +00.1	N 16 14.8 +00.8	186 01.4 -00.6	N 18 38.5 +00.8	251 50.7 -28.3	S 00 55.5 -11.3	01						01		
02	210 49.8 +00.0	N 16 15.6 +00.7	201 00.8 -00.7	N 18 39.3 +00.9	266 22.4 -28.3	S 00 44.2 -11.3	02						02		
03	225 49.8 +00.1	N 16 16.3 +00.7	216 00.1 -00.7	N 18 40.2 +00.8	280 54.1 -28.2	S 00 32.9 -11.3	03						03		
04	240 49.9 +00.0	N 16 17.0 +00.7	230 59.4 -00.6	N 18 41.0 +00.8	295 25.9 -28.2	S 00 21.6 -11.3	04						04		
05	255 49.9 +00.1	N 16 17.7 +00.7	245 58.8 -00.7	N 18 41.8 +00.9	309 57.7 -28.2	S 00 10.3 -11.2	05						05		
06	270 50.0 +00.0	N 16 18.4 +00.7	260 58.1 -00.7	N 18 42.7 +00.8	324 29.5 -28.2	N 00 00.9 +11.3	06						06		
07	285 50.0 +00.1	N 16 19.1 +00.7	275 57.4 -00.6	N 18 43.5 +00.9	339 01.3 -28.1	N 00 12.2 +11.2	07						07		
08	300 50.1 +00.0	N 16 19.8 +00.7	290 56.8 -00.7	N 18 44.4 +00.8	353 33.2 -28.1	N 00 23.4 +11.3	08						08		
09	315 50.1 +00.1	N 16 20.5 +00.7	305 56.1 -00.7	N 18 45.2 +00.9	8 05.1 -28.1	N 00 34.7 +11.2	09						09		
10	330 50.2 +00.0	N 16 21.2 +00.7	320 55.4 -00.6	N 18 46.1 +00.8	22 37.0 -28.1	N 00 45.9 +11.2	10						10		
11	345 50.2 +00.1	N 16 21.9 +00.8	335 54.8 -00.7	N 18 46.9 +00.8	37 08.9 -28.1	N 00 57.1 +11.2	11						11		
12	0 50.3 +00.0	N 16 22.7 +00.7	350 54.1 -00.6	N 18 47.7 +00.9	51 40.8 -28.0	N 01 08.3 +11.2	12						12		
13	15 50.3 +00.1	N 16 23.4 +00.7	5 53.5 -00.7	N 18 48.6 +00.8	66 12.8 -28.1	N 01 19.5 +11.1	13						13		
14	30 50.4 +00.0	N 16 24.1 +00.7	20 52.8 -00.7	N 18 49.4 +00.9	80 44.7 -28.0	N 01 30.6 +11.2	14						14		
15	45 50.4 +00.1	N 16 24.8 +00.7	35 52.1 -00.6	N 18 50.3 +00.8	95 16.7 -28.0	N 01 41.8 +11.1	15						15		
16	60 50.5 +00.0	N 16 25.5 +00.7	50 51.5 -00.7	N 18 51.1 +00.8	109 48.7 -27.9	N 01 52.9 +11.1	16						16		
17	75 50.5 +00.1	N 16 26.2 +00.7	65 50.8 -00.7	N 18 51.9 +00.9	124 20.8 -28.0	N 02 04.0 +11.1	17						17		
18	90 50.6 +00.0	N 16 26.9 +00.7	80 50.1 -00.7	N 18 52.8 +00.8	138 52.8 -27.9	N 02 15.1 +11.1	18						18		
19	105 50.6 +00.1	N 16 27.6 +00.7	95 49.4 -00.6	N 18 53.6 +00.8	153 24.9 -28.0	N 02 26.2 +11.1	19						19		
20	120 50.7 +00.0	N 16 28.3 +00.7	110 48.8 -00.7	N 18 54.4 +00.9	167 56.9 -27.9	N 02 37.3 +11.0	20						20		
21	135 50.7 +00.1	N 16 29.0 +00.7	125 48.1 -00.7	N 18 55.3 +00.8	182 29.0 -27.9	N 02 48.3 +11.0	21						21		
22	150 50.8 +00.0	N 16 29.7 +00.7	140 47.4 -00.6	N 18 56.1 +00.8	197 01.1 -27.9	N 02 59.3 +11.0	22						22		
23	165 50.8 +00.1	N 16 30.4 +00.7	155 46.8 -00.7	N 18 56.9 +00.9	211 33.2 -27.9	N 03 10.3 +11.0	23						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	Greenwich Culmination Time: 11:57	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	Greenwich Culmination Time: 12:36	UT 02 06 10 14 18 22	SD 15'5 15'5 15'5 15'4 15'4 15'4	HP 56'9 56'8 56'7 56'6 56'5 56'5	Greenwich Culmination Time: 08:27				

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''			
00	184 35.3 +00.6	N 14 51.2 +00.6	145 41.7 +01.9	N 22 36.8 +00.1	6 47.5 +02.7	S 11 32.7 -00.1	00						00		
01	199 35.9 +00.7	N 14 51.8 +00.6	160 43.6 +01.9	N 22 36.9 +00.0	21 50.2 +02.6	S 11 32.6 -00.1	01						01		
02	214 36.6 +00.6	N 14 52.4 +00.6	175 45.5 +01.9	N 22 36.9 +00.1	36 52.8 +02.7	S 11 32.5 +00.0	02						02		
03	229 37.2 +00.7	N 14 53.0 +00.6	190 47.4 +01.9	N 22 37.0 +00.0	51 55.5 +02.6	S 11 32.5 -00.1	03						03		
04	244 37.9 +00.6	N 14 53.6 +00.6	205 49.3 +01.9	N 22 37.0 +00.1	66 58.1 +02.7	S 11 32.4 +00.0	04						04		
05	259 38.5 +00.7	N 14 54.2 +00.6	220 51.2 +01.9	N 22 37.1 +00.0	82 00.8 +02.6	S 11 32.4 -00.1	05						05		
06	274 39.2 +00.7	N 14 54.8 +00.6	235 53.1 +01.9	N 22 37.1 +00.1	97 03.4 +02.7	S 11 32.3 -00.1	06						06		
07	289 39.9 +00.6	N 14 55.4 +00.6	250 55.0 +01.9	N 22 37.2 +00.0	112 06.1 +02.6	S 11 32.2 +00.0	07						07		
08	304 40.5 +00.7	N 14 56.0 +00.6	265 56.9 +01.9	N 22 37.2 +00.1	127 08.7 +02.7	S 11 32.2 -00.1	08						08		
09	319 41.2 +00.6	N 14 56.6 +00.6	280 58.8 +01.9	N 22 37.3 +00.0	142 11.4 +02.6	S 11 32.1 +00.0	09						09		
10	334 41.8 +00.7	N 14 57.2 +00.6	296 00.7 +01.9	N 22 37.3 +00.1	157 14.0 +02.6	S 11 32.1 -00.1	10						10		
11	349 42.5 +00.7	N 14 57.8 +00.6	311 02.6 +01.9	N 22 37.4 +00.0	172 16.6 +02.7	S 11 32.0 +00.0	11						11		
12	4 43.2 +00.6	N 14 58.4 +00.6	326 04.5 +01.9	N 22 37.4 +00.1	187 19.3 +02.6	S 11 32.0 -00.1	12						12		
13	19 43.8 +00.7	N 14 59.0 +00.6	341 06.4 +01.9	N 22 37.5 +00.0	202 21.9 +02.7	S 11 31.9 -00.1	13						13		
14	34 44.5 +00.6	N 14 59.6 +00.6	356 08.3 +01.9	N 22 37.5 +00.1	217 24.6 +02.6	S 11 31.8 +00.0	14						14		
15	49 45.1 +00.7	N 15 00.2 +00.6	11 10.2 +01.9	N 22 37.6 +00.0	232 27.2 +02.7	S 11 31.8 -00.1	15						15		
16	64 45.8 +00.6	N 15 00.8 +00.5	26 12.1 +01.9	N 22 37.6 +00.1	247 29.9 +02.6	S 11 31.7 +00.0	16						16		
17	79 46.4 +00.7	N 15 01.3 +00.6	41 14.0 +01.9	N 22 37.7 +00.0	262 32.5 +02.7	S 11 31.7 -00.1	17						17		
18	94 47.1 +00.7	N 15 01.9 +00.6	56 15.9 +01.9	N 22 37.7 +00.1	277 35.2 +02.6	S 11 31.6 +00.0	18						18		
19	109 47.8 +00.6	N 15 02.5 +00.6	71 17.8 +01.9	N 22 37.8 +00.0	292 37.8 +02.7	S 11 31.6 -00.1	19						19		
20	124 48.4 +00.7	N 15 03.1 +00.6	86 19.7 +01.8	N 22 37.8 +00.1	307 40.5 +02.6	S 11 31.5 -00.1	20						20		
21	139 49.1 +00.6	N 15 03.7 +00.6	101 21.5 +01.9	N 22 37.9 +00.0	322 43.1 +02.6	S 11 31.4 +00.0	21						21		
22	154 49.7 +00.7	N 15 04.3 +00.6	116 23.4 +01.9	N 22 37.9 +00.1	337 45.7 +02.7	S 11 31.4 -00.1	22						22		
23	169 50.4 +00.6	N 15 04.9 +00.6	131 25.3 +01.9	N 22 38.0 +00.0	352 48.4 +02.6	S 11 31.3 +00.0	23						23		
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:41	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:15	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	Greenwich Culmination Time: 23:29				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.89					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 50.9 +00.0	N 16 31.1 +00.7	170 46.1 -00.7	N 18 57.8 +00.8	226 05.3 -27.8	N 03 21.3 +11.0	00								
01	195 50.9 +00.0	N 16 31.8 +00.7	185 45.4 -00.7	N 18 58.6 +00.8	240 37.5 -27.9	N 03 32.3 +10.9	01								
02	210 50.9 +00.1	N 16 32.5 +00.7	200 44.7 -00.6	N 18 59.4 +00.9	255 09.6 -27.9	N 03 43.2 +10.9	02								
03	225 51.0 +00.0	N 16 33.2 +00.7	215 44.1 -00.7	N 19 00.3 +00.8	269 41.7 -27.8	N 03 54.1 +10.9	03								
04	240 51.0 +00.1	N 16 33.9 +00.7	230 43.4 -00.7	N 19 01.1 +00.8	284 13.9 -27.8	N 04 05.0 +10.8	04								
05	255 51.1 +00.0	N 16 34.6 +00.7	245 42.7 -00.6	N 19 01.9 +00.8	298 46.1 -27.9	N 04 15.8 +10.9	05								
06	270 51.1 +00.1	N 16 35.3 +00.7	260 42.1 -00.7	N 19 02.7 +00.9	313 18.2 -27.8	N 04 26.7 +10.7	06								
07	285 51.2 +00.0	N 16 36.0 +00.7	275 41.4 -00.7	N 19 03.6 +00.8	327 50.4 -27.8	N 04 37.4 +10.8	07								
08	300 51.2 +00.1	N 16 36.7 +00.7	290 40.7 -00.7	N 19 04.4 +00.8	342 22.6 -27.8	N 04 48.2 +10.8	08								
09	315 51.3 +00.0	N 16 37.4 +00.7	305 40.0 -00.6	N 19 05.2 +00.8	356 54.8 -27.8	N 04 59.0 +10.7	09								
10	330 51.3 +00.1	N 16 38.1 +00.7	320 39.4 -00.7	N 19 06.0 +00.8	11 27.0 -27.8	N 05 09.7 +10.6	10								
11	345 51.4 +00.0	N 16 38.8 +00.7	335 38.7 -00.7	N 19 06.8 +00.9	25 59.2 -27.8	N 05 20.3 +10.7	11								
12	0 51.4 +00.0	N 16 39.5 +00.7	350 38.0 -00.7	N 19 07.7 +00.8	40 31.4 -27.8	N 05 31.0 +10.6	12								
13	15 51.4 +00.1	N 16 40.2 +00.7	5 37.3 -00.7	N 19 08.5 +00.8	55 03.6 -27.8	N 05 41.6 +10.6	13								
14	30 51.5 +00.0	N 16 40.9 +00.7	20 36.6 -00.6	N 19 09.3 +00.8	69 35.8 -27.8	N 05 52.2 +10.5	14								
15	45 51.5 +00.1	N 16 41.6 +00.7	35 36.0 -00.7	N 19 10.1 +00.8	84 08.0 -27.8	N 06 02.7 +10.5	15								
16	60 51.6 +00.0	N 16 42.3 +00.7	50 35.3 -00.7	N 19 10.9 +00.9	98 40.2 -27.8	N 06 13.2 +10.5	16								
17	75 51.6 +00.1	N 16 43.0 +00.7	65 34.6 -00.7	N 19 11.8 +00.8	113 12.4 -27.8	N 06 23.7 +10.4	17								
18	90 51.7 +00.0	N 16 43.7 +00.7	80 33.9 -00.7	N 19 12.6 +00.8	127 44.6 -27.8	N 06 34.1 +10.4	18								
19	105 51.7 +00.0	N 16 44.4 +00.7	95 33.2 -00.6	N 19 13.4 +00.8	142 16.8 -27.8	N 06 44.5 +10.4	19								
20	120 51.7 +00.1	N 16 45.1 +00.7	110 32.6 -00.7	N 19 14.2 +00.8	156 49.0 -27.8	N 06 54.9 +10.3	20								
21	135 51.8 +00.0	N 16 45.8 +00.7	125 31.9 -00.7	N 19 15.0 +00.8	171 21.2 -27.8	N 07 05.2 +10.3	21								
22	150 51.8 +00.1	N 16 46.5 +00.6	140 31.2 -00.7	N 19 15.8 +00.8	185 53.4 -27.8	N 07 15.5 +10.2	22								
23	165 51.9 +00.0	N 16 47.1 +00.7	155 30.5 -00.7	N 19 16.6 +00.8	200 25.6 -27.8	N 07 25.7 +10.2	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	Greenwich Culmination Time: 11:57	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	Greenwich Culmination Time: 12:37	UT 02 06 10 14 18 22	SD 15'4 15'3 15'3 15'3 15'3 15'2	HP 56'4 56'3 56'2 56'1 56'0 55'9	Greenwich Culmination Time: 09:13				

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	184 51.0 +00.7	N 15 05.5 +00.6	146 27.2 +01.9	N 22 38.0 +00.1	7 51.0 +02.7	S 11 31.3 -00.1	00								
01	199 51.7 +00.7	N 15 06.1 +00.6	161 29.1 +01.9	N 22 38.1 +00.0	22 53.7 +02.6	S 11 31.2 -00.1	01								
02	214 52.4 +00.6	N 15 06.7 +00.6	176 31.0 +01.9	N 22 38.1 +00.1	37 56.3 +02.7	S 11 31.1 +00.0	02								
03	229 53.0 +00.7	N 15 07.3 +00.6	191 32.9 +01.9	N 22 38.2 +00.0	52 59.0 +02.6	S 11 31.1 -00.1	03								
04	244 53.7 +00.6	N 15 07.9 +00.6	206 34.8 +01.9	N 22 38.2 +00.1	68 01.6 +02.7	S 11 31.0 +00.0	04								
05	259 54.3 +00.7	N 15 08.5 +00.6	221 36.7 +01.9	N 22 38.3 +00.0	83 04.3 +02.6	S 11 31.0 -00.1	05								
06	274 55.0 +00.6	N 15 09.1 +00.6	236 38.6 +01.9	N 22 38.3 +00.1	98 06.9 +02.7	S 11 30.9 +00.0	06								
07	289 55.6 +00.7	N 15 09.7 +00.6	251 40.5 +01.9	N 22 38.4 +00.0	113 09.6 +02.6	S 11 30.9 -00.1	07								
08	304 56.3 +00.7	N 15 10.3 +00.5	266 42.4 +01.9	N 22 38.4 +00.1	128 12.2 +02.6	S 11 30.8 -00.1	08								
09	319 57.0 +00.6	N 15 10.8 +00.6	281 44.3 +01.9	N 22 38.5 +00.0	143 14.8 +02.7	S 11 30.7 +00.0	09								
10	334 57.6 +00.7	N 15 11.4 +00.6	296 46.2 +01.9	N 22 38.5 +00.1	158 17.5 +02.6	S 11 30.7 -00.1	10								
11	349 58.3 +00.6	N 15 12.0 +00.6	311 48.1 +01.8	N 22 38.6 +00.0	173 20.1 +02.7	S 11 30.6 +00.0	11								
12	4 58.9 +00.7	N 15 12.6 +00.6	326 49.9 +01.9	N 22 38.6 +00.1	188 22.8 +02.6	S 11 30.6 -00.1	12								
13	19 59.6 +00.6	N 15 13.2 +00.6	341 51.8 +01.9	N 22 38.7 +00.0	203 25.4 +02.7	S 11 30.5 +00.0	13								
14	35 00.2 +00.7	N 15 13.8 +00.6	356 53.7 +01.9	N 22 38.7 +00.1	218 28.1 +02.6	S 11 30.5 -00.1	14								
15	50 00.9 +00.6	N 15 14.4 +00.6	11 55.6 +01.9	N 22 38.8 +00.0	233 30.7 +02.7	S 11 30.4 -00.1	15								
16	65 01.5 +00.7	N 15 15.0 +00.6	26 57.5 +01.9	N 22 38.8 +00.1	248 33.4 +02.6	S 11 30.3 +00.0	16								
17	80 02.2 +00.7	N 15 15.6 +00.6	41 59.4 +01.9	N 22 38.9 +00.0	263 36.0 +02.7	S 11 30.3 -00.1	17								
18	95 02.9 +00.6	N 15 16.2 +00.5	57 01.3 +01.9	N 22 38.9 +00.1	278 38.7 +02.6	S 11 30.2 +00.0	18								
19	110 03.5 +00.7	N 15 16.7 +00.6	72 03.2 +01.9	N 22 39.0 +00.0	293 41.3 +02.6	S 11 30.2 -00.1	19								
20	125 04.2 +00.6	N 15 17.3 +00.6	87 05.1 +01.9	N 22 39.0 +00.1	308 43.9 +02.7	S 11 30.1 +00.0	20								
21	140 04.8 +00.7	N 15 17.9 +00.6	102 07.0 +01.9	N 22 39.1 +00.0	323 46.6 +02.6	S 11 30.1 -00.1	21								
22	155 05.5 +00.6	N 15 18.5 +00.6	117 08.9 +01.9	N 22 39.1 +00.1	338 49.2 +02.7	S 11 30.0 -00.1	22								
23	170 06.1 +00.7	N 15 19.1 +00.6	132 10.8 +01.9	N 22 39.2 +00.0	353 51.9 +02.6	S 11 29.9 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:40	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:12	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	Greenwich Culmination Time: 23:24				

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.92$				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 51.9 +00.0	N 16 47.8 +00.7	170 29.8 -00.7	N 19 17.4 +00.8	214 57.8 -27.8	N 07 35.9 +10.2	00						
01	195 51.9 +00.1	N 16 48.5 +00.7	185 29.1 -00.6	N 19 18.2 +00.8	229 30.0 -27.8	N 07 46.1 +10.1	01						
02	210 52.0 +00.0	N 16 49.2 +00.7	200 28.5 -00.7	N 19 19.0 +00.9	244 02.2 -27.8	N 07 56.2 +10.1	02						
03	225 52.0 +00.1	N 16 49.9 +00.7	215 27.8 -00.7	N 19 19.9 +00.8	258 34.4 -27.9	N 08 06.3 +10.0	03						
04	240 52.1 +00.0	N 16 50.6 +00.7	230 27.1 -00.7	N 19 20.7 +00.8	273 06.5 -27.8	N 08 16.3 +10.0	04						
05	255 52.1 +00.0	N 16 51.3 +00.7	245 26.4 -00.7	N 19 21.5 +00.8	287 38.7 -27.8	N 08 26.3 +09.9	05						
06	270 52.1 +00.1	N 16 52.0 +00.7	260 25.7 -00.7	N 19 22.3 +00.8	302 10.9 -27.9	N 08 36.2 +09.9	06						
07	285 52.2 +00.0	N 16 52.7 +00.6	275 25.0 -00.6	N 19 23.1 +00.8	316 43.0 -27.8	N 08 46.1 +09.9	07						
08	300 52.2 +00.1	N 16 53.3 +00.7	290 24.4 -00.7	N 19 23.9 +00.8	331 15.2 -27.9	N 08 56.0 +09.8	08						
09	315 52.3 +00.0	N 16 54.0 +00.7	305 23.7 -00.7	N 19 24.7 +00.8	345 47.3 -27.9	N 09 05.8 +09.7	09						
10	330 52.3 +00.0	N 16 54.7 +00.7	320 23.0 -00.7	N 19 25.5 +00.8	0 19.4 -27.8	N 09 15.5 +09.7	10						
11	345 52.3 +00.1	N 16 55.4 +00.7	335 22.3 -00.7	N 19 26.3 +00.8	14 51.6 -27.9	N 09 25.2 +09.7	11						
12	0 52.4 +00.0	N 16 56.1 +00.7	350 21.6 -00.7	N 19 27.1 +00.8	29 23.7 -27.9	N 09 34.9 +09.6	12						
13	15 52.4 +00.1	N 16 56.8 +00.7	5 20.9 -00.7	N 19 27.9 +00.8	43 55.8 -27.9	N 09 44.5 +09.5	13						
14	30 52.5 +00.0	N 16 57.5 +00.6	20 20.2 -00.7	N 19 28.7 +00.8	58 27.9 -27.9	N 09 54.0 +09.5	14						
15	45 52.5 +00.0	N 16 58.1 +00.7	35 19.5 -00.7	N 19 29.5 +00.8	72 60.0 -28.0	N 10 03.5 +09.5	15						
16	60 52.5 +00.1	N 16 58.8 +00.7	50 18.8 -00.7	N 19 30.3 +00.8	87 32.0 -27.9	N 10 13.0 +09.4	16						
17	75 52.6 +00.0	N 16 59.5 +00.7	65 18.1 -00.6	N 19 31.1 +00.7	102 04.1 -27.9	N 10 22.4 +09.3	17						
18	90 52.6 +00.0	N 17 00.2 +00.7	80 17.5 -00.7	N 19 31.8 +00.8	116 36.2 -28.0	N 10 31.7 +09.3	18						
19	105 52.6 +00.1	N 17 00.9 +00.7	95 16.8 -00.7	N 19 32.6 +00.8	131 08.2 -28.0	N 10 41.0 +09.2	19						
20	120 52.7 +00.0	N 17 01.6 +00.6	110 16.1 -00.7	N 19 33.4 +00.8	145 40.2 -28.0	N 10 50.2 +09.2	20						
21	135 52.7 +00.0	N 17 02.2 +00.7	125 15.4 -00.7	N 19 34.2 +00.8	160 12.2 -28.0	N 10 59.4 +09.1	21						
22	150 52.7 +00.1	N 17 02.9 +00.7	140 14.7 -00.7	N 19 35.0 +00.8	174 44.2 -28.0	N 11 08.5 +09.1	22						
23	165 52.8 +00.0	N 17 03.6 +00.7	155 14.0 -00.7	N 19 35.8 +00.8	189 16.2 -28.0	N 11 17.6 +09.0	23						
UT 02 06 10 14 18 22	SD 15'9 15'8 15'8 15'8 15'8 15'8	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:57	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	Greenwich Culmination Time: 12:39	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 55'5	Greenwich Culmination Time: 09:59		

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	185 06.8 +00.6	N 15 19.7 +00.6	147 12.7 +01.8	N 22 39.2 +00.1	8 54.5 +02.7	S 11 29.9 -00.1	00						
01	200 07.4 +00.7	N 15 20.3 +00.6	162 14.5 +01.9	N 22 39.3 +00.0	23 57.2 +02.6	S 11 29.8 +00.0	01						
02	215 08.1 +00.7	N 15 20.9 +00.5	177 16.4 +01.9	N 22 39.3 +00.1	38 59.8 +02.7	S 11 29.8 -00.1	02						
03	230 08.8 +00.6	N 15 21.4 +00.6	192 18.3 +01.9	N 22 39.4 +00.0	54 02.5 +02.6	S 11 29.7 +00.0	03						
04	245 09.4 +00.7	N 15 22.0 +00.6	207 20.2 +01.9	N 22 39.4 +00.1	69 05.1 +02.6	S 11 29.7 -00.1	04						
05	260 10.1 +00.6	N 15 22.6 +00.6	222 22.1 +01.9	N 22 39.5 +00.0	84 07.7 +02.7	S 11 29.6 -00.1	05						
06	275 10.7 +00.7	N 15 23.2 +00.6	237 24.0 +01.9	N 22 39.5 +00.1	99 10.4 +02.6	S 11 29.5 +00.0	06						
07	290 11.4 +00.6	N 15 23.8 +00.6	252 25.9 +01.9	N 22 39.6 +00.0	114 13.0 +02.7	S 11 29.5 -00.1	07						
08	305 12.0 +00.7	N 15 24.4 +00.6	267 27.8 +01.9	N 22 39.6 +00.1	129 15.7 +02.6	S 11 29.4 +00.0	08						
09	320 12.7 +00.6	N 15 25.0 +00.5	282 29.7 +01.9	N 22 39.7 +00.0	144 18.3 +02.7	S 11 29.4 -00.1	09						
10	335 13.3 +00.7	N 15 25.5 +00.6	297 31.6 +01.9	N 22 39.7 +00.1	159 21.0 +02.6	S 11 29.3 +00.0	10						
11	350 14.0 +00.6	N 15 26.1 +00.6	312 33.5 +01.8	N 22 39.8 +00.0	174 23.6 +02.7	S 11 29.3 -00.1	11						
12	5 14.6 +00.7	N 15 26.7 +00.6	327 35.3 +01.9	N 22 39.8 +00.1	189 26.3 +02.6	S 11 29.2 -00.1	12						
13	20 15.3 +00.7	N 15 27.3 +00.6	342 37.2 +01.9	N 22 39.9 +00.0	204 28.9 +02.7	S 11 29.1 +00.0	13						
14	35 16.0 +00.6	N 15 27.9 +00.6	357 39.1 +01.9	N 22 39.9 +00.1	219 31.6 +02.6	S 11 29.1 -00.1	14						
15	50 16.6 +00.7	N 15 28.5 +00.5	12 41.0 +01.9	N 22 40.0 +00.0	234 34.2 +02.6	S 11 29.0 +00.0	15						
16	65 17.3 +00.6	N 15 29.0 +00.6	27 42.9 +01.9	N 22 40.0 +00.1	249 36.8 +02.7	S 11 29.0 -00.1	16						
17	80 17.9 +00.7	N 15 29.6 +00.6	42 44.8 +01.9	N 22 40.1 +00.0	264 39.5 +02.6	S 11 28.9 +00.0	17						
18	95 18.6 +00.6	N 15 30.2 +00.6	57 46.7 +01.9	N 22 40.1 +00.1	279 42.1 +02.7	S 11 28.9 -00.1	18						
19	110 19.2 +00.7	N 15 30.8 +00.6	72 48.6 +01.9	N 22 40.2 +00.0	294 44.8 +02.6	S 11 28.8 -00.1	19						
20	125 19.9 +00.6	N 15 31.4 +00.6	87 50.5 +01.9	N 22 40.2 +00.1	309 47.4 +02.7	S 11 28.7 +00.0	20						
21	140 20.5 +00.7	N 15 32.0 +00.5	102 52.4 +01.8	N 22 40.3 +00.0	324 50.1 +02.6	S 11 28.7 -00.1	21						
22	155 21.2 +00.6	N 15 32.5 +00.6	117 54.2 +01.9	N 22 40.3 +00.1	339 52.7 +02.6	S 11 28.6 +00.0	22						
23	170 21.8 +00.7	N 15 33.1 +00.6	132 56.1 +01.9	N 22 40.4 +00.0	354 55.3 +02.7	S 11 28.6 -00.1	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:39	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:09	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	Greenwich Culmination Time: 23:20		

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> <i>a</i> = 0.95				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	180 52.8 +00.0	N 17 04.3 +00.7	170 13.3 -00.7	N 19 36.6 +00.8	203 48.2 -28.0	N 11 26.6 +09.0	00						
01	195 52.8 +00.1	N 17 05.0 +00.6	185 12.6 -00.7	N 19 37.4 +00.8	218 20.2 -28.1	N 11 35.6 +08.8	01						
02	210 52.9 +00.0	N 17 05.6 +00.7	200 11.9 -00.7	N 19 38.2 +00.7	232 52.1 -28.1	N 11 44.4 +08.9	02						
03	225 52.9 +00.0	N 17 06.3 +00.7	215 11.2 -00.7	N 19 38.9 +00.8	247 24.0 -28.0	N 11 53.3 +08.8	03						
04	240 52.9 +00.1	N 17 07.0 +00.7	230 10.5 -00.7	N 19 39.7 +00.8	261 56.0 -28.1	N 12 02.1 +08.7	04						
05	255 53.0 +00.0	N 17 07.7 +00.6	245 09.8 -00.7	N 19 40.5 +00.8	276 27.9 -28.1	N 12 10.8 +08.6	05						
06	270 53.0 +00.0	N 17 08.3 +00.7	260 09.1 -00.7	N 19 41.3 +00.8	290 59.8 -28.2	N 12 19.4 +08.6	06						
07	285 53.0 +00.1	N 17 09.0 +00.7	275 08.4 -00.7	N 19 42.1 +00.8	305 31.6 -28.1	N 12 28.0 +08.5	07						
08	300 53.1 +00.0	N 17 09.7 +00.7	290 07.7 -00.7	N 19 42.9 +00.7	320 03.5 -28.2	N 12 36.5 +08.5	08						
09	315 53.1 +00.0	N 17 10.4 +00.6	305 07.0 -00.7	N 19 43.6 +00.8	334 35.3 -28.2	N 12 45.0 +08.4	09						
10	330 53.1 +00.1	N 17 11.0 +00.7	320 06.3 -00.7	N 19 44.4 +00.8	349 07.1 -28.1	N 12 53.4 +08.3	10						
11	345 53.2 +00.0	N 17 11.7 +00.7	335 05.6 -00.7	N 19 45.2 +00.8	3 39.0 -28.3	N 13 01.7 +08.3	11						
12	0 53.2 +00.0	N 17 12.4 +00.7	350 04.9 -00.7	N 19 46.0 +00.7	18 10.7 -28.2	N 13 10.0 +08.2	12						
13	15 53.2 +00.1	N 17 13.1 +00.6	5 04.2 -00.7	N 19 46.7 +00.8	32 42.5 -28.2	N 13 18.2 +08.1	13						
14	30 53.3 +00.0	N 17 13.7 +00.7	20 03.5 -00.7	N 19 47.5 +00.8	47 14.3 -28.3	N 13 26.3 +08.1	14						
15	45 53.3 +00.0	N 17 14.4 +00.7	35 02.8 -00.7	N 19 48.3 +00.8	61 46.0 -28.2	N 13 34.4 +08.0	15						
16	60 53.3 +00.1	N 17 15.1 +00.7	50 02.1 -00.7	N 19 49.1 +00.7	76 17.8 -28.3	N 13 42.4 +08.0	16						
17	75 53.4 +00.0	N 17 15.8 +00.6	65 01.4 -00.7	N 19 49.8 +00.8	90 49.5 -28.4	N 13 50.4 +07.8	17						
18	90 53.4 +00.0	N 17 16.4 +00.7	80 00.7 -00.7	N 19 50.6 +00.8	105 21.1 -28.3	N 13 58.2 +07.8	18						
19	105 53.4 +00.1	N 17 17.1 +00.7	95 00.0 -00.7	N 19 51.4 +00.7	119 52.8 -28.3	N 14 06.0 +07.8	19						
20	120 53.5 +00.0	N 17 17.8 +00.6	109 59.3 -00.7	N 19 52.1 +00.8	134 24.5 -28.4	N 14 13.8 +07.6	20						
21	135 53.5 +00.0	N 17 18.4 +00.7	124 58.6 -00.7	N 19 52.9 +00.8	148 56.1 -28.4	N 14 21.4 +07.6	21						
22	150 53.5 +00.0	N 17 19.1 +00.7	139 57.9 -00.7	N 19 53.7 +00.7	163 27.7 -28.4	N 14 29.0 +07.5	22						
23	165 53.5 +00.1	N 17 19.8 +00.6	154 57.2 -00.7	N 19 54.4 +00.8	177 59.3 -28.4	N 14 36.5 +07.5	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	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 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:40	UT 02 06 10 14 18 22	SD 15'1 15'1 15'1 15'0 15'0 15'0	HP 55'4 55'3 55'2 55'2 55'1 55'0	Greenwich Culmination Time: 10:45		

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	185 22.5 +00.6	N 15 33.7 +00.6	147 58.0 +01.9	N 22 40.4 +00.1	9 58.0 +02.6	S 11 28.5 +00.0	00						
01	200 23.1 +00.7	N 15 34.3 +00.6	162 59.9 +01.9	N 22 40.5 +00.0	25 00.6 +02.7	S 11 28.5 -00.1	01						
02	215 23.8 +00.6	N 15 34.9 +00.5	178 01.8 +01.9	N 22 40.5 +00.1	40 03.3 +02.6	S 11 28.4 -00.1	02						
03	230 24.4 +00.7	N 15 35.4 +00.6	193 03.7 +01.9	N 22 40.6 +00.0	55 05.9 +02.7	S 11 28.3 +00.0	03						
04	245 25.1 +00.6	N 15 36.0 +00.6	208 05.6 +01.9	N 22 40.6 +00.1	70 08.6 +02.6	S 11 28.3 -00.1	04						
05	260 25.7 +00.7	N 15 36.6 +00.6	223 07.5 +01.9	N 22 40.7 +00.0	85 11.2 +02.7	S 11 28.2 +00.0	05						
06	275 26.4 +00.7	N 15 37.2 +00.6	238 09.4 +01.8	N 22 40.7 +00.1	100 13.9 +02.6	S 11 28.2 -00.1	06						
07	290 27.1 +00.6	N 15 37.8 +00.5	253 11.2 +01.9	N 22 40.8 +00.0	115 16.5 +02.6	S 11 28.1 +00.0	07						
08	305 27.7 +00.7	N 15 38.3 +00.6	268 13.1 +01.9	N 22 40.8 +00.1	130 19.1 +02.7	S 11 28.1 -00.1	08						
09	320 28.4 +00.6	N 15 38.9 +00.6	283 15.0 +01.9	N 22 40.9 +00.0	145 21.8 +02.6	S 11 28.0 -00.1	09						
10	335 29.0 +00.7	N 15 39.5 +00.6	298 16.9 +01.9	N 22 40.9 +00.1	160 24.4 +02.7	S 11 27.9 +00.0	10						
11	350 29.7 +00.6	N 15 40.1 +00.5	313 18.8 +01.9	N 22 41.0 +00.0	175 27.1 +02.6	S 11 27.9 -00.1	11						
12	5 30.3 +00.7	N 15 40.6 +00.6	328 20.7 +01.9	N 22 41.0 +00.0	190 29.7 +02.7	S 11 27.8 +00.0	12						
13	20 31.0 +00.6	N 15 41.2 +00.6	343 22.6 +01.9	N 22 41.0 +00.1	205 32.4 +02.6	S 11 27.8 -00.1	13						
14	35 31.6 +00.7	N 15 41.8 +00.6	358 24.5 +01.8	N 22 41.1 +00.0	220 35.0 +02.7	S 11 27.7 +00.0	14						
15	50 32.3 +00.6	N 15 42.4 +00.6	13 26.3 +01.9	N 22 41.1 +00.1	235 37.7 +02.6	S 11 27.7 -00.1	15						
16	65 32.9 +00.7	N 15 43.0 +00.5	28 28.2 +01.9	N 22 41.2 +00.0	250 40.3 +02.6	S 11 27.6 -00.1	16						
17	80 33.6 +00.6	N 15 43.5 +00.6	43 30.1 +01.9	N 22 41.2 +00.1	265 42.9 +02.7	S 11 27.5 +00.0	17						
18	95 34.2 +00.7	N 15 44.1 +00.6	58 32.0 +01.9	N 22 41.3 +00.0	280 45.6 +02.6	S 11 27.5 -00.1	18						
19	110 34.9 +00.6	N 15 44.7 +00.6	73 33.9 +01.9	N 22 41.3 +00.1	295 48.2 +02.7	S 11 27.4 +00.0	19						
20	125 35.5 +00.7	N 15 45.3 +00.5	88 35.8 +01.9	N 22 41.4 +00.0	310 50.9 +02.6	S 11 27.4 -00.1	20						
21	140 36.2 +00.6	N 15 45.8 +00.6	103 37.7 +01.9	N 22 41.4 +00.1	325 53.5 +02.7	S 11 27.3 +00.0	21						
22	155 36.8 +00.7	N 15 46.4 +00.6	118 39.6 +01.8	N 22 41.5 +00.0	340 56.2 +02.6	S 11 27.3 -00.1	22						
23	170 37.5 +00.6	N 15 47.0 +00.6	133 41.4 +01.9	N 22 41.5 +00.1	355 58.8 +02.6	S 11 27.2 +00.0	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:38	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:06	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	Greenwich Culmination Time: 23:16		

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> <i>a</i> = 0.99				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	180 53.6 +00.0	N 17 20.4 +00.7	169 56.5 -00.7	N 19 55.2 +00.8	192 30.9 -28.4	N 14 44.0 +07.3	00						
01	195 53.6 +00.0	N 17 21.1 +00.7	184 55.8 -00.7	N 19 56.0 +00.7	207 02.5 -28.5	N 14 51.3 +07.3	01						
02	210 53.6 +00.1	N 17 21.8 +00.6	199 55.1 -00.7	N 19 56.7 +00.8	221 34.0 -28.4	N 14 58.6 +07.3	02						
03	225 53.7 +00.0	N 17 22.4 +00.7	214 54.4 -00.8	N 19 57.5 +00.8	236 05.6 -28.5	N 15 05.9 +07.1	03						
04	240 53.7 +00.0	N 17 23.1 +00.7	229 53.6 -00.7	N 19 58.3 +00.7	250 37.1 -28.5	N 15 13.0 +07.1	04						
05	255 53.7 +00.0	N 17 23.8 +00.6	244 52.9 -00.7	N 19 59.0 +00.8	265 08.6 -28.5	N 15 20.1 +07.0	05						
06	270 53.7 +00.1	N 17 24.4 +00.7	259 52.2 -00.7	N 19 59.8 +00.7	279 40.1 -28.6	N 15 27.1 +06.9	06						
07	285 53.8 +00.0	N 17 25.1 +00.7	274 51.5 -00.7	N 20 00.5 +00.8	294 11.5 -28.5	N 15 34.0 +06.9	07						
08	300 53.8 +00.0	N 17 25.8 +00.6	289 50.8 -00.7	N 20 01.3 +00.8	308 43.0 -28.6	N 15 40.9 +06.8	08						
09	315 53.8 +00.0	N 17 26.4 +00.7	304 50.1 -00.7	N 20 02.1 +00.7	323 14.4 -28.6	N 15 47.7 +06.7	09						
10	330 53.8 +00.1	N 17 27.1 +00.6	319 49.4 -00.7	N 20 02.8 +00.8	337 45.8 -28.6	N 15 54.4 +06.6	10						
11	345 53.9 +00.0	N 17 27.7 +00.7	334 48.7 -00.7	N 20 03.6 +00.7	352 17.2 -28.7	N 16 01.0 +06.5	11						
12	0 53.9 +00.0	N 17 28.4 +00.7	349 48.0 -00.8	N 20 04.3 +00.8	6 48.5 -28.6	N 16 07.5 +06.5	12						
13	15 53.9 +00.1	N 17 29.1 +00.6	4 47.2 -00.7	N 20 05.1 +00.7	21 19.9 -28.7	N 16 14.0 +06.4	13						
14	30 54.0 +00.0	N 17 29.7 +00.7	19 46.5 -00.7	N 20 05.8 +00.8	35 51.2 -28.6	N 16 20.4 +06.3	14						
15	45 54.0 +00.0	N 17 30.4 +00.6	34 45.8 -00.7	N 20 06.6 +00.7	50 22.6 -28.7	N 16 26.7 +06.2	15						
16	60 54.0 +00.0	N 17 31.0 +00.7	49 45.1 -00.7	N 20 07.3 +00.8	64 53.9 -28.8	N 16 32.9 +06.2	16						
17	75 54.0 +00.0	N 17 31.7 +00.7	64 44.4 -00.7	N 20 08.1 +00.7	79 25.1 -28.7	N 16 39.1 +06.0	17						
18	90 54.0 +00.1	N 17 32.4 +00.6	79 43.7 -00.7	N 20 08.8 +00.8	93 56.4 -28.7	N 16 45.1 +06.0	18						
19	105 54.1 +00.0	N 17 33.0 +00.7	94 43.0 -00.8	N 20 09.6 +00.7	108 27.7 -28.8	N 16 51.1 +05.9	19						
20	120 54.1 +00.0	N 17 33.7 +00.6	109 42.2 -00.7	N 20 10.3 +00.8	122 58.9 -28.8	N 16 57.0 +05.8	20						
21	135 54.1 +00.0	N 17 34.3 +00.7	124 41.5 -00.7	N 20 11.1 +00.7	137 30.1 -28.8	N 17 02.8 +05.8	21						
22	150 54.1 +00.1	N 17 35.0 +00.6	139 40.8 -00.7	N 20 11.8 +00.8	152 01.3 -28.8	N 17 08.6 +05.6	22						
23	165 54.2 +00.0	N 17 35.6 +00.7	154 40.1 -00.7	N 20 12.6 +00.7	166 32.5 -28.8	N 17 14.2 +05.6	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	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 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:41	UT 02 06 10 14 18 22	SD 15'0 15'0 14'9 14'9 14'9 14'9	HP 55'0 54'9 54'9 54'8 54'7 54'7	Greenwich Culmination Time: 11:32		

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	185 38.1 +00.7	N 15 47.6 +00.5	148 43.3 +01.9	N 22 41.6 +00.0	11 01.4 +02.7	S 11 27.2 -00.1	00						
01	200 38.8 +00.6	N 15 48.1 +00.6	163 45.2 +01.9	N 22 41.6 +00.1	26 04.1 +02.6	S 11 27.1 -00.1	01						
02	215 39.4 +00.7	N 15 48.7 +00.6	178 47.1 +01.9	N 22 41.7 +00.0	41 06.7 +02.7	S 11 27.0 +00.0	02						
03	230 40.1 +00.6	N 15 49.3 +00.5	193 49.0 +01.9	N 22 41.7 +00.1	56 09.4 +02.6	S 11 27.0 -00.1	03						
04	245 40.7 +00.7	N 15 49.8 +00.6	208 50.9 +01.9	N 22 41.8 +00.0	71 12.0 +02.7	S 11 26.9 +00.0	04						
05	260 41.4 +00.6	N 15 50.4 +00.6	223 52.8 +01.8	N 22 41.8 +00.1	86 14.7 +02.6	S 11 26.9 -00.1	05						
06	275 42.0 +00.7	N 15 51.0 +00.6	238 54.6 +01.9	N 22 41.9 +00.0	101 17.3 +02.6	S 11 26.8 +00.0	06						
07	290 42.7 +00.6	N 15 51.6 +00.5	253 56.5 +01.9	N 22 41.9 +00.1	116 19.9 +02.7	S 11 26.8 -00.1	07						
08	305 43.3 +00.7	N 15 52.1 +00.6	268 58.4 +01.9	N 22 42.0 +00.0	131 22.6 +02.6	S 11 26.7 -00.1	08						
09	320 44.0 +00.6	N 15 52.7 +00.6	284 00.3 +01.9	N 22 42.0 +00.1	146 25.2 +02.7	S 11 26.6 +00.0	09						
10	335 44.6 +00.7	N 15 53.3 +00.5	299 02.2 +01.9	N 22 42.1 +00.0	161 27.9 +02.6	S 11 26.6 -00.1	10						
11	350 45.3 +00.6	N 15 53.8 +00.6	314 04.1 +01.9	N 22 42.1 +00.1	176 30.5 +02.7	S 11 26.5 +00.0	11						
12	5 45.9 +00.7	N 15 54.4 +00.6	329 06.0 +01.8	N 22 42.2 +00.0	191 33.2 +02.6	S 11 26.5 -00.1	12						
13	20 46.6 +00.6	N 15 55.0 +00.6	344 07.8 +01.9	N 22 42.2 +00.1	206 35.8 +02.6	S 11 26.4 +00.0	13						
14	35 47.2 +00.7	N 15 55.6 +00.5	359 09.7 +01.9	N 22 42.3 +00.0	221 38.4 +02.7	S 11 26.4 -00.1	14						
15	50 47.9 +00.6	N 15 56.1 +00.6	14 11.6 +01.9	N 22 42.3 +00.1	236 41.1 +02.6	S 11 26.3 +00.0	15						
16	65 48.5 +00.7	N 15 56.7 +00.6	29 13.5 +01.9	N 22 42.4 +00.0	251 43.7 +02.7	S 11 26.3 -00.1	16						
17	80 49.2 +00.6	N 15 57.3 +00.5	44 15.4 +01.9	N 22 42.4 +00.0	266 46.4 +02.6	S 11 26.2 -00.1	17						
18	95 49.8 +00.7	N 15 57.8 +00.6	59 17.3 +01.9	N 22 42.4 +00.1	281 49.0 +02.7	S 11 26.1 +00.0	18						
19	110 50.5 +00.6	N 15 58.4 +00.6	74 19.2 +01.8	N 22 42.5 +00.0	296 51.7 +02.6	S 11 26.1 -00.1	19						
20	125 51.1 +00.7	N 15 59.0 +00.5	89 21.0 +01.9	N 22 42.5 +00.1	311 54.3 +02.6	S 11 26.0 +00.0	20						
21	140 51.8 +00.6	N 15 59.5 +00.6	104 22.9 +01.9	N 22 42.6 +00.0	326 56.9 +02.7	S 11 26.0 -00.1	21						
22	155 52.4 +00.7	N 16 00.1 +00.6	119 24.8 +01.9	N 22 42.6 +00.1	341 59.6 +02.6	S 11 25.9 +00.0	22						
23	170 53.1 +00.6	N 16 00.7 +00.5	134 26.7 +01.9	N 22 42.7 +00.0	357 02.2 +02.7	S 11 25.9 -00.1	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:37	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:03	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	Greenwich Culmination Time: 23:12		

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> <i>a</i> = 0.02				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	180 54.2 +00.0	N 17 36.3 +00.7	169 39.4 -00.7	N 20 13.3 +00.7	181 03.7 -28.9	N 17 19.8 +05.5	00						
01	195 54.2 +00.0	N 17 37.0 +00.6	184 38.7 -00.8	N 20 14.0 +00.8	195 34.8 -28.9	N 17 25.3 +05.4	01						
02	210 54.2 +00.1	N 17 37.6 +00.7	199 37.9 -00.7	N 20 14.8 +00.7	210 05.9 -28.8	N 17 30.7 +05.3	02						
03	225 54.3 +00.0	N 17 38.3 +00.6	214 37.2 -00.7	N 20 15.5 +00.8	224 37.1 -28.9	N 17 36.0 +05.2	03						
04	240 54.3 +00.0	N 17 38.9 +00.7	229 36.5 -00.7	N 20 16.3 +00.7	239 08.2 -28.9	N 17 41.2 +05.2	04						
05	255 54.3 +00.0	N 17 39.6 +00.6	244 35.8 -00.7	N 20 17.0 +00.7	253 39.3 -29.0	N 17 46.4 +05.0	05						
06	270 54.3 +00.0	N 17 40.2 +00.7	259 35.1 -00.8	N 20 17.7 +00.8	268 10.3 -28.9	N 17 51.4 +05.0	06						
07	285 54.3 +00.1	N 17 40.9 +00.6	274 34.3 -00.7	N 20 18.5 +00.7	282 41.4 -28.9	N 17 56.4 +04.9	07						
08	300 54.4 +00.0	N 17 41.5 +00.7	289 33.6 -00.7	N 20 19.2 +00.7	297 12.5 -29.0	N 18 01.3 +04.8	08						
09	315 54.4 +00.0	N 17 42.2 +00.6	304 32.9 -00.7	N 20 19.9 +00.8	311 43.5 -29.0	N 18 06.1 +04.7	09						
10	330 54.4 +00.0	N 17 42.8 +00.7	319 32.2 -00.7	N 20 20.7 +00.7	326 14.5 -29.0	N 18 10.8 +04.7	10						
11	345 54.4 +00.0	N 17 43.5 +00.6	334 31.5 -00.8	N 20 21.4 +00.7	340 45.5 -29.0	N 18 15.5 +04.5	11						
12	0 54.4 +00.1	N 17 44.1 +00.7	349 30.7 -00.7	N 20 22.1 +00.8	355 16.5 -29.0	N 18 20.0 +04.5	12						
13	15 54.5 +00.0	N 17 44.8 +00.6	4 30.0 -00.7	N 20 22.9 +00.7	9 47.5 -29.0	N 18 24.5 +04.3	13						
14	30 54.5 +00.0	N 17 45.4 +00.7	19 29.3 -00.7	N 20 23.6 +00.7	24 18.5 -29.1	N 18 28.8 +04.3	14						
15	45 54.5 +00.0	N 17 46.1 +00.6	34 28.6 -00.8	N 20 24.3 +00.8	38 49.4 -29.0	N 18 33.1 +04.2	15						
16	60 54.5 +00.0	N 17 46.7 +00.7	49 27.8 -00.7	N 20 25.1 +00.7	53 20.4 -29.1	N 18 37.3 +04.1	16						
17	75 54.5 +00.1	N 17 47.4 +00.6	64 27.1 -00.7	N 20 25.8 +00.7	67 51.3 -29.1	N 18 41.4 +04.0	17						
18	90 54.6 +00.0	N 17 48.0 +00.6	79 26.4 -00.7	N 20 26.5 +00.7	82 22.2 -29.1	N 18 45.4 +03.9	18						
19	105 54.6 +00.0	N 17 48.6 +00.7	94 25.7 -00.8	N 20 27.2 +00.8	96 53.1 -29.1	N 18 49.3 +03.8	19						
20	120 54.6 +00.0	N 17 49.3 +00.6	109 24.9 -00.7	N 20 28.0 +00.7	111 24.0 -29.1	N 18 53.1 +03.8	20						
21	135 54.6 +00.0	N 17 49.9 +00.7	124 24.2 -00.7	N 20 28.7 +00.7	125 54.9 -29.1	N 18 56.9 +03.6	21						
22	150 54.6 +00.0	N 17 50.6 +00.6	139 23.5 -00.8	N 20 29.4 +00.7	140 25.8 -29.1	N 19 00.5 +03.6	22						
23	165 54.6 +00.1	N 17 51.2 +00.7	154 22.7 -00.7	N 20 30.1 +00.7	154 56.7 -29.1	N 19 04.1 +03.4	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	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 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:42	UT 02 06 10 14 18 22	SD 14'9 14'9 14'9 14'8 14'8 14'8	HP 54'6 54'6 54'5 54'5 54'4 54'4	Greenwich Culmination Time: 12:20		

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	185 53.7 +00.7	N 16 01.2 +00.6	149 28.6 +01.9	N 22 42.7 +00.1	12 04.9 +02.6	S 11 25.8 -00.1	00						
01	200 54.4 +00.6	N 16 01.8 +00.6	164 30.5 +01.8	N 22 42.8 +00.0	27 07.5 +02.6	S 11 25.7 +00.0	01						
02	215 55.0 +00.7	N 16 02.4 +00.5	179 32.3 +01.9	N 22 42.8 +00.1	42 10.1 +02.7	S 11 25.7 -00.1	02						
03	230 55.7 +00.6	N 16 02.9 +00.6	194 34.2 +01.9	N 22 42.9 +00.0	57 12.8 +02.6	S 11 25.6 +00.0	03						
04	245 56.3 +00.7	N 16 03.5 +00.6	209 36.1 +01.9	N 22 42.9 +00.1	72 15.4 +02.7	S 11 25.6 -00.1	04						
05	260 57.0 +00.6	N 16 04.1 +00.5	224 38.0 +01.9	N 22 43.0 +00.0	87 18.1 +02.6	S 11 25.5 +00.0	05						
06	275 57.6 +00.7	N 16 04.6 +00.6	239 39.9 +01.9	N 22 43.0 +00.1	102 20.7 +02.7	S 11 25.5 -00.1	06						
07	290 58.3 +00.6	N 16 05.2 +00.6	254 41.8 +01.8	N 22 43.1 +00.0	117 23.4 +02.6	S 11 25.4 +00.0	07						
08	305 58.9 +00.7	N 16 05.8 +00.5	269 43.6 +01.9	N 22 43.1 +00.1	132 26.0 +02.6	S 11 25.4 -00.1	08						
09	320 59.6 +00.6	N 16 06.3 +00.6	284 45.5 +01.9	N 22 43.2 +00.0	147 28.6 +02.7	S 11 25.3 -00.1	09						
10	336 00.2 +00.7	N 16 06.9 +00.6	299 47.4 +01.9	N 22 43.2 +00.1	162 31.3 +02.6	S 11 25.2 +00.0	10						
11	351 00.9 +00.6	N 16 07.5 +00.5	314 49.3 +01.9	N 22 43.3 +00.0	177 33.9 +02.7	S 11 25.2 -00.1	11						
12	6 01.5 +00.7	N 16 08.0 +00.6	329 51.2 +01.9	N 22 43.3 +00.1	192 36.6 +02.6	S 11 25.1 +00.0	12						
13	21 02.2 +00.6	N 16 08.6 +00.6	344 53.1 +01.8	N 22 43.4 +00.0	207 39.2 +02.7	S 11 25.1 -00.1	13						
14	36 02.8 +00.7	N 16 09.2 +00.5	359 54.9 +01.9	N 22 43.4 +00.0	222 41.9 +02.6	S 11 25.0 +00.0	14						
15	51 03.5 +00.6	N 16 09.7 +00.6	14 56.8 +01.9	N 22 43.4 +00.1	237 44.5 +02.6	S 11 25.0 -00.1	15						
16	66 04.1 +00.7	N 16 10.3 +00.5	29 58.7 +01.9	N 22 43.5 +00.0	252 47.1 +02.7	S 11 24.9 +00.0	16						
17	81 04.8 +00.6	N 16 10.8 +00.6	45 00.6 +01.9	N 22 43.5 +00.1	267 49.8 +02.6	S 11 24.9 -00.1	17						
18	96 05.4 +00.7	N 16 11.4 +00.6	60 02.5 +01.9	N 22 43.6 +00.0	282 52.4 +02.7	S 11 24.8 -00.1	18						
19	111 06.1 +00.6	N 16 12.0 +00.5	75 04.4 +01.8	N 22 43.6 +00.1	297 55.1 +02.6	S 11 24.7 +00.0	19						
20	126 06.7 +00.6	N 16 12.5 +00.6	90 06.2 +01.9	N 22 43.7 +00.0	312 57.7 +02.6	S 11 24.7 -00.1	20						
21	141 07.3 +00.7	N 16 13.1 +00.6	105 08.1 +01.9	N 22 43.7 +00.1	328 00.3 +02.7	S 11 24.6 +00.0	21						
22	156 08.0 +00.6	N 16 13.7 +00.5	120 10.0 +01.9	N 22 43.8 +00.0	343 03.0 +02.6	S 11 24.6 -00.1	22						
23	171 08.6 +00.7	N 16 14.2 +00.6	135 11.9 +01.9	N 22 43.8 +00.1	358 05.6 +02.7	S 11 24.5 +00.0	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:36	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 14:00	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	Greenwich Culmination Time: 23:08		

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.05					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 54.7 +00.0	N 17 51.9 +00.6	169 22.0 -00.7	N 20 30.8 +00.8	169 27.6 -29.2	N 19 07.5 +03.4	00								
01	195 54.7 +00.0	N 17 52.5 +00.7	184 21.3 -00.7	N 20 31.6 +00.7	183 58.4 -29.1	N 19 10.9 +03.3	01								
02	210 54.7 +00.0	N 17 53.2 +00.6	199 20.6 -00.8	N 20 32.3 +00.7	198 29.3 -29.2	N 19 14.2 +03.2	02								
03	225 54.7 +00.0	N 17 53.8 +00.6	214 19.8 -00.7	N 20 33.0 +00.7	213 00.1 -29.1	N 19 17.4 +03.1	03								
04	240 54.7 +00.0	N 17 54.4 +00.7	229 19.1 -00.7	N 20 33.7 +00.7	227 31.0 -29.2	N 19 20.5 +03.0	04								
05	255 54.7 +00.1	N 17 55.1 +00.6	244 18.4 -00.8	N 20 34.4 +00.7	242 01.8 -29.2	N 19 23.5 +02.9	05								
06	270 54.8 +00.0	N 17 55.7 +00.7	259 17.6 -00.7	N 20 35.1 +00.8	256 32.6 -29.2	N 19 26.4 +02.8	06								
07	285 54.8 +00.0	N 17 56.4 +00.6	274 16.9 -00.7	N 20 35.9 +00.7	271 03.4 -29.2	N 19 29.2 +02.7	07								
08	300 54.8 +00.0	N 17 57.0 +00.6	289 16.2 -00.8	N 20 36.6 +00.7	285 34.2 -29.2	N 19 31.9 +02.7	08								
09	315 54.8 +00.0	N 17 57.6 +00.7	304 15.4 -00.7	N 20 37.3 +00.7	300 05.0 -29.2	N 19 34.6 +02.5	09								
10	330 54.8 +00.0	N 17 58.3 +00.6	319 14.7 -00.7	N 20 38.0 +00.7	314 35.8 -29.2	N 19 37.1 +02.5	10								
11	345 54.8 +00.0	N 17 58.9 +00.6	334 14.0 -00.8	N 20 38.7 +00.7	329 06.6 -29.2	N 19 39.6 +02.3	11								
12	0 54.8 +00.1	N 17 59.5 +00.7	349 13.2 -00.7	N 20 39.4 +00.7	343 37.4 -29.2	N 19 41.9 +02.3	12								
13	15 54.9 +00.0	N 18 00.2 +00.6	4 12.5 -00.7	N 20 40.1 +00.7	358 08.2 -29.2	N 19 44.2 +02.2	13								
14	30 54.9 +00.0	N 18 00.8 +00.6	19 11.8 -00.8	N 20 40.8 +00.7	12 39.0 -29.2	N 19 46.4 +02.0	14								
15	45 54.9 +00.0	N 18 01.4 +00.7	34 11.0 -00.7	N 20 41.5 +00.7	27 09.8 -29.2	N 19 48.4 +02.0	15								
16	60 54.9 +00.0	N 18 02.1 +00.6	49 10.3 -00.7	N 20 42.2 +00.7	41 40.6 -29.2	N 19 50.4 +01.9	16								
17	75 54.9 +00.0	N 18 02.7 +00.6	64 09.6 -00.8	N 20 42.9 +00.7	56 11.4 -29.3	N 19 52.3 +01.8	17								
18	90 54.9 +00.0	N 18 03.3 +00.7	79 08.8 -00.7	N 20 43.6 +00.7	70 42.1 -29.2	N 19 54.1 +01.7	18								
19	105 54.9 +00.0	N 18 04.0 +00.6	94 08.1 -00.8	N 20 44.3 +00.7	85 12.9 -29.2	N 19 55.8 +01.6	19								
20	120 54.9 +00.1	N 18 04.6 +00.6	109 07.3 -00.7	N 20 45.0 +00.7	99 43.7 -29.2	N 19 57.4 +01.5	20								
21	135 55.0 +00.0	N 18 05.2 +00.7	124 06.6 -00.7	N 20 45.7 +00.7	114 14.5 -29.2	N 19 58.9 +01.4	21								
22	150 55.0 +00.0	N 18 05.9 +00.6	139 05.9 -00.8	N 20 46.4 +00.7	128 45.3 -29.3	N 20 00.3 +01.3	22								
23	165 55.0 +00.0	N 18 06.5 +00.6	154 05.1 -00.7	N 20 47.1 +00.7	143 16.0 -29.2	N 20 01.6 +01.3	23								
UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 14'8 14'8 14'8 14'8 14'8 14'8										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:56	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:43	HP 54'3 54'3 54'3 54'2 54'2 54'2	Greenwich Culmination Time: 13:08										

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	186 09.3 +00.6	N 16 14.8 +00.5	150 13.8 +01.9	N 22 43.9 +00.0	13 08.3 +02.6	S 11 24.5 -00.1	00								
01	201 09.9 +00.7	N 16 15.3 +00.6	165 15.7 +01.8	N 22 43.9 +00.1	28 10.9 +02.6	S 11 24.4 +00.0	01								
02	216 10.6 +00.6	N 16 15.9 +00.6	180 17.5 +01.9	N 22 44.0 +00.0	43 13.5 +02.7	S 11 24.4 -00.1	02								
03	231 11.2 +00.7	N 16 16.5 +00.5	195 19.4 +01.9	N 22 44.0 +00.1	58 16.2 +02.6	S 11 24.3 -00.1	03								
04	246 11.9 +00.6	N 16 17.0 +00.6	210 21.3 +01.9	N 22 44.1 +00.0	73 18.8 +02.7	S 11 24.2 +00.0	04								
05	261 12.5 +00.7	N 16 17.6 +00.5	225 23.2 +01.9	N 22 44.1 +00.0	88 21.5 +02.6	S 11 24.2 -00.1	05								
06	276 13.2 +00.6	N 16 18.1 +00.6	240 25.1 +01.8	N 22 44.1 +00.1	103 24.1 +02.7	S 11 24.1 +00.0	06								
07	291 13.8 +00.7	N 16 18.7 +00.6	255 26.9 +01.9	N 22 44.2 +00.0	118 26.8 +02.6	S 11 24.1 -00.1	07								
08	306 14.5 +00.6	N 16 19.3 +00.5	270 28.8 +01.9	N 22 44.2 +00.1	133 29.4 +02.6	S 11 24.0 +00.0	08								
09	321 15.1 +00.7	N 16 19.8 +00.6	285 30.7 +01.9	N 22 44.3 +00.0	148 32.0 +02.7	S 11 24.0 -00.1	09								
10	336 15.8 +00.6	N 16 20.4 +00.5	300 32.6 +01.9	N 22 44.3 +00.1	163 34.7 +02.6	S 11 23.9 +00.0	10								
11	351 16.4 +00.6	N 16 20.9 +00.6	315 34.5 +01.8	N 22 44.4 +00.0	178 37.3 +02.7	S 11 23.9 -00.1	11								
12	6 17.0 +00.7	N 16 21.5 +00.5	330 36.3 +01.9	N 22 44.4 +00.1	193 40.0 +02.6	S 11 23.8 +00.0	12								
13	21 17.7 +00.6	N 16 22.0 +00.6	345 38.2 +01.9	N 22 44.5 +00.0	208 42.6 +02.6	S 11 23.8 -00.1	13								
14	36 18.3 +00.7	N 16 22.6 +00.6	0 40.1 +01.9	N 22 44.5 +00.1	223 45.2 +02.7	S 11 23.7 -00.1	14								
15	51 19.0 +00.6	N 16 23.2 +00.5	15 42.0 +01.9	N 22 44.6 +00.0	238 47.9 +02.6	S 11 23.6 +00.0	15								
16	66 19.6 +00.7	N 16 23.7 +00.6	30 43.9 +01.9	N 22 44.6 +00.1	253 50.5 +02.7	S 11 23.6 -00.1	16								
17	81 20.3 +00.6	N 16 24.3 +00.5	45 45.8 +01.8	N 22 44.7 +00.0	268 53.2 +02.6	S 11 23.5 +00.0	17								
18	96 20.9 +00.7	N 16 24.8 +00.6	60 47.6 +01.9	N 22 44.7 +00.1	283 55.8 +02.6	S 11 23.5 -00.1	18								
19	111 21.6 +00.6	N 16 25.4 +00.5	75 49.5 +01.9	N 22 44.8 +00.0	298 58.4 +02.7	S 11 23.4 +00.0	19								
20	126 22.2 +00.7	N 16 25.9 +00.6	90 51.4 +01.9	N 22 44.8 +00.0	314 01.1 +02.6	S 11 23.4 -00.1	20								
21	141 22.9 +00.6	N 16 26.5 +00.5	105 53.3 +01.9	N 22 44.8 +00.1	329 03.7 +02.7	S 11 23.3 +00.0	21								
22	156 23.5 +00.7	N 16 27.0 +00.6	120 55.2 +01.8	N 22 44.9 +00.0	344 06.4 +02.6	S 11 23.3 -00.1	22								
23	171 24.2 +00.6	N 16 27.6 +00.5	135 57.0 +01.9	N 22 44.9 +00.1	359 09.0 +02.6	S 11 23.2 -00.1	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:35	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 13:57	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 23:03										

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.08					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 55.0 +00.0	N 18 07.1 +00.7	169 04.4 -00.8	N 20 47.8 +00.7	157 46.8 -29.2	N 20 02.9 +01.1	00								
01	195 55.0 +00.0	N 18 07.8 +00.6	184 03.6 -00.7	N 20 48.5 +00.7	172 17.6 -29.2	N 20 04.0 +01.0	01								
02	210 55.0 +00.0	N 18 08.4 +00.6	199 02.9 -00.7	N 20 49.2 +00.7	186 48.4 -29.2	N 20 05.0 +01.0	02								
03	225 55.0 +00.0	N 18 09.0 +00.7	214 02.2 -00.8	N 20 49.9 +00.7	201 19.2 -29.2	N 20 06.0 +00.8	03								
04	240 55.0 +00.0	N 18 09.7 +00.6	229 01.4 -00.7	N 20 50.6 +00.7	215 50.0 -29.2	N 20 06.8 +00.8	04								
05	255 55.0 +00.1	N 18 10.3 +00.6	244 00.7 -00.8	N 20 51.3 +00.7	230 20.8 -29.2	N 20 07.6 +00.7	05								
06	270 55.1 +00.0	N 18 10.9 +00.6	258 59.9 -00.7	N 20 52.0 +00.7	244 51.6 -29.2	N 20 08.3 +00.5	06								
07	285 55.1 +00.0	N 18 11.5 +00.7	273 59.2 -00.8	N 20 52.7 +00.7	259 22.4 -29.2	N 20 08.8 +00.5	07								
08	300 55.1 +00.0	N 18 12.2 +00.6	288 58.4 -00.7	N 20 53.4 +00.6	273 53.2 -29.2	N 20 09.3 +00.4	08								
09	315 55.1 +00.0	N 18 12.8 +00.6	303 57.7 -00.7	N 20 54.0 +00.7	288 24.0 -29.1	N 20 09.7 +00.3	09								
10	330 55.1 +00.0	N 18 13.4 +00.6	318 57.0 -00.8	N 20 54.7 +00.7	302 54.9 -29.2	N 20 10.0 +00.2	10								
11	345 55.1 +00.0	N 18 14.0 +00.7	333 56.2 -00.7	N 20 55.4 +00.7	317 25.7 -29.1	N 20 10.2 +00.1	11								
12	0 55.1 +00.0	N 18 14.7 +00.6	348 55.5 -00.8	N 20 56.1 +00.7	331 56.6 -29.2	N 20 10.3 +00.0	12								
13	15 55.1 +00.0	N 18 15.3 +00.6	3 54.7 -00.7	N 20 56.8 +00.7	346 27.4 -29.1	N 20 10.3 -00.1	13								
14	30 55.1 +00.0	N 18 15.9 +00.6	18 54.0 -00.8	N 20 57.5 +00.6	0 58.3 -29.2	N 20 10.2 -00.2	14								
15	45 55.1 +00.0	N 18 16.5 +00.6	33 53.2 -00.7	N 20 58.1 +00.7	15 29.1 -29.1	N 20 10.0 -00.3	15								
16	60 55.1 +00.0	N 18 17.1 +00.7	48 52.5 -00.8	N 20 58.8 +00.7	30 00.0 -29.1	N 20 09.7 -00.4	16								
17	75 55.1 +00.1	N 18 17.8 +00.6	63 51.7 -00.7	N 20 59.5 +00.7	44 30.9 -29.1	N 20 09.3 -00.4	17								
18	90 55.2 +00.0	N 18 18.4 +00.6	78 51.0 -00.8	N 21 00.2 +00.7	59 01.8 -29.1	N 20 08.9 -00.6	18								
19	105 55.2 +00.0	N 18 19.0 +00.6	93 50.2 -00.7	N 21 00.9 +00.6	73 32.7 -29.1	N 20 08.3 -00.7	19								
20	120 55.2 +00.0	N 18 19.6 +00.6	108 49.5 -00.8	N 21 01.5 +00.7	88 03.6 -29.1	N 20 07.6 -00.7	20								
21	135 55.2 +00.0	N 18 20.2 +00.7	123 48.7 -00.7	N 21 02.2 +00.7	102 34.5 -29.0	N 20 06.9 -00.8	21								
22	150 55.2 +00.0	N 18 20.9 +00.6	138 48.0 -00.8	N 21 02.9 +00.7	117 05.5 -29.1	N 20 06.1 -01.0	22								
23	165 55.2 +00.0	N 18 21.5 +00.6	153 47.2 -00.7	N 21 03.6 +00.6	131 36.4 -29.0	N 20 05.1 -01.0	23								
UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 14'7 14'7 14'7 14'7 14'7 14'7										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:56	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:44	HP 54'1 54'1 54'1 54'1 54'0 54'0	Greenwich Culmination Time: 13:56										

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	186 24.8 +00.6	N 16 28.1 +00.6	150 58.9 +01.9	N 22 45.0 +00.0	14 11.6 +02.7	S 11 23.1 +00.0	00								
01	201 25.4 +00.7	N 16 28.7 +00.6	166 00.8 +01.9	N 22 45.0 +00.1	29 14.3 +02.6	S 11 23.1 -00.1	01								
02	216 26.1 +00.6	N 16 29.3 +00.5	181 02.7 +01.9	N 22 45.1 +00.0	44 16.9 +02.7	S 11 23.0 +00.0	02								
03	231 26.7 +00.7	N 16 29.8 +00.6	196 04.6 +01.8	N 22 45.1 +00.1	59 19.6 +02.6	S 11 23.0 -00.1	03								
04	246 27.4 +00.6	N 16 30.4 +00.5	211 06.4 +01.9	N 22 45.2 +00.0	74 22.2 +02.6	S 11 22.9 +00.0	04								
05	261 28.0 +00.7	N 16 30.9 +00.6	226 08.3 +01.9	N 22 45.2 +00.1	89 24.8 +02.7	S 11 22.9 -00.1	05								
06	276 28.7 +00.6	N 16 31.5 +00.5	241 10.2 +01.9	N 22 45.3 +00.0	104 27.5 +02.6	S 11 22.8 +00.0	06								
07	291 29.3 +00.7	N 16 32.0 +00.6	256 12.1 +01.8	N 22 45.3 +00.1	119 30.1 +02.7	S 11 22.8 -00.1	07								
08	306 30.0 +00.6	N 16 32.6 +00.5	271 13.9 +01.9	N 22 45.4 +00.0	134 32.8 +02.6	S 11 22.7 +00.0	08								
09	321 30.6 +00.6	N 16 33.1 +00.6	286 15.8 +01.9	N 22 45.4 +00.0	149 35.4 +02.6	S 11 22.7 -00.1	09								
10	336 31.2 +00.7	N 16 33.7 +00.5	301 17.7 +01.9	N 22 45.4 +00.1	164 38.0 +02.7	S 11 22.6 -00.1	10								
11	351 31.9 +00.6	N 16 34.2 +00.6	316 19.6 +01.9	N 22 45.5 +00.0	179 40.7 +02.6	S 11 22.5 +00.0	11								
12	6 32.5 +00.7	N 16 34.8 +00.5	331 21.5 +01.8	N 22 45.5 +00.1	194 43.3 +02.6	S 11 22.5 -00.1	12								
13	21 33.2 +00.6	N 16 35.3 +00.6	346 23.3 +01.9	N 22 45.6 +00.0	209 45.9 +02.7	S 11 22.4 +00.0	13								
14	36 33.8 +00.7	N 16 35.9 +00.5	1 25.2 +01.9	N 22 45.6 +00.1	224 48.6 +02.6	S 11 22.4 -00.1	14								
15	51 34.5 +00.6	N 16 36.4 +00.6	16 27.1 +01.9	N 22 45.7 +00.0	239 51.2 +02.7	S 11 22.3 +00.0	15								
16	66 35.1 +00.7	N 16 37.0 +00.5	31 29.0 +01.9	N 22 45.7 +00.1	254 53.9 +02.6	S 11 22.3 -00.1	16								
17	81 35.8 +00.6	N 16 37.5 +00.6	46 30.9 +01.8	N 22 45.8 +00.0	269 56.5 +02.6	S 11 22.2 +00.0	17								
18	96 36.4 +00.6	N 16 38.1 +00.5	61 32.7 +01.9	N 22 45.8 +00.1	284 59.1 +02.7	S 11 22.2 -00.1	18								
19	111 37.0 +00.7	N 16 38.6 +00.6	76 34.6 +01.9	N 22 45.9 +00.0	300 01.8 +02.6	S 11 22.1 +00.0	19								
20	126 37.7 +00.6	N 16 39.2 +00.5	91 36.5 +01.9	N 22 45.9 +00.0	315 04.4 +02.7	S 11 22.1 -00.1	20								
21	141 38.3 +00.7	N 16 39.7 +00.6	106 38.4 +01.8	N 22 45.9 +00.1	330 07.1 +02.6	S 11 22.0 +00.0	21								
22	156 39.0 +00.6	N 16 40.3 +00.5	121 40.2 +01.9	N 22 46.0 +00.0	345 09.7 +02.6	S 11 22.0 -00.1	22								
23	171 39.6 +00.7	N 16 40.8 +00.5	136 42.1 +01.9	N 22 46.0 +00.1	0 12.3 +02.7	S 11 21.9 -00.1	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:34	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 13:54	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 22:59										

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.11					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 55.2 +00.0	N 18 22.1 +00.6	168 46.5 -00.8	N 21 04.2 +00.7	146 07.4 -29.0	N 20 04.1 -01.1	00							00	
01	195 55.2 +00.0	N 18 22.7 +00.6	183 45.7 -00.7	N 21 04.9 +00.7	160 38.4 -29.0	N 20 03.0 -01.2	01							01	
02	210 55.2 +00.0	N 18 23.3 +00.7	198 45.0 -00.8	N 21 05.6 +00.6	175 09.4 -29.0	N 20 01.8 -01.3	02							02	
03	225 55.2 +00.0	N 18 24.0 +00.6	213 44.2 -00.7	N 21 06.2 +00.7	189 40.4 -29.0	N 20 00.5 -01.4	03							03	
04	240 55.2 +00.0	N 18 24.6 +00.6	228 43.5 -00.8	N 21 06.9 +00.7	204 11.4 -29.0	N 19 59.1 -01.5	04							04	
05	255 55.2 +00.0	N 18 25.2 +00.6	243 42.7 -00.7	N 21 07.6 +00.7	218 42.4 -28.9	N 19 57.6 -01.6	05							05	
06	270 55.2 +00.0	N 18 25.8 +00.6	258 42.0 -00.8	N 21 08.3 +00.6	233 13.5 -29.0	N 19 56.0 -01.7	06							06	
07	285 55.2 +00.0	N 18 26.4 +00.6	273 41.2 -00.7	N 21 08.9 +00.7	247 44.5 -28.9	N 19 54.3 -01.7	07							07	
08	300 55.2 +00.0	N 18 27.0 +00.6	288 40.5 -00.8	N 21 09.6 +00.6	262 15.6 -28.9	N 19 52.6 -01.9	08							08	
09	315 55.2 +00.0	N 18 27.6 +00.6	303 39.7 -00.7	N 21 10.2 +00.7	276 46.7 -28.9	N 19 50.7 -01.9	09							09	
10	330 55.2 +00.0	N 18 28.2 +00.7	318 39.0 -00.8	N 21 10.9 +00.7	291 17.8 -28.9	N 19 48.8 -02.1	10							10	
11	345 55.2 +00.0	N 18 28.9 +00.6	333 38.2 -00.8	N 21 11.6 +00.6	305 48.9 -28.8	N 19 46.7 -02.1	11							11	
12	0 55.2 +00.0	N 18 29.5 +00.6	348 37.4 -00.7	N 21 12.2 +00.7	320 20.1 -28.9	N 19 44.6 -02.2	12							12	
13	15 55.2 +00.0	N 18 30.1 +00.6	3 36.7 -00.8	N 21 12.9 +00.6	334 51.2 -28.8	N 19 42.4 -02.3	13							13	
14	30 55.2 +00.0	N 18 30.7 +00.6	18 35.9 -00.7	N 21 13.5 +00.7	349 22.4 -28.8	N 19 40.1 -02.4	14							14	
15	45 55.2 +00.0	N 18 31.3 +00.6	33 35.2 -00.8	N 21 14.2 +00.7	3 53.6 -28.8	N 19 37.7 -02.5	15							15	
16	60 55.2 +00.0	N 18 31.9 +00.6	48 34.4 -00.7	N 21 14.9 +00.6	18 24.8 -28.7	N 19 35.2 -02.6	16							16	
17	75 55.2 +00.0	N 18 32.5 +00.6	63 33.7 -00.8	N 21 15.5 +00.7	32 56.1 -28.8	N 19 32.6 -02.7	17							17	
18	90 55.2 +00.0	N 18 33.1 +00.6	78 32.9 -00.8	N 21 16.2 +00.6	47 27.3 -28.7	N 19 29.9 -02.7	18							18	
19	105 55.2 +00.0	N 18 33.7 +00.6	93 32.1 -00.7	N 21 16.8 +00.7	61 58.6 -28.7	N 19 27.2 -02.9	19							19	
20	120 55.2 +00.0	N 18 34.3 +00.6	108 31.4 -00.8	N 21 17.5 +00.6	76 29.9 -28.7	N 19 24.3 -02.9	20							20	
21	135 55.2 +00.0	N 18 34.9 +00.6	123 30.6 -00.7	N 21 18.1 +00.7	91 01.2 -28.7	N 19 21.4 -03.0	21							21	
22	150 55.2 +00.0	N 18 35.5 +00.7	138 29.9 -00.8	N 21 18.8 +00.6	105 32.5 -28.6	N 19 18.4 -03.1	22							22	
23	165 55.2 +00.0	N 18 36.2 +00.6	153 29.1 -00.8	N 21 19.4 +00.7	120 03.9 -28.6	N 19 15.3 -03.2	23							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 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 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 12:46					UT 02 06 10 14 18 22 SD 14'7 14'7 14'7 14'7 14'7 14'7 HP 54'0 54'0 54'0 54'0 54'0 54'0 Greenwich Culmination Time: 14:44					

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	186 40.3 +00.6	N 16 41.3 +00.6	151 44.0 +01.9	N 22 46.1 +00.0	15 15.0 +02.6	S 11 21.8 +00.0	00							00	
01	201 40.9 +00.6	N 16 41.9 +00.5	166 45.9 +01.9	N 22 46.1 +00.1	30 17.6 +02.7	S 11 21.8 -00.1	01							01	
02	216 41.5 +00.7	N 16 42.4 +00.6	181 47.8 +01.8	N 22 46.2 +00.0	45 20.3 +02.6	S 11 21.7 +00.0	02							02	
03	231 42.2 +00.6	N 16 43.0 +00.5	196 49.6 +01.9	N 22 46.2 +00.1	60 22.9 +02.6	S 11 21.7 -00.1	03							03	
04	246 42.8 +00.7	N 16 43.5 +00.6	211 51.5 +01.9	N 22 46.3 +00.0	75 25.5 +02.7	S 11 21.6 +00.0	04							04	
05	261 43.5 +00.6	N 16 44.1 +00.5	226 53.4 +01.9	N 22 46.3 +00.1	90 28.2 +02.6	S 11 21.6 -00.1	05							05	
06	276 44.1 +00.7	N 16 44.6 +00.6	241 55.3 +01.8	N 22 46.4 +00.0	105 30.8 +02.6	S 11 21.5 +00.0	06							06	
07	291 44.8 +00.6	N 16 45.2 +00.5	256 57.1 +01.9	N 22 46.4 +00.0	120 33.4 +02.7	S 11 21.5 -00.1	07							07	
08	306 45.4 +00.6	N 16 45.7 +00.6	271 59.0 +01.9	N 22 46.4 +00.1	135 36.1 +02.6	S 11 21.4 +00.0	08							08	
09	321 46.0 +00.7	N 16 46.3 +00.5	287 00.9 +01.9	N 22 46.5 +00.0	150 38.7 +02.7	S 11 21.4 -00.1	09							09	
10	336 46.7 +00.6	N 16 46.8 +00.5	302 02.8 +01.9	N 22 46.5 +00.1	165 41.4 +02.6	S 11 21.3 -00.1	10							10	
11	351 47.3 +00.7	N 16 47.3 +00.6	317 04.7 +01.8	N 22 46.6 +00.0	180 44.0 +02.6	S 11 21.2 +00.0	11							11	
12	6 48.0 +00.6	N 16 47.9 +00.5	332 06.5 +01.9	N 22 46.6 +00.1	195 46.6 +02.7	S 11 21.2 -00.1	12							12	
13	21 48.6 +00.7	N 16 48.4 +00.6	347 08.4 +01.9	N 22 46.7 +00.0	210 49.3 +02.6	S 11 21.1 +00.0	13							13	
14	36 49.3 +00.6	N 16 49.0 +00.5	2 10.3 +01.9	N 22 46.7 +00.1	225 51.9 +02.6	S 11 21.1 -00.1	14							14	
15	51 49.9 +00.6	N 16 49.5 +00.6	17 12.2 +01.8	N 22 46.8 +00.0	240 54.5 +02.7	S 11 21.0 +00.0	15							15	
16	66 50.5 +00.7	N 16 50.1 +00.5	32 14.0 +01.9	N 22 46.8 +00.1	255 57.2 +02.6	S 11 21.0 -00.1	16							16	
17	81 51.2 +00.6	N 16 50.6 +00.5	47 15.9 +01.9	N 22 46.9 +00.0	270 59.8 +02.7	S 11 20.9 +00.0	17							17	
18	96 51.8 +00.7	N 16 51.1 +00.6	62 17.8 +01.9	N 22 46.9 +00.0	286 02.5 +02.6	S 11 20.9 -00.1	18							18	
19	111 52.5 +00.6	N 16 51.7 +00.5	77 19.7 +01.8	N 22 46.9 +00.1	301 05.1 +02.6	S 11 20.8 +00.0	19							19	
20	126 53.1 +00.6	N 16 52.2 +00.6	92 21.5 +01.9	N 22 47.0 +00.0	316 07.7 +02.7	S 11 20.8 -00.1	20							20	
21	141 53.7 +00.7	N 16 52.8 +00.5	107 23.4 +01.9	N 22 47.0 +00.1	331 10.4 +02.6	S 11 20.7 +00.0	21							21	
22	156 54.4 +00.6	N 16 53.3 +00.5	122 25.3 +01.9	N 22 47.1 +00.0	346 13.0 +02.6	S 11 20.7 -00.1	22							22	
23	171 55.0 +00.7	N 16 53.8 +00.6	137 27.2 +01.8	N 22 47.1 +00.1	1 15.6 +02.7	S 11 20.6 +00.0	23							23	
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:33					UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 13:51					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 Greenwich Culmination Time: 22:55					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> <i>a</i> = 0.15				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 55.2 +00.0	N 18 36.8 +00.6	168 28.3 -00.7	N 21 20.1 +00.6	134 35.3 -28.7	N 19 12.1 -03.3	00						
01	195 55.2 +00.0	N 18 37.4 +00.6	183 27.6 -00.8	N 21 20.7 +00.7	149 06.6 -28.5	N 19 08.8 -03.4	01						
02	210 55.2 +00.0	N 18 38.0 +00.6	198 26.8 -00.8	N 21 21.4 +00.6	163 38.1 -28.6	N 19 05.4 -03.4	02						
03	225 55.2 +00.0	N 18 38.6 +00.6	213 26.0 -00.7	N 21 22.0 +00.7	178 09.5 -28.6	N 19 02.0 -03.6	03						
04	240 55.2 +00.0	N 18 39.2 +00.6	228 25.3 -00.8	N 21 22.7 +00.6	192 40.9 -28.5	N 18 58.4 -03.6	04						
05	255 55.2 +00.0	N 18 39.8 +00.6	243 24.5 -00.7	N 21 23.3 +00.6	207 12.4 -28.5	N 18 54.8 -03.7	05						
06	270 55.2 +00.0	N 18 40.4 +00.6	258 23.8 -00.8	N 21 23.9 +00.7	221 43.9 -28.5	N 18 51.1 -03.8	06						
07	285 55.2 +00.0	N 18 41.0 +00.6	273 23.0 -00.8	N 21 24.6 +00.6	236 15.4 -28.4	N 18 47.3 -03.9	07						
08	300 55.2 +00.0	N 18 41.6 +00.6	288 22.2 -00.7	N 21 25.2 +00.7	250 47.0 -28.5	N 18 43.4 -04.0	08						
09	315 55.2 +00.0	N 18 42.2 +00.6	303 21.5 -00.8	N 21 25.9 +00.6	265 18.5 -28.4	N 18 39.4 -04.0	09						
10	330 55.2 +00.0	N 18 42.8 +00.6	318 20.7 -00.8	N 21 26.5 +00.6	279 50.1 -28.4	N 18 35.4 -04.2	10						
11	345 55.2 +00.0	N 18 43.4 +00.6	333 19.9 -00.7	N 21 27.1 +00.7	294 21.7 -28.4	N 18 31.2 -04.2	11						
12	0 55.2 +00.0	N 18 44.0 +00.6	348 19.2 -00.8	N 21 27.8 +00.6	308 53.3 -28.3	N 18 27.0 -04.3	12						
13	15 55.2 +00.0	N 18 44.6 +00.6	3 18.4 -00.8	N 21 28.4 +00.6	323 25.0 -28.3	N 18 22.7 -04.4	13						
14	30 55.2 +00.0	N 18 45.2 +00.6	18 17.6 -00.7	N 21 29.0 +00.7	337 56.7 -28.3	N 18 18.3 -04.5	14						
15	45 55.2 +00.0	N 18 45.8 +00.6	33 16.9 -00.8	N 21 29.7 +00.6	352 28.4 -28.3	N 18 13.8 -04.5	15						
16	60 55.2 +00.0	N 18 46.4 +00.5	48 16.1 -00.8	N 21 30.3 +00.6	7 00.1 -28.3	N 18 09.3 -04.6	16						
17	75 55.2 +00.0	N 18 46.9 +00.6	63 15.3 -00.7	N 21 30.9 +00.7	21 31.8 -28.2	N 18 04.7 -04.8	17						
18	90 55.2 +00.0	N 18 47.5 +00.6	78 14.6 -00.8	N 21 31.6 +00.6	36 03.6 -28.2	N 17 59.9 -04.8	18						
19	105 55.2 +00.0	N 18 48.1 +00.6	93 13.8 -00.8	N 21 32.2 +00.6	50 35.4 -28.2	N 17 55.1 -04.8	19						
20	120 55.2 +00.0	N 18 48.7 +00.6	108 13.0 -00.8	N 21 32.8 +00.6	65 07.2 -28.2	N 17 50.3 -05.0	20						
21	135 55.2 +00.0	N 18 49.3 +00.6	123 12.2 -00.7	N 21 33.4 +00.7	79 39.0 -28.1	N 17 45.3 -05.0	21						
22	150 55.2 +00.0	N 18 49.9 +00.6	138 11.5 -00.8	N 21 34.1 +00.6	94 10.9 -28.2	N 17 40.3 -05.2	22						
23	165 55.2 -00.1	N 18 50.5 +00.6	153 10.7 -00.8	N 21 34.7 +00.6	108 42.7 -28.1	N 17 35.1 -05.2	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	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 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:47	UT 02 06 10 14 18 22	SD 14'7 14'7 14'7 14'7 14'7 14'7	HP 54'0 54'0 54'1 54'1 54'1 54'1	Greenwich Culmination Time: 15:31		

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	186 55.7 +00.6	N 16 54.4 +00.5	152 29.0 +01.9	N 22 47.2 +00.0	16 18.3 +02.6	S 11 20.6 -00.1	00						
01	201 56.3 +00.7	N 16 54.9 +00.6	167 30.9 +01.9	N 22 47.2 +00.1	31 20.9 +02.7	S 11 20.5 -00.1	01						
02	216 57.0 +00.6	N 16 55.5 +00.5	182 32.8 +01.9	N 22 47.3 +00.0	46 23.6 +02.6	S 11 20.4 +00.0	02						
03	231 57.6 +00.6	N 16 56.0 +00.5	197 34.7 +01.8	N 22 47.3 +00.0	61 26.2 +02.6	S 11 20.4 -00.1	03						
04	246 58.2 +00.7	N 16 56.5 +00.6	212 36.5 +01.9	N 22 47.3 +00.1	76 28.8 +02.7	S 11 20.3 +00.0	04						
05	261 58.9 +00.6	N 16 57.1 +00.5	227 38.4 +01.9	N 22 47.4 +00.0	91 31.5 +02.6	S 11 20.3 -00.1	05						
06	276 59.5 +00.7	N 16 57.6 +00.5	242 40.3 +01.9	N 22 47.4 +00.1	106 34.1 +02.6	S 11 20.2 +00.0	06						
07	292 00.2 +00.6	N 16 58.1 +00.6	257 42.2 +01.8	N 22 47.5 +00.0	121 36.7 +02.7	S 11 20.2 -00.1	07						
08	307 00.8 +00.6	N 16 58.7 +00.5	272 44.0 +01.9	N 22 47.5 +00.1	136 39.4 +02.6	S 11 20.1 +00.0	08						
09	322 01.4 +00.7	N 16 59.2 +00.6	287 45.9 +01.9	N 22 47.6 +00.0	151 42.0 +02.7	S 11 20.1 -00.1	09						
10	337 02.1 +00.6	N 16 59.8 +00.5	302 47.8 +01.9	N 22 47.6 +00.1	166 44.7 +02.6	S 11 20.0 +00.0	10						
11	352 02.7 +00.7	N 17 00.3 +00.5	317 49.7 +01.8	N 22 47.7 +00.0	181 47.3 +02.6	S 11 20.0 -00.1	11						
12	7 03.4 +00.6	N 17 00.8 +00.6	332 51.5 +01.9	N 22 47.7 +00.0	196 49.9 +02.7	S 11 19.9 +00.0	12						
13	22 04.0 +00.6	N 17 01.4 +00.5	347 53.4 +01.9	N 22 47.7 +00.1	211 52.6 +02.6	S 11 19.9 -00.1	13						
14	37 04.6 +00.7	N 17 01.9 +00.5	2 55.3 +01.9	N 22 47.8 +00.0	226 55.2 +02.6	S 11 19.8 +00.0	14						
15	52 05.3 +00.6	N 17 02.4 +00.6	17 57.2 +01.8	N 22 47.8 +00.1	241 57.8 +02.7	S 11 19.8 -00.1	15						
16	67 05.9 +00.7	N 17 03.0 +00.5	32 59.0 +01.9	N 22 47.9 +00.0	257 00.5 +02.6	S 11 19.7 -00.1	16						
17	82 06.6 +00.6	N 17 03.5 +00.5	48 00.9 +01.9	N 22 47.9 +00.1	272 03.1 +02.6	S 11 19.6 +00.0	17						
18	97 07.2 +00.6	N 17 04.0 +00.6	63 02.8 +01.9	N 22 48.0 +00.0	287 05.7 +02.7	S 11 19.6 -00.1	18						
19	112 07.8 +00.7	N 17 04.6 +00.5	78 04.7 +01.8	N 22 48.0 +00.1	302 08.4 +02.6	S 11 19.5 +00.0	19						
20	127 08.5 +00.6	N 17 05.1 +00.5	93 06.5 +01.9	N 22 48.1 +00.0	317 11.0 +02.7	S 11 19.5 -00.1	20						
21	142 09.1 +00.7	N 17 05.6 +00.6	108 08.4 +01.9	N 22 48.1 +00.0	332 13.7 +02.6	S 11 19.4 +00.0	21						
22	157 09.8 +00.6	N 17 06.2 +00.5	123 10.3 +01.9	N 22 48.1 +00.1	347 16.3 +02.6	S 11 19.4 -00.1	22						
23	172 10.4 +00.6	N 17 06.7 +00.5	138 12.2 +01.8	N 22 48.2 +00.0	2 18.9 +02.7	S 11 19.3 +00.0	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:32	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 13:48	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	Greenwich Culmination Time: 22:51		

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.18					UT		
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "					
00	180 55.1 +00.0	N 18	51.1 +00.6	168 09.9 -00.7	N 21	35.3 +00.6	123 14.6 -28.1	N 17	29.9 -05.2	00							
01	195 55.1 +00.0	N 18	51.7 +00.6	183 09.2 -00.8	N 21	35.9 +00.7	137 46.5 -28.0	N 17	24.7 -05.4	01							
02	210 55.1 +00.0	N 18	52.3 +00.6	198 08.4 -00.8	N 21	36.6 +00.6	152 18.5 -28.0	N 17	19.3 -05.4	02							
03	225 55.1 +00.0	N 18	52.9 +00.6	213 07.6 -00.8	N 21	37.2 +00.6	166 50.5 -28.1	N 17	13.9 -05.5	03							
04	240 55.1 +00.0	N 18	53.5 +00.5	228 06.8 -00.7	N 21	37.8 +00.6	181 22.4 -27.9	N 17	08.4 -05.6	04							
05	255 55.1 +00.0	N 18	54.0 +00.6	243 06.1 -00.8	N 21	38.4 +00.6	195 54.5 -28.0	N 17	02.8 -05.7	05							
06	270 55.1 +00.0	N 18	54.6 +00.6	258 05.3 -00.8	N 21	39.0 +00.6	210 26.5 -28.0	N 16	57.1 -05.8	06							
07	285 55.1 +00.0	N 18	55.2 +00.6	273 04.5 -00.8	N 21	39.6 +00.7	224 58.5 -27.9	N 16	51.3 -05.8	07							
08	300 55.1 +00.0	N 18	55.8 +00.6	288 03.7 -00.7	N 21	40.3 +00.6	239 30.6 -27.9	N 16	45.5 -05.9	08							
09	315 55.1 +00.0	N 18	56.4 +00.6	303 03.0 -00.8	N 21	40.9 +00.6	254 02.7 -27.9	N 16	39.6 -05.9	09							
10	330 55.1 +00.0	N 18	57.0 +00.6	318 02.2 -00.8	N 21	41.5 +00.6	268 34.8 -27.8	N 16	33.7 -06.1	10							
11	345 55.1 -00.1	N 18	57.6 +00.5	333 01.4 -00.8	N 21	42.1 +00.6	283 07.0 -27.8	N 16	27.6 -06.1	11							
12	0 55.0 +00.0	N 18	58.1 +00.6	348 00.6 -00.7	N 21	42.7 +00.6	297 39.2 -27.9	N 16	21.5 -06.2	12							
13	15 55.0 +00.0	N 18	58.7 +00.6	2 59.9 -00.8	N 21	43.3 +00.6	312 11.3 -27.7	N 16	15.3 -06.3	13							
14	30 55.0 +00.0	N 18	59.3 +00.6	17 59.1 -00.8	N 21	43.9 +00.6	326 43.6 -27.8	N 16	09.0 -06.3	14							
15	45 55.0 +00.0	N 18	59.9 +00.6	32 58.3 -00.8	N 21	44.5 +00.6	341 15.8 -27.8	N 16	02.7 -06.4	15							
16	60 55.0 +00.0	N 19	00.5 +00.6	47 57.5 -00.8	N 21	45.1 +00.7	355 48.0 -27.7	N 15	56.3 -06.5	16							
17	75 55.0 +00.0	N 19	01.1 +00.5	62 56.7 -00.7	N 21	45.8 +00.6	10 20.3 -27.7	N 15	49.8 -06.6	17							
18	90 55.0 +00.0	N 19	01.6 +00.6	77 56.0 -00.8	N 21	46.4 +00.6	24 52.6 -27.7	N 15	43.2 -06.6	18							
19	105 55.0 +00.0	N 19	02.2 +00.6	92 55.2 -00.8	N 21	47.0 +00.6	39 24.9 -27.6	N 15	36.6 -06.7	19							
20	120 55.0 +00.0	N 19	02.8 +00.6	107 54.4 -00.8	N 21	47.6 +00.6	53 57.3 -27.7	N 15	29.9 -06.8	20							
21	135 55.0 -00.1	N 19	03.4 +00.6	122 53.6 -00.8	N 21	48.2 +00.6	68 29.6 -27.6	N 15	23.1 -06.8	21							
22	150 54.9 +00.0	N 19	04.0 +00.5	137 52.8 -00.7	N 21	48.8 +00.6	83 02.0 -27.6	N 15	16.3 -06.9	22							
23	165 54.9 +00.0	N 19	04.5 +00.6	152 52.1 -00.8	N 21	49.4 +00.6	97 34.4 -27.6	N 15	09.4 -07.0	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	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 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:48			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 54'3 54'3 54'4	Greenwich Culmination Time: 16:17		

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT		
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "					
00	187 11.0 +00.7	N 17	07.2 +00.6	153 14.0 +01.9	N 22	48.2 +00.1	17 21.6 +02.6	S 11	19.3 -00.1	00							
01	202 11.7 +00.6	N 17	07.8 +00.5	168 15.9 +01.9	N 22	48.3 +00.0	32 24.2 +02.6	S 11	19.2 +00.0	01							
02	217 12.3 +00.7	N 17	08.3 +00.5	183 17.8 +01.9	N 22	48.3 +00.1	47 26.8 +02.7	S 11	19.2 -00.1	02							
03	232 13.0 +00.6	N 17	08.8 +00.6	198 19.7 +01.8	N 22	48.4 +00.0	62 29.5 +02.6	S 11	19.1 +00.0	03							
04	247 13.6 +00.6	N 17	09.4 +00.5	213 21.5 +01.9	N 22	48.4 +00.0	77 32.1 +02.6	S 11	19.1 -00.1	04							
05	262 14.2 +00.7	N 17	09.9 +00.5	228 23.4 +01.9	N 22	48.4 +00.1	92 34.7 +02.7	S 11	19.0 +00.0	05							
06	277 14.9 +00.6	N 17	10.4 +00.6	243 25.3 +01.8	N 22	48.5 +00.0	107 37.4 +02.6	S 11	19.0 -00.1	06							
07	292 15.5 +00.7	N 17	11.0 +00.5	258 27.1 +01.9	N 22	48.5 +00.1	122 40.0 +02.6	S 11	18.9 +00.0	07							
08	307 16.2 +00.6	N 17	11.5 +00.5	273 29.0 +01.9	N 22	48.6 +00.0	137 42.6 +02.7	S 11	18.9 -00.1	08							
09	322 16.8 +00.6	N 17	12.0 +00.5	288 30.9 +01.9	N 22	48.6 +00.1	152 45.3 +02.6	S 11	18.8 -00.1	09							
10	337 17.4 +00.7	N 17	12.5 +00.6	303 32.8 +01.8	N 22	48.7 +00.0	167 47.9 +02.7	S 11	18.7 +00.0	10							
11	352 18.1 +00.6	N 17	13.1 +00.5	318 34.6 +01.9	N 22	48.7 +00.0	182 50.6 +02.6	S 11	18.7 -00.1	11							
12	7 18.7 +00.6	N 17	13.6 +00.5	333 36.5 +01.9	N 22	48.7 +00.1	197 53.2 +02.6	S 11	18.6 +00.0	12							
13	22 19.3 +00.7	N 17	14.1 +00.6	348 38.4 +01.9	N 22	48.8 +00.0	212 55.8 +02.7	S 11	18.6 -00.1	13							
14	37 20.0 +00.6	N 17	14.7 +00.5	3 40.3 +01.8	N 22	48.8 +00.1	227 58.5 +02.6	S 11	18.5 +00.0	14							
15	52 20.6 +00.7	N 17	15.2 +00.5	18 42.1 +01.9	N 22	48.9 +00.0	243 01.1 +02.6	S 11	18.5 -00.1	15							
16	67 21.3 +00.6	N 17	15.7 +00.5	33 44.0 +01.9	N 22	48.9 +00.1	258 03.7 +02.7	S 11	18.4 +00.0	16							
17	82 21.9 +00.6	N 17	16.2 +00.6	48 45.9 +01.8	N 22	49.0 +00.0	273 06.4 +02.6	S 11	18.4 -00.1	17							
18	97 22.5 +00.7	N 17	16.8 +00.5	63 47.7 +01.9	N 22	49.0 +00.1	288 09.0 +02.6	S 11	18.3 +00.0	18							
19	112 23.2 +00.6	N 17	17.3 +00.5	78 49.6 +01.9	N 22	49.1 +00.0	303 11.6 +02.7	S 11	18.3 -00.1	19							
20	127 23.8 +00.6	N 17	17.8 +00.5	93 51.5 +01.9	N 22	49.1 +00.0	318 14.3 +02.6	S 11	18.2 +00.0	20							
21	142 24.4 +00.7	N 17	18.3 +00.6	108 53.4 +01.8	N 22	49.1 +00.1	333 16.9 +02.6	S 11	18.2 -00.1	21							
22	157 25.1 +00.6	N 17	18.9 +00.5	123 55.2 +01.9	N 22	49.2 +00.0	348 19.5 +02.7	S 11	18.1 +00.0	22							
23	172 25.7 +00.7	N 17	19.4 +00.5	138 57.1 +01.9	N 22	49.2 +00.1	3 22.2 +02.6	S 11	18.1 -00.1	23							
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:31			UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 13:45			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	Greenwich Culmination Time: 22:47		

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> <i>a</i> = 0.21				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 54.9 +00.0	N 19 05.1 +00.6	167 51.3 -00.8	N 21 50.0 +00.6	112 06.8 -27.6	N 15 02.4 -07.1	00						
01	195 54.9 +00.0	N 19 05.7 +00.6	182 50.5 -00.8	N 21 50.6 +00.6	126 39.2 -27.5	N 14 55.3 -07.1	01						
02	210 54.9 +00.0	N 19 06.3 +00.6	197 49.7 -00.8	N 21 51.2 +00.5	141 11.7 -27.6	N 14 48.2 -07.2	02						
03	225 54.9 +00.0	N 19 06.9 +00.5	212 48.9 -00.8	N 21 51.7 +00.6	155 44.1 -27.5	N 14 41.0 -07.2	03						
04	240 54.9 +00.0	N 19 07.4 +00.6	227 48.1 -00.7	N 21 52.3 +00.6	170 16.6 -27.5	N 14 33.8 -07.4	04						
05	255 54.9 -00.1	N 19 08.0 +00.6	242 47.4 -00.8	N 21 52.9 +00.6	184 49.1 -27.5	N 14 26.4 -07.4	05						
06	270 54.8 +00.0	N 19 08.6 +00.5	257 46.6 -00.8	N 21 53.5 +00.6	199 21.6 -27.4	N 14 19.0 -07.4	06						
07	285 54.8 +00.0	N 19 09.1 +00.6	272 45.8 -00.8	N 21 54.1 +00.6	213 54.2 -27.5	N 14 11.6 -07.5	07						
08	300 54.8 +00.0	N 19 09.7 +00.6	287 45.0 -00.8	N 21 54.7 +00.6	228 26.7 -27.4	N 14 04.1 -07.6	08						
09	315 54.8 +00.0	N 19 10.3 +00.6	302 44.2 -00.8	N 21 55.3 +00.6	242 59.3 -27.4	N 13 56.5 -07.7	09						
10	330 54.8 +00.0	N 19 10.9 +00.5	317 43.4 -00.8	N 21 55.9 +00.6	257 31.9 -27.4	N 13 48.8 -07.7	10						
11	345 54.8 +00.0	N 19 11.4 +00.6	332 42.6 -00.7	N 21 56.5 +00.6	272 04.5 -27.4	N 13 41.1 -07.8	11						
12	0 54.8 -00.1	N 19 12.0 +00.6	347 41.9 -00.8	N 21 57.1 +00.5	286 37.1 -27.4	N 13 33.3 -07.8	12						
13	15 54.7 +00.0	N 19 12.6 +00.6	2 41.1 -00.8	N 21 57.6 +00.6	301 09.7 -27.3	N 13 25.5 -07.9	13						
14	30 54.7 +00.0	N 19 13.2 +00.5	17 40.3 -00.8	N 21 58.2 +00.6	315 42.4 -27.3	N 13 17.6 -08.0	14						
15	45 54.7 +00.0	N 19 13.7 +00.6	32 39.5 -00.8	N 21 58.8 +00.6	330 15.1 -27.4	N 13 09.6 -08.0	15						
16	60 54.7 +00.0	N 19 14.3 +00.6	47 38.7 -00.8	N 21 59.4 +00.6	344 47.7 -27.3	N 13 01.6 -08.1	16						
17	75 54.7 +00.0	N 19 14.9 +00.5	62 37.9 -00.8	N 21 60.0 +00.5	359 20.4 -27.3	N 12 53.5 -08.2	17						
18	90 54.7 -00.1	N 19 15.4 +00.6	77 37.1 -00.8	N 22 00.5 +00.6	13 53.1 -27.3	N 12 45.3 -08.2	18						
19	105 54.6 +00.0	N 19 16.0 +00.6	92 36.3 -00.7	N 22 01.1 +00.6	28 25.8 -27.2	N 12 37.1 -08.3	19						
20	120 54.6 +00.0	N 19 16.6 +00.5	107 35.6 -00.8	N 22 01.7 +00.6	42 58.6 -27.3	N 12 28.8 -08.3	20						
21	135 54.6 +00.0	N 19 17.1 +00.6	122 34.8 -00.8	N 22 02.3 +00.5	57 31.3 -27.3	N 12 20.5 -08.4	21						
22	150 54.6 +00.0	N 19 17.7 +00.6	137 34.0 -00.8	N 22 02.8 +00.6	72 04.0 -27.2	N 12 12.1 -08.5	22						
23	165 54.6 +00.0	N 19 18.3 +00.5	152 33.2 -00.8	N 22 03.4 +00.6	86 36.8 -27.2	N 12 03.6 -08.5	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	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 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 12:49	UT 02 06 10 14 18 22	SD 14'8 14'8 14'9 14'9 14'9 14'9	HP 54'4 54'5 54'6 54'6 54'7 54'8	Greenwich Culmination Time: 17:03		

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	187 26.4 +00.6	N 17 19.9 +00.5	153 59.0 +01.8	N 22 49.3 +00.0	18 24.8 +02.6	S 11 18.0 +00.0	00						
01	202 27.0 +00.6	N 17 20.4 +00.6	169 00.8 +01.9	N 22 49.3 +00.1	33 27.4 +02.7	S 11 18.0 -00.1	01						
02	217 27.6 +00.7	N 17 21.0 +00.5	184 02.7 +01.9	N 22 49.4 +00.0	48 30.1 +02.6	S 11 17.9 +00.0	02						
03	232 28.3 +00.6	N 17 21.5 +00.5	199 04.6 +01.9	N 22 49.4 +00.0	63 32.7 +02.6	S 11 17.9 -00.1	03						
04	247 28.9 +00.6	N 17 22.0 +00.5	214 06.5 +01.8	N 22 49.4 +00.1	78 35.3 +02.7	S 11 17.8 +00.0	04						
05	262 29.5 +00.7	N 17 22.5 +00.6	229 08.3 +01.9	N 22 49.5 +00.0	93 38.0 +02.6	S 11 17.8 -00.1	05						
06	277 30.2 +00.6	N 17 23.1 +00.5	244 10.2 +01.9	N 22 49.5 +00.1	108 40.6 +02.6	S 11 17.7 +00.0	06						
07	292 30.8 +00.7	N 17 23.6 +00.5	259 12.1 +01.8	N 22 49.6 +00.0	123 43.2 +02.7	S 11 17.7 -00.1	07						
08	307 31.5 +00.6	N 17 24.1 +00.5	274 13.9 +01.9	N 22 49.6 +00.1	138 45.9 +02.6	S 11 17.6 -00.1	08						
09	322 32.1 +00.6	N 17 24.6 +00.6	289 15.8 +01.9	N 22 49.7 +00.0	153 48.5 +02.6	S 11 17.5 +00.0	09						
10	337 32.7 +00.7	N 17 25.2 +00.5	304 17.7 +01.9	N 22 49.7 +00.0	168 51.1 +02.7	S 11 17.5 -00.1	10						
11	352 33.4 +00.6	N 17 25.7 +00.5	319 19.6 +01.8	N 22 49.7 +00.1	183 53.8 +02.6	S 11 17.4 +00.0	11						
12	7 34.0 +00.6	N 17 26.2 +00.5	334 21.4 +01.9	N 22 49.8 +00.0	198 56.4 +02.6	S 11 17.4 -00.1	12						
13	22 34.6 +00.7	N 17 26.7 +00.5	349 23.3 +01.9	N 22 49.8 +00.1	213 59.0 +02.7	S 11 17.3 +00.0	13						
14	37 35.3 +00.6	N 17 27.2 +00.6	4 25.2 +01.8	N 22 49.9 +00.0	229 01.7 +02.6	S 11 17.3 -00.1	14						
15	52 35.9 +00.7	N 17 27.8 +00.5	19 27.0 +01.9	N 22 49.9 +00.1	244 04.3 +02.6	S 11 17.2 +00.0	15						
16	67 36.6 +00.6	N 17 28.3 +00.5	34 28.9 +01.9	N 22 50.0 +00.0	259 06.9 +02.7	S 11 17.2 -00.1	16						
17	82 37.2 +00.6	N 17 28.8 +00.5	49 30.8 +01.9	N 22 50.0 +00.0	274 09.6 +02.6	S 11 17.1 +00.0	17						
18	97 37.8 +00.7	N 17 29.3 +00.5	64 32.7 +01.8	N 22 50.0 +00.1	289 12.2 +02.6	S 11 17.1 -00.1	18						
19	112 38.5 +00.6	N 17 29.8 +00.6	79 34.5 +01.9	N 22 50.1 +00.0	304 14.8 +02.7	S 11 17.0 +00.0	19						
20	127 39.1 +00.6	N 17 30.4 +00.5	94 36.4 +01.9	N 22 50.1 +00.1	319 17.5 +02.6	S 11 17.0 -00.1	20						
21	142 39.7 +00.7	N 17 30.9 +00.5	109 38.3 +01.8	N 22 50.2 +00.0	334 20.1 +02.6	S 11 16.9 +00.0	21						
22	157 40.4 +00.6	N 17 31.4 +00.5	124 40.1 +01.9	N 22 50.2 +00.1	349 22.7 +02.7	S 11 16.9 -00.1	22						
23	172 41.0 +00.6	N 17 31.9 +00.5	139 42.0 +01.9	N 22 50.3 +00.0	4 25.4 +02.6	S 11 16.8 +00.0	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:30	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 13:42	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	Greenwich Culmination Time: 22:42		

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> $a = 0.24$					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 54.6 -00.1	N 19	18.8 +00.6		167 32.4 -00.8	N 22	04.0 +00.6		101 09.6 -27.3	N 11	55.1 -08.6		00		
01	195 54.5 +00.0	N 19	19.4 +00.5		182 31.6 -00.8	N 22	04.6 +00.5		115 42.3 -27.2	N 11	46.5 -08.6		01		
02	210 54.5 +00.0	N 19	19.9 +00.6		197 30.8 -00.8	N 22	05.1 +00.6		130 15.1 -27.2	N 11	37.9 -08.7		02		
03	225 54.5 +00.0	N 19	20.5 +00.6		212 30.0 -00.8	N 22	05.7 +00.6		144 47.9 -27.2	N 11	29.2 -08.7		03		
04	240 54.5 +00.0	N 19	21.1 +00.5		227 29.2 -00.8	N 22	06.3 +00.5		159 20.7 -27.2	N 11	20.5 -08.8		04		
05	255 54.5 -00.1	N 19	21.6 +00.6		242 28.4 -00.8	N 22	06.8 +00.6		173 53.5 -27.1	N 11	11.7 -08.9		05		
06	270 54.4 +00.0	N 19	22.2 +00.6		257 27.6 -00.8	N 22	07.4 +00.6		188 26.4 -27.2	N 11	02.8 -08.9		06		
07	285 54.4 +00.0	N 19	22.8 +00.5		272 26.8 -00.8	N 22	08.0 +00.5		202 59.2 -27.2	N 10	53.9 -09.0		07		
08	300 54.4 +00.0	N 19	23.3 +00.6		287 26.0 -00.8	N 22	08.5 +00.6		217 32.0 -27.2	N 10	44.9 -09.0		08		
09	315 54.4 +00.0	N 19	23.9 +00.5		302 25.2 -00.8	N 22	09.1 +00.6		232 04.8 -27.1	N 10	35.9 -09.1		09		
10	330 54.4 -00.1	N 19	24.4 +00.6		317 24.4 -00.7	N 22	09.7 +00.5		246 37.7 -27.2	N 10	26.8 -09.1		10		
11	345 54.3 +00.0	N 19	25.0 +00.5		332 23.7 -00.8	N 22	10.2 +00.6		261 10.5 -27.1	N 10	17.7 -09.2		11		
12	0 54.3 +00.0	N 19	25.5 +00.6		347 22.9 -00.8	N 22	10.8 +00.5		275 43.4 -27.2	N 10	08.5 -09.2		12		
13	15 54.3 +00.0	N 19	26.1 +00.6		2 22.1 -00.8	N 22	11.3 +00.6		290 16.2 -27.1	N 09	59.3 -09.3		13		
14	30 54.3 +00.0	N 19	26.7 +00.5		17 21.3 -00.8	N 22	11.9 +00.6		304 49.1 -27.2	N 09	50.0 -09.3		14		
15	45 54.3 -00.1	N 19	27.2 +00.6		32 20.5 -00.8	N 22	12.5 +00.5		319 21.9 -27.1	N 09	40.7 -09.4		15		
16	60 54.2 +00.0	N 19	27.8 +00.5		47 19.7 -00.8	N 22	13.0 +00.6		333 54.8 -27.2	N 09	31.3 -09.4		16		
17	75 54.2 +00.0	N 19	28.3 +00.6		62 18.9 -00.8	N 22	13.6 +00.5		348 27.6 -27.1	N 09	21.9 -09.5		17		
18	90 54.2 +00.0	N 19	28.9 +00.5		77 18.1 -00.8	N 22	14.1 +00.6		3 00.5 -27.2	N 09	12.4 -09.6		18		
19	105 54.2 -00.1	N 19	29.4 +00.6		92 17.3 -00.8	N 22	14.7 +00.5		17 33.3 -27.1	N 09	02.8 -09.5		19		
20	120 54.1 +00.0	N 19	30.0 +00.5		107 16.5 -00.8	N 22	15.2 +00.6		32 06.2 -27.2	N 08	53.3 -09.7		20		
21	135 54.1 +00.0	N 19	30.5 +00.6		122 15.7 -00.8	N 22	15.8 +00.5		46 39.0 -27.1	N 08	43.6 -09.7		21		
22	150 54.1 +00.0	N 19	31.1 +00.5		137 14.9 -00.8	N 22	16.3 +00.6		61 11.9 -27.2	N 08	33.9 -09.7		22		
23	165 54.1 +00.0	N 19	31.6 +00.6		152 14.1 -00.8	N 22	16.9 +00.5		75 44.7 -27.1	N 08	24.2 -09.7		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 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 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 12:51					UT 02 06 10 14 18 22 SD 15'0 15'0 15'0 15'0 15'1 15'1 HP 54'9 55'0 55'1 55'2 55'3 55'4 Greenwich Culmination Time: 17:48					

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	187 41.6 +00.7	N 17	32.4 +00.6		154 43.9 +01.8	N 22	50.3 +00.0		19 28.0 +02.6	S 11	16.8 -00.1		00		
01	202 42.3 +00.6	N 17	33.0 +00.5		169 45.7 +01.9	N 22	50.3 +00.1		34 30.6 +02.7	S 11	16.7 +00.0		01		
02	217 42.9 +00.6	N 17	33.5 +00.5		184 47.6 +01.9	N 22	50.4 +00.0		49 33.3 +02.6	S 11	16.7 -00.1		02		
03	232 43.5 +00.7	N 17	34.0 +00.5		199 49.5 +01.8	N 22	50.4 +00.1		64 35.9 +02.6	S 11	16.6 +00.0		03		
04	247 44.2 +00.6	N 17	34.5 +00.5		214 51.3 +01.9	N 22	50.5 +00.0		79 38.5 +02.7	S 11	16.6 -00.1		04		
05	262 44.8 +00.7	N 17	35.0 +00.5		229 53.2 +01.9	N 22	50.5 +00.0		94 41.2 +02.6	S 11	16.5 +00.0		05		
06	277 45.5 +00.6	N 17	35.5 +00.6		244 55.1 +01.9	N 22	50.5 +00.1		109 43.8 +02.6	S 11	16.5 -00.1		06		
07	292 46.1 +00.6	N 17	36.1 +00.5		259 57.0 +01.8	N 22	50.6 +00.0		124 46.4 +02.7	S 11	16.4 +00.0		07		
08	307 46.7 +00.7	N 17	36.6 +00.5		274 58.8 +01.9	N 22	50.6 +00.1		139 49.1 +02.6	S 11	16.4 -00.1		08		
09	322 47.4 +00.6	N 17	37.1 +00.5		290 00.7 +01.9	N 22	50.7 +00.0		154 51.7 +02.6	S 11	16.3 +00.0		09		
10	337 48.0 +00.6	N 17	37.6 +00.5		305 02.6 +01.8	N 22	50.7 +00.1		169 54.3 +02.7	S 11	16.3 -00.1		10		
11	352 48.6 +00.7	N 17	38.1 +00.5		320 04.4 +01.9	N 22	50.8 +00.0		184 57.0 +02.6	S 11	16.2 +00.0		11		
12	7 49.3 +00.6	N 17	38.6 +00.5		335 06.3 +01.9	N 22	50.8 +00.0		199 59.6 +02.6	S 11	16.2 -00.1		12		
13	22 49.9 +00.6	N 17	39.1 +00.6		350 08.2 +01.8	N 22	50.8 +00.1		215 02.2 +02.7	S 11	16.1 +00.0		13		
14	37 50.5 +00.7	N 17	39.7 +00.5		5 10.0 +01.9	N 22	50.9 +00.0		230 04.9 +02.6	S 11	16.1 -00.1		14		
15	52 51.2 +00.6	N 17	40.2 +00.5		20 11.9 +01.9	N 22	50.9 +00.1		245 07.5 +02.6	S 11	16.0 +00.0		15		
16	67 51.8 +00.6	N 17	40.7 +00.5		35 13.8 +01.8	N 22	51.0 +00.0		260 10.1 +02.6	S 11	16.0 -00.1		16		
17	82 52.4 +00.7	N 17	41.2 +00.5		50 15.6 +01.9	N 22	51.0 +00.0		275 12.7 +02.7	S 11	15.9 +00.0		17		
18	97 53.1 +00.6	N 17	41.7 +00.5		65 17.5 +01.9	N 22	51.0 +00.1		290 15.4 +02.6	S 11	15.9 -00.1		18		
19	112 53.7 +00.6	N 17	42.2 +00.5		80 19.4 +01.9	N 22	51.1 +00.0		305 18.0 +02.6	S 11	15.8 +00.0		19		
20	127 54.3 +00.7	N 17	42.7 +00.5		95 21.3 +01.8	N 22	51.1 +00.1		320 20.6 +02.7	S 11	15.8 -00.1		20		
21	142 55.0 +00.6	N 17	43.2 +00.6		110 23.1 +01.9	N 22	51.2 +00.0		335 23.3 +02.6	S 11	15.7 -00.1		21		
22	157 55.6 +00.6	N 17	43.8 +00.5		125 25.0 +01.9	N 22	51.2 +00.1		350 25.9 +02.6	S 11	15.6 +00.0		22		
23	172 56.2 +00.7	N 17	44.3 +00.5		140 26.9 +01.8	N 22	51.3 +00.0		5 28.5 +02.7	S 11	15.6 -00.1		23		
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:29					UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 13:39					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 Greenwich Culmination Time: 22:38					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> <i>a</i> = 0.27				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 54.1 -00.1	N 19 32.2 +00.5	167 13.3 -00.8	N 22 17.4 +00.6	90 17.6 -27.2	N 08 14.5 -09.9	00						
01	195 54.0 +00.0	N 19 32.7 +00.6	182 12.5 -00.8	N 22 18.0 +00.5	104 50.4 -27.2	N 08 04.6 -09.8	01						
02	210 54.0 +00.0	N 19 33.3 +00.5	197 11.7 -00.8	N 22 18.5 +00.5	119 23.2 -27.1	N 07 54.8 -09.9	02						
03	225 54.0 +00.0	N 19 33.8 +00.6	212 10.9 -00.8	N 22 19.0 +00.6	133 56.1 -27.2	N 07 44.9 -10.0	03						
04	240 54.0 -00.1	N 19 34.4 +00.5	227 10.1 -00.8	N 22 19.6 +00.5	148 28.9 -27.2	N 07 34.9 -10.0	04						
05	255 53.9 +00.0	N 19 34.9 +00.6	242 09.3 -00.8	N 22 20.1 +00.6	163 01.7 -27.2	N 07 24.9 -10.0	05						
06	270 53.9 +00.0	N 19 35.5 +00.5	257 08.5 -00.9	N 22 20.7 +00.5	177 34.5 -27.2	N 07 14.9 -10.1	06						
07	285 53.9 +00.0	N 19 36.0 +00.6	272 07.6 -00.8	N 22 21.2 +00.5	192 07.3 -27.3	N 07 04.8 -10.1	07						
08	300 53.9 -00.1	N 19 36.6 +00.5	287 06.8 -00.8	N 22 21.7 +00.6	206 40.0 -27.2	N 06 54.7 -10.2	08						
09	315 53.8 +00.0	N 19 37.1 +00.6	302 06.0 -00.8	N 22 22.3 +00.5	221 12.8 -27.2	N 06 44.5 -10.2	09						
10	330 53.8 +00.0	N 19 37.7 +00.5	317 05.2 -00.8	N 22 22.8 +00.5	235 45.6 -27.3	N 06 34.3 -10.2	10						
11	345 53.8 +00.0	N 19 38.2 +00.5	332 04.4 -00.8	N 22 23.3 +00.6	250 18.3 -27.2	N 06 24.1 -10.3	11						
12	0 53.8 -00.1	N 19 38.7 +00.6	347 03.6 -00.8	N 22 23.9 +00.5	264 51.1 -27.3	N 06 13.8 -10.4	12						
13	15 53.7 +00.0	N 19 39.3 +00.5	2 02.8 -00.8	N 22 24.4 +00.5	279 23.8 -27.3	N 06 03.4 -10.3	13						
14	30 53.7 +00.0	N 19 39.8 +00.6	17 02.0 -00.8	N 22 24.9 +00.6	293 56.5 -27.3	N 05 53.1 -10.4	14						
15	45 53.7 -00.1	N 19 40.4 +00.5	32 01.2 -00.8	N 22 25.5 +00.5	308 29.2 -27.3	N 05 42.7 -10.5	15						
16	60 53.6 +00.0	N 19 40.9 +00.6	47 00.4 -00.8	N 22 26.0 +00.5	323 01.9 -27.4	N 05 32.2 -10.4	16						
17	75 53.6 +00.0	N 19 41.5 +00.5	61 59.6 -00.8	N 22 26.5 +00.6	337 34.5 -27.3	N 05 21.8 -10.5	17						
18	90 53.6 +00.0	N 19 42.0 +00.5	76 58.8 -00.8	N 22 27.1 +00.5	352 07.2 -27.4	N 05 11.3 -10.6	18						
19	105 53.6 -00.1	N 19 42.5 +00.6	91 58.0 -00.8	N 22 27.6 +00.5	6 39.8 -27.4	N 05 00.7 -10.6	19						
20	120 53.5 +00.0	N 19 43.1 +00.5	106 57.2 -00.8	N 22 28.1 +00.5	21 12.4 -27.4	N 04 50.1 -10.6	20						
21	135 53.5 +00.0	N 19 43.6 +00.6	121 56.4 -00.9	N 22 28.6 +00.6	35 45.0 -27.5	N 04 39.5 -10.6	21						
22	150 53.5 -00.1	N 19 44.2 +00.5	136 55.5 -00.8	N 22 29.2 +00.5	50 17.5 -27.4	N 04 28.9 -10.7	22						
23	165 53.4 +00.0	N 19 44.7 +00.5	151 54.7 -00.8	N 22 29.7 +00.5	64 50.1 -27.5	N 04 18.2 -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 00'1 00'1 00'1 00'1 00'1 00'1				SD 15'1 15'1 15'2 15'2 15'2 15'3					
HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 55'5 55'6 55'7 55'8 56'0 56'1					
Greenwich Culmination Time: 11:56				Greenwich Culmination Time: 12:52				Greenwich Culmination Time: 18:33					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	187 56.9 +00.6	N 17 44.8 +00.5	155 28.7 +01.9	N 22 51.3 +00.0	20 31.2 +02.6	S 11 15.5 +00.0	00						
01	202 57.5 +00.6	N 17 45.3 +00.5	170 30.6 +01.9	N 22 51.3 +00.1	35 33.8 +02.6	S 11 15.5 -00.1	01						
02	217 58.1 +00.7	N 17 45.8 +00.5	185 32.5 +01.8	N 22 51.4 +00.0	50 36.4 +02.7	S 11 15.4 +00.0	02						
03	232 58.8 +00.6	N 17 46.3 +00.5	200 34.3 +01.9	N 22 51.4 +00.1	65 39.1 +02.6	S 11 15.4 -00.1	03						
04	247 59.4 +00.6	N 17 46.8 +00.5	215 36.2 +01.9	N 22 51.5 +00.0	80 41.7 +02.6	S 11 15.3 +00.0	04						
05	263 00.0 +00.7	N 17 47.3 +00.5	230 38.1 +01.8	N 22 51.5 +00.0	95 44.3 +02.6	S 11 15.3 -00.1	05						
06	278 00.7 +00.6	N 17 47.8 +00.5	245 39.9 +01.9	N 22 51.5 +00.1	110 46.9 +02.7	S 11 15.2 +00.0	06						
07	293 01.3 +00.6	N 17 48.3 +00.5	260 41.8 +01.9	N 22 51.6 +00.0	125 49.6 +02.6	S 11 15.2 -00.1	07						
08	308 01.9 +00.7	N 17 48.8 +00.6	275 43.7 +01.8	N 22 51.6 +00.1	140 52.2 +02.6	S 11 15.1 +00.0	08						
09	323 02.6 +00.6	N 17 49.4 +00.5	290 45.5 +01.9	N 22 51.7 +00.0	155 54.8 +02.7	S 11 15.1 -00.1	09						
10	338 03.2 +00.6	N 17 49.9 +00.5	305 47.4 +01.9	N 22 51.7 +00.1	170 57.5 +02.6	S 11 15.0 +00.0	10						
11	353 03.8 +00.7	N 17 50.4 +00.5	320 49.3 +01.8	N 22 51.8 +00.0	186 00.1 +02.6	S 11 15.0 -00.1	11						
12	8 04.5 +00.6	N 17 50.9 +00.5	335 51.1 +01.9	N 22 51.8 +00.0	201 02.7 +02.7	S 11 14.9 +00.0	12						
13	23 05.1 +00.6	N 17 51.4 +00.5	350 53.0 +01.9	N 22 51.8 +00.1	216 05.4 +02.6	S 11 14.9 -00.1	13						
14	38 05.7 +00.7	N 17 51.9 +00.5	5 54.9 +01.8	N 22 51.9 +00.0	231 08.0 +02.6	S 11 14.8 +00.0	14						
15	53 06.4 +00.6	N 17 52.4 +00.5	20 56.7 +01.9	N 22 51.9 +00.1	246 10.6 +02.6	S 11 14.8 -00.1	15						
16	68 07.0 +00.6	N 17 52.9 +00.5	35 58.6 +01.9	N 22 52.0 +00.0	261 13.2 +02.7	S 11 14.7 +00.0	16						
17	83 07.6 +00.7	N 17 53.4 +00.5	51 00.5 +01.8	N 22 52.0 +00.0	276 15.9 +02.6	S 11 14.7 -00.1	17						
18	98 08.3 +00.6	N 17 53.9 +00.5	66 02.3 +01.9	N 22 52.0 +00.1	291 18.5 +02.6	S 11 14.6 +00.0	18						
19	113 08.9 +00.6	N 17 54.4 +00.5	81 04.2 +01.9	N 22 52.1 +00.0	306 21.1 +02.7	S 11 14.6 -00.1	19						
20	128 09.5 +00.7	N 17 54.9 +00.5	96 06.1 +01.8	N 22 52.1 +00.1	321 23.8 +02.6	S 11 14.5 +00.0	20						
21	143 10.2 +00.6	N 17 55.4 +00.5	111 07.9 +01.9	N 22 52.2 +00.0	336 26.4 +02.6	S 11 14.5 -00.1	21						
22	158 10.8 +00.6	N 17 55.9 +00.5	126 09.8 +01.9	N 22 52.2 +00.0	351 29.0 +02.7	S 11 14.4 +00.0	22						
23	173 11.4 +00.7	N 17 56.4 +00.5	141 11.7 +01.8	N 22 52.2 +00.1	6 31.7 +02.6	S 11 14.4 -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 00'0 00'0 00'0 00'0 00'0 00'0				SD 00'3 00'3 00'3 00'3 00'3 00'3				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 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0					
Greenwich Culmination Time: 11:28				Greenwich Culmination Time: 13:36				Greenwich Culmination Time: 22:34					

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.30					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 53.4 +00.0	N 19	45.2 +00.6		166 53.9 -00.8	N 22	30.2 +00.5		79 22.6 -27.5	N 04	07.5 -10.8		00		
01	195 53.4 +00.0	N 19	45.8 +00.5		181 53.1 -00.8	N 22	30.7 +00.5		93 55.1 -27.5	N 03	56.7 -10.8		01		
02	210 53.4 -00.1	N 19	46.3 +00.5		196 52.3 -00.8	N 22	31.2 +00.6		108 27.6 -27.6	N 03	45.9 -10.8		02		
03	225 53.3 +00.0	N 19	46.8 +00.6		211 51.5 -00.8	N 22	31.8 +00.5		123 00.0 -27.5	N 03	35.1 -10.8		03		
04	240 53.3 +00.0	N 19	47.4 +00.5		226 50.7 -00.8	N 22	32.3 +00.5		137 32.5 -27.6	N 03	24.3 -10.9		04		
05	255 53.3 -00.1	N 19	47.9 +00.5		241 49.9 -00.8	N 22	32.8 +00.5		152 04.9 -27.7	N 03	13.4 -10.9		05		
06	270 53.2 +00.0	N 19	48.4 +00.6		256 49.1 -00.9	N 22	33.3 +00.5		166 37.2 -27.6	N 03	02.5 -10.9		06		
07	285 53.2 +00.0	N 19	49.0 +00.5		271 48.2 -00.8	N 22	33.8 +00.5		181 09.6 -27.7	N 02	51.6 -11.0		07		
08	300 53.2 -00.1	N 19	49.5 +00.5		286 47.4 -00.8	N 22	34.3 +00.5		195 41.9 -27.7	N 02	40.6 -10.9		08		
09	315 53.1 +00.0	N 19	50.0 +00.6		301 46.6 -00.8	N 22	34.8 +00.5		210 14.2 -27.8	N 02	29.7 -11.0		09		
10	330 53.1 +00.0	N 19	50.6 +00.5		316 45.8 -00.8	N 22	35.3 +00.5		224 46.4 -27.7	N 02	18.7 -11.1		10		
11	345 53.1 +00.0	N 19	51.1 +00.5		331 45.0 -00.8	N 22	35.8 +00.6		239 18.7 -27.8	N 02	07.6 -11.0		11		
12	0 53.1 -00.1	N 19	51.6 +00.5		346 44.2 -00.8	N 22	36.4 +00.5		253 50.9 -27.9	N 01	56.6 -11.1		12		
13	15 53.0 +00.0	N 19	52.1 +00.6		1 43.4 -00.9	N 22	36.9 +00.5		268 23.0 -27.9	N 01	45.5 -11.1		13		
14	30 53.0 +00.0	N 19	52.7 +00.5		16 42.5 -00.8	N 22	37.4 +00.5		282 55.1 -27.9	N 01	34.4 -11.1		14		
15	45 53.0 -00.1	N 19	53.2 +00.5		31 41.7 -00.8	N 22	37.9 +00.5		297 27.2 -27.9	N 01	23.3 -11.2		15		
16	60 52.9 +00.0	N 19	53.7 +00.6		46 40.9 -00.8	N 22	38.4 +00.5		311 59.3 -28.0	N 01	12.1 -11.1		16		
17	75 52.9 +00.0	N 19	54.3 +00.5		61 40.1 -00.8	N 22	38.9 +00.5		326 31.3 -28.0	N 01	01.0 -11.2		17		
18	90 52.9 -00.1	N 19	54.8 +00.5		76 39.3 -00.8	N 22	39.4 +00.5		341 03.3 -28.1	N 00	49.8 -11.2		18		
19	105 52.8 +00.0	N 19	55.3 +00.5		91 38.5 -00.9	N 22	39.9 +00.5		355 35.2 -28.0	N 00	38.6 -11.2		19		
20	120 52.8 +00.0	N 19	55.8 +00.6		106 37.6 -00.8	N 22	40.4 +00.5		10 07.2 -28.2	N 00	27.4 -11.3		20		
21	135 52.8 -00.1	N 19	56.4 +00.5		121 36.8 -00.8	N 22	40.9 +00.5		24 39.0 -28.2	N 00	16.1 -11.2		21		
22	150 52.7 +00.0	N 19	56.9 +00.5		136 36.0 -00.8	N 22	41.4 +00.5		39 10.8 -28.2	N 00	04.9 -11.3		22		
23	165 52.7 +00.0	N 19	57.4 +00.5		151 35.2 -00.8	N 22	41.9 +00.4		53 42.6 -28.2	S 00	06.4 +11.3		23		
UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8				SD 00'1 00'1 00'1 00'1 00'1 00'1				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 00'1 00'1 00'1 00'1 00'1 00'1				HP 56'2 56'4 56'5 56'6 56'8 56'9						
	Greenwich Culmination Time: 11:56				Greenwich Culmination Time: 12:53				Greenwich Culmination Time: 19:18						

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	188 12.1 +00.6	N 17	56.9 +00.5		156 13.5 +01.9	N 22	52.3 +00.0		21 34.3 +02.6	S 11	14.3 +00.0		00		
01	203 12.7 +00.6	N 17	57.4 +00.5		171 15.4 +01.9	N 22	52.3 +00.1		36 36.9 +02.6	S 11	14.3 -00.1		01		
02	218 13.3 +00.7	N 17	57.9 +00.5		186 17.3 +01.8	N 22	52.4 +00.0		51 39.5 +02.7	S 11	14.2 +00.0		02		
03	233 14.0 +00.6	N 17	58.4 +00.5		201 19.1 +01.9	N 22	52.4 +00.0		66 42.2 +02.6	S 11	14.2 -00.1		03		
04	248 14.6 +00.6	N 17	58.9 +00.5		216 21.0 +01.9	N 22	52.4 +00.1		81 44.8 +02.6	S 11	14.1 +00.0		04		
05	263 15.2 +00.6	N 17	59.4 +00.5		231 22.9 +01.8	N 22	52.5 +00.0		96 47.4 +02.7	S 11	14.1 -00.1		05		
06	278 15.8 +00.7	N 17	59.9 +00.5		246 24.7 +01.9	N 22	52.5 +00.1		111 50.1 +02.6	S 11	14.0 +00.0		06		
07	293 16.5 +00.6	N 18	00.4 +00.5		261 26.6 +01.9	N 22	52.6 +00.0		126 52.7 +02.6	S 11	14.0 -00.1		07		
08	308 17.1 +00.6	N 18	00.9 +00.5		276 28.5 +01.8	N 22	52.6 +00.0		141 55.3 +02.6	S 11	13.9 +00.0		08		
09	323 17.7 +00.7	N 18	01.4 +00.5		291 30.3 +01.9	N 22	52.6 +00.1		156 57.9 +02.7	S 11	13.9 -00.1		09		
10	338 18.4 +00.6	N 18	01.9 +00.5		306 32.2 +01.9	N 22	52.7 +00.0		172 00.6 +02.6	S 11	13.8 +00.0		10		
11	353 19.0 +00.6	N 18	02.4 +00.5		321 34.1 +01.8	N 22	52.7 +00.1		187 03.2 +02.6	S 11	13.8 -00.1		11		
12	8 19.6 +00.7	N 18	02.9 +00.5		336 35.9 +01.9	N 22	52.8 +00.0		202 05.8 +02.7	S 11	13.7 +00.0		12		
13	23 20.3 +00.6	N 18	03.4 +00.5		351 37.8 +01.9	N 22	52.8 +00.0		217 08.5 +02.6	S 11	13.7 -00.1		13		
14	38 20.9 +00.6	N 18	03.9 +00.5		6 39.7 +01.8	N 22	52.8 +00.1		232 11.1 +02.6	S 11	13.6 +00.0		14		
15	53 21.5 +00.7	N 18	04.4 +00.5		21 41.5 +01.9	N 22	52.9 +00.0		247 13.7 +02.6	S 11	13.6 -00.1		15		
16	68 22.2 +00.6	N 18	04.9 +00.5		36 43.4 +01.9	N 22	52.9 +00.1		262 16.3 +02.7	S 11	13.5 +00.0		16		
17	83 22.8 +00.6	N 18	05.4 +00.5		51 45.3 +01.8	N 22	53.0 +00.0		277 19.0 +02.6	S 11	13.5 -00.1		17		
18	98 23.4 +00.6	N 18	05.9 +00.5		66 47.1 +01.9	N 22	53.0 +00.0		292 21.6 +02.6	S 11	13.4 +00.0		18		
19	113 24.0 +00.7	N 18	06.4 +00.5		81 49.0 +01.8	N 22	53.0 +00.1		307 24.2 +02.6	S 11	13.4 -00.1		19		
20	128 24.7 +00.6	N 18	06.9 +00.5		96 50.8 +01.9	N 22	53.1 +00.0		322 26.8 +02.7	S 11	13.3 +00.0		20		
21	143 25.3 +00.6	N 18	07.4 +00.5		111 52.7 +01.9	N 22	53.1 +00.1		337 29.5 +02.6	S 11	13.3 -00.1		21		
22	158 25.9 +00.7	N 18	07.9 +00.5		126 54.6 +01.8	N 22	53.2 +00.0		352 32.1 +02.6	S 11	13.2 +00.0		22		
23	173 26.6 +00.6	N 18	08.4 +00.5		141 56.4 +01.9	N 22	53.2 +00.0		7 34.7 +02.7	S 11	13.2 -00.1		23		
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0				SD 00'3 00'3 00'3 00'3 00'3 00'3				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 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0						
	Greenwich Culmination Time: 11:27				Greenwich Culmination Time: 13:33				Greenwich Culmination Time: 22:30						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.33$				UT	
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "		
00	180 52.7 -00.1	N 19	57.9 +00.5		166 34.4 -00.8	N 22	42.3 +00.5		68 14.4 -28.3	S 00	17.7 +11.3		00	
01	195 52.6 +00.0	N 19	58.4 +00.6		181 33.6 -00.9	N 22	42.8 +00.5		82 46.1 -28.4	S 00	29.0 +11.3		01	
02	210 52.6 -00.1	N 19	59.0 +00.5		196 32.7 -00.8	N 22	43.3 +00.5		97 17.7 -28.4	S 00	40.3 +11.3		02	
03	225 52.5 +00.0	N 19	59.5 +00.5		211 31.9 -00.8	N 22	43.8 +00.5		111 49.3 -28.4	S 00	51.6 +11.3		03	
04	240 52.5 +00.0	N 20	00.0 +00.5		226 31.1 -00.8	N 22	44.3 +00.5		126 20.9 -28.5	S 01	02.9 +11.4		04	
05	255 52.5 -00.1	N 20	00.5 +00.5		241 30.3 -00.8	N 22	44.8 +00.5		140 52.4 -28.5	S 01	14.3 +11.3		05	
06	270 52.4 +00.0	N 20	01.0 +00.6		256 29.5 -00.9	N 22	45.3 +00.5		155 23.9 -28.6	S 01	25.6 +11.4		06	
07	285 52.4 +00.0	N 20	01.6 +00.5		271 28.6 -00.8	N 22	45.8 +00.5		169 55.3 -28.6	S 01	37.0 +11.4		07	
08	300 52.4 -00.1	N 20	02.1 +00.5		286 27.8 -00.8	N 22	46.3 +00.4		184 26.7 -28.7	S 01	48.4 +11.4		08	
09	315 52.3 +00.0	N 20	02.6 +00.5		301 27.0 -00.8	N 22	46.7 +00.5		198 58.0 -28.7	S 01	59.8 +11.3		09	
10	330 52.3 +00.0	N 20	03.1 +00.5		316 26.2 -00.9	N 22	47.2 +00.5		213 29.3 -28.8	S 02	11.1 +11.4		10	
11	345 52.3 -00.1	N 20	03.6 +00.5		331 25.3 -00.8	N 22	47.7 +00.5		228 00.5 -28.8	S 02	22.5 +11.4		11	
12	0 52.2 +00.0	N 20	04.1 +00.6		346 24.5 -00.8	N 22	48.2 +00.5		242 31.7 -28.9	S 02	33.9 +11.4		12	
13	15 52.2 -00.1	N 20	04.7 +00.5		1 23.7 -00.8	N 22	48.7 +00.4		257 02.8 -29.0	S 02	45.3 +11.4		13	
14	30 52.1 +00.0	N 20	05.2 +00.5		16 22.9 -00.9	N 22	49.1 +00.5		271 33.8 -29.0	S 02	56.7 +11.4		14	
15	45 52.1 +00.0	N 20	05.7 +00.5		31 22.0 -00.8	N 22	49.6 +00.5		286 04.8 -29.0	S 03	08.1 +11.4		15	
16	60 52.1 -00.1	N 20	06.2 +00.5		46 21.2 -00.8	N 22	50.1 +00.5		300 35.8 -29.1	S 03	19.5 +11.4		16	
17	75 52.0 +00.0	N 20	06.7 +00.5		61 20.4 -00.8	N 22	50.6 +00.4		315 06.7 -29.2	S 03	30.9 +11.4		17	
18	90 52.0 +00.0	N 20	07.2 +00.5		76 19.6 -00.9	N 22	51.0 +00.5		329 37.5 -29.2	S 03	42.3 +11.4		18	
19	105 52.0 -00.1	N 20	07.7 +00.5		91 18.7 -00.8	N 22	51.5 +00.5		344 08.3 -29.3	S 03	53.7 +11.4		19	
20	120 51.9 +00.0	N 20	08.2 +00.6		106 17.9 -00.8	N 22	52.0 +00.5		358 39.0 -29.4	S 04	05.1 +11.4		20	
21	135 51.9 -00.1	N 20	08.8 +00.5		121 17.1 -00.8	N 22	52.5 +00.4		13 09.6 -29.4	S 04	16.5 +11.4		21	
22	150 51.8 +00.0	N 20	09.3 +00.5		136 16.3 -00.9	N 22	52.9 +00.5		27 40.2 -29.5	S 04	27.9 +11.4		22	
23	165 51.8 +00.0	N 20	09.8 +00.5		151 15.4 -00.8	N 22	53.4 +00.5		42 10.7 -29.5	S 04	39.3 +11.4		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	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	UT 02 06 10 14 18 22	SD 15'6 15'6 15'6 15'7 15'7 15'8			HP 57'1 57'2 57'4 57'5 57'7 57'9
Greenwich Culmination Time: 11:57					Greenwich Culmination Time: 12:54					Greenwich Culmination Time: 20:06				

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT	
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "		
00	188 27.2 +00.6	N 18	08.9 +00.5		156 58.3 +01.9	N 22	53.2 +00.1		22 37.4 +02.6	S 11	13.1 +00.0		00	
01	203 27.8 +00.7	N 18	09.4 +00.5		172 00.2 +01.8	N 22	53.3 +00.0		37 40.0 +02.6	S 11	13.1 +00.0		01	
02	218 28.5 +00.6	N 18	09.9 +00.5		187 02.0 +01.9	N 22	53.3 +00.1		52 42.6 +02.6	S 11	13.1 -00.1		02	
03	233 29.1 +00.6	N 18	10.4 +00.5		202 03.9 +01.9	N 22	53.4 +00.0		67 45.2 +02.7	S 11	13.0 +00.0		03	
04	248 29.7 +00.6	N 18	10.9 +00.5		217 05.8 +01.8	N 22	53.4 +00.0		82 47.9 +02.6	S 11	13.0 -00.1		04	
05	263 30.3 +00.7	N 18	11.4 +00.5		232 07.6 +01.9	N 22	53.4 +00.1		97 50.5 +02.6	S 11	12.9 +00.0		05	
06	278 31.0 +00.6	N 18	11.9 +00.5		247 09.5 +01.9	N 22	53.5 +00.0		112 53.1 +02.6	S 11	12.9 -00.1		06	
07	293 31.6 +00.6	N 18	12.4 +00.5		262 11.4 +01.8	N 22	53.5 +00.1		127 55.7 +02.7	S 11	12.8 +00.0		07	
08	308 32.2 +00.7	N 18	12.9 +00.5		277 13.2 +01.9	N 22	53.6 +00.0		142 58.4 +02.6	S 11	12.8 -00.1		08	
09	323 32.9 +00.6	N 18	13.4 +00.4		292 15.1 +01.9	N 22	53.6 +00.0		158 01.0 +02.6	S 11	12.7 +00.0		09	
10	338 33.5 +00.6	N 18	13.8 +00.5		307 17.0 +01.8	N 22	53.6 +00.1		173 03.6 +02.6	S 11	12.7 -00.1		10	
11	353 34.1 +00.7	N 18	14.3 +00.5		322 18.8 +01.9	N 22	53.7 +00.0		188 06.2 +02.7	S 11	12.6 +00.0		11	
12	8 34.8 +00.6	N 18	14.8 +00.5		337 20.7 +01.8	N 22	53.7 +00.1		203 08.9 +02.6	S 11	12.6 -00.1		12	
13	23 35.4 +00.6	N 18	15.3 +00.5		352 22.5 +01.9	N 22	53.8 +00.0		218 11.5 +02.6	S 11	12.5 +00.0		13	
14	38 36.0 +00.6	N 18	15.8 +00.5		7 24.4 +01.9	N 22	53.8 +00.0		233 14.1 +02.7	S 11	12.5 -00.1		14	
15	53 36.6 +00.7	N 18	16.3 +00.5		22 26.3 +01.8	N 22	53.8 +00.1		248 16.8 +02.6	S 11	12.4 +00.0		15	
16	68 37.3 +00.6	N 18	16.8 +00.5		37 28.1 +01.9	N 22	53.9 +00.0		263 19.4 +02.6	S 11	12.4 -00.1		16	
17	83 37.9 +00.6	N 18	17.3 +00.5		52 30.0 +01.9	N 22	53.9 +00.1		278 22.0 +02.6	S 11	12.3 +00.0		17	
18	98 38.5 +00.7	N 18	17.8 +00.5		67 31.9 +01.8	N 22	54.0 +00.0		293 24.6 +02.7	S 11	12.3 -00.1		18	
19	113 39.2 +00.6	N 18	18.3 +00.5		82 33.7 +01.9	N 22	54.0 +00.0		308 27.3 +02.6	S 11	12.2 +00.0		19	
20	128 39.8 +00.6	N 18	18.8 +00.4		97 35.6 +01.8	N 22	54.0 +00.1		323 29.9 +02.6	S 11	12.2 -00.1		20	
21	143 40.4 +00.6	N 18	19.2 +00.5		112 37.4 +01.9	N 22	54.1 +00.0		338 32.5 +02.6	S 11	12.1 +00.0		21	
22	158 41.0 +00.7	N 18	19.7 +00.5		127 39.3 +01.9	N 22	54.1 +00.1		353 35.1 +02.7	S 11	12.1 -00.1		22	
23	173 41.7 +00.6	N 18	20.2 +00.5		142 41.2 +01.8	N 22	54.2 +00.0		8 37.8 +02.6	S 11	12.0 +00.0		23	
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3			HP 00'0 00'0 00'0 00'0 00'0 00'0	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
Greenwich Culmination Time: 11:26					Greenwich Culmination Time: 13:30					Greenwich Culmination Time: 22:26				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> $a = 0.36$					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 51.8 -00.1	N 20	10.3 +00.5		166 14.6 -00.8	N 22	53.9 +00.4		56 41.2 -29.6	S 04	50.7 +11.3		00		
01	195 51.7 +00.0	N 20	10.8 +00.5		181 13.8 -00.8	N 22	54.3 +00.5		71 11.6 -29.7	S 05	02.0 +11.4		01		
02	210 51.7 -00.1	N 20	11.3 +00.5		196 13.0 -00.9	N 22	54.8 +00.4		85 41.9 -29.7	S 05	13.4 +11.3		02		
03	225 51.6 +00.0	N 20	11.8 +00.5		211 12.1 -00.8	N 22	55.2 +00.5		100 12.2 -29.8	S 05	24.7 +11.4		03		
04	240 51.6 +00.0	N 20	12.3 +00.5		226 11.3 -00.8	N 22	55.7 +00.5		114 42.4 -29.9	S 05	36.1 +11.3		04		
05	255 51.6 -00.1	N 20	12.8 +00.5		241 10.5 -00.9	N 22	56.2 +00.4		129 12.5 -29.9	S 05	47.4 +11.3		05		
06	270 51.5 +00.0	N 20	13.3 +00.5		256 09.6 -00.8	N 22	56.6 +00.5		143 42.6 -30.0	S 05	58.7 +11.3		06		
07	285 51.5 -00.1	N 20	13.8 +00.5		271 08.8 -00.8	N 22	57.1 +00.4		158 12.6 -30.1	S 06	10.0 +11.3		07		
08	300 51.4 +00.0	N 20	14.3 +00.5		286 08.0 -00.8	N 22	57.5 +00.5		172 42.5 -30.1	S 06	21.3 +11.2		08		
09	315 51.4 -00.1	N 20	14.8 +00.5		301 07.2 -00.9	N 22	58.0 +00.5		187 12.4 -30.2	S 06	32.5 +11.2		09		
10	330 51.3 +00.0	N 20	15.3 +00.5		316 06.3 -00.8	N 22	58.5 +00.4		201 42.2 -30.3	S 06	43.7 +11.3		10		
11	345 51.3 +00.0	N 20	15.8 +00.5		331 05.5 -00.8	N 22	58.9 +00.5		216 11.9 -30.4	S 06	55.0 +11.2		11		
12	0 51.3 -00.1	N 20	16.3 +00.5		346 04.7 -00.9	N 22	59.4 +00.4		230 41.5 -30.4	S 07	06.2 +11.1		12		
13	15 51.2 +00.0	N 20	16.8 +00.5		1 03.8 -00.8	N 22	59.8 +00.5		245 11.1 -30.5	S 07	17.3 +11.2		13		
14	30 51.2 -00.1	N 20	17.3 +00.5		16 03.0 -00.8	N 23	00.3 +00.4		259 40.6 -30.6	S 07	28.5 +11.1		14		
15	45 51.1 +00.0	N 20	17.8 +00.5		31 02.2 -00.9	N 23	00.7 +00.5		274 10.0 -30.7	S 07	39.6 +11.1		15		
16	60 51.1 -00.1	N 20	18.3 +00.5		46 01.3 -00.8	N 23	01.2 +00.4		288 39.3 -30.7	S 07	50.7 +11.1		16		
17	75 51.0 +00.0	N 20	18.8 +00.5		61 00.5 -00.8	N 23	01.6 +00.5		303 08.6 -30.8	S 08	01.8 +11.0		17		
18	90 51.0 +00.0	N 20	19.3 +00.5		75 59.7 -00.9	N 23	02.1 +00.4		317 37.8 -30.9	S 08	12.8 +11.0		18		
19	105 51.0 -00.1	N 20	19.8 +00.5		90 58.8 -00.8	N 23	02.5 +00.4		332 06.9 -31.0	S 08	23.8 +11.0		19		
20	120 50.9 +00.0	N 20	20.3 +00.5		105 58.0 -00.8	N 23	02.9 +00.5		346 35.9 -31.0	S 08	34.8 +10.9		20		
21	135 50.9 -00.1	N 20	20.8 +00.5		120 57.2 -00.9	N 23	03.4 +00.4		1 04.9 -31.2	S 08	45.7 +11.0		21		
22	150 50.8 +00.0	N 20	21.3 +00.5		135 56.3 -00.8	N 23	03.8 +00.5		15 33.7 -31.2	S 08	56.7 +10.8		22		
23	165 50.8 -00.1	N 20	21.8 +00.5		150 55.5 -00.8	N 23	04.3 +00.4		30 02.5 -31.3	S 09	07.5 +10.9		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 Greenwich Culmination Time: 11:57					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 Greenwich Culmination Time: 12:56					UT 02 06 10 14 18 22 SD 15'8 15'9 15'9 15'9 16'0 16'0 HP 58'0 58'2 58'3 58'5 58'7 58'8 Greenwich Culmination Time: 20:56					

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	188 42.3 +00.6	N 18	20.7 +00.5		157 43.0 +01.9	N 22	54.2 +00.0		23 40.4 +02.6	S 11	12.0 -00.1		00		
01	203 42.9 +00.7	N 18	21.2 +00.5		172 44.9 +01.9	N 22	54.2 +00.1		38 43.0 +02.6	S 11	11.9 +00.0		01		
02	218 43.6 +00.6	N 18	21.7 +00.5		187 46.8 +01.8	N 22	54.3 +00.0		53 45.6 +02.7	S 11	11.9 -00.1		02		
03	233 44.2 +00.6	N 18	22.2 +00.5		202 48.6 +01.9	N 22	54.3 +00.0		68 48.3 +02.6	S 11	11.8 +00.0		03		
04	248 44.8 +00.6	N 18	22.7 +00.4		217 50.5 +01.9	N 22	54.3 +00.1		83 50.9 +02.6	S 11	11.8 -00.1		04		
05	263 45.4 +00.7	N 18	23.1 +00.5		232 52.4 +01.8	N 22	54.4 +00.0		98 53.5 +02.6	S 11	11.7 +00.0		05		
06	278 46.1 +00.6	N 18	23.6 +00.5		247 54.2 +01.9	N 22	54.4 +00.1		113 56.1 +02.7	S 11	11.7 -00.1		06		
07	293 46.7 +00.6	N 18	24.1 +00.5		262 56.1 +01.8	N 22	54.5 +00.0		128 58.8 +02.6	S 11	11.6 +00.0		07		
08	308 47.3 +00.7	N 18	24.6 +00.5		277 57.9 +01.9	N 22	54.5 +00.0		144 01.4 +02.6	S 11	11.6 -00.1		08		
09	323 48.0 +00.6	N 18	25.1 +00.5		292 59.8 +01.9	N 22	54.5 +00.1		159 04.0 +02.6	S 11	11.5 +00.0		09		
10	338 48.6 +00.6	N 18	25.6 +00.5		308 01.7 +01.8	N 22	54.6 +00.0		174 06.6 +02.7	S 11	11.5 -00.1		10		
11	353 49.2 +00.6	N 18	26.1 +00.4		323 03.5 +01.9	N 22	54.6 +00.1		189 09.3 +02.6	S 11	11.4 +00.0		11		
12	8 49.8 +00.7	N 18	26.5 +00.5		338 05.4 +01.9	N 22	54.7 +00.0		204 11.9 +02.6	S 11	11.4 +00.0		12		
13	23 50.5 +00.6	N 18	27.0 +00.5		353 07.3 +01.8	N 22	54.7 +00.0		219 14.5 +02.6	S 11	11.4 -00.1		13		
14	38 51.1 +00.6	N 18	27.5 +00.5		8 09.1 +01.9	N 22	54.7 +00.1		234 17.1 +02.6	S 11	11.3 +00.0		14		
15	53 51.7 +00.6	N 18	28.0 +00.5		23 11.0 +01.8	N 22	54.8 +00.0		249 19.7 +02.7	S 11	11.3 -00.1		15		
16	68 52.3 +00.7	N 18	28.5 +00.5		38 12.8 +01.9	N 22	54.8 +00.0		264 22.4 +02.6	S 11	11.2 +00.0		16		
17	83 53.0 +00.6	N 18	29.0 +00.4		53 14.7 +01.9	N 22	54.8 +00.1		279 25.0 +02.6	S 11	11.2 -00.1		17		
18	98 53.6 +00.6	N 18	29.4 +00.5		68 16.6 +01.8	N 22	54.9 +00.0		294 27.6 +02.6	S 11	11.1 +00.0		18		
19	113 54.2 +00.6	N 18	29.9 +00.5		83 18.4 +01.9	N 22	54.9 +00.1		309 30.2 +02.7	S 11	11.1 -00.1		19		
20	128 54.8 +00.7	N 18	30.4 +00.5		98 20.3 +01.8	N 22	55.0 +00.0		324 32.9 +02.6	S 11	11.0 +00.0		20		
21	143 55.5 +00.6	N 18	30.9 +00.5		113 22.1 +01.9	N 22	55.0 +00.0		339 35.5 +02.6	S 11	11.0 -00.1		21		
22	158 56.1 +00.6	N 18	31.4 +00.4		128 24.0 +01.9	N 22	55.0 +00.1		354 38.1 +02.6	S 11	10.9 +00.0		22		
23	173 56.7 +00.7	N 18	31.8 +00.5		143 25.9 +01.8	N 22	55.1 +00.0		9 40.7 +02.7	S 11	10.9 -00.1		23		
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:25					UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 13:27					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 Greenwich Culmination Time: 22:21					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.40$				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 50.7 +00.0	N 20 22.3 +00.5	165 54.7 -00.9	N 23 04.7 +00.4	44 31.2 -31.3	S 09 18.4 +10.8	00						
01	195 50.7 -00.1	N 20 22.8 +00.5	180 53.8 -00.8	N 23 05.1 +00.5	58 59.9 -31.5	S 09 29.2 +10.7	01						
02	210 50.6 +00.0	N 20 23.3 +00.5	195 53.0 -00.8	N 23 05.6 +00.4	73 28.4 -31.5	S 09 39.9 +10.8	02						
03	225 50.6 +00.0	N 20 23.8 +00.5	210 52.2 -00.9	N 23 06.0 +00.5	87 56.9 -31.6	S 09 50.7 +10.6	03						
04	240 50.6 -00.1	N 20 24.3 +00.5	225 51.3 -00.8	N 23 06.5 +00.4	102 25.3 -31.7	S 10 01.3 +10.7	04						
05	255 50.5 +00.0	N 20 24.8 +00.4	240 50.5 -00.9	N 23 06.9 +00.4	116 53.6 -31.8	S 10 12.0 +10.6	05						
06	270 50.5 -00.1	N 20 25.2 +00.5	255 49.6 -00.8	N 23 07.3 +00.4	131 21.8 -31.9	S 10 22.6 +10.5	06						
07	285 50.4 +00.0	N 20 25.7 +00.5	270 48.8 -00.8	N 23 07.7 +00.5	145 49.9 -32.0	S 10 33.1 +10.5	07						
08	300 50.4 -00.1	N 20 26.2 +00.5	285 48.0 -00.9	N 23 08.2 +00.4	160 17.9 -32.0	S 10 43.6 +10.5	08						
09	315 50.3 +00.0	N 20 26.7 +00.5	300 47.1 -00.8	N 23 08.6 +00.4	174 45.9 -32.1	S 10 54.1 +10.4	09						
10	330 50.3 -00.1	N 20 27.2 +00.5	315 46.3 -00.8	N 23 09.0 +00.5	189 13.8 -32.3	S 11 04.5 +10.3	10						
11	345 50.2 +00.0	N 20 27.7 +00.5	330 45.5 -00.9	N 23 09.5 +00.4	203 41.5 -32.3	S 11 14.8 +10.3	11						
12	0 50.2 -00.1	N 20 28.2 +00.5	345 44.6 -00.8	N 23 09.9 +00.4	218 09.2 -32.4	S 11 25.1 +10.3	12						
13	15 50.1 +00.0	N 20 28.7 +00.4	0 43.8 -00.9	N 23 10.3 +00.4	232 36.8 -32.4	S 11 35.4 +10.1	13						
14	30 50.1 -00.1	N 20 29.1 +00.5	15 42.9 -00.8	N 23 10.7 +00.5	247 04.4 -32.6	S 11 45.5 +10.2	14						
15	45 50.0 +00.0	N 20 29.6 +00.5	30 42.1 -00.8	N 23 11.2 +00.4	261 31.8 -32.7	S 11 55.7 +10.0	15						
16	60 50.0 -00.1	N 20 30.1 +00.5	45 41.3 -00.9	N 23 11.6 +00.4	275 59.1 -32.7	S 12 05.7 +10.0	16						
17	75 49.9 +00.0	N 20 30.6 +00.5	60 40.4 -00.8	N 23 12.0 +00.4	290 26.4 -32.9	S 12 15.7 +10.0	17						
18	90 49.9 -00.1	N 20 31.1 +00.5	75 39.6 -00.9	N 23 12.4 +00.4	304 53.5 -32.9	S 12 25.7 +09.9	18						
19	105 49.8 +00.0	N 20 31.6 +00.4	90 38.7 -00.8	N 23 12.8 +00.4	319 20.6 -33.0	S 12 35.6 +09.8	19						
20	120 49.8 -00.1	N 20 32.0 +00.5	105 37.9 -00.8	N 23 13.2 +00.5	333 47.6 -33.1	S 12 45.4 +09.7	20						
21	135 49.7 +00.0	N 20 32.5 +00.5	120 37.1 -00.9	N 23 13.7 +00.4	348 14.5 -33.2	S 12 55.1 +09.7	21						
22	150 49.7 -00.1	N 20 33.0 +00.5	135 36.2 -00.8	N 23 14.1 +00.4	2 41.3 -33.3	S 13 04.8 +09.6	22						
23	165 49.6 +00.0	N 20 33.5 +00.5	150 35.4 -00.9	N 23 14.5 +00.4	17 08.0 -33.4	S 13 14.4 +09.5	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	Greenwich Culmination Time: 11:57	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	Greenwich Culmination Time: 12:57	UT 02 06 10 14 18 22	SD 16'1 16'1 16'1 16'2 16'2 16'3	HP 59'0 59'1 59'3 59'4 59'6 59'7	Greenwich Culmination Time: 21:49		

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	188 57.4 +00.6	N 18 32.3 +00.5	158 27.7 +01.9	N 22 55.1 +00.0	24 43.4 +02.6	S 11 10.8 +00.0	00						
01	203 58.0 +00.6	N 18 32.8 +00.5	173 29.6 +01.9	N 22 55.1 +00.1	39 46.0 +02.6	S 11 10.8 -00.1	01						
02	218 58.6 +00.6	N 18 33.3 +00.5	188 31.5 +01.8	N 22 55.2 +00.0	54 48.6 +02.6	S 11 10.7 +00.0	02						
03	233 59.2 +00.7	N 18 33.8 +00.4	203 33.3 +01.9	N 22 55.2 +00.1	69 51.2 +02.7	S 11 10.7 -00.1	03						
04	248 59.9 +00.6	N 18 34.2 +00.5	218 35.2 +01.8	N 22 55.3 +00.0	84 53.9 +02.6	S 11 10.6 +00.0	04						
05	264 00.5 +00.6	N 18 34.7 +00.5	233 37.0 +01.9	N 22 55.3 +00.0	99 56.5 +02.6	S 11 10.6 -00.1	05						
06	279 01.1 +00.6	N 18 35.2 +00.5	248 38.9 +01.9	N 22 55.3 +00.1	114 59.1 +02.6	S 11 10.5 +00.0	06						
07	294 01.7 +00.7	N 18 35.7 +00.5	263 40.8 +01.8	N 22 55.4 +00.0	130 01.7 +02.6	S 11 10.5 +00.0	07						
08	309 02.4 +00.6	N 18 36.2 +00.4	278 42.6 +01.9	N 22 55.4 +00.1	145 04.3 +02.7	S 11 10.5 -00.1	08						
09	324 03.0 +00.6	N 18 36.6 +00.5	293 44.5 +01.8	N 22 55.5 +00.0	160 07.0 +02.6	S 11 10.4 +00.0	09						
10	339 03.6 +00.6	N 18 37.1 +00.5	308 46.3 +01.9	N 22 55.5 +00.0	175 09.6 +02.6	S 11 10.4 -00.1	10						
11	354 04.2 +00.7	N 18 37.6 +00.5	323 48.2 +01.9	N 22 55.5 +00.1	190 12.2 +02.6	S 11 10.3 +00.0	11						
12	9 04.9 +00.6	N 18 38.1 +00.4	338 50.1 +01.8	N 22 55.6 +00.0	205 14.8 +02.7	S 11 10.3 -00.1	12						
13	24 05.5 +00.6	N 18 38.5 +00.5	353 51.9 +01.9	N 22 55.6 +00.0	220 17.5 +02.6	S 11 10.2 +00.0	13						
14	39 06.1 +00.6	N 18 39.0 +00.5	8 53.8 +01.8	N 22 55.6 +00.1	235 20.1 +02.6	S 11 10.2 -00.1	14						
15	54 06.7 +00.7	N 18 39.5 +00.5	23 55.6 +01.9	N 22 55.7 +00.0	250 22.7 +02.6	S 11 10.1 +00.0	15						
16	69 07.4 +00.6	N 18 40.0 +00.4	38 57.5 +01.9	N 22 55.7 +00.1	265 25.3 +02.6	S 11 10.1 -00.1	16						
17	84 08.0 +00.6	N 18 40.4 +00.5	53 59.4 +01.8	N 22 55.8 +00.0	280 27.9 +02.7	S 11 10.0 +00.0	17						
18	99 08.6 +00.6	N 18 40.9 +00.5	69 01.2 +01.9	N 22 55.8 +00.0	295 30.6 +02.6	S 11 10.0 -00.1	18						
19	114 09.2 +00.7	N 18 41.4 +00.5	84 03.1 +01.8	N 22 55.8 +00.1	310 33.2 +02.6	S 11 09.9 +00.0	19						
20	129 09.9 +00.6	N 18 41.9 +00.4	99 04.9 +01.9	N 22 55.9 +00.0	325 35.8 +02.6	S 11 09.9 -00.1	20						
21	144 10.5 +00.6	N 18 42.3 +00.5	114 06.8 +01.9	N 22 55.9 +00.0	340 38.4 +02.6	S 11 09.8 +00.0	21						
22	159 11.1 +00.6	N 18 42.8 +00.5	129 08.7 +01.8	N 22 55.9 +00.1	355 41.0 +02.7	S 11 09.8 -00.1	22						
23	174 11.7 +00.7	N 18 43.3 +00.4	144 10.5 +01.9	N 22 56.0 +00.0	10 43.7 +02.6	S 11 09.7 +00.0	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:24	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 13:24	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	Greenwich Culmination Time: 22:17		

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.44$				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 49.6 -00.1	N 20 34.0 +00.4	165 34.5 -00.8	N 23 14.9 +00.4	31 34.6 -33.4	S 13 23.9 +09.5	00						
01	195 49.5 +00.0	N 20 34.4 +00.5	180 33.7 -00.9	N 23 15.3 +00.4	46 01.2 -33.6	S 13 33.4 +09.4	01						
02	210 49.5 -00.1	N 20 34.9 +00.5	195 32.8 -00.8	N 23 15.7 +00.4	60 27.6 -33.6	S 13 42.8 +09.3	02						
03	225 49.4 +00.0	N 20 35.4 +00.5	210 32.0 -00.8	N 23 16.1 +00.4	74 54.0 -33.8	S 13 52.1 +09.3	03						
04	240 49.4 -00.1	N 20 35.9 +00.4	225 31.2 -00.9	N 23 16.5 +00.4	89 20.2 -33.8	S 14 01.4 +09.1	04						
05	255 49.3 +00.0	N 20 36.3 +00.5	240 30.3 -00.8	N 23 16.9 +00.4	103 46.4 -33.9	S 14 10.5 +09.1	05						
06	270 49.3 -00.1	N 20 36.8 +00.5	255 29.5 -00.9	N 23 17.3 +00.4	118 12.5 -34.0	S 14 19.6 +09.0	06						
07	285 49.2 +00.0	N 20 37.3 +00.5	270 28.6 -00.8	N 23 17.7 +00.4	132 38.5 -34.1	S 14 28.6 +08.9	07						
08	300 49.2 -00.1	N 20 37.8 +00.4	285 27.8 -00.9	N 23 18.1 +00.4	147 04.4 -34.2	S 14 37.5 +08.8	08						
09	315 49.1 +00.0	N 20 38.2 +00.5	300 26.9 -00.8	N 23 18.5 +00.4	161 30.2 -34.3	S 14 46.3 +08.8	09						
10	330 49.1 -00.1	N 20 38.7 +00.5	315 26.1 -00.9	N 23 18.9 +00.4	175 55.9 -34.3	S 14 55.1 +08.6	10						
11	345 49.0 +00.0	N 20 39.2 +00.5	330 25.2 -00.8	N 23 19.3 +00.4	190 21.6 -34.5	S 15 03.7 +08.6	11						
12	0 49.0 -00.1	N 20 39.7 +00.4	345 24.4 -00.9	N 23 19.7 +00.4	204 47.1 -34.5	S 15 12.3 +08.4	12						
13	15 48.9 +00.0	N 20 40.1 +00.5	0 23.5 -00.8	N 23 20.1 +00.4	219 12.6 -34.7	S 15 20.7 +08.4	13						
14	30 48.9 -00.1	N 20 40.6 +00.5	15 22.7 -00.8	N 23 20.5 +00.4	233 37.9 -34.7	S 15 29.1 +08.3	14						
15	45 48.8 -00.1	N 20 41.1 +00.4	30 21.9 -00.9	N 23 20.9 +00.4	248 03.2 -34.8	S 15 37.4 +08.2	15						
16	60 48.7 +00.0	N 20 41.5 +00.5	45 21.0 -00.8	N 23 21.3 +00.4	262 28.4 -34.9	S 15 45.6 +08.1	16						
17	75 48.7 -00.1	N 20 42.0 +00.5	60 20.2 -00.9	N 23 21.7 +00.4	276 53.5 -35.0	S 15 53.7 +07.9	17						
18	90 48.6 +00.0	N 20 42.5 +00.4	75 19.3 -00.8	N 23 22.1 +00.4	291 18.5 -35.0	S 16 01.6 +07.9	18						
19	105 48.6 -00.1	N 20 42.9 +00.5	90 18.5 -00.9	N 23 22.5 +00.4	305 43.5 -35.2	S 16 09.5 +07.8	19						
20	120 48.5 +00.0	N 20 43.4 +00.5	105 17.6 -00.8	N 23 22.9 +00.4	320 08.3 -35.2	S 16 17.3 +07.7	20						
21	135 48.5 -00.1	N 20 43.9 +00.4	120 16.8 -00.9	N 23 23.3 +00.4	334 33.1 -35.3	S 16 25.0 +07.6	21						
22	150 48.4 +00.0	N 20 44.3 +00.5	135 15.9 -00.8	N 23 23.7 +00.3	348 57.8 -35.4	S 16 32.6 +07.4	22						
23	165 48.4 -00.1	N 20 44.8 +00.5	150 15.1 -00.9	N 23 24.0 +00.4	3 22.4 -35.5	S 16 40.0 +07.4	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	Greenwich Culmination Time: 11:57	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	Greenwich Culmination Time: 12:58	UT 02 06 10 14 18 22	SD 16'3 16'3 16'4 16'4 16'4 16'5	HP 59'8 60'0 60'1 60'2 60'3 60'4	Greenwich Culmination Time: 22:46		

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	189 12.4 +00.6	N 18 43.7 +00.5	159 12.4 +01.8	N 22 56.0 +00.0	25 46.3 +02.6	S 11 09.7 +00.0	00						
01	204 13.0 +00.6	N 18 44.2 +00.5	174 14.2 +01.9	N 22 56.0 +00.1	40 48.9 +02.6	S 11 09.7 -00.1	01						
02	219 13.6 +00.6	N 18 44.7 +00.5	189 16.1 +01.9	N 22 56.1 +00.0	55 51.5 +02.7	S 11 09.6 +00.0	02						
03	234 14.2 +00.7	N 18 45.2 +00.4	204 18.0 +01.8	N 22 56.1 +00.1	70 54.2 +02.6	S 11 09.6 -00.1	03						
04	249 14.9 +00.6	N 18 45.6 +00.5	219 19.8 +01.9	N 22 56.2 +00.0	85 56.8 +02.6	S 11 09.5 +00.0	04						
05	264 15.5 +00.6	N 18 46.1 +00.5	234 21.7 +01.8	N 22 56.2 +00.0	100 59.4 +02.6	S 11 09.5 -00.1	05						
06	279 16.1 +00.6	N 18 46.6 +00.4	249 23.5 +01.9	N 22 56.2 +00.1	116 02.0 +02.6	S 11 09.4 +00.0	06						
07	294 16.7 +00.7	N 18 47.0 +00.5	264 25.4 +01.9	N 22 56.3 +00.0	131 04.6 +02.7	S 11 09.4 -00.1	07						
08	309 17.4 +00.6	N 18 47.5 +00.5	279 27.3 +01.8	N 22 56.3 +00.0	146 07.3 +02.6	S 11 09.3 +00.0	08						
09	324 18.0 +00.6	N 18 48.0 +00.5	294 29.1 +01.9	N 22 56.3 +00.1	161 09.9 +02.6	S 11 09.3 -00.1	09						
10	339 18.6 +00.6	N 18 48.5 +00.4	309 31.0 +01.8	N 22 56.4 +00.0	176 12.5 +02.6	S 11 09.2 +00.0	10						
11	354 19.2 +00.7	N 18 48.9 +00.5	324 32.8 +01.9	N 22 56.4 +00.1	191 15.1 +02.6	S 11 09.2 -00.1	11						
12	9 19.9 +00.6	N 18 49.4 +00.5	339 34.7 +01.9	N 22 56.5 +00.0	206 17.7 +02.7	S 11 09.1 +00.0	12						
13	24 20.5 +00.6	N 18 49.9 +00.4	354 36.6 +01.8	N 22 56.5 +00.0	221 20.4 +02.6	S 11 09.1 +00.0	13						
14	39 21.1 +00.6	N 18 50.3 +00.5	9 38.4 +01.9	N 22 56.5 +00.1	236 23.0 +02.6	S 11 09.1 -00.1	14						
15	54 21.7 +00.6	N 18 50.8 +00.5	24 40.3 +01.8	N 22 56.6 +00.0	251 25.6 +02.6	S 11 09.0 +00.0	15						
16	69 22.3 +00.7	N 18 51.3 +00.4	39 42.1 +01.9	N 22 56.6 +00.0	266 28.2 +02.6	S 11 09.0 -00.1	16						
17	84 23.0 +00.6	N 18 51.7 +00.5	54 44.0 +01.9	N 22 56.6 +00.1	281 30.8 +02.7	S 11 08.9 +00.0	17						
18	99 23.6 +00.6	N 18 52.2 +00.5	69 45.9 +01.8	N 22 56.7 +00.0	296 33.5 +02.6	S 11 08.9 -00.1	18						
19	114 24.2 +00.6	N 18 52.7 +00.4	84 47.7 +01.9	N 22 56.7 +00.0	311 36.1 +02.6	S 11 08.8 +00.0	19						
20	129 24.8 +00.7	N 18 53.1 +00.5	99 49.6 +01.8	N 22 56.7 +00.1	326 38.7 +02.6	S 11 08.8 -00.1	20						
21	144 25.5 +00.6	N 18 53.6 +00.5	114 51.4 +01.9	N 22 56.8 +00.0	341 41.3 +02.6	S 11 08.7 +00.0	21						
22	159 26.1 +00.6	N 18 54.1 +00.4	129 53.3 +01.9	N 22 56.8 +00.1	356 43.9 +02.6	S 11 08.7 -00.1	22						
23	174 26.7 +00.6	N 18 54.5 +00.5	144 55.2 +01.8	N 22 56.9 +00.0	11 46.5 +02.7	S 11 08.6 +00.0	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:23	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 13:22	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	Greenwich Culmination Time: 22:13		

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.47					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 48.3 -00.1	N 20	45.3 +00.4		165 14.2 -00.8	N 23	24.4 +00.4		17 46.9 -35.6	S 16	47.4 +07.3		00		
01	195 48.2 +00.0	N 20	45.7 +00.5		180 13.4 -00.9	N 23	24.8 +00.4		32 11.3 -35.7	S 16	54.7 +07.1		01		
02	210 48.2 -00.1	N 20	46.2 +00.5		195 12.5 -00.8	N 23	25.2 +00.4		46 35.6 -35.7	S 17	01.8 +07.0		02		
03	225 48.1 +00.0	N 20	46.7 +00.4		210 11.7 -00.9	N 23	25.6 +00.3		60 59.9 -35.8	S 17	08.8 +06.9		03		
04	240 48.1 -00.1	N 20	47.1 +00.5		225 10.8 -00.8	N 23	25.9 +00.4		75 24.1 -35.9	S 17	15.7 +06.8		04		
05	255 48.0 +00.0	N 20	47.6 +00.4		240 10.0 -00.9	N 23	26.3 +00.4		89 48.2 -36.0	S 17	22.5 +06.7		05		
06	270 48.0 -00.1	N 20	48.0 +00.5		255 09.1 -00.8	N 23	26.7 +00.4		104 12.2 -36.0	S 17	29.2 +06.6		06		
07	285 47.9 +00.0	N 20	48.5 +00.5		270 08.3 -00.9	N 23	27.1 +00.3		118 36.2 -36.1	S 17	35.8 +06.4		07		
08	300 47.9 -00.1	N 20	49.0 +00.4		285 07.4 -00.8	N 23	27.4 +00.4		133 00.1 -36.2	S 17	42.2 +06.4		08		
09	315 47.8 -00.1	N 20	49.4 +00.5		300 06.6 -00.9	N 23	27.8 +00.4		147 23.9 -36.3	S 17	48.6 +06.2		09		
10	330 47.7 +00.0	N 20	49.9 +00.4		315 05.7 -00.8	N 23	28.2 +00.4		161 47.6 -36.3	S 17	54.8 +06.0		10		
11	345 47.7 -00.1	N 20	50.3 +00.5		330 04.9 -00.9	N 23	28.6 +00.3		176 11.3 -36.4	S 18	00.8 +06.0		11		
12	0 47.6 +00.0	N 20	50.8 +00.4		345 04.0 -00.8	N 23	28.9 +00.4		190 34.9 -36.5	S 18	06.8 +05.8		12		
13	15 47.6 -00.1	N 20	51.2 +00.5		0 03.2 -00.9	N 23	29.3 +00.4		204 58.4 -36.6	S 18	12.6 +05.7		13		
14	30 47.5 -00.1	N 20	51.7 +00.5		15 02.3 -00.9	N 23	29.7 +00.3		219 21.8 -36.6	S 18	18.3 +05.6		14		
15	45 47.4 +00.0	N 20	52.2 +00.4		30 01.4 -00.8	N 23	30.0 +00.4		233 45.2 -36.7	S 18	23.9 +05.4		15		
16	60 47.4 -00.1	N 20	52.6 +00.5		45 00.6 -00.9	N 23	30.4 +00.4		248 08.5 -36.7	S 18	29.3 +05.4		16		
17	75 47.3 +00.0	N 20	53.1 +00.4		59 59.7 -00.8	N 23	30.8 +00.3		262 31.8 -36.9	S 18	34.7 +05.1		17		
18	90 47.3 -00.1	N 20	53.5 +00.5		74 58.9 -00.9	N 23	31.1 +00.4		276 54.9 -36.8	S 18	39.8 +05.1		18		
19	105 47.2 -00.1	N 20	54.0 +00.4		89 58.0 -00.8	N 23	31.5 +00.3		291 18.1 -37.0	S 18	44.9 +04.9		19		
20	120 47.1 +00.0	N 20	54.4 +00.5		104 57.2 -00.9	N 23	31.8 +00.4		305 41.1 -37.0	S 18	49.8 +04.8		20		
21	135 47.1 -00.1	N 20	54.9 +00.4		119 56.3 -00.8	N 23	32.2 +00.4		320 04.1 -37.0	S 18	54.6 +04.6		21		
22	150 47.0 +00.0	N 20	55.3 +00.5		134 55.5 -00.9	N 23	32.6 +00.3		334 27.1 -37.1	S 18	59.2 +04.5		22		
23	165 47.0 -00.1	N 20	55.8 +00.4		149 54.6 -00.8	N 23	32.9 +00.4		348 50.0 -37.2	S 19	03.7 +04.4		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 Greenwich Culmination Time: 11:57					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 Greenwich Culmination Time: 13:00					UT 02 06 10 14 18 22 SD 16'5 16'5 16'5 16'6 16'6 16'6 HP 60'5 60'6 60'7 60'8 60'9 60'9 Greenwich Culmination Time: 23:47					

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	189 27.3 +00.7	N 18	55.0 +00.5		159 57.0 +01.9	N 22	56.9 +00.0		26 49.2 +02.6	S 11	08.6 -00.1		00		
01	204 28.0 +00.6	N 18	55.5 +00.4		174 58.9 +01.8	N 22	56.9 +00.1		41 51.8 +02.6	S 11	08.5 +00.0		01		
02	219 28.6 +00.6	N 18	55.9 +00.5		190 00.7 +01.9	N 22	57.0 +00.0		56 54.4 +02.6	S 11	08.5 +00.0		02		
03	234 29.2 +00.6	N 18	56.4 +00.4		205 02.6 +01.8	N 22	57.0 +00.0		71 57.0 +02.6	S 11	08.5 -00.1		03		
04	249 29.8 +00.6	N 18	56.8 +00.5		220 04.4 +01.9	N 22	57.0 +00.1		86 59.6 +02.7	S 11	08.4 +00.0		04		
05	264 30.4 +00.7	N 18	57.3 +00.5		235 06.3 +01.9	N 22	57.1 +00.0		102 02.3 +02.6	S 11	08.4 -00.1		05		
06	279 31.1 +00.6	N 18	57.8 +00.4		250 08.2 +01.8	N 22	57.1 +00.0		117 04.9 +02.6	S 11	08.3 +00.0		06		
07	294 31.7 +00.6	N 18	58.2 +00.5		265 10.0 +01.9	N 22	57.1 +00.1		132 07.5 +02.6	S 11	08.3 -00.1		07		
08	309 32.3 +00.6	N 18	58.7 +00.5		280 11.9 +01.8	N 22	57.2 +00.0		147 10.1 +02.6	S 11	08.2 +00.0		08		
09	324 32.9 +00.7	N 18	59.2 +00.4		295 13.7 +01.9	N 22	57.2 +00.1		162 12.7 +02.7	S 11	08.2 -00.1		09		
10	339 33.6 +00.6	N 18	59.6 +00.5		310 15.6 +01.9	N 22	57.3 +00.0		177 15.4 +02.6	S 11	08.1 +00.0		10		
11	354 34.2 +00.6	N 19	00.1 +00.4		325 17.5 +01.8	N 22	57.3 +00.0		192 18.0 +02.6	S 11	08.1 -00.1		11		
12	9 34.8 +00.6	N 19	00.5 +00.5		340 19.3 +01.9	N 22	57.3 +00.1		207 20.6 +02.6	S 11	08.0 +00.0		12		
13	24 35.4 +00.6	N 19	01.0 +00.5		355 21.2 +01.8	N 22	57.4 +00.0		222 23.2 +02.6	S 11	08.0 +00.0		13		
14	39 36.0 +00.7	N 19	01.5 +00.4		10 23.0 +01.9	N 22	57.4 +00.0		237 25.8 +02.6	S 11	08.0 -00.1		14		
15	54 36.7 +00.6	N 19	01.9 +00.5		25 24.9 +01.8	N 22	57.4 +00.1		252 28.4 +02.7	S 11	07.9 +00.0		15		
16	69 37.3 +00.6	N 19	02.4 +00.4		40 26.7 +01.9	N 22	57.5 +00.0		267 31.1 +02.6	S 11	07.9 -00.1		16		
17	84 37.9 +00.6	N 19	02.8 +00.5		55 28.6 +01.9	N 22	57.5 +00.0		282 33.7 +02.6	S 11	07.8 +00.0		17		
18	99 38.5 +00.7	N 19	03.3 +00.5		70 30.5 +01.8	N 22	57.5 +00.1		297 36.3 +02.6	S 11	07.8 -00.1		18		
19	114 39.2 +00.6	N 19	03.8 +00.4		85 32.3 +01.9	N 22	57.6 +00.0		312 38.9 +02.6	S 11	07.7 +00.0		19		
20	129 39.8 +00.6	N 19	04.2 +00.5		100 34.2 +01.8	N 22	57.6 +00.0		327 41.5 +02.6	S 11	07.7 -00.1		20		
21	144 40.4 +00.6	N 19	04.7 +00.4		115 36.0 +01.9	N 22	57.6 +00.1		342 44.1 +02.7	S 11	07.6 +00.0		21		
22	159 41.0 +00.6	N 19	05.1 +00.5		130 37.9 +01.8	N 22	57.7 +00.0		357 46.8 +02.6	S 11	07.6 -00.1		22		
23	174 41.6 +00.7	N 19	05.6 +00.4		145 39.7 +01.9	N 22	57.7 +00.1		12 49.4 +02.6	S 11	07.5 +00.0		23		
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:22					UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 13:19					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 Greenwich Culmination Time: 22:09					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.52$				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 46.9 -00.1	N 20	56.2 +00.5		164 53.8 -00.9	N 23	33.3 +00.3		3 12.8 -37.2	S 19	08.1 +04.2		00
01	195 46.8 +00.0	N 20	56.7 +00.4		179 52.9 -00.9	N 23	33.6 +00.4		17 35.6 -37.3	S 19	12.3 +04.1		01
02	210 46.8 -00.1	N 20	57.1 +00.5		194 52.0 -00.8	N 23	34.0 +00.3		31 58.3 -37.3	S 19	16.4 +03.9		02
03	225 46.7 +00.0	N 20	57.6 +00.4		209 51.2 -00.9	N 23	34.3 +00.4		46 21.0 -37.4	S 19	20.3 +03.8		03
04	240 46.7 -00.1	N 20	58.0 +00.5		224 50.3 -00.8	N 23	34.7 +00.3		60 43.6 -37.4	S 19	24.1 +03.7		04
05	255 46.6 -00.1	N 20	58.5 +00.4		239 49.5 -00.9	N 23	35.0 +00.4		75 06.2 -37.4	S 19	27.8 +03.5		05
06	270 46.5 +00.0	N 20	58.9 +00.4		254 48.6 -00.8	N 23	35.4 +00.3		89 28.8 -37.5	S 19	31.3 +03.4		06
07	285 46.5 -00.1	N 20	59.3 +00.5		269 47.8 -00.9	N 23	35.7 +00.4		103 51.3 -37.6	S 19	34.7 +03.2		07
08	300 46.4 -00.1	N 20	59.8 +00.4		284 46.9 -00.9	N 23	36.1 +00.3		118 13.7 -37.6	S 19	37.9 +03.1		08
09	315 46.3 +00.0	N 21	00.2 +00.5		299 46.0 -00.8	N 23	36.4 +00.4		132 36.1 -37.6	S 19	41.0 +02.9		09
10	330 46.3 -00.1	N 21	00.7 +00.4		314 45.2 -00.9	N 23	36.8 +00.3		146 58.5 -37.6	S 19	43.9 +02.8		10
11	345 46.2 +00.0	N 21	01.1 +00.5		329 44.3 -00.8	N 23	37.1 +00.3		161 20.9 -37.7	S 19	46.7 +02.6		11
12	0 46.2 -00.1	N 21	01.6 +00.4		344 43.5 -00.9	N 23	37.4 +00.4		175 43.2 -37.7	S 19	49.3 +02.5		12
13	15 46.1 -00.1	N 21	02.0 +00.4		359 42.6 -00.9	N 23	37.8 +00.3		190 05.5 -37.8	S 19	51.8 +02.3		13
14	30 46.0 +00.0	N 21	02.4 +00.5		14 41.7 -00.8	N 23	38.1 +00.4		204 27.7 -37.7	S 19	54.1 +02.2		14
15	45 46.0 -00.1	N 21	02.9 +00.4		29 40.9 -00.9	N 23	38.5 +00.3		218 50.0 -37.8	S 19	56.3 +02.1		15
16	60 45.9 -00.1	N 21	03.3 +00.5		44 40.0 -00.8	N 23	38.8 +00.3		233 12.2 -37.9	S 19	58.4 +01.8		16
17	75 45.8 +00.0	N 21	03.8 +00.4		59 39.2 -00.9	N 23	39.1 +00.4		247 34.3 -37.8	S 20	00.2 +01.8		17
18	90 45.8 -00.1	N 21	04.2 +00.4		74 38.3 -00.9	N 23	39.5 +00.3		261 56.5 -37.9	S 20	02.0 +01.6		18
19	105 45.7 -00.1	N 21	04.6 +00.5		89 37.4 -00.8	N 23	39.8 +00.3		276 18.6 -37.8	S 20	03.6 +01.4		19
20	120 45.6 +00.0	N 21	05.1 +00.4		104 36.6 -00.9	N 23	40.1 +00.4		290 40.8 -37.9	S 20	05.0 +01.3		20
21	135 45.6 -00.1	N 21	05.5 +00.4		119 35.7 -00.8	N 23	40.5 +00.3		305 02.9 -37.9	S 20	06.3 +01.1		21
22	150 45.5 -00.1	N 21	05.9 +00.5		134 34.9 -00.9	N 23	40.8 +00.3		319 25.0 -37.9	S 20	07.4 +01.0		22
23	165 45.4 +00.0	N 21	06.4 +00.4		149 34.0 -00.9	N 23	41.1 +00.3		333 47.1 -38.0	S 20	08.4 +00.8		23
UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8				SD 00'1 00'1 00'1 00'1 00'1 00'1				SD 16'6 16'6 16'6 16'7 16'7 16'7				
	HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 61'0 61'0 61'1 61'1 61'1 61'2				
	Greenwich Culmination Time: 11:57				Greenwich Culmination Time: 13:01				Greenwich Culmination Time: --:--				

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	189 42.3 +00.6	N 19	06.0 +00.5		160 41.6 +01.9	N 22	57.8 +00.0		27 52.0 +02.6	S 11	07.5 +00.0		00
01	204 42.9 +00.6	N 19	06.5 +00.5		175 43.5 +01.8	N 22	57.8 +00.0		42 54.6 +02.6	S 11	07.5 -00.1		01
02	219 43.5 +00.6	N 19	07.0 +00.4		190 45.3 +01.9	N 22	57.8 +00.1		57 57.2 +02.6	S 11	07.4 +00.0		02
03	234 44.1 +00.6	N 19	07.4 +00.5		205 47.2 +01.8	N 22	57.9 +00.0		72 59.8 +02.7	S 11	07.4 -00.1		03
04	249 44.7 +00.7	N 19	07.9 +00.4		220 49.0 +01.9	N 22	57.9 +00.0		88 02.5 +02.6	S 11	07.3 +00.0		04
05	264 45.4 +00.6	N 19	08.3 +00.5		235 50.9 +01.8	N 22	57.9 +00.1		103 05.1 +02.6	S 11	07.3 -00.1		05
06	279 46.0 +00.6	N 19	08.8 +00.4		250 52.7 +01.9	N 22	58.0 +00.0		118 07.7 +02.6	S 11	07.2 +00.0		06
07	294 46.6 +00.6	N 19	09.2 +00.5		265 54.6 +01.9	N 22	58.0 +00.0		133 10.3 +02.6	S 11	07.2 -00.1		07
08	309 47.2 +00.6	N 19	09.7 +00.4		280 56.5 +01.8	N 22	58.0 +00.1		148 12.9 +02.6	S 11	07.1 +00.0		08
09	324 47.8 +00.7	N 19	10.1 +00.5		295 58.3 +01.9	N 22	58.1 +00.0		163 15.5 +02.7	S 11	07.1 +00.0		09
10	339 48.5 +00.6	N 19	10.6 +00.5		311 00.2 +01.8	N 22	58.1 +00.0		178 18.2 +02.6	S 11	07.1 -00.1		10
11	354 49.1 +00.6	N 19	11.1 +00.4		326 02.0 +01.9	N 22	58.1 +00.1		193 20.8 +02.6	S 11	07.0 +00.0		11
12	9 49.7 +00.6	N 19	11.5 +00.5		341 03.9 +01.8	N 22	58.2 +00.0		208 23.4 +02.6	S 11	07.0 -00.1		12
13	24 50.3 +00.6	N 19	12.0 +00.4		356 05.7 +01.9	N 22	58.2 +00.0		223 26.0 +02.6	S 11	06.9 +00.0		13
14	39 50.9 +00.7	N 19	12.4 +00.5		11 07.6 +01.8	N 22	58.2 +00.1		238 28.6 +02.6	S 11	06.9 -00.1		14
15	54 51.6 +00.6	N 19	12.9 +00.4		26 09.4 +01.9	N 22	58.3 +00.0		253 31.2 +02.6	S 11	06.8 +00.0		15
16	69 52.2 +00.6	N 19	13.3 +00.5		41 11.3 +01.9	N 22	58.3 +00.0		268 33.8 +02.7	S 11	06.8 -00.1		16
17	84 52.8 +00.6	N 19	13.8 +00.4		56 13.2 +01.8	N 22	58.3 +00.1		283 36.5 +02.6	S 11	06.7 +00.0		17
18	99 53.4 +00.6	N 19	14.2 +00.5		71 15.0 +01.9	N 22	58.4 +00.0		298 39.1 +02.6	S 11	06.7 +00.0		18
19	114 54.0 +00.7	N 19	14.7 +00.4		86 16.9 +01.8	N 22	58.4 +00.1		313 41.7 +02.6	S 11	06.7 -00.1		19
20	129 54.7 +00.6	N 19	15.1 +00.5		101 18.7 +01.9	N 22	58.5 +00.0		328 44.3 +02.6	S 11	06.6 +00.0		20
21	144 55.3 +00.6	N 19	15.6 +00.4		116 20.6 +01.8	N 22	58.5 +00.0		343 46.9 +02.6	S 11	06.6 -00.1		21
22	159 55.9 +00.6	N 19	16.0 +00.5		131 22.4 +01.9	N 22	58.5 +00.1		358 49.5 +02.7	S 11	06.5 +00.0		22
23	174 56.5 +00.6	N 19	16.5 +00.4		146 24.3 +01.9	N 22	58.6 +00.0		13 52.2 +02.6	S 11	06.5 -00.1		23
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0				SD 00'3 00'3 00'3 00'3 00'3 00'3				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 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0				
	Greenwich Culmination Time: 11:21				Greenwich Culmination Time: 13:16				Greenwich Culmination Time: 22:05				

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> $a = 0.56$					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 45.4 -00.1	N 21 06.8 +00.4	164 33.1 -00.8	N 23 41.4 +00.4	348 09.1 -37.9	S 20 09.2 +00.6	00								
01	195 45.3 -00.1	N 21 07.2 +00.5	179 32.3 -00.9	N 23 41.8 +00.3	2 31.2 -37.9	S 20 09.8 +00.5	01								
02	210 45.2 +00.0	N 21 07.7 +00.4	194 31.4 -00.9	N 23 42.1 +00.3	16 53.3 -38.0	S 20 10.3 +00.4	02								
03	225 45.2 -00.1	N 21 08.1 +00.4	209 30.5 -00.8	N 23 42.4 +00.3	31 15.3 -37.9	S 20 10.7 +00.2	03								
04	240 45.1 -00.1	N 21 08.5 +00.5	224 29.7 -00.9	N 23 42.7 +00.4	45 37.4 -37.9	S 20 10.9 +00.1	04								
05	255 45.0 +00.0	N 21 09.0 +00.4	239 28.8 -00.8	N 23 43.1 +00.3	59 59.5 -38.0	S 20 11.0 -00.1	05								
06	270 45.0 -00.1	N 21 09.4 +00.4	254 28.0 -00.9	N 23 43.4 +00.3	74 21.5 -37.9	S 20 10.9 -00.3	06								
07	285 44.9 -00.1	N 21 09.8 +00.5	269 27.1 -00.9	N 23 43.7 +00.3	88 43.6 -37.9	S 20 10.6 -00.4	07								
08	300 44.8 +00.0	N 21 10.3 +00.4	284 26.2 -00.8	N 23 44.0 +00.3	103 05.7 -37.9	S 20 10.2 -00.6	08								
09	315 44.8 -00.1	N 21 10.7 +00.4	299 25.4 -00.9	N 23 44.3 +00.3	117 27.8 -37.9	S 20 09.6 -00.7	09								
10	330 44.7 -00.1	N 21 11.1 +00.4	314 24.5 -00.9	N 23 44.6 +00.4	131 49.9 -37.9	S 20 08.9 -00.9	10								
11	345 44.6 +00.0	N 21 11.5 +00.5	329 23.6 -00.8	N 23 45.0 +00.3	146 12.0 -37.9	S 20 08.0 -01.0	11								
12	0 44.6 -00.1	N 21 12.0 +00.4	344 22.8 -00.9	N 23 45.3 +00.3	160 34.1 -37.8	S 20 07.0 -01.2	12								
13	15 44.5 -00.1	N 21 12.4 +00.4	359 21.9 -00.9	N 23 45.6 +00.3	174 56.3 -37.8	S 20 05.8 -01.3	13								
14	30 44.4 +00.0	N 21 12.8 +00.4	14 21.0 -00.8	N 23 45.9 +00.3	189 18.5 -37.8	S 20 04.5 -01.5	14								
15	45 44.4 -00.1	N 21 13.2 +00.5	29 20.2 -00.9	N 23 46.2 +00.3	203 40.7 -37.8	S 20 03.0 -01.6	15								
16	60 44.3 -00.1	N 21 13.7 +00.4	44 19.3 -00.9	N 23 46.5 +00.3	218 02.9 -37.8	S 20 01.4 -01.8	16								
17	75 44.2 -00.1	N 21 14.1 +00.4	59 18.4 -00.8	N 23 46.8 +00.3	232 25.1 -37.7	S 19 59.6 -01.9	17								
18	90 44.1 +00.0	N 21 14.5 +00.4	74 17.6 -00.9	N 23 47.1 +00.3	246 47.4 -37.7	S 19 57.7 -02.1	18								
19	105 44.1 -00.1	N 21 14.9 +00.5	89 16.7 -00.9	N 23 47.4 +00.3	261 09.7 -37.6	S 19 55.6 -02.2	19								
20	120 44.0 -00.1	N 21 15.4 +00.4	104 15.8 -00.8	N 23 47.7 +00.3	275 32.1 -37.7	S 19 53.4 -02.4	20								
21	135 43.9 +00.0	N 21 15.8 +00.4	119 15.0 -00.9	N 23 48.0 +00.3	289 54.4 -37.5	S 19 51.0 -02.5	21								
22	150 43.9 -00.1	N 21 16.2 +00.4	134 14.1 -00.9	N 23 48.3 +00.3	304 16.9 -37.6	S 19 48.5 -02.7	22								
23	165 43.8 -00.1	N 21 16.6 +00.4	149 13.2 -00.8	N 23 48.6 +00.3	318 39.3 -37.5	S 19 45.8 -02.8	23								
UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 16'7 16'7 16'7 16'7 16'6 16'6										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:57	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 13:03	HP 61'2 61'2 61'1 61'1 61'1 61'0	Greenwich Culmination Time: 00:49										

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	189 57.1 +00.7	N 19 16.9 +00.5	161 26.2 +01.8	N 22 58.6 +00.0	28 54.8 +02.6	S 11 06.4 +00.0	00								
01	204 57.8 +00.6	N 19 17.4 +00.4	176 28.0 +01.9	N 22 58.6 +00.1	43 57.4 +02.6	S 11 06.4 +00.0	01								
02	219 58.4 +00.6	N 19 17.8 +00.5	191 29.9 +01.8	N 22 58.7 +00.0	58 60.0 +02.6	S 11 06.4 -00.1	02								
03	234 59.0 +00.6	N 19 18.3 +00.4	206 31.7 +01.9	N 22 58.7 +00.0	74 02.6 +02.6	S 11 06.3 +00.0	03								
04	249 59.6 +00.6	N 19 18.7 +00.5	221 33.6 +01.8	N 22 58.7 +00.1	89 05.2 +02.6	S 11 06.3 -00.1	04								
05	265 00.2 +00.7	N 19 19.2 +00.4	236 35.4 +01.9	N 22 58.8 +00.0	104 07.8 +02.6	S 11 06.2 +00.0	05								
06	280 00.9 +00.6	N 19 19.6 +00.4	251 37.3 +01.8	N 22 58.8 +00.0	119 10.4 +02.7	S 11 06.2 -00.1	06								
07	295 01.5 +00.6	N 19 20.0 +00.5	266 39.1 +01.9	N 22 58.8 +00.1	134 13.1 +02.6	S 11 06.1 +00.0	07								
08	310 02.1 +00.6	N 19 20.5 +00.4	281 41.0 +01.9	N 22 58.9 +00.0	149 15.7 +02.6	S 11 06.1 -00.1	08								
09	325 02.7 +00.6	N 19 20.9 +00.5	296 42.9 +01.8	N 22 58.9 +00.0	164 18.3 +02.6	S 11 06.0 +00.0	09								
10	340 03.3 +00.6	N 19 21.4 +00.4	311 44.7 +01.9	N 22 58.9 +00.1	179 20.9 +02.6	S 11 06.0 +00.0	10								
11	355 03.9 +00.7	N 19 21.8 +00.5	326 46.6 +01.8	N 22 59.0 +00.0	194 23.5 +02.6	S 11 06.0 -00.1	11								
12	10 04.6 +00.6	N 19 22.3 +00.4	341 48.4 +01.9	N 22 59.0 +00.0	209 26.1 +02.6	S 11 05.9 +00.0	12								
13	25 05.2 +00.6	N 19 22.7 +00.5	356 50.3 +01.8	N 22 59.0 +00.1	224 28.7 +02.7	S 11 05.9 -00.1	13								
14	40 05.8 +00.6	N 19 23.2 +00.4	11 52.1 +01.9	N 22 59.1 +00.0	239 31.4 +02.6	S 11 05.8 +00.0	14								
15	55 06.4 +00.6	N 19 23.6 +00.5	26 54.0 +01.8	N 22 59.1 +00.0	254 34.0 +02.6	S 11 05.8 -00.1	15								
16	70 07.0 +00.7	N 19 24.1 +00.4	41 55.8 +01.9	N 22 59.1 +00.1	269 36.6 +02.6	S 11 05.7 +00.0	16								
17	85 07.7 +00.6	N 19 24.5 +00.4	56 57.7 +01.8	N 22 59.2 +00.0	284 39.2 +02.6	S 11 05.7 +00.0	17								
18	100 08.3 +00.6	N 19 24.9 +00.5	71 59.5 +01.9	N 22 59.2 +00.0	299 41.8 +02.6	S 11 05.7 -00.1	18								
19	115 08.9 +00.6	N 19 25.4 +00.4	87 01.4 +01.9	N 22 59.2 +00.1	314 44.4 +02.6	S 11 05.6 +00.0	19								
20	130 09.5 +00.6	N 19 25.8 +00.5	102 03.3 +01.8	N 22 59.3 +00.0	329 47.0 +02.6	S 11 05.6 -00.1	20								
21	145 10.1 +00.6	N 19 26.3 +00.4	117 05.1 +01.9	N 22 59.3 +00.0	344 49.6 +02.7	S 11 05.5 +00.0	21								
22	160 10.7 +00.7	N 19 26.7 +00.5	132 07.0 +01.8	N 22 59.3 +00.1	359 52.3 +02.6	S 11 05.5 -00.1	22								
23	175 11.4 +00.6	N 19 27.2 +00.4	147 08.8 +01.9	N 22 59.4 +00.0	14 54.9 +02.6	S 11 05.4 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:20	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 13:13	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 22:01										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> <i>a</i> = 0.60				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 43.7 +00.0	N 21 17.0 +00.5	164 12.4 -00.9	N 23 48.9 +00.3	333 01.8 -37.5	S 19 43.0 -03.0	00						
01	195 43.7 -00.1	N 21 17.5 +00.4	179 11.5 -00.9	N 23 49.2 +00.3	347 24.3 -37.4	S 19 40.0 -03.1	01						
02	210 43.6 -00.1	N 21 17.9 +00.4	194 10.6 -00.8	N 23 49.5 +00.3	1 46.9 -37.4	S 19 36.9 -03.3	02						
03	225 43.5 -00.1	N 21 18.3 +00.4	209 09.8 -00.9	N 23 49.8 +00.3	16 09.5 -37.3	S 19 33.6 -03.4	03						
04	240 43.4 +00.0	N 21 18.7 +00.4	224 08.9 -00.9	N 23 50.1 +00.3	30 32.2 -37.3	S 19 30.2 -03.5	04						
05	255 43.4 -00.1	N 21 19.1 +00.4	239 08.0 -00.8	N 23 50.4 +00.3	44 54.9 -37.2	S 19 26.7 -03.7	05						
06	270 43.3 -00.1	N 21 19.5 +00.5	254 07.2 -00.9	N 23 50.7 +00.3	59 17.7 -37.2	S 19 23.0 -03.8	06						
07	285 43.2 +00.0	N 21 20.0 +00.4	269 06.3 -00.9	N 23 51.0 +00.3	73 40.5 -37.2	S 19 19.2 -04.0	07						
08	300 43.2 -00.1	N 21 20.4 +00.4	284 05.4 -00.8	N 23 51.3 +00.3	88 03.3 -37.0	S 19 15.2 -04.1	08						
09	315 43.1 -00.1	N 21 20.8 +00.4	299 04.6 -00.9	N 23 51.6 +00.2	102 26.3 -37.0	S 19 11.1 -04.2	09						
10	330 43.0 -00.1	N 21 21.2 +00.4	314 03.7 -00.9	N 23 51.8 +00.3	116 49.3 -37.0	S 19 06.9 -04.4	10						
11	345 42.9 +00.0	N 21 21.6 +00.4	329 02.8 -00.9	N 23 52.1 +00.3	131 12.3 -36.9	S 19 02.5 -04.5	11						
12	0 42.9 -00.1	N 21 22.0 +00.4	344 01.9 -00.8	N 23 52.4 +00.3	145 35.4 -36.8	S 18 58.0 -04.7	12						
13	15 42.8 -00.1	N 21 22.4 +00.4	359 01.1 -00.9	N 23 52.7 +00.3	159 58.6 -36.8	S 18 53.3 -04.8	13						
14	30 42.7 -00.1	N 21 22.8 +00.4	14 00.2 -00.9	N 23 53.0 +00.3	174 21.8 -36.7	S 18 48.5 -04.9	14						
15	45 42.6 +00.0	N 21 23.2 +00.5	28 59.3 -00.8	N 23 53.3 +00.2	188 45.1 -36.7	S 18 43.6 -05.1	15						
16	60 42.6 -00.1	N 21 23.7 +00.4	43 58.5 -00.9	N 23 53.5 +00.3	203 08.4 -36.6	S 18 38.5 -05.1	16						
17	75 42.5 -00.1	N 21 24.1 +00.4	58 57.6 -00.9	N 23 53.8 +00.3	217 31.8 -36.5	S 18 33.4 -05.4	17						
18	90 42.4 -00.1	N 21 24.5 +00.4	73 56.7 -00.9	N 23 54.1 +00.3	231 55.3 -36.4	S 18 28.0 -05.4	18						
19	105 42.3 +00.0	N 21 24.9 +00.4	88 55.8 -00.8	N 23 54.4 +00.2	246 18.9 -36.4	S 18 22.6 -05.6	19						
20	120 42.3 -00.1	N 21 25.3 +00.4	103 55.0 -00.9	N 23 54.6 +00.3	260 42.5 -36.3	S 18 17.0 -05.7	20						
21	135 42.2 -00.1	N 21 25.7 +00.4	118 54.1 -00.9	N 23 54.9 +00.3	275 06.2 -36.2	S 18 11.3 -05.8	21						
22	150 42.1 -00.1	N 21 26.1 +00.4	133 53.2 -00.8	N 23 55.2 +00.3	289 30.0 -36.2	S 18 05.5 -05.9	22						
23	165 42.0 +00.0	N 21 26.5 +00.4	148 52.4 -00.9	N 23 55.5 +00.2	303 53.8 -36.1	S 17 59.6 -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 15'8 15'8 15'8 15'8 15'8 15'8				SD 00'1 00'1 00'1 00'1 00'1 00'1				SD 16'6 16'6 16'6 16'6 16'5 16'5					
HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 61'0 60'9 60'9 60'8 60'7 60'6					
Greenwich Culmination Time: 11:57				Greenwich Culmination Time: 13:04				Greenwich Culmination Time: 01:53					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	190 12.0 +00.6	N 19 27.6 +00.4	162 10.7 +01.8	N 22 59.4 +00.0	29 57.5 +02.6	S 11 05.4 +00.0	00						
01	205 12.6 +00.6	N 19 28.0 +00.5	177 12.5 +01.9	N 22 59.4 +00.1	45 00.1 +02.6	S 11 05.4 -00.1	01						
02	220 13.2 +00.6	N 19 28.5 +00.4	192 14.4 +01.8	N 22 59.5 +00.0	60 02.7 +02.6	S 11 05.3 +00.0	02						
03	235 13.8 +00.6	N 19 28.9 +00.5	207 16.2 +01.9	N 22 59.5 +00.0	75 05.3 +02.6	S 11 05.3 -00.1	03						
04	250 14.4 +00.7	N 19 29.4 +00.4	222 18.1 +01.8	N 22 59.5 +00.1	90 07.9 +02.6	S 11 05.2 +00.0	04						
05	265 15.1 +00.6	N 19 29.8 +00.4	237 19.9 +01.9	N 22 59.6 +00.0	105 10.5 +02.6	S 11 05.2 -00.1	05						
06	280 15.7 +00.6	N 19 30.2 +00.5	252 21.8 +01.9	N 22 59.6 +00.0	120 13.1 +02.7	S 11 05.1 +00.0	06						
07	295 16.3 +00.6	N 19 30.7 +00.4	267 23.7 +01.8	N 22 59.6 +00.1	135 15.8 +02.6	S 11 05.1 +00.0	07						
08	310 16.9 +00.6	N 19 31.1 +00.4	282 25.5 +01.9	N 22 59.7 +00.0	150 18.4 +02.6	S 11 05.1 -00.1	08						
09	325 17.5 +00.6	N 19 31.5 +00.5	297 27.4 +01.8	N 22 59.7 +00.0	165 21.0 +02.6	S 11 05.0 +00.0	09						
10	340 18.1 +00.7	N 19 32.0 +00.4	312 29.2 +01.9	N 22 59.7 +00.1	180 23.6 +02.6	S 11 05.0 -00.1	10						
11	355 18.8 +00.6	N 19 32.4 +00.5	327 31.1 +01.8	N 22 59.8 +00.0	195 26.2 +02.6	S 11 04.9 +00.0	11						
12	10 19.4 +00.6	N 19 32.9 +00.4	342 32.9 +01.9	N 22 59.8 +00.0	210 28.8 +02.6	S 11 04.9 -00.1	12						
13	25 20.0 +00.6	N 19 33.3 +00.4	357 34.8 +01.8	N 22 59.8 +00.1	225 31.4 +02.6	S 11 04.8 +00.0	13						
14	40 20.6 +00.6	N 19 33.7 +00.5	12 36.6 +01.9	N 22 59.9 +00.0	240 34.0 +02.6	S 11 04.8 +00.0	14						
15	55 21.2 +00.6	N 19 34.2 +00.4	27 38.5 +01.8	N 22 59.9 +00.0	255 36.6 +02.7	S 11 04.8 -00.1	15						
16	70 21.8 +00.7	N 19 34.6 +00.4	42 40.3 +01.9	N 22 59.9 +00.1	270 39.3 +02.6	S 11 04.7 +00.0	16						
17	85 22.5 +00.6	N 19 35.0 +00.5	57 42.2 +01.8	N 22 60.0 +00.0	285 41.9 +02.6	S 11 04.7 -00.1	17						
18	100 23.1 +00.6	N 19 35.5 +00.4	72 44.0 +01.9	N 23 00.0 +00.0	300 44.5 +02.6	S 11 04.6 +00.0	18						
19	115 23.7 +00.6	N 19 35.9 +00.4	87 45.9 +01.9	N 23 00.0 +00.1	315 47.1 +02.6	S 11 04.6 -00.1	19						
20	130 24.3 +00.6	N 19 36.3 +00.5	102 47.8 +01.8	N 23 00.1 +00.0	330 49.7 +02.6	S 11 04.5 +00.0	20						
21	145 24.9 +00.6	N 19 36.8 +00.4	117 49.6 +01.9	N 23 00.1 +00.0	345 52.3 +02.6	S 11 04.5 +00.0	21						
22	160 25.5 +00.7	N 19 37.2 +00.4	132 51.5 +01.8	N 23 00.1 +00.1	0 54.9 +02.6	S 11 04.5 -00.1	22						
23	175 26.2 +00.6	N 19 37.6 +00.5	147 53.3 +01.9	N 23 00.2 +00.0	15 57.5 +02.6	S 11 04.4 +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 00'0 00'0 00'0 00'0 00'0 00'0				SD 00'3 00'3 00'3 00'3 00'3 00'3				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 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0					
Greenwich Culmination Time: 11:19				Greenwich Culmination Time: 13:10				Greenwich Culmination Time: 21:56					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.64$				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 42.0 -00.1	N 21 26.9 +00.4	163 51.5 -00.9	N 23 55.7 +00.3	318 17.7 -36.0	S 17 53.5 -06.2	00						
01	195 41.9 -00.1	N 21 27.3 +00.4	178 50.6 -00.9	N 23 56.0 +00.3	332 41.7 -35.9	S 17 47.3 -06.3	01						
02	210 41.8 -00.1	N 21 27.7 +00.4	193 49.7 -00.8	N 23 56.3 +00.2	347 05.8 -35.9	S 17 41.0 -06.4	02						
03	225 41.7 +00.0	N 21 28.1 +00.4	208 48.9 -00.9	N 23 56.5 +00.3	1 29.9 -35.7	S 17 34.6 -06.6	03						
04	240 41.7 -00.1	N 21 28.5 +00.4	223 48.0 -00.9	N 23 56.8 +00.2	15 54.2 -35.7	S 17 28.0 -06.6	04						
05	255 41.6 -00.1	N 21 28.9 +00.4	238 47.1 -00.9	N 23 57.0 +00.3	30 18.5 -35.6	S 17 21.4 -06.8	05						
06	270 41.5 -00.1	N 21 29.3 +00.4	253 46.2 -00.8	N 23 57.3 +00.3	44 42.9 -35.6	S 17 14.6 -06.9	06						
07	285 41.4 -00.1	N 21 29.7 +00.4	268 45.4 -00.9	N 23 57.6 +00.2	59 07.3 -35.4	S 17 07.7 -07.0	07						
08	300 41.3 +00.0	N 21 30.1 +00.4	283 44.5 -00.9	N 23 57.8 +00.3	73 31.9 -35.4	S 17 00.7 -07.1	08						
09	315 41.3 -00.1	N 21 30.5 +00.4	298 43.6 -00.8	N 23 58.1 +00.2	87 56.5 -35.3	S 16 53.6 -07.2	09						
10	330 41.2 -00.1	N 21 30.9 +00.4	313 42.8 -00.9	N 23 58.3 +00.3	102 21.2 -35.2	S 16 46.4 -07.3	10						
11	345 41.1 -00.1	N 21 31.3 +00.4	328 41.9 -00.9	N 23 58.6 +00.3	116 46.0 -35.1	S 16 39.1 -07.5	11						
12	0 41.0 +00.0	N 21 31.7 +00.4	343 41.0 -00.9	N 23 58.9 +00.2	131 10.9 -35.1	S 16 31.6 -07.5	12						
13	15 41.0 -00.1	N 21 32.1 +00.4	358 40.1 -00.8	N 23 59.1 +00.3	145 35.8 -34.9	S 16 24.1 -07.6	13						
14	30 40.9 -00.1	N 21 32.5 +00.4	13 39.3 -00.9	N 23 59.4 +00.2	160 00.9 -34.9	S 16 16.5 -07.8	14						
15	45 40.8 -00.1	N 21 32.9 +00.4	28 38.4 -00.9	N 23 59.6 +00.3	174 26.0 -34.8	S 16 08.7 -07.8	15						
16	60 40.7 -00.1	N 21 33.3 +00.4	43 37.5 -00.9	N 23 59.9 +00.2	188 51.2 -34.7	S 16 00.9 -07.9	16						
17	75 40.6 +00.0	N 21 33.7 +00.4	58 36.6 -00.9	N 24 00.1 +00.3	203 16.5 -34.6	S 15 53.0 -08.1	17						
18	90 40.6 -00.1	N 21 34.1 +00.3	73 35.7 -00.8	N 24 00.4 +00.2	217 41.9 -34.5	S 15 44.9 -08.1	18						
19	105 40.5 -00.1	N 21 34.4 +00.4	88 34.9 -00.9	N 24 00.6 +00.2	232 07.4 -34.4	S 15 36.8 -08.2	19						
20	120 40.4 -00.1	N 21 34.8 +00.4	103 34.0 -00.9	N 24 00.8 +00.3	246 33.0 -34.4	S 15 28.6 -08.4	20						
21	135 40.3 -00.1	N 21 35.2 +00.4	118 33.1 -00.9	N 24 01.1 +00.2	260 58.6 -34.3	S 15 20.2 -08.4	21						
22	150 40.2 +00.0	N 21 35.6 +00.4	133 32.2 -00.8	N 24 01.3 +00.3	275 24.3 -34.1	S 15 11.8 -08.5	22						
23	165 40.2 -00.1	N 21 36.0 +00.4	148 31.4 -00.9	N 24 01.6 +00.2	289 50.2 -34.1	S 15 03.3 -08.6	23						
UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 16'5 16'5 16'4 16'4 16'4 16'4								
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:57	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 13:05	HP 60'6 60'5 60'4 60'3 60'1 60'0	Greenwich Culmination Time: 02:54								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	190 26.8 +00.6	N 19 38.1 +00.4	162 55.2 +01.8	N 23 00.2 +00.0	31 00.1 +02.6	S 11 04.4 -00.1	00						
01	205 27.4 +00.6	N 19 38.5 +00.4	177 57.0 +01.9	N 23 00.2 +00.1	46 02.7 +02.7	S 11 04.3 +00.0	01						
02	220 28.0 +00.6	N 19 38.9 +00.5	192 58.9 +01.8	N 23 00.3 +00.0	61 05.4 +02.6	S 11 04.3 +00.0	02						
03	235 28.6 +00.6	N 19 39.4 +00.4	208 00.7 +01.9	N 23 00.3 +00.0	76 08.0 +02.6	S 11 04.3 -00.1	03						
04	250 29.2 +00.6	N 19 39.8 +00.4	223 02.6 +01.8	N 23 00.3 +00.1	91 10.6 +02.6	S 11 04.2 +00.0	04						
05	265 29.8 +00.7	N 19 40.2 +00.5	238 04.4 +01.9	N 23 00.4 +00.0	106 13.2 +02.6	S 11 04.2 -00.1	05						
06	280 30.5 +00.6	N 19 40.7 +00.4	253 06.3 +01.8	N 23 00.4 +00.0	121 15.8 +02.6	S 11 04.1 +00.0	06						
07	295 31.1 +00.6	N 19 41.1 +00.4	268 08.1 +01.9	N 23 00.4 +00.1	136 18.4 +02.6	S 11 04.1 -00.1	07						
08	310 31.7 +00.6	N 19 41.5 +00.5	283 10.0 +01.8	N 23 00.5 +00.0	151 21.0 +02.6	S 11 04.0 +00.0	08						
09	325 32.3 +00.6	N 19 42.0 +00.4	298 11.8 +01.9	N 23 00.5 +00.0	166 23.6 +02.6	S 11 04.0 +00.0	09						
10	340 32.9 +00.6	N 19 42.4 +00.4	313 13.7 +01.8	N 23 00.5 +00.1	181 26.2 +02.6	S 11 04.0 -00.1	10						
11	355 33.5 +00.7	N 19 42.8 +00.4	328 15.5 +01.9	N 23 00.6 +00.0	196 28.8 +02.6	S 11 03.9 +00.0	11						
12	10 34.2 +00.6	N 19 43.2 +00.5	343 17.4 +01.9	N 23 00.6 +00.0	211 31.4 +02.7	S 11 03.9 -00.1	12						
13	25 34.8 +00.6	N 19 43.7 +00.4	358 19.3 +01.8	N 23 00.6 +00.1	226 34.1 +02.6	S 11 03.8 +00.0	13						
14	40 35.4 +00.6	N 19 44.1 +00.4	13 21.1 +01.9	N 23 00.7 +00.0	241 36.7 +02.6	S 11 03.8 +00.0	14						
15	55 36.0 +00.6	N 19 44.5 +00.5	28 23.0 +01.8	N 23 00.7 +00.0	256 39.3 +02.6	S 11 03.8 -00.1	15						
16	70 36.6 +00.6	N 19 45.0 +00.4	43 24.8 +01.9	N 23 00.7 +00.0	271 41.9 +02.6	S 11 03.7 +00.0	16						
17	85 37.2 +00.6	N 19 45.4 +00.4	58 26.7 +01.8	N 23 00.7 +00.1	286 44.5 +02.6	S 11 03.7 -00.1	17						
18	100 37.8 +00.7	N 19 45.8 +00.4	73 28.5 +01.9	N 23 00.8 +00.0	301 47.1 +02.6	S 11 03.6 +00.0	18						
19	115 38.5 +00.6	N 19 46.2 +00.5	88 30.4 +01.8	N 23 00.8 +00.0	316 49.7 +02.6	S 11 03.6 +00.0	19						
20	130 39.1 +00.6	N 19 46.7 +00.4	103 32.2 +01.9	N 23 00.8 +00.1	331 52.3 +02.6	S 11 03.6 -00.1	20						
21	145 39.7 +00.6	N 19 47.1 +00.4	118 34.1 +01.8	N 23 00.9 +00.0	346 54.9 +02.6	S 11 03.5 +00.0	21						
22	160 40.3 +00.6	N 19 47.5 +00.4	133 35.9 +01.9	N 23 00.9 +00.0	1 57.5 +02.6	S 11 03.5 -00.1	22						
23	175 40.9 +00.6	N 19 47.9 +00.5	148 37.8 +01.8	N 23 00.9 +00.1	17 00.1 +02.6	S 11 03.4 +00.0	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2								
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:18	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 13:07	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 21:52								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.68$				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 40.1 -00.1	N 21 36.4 +00.4	163 30.5 -00.9	N 24 01.8 +00.3	304 16.1 -34.0	S 14 54.7 -08.6	00						
01	195 40.0 -00.1	N 21 36.8 +00.4	178 29.6 -00.9	N 24 02.1 +00.2	318 42.1 -33.9	S 14 46.1 -08.8	01						
02	210 39.9 -00.1	N 21 37.2 +00.4	193 28.7 -00.8	N 24 02.3 +00.2	333 08.2 -33.8	S 14 37.3 -08.8	02						
03	225 39.8 -00.1	N 21 37.6 +00.3	208 27.9 -00.9	N 24 02.5 +00.3	347 34.4 -33.8	S 14 28.5 -09.0	03						
04	240 39.7 +00.0	N 21 37.9 +00.4	223 27.0 -00.9	N 24 02.8 +00.2	2 00.6 -33.6	S 14 19.5 -09.0	04						
05	255 39.7 -00.1	N 21 38.3 +00.4	238 26.1 -00.9	N 24 03.0 +00.2	16 27.0 -33.6	S 14 10.5 -09.1	05						
06	270 39.6 -00.1	N 21 38.7 +00.4	253 25.2 -00.9	N 24 03.2 +00.3	30 53.4 -33.5	S 14 01.4 -09.1	06						
07	285 39.5 -00.1	N 21 39.1 +00.4	268 24.3 -00.8	N 24 03.5 +00.2	45 19.9 -33.3	S 13 52.3 -09.3	07						
08	300 39.4 -00.1	N 21 39.5 +00.4	283 23.5 -00.9	N 24 03.7 +00.2	59 46.6 -33.3	S 13 43.0 -09.3	08						
09	315 39.3 +00.0	N 21 39.9 +00.3	298 22.6 -00.9	N 24 03.9 +00.2	74 13.3 -33.3	S 13 33.7 -09.4	09						
10	330 39.3 -00.1	N 21 40.2 +00.4	313 21.7 -00.9	N 24 04.1 +00.3	88 40.0 -33.1	S 13 24.3 -09.5	10						
11	345 39.2 -00.1	N 21 40.6 +00.4	328 20.8 -00.8	N 24 04.4 +00.2	103 06.9 -33.0	S 13 14.8 -09.5	11						
12	0 39.1 -00.1	N 21 41.0 +00.4	343 20.0 -00.9	N 24 04.6 +00.2	117 33.9 -33.0	S 13 05.3 -09.6	12						
13	15 39.0 -00.1	N 21 41.4 +00.4	358 19.1 -00.9	N 24 04.8 +00.2	132 00.9 -32.8	S 12 55.7 -09.7	13						
14	30 38.9 -00.1	N 21 41.8 +00.3	13 18.2 -00.9	N 24 05.0 +00.3	146 28.1 -32.8	S 12 46.0 -09.7	14						
15	45 38.8 -00.1	N 21 42.1 +00.4	28 17.3 -00.9	N 24 05.3 +00.2	160 55.3 -32.7	S 12 36.3 -09.8	15						
16	60 38.7 +00.0	N 21 42.5 +00.4	43 16.4 -00.8	N 24 05.5 +00.2	175 22.6 -32.6	S 12 26.5 -09.9	16						
17	75 38.7 -00.1	N 21 42.9 +00.4	58 15.6 -00.9	N 24 05.7 +00.2	189 50.0 -32.5	S 12 16.6 -09.9	17						
18	90 38.6 -00.1	N 21 43.3 +00.3	73 14.7 -00.9	N 24 05.9 +00.2	204 17.5 -32.4	S 12 06.7 -10.0	18						
19	105 38.5 -00.1	N 21 43.6 +00.4	88 13.8 -00.9	N 24 06.1 +00.3	218 45.1 -32.4	S 11 56.7 -10.1	19						
20	120 38.4 -00.1	N 21 44.0 +00.4	103 12.9 -00.9	N 24 06.4 +00.2	233 12.7 -32.3	S 11 46.6 -10.1	20						
21	135 38.3 -00.1	N 21 44.4 +00.4	118 12.0 -00.8	N 24 06.6 +00.2	247 40.4 -32.1	S 11 36.5 -10.2	21						
22	150 38.2 +00.0	N 21 44.8 +00.3	133 11.2 -00.9	N 24 06.8 +00.2	262 08.3 -32.2	S 11 26.3 -10.2	22						
23	165 38.2 -00.1	N 21 45.1 +00.4	148 10.3 -00.9	N 24 07.0 +00.2	276 36.1 -32.0	S 11 16.1 -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 15'8 15'8 15'8 15'8 15'8 15'8				SD 00'1 00'1 00'1 00'1 00'1 00'1				SD 16'3 16'3 16'3 16'2 16'2 16'1					
HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 59'9 59'8 59'7 59'5 59'4 59'3					
Greenwich Culmination Time: 11:57				Greenwich Culmination Time: 13:07				Greenwich Culmination Time: 03:52					

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	190 41.5 +00.6	N 19 48.4 +00.4	163 39.6 +01.9	N 23 01.0 +00.0	32 02.7 +02.6	S 11 03.4 -00.1	00						
01	205 42.1 +00.6	N 19 48.8 +00.4	178 41.5 +01.8	N 23 01.0 +00.0	47 05.3 +02.6	S 11 03.3 +00.0	01						
02	220 42.7 +00.7	N 19 49.2 +00.4	193 43.3 +01.9	N 23 01.0 +00.1	62 07.9 +02.7	S 11 03.3 +00.0	02						
03	235 43.4 +00.6	N 19 49.6 +00.5	208 45.2 +01.8	N 23 01.1 +00.0	77 10.6 +02.6	S 11 03.3 -00.1	03						
04	250 44.0 +00.6	N 19 50.1 +00.4	223 47.0 +01.9	N 23 01.1 +00.0	92 13.2 +02.6	S 11 03.2 +00.0	04						
05	265 44.6 +00.6	N 19 50.5 +00.4	238 48.9 +01.8	N 23 01.1 +00.1	107 15.8 +02.6	S 11 03.2 -00.1	05						
06	280 45.2 +00.6	N 19 50.9 +00.4	253 50.7 +01.9	N 23 01.2 +00.0	122 18.4 +02.6	S 11 03.1 +00.0	06						
07	295 45.8 +00.6	N 19 51.3 +00.5	268 52.6 +01.8	N 23 01.2 +00.0	137 21.0 +02.6	S 11 03.1 +00.0	07						
08	310 46.4 +00.6	N 19 51.8 +00.4	283 54.4 +01.9	N 23 01.2 +00.1	152 23.6 +02.6	S 11 03.1 -00.1	08						
09	325 47.0 +00.7	N 19 52.2 +00.4	298 56.3 +01.8	N 23 01.3 +00.0	167 26.2 +02.6	S 11 03.0 +00.0	09						
10	340 47.7 +00.6	N 19 52.6 +00.4	313 58.1 +01.9	N 23 01.3 +00.0	182 28.8 +02.6	S 11 03.0 -00.1	10						
11	355 48.3 +00.6	N 19 53.0 +00.4	328 60.0 +01.9	N 23 01.3 +00.1	197 31.4 +02.6	S 11 02.9 +00.0	11						
12	10 48.9 +00.6	N 19 53.4 +00.5	344 01.9 +01.8	N 23 01.4 +00.0	212 34.0 +02.6	S 11 02.9 +00.0	12						
13	25 49.5 +00.6	N 19 53.9 +00.4	359 03.7 +01.9	N 23 01.4 +00.0	227 36.6 +02.6	S 11 02.9 -00.1	13						
14	40 50.1 +00.6	N 19 54.3 +00.4	14 05.6 +01.8	N 23 01.4 +00.0	242 39.2 +02.6	S 11 02.8 +00.0	14						
15	55 50.7 +00.6	N 19 54.7 +00.4	29 07.4 +01.9	N 23 01.4 +00.1	257 41.8 +02.6	S 11 02.8 -00.1	15						
16	70 51.3 +00.6	N 19 55.1 +00.4	44 09.3 +01.8	N 23 01.5 +00.0	272 44.4 +02.6	S 11 02.7 +00.0	16						
17	85 51.9 +00.7	N 19 55.5 +00.5	59 11.1 +01.9	N 23 01.5 +00.0	287 47.0 +02.6	S 11 02.7 +00.0	17						
18	100 52.6 +00.6	N 19 56.0 +00.4	74 13.0 +01.8	N 23 01.5 +00.1	302 49.6 +02.6	S 11 02.7 -00.1	18						
19	115 53.2 +00.6	N 19 56.4 +00.4	89 14.8 +01.9	N 23 01.6 +00.0	317 52.2 +02.7	S 11 02.6 +00.0	19						
20	130 53.8 +00.6	N 19 56.8 +00.4	104 16.7 +01.8	N 23 01.6 +00.0	332 54.9 +02.6	S 11 02.6 -00.1	20						
21	145 54.4 +00.6	N 19 57.2 +00.4	119 18.5 +01.9	N 23 01.6 +00.1	347 57.5 +02.6	S 11 02.5 +00.0	21						
22	160 55.0 +00.6	N 19 57.6 +00.5	134 20.4 +01.8	N 23 01.7 +00.0	3 00.1 +02.6	S 11 02.5 +00.0	22						
23	175 55.6 +00.6	N 19 58.1 +00.4	149 22.2 +01.9	N 23 01.7 +00.0	18 02.7 +02.6	S 11 02.5 -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 00'0 00'0 00'0 00'0 00'0 00'0				SD 00'3 00'3 00'3 00'3 00'3 00'3				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 00'0 00'0 00'0 00'0 00'0 00'0				HP 00'0 00'0 00'0 00'0 00'0 00'0					
Greenwich Culmination Time: 11:17				Greenwich Culmination Time: 13:04				Greenwich Culmination Time: 21:48					

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.71$				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	180 38.1 -00.1	N 21 45.5 +00.4	163 09.4 -00.9	N 24 07.2 +00.2	291 04.1 -31.9	S 11 05.8 -10.3	00						
01	195 38.0 -00.1	N 21 45.9 +00.4	178 08.5 -00.9	N 24 07.4 +00.2	305 32.2 -31.9	S 10 55.5 -10.4	01						
02	210 37.9 -00.1	N 21 46.3 +00.3	193 07.6 -00.9	N 24 07.6 +00.2	320 00.3 -31.7	S 10 45.1 -10.4	02						
03	225 37.8 -00.1	N 21 46.6 +00.4	208 06.7 -00.8	N 24 07.8 +00.2	334 28.6 -31.7	S 10 34.7 -10.5	03						
04	240 37.7 -00.1	N 21 47.0 +00.4	223 05.9 -00.9	N 24 08.0 +00.2	348 56.9 -31.6	S 10 24.2 -10.5	04						
05	255 37.6 +00.0	N 21 47.4 +00.3	238 05.0 -00.9	N 24 08.2 +00.2	3 25.3 -31.6	S 10 13.7 -10.6	05						
06	270 37.6 -00.1	N 21 47.7 +00.4	253 04.1 -00.9	N 24 08.4 +00.2	17 53.7 -31.4	S 10 03.1 -10.6	06						
07	285 37.5 -00.1	N 21 48.1 +00.4	268 03.2 -00.9	N 24 08.6 +00.2	32 22.3 -31.4	S 09 52.5 -10.7	07						
08	300 37.4 -00.1	N 21 48.5 +00.3	283 02.3 -00.8	N 24 08.8 +00.2	46 50.9 -31.3	S 09 41.8 -10.7	08						
09	315 37.3 -00.1	N 21 48.8 +00.4	298 01.5 -00.9	N 24 09.0 +00.2	61 19.6 -31.2	S 09 31.1 -10.7	09						
10	330 37.2 -00.1	N 21 49.2 +00.4	313 00.6 -00.9	N 24 09.2 +00.2	75 48.4 -31.2	S 09 20.4 -10.8	10						
11	345 37.1 -00.1	N 21 49.6 +00.3	327 59.7 -00.9	N 24 09.4 +00.2	90 17.2 -31.1	S 09 09.6 -10.9	11						
12	0 37.0 -00.1	N 21 49.9 +00.4	342 58.8 -00.9	N 24 09.6 +00.2	104 46.1 -31.0	S 08 58.7 -10.8	12						
13	15 36.9 -00.1	N 21 50.3 +00.4	357 57.9 -00.9	N 24 09.8 +00.2	119 15.1 -30.9	S 08 47.9 -10.9	13						
14	30 36.8 +00.0	N 21 50.7 +00.3	12 57.0 -00.8	N 24 10.0 +00.2	133 44.2 -30.8	S 08 37.0 -10.9	14						
15	45 36.8 -00.1	N 21 51.0 +00.4	27 56.2 -00.9	N 24 10.2 +00.2	148 13.4 -30.8	S 08 26.1 -11.0	15						
16	60 36.7 -00.1	N 21 51.4 +00.3	42 55.3 -00.9	N 24 10.4 +00.2	162 42.6 -30.7	S 08 15.1 -11.0	16						
17	75 36.6 -00.1	N 21 51.7 +00.4	57 54.4 -00.9	N 24 10.6 +00.2	177 11.9 -30.7	S 08 04.1 -11.0	17						
18	90 36.5 -00.1	N 21 52.1 +00.4	72 53.5 -00.9	N 24 10.8 +00.2	191 41.2 -30.5	S 07 53.1 -11.1	18						
19	105 36.4 -00.1	N 21 52.5 +00.3	87 52.6 -00.9	N 24 11.0 +00.2	206 10.7 -30.5	S 07 42.0 -11.1	19						
20	120 36.3 -00.1	N 21 52.8 +00.4	102 51.7 -00.8	N 24 11.2 +00.1	220 40.2 -30.5	S 07 30.9 -11.1	20						
21	135 36.2 -00.1	N 21 53.2 +00.3	117 50.9 -00.9	N 24 11.3 +00.2	235 09.7 -30.3	S 07 19.8 -11.1	21						
22	150 36.1 -00.1	N 21 53.5 +00.4	132 50.0 -00.9	N 24 11.5 +00.2	249 39.4 -30.3	S 07 08.7 -11.2	22						
23	165 36.0 +00.0	N 21 53.9 +00.3	147 49.1 -00.9	N 24 11.7 +00.2	264 09.1 -30.2	S 06 57.5 -11.2	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	Greenwich Culmination Time: 11:58	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	Greenwich Culmination Time: 13:08	UT 02 06 10 14 18 22	SD 16'1 16'1 16'0 16'0 16'0 15'9	HP 59'1 59'0 58'8 58'7 58'6 58'4	Greenwich Culmination Time: 04:46		

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	
00	190 56.2 +00.6	N 19 58.5 +00.4	164 24.1 +01.8	N 23 01.7 +00.1	33 05.3 +02.6	S 11 02.4 +00.0	00						
01	205 56.8 +00.7	N 19 58.9 +00.4	179 25.9 +01.9	N 23 01.8 +00.0	48 07.9 +02.6	S 11 02.4 -00.1	01						
02	220 57.5 +00.6	N 19 59.3 +00.4	194 27.8 +01.8	N 23 01.8 +00.0	63 10.5 +02.6	S 11 02.3 +00.0	02						
03	235 58.1 +00.6	N 19 59.7 +00.4	209 29.6 +01.9	N 23 01.8 +00.0	78 13.1 +02.6	S 11 02.3 +00.0	03						
04	250 58.7 +00.6	N 20 00.1 +00.4	224 31.5 +01.8	N 23 01.8 +00.1	93 15.7 +02.6	S 11 02.3 -00.1	04						
05	265 59.3 +00.6	N 20 00.5 +00.5	239 33.3 +01.9	N 23 01.9 +00.0	108 18.3 +02.6	S 11 02.2 +00.0	05						
06	280 59.9 +00.6	N 20 01.0 +00.4	254 35.2 +01.8	N 23 01.9 +00.0	123 20.9 +02.6	S 11 02.2 -00.1	06						
07	296 00.5 +00.6	N 20 01.4 +00.4	269 37.0 +01.9	N 23 01.9 +00.1	138 23.5 +02.6	S 11 02.1 +00.0	07						
08	311 01.1 +00.6	N 20 01.8 +00.4	284 38.9 +01.8	N 23 02.0 +00.0	153 26.1 +02.6	S 11 02.1 +00.0	08						
09	326 01.7 +00.7	N 20 02.2 +00.4	299 40.7 +01.9	N 23 02.0 +00.0	168 28.7 +02.6	S 11 02.1 -00.1	09						
10	341 02.4 +00.6	N 20 02.6 +00.4	314 42.6 +01.8	N 23 02.0 +00.1	183 31.3 +02.6	S 11 02.0 +00.0	10						
11	356 03.0 +00.6	N 20 03.0 +00.4	329 44.4 +01.9	N 23 02.1 +00.0	198 33.9 +02.6	S 11 02.0 -00.1	11						
12	11 03.6 +00.6	N 20 03.4 +00.5	344 46.3 +01.8	N 23 02.1 +00.0	213 36.5 +02.6	S 11 01.9 +00.0	12						
13	26 04.2 +00.6	N 20 03.9 +00.4	359 48.1 +01.9	N 23 02.1 +00.0	228 39.1 +02.6	S 11 01.9 +00.0	13						
14	41 04.8 +00.6	N 20 04.3 +00.4	14 50.0 +01.8	N 23 02.1 +00.1	243 41.7 +02.6	S 11 01.9 -00.1	14						
15	56 05.4 +00.6	N 20 04.7 +00.4	29 51.8 +01.9	N 23 02.2 +00.0	258 44.3 +02.6	S 11 01.8 +00.0	15						
16	71 06.0 +00.6	N 20 05.1 +00.4	44 53.7 +01.8	N 23 02.2 +00.0	273 46.9 +02.6	S 11 01.8 -00.1	16						
17	86 06.6 +00.6	N 20 05.5 +00.4	59 55.5 +01.9	N 23 02.2 +00.1	288 49.5 +02.6	S 11 01.7 +00.0	17						
18	101 07.2 +00.6	N 20 05.9 +00.4	74 57.4 +01.8	N 23 02.3 +00.0	303 52.1 +02.6	S 11 01.7 +00.0	18						
19	116 07.8 +00.7	N 20 06.3 +00.4	89 59.2 +01.9	N 23 02.3 +00.0	318 54.7 +02.6	S 11 01.7 -00.1	19						
20	131 08.5 +00.6	N 20 06.7 +00.4	105 01.1 +01.8	N 23 02.3 +00.1	333 57.3 +02.6	S 11 01.6 +00.0	20						
21	146 09.1 +00.6	N 20 07.1 +00.5	120 02.9 +01.9	N 23 02.4 +00.0	348 59.9 +02.6	S 11 01.6 -00.1	21						
22	161 09.7 +00.6	N 20 07.6 +00.4	135 04.8 +01.8	N 23 02.4 +00.0	4 02.5 +02.6	S 11 01.5 +00.0	22						
23	176 10.3 +00.6	N 20 08.0 +00.4	150 06.6 +01.9	N 23 02.4 +00.0	19 05.1 +02.6	S 11 01.5 +00.0	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:16	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 13:01	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	Greenwich Culmination Time: 21:44		

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> $a = 0.74$					UT
UT	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''			
00	180 36.0 -00.1	N 21 54.2 +00.4	162 48.2 -00.9	N 24 11.9 +00.2	278 38.9 -30.2	S 06 46.3 -11.2	00								
01	195 35.9 -00.1	N 21 54.6 +00.4	177 47.3 -00.9	N 24 12.1 +00.2	293 08.7 -30.1	S 06 35.1 -11.2	01								
02	210 35.8 -00.1	N 21 55.0 +00.3	192 46.4 -00.8	N 24 12.3 +00.1	307 38.6 -30.0	S 06 23.9 -11.3	02								
03	225 35.7 -00.1	N 21 55.3 +00.4	207 45.6 -00.9	N 24 12.4 +00.2	322 08.6 -30.0	S 06 12.6 -11.2	03								
04	240 35.6 -00.1	N 21 55.7 +00.3	222 44.7 -00.9	N 24 12.6 +00.2	336 38.6 -29.9	S 06 01.4 -11.3	04								
05	255 35.5 -00.1	N 21 56.0 +00.4	237 43.8 -00.9	N 24 12.8 +00.2	351 08.7 -29.9	S 05 50.1 -11.3	05								
06	270 35.4 -00.1	N 21 56.4 +00.3	252 42.9 -00.9	N 24 13.0 +00.1	5 38.8 -29.8	S 05 38.8 -11.3	06								
07	285 35.3 -00.1	N 21 56.7 +00.4	267 42.0 -00.9	N 24 13.1 +00.2	20 09.0 -29.7	S 05 27.5 -11.4	07								
08	300 35.2 -00.1	N 21 57.1 +00.3	282 41.1 -00.9	N 24 13.3 +00.2	34 39.3 -29.7	S 05 16.1 -11.3	08								
09	315 35.1 -00.1	N 21 57.4 +00.4	297 40.2 -00.8	N 24 13.5 +00.1	49 09.6 -29.6	S 05 04.8 -11.4	09								
10	330 35.0 -00.1	N 21 57.8 +00.3	312 39.4 -00.9	N 24 13.6 +00.2	63 40.0 -29.5	S 04 53.4 -11.4	10								
11	345 34.9 +00.0	N 21 58.1 +00.4	327 38.5 -00.9	N 24 13.8 +00.2	78 10.5 -29.5	S 04 42.0 -11.3	11								
12	0 34.9 -00.1	N 21 58.5 +00.3	342 37.6 -00.9	N 24 14.0 +00.1	92 41.0 -29.5	S 04 30.7 -11.4	12								
13	15 34.8 -00.1	N 21 58.8 +00.4	357 36.7 -00.9	N 24 14.1 +00.2	107 11.5 -29.4	S 04 19.3 -11.4	13								
14	30 34.7 -00.1	N 21 59.2 +00.3	12 35.8 -00.9	N 24 14.3 +00.2	121 42.1 -29.3	S 04 07.9 -11.5	14								
15	45 34.6 -00.1	N 21 59.5 +00.4	27 34.9 -00.9	N 24 14.5 +00.1	136 12.8 -29.3	S 03 56.4 -11.4	15								
16	60 34.5 -00.1	N 21 59.9 +00.3	42 34.0 -00.8	N 24 14.6 +00.2	150 43.5 -29.2	S 03 45.0 -11.4	16								
17	75 34.4 -00.1	N 22 00.2 +00.4	57 33.2 -00.9	N 24 14.8 +00.1	165 14.3 -29.2	S 03 33.6 -11.4	17								
18	90 34.3 -00.1	N 22 00.6 +00.3	72 32.3 -00.9	N 24 14.9 +00.2	179 45.1 -29.2	S 03 22.2 -11.4	18								
19	105 34.2 -00.1	N 22 00.9 +00.3	87 31.4 -00.9	N 24 15.1 +00.2	194 15.9 -29.0	S 03 10.8 -11.5	19								
20	120 34.1 -00.1	N 22 01.2 +00.4	102 30.5 -00.9	N 24 15.3 +00.1	208 46.9 -29.1	S 02 59.3 -11.4	20								
21	135 34.0 -00.1	N 22 01.6 +00.3	117 29.6 -00.9	N 24 15.4 +00.2	223 17.8 -29.0	S 02 47.9 -11.5	21								
22	150 33.9 -00.1	N 22 01.9 +00.4	132 28.7 -00.9	N 24 15.6 +00.1	237 48.8 -28.9	S 02 36.4 -11.4	22								
23	165 33.8 -00.1	N 22 02.3 +00.3	147 27.8 -00.9	N 24 15.7 +00.2	252 19.9 -28.9	S 02 25.0 -11.4	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 Greenwich Culmination Time: 11:58					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 Greenwich Culmination Time: 13:10					UT 02 06 10 14 18 22 SD 15'9 15'8 15'8 15'8 15'7 15'7 HP 58'3 58'1 58'0 57'9 57'7 57'6 Greenwich Culmination Time: 05:37					

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''	GHA ° ' ''	ddGHA ° ' ''	Dec ° ' ''	dDec ° ' ''			
00	191 10.9 +00.6	N 20 08.4 +00.4	165 08.5 +01.8	N 23 02.4 +00.1	34 07.7 +02.6	S 11 01.5 -00.1	00								
01	206 11.5 +00.6	N 20 08.8 +00.4	180 10.3 +01.9	N 23 02.5 +00.0	49 10.3 +02.6	S 11 01.4 +00.0	01								
02	221 12.1 +00.6	N 20 09.2 +00.4	195 12.2 +01.8	N 23 02.5 +00.0	64 12.9 +02.7	S 11 01.4 +00.0	02								
03	236 12.7 +00.6	N 20 09.6 +00.4	210 14.0 +01.9	N 23 02.5 +00.1	79 15.6 +02.6	S 11 01.4 -00.1	03								
04	251 13.3 +00.7	N 20 10.0 +00.4	225 15.9 +01.8	N 23 02.6 +00.0	94 18.2 +02.6	S 11 01.3 +00.0	04								
05	266 14.0 +00.6	N 20 10.4 +00.4	240 17.7 +01.9	N 23 02.6 +00.0	109 20.8 +02.6	S 11 01.3 -00.1	05								
06	281 14.6 +00.6	N 20 10.8 +00.4	255 19.6 +01.8	N 23 02.6 +00.1	124 23.4 +02.6	S 11 01.2 +00.0	06								
07	296 15.2 +00.6	N 20 11.2 +00.4	270 21.4 +01.9	N 23 02.7 +00.0	139 26.0 +02.6	S 11 01.2 +00.0	07								
08	311 15.8 +00.6	N 20 11.6 +00.4	285 23.3 +01.8	N 23 02.7 +00.0	154 28.6 +02.6	S 11 01.2 -00.1	08								
09	326 16.4 +00.6	N 20 12.0 +00.4	300 25.1 +01.9	N 23 02.7 +00.0	169 31.2 +02.6	S 11 01.1 +00.0	09								
10	341 17.0 +00.6	N 20 12.4 +00.4	315 27.0 +01.8	N 23 02.7 +00.1	184 33.8 +02.6	S 11 01.1 -00.1	10								
11	356 17.6 +00.6	N 20 12.8 +00.4	330 28.8 +01.9	N 23 02.8 +00.0	199 36.4 +02.6	S 11 01.0 +00.0	11								
12	11 18.2 +00.6	N 20 13.2 +00.5	345 30.7 +01.8	N 23 02.8 +00.0	214 39.0 +02.6	S 11 01.0 +00.0	12								
13	26 18.8 +00.6	N 20 13.7 +00.4	0 32.5 +01.9	N 23 02.8 +00.1	229 41.6 +02.6	S 11 01.0 -00.1	13								
14	41 19.4 +00.7	N 20 14.1 +00.4	15 34.4 +01.8	N 23 02.9 +00.0	244 44.2 +02.6	S 11 00.9 +00.0	14								
15	56 20.1 +00.6	N 20 14.5 +00.4	30 36.2 +01.9	N 23 02.9 +00.0	259 46.8 +02.6	S 11 00.9 +00.0	15								
16	71 20.7 +00.6	N 20 14.9 +00.4	45 38.1 +01.8	N 23 02.9 +00.1	274 49.4 +02.6	S 11 00.9 -00.1	16								
17	86 21.3 +00.6	N 20 15.3 +00.4	60 39.9 +01.9	N 23 03.0 +00.0	289 52.0 +02.6	S 11 00.8 +00.0	17								
18	101 21.9 +00.6	N 20 15.7 +00.4	75 41.8 +01.8	N 23 03.0 +00.0	304 54.6 +02.6	S 11 00.8 -00.1	18								
19	116 22.5 +00.6	N 20 16.1 +00.4	90 43.6 +01.9	N 23 03.0 +00.0	319 57.2 +02.6	S 11 00.7 +00.0	19								
20	131 23.1 +00.6	N 20 16.5 +00.4	105 45.5 +01.8	N 23 03.0 +00.1	334 59.8 +02.6	S 11 00.7 +00.0	20								
21	146 23.7 +00.6	N 20 16.9 +00.4	120 47.3 +01.9	N 23 03.1 +00.0	350 02.4 +02.6	S 11 00.7 -00.1	21								
22	161 24.3 +00.6	N 20 17.3 +00.4	135 49.2 +01.8	N 23 03.1 +00.0	5 05.0 +02.6	S 11 00.6 +00.0	22								
23	176 24.9 +00.6	N 20 17.7 +00.4	150 51.0 +01.9	N 23 03.1 +00.1	20 07.6 +02.6	S 11 00.6 -00.1	23								
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:15					UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:58					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 Greenwich Culmination Time: 21:40					

<i>Sun</i>					<i>Venus</i>					<i>Moon</i> <i>a</i> = 0.78					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	180 33.7 -00.1	N 22 02.6 +00.3	162 26.9 -00.8	N 24 15.9 +00.1	266 51.0 -28.9	S 02 13.6 -11.5	00								
01	195 33.6 -00.1	N 22 02.9 +00.4	177 26.1 -00.9	N 24 16.0 +00.2	281 22.1 -28.8	S 02 02.1 -11.4	01								
02	210 33.5 -00.1	N 22 03.3 +00.3	192 25.2 -00.9	N 24 16.2 +00.1	295 53.3 -28.7	S 01 50.7 -11.4	02								
03	225 33.4 -00.1	N 22 03.6 +00.4	207 24.3 -00.9	N 24 16.3 +00.2	310 24.6 -28.8	S 01 39.3 -11.4	03								
04	240 33.3 +00.0	N 22 04.0 +00.3	222 23.4 -00.9	N 24 16.5 +00.1	324 55.8 -28.6	S 01 27.9 -11.4	04								
05	255 33.3 -00.1	N 22 04.3 +00.3	237 22.5 -00.9	N 24 16.6 +00.2	339 27.2 -28.7	S 01 16.5 -11.4	05								
06	270 33.2 -00.1	N 22 04.6 +00.4	252 21.6 -00.9	N 24 16.8 +00.1	353 58.5 -28.6	S 01 05.1 -11.4	06								
07	285 33.1 -00.1	N 22 05.0 +00.3	267 20.7 -00.9	N 24 16.9 +00.1	8 29.9 -28.6	S 00 53.7 -11.4	07								
08	300 33.0 -00.1	N 22 05.3 +00.3	282 19.8 -00.8	N 24 17.0 +00.2	23 01.3 -28.5	S 00 42.3 -11.4	08								
09	315 32.9 -00.1	N 22 05.6 +00.4	297 19.0 -00.9	N 24 17.2 +00.1	37 32.8 -28.5	S 00 30.9 -11.4	09								
10	330 32.8 -00.1	N 22 06.0 +00.3	312 18.1 -00.9	N 24 17.3 +00.2	52 04.3 -28.4	S 00 19.5 -11.3	10								
11	345 32.7 -00.1	N 22 06.3 +00.3	327 17.2 -00.9	N 24 17.5 +00.1	66 35.9 -28.5	S 00 08.2 -11.4	11								
12	0 32.6 -00.1	N 22 06.6 +00.4	342 16.3 -00.9	N 24 17.6 +00.1	81 07.4 -28.4	N 00 03.2 +11.3	12								
13	15 32.5 -00.1	N 22 07.0 +00.3	357 15.4 -00.9	N 24 17.7 +00.2	95 39.0 -28.3	N 00 14.5 +11.3	13								
14	30 32.4 -00.1	N 22 07.3 +00.3	12 14.5 -00.9	N 24 17.9 +00.1	110 10.7 -28.3	N 00 25.8 +11.4	14								
15	45 32.3 -00.1	N 22 07.6 +00.4	27 13.6 -00.9	N 24 18.0 +00.1	124 42.4 -28.3	N 00 37.2 +11.2	15								
16	60 32.2 -00.1	N 22 08.0 +00.3	42 12.7 -00.8	N 24 18.1 +00.2	139 14.1 -28.3	N 00 48.4 +11.3	16								
17	75 32.1 -00.1	N 22 08.3 +00.3	57 11.9 -00.9	N 24 18.3 +00.1	153 45.8 -28.2	N 00 59.7 +11.3	17								
18	90 32.0 -00.1	N 22 08.6 +00.3	72 11.0 -00.9	N 24 18.4 +00.1	168 17.6 -28.2	N 01 11.0 +11.2	18								
19	105 31.9 -00.1	N 22 08.9 +00.4	87 10.1 -00.9	N 24 18.5 +00.1	182 49.4 -28.2	N 01 22.2 +11.2	19								
20	120 31.8 -00.1	N 22 09.3 +00.3	102 09.2 -00.9	N 24 18.6 +00.2	197 21.2 -28.1	N 01 33.4 +11.2	20								
21	135 31.7 -00.1	N 22 09.6 +00.3	117 08.3 -00.9	N 24 18.8 +00.1	211 53.1 -28.2	N 01 44.6 +11.2	21								
22	150 31.6 -00.1	N 22 09.9 +00.4	132 07.4 -00.9	N 24 18.9 +00.1	226 24.9 -28.1	N 01 55.8 +11.2	22								
23	165 31.5 -00.1	N 22 10.3 +00.3	147 06.5 -00.9	N 24 19.0 +00.1	240 56.8 -28.0	N 02 07.0 +11.1	23								
UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 15'7 15'6 15'6 15'5 15'5 15'5										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:58	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 13:11	HP 57'5 57'3 57'2 57'1 56'9 56'8	Greenwich Culmination Time: 06:25										

<i>Mars</i>					<i>Jupiter</i>					<i>Saturn</i>					UT
UT	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "			
00	191 25.5 +00.6	N 20 18.1 +00.4	165 52.9 +01.8	N 23 03.2 +00.0	35 10.2 +02.6	S 11 00.5 +00.0	00								
01	206 26.1 +00.6	N 20 18.5 +00.4	180 54.7 +01.8	N 23 03.2 +00.0	50 12.8 +02.6	S 11 00.5 +00.0	01								
02	221 26.7 +00.7	N 20 18.9 +00.4	195 56.5 +01.9	N 23 03.2 +00.0	65 15.4 +02.6	S 11 00.5 -00.1	02								
03	236 27.4 +00.6	N 20 19.3 +00.4	210 58.4 +01.8	N 23 03.2 +00.1	80 18.0 +02.6	S 11 00.4 +00.0	03								
04	251 28.0 +00.6	N 20 19.7 +00.4	226 00.2 +01.9	N 23 03.3 +00.0	95 20.6 +02.6	S 11 00.4 +00.0	04								
05	266 28.6 +00.6	N 20 20.1 +00.4	241 02.1 +01.8	N 23 03.3 +00.0	110 23.2 +02.5	S 11 00.4 -00.1	05								
06	281 29.2 +00.6	N 20 20.5 +00.4	256 03.9 +01.9	N 23 03.3 +00.1	125 25.7 +02.6	S 11 00.3 +00.0	06								
07	296 29.8 +00.6	N 20 20.9 +00.4	271 05.8 +01.8	N 23 03.4 +00.0	140 28.3 +02.6	S 11 00.3 -00.1	07								
08	311 30.4 +00.6	N 20 21.3 +00.4	286 07.6 +01.9	N 23 03.4 +00.0	155 30.9 +02.6	S 11 00.2 +00.0	08								
09	326 31.0 +00.6	N 20 21.7 +00.4	301 09.5 +01.8	N 23 03.4 +00.0	170 33.5 +02.6	S 11 00.2 +00.0	09								
10	341 31.6 +00.6	N 20 22.1 +00.4	316 11.3 +01.9	N 23 03.4 +00.1	185 36.1 +02.6	S 11 00.2 -00.1	10								
11	356 32.2 +00.6	N 20 22.5 +00.4	331 13.2 +01.8	N 23 03.5 +00.0	200 38.7 +02.6	S 11 00.1 +00.0	11								
12	11 32.8 +00.6	N 20 22.9 +00.4	346 15.0 +01.9	N 23 03.5 +00.0	215 41.3 +02.6	S 11 00.1 +00.0	12								
13	26 33.4 +00.6	N 20 23.3 +00.3	1 16.9 +01.8	N 23 03.5 +00.1	230 43.9 +02.6	S 11 00.1 -00.1	13								
14	41 34.0 +00.7	N 20 23.6 +00.4	16 18.7 +01.9	N 23 03.6 +00.0	245 46.5 +02.6	S 11 00.0 +00.0	14								
15	56 34.7 +00.6	N 20 24.0 +00.4	31 20.6 +01.8	N 23 03.6 +00.0	260 49.1 +02.6	S 10 60.0 -00.1	15								
16	71 35.3 +00.6	N 20 24.4 +00.4	46 22.4 +01.9	N 23 03.6 +00.0	275 51.7 +02.6	S 10 59.9 +00.0	16								
17	86 35.9 +00.6	N 20 24.8 +00.4	61 24.3 +01.8	N 23 03.6 +00.1	290 54.3 +02.6	S 10 59.9 +00.0	17								
18	101 36.5 +00.6	N 20 25.2 +00.4	76 26.1 +01.9	N 23 03.7 +00.0	305 56.9 +02.6	S 10 59.9 -00.1	18								
19	116 37.1 +00.6	N 20 25.6 +00.4	91 28.0 +01.8	N 23 03.7 +00.0	320 59.5 +02.6	S 10 59.8 +00.0	19								
20	131 37.7 +00.6	N 20 26.0 +00.4	106 29.8 +01.9	N 23 03.7 +00.1	336 02.1 +02.6	S 10 59.8 +00.0	20								
21	146 38.3 +00.6	N 20 26.4 +00.4	121 31.7 +01.8	N 23 03.8 +00.0	351 04.7 +02.6	S 10 59.8 -00.1	21								
22	161 38.9 +00.6	N 20 26.8 +00.4	136 33.5 +01.9	N 23 03.8 +00.0	6 07.3 +02.6	S 10 59.7 +00.0	22								
23	176 39.5 +00.6	N 20 27.2 +00.4	151 35.4 +01.8	N 23 03.8 +00.0	21 09.9 +02.6	S 10 59.7 +00.0	23								
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2										
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:14	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 12:55	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 21:36										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i> $a = 0.81$				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	180 31.4 -00.1	N 22 10.6 +00.3	162 05.6 -00.9	N 24 19.1 +00.2	255 28.8 -28.1	N 02 18.1 +11.2	00						
01	195 31.3 -00.1	N 22 10.9 +00.3	177 04.7 -00.8	N 24 19.3 +00.1	270 00.7 -28.0	N 02 29.3 +11.0	01						
02	210 31.2 -00.1	N 22 11.2 +00.3	192 03.9 -00.9	N 24 19.4 +00.1	284 32.7 -28.0	N 02 40.3 +11.1	02						
03	225 31.1 -00.1	N 22 11.5 +00.4	207 03.0 -00.9	N 24 19.5 +00.1	299 04.7 -28.0	N 02 51.4 +11.1	03						
04	240 31.0 -00.1	N 22 11.9 +00.3	222 02.1 -00.9	N 24 19.6 +00.1	313 36.7 -27.9	N 03 02.5 +11.0	04						
05	255 30.9 -00.1	N 22 12.2 +00.3	237 01.2 -00.9	N 24 19.7 +00.1	328 08.8 -28.0	N 03 13.5 +11.0	05						
06	270 30.8 -00.1	N 22 12.5 +00.3	252 00.3 -00.9	N 24 19.8 +00.2	342 40.8 -27.9	N 03 24.5 +11.0	06						
07	285 30.7 -00.1	N 22 12.8 +00.3	266 59.4 -00.9	N 24 20.0 +00.1	357 12.9 -27.9	N 03 35.5 +10.9	07						
08	300 30.6 -00.1	N 22 13.1 +00.4	281 58.5 -00.9	N 24 20.1 +00.1	11 45.0 -27.9	N 03 46.4 +10.9	08						
09	315 30.5 -00.1	N 22 13.5 +00.3	296 57.6 -00.9	N 24 20.2 +00.1	26 17.1 -27.9	N 03 57.3 +10.9	09						
10	330 30.4 -00.1	N 22 13.8 +00.3	311 56.7 -00.9	N 24 20.3 +00.1	40 49.2 -27.8	N 04 08.2 +10.8	10						
11	345 30.3 -00.1	N 22 14.1 +00.3	326 55.8 -00.8	N 24 20.4 +00.1	55 21.4 -27.9	N 04 19.0 +10.9	11						
12	0 30.2 -00.1	N 22 14.4 +00.3	341 55.0 -00.9	N 24 20.5 +00.1	69 53.5 -27.8	N 04 29.9 +10.8	12						
13	15 30.1 -00.1	N 22 14.7 +00.4	356 54.1 -00.9	N 24 20.6 +00.1	84 25.7 -27.8	N 04 40.7 +10.7	13						
14	30 30.0 -00.1	N 22 15.1 +00.3	11 53.2 -00.9	N 24 20.7 +00.1	98 57.9 -27.8	N 04 51.4 +10.7	14						
15	45 29.9 -00.1	N 22 15.4 +00.3	26 52.3 -00.9	N 24 20.8 +00.1	113 30.1 -27.8	N 05 02.1 +10.7	15						
16	60 29.8 -00.1	N 22 15.7 +00.3	41 51.4 -00.9	N 24 20.9 +00.1	128 02.3 -27.7	N 05 12.8 +10.7	16						
17	75 29.7 -00.1	N 22 16.0 +00.3	56 50.5 -00.9	N 24 21.0 +00.1	142 34.6 -27.8	N 05 23.5 +10.6	17						
18	90 29.6 -00.1	N 22 16.3 +00.3	71 49.6 -00.9	N 24 21.1 +00.1	157 06.8 -27.8	N 05 34.1 +10.6	18						
19	105 29.5 -00.1	N 22 16.6 +00.3	86 48.7 -00.9	N 24 21.2 +00.1	171 39.0 -27.7	N 05 44.7 +10.6	19						
20	120 29.4 -00.1	N 22 16.9 +00.3	101 47.8 -00.9	N 24 21.3 +00.1	186 11.3 -27.7	N 05 55.3 +10.5	20						
21	135 29.3 -00.1	N 22 17.2 +00.3	116 46.9 -00.8	N 24 21.4 +00.1	200 43.6 -27.8	N 06 05.8 +10.5	21						
22	150 29.2 -00.1	N 22 17.5 +00.4	131 46.1 -00.9	N 24 21.5 +00.1	215 15.8 -27.7	N 06 16.3 +10.4	22						
23	165 29.1 -00.1	N 22 17.9 +00.3	146 45.2 -00.9	N 24 21.6 +00.1	229 48.1 -27.7	N 06 26.7 +10.4	23						
UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	UT 02 06 10 14 18 22	SD 15'4 15'4 15'4 15'4 15'3 15'3								
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:58	HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 13:12	HP 56'7 56'6 56'5 56'3 56'2 56'1	Greenwich Culmination Time: 07:11								

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	GHA ° ' "	ddGHA ° ' "	Dec ° ' "	dDec ° ' "	
00	191 40.1 +00.6	N 20 27.6 +00.4	166 37.2 +01.9	N 23 03.8 +00.1	36 12.5 +02.6	S 10 59.7 -00.1	00						
01	206 40.7 +00.6	N 20 28.0 +00.4	181 39.1 +01.8	N 23 03.9 +00.0	51 15.1 +02.6	S 10 59.6 +00.0	01						
02	221 41.3 +00.6	N 20 28.4 +00.4	196 40.9 +01.9	N 23 03.9 +00.0	66 17.7 +02.6	S 10 59.6 -00.1	02						
03	236 41.9 +00.7	N 20 28.8 +00.3	211 42.8 +01.8	N 23 03.9 +00.0	81 20.3 +02.6	S 10 59.5 +00.0	03						
04	251 42.6 +00.6	N 20 29.1 +00.4	226 44.6 +01.8	N 23 03.9 +00.1	96 22.9 +02.6	S 10 59.5 +00.0	04						
05	266 43.2 +00.6	N 20 29.5 +00.4	241 46.4 +01.9	N 23 04.0 +00.0	111 25.5 +02.6	S 10 59.5 -00.1	05						
06	281 43.8 +00.6	N 20 29.9 +00.4	256 48.3 +01.8	N 23 04.0 +00.0	126 28.1 +02.6	S 10 59.4 +00.0	06						
07	296 44.4 +00.6	N 20 30.3 +00.4	271 50.1 +01.9	N 23 04.0 +00.1	141 30.7 +02.6	S 10 59.4 +00.0	07						
08	311 45.0 +00.6	N 20 30.7 +00.4	286 52.0 +01.8	N 23 04.1 +00.0	156 33.3 +02.6	S 10 59.4 -00.1	08						
09	326 45.6 +00.6	N 20 31.1 +00.4	301 53.8 +01.9	N 23 04.1 +00.0	171 35.9 +02.6	S 10 59.3 +00.0	09						
10	341 46.2 +00.6	N 20 31.5 +00.4	316 55.7 +01.8	N 23 04.1 +00.0	186 38.5 +02.6	S 10 59.3 +00.0	10						
11	356 46.8 +00.6	N 20 31.9 +00.4	331 57.5 +01.9	N 23 04.1 +00.1	201 41.1 +02.5	S 10 59.3 -00.1	11						
12	11 47.4 +00.6	N 20 32.3 +00.3	346 59.4 +01.8	N 23 04.2 +00.0	216 43.6 +02.6	S 10 59.2 +00.0	12						
13	26 48.0 +00.6	N 20 32.6 +00.4	2 01.2 +01.9	N 23 04.2 +00.0	231 46.2 +02.6	S 10 59.2 -00.1	13						
14	41 48.6 +00.6	N 20 33.0 +00.4	17 03.1 +01.8	N 23 04.2 +00.0	246 48.8 +02.6	S 10 59.1 +00.0	14						
15	56 49.2 +00.6	N 20 33.4 +00.4	32 04.9 +01.9	N 23 04.2 +00.1	261 51.4 +02.6	S 10 59.1 +00.0	15						
16	71 49.8 +00.6	N 20 33.8 +00.4	47 06.8 +01.8	N 23 04.3 +00.0	276 54.0 +02.6	S 10 59.1 -00.1	16						
17	86 50.4 +00.6	N 20 34.2 +00.4	62 08.6 +01.9	N 23 04.3 +00.0	291 56.6 +02.6	S 10 59.0 +00.0	17						
18	101 51.0 +00.6	N 20 34.6 +00.4	77 10.5 +01.8	N 23 04.3 +00.1	306 59.2 +02.6	S 10 59.0 +00.0	18						
19	116 51.6 +00.7	N 20 35.0 +00.4	92 12.3 +01.9	N 23 04.4 +00.0	322 01.8 +02.6	S 10 59.0 -00.1	19						
20	131 52.3 +00.6	N 20 35.4 +00.3	107 14.2 +01.8	N 23 04.4 +00.0	337 04.4 +02.6	S 10 58.9 +00.0	20						
21	146 52.9 +00.6	N 20 35.7 +00.4	122 16.0 +01.8	N 23 04.4 +00.0	352 07.0 +02.6	S 10 58.9 +00.0	21						
22	161 53.5 +00.6	N 20 36.1 +00.4	137 17.8 +01.9	N 23 04.4 +00.1	7 09.6 +02.6	S 10 58.9 -00.1	22						
23	176 54.1 +00.6	N 20 36.5 +00.4	152 19.7 +01.8	N 23 04.5 +00.0	22 12.2 +02.6	S 10 58.8 +00.0	23						
UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	UT 02 06 10 14 18 22	SD 00'3 00'3 00'3 00'3 00'3 00'3	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2								
HP 00'1 00'1 00'1 00'1 00'1 00'1	Greenwich Culmination Time: 11:13	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 12:52	HP 00'0 00'0 00'0 00'0 00'0 00'0	Greenwich Culmination Time: 21:31								

Sun													Venus													Moon a = 0.84													
UT	GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			UT		
	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"						
00	180	29.0	-00.1	N	22	18.2	+00.3						161	44.3	-00.9	N	24	21.7	+00.1						244	20.4	-27.7	N	06	37.1	+10.4		00						
01	195	28.9	-00.1	N	22	18.5	+00.3						176	43.4	-00.9	N	24	21.8	+00.1						258	52.7	-27.7	N	06	47.5	+10.3		01						
02	210	28.8	-00.1	N	22	18.8	+00.3						191	42.5	-00.9	N	24	21.9	+00.1						273	25.0	-27.7	N	06	57.8	+10.3		02						
03	225	28.7	-00.1	N	22	19.1	+00.3						206	41.6	-00.9	N	24	22.0	+00.0						287	57.3	-27.7	N	07	08.1	+10.2		03						
04	240	28.6	-00.1	N	22	19.4	+00.3						221	40.7	-00.9	N	24	22.0	+00.1						302	29.6	-27.7	N	07	18.3	+10.2		04						
05	255	28.5	-00.1	N	22	19.7	+00.3						236	39.8	-00.9	N	24	22.1	+00.1						317	01.9	-27.7	N	07	28.5	+10.2		05						
06	270	28.4	-00.2	N	22	20.0	+00.3						251	38.9	-00.9	N	24	22.2	+00.1						331	34.2	-27.7	N	07	38.7	+10.1		06						
07	285	28.2	-00.1	N	22	20.3	+00.3						266	38.0	-00.9	N	24	22.3	+00.1						346	06.5	-27.7	N	07	48.8	+10.0		07						
08	300	28.1	-00.1	N	22	20.6	+00.3						281	37.1	-00.8	N	24	22.4	+00.1						0	38.8	-27.7	N	07	58.8	+10.1		08						
09	315	28.0	-00.1	N	22	20.9	+00.3						296	36.3	-00.9	N	24	22.5	+00.0						15	11.1	-27.7	N	08	08.9	+09.9		09						
10	330	27.9	-00.1	N	22	21.2	+00.3						311	35.4	-00.9	N	24	22.5	+00.1						29	43.4	-27.6	N	08	18.8	+10.0		10						
11	345	27.8	-00.1	N	22	21.5	+00.3						326	34.5	-00.9	N	24	22.6	+00.1						44	15.8	-27.7	N	08	28.8	+09.9		11						
12	0	27.7	-00.1	N	22	21.8	+00.3						341	33.6	-00.9	N	24	22.7	+00.1						58	48.1	-27.7	N	08	38.7	+09.8		12						
13	15	27.6	-00.1	N	22	22.1	+00.3						356	32.7	-00.9	N	24	22.8	+00.0						73	20.4	-27.7	N	08	48.5	+09.8		13						
14	30	27.5	-00.1	N	22	22.4	+00.3						11	31.8	-00.9	N	24	22.8	+00.1						87	52.7	-27.7	N	08	58.3	+09.7		14						
15	45	27.4	-00.1	N	22	22.7	+00.3						26	30.9	-00.9	N	24	22.9	+00.1						102	25.0	-27.7	N	09	08.0	+09.7		15						
16	60	27.3	-00.1	N	22	23.0	+00.3						41	30.0	-00.9	N	24	23.0	+00.1						116	57.3	-27.7	N	09	17.7	+09.7		16						
17	75	27.2	-00.1	N	22	23.3	+00.3						56	29.1	-00.9	N	24	23.1	+00.0						131	29.6	-27.7	N	09	27.4	+09.6		17						
18	90	27.1	-00.1	N	22	23.6	+00.3						71	28.2	-00.9	N	24	23.1	+00.1						146	01.9	-27.7	N	09	37.0	+09.5		18						
19	105	27.0	-00.1	N	22	23.9	+00.3						86	27.3	-00.9	N	24	23.2	+00.1						160	34.2	-27.8	N	09	46.5	+09.5		19						
20	120	26.9	-00.1	N	22	24.2	+00.3						101	26.4	-00.8	N	24	23.3	+00.0						175	06.4	-27.7	N	09	56.0	+09.4		20						
21	135	26.8	-00.1	N	22	24.5	+00.3						116	25.6	-00.9	N	24	23.3	+00.1						189	38.7	-27.7	N	10	05.4	+09.4		21						
22	150	26.7	-00.1	N	22	24.8	+00.3						131	24.7	-00.9	N	24	23.4	+00.1						204	11.0	-27.8	N	10	14.8	+09.4		22						
23	165	26.6	-00.2	N	22	25.1	+00.3						146	23.8	-00.9	N	24	23.5	+00.0						218	43.2	-27.7	N	10	24.2	+09.2		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 Greenwich Culmination Time: 11:58													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 Greenwich Culmination Time: 13:14													UT 02 06 10 14 18 22 SD 15'3 15'2 15'2 15'2 15'2 15'1 HP 56'0 55'9 55'8 55'7 55'6 55'5 Greenwich Culmination Time: 07:57													

Mars													Jupiter													Saturn													
UT	GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			UT		
	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"						
00	191	54.7	+00.6	N	20	36.9	+00.4						167	21.5	+01.9	N	23	04.5	+00.0						37	14.8	+02.6	S	10	58.8	-00.1		00						
01	206	55.3	+00.6	N	20	37.3	+00.4						182	23.4	+01.8	N	23	04.5	+00.0						52	17.4	+02.6	S	10	58.7	+00.0		01						
02	221	55.9	+00.6	N	20	37.7	+00.3						197	25.2	+01.9	N	23	04.5	+00.1						67	20.0	+02.6	S	10	58.7	+00.0		02						
03	236	56.5	+00.6	N	20	38.0	+00.4						212	27.1	+01.8	N	23	04.6	+00.0						82	22.6	+02.6	S	10	58.7	-00.1		03						
04	251	57.1	+00.6	N	20	38.4	+00.4						227	28.9	+01.9	N	23	04.6	+00.0						97	25.2	+02.5	S	10	58.6	+00.0		04						
05	266	57.7	+00.6	N	20	38.8	+00.4						242	30.8	+01.8	N	23	04.6	+00.1						112	27.7	+02.6	S	10	58.6	+00.0		05						
06	281	58.3	+00.6	N	20	39.2	+00.4						257	32.6	+01.9	N	23	04.7	+00.0						127	30.3	+02.6	S	10	58.6	-00.1		06						
07	296	58.9	+00.6	N	20	39.6	+00.3						272	34.5	+01.8	N	23	04.7	+00.0						142	32.9	+02.6	S	10	58.5	+00.0		07						
08	311	59.5	+00.6	N	20	39.9	+00.4						287	36.3	+01.9	N	23	04.7	+00.0						157	35.5	+02.6	S	10	58.5	+00.0		08						
09	327	00.1	+00.6	N	20	40.3	+00.4						302	38.2	+01.8	N	23	04.7	+00.1						172	38.1	+02.6	S	10	58.5	-00.1		09						
10	342	00.7	+00.6	N	20	40.7	+00.4						317	40.0	+01.9	N	23	04.8	+00.0						187	40.7	+02.6	S	10	58.4	+00.0		10						
11	357	01.3	+00.6	N	20	41.1	+00.4						332	41.9	+01.8	N	23	04.8	+00.0						202	43.3	+02.6	S	10	58.4	+00.0		11						
12	12	01.9	+00.6	N	20	41.5	+00.3						347	43.7	+01.8	N	23	04.8	+00.0						217	45.9	+02.6	S	10	58.4	-00.1		12						
13	27	02.5	+00.6	N	20	41.8	+00.4						2	45.5	+01.9	N	23	04.8	+00.1						232	48.5	+02.6	S	10	58.3	+00.0		13						
14	42	03.1	+00.7	N	20	42.2	+00.4						17	47.4	+01.8	N	23	04.9	+00.0						247	51.1	+02.6	S	10	58.3	+00.0		14						
15	57	03.8	+00.6	N	20	42.6	+00.4						32	49.2	+01.9	N	23	04.9	+00.0						262	53.7	+02.6	S	10	58.3	-00.1		15						
16	72	04.4	+00.6	N	20	43.0	+00.4						47	51.1	+01.8	N	23	04.9	+00.0						277	56.3	+02.6	S	10	58.2	+00.0		16						
17	87	05.0	+00.6	N	20	43.4	+00.3						62	52.9	+01.9	N	23	04.9	+00.1						292	58.9	+02.5	S	10	58.2	-00.1		17						
18	102	05.6	+00.6	N	20	43.7	+00.4						77	54.8	+01.8	N	23	05.0	+00.0						308	01.4	+02.6	S	10	58.1	+00.0		18						
19	117	06.2	+00.6	N	20	44.1	+00.4						92	56.6	+01.9	N	23	05.0	+00.0						323	04.0	+02.6	S	10	58.1	+00.0		19						
20	132	06.8	+00.6	N	20	44.5	+00.4						107	58.5	+01.8	N	23	05.0	+00.0						338	06.6	+02.6	S	10	58.1	-00.1		20						
21	147	07.4	+00.6	N	20	44.9	+00.3						123	00.3	+01.9	N	23	05.0	+00.1						353	09.2	+02.6	S	10	58.0	+00.0		21						
22	162	08.0	+00.6	N	20	45.2	+00.4						138	02.2	+01.8	N	23	05.1	+00.0						8	11.8	+02.6	S	10	58.0	+00.0		22						
23	177	08.6	+00.6	N	20	45.6	+00.4						153	04.0	+01.9	N	23	05.1	+00.0						23	14.4	+02.6	S	10	58.0	-00.1		23						
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:12													UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:49													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 Greenwich Culmination Time: 21:27													

Sun													Venus													Moon a = 0.87													
UT	GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			UT		
	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"						
00	180	26.4	-00.1	N	22	25.4	+00.3	161	22.9	-00.9	N	24	23.5	+00.1	233	15.5	-27.8	N	10	33.4	+09.3	00																	
01	195	26.3	-00.1	N	22	25.7	+00.2	176	22.0	-00.9	N	24	23.6	+00.0	247	47.7	-27.7	N	10	42.7	+09.1	01																	
02	210	26.2	-00.1	N	22	25.9	+00.3	191	21.1	-00.9	N	24	23.6	+00.1	262	20.0	-27.8	N	10	51.8	+09.1	02																	
03	225	26.1	-00.1	N	22	26.2	+00.3	206	20.2	-00.9	N	24	23.7	+00.1	276	52.2	-27.8	N	11	00.9	+09.1	03																	
04	240	26.0	-00.1	N	22	26.5	+00.3	221	19.3	-00.9	N	24	23.8	+00.0	291	24.4	-27.8	N	11	10.0	+09.0	04																	
05	255	25.9	-00.1	N	22	26.8	+00.3	236	18.4	-00.9	N	24	23.8	+00.1	305	56.6	-27.8	N	11	19.0	+08.9	05																	
06	270	25.8	-00.1	N	22	27.1	+00.3	251	17.5	-00.9	N	24	23.9	+00.0	320	28.8	-27.8	N	11	27.9	+08.9	06																	
07	285	25.7	-00.1	N	22	27.4	+00.3	266	16.6	-00.8	N	24	23.9	+00.1	335	01.0	-27.8	N	11	36.8	+08.9	07																	
08	300	25.6	-00.1	N	22	27.7	+00.3	281	15.8	-00.9	N	24	24.0	+00.0	349	33.2	-27.9	N	11	45.7	+08.7	08																	
09	315	25.5	-00.1	N	22	28.0	+00.2	296	14.9	-00.9	N	24	24.0	+00.1	4	05.3	-27.8	N	11	54.4	+08.7	09																	
10	330	25.4	-00.1	N	22	28.2	+00.3	311	14.0	-00.9	N	24	24.1	+00.0	18	37.5	-27.9	N	12	03.1	+08.7	10																	
11	345	25.3	-00.1	N	22	28.5	+00.3	326	13.1	-00.9	N	24	24.1	+00.1	33	09.6	-27.8	N	12	11.8	+08.6	11																	
12	0	25.2	-00.2	N	22	28.8	+00.3	341	12.2	-00.9	N	24	24.2	+00.0	47	41.8	-27.9	N	12	20.4	+08.5	12																	
13	15	25.0	-00.1	N	22	29.1	+00.3	356	11.3	-00.9	N	24	24.2	+00.1	62	13.9	-27.9	N	12	28.9	+08.4	13																	
14	30	24.9	-00.1	N	22	29.4	+00.3	11	10.4	-00.9	N	24	24.3	+00.0	76	46.0	-27.9	N	12	37.3	+08.4	14																	
15	45	24.8	-00.1	N	22	29.7	+00.2	26	09.5	-00.9	N	24	24.3	+00.0	91	18.1	-28.0	N	12	45.7	+08.4	15																	
16	60	24.7	-00.1	N	22	29.9	+00.3	41	08.6	-00.9	N	24	24.3	+00.1	105	50.1	-27.9	N	12	54.1	+08.3	16																	
17	75	24.6	-00.1	N	22	30.2	+00.3	56	07.7	-00.9	N	24	24.4	+00.0	120	22.2	-28.0	N	13	02.4	+08.2	17																	
18	90	24.5	-00.1	N	22	30.5	+00.3	71	06.8	-00.9	N	24	24.4	+00.1	134	54.2	-27.9	N	13	10.6	+08.1	18																	
19	105	24.4	-00.1	N	22	30.8	+00.3	86	05.9	-00.8	N	24	24.5	+00.0	149	26.3	-28.0	N	13	18.7	+08.1	19																	
20	120	24.3	-00.1	N	22	31.1	+00.2	101	05.1	-00.9	N	24	24.5	+00.0	163	58.3	-28.0	N	13	26.8	+08.0	20																	
21	135	24.2	-00.1	N	22	31.3	+00.3	116	04.2	-00.9	N	24	24.5	+00.1	178	30.3	-28.0	N	13	34.8	+08.0	21																	
22	150	24.1	-00.2	N	22	31.6	+00.3	131	03.3	-00.9	N	24	24.6	+00.0	193	02.3	-28.1	N	13	42.8	+07.8	22																	
23	165	23.9	-00.1	N	22	31.9	+00.3	146	02.4	-00.9	N	24	24.6	+00.0	207	34.2	-28.0	N	13	50.6	+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 Greenwich Culmination Time: 11:58													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 Greenwich Culmination Time: 13:15													UT 02 06 10 14 18 22 SD 15'1 15'1 15'1 15'0 15'0 15'0 HP 55'4 55'3 55'3 55'2 55'1 55'0 Greenwich Culmination Time: 08:43													

Mars													Jupiter													Saturn													
UT	GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			UT		
	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"						
00	192	09.2	+00.6	N	20	46.0	+00.4	168	05.9	+01.8	N	23	05.1	+00.1	38	17.0	+02.6	S	10	57.9	+00.0	00																	
01	207	09.8	+00.6	N	20	46.4	+00.3	183	07.7	+01.8	N	23	05.2	+00.0	53	19.6	+02.6	S	10	57.9	+00.0	01																	
02	222	10.4	+00.6	N	20	46.7	+00.4	198	09.5	+01.9	N	23	05.2	+00.0	68	22.2	+02.6	S	10	57.9	-00.1	02																	
03	237	11.0	+00.6	N	20	47.1	+00.4	213	11.4	+01.8	N	23	05.2	+00.0	83	24.8	+02.6	S	10	57.8	+00.0	03																	
04	252	11.6	+00.6	N	20	47.5	+00.4	228	13.2	+01.9	N	23	05.2	+00.1	98	27.4	+02.5	S	10	57.8	+00.0	04																	
05	267	12.2	+00.6	N	20	47.9	+00.3	243	15.1	+01.8	N	23	05.3	+00.0	113	29.9	+02.6	S	10	57.8	-00.1	05																	
06	282	12.8	+00.6	N	20	48.2	+00.4	258	16.9	+01.9	N	23	05.3	+00.0	128	32.5	+02.6	S	10	57.7	+00.0	06																	
07	297	13.4	+00.6	N	20	48.6	+00.4	273	18.8	+01.8	N	23	05.3	+00.0	143	35.1	+02.6	S	10	57.7	+00.0	07																	
08	312	14.0	+00.6	N	20	49.0	+00.4	288	20.6	+01.9	N	23	05.3	+00.1	158	37.7	+02.6	S	10	57.7	-00.1	08																	
09	327	14.6	+00.6	N	20	49.4	+00.3	303	22.5	+01.8	N	23	05.4	+00.0	173	40.3	+02.6	S	10	57.6	+00.0	09																	
10	342	15.2	+00.6	N	20	49.7	+00.4	318	24.3	+01.9	N	23	05.4	+00.0	188	42.9	+02.6	S	10	57.6	+00.0	10																	
11	357	15.8	+00.6	N	20	50.1	+00.4	333	26.2	+01.8	N	23	05.4	+00.0	203	45.5	+02.6	S	10	57.6	-00.1	11																	
12	12	16.4	+00.6	N	20	50.5	+00.3	348	28.0	+01.8	N	23	05.4	+00.1	218	48.1	+02.6	S	10	57.5	+00.0	12																	
13	27	17.0	+00.6	N	20	50.8	+00.4	3	29.8	+01.9	N	23	05.5	+00.0	233	50.7	+02.5	S	10	57.5	+00.0	13																	
14	42	17.6	+00.7	N	20	51.2	+00.4	18	31.7	+01.8	N	23	05.5	+00.0	248	53.2	+02.6	S	10	57.5	-00.1	14																	
15	57	18.3	+00.6	N	20	51.6	+00.4	33	33.5	+01.9	N	23	05.5	+00.0	263	55.8	+02.6	S	10	57.4	+00.0	15																	
16	72	18.9	+00.6	N	20	52.0	+00.3	48	35.4	+01.8	N	23	05.5	+00.1	278	58.4	+02.6	S	10	57.4	+00.0	16																	
17	87	19.5	+00.6	N	20	52.3	+00.4	63	37.2	+01.9	N	23	05.6	+00.0	294	01.0	+02.6	S	10	57.4	-00.1	17																	
18	102	20.1	+00.6	N	20	52.7	+00.4	78	39.1	+01.8	N	23	05.6	+00.0	309	03.6	+02.6	S	10	57.3	+00.0	18																	
19	117	20.7	+00.6	N	20	53.1	+00.3	93	40.9	+01.9	N	23	05.6	+00.0	324	06.2	+02.6	S	10	57.3	+00.0	19																	
20	132	21.3	+00.6	N	20	53.4	+00.4	108	42.8	+01.8	N	23	05.6	+00.1	339	08.8	+02.6	S	10	57.3	-00.1	20																	
21	147	21.9	+00.6	N	20	53.8	+00.4	123	44.6	+01.9	N	23	05.7	+00.0	354	11.4	+02.6	S	10	57.2	+00.0	21																	
22	162	22.5	+00.6	N	20	54.2	+00.3	138	46.5	+01.8	N	23	05.7	+00.0	9	14.0	+02.5	S	10	57.2	+00.0	22																	
23	177	23.1	+00.6	N	20	54.5	+00.4	153	48.3	+01.8	N	23	05.7	+00.0	24	16.5	+02.6	S	10	57.2	-00.1	23																	
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:11													UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:46													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 Greenwich Culmination Time: 21:23													

Sun										Venus										Moon a = 0.90										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"												
00	180	23.8	-00.1	N	22	32.2	+00.2	161	01.5	-00.9	N	24	24.6	+00.1	222	06.2	-28.1	N	13	58.5	+07.7	00								
01	195	23.7	-00.1	N	22	32.4	+00.3	176	00.6	-00.9	N	24	24.7	+00.0	236	38.1	-28.1	N	14	06.2	+07.7	01								
02	210	23.6	-00.1	N	22	32.7	+00.3	190	59.7	-00.9	N	24	24.7	+00.0	251	10.0	-28.1	N	14	13.9	+07.6	02								
03	225	23.5	-00.1	N	22	33.0	+00.3	205	58.8	-00.9	N	24	24.7	+00.0	265	41.9	-28.1	N	14	21.5	+07.5	03								
04	240	23.4	-00.1	N	22	33.3	+00.2	220	57.9	-00.9	N	24	24.7	+00.1	280	13.8	-28.1	N	14	29.0	+07.5	04								
05	255	23.3	-00.1	N	22	33.5	+00.3	235	57.0	-00.9	N	24	24.8	+00.0	294	45.7	-28.2	N	14	36.5	+07.4	05								
06	270	23.2	-00.1	N	22	33.8	+00.3	250	56.1	-00.9	N	24	24.8	+00.0	309	17.5	-28.2	N	14	43.9	+07.3	06								
07	285	23.1	-00.2	N	22	34.1	+00.2	265	55.2	-00.8	N	24	24.8	+00.0	323	49.3	-28.1	N	14	51.2	+07.3	07								
08	300	22.9	-00.1	N	22	34.3	+00.3	280	54.4	-00.9	N	24	24.8	+00.1	338	21.2	-28.3	N	14	58.5	+07.2	08								
09	315	22.8	-00.1	N	22	34.6	+00.3	295	53.5	-00.9	N	24	24.9	+00.0	352	52.9	-28.2	N	15	05.7	+07.1	09								
10	330	22.7	-00.1	N	22	34.9	+00.2	310	52.6	-00.9	N	24	24.9	+00.0	7	24.7	-28.2	N	15	12.8	+07.0	10								
11	345	22.6	-00.1	N	22	35.1	+00.3	325	51.7	-00.9	N	24	24.9	+00.0	21	56.5	-28.3	N	15	19.8	+07.0	11								
12	0	22.5	-00.1	N	22	35.4	+00.3	340	50.8	-00.9	N	24	24.9	+00.0	36	28.2	-28.3	N	15	26.8	+06.9	12								
13	15	22.4	-00.1	N	22	35.7	+00.3	355	49.9	-00.9	N	24	24.9	+00.1	50	59.9	-28.2	N	15	33.7	+06.8	13								
14	30	22.3	-00.1	N	22	36.0	+00.2	10	49.0	-00.9	N	24	25.0	+00.0	65	31.7	-28.4	N	15	40.5	+06.7	14								
15	45	22.2	-00.2	N	22	36.2	+00.3	25	48.1	-00.9	N	24	25.0	+00.0	80	03.3	-28.3	N	15	47.2	+06.7	15								
16	60	22.0	-00.1	N	22	36.5	+00.2	40	47.2	-00.9	N	24	25.0	+00.0	94	35.0	-28.3	N	15	53.9	+06.6	16								
17	75	21.9	-00.1	N	22	36.7	+00.3	55	46.3	-00.9	N	24	25.0	+00.0	109	06.7	-28.4	N	16	00.5	+06.5	17								
18	90	21.8	-00.1	N	22	37.0	+00.3	70	45.4	-00.9	N	24	25.0	+00.0	123	38.3	-28.4	N	16	07.0	+06.4	18								
19	105	21.7	-00.1	N	22	37.3	+00.2	85	44.5	-00.8	N	24	25.0	+00.0	138	09.9	-28.4	N	16	13.4	+06.4	19								
20	120	21.6	-00.1	N	22	37.5	+00.3	100	43.7	-00.9	N	24	25.0	+00.0	152	41.5	-28.4	N	16	19.8	+06.3	20								
21	135	21.5	-00.1	N	22	37.8	+00.3	115	42.8	-00.9	N	24	25.0	+00.0	167	13.1	-28.5	N	16	26.1	+06.2	21								
22	150	21.4	-00.2	N	22	38.1	+00.2	130	41.9	-00.9	N	24	25.0	+00.0	181	44.6	-28.4	N	16	32.3	+06.1	22								
23	165	21.2	-00.1	N	22	38.3	+00.3	145	41.0	-00.9	N	24	25.0	+00.0	196	16.2	-28.5	N	16	38.4	+06.0	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 00'1 00'1 00'1 00'1 00'1 00'1							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 00'1 00'1 00'1 00'1 00'1 00'1							HP 54'9 54'9 54'8 54'7 54'7 54'6																
Greenwich Culmination Time: 11:59							Greenwich Culmination Time: 13:17							Greenwich Culmination Time: 09:29																

Mars										Jupiter										Saturn										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"												
00	192	23.7	+00.6	N	20	54.9	+00.4	168	50.1	+01.9	N	23	05.7	+00.1	39	19.1	+02.6	S	10	57.1	+00.0	00								
01	207	24.3	+00.6	N	20	55.3	+00.3	183	52.0	+01.8	N	23	05.8	+00.0	54	21.7	+02.6	S	10	57.1	+00.0	01								
02	222	24.9	+00.6	N	20	55.6	+00.4	198	53.8	+01.9	N	23	05.8	+00.0	69	24.3	+02.6	S	10	57.1	-00.1	02								
03	237	25.5	+00.6	N	20	56.0	+00.4	213	55.7	+01.8	N	23	05.8	+00.0	84	26.9	+02.6	S	10	57.0	+00.0	03								
04	252	26.1	+00.6	N	20	56.4	+00.3	228	57.5	+01.9	N	23	05.8	+00.1	99	29.5	+02.6	S	10	57.0	+00.0	04								
05	267	26.7	+00.6	N	20	56.7	+00.4	243	59.4	+01.8	N	23	05.9	+00.0	114	32.1	+02.6	S	10	57.0	-00.1	05								
06	282	27.3	+00.6	N	20	57.1	+00.4	259	01.2	+01.9	N	23	05.9	+00.0	129	34.7	+02.5	S	10	56.9	+00.0	06								
07	297	27.9	+00.6	N	20	57.5	+00.3	274	03.1	+01.8	N	23	05.9	+00.0	144	37.2	+02.6	S	10	56.9	+00.0	07								
08	312	28.5	+00.6	N	20	57.8	+00.4	289	04.9	+01.8	N	23	05.9	+00.1	159	39.8	+02.6	S	10	56.9	-00.1	08								
09	327	29.1	+00.6	N	20	58.2	+00.3	304	06.7	+01.9	N	23	06.0	+00.0	174	42.4	+02.6	S	10	56.8	+00.0	09								
10	342	29.7	+00.6	N	20	58.5	+00.4	319	08.6	+01.8	N	23	06.0	+00.0	189	45.0	+02.6	S	10	56.8	+00.0	10								
11	357	30.3	+00.6	N	20	58.9	+00.4	334	10.4	+01.9	N	23	06.0	+00.0	204	47.6	+02.6	S	10	56.8	-00.1	11								
12	12	30.9	+00.6	N	20	59.3	+00.3	349	12.3	+01.8	N	23	06.0	+00.1	219	50.2	+02.6	S	10	56.7	+00.0	12								
13	27	31.5	+00.6	N	20	59.6	+00.4	4	14.1	+01.9	N	23	06.1	+00.0	234	52.8	+02.5	S	10	56.7	+00.0	13								
14	42	32.1	+00.6	N	20	60.0	+00.4	19	16.0	+01.8	N	23	06.1	+00.0	249	55.3	+02.6	S	10	56.7	-00.1	14								
15	57	32.7	+00.6	N	21	00.4	+00.3	34	17.8	+01.9	N	23	06.1	+00.0	264	57.9	+02.6	S	10	56.6	+00.0	15								
16	72	33.3	+00.6	N	21	00.7	+00.4	49	19.7	+01.8	N	23	06.1	+00.1	280	00.5	+02.6	S	10	56.6	+00.0	16								
17	87	33.9	+00.6	N	21	01.1	+00.3	64	21.5	+01.8	N	23	06.2	+00.0	295	03.1	+02.6	S	10	56.6	-00.1	17								
18	102	34.5	+00.6	N	21	01.4	+00.4	79	23.3	+01.9	N	23	06.2	+00.0	310	05.7	+02.6	S	10	56.5	+00.0	18								
19	117	35.1	+00.6	N	21	01.8	+00.4	94	25.2	+01.8	N	23	06.2	+00.0	325	08.3	+02.6	S	10	56.5	+00.0	19								
20	132	35.7	+00.6	N	21	02.2	+00.3	109	27.0	+01.9	N	23	06.2	+00.1	340	10.9	+02.5	S	10	56.5	-00.1	20								
21	147	36.3	+00.6	N	21	02.5	+00.4	124	28.9	+01.8	N	23	06.3	+00.0	355	13.4	+02.6	S	10	56.4	+00.0	21								
22	162	36.9	+00.6	N	21	02.9	+00.3	139	30.7	+01.9	N	23	06.3	+00.0	10	16.0	+02.6	S	10	56.4	+00.0	22								
23	177	37.5	+00.6	N	21	03.2	+00.4	154	32.6	+01.8	N	23	06.3	+00.0	25	18.6	+02.6	S	10	56.4	-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 00'0 00'0 00'0 00'0 00'0 00'0							SD 00'3 00'3 00'3 00'3 00'3 00'3							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 00'0 00'0 00'0 00'0 00'0 00'0							HP 00'0 00'0 00'0 00'0 00'0 00'0																
Greenwich Culmination Time: 11:10							Greenwich Culmination Time: 12:43							Greenwich Culmination Time: 21:19																

Sun													Venus													Moon a = 0.93													
UT	GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			UT		
	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"						
00	180	21.1	-00.1	N	22	38.6	+00.2						160	40.1	-00.9	N	24	25.0	+00.0						210	47.7	-28.5	N	16	44.4	+06.0			00					
01	195	21.0	-00.1	N	22	38.8	+00.3						175	39.2	-00.9	N	24	25.0	+00.0						225	19.2	-28.5	N	16	50.4	+05.9			01					
02	210	20.9	-00.1	N	22	39.1	+00.2						190	38.3	-00.9	N	24	25.0	+00.0						239	50.7	-28.6	N	16	56.3	+05.8			02					
03	225	20.8	-00.1	N	22	39.3	+00.3						205	37.4	-00.9	N	24	25.0	+00.0						254	22.1	-28.5	N	17	02.1	+05.7			03					
04	240	20.7	-00.1	N	22	39.6	+00.3						220	36.5	-00.9	N	24	25.0	+00.0						268	53.6	-28.6	N	17	07.8	+05.7			04					
05	255	20.6	-00.2	N	22	39.9	+00.2						235	35.6	-00.9	N	24	25.0	+00.0						283	25.0	-28.6	N	17	13.5	+05.5			05					
06	270	20.4	-00.1	N	22	40.1	+00.3						250	34.7	-00.8	N	24	25.0	+00.0						297	56.4	-28.6	N	17	19.0	+05.5			06					
07	285	20.3	-00.1	N	22	40.4	+00.2						265	33.9	-00.9	N	24	25.0	+00.0						312	27.8	-28.6	N	17	24.5	+05.4			07					
08	300	20.2	-00.1	N	22	40.6	+00.3						280	33.0	-00.9	N	24	25.0	+00.0						326	59.2	-28.7	N	17	29.9	+05.3			08					
09	315	20.1	-00.1	N	22	40.9	+00.2						295	32.1	-00.9	N	24	25.0	+00.0						341	30.5	-28.6	N	17	35.2	+05.3			09					
10	330	20.0	-00.1	N	22	41.1	+00.3						310	31.2	-00.9	N	24	25.0	+00.0						356	01.9	-28.7	N	17	40.5	+05.1			10					
11	345	19.9	-00.1	N	22	41.4	+00.2						325	30.3	-00.9	N	24	25.0	+00.0						10	33.2	-28.7	N	17	45.6	+05.1			11					
12	0	19.8	-00.2	N	22	41.6	+00.3						340	29.4	-00.9	N	24	25.0	-00.1						25	04.5	-28.7	N	17	50.7	+05.0			12					
13	15	19.6	-00.1	N	22	41.9	+00.2						355	28.5	-00.9	N	24	24.9	+00.0						39	35.8	-28.7	N	17	55.7	+04.9			13					
14	30	19.5	-00.1	N	22	42.1	+00.3						10	27.6	-00.9	N	24	24.9	+00.0						54	07.1	-28.8	N	18	00.6	+04.8			14					
15	45	19.4	-00.1	N	22	42.4	+00.2						25	26.7	-00.9	N	24	24.9	+00.0						68	38.3	-28.7	N	18	05.4	+04.7			15					
16	60	19.3	-00.1	N	22	42.6	+00.3						40	25.8	-00.9	N	24	24.9	+00.0						83	09.6	-28.8	N	18	10.1	+04.7			16					
17	75	19.2	-00.1	N	22	42.9	+00.2						55	24.9	-00.8	N	24	24.9	+00.0						97	40.8	-28.8	N	18	14.8	+04.5			17					
18	90	19.1	-00.2	N	22	43.1	+00.3						70	24.1	-00.9	N	24	24.9	-00.1						112	12.0	-28.8	N	18	19.3	+04.5			18					
19	105	18.9	-00.1	N	22	43.4	+00.2						85	23.2	-00.9	N	24	24.8	+00.0						126	43.2	-28.9	N	18	23.8	+04.4			19					
20	120	18.8	-00.1	N	22	43.6	+00.3						100	22.3	-00.9	N	24	24.8	+00.0						141	14.3	-28.8	N	18	28.2	+04.3			20					
21	135	18.7	-00.1	N	22	43.9	+00.2						115	21.4	-00.9	N	24	24.8	+00.0						155	45.5	-28.8	N	18	32.5	+04.2			21					
22	150	18.6	-00.1	N	22	44.1	+00.2						130	20.5	-00.9	N	24	24.8	-00.1						170	16.7	-28.9	N	18	36.7	+04.1			22					
23	165	18.5	-00.1	N	22	44.3	+00.3						145	19.6	-00.9	N	24	24.7	+00.0						184	47.8	-28.9	N	18	40.8	+04.0			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 Greenwich Culmination Time: 11:59													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 Greenwich Culmination Time: 13:18													UT 02 06 10 14 18 22 SD 14'9 14'9 14'8 14'8 14'8 14'8 HP 54'6 54'5 54'5 54'4 54'4 54'3 Greenwich Culmination Time: 10:16													

Mars													Jupiter													Saturn													
UT	GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			UT		
	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"		'	"	°	'	"						
00	192	38.1	+00.6	N	21	03.6	+00.4						169	34.4	+01.9	N	23	06.3	+00.1						40	21.2	+02.6	S	10	56.3	+00.0			00					
01	207	38.7	+00.6	N	21	04.0	+00.3						184	36.3	+01.8	N	23	06.4	+00.0						55	23.8	+02.6	S	10	56.3	+00.0			01					
02	222	39.3	+00.6	N	21	04.3	+00.4						199	38.1	+01.8	N	23	06.4	+00.0						70	26.4	+02.5	S	10	56.3	-00.1			02					
03	237	39.9	+00.6	N	21	04.7	+00.3						214	39.9	+01.9	N	23	06.4	+00.0						85	28.9	+02.6	S	10	56.2	+00.0			03					
04	252	40.5	+00.6	N	21	05.0	+00.4						229	41.8	+01.8	N	23	06.4	+00.0						100	31.5	+02.6	S	10	56.2	+00.0			04					
05	267	41.1	+00.6	N	21	05.4	+00.3						244	43.6	+01.9	N	23	06.4	+00.1						115	34.1	+02.6	S	10	56.2	-00.1			05					
06	282	41.7	+00.6	N	21	05.7	+00.4						259	45.5	+01.8	N	23	06.5	+00.0						130	36.7	+02.6	S	10	56.1	+00.0			06					
07	297	42.3	+00.6	N	21	06.1	+00.4						274	47.3	+01.9	N	23	06.5	+00.0						145	39.3	+02.6	S	10	56.1	+00.0			07					
08	312	42.9	+00.6	N	21	06.5	+00.3						289	49.2	+01.8	N	23	06.5	+00.0						160	41.9	+02.6	S	10	56.1	-00.1			08					
09	327	43.5	+00.6	N	21	06.8	+00.4						304	51.0	+01.9	N	23	06.5	+00.1						175	44.5	+02.5	S	10	56.0	+00.0			09					
10	342	44.1	+00.6	N	21	07.2	+00.3						319	52.9	+01.8	N	23	06.6	+00.0						190	47.0	+02.6	S	10	56.0	+00.0			10					
11	357	44.7	+00.6	N	21	07.5	+00.4						334	54.7	+01.8	N	23	06.6	+00.0						205	49.6	+02.6	S	10	56.0	+00.0			11					
12	12	45.3	+00.6	N	21	07.9	+00.3						349	56.5	+01.9	N	23	06.6	+00.0						220	52.2	+02.6	S	10	56.0	-00.1			12					
13	27	45.9	+00.6	N	21	08.2	+00.4						4	58.4	+01.8	N	23	06.6	+00.1						235	54.8	+02.6	S	10	55.9	+00.0			13					
14	42	46.5	+00.6	N	21	08.6	+00.3						20	00.2	+01.9	N	23	06.7	+00.0						250	57.4	+02.6	S	10	55.9	+00.0			14					
15	57	47.1	+00.6	N	21	08.9	+00.4						35	02.1	+01.8	N	23	06.7	+00.0						265	60.0	+02.5	S	10	55.9	-00.1			15					
16	72	47.7	+00.6	N	21	09.3	+00.3						50	03.9	+01.9	N	23	06.7	+00.0						281	02.5	+02.6	S	10	55.8	+00.0			16					
17	87	48.3	+00.6	N	21	09.6	+00.4						65	05.8	+01.8	N	23	06.7	+00.1						296	05.1	+02.6	S	10	55.8	+00.0			17					
18	102	48.9	+00.6	N	21	10.0	+00.3						80	07.6	+01.9	N	23	06.8	+00.0						311	07.7	+02.6	S	10	55.8	-00.1			18					
19	117	49.5	+00.6	N	21	10.3	+00.4						95	09.5	+01.8	N	23	06.8	+00.0						326	10.3	+02.6	S	10	55.7	+00.0			19					
20	132	50.1	+00.6	N	21	10.7	+00.3						110	11.3	+01.8	N	23	06.8	+00.0						341	12.9	+02.5	S	10	55.7	+00.0			20					
21	147	50.7	+00.6	N	21	11.0	+00.4						125	13.1	+01.9	N	23	06.8	+00.0						356	15.4	+02.6	S	10	55.7	-00.1			21					
22	162	51.3	+00.6	N	21	11.4	+00.3						140	15.0	+01.8	N	23	06.8	+00.1						11	18.0	+02.6	S	10	55.6	+00.0			22					
23	177	51.9	+00.6	N	21	11.7	+00.4						155	16.8	+01.9	N	23	06.9	+00.0						26	20.6	+02.6	S	10	55.6	+00.0			23					
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:09													UT 02 06 10 14 18 22																										

Sun										Venus										Moon a = 0.96										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"												
00	180	18.4	-00.2	N	22	44.6	+00.2	160	18.7	-00.9	N	24	24.7	+00.0	199	18.9	-28.9	N	18	44.8	+04.0	00								
01	195	18.2	-00.1	N	22	44.8	+00.3	175	17.8	-00.9	N	24	24.7	-00.1	213	50.0	-28.9	N	18	48.8	+03.8	01								
02	210	18.1	-00.1	N	22	45.1	+00.2	190	16.9	-00.9	N	24	24.6	+00.0	228	21.1	-28.9	N	18	52.6	+03.8	02								
03	225	18.0	-00.1	N	22	45.3	+00.2	205	16.0	-00.8	N	24	24.6	+00.0	242	52.2	-29.0	N	18	56.4	+03.7	03								
04	240	17.9	-00.1	N	22	45.5	+00.3	220	15.2	-00.9	N	24	24.6	-00.1	257	23.2	-28.9	N	19	00.1	+03.6	04								
05	255	17.8	-00.2	N	22	45.8	+00.2	235	14.3	-00.9	N	24	24.5	+00.0	271	54.3	-29.0	N	19	03.7	+03.5	05								
06	270	17.6	-00.1	N	22	46.0	+00.3	250	13.4	-00.9	N	24	24.5	+00.0	286	25.3	-28.9	N	19	07.2	+03.4	06								
07	285	17.5	-00.1	N	22	46.3	+00.2	265	12.5	-00.9	N	24	24.5	-00.1	300	56.4	-29.0	N	19	10.6	+03.3	07								
08	300	17.4	-00.1	N	22	46.5	+00.2	280	11.6	-00.9	N	24	24.4	+00.0	315	27.4	-29.0	N	19	13.9	+03.2	08								
09	315	17.3	-00.1	N	22	46.7	+00.3	295	10.7	-00.9	N	24	24.4	+00.0	329	58.4	-29.0	N	19	17.1	+03.2	09								
10	330	17.2	-00.1	N	22	47.0	+00.2	310	09.8	-00.9	N	24	24.4	-00.1	344	29.4	-29.1	N	19	20.3	+03.0	10								
11	345	17.1	-00.2	N	22	47.2	+00.2	325	08.9	-00.9	N	24	24.3	+00.0	359	00.3	-29.0	N	19	23.3	+03.0	11								
12	0	16.9	-00.1	N	22	47.4	+00.3	340	08.0	-00.9	N	24	24.3	-00.1	13	31.3	-29.0	N	19	26.3	+02.8	12								
13	15	16.8	-00.1	N	22	47.7	+00.2	355	07.1	-00.8	N	24	24.2	+00.0	28	02.3	-29.1	N	19	29.1	+02.8	13								
14	30	16.7	-00.1	N	22	47.9	+00.2	10	06.3	-00.9	N	24	24.2	-00.1	42	33.2	-29.0	N	19	31.9	+02.7	14								
15	45	16.6	-00.1	N	22	48.1	+00.3	25	05.4	-00.9	N	24	24.1	+00.0	57	04.2	-29.1	N	19	34.6	+02.6	15								
16	60	16.5	-00.2	N	22	48.4	+00.2	40	04.5	-00.9	N	24	24.1	-00.1	71	35.1	-29.1	N	19	37.2	+02.5	16								
17	75	16.3	-00.1	N	22	48.6	+00.2	55	03.6	-00.9	N	24	24.0	+00.0	86	06.0	-29.0	N	19	39.7	+02.4	17								
18	90	16.2	-00.1	N	22	48.8	+00.3	70	02.7	-00.9	N	24	24.0	-00.1	100	37.0	-29.1	N	19	42.1	+02.3	18								
19	105	16.1	-00.1	N	22	49.1	+00.2	85	01.8	-00.9	N	24	23.9	+00.0	115	07.9	-29.1	N	19	44.4	+02.2	19								
20	120	16.0	-00.1	N	22	49.3	+00.2	100	00.9	-00.9	N	24	23.9	-00.1	129	38.8	-29.1	N	19	46.6	+02.2	20								
21	135	15.9	-00.2	N	22	49.5	+00.2	115	00.0	-00.9	N	24	23.8	+00.0	144	09.7	-29.1	N	19	48.8	+02.0	21								
22	150	15.7	-00.1	N	22	49.7	+00.3	129	59.1	-00.8	N	24	23.8	-00.1	158	40.6	-29.1	N	19	50.8	+01.9	22								
23	165	15.6	-00.1	N	22	50.0	+00.2	144	58.3	-00.9	N	24	23.7	+00.0	173	11.5	-29.1	N	19	52.7	+01.9	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 Greenwich Culmination Time: 11:59							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 Greenwich Culmination Time: 13:20							UT 02 06 10 14 18 22 SD 14'8 14'8 14'8 14'8 14'7 14'7 HP 54'3 54'2 54'2 54'2 54'1 54'1 Greenwich Culmination Time: 11:04																

Mars										Jupiter										Saturn										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"												
00	192	52.5	+00.6	N	21	12.1	+00.3	170	18.7	+01.8	N	23	06.9	+00.0	41	23.2	+02.6	S	10	55.6	-00.1	00								
01	207	53.1	+00.6	N	21	12.4	+00.4	185	20.5	+01.9	N	23	06.9	+00.0	56	25.8	+02.6	S	10	55.5	+00.0	01								
02	222	53.7	+00.6	N	21	12.8	+00.3	200	22.4	+01.8	N	23	06.9	+00.1	71	28.4	+02.5	S	10	55.5	+00.0	02								
03	237	54.3	+00.6	N	21	13.1	+00.4	215	24.2	+01.8	N	23	07.0	+00.0	86	30.9	+02.6	S	10	55.5	+00.0	03								
04	252	54.9	+00.6	N	21	13.5	+00.3	230	26.0	+01.9	N	23	07.0	+00.0	101	33.5	+02.6	S	10	55.5	-00.1	04								
05	267	55.5	+00.6	N	21	13.8	+00.4	245	27.9	+01.8	N	23	07.0	+00.0	116	36.1	+02.6	S	10	55.4	+00.0	05								
06	282	56.1	+00.6	N	21	14.2	+00.3	260	29.7	+01.9	N	23	07.0	+00.1	131	38.7	+02.6	S	10	55.4	+00.0	06								
07	297	56.7	+00.6	N	21	14.5	+00.4	275	31.6	+01.8	N	23	07.1	+00.0	146	41.3	+02.5	S	10	55.4	-00.1	07								
08	312	57.3	+00.6	N	21	14.9	+00.3	290	33.4	+01.9	N	23	07.1	+00.0	161	43.8	+02.6	S	10	55.3	+00.0	08								
09	327	57.9	+00.6	N	21	15.2	+00.4	305	35.3	+01.8	N	23	07.1	+00.0	176	46.4	+02.6	S	10	55.3	+00.0	09								
10	342	58.5	+00.6	N	21	15.6	+00.3	320	37.1	+01.8	N	23	07.1	+00.0	191	49.0	+02.6	S	10	55.3	-00.1	10								
11	357	59.1	+00.6	N	21	15.9	+00.4	335	38.9	+01.9	N	23	07.1	+00.1	206	51.6	+02.6	S	10	55.2	+00.0	11								
12	12	59.7	+00.6	N	21	16.3	+00.3	350	40.8	+01.8	N	23	07.2	+00.0	221	54.2	+02.5	S	10	55.2	+00.0	12								
13	28	00.3	+00.6	N	21	16.6	+00.4	5	42.6	+01.9	N	23	07.2	+00.0	236	56.7	+02.6	S	10	55.2	-00.1	13								
14	43	00.9	+00.6	N	21	17.0	+00.3	20	44.5	+01.8	N	23	07.2	+00.0	251	59.3	+02.6	S	10	55.1	+00.0	14								
15	58	01.5	+00.6	N	21	17.3	+00.3	35	46.3	+01.9	N	23	07.2	+00.1	267	01.9	+02.6	S	10	55.1	+00.0	15								
16	73	02.1	+00.6	N	21	17.6	+00.4	50	48.2	+01.8	N	23	07.3	+00.0	282	04.5	+02.6	S	10	55.1	+00.0	16								
17	88	02.7	+00.6	N	21	18.0	+00.3	65	50.0	+01.8	N	23	07.3	+00.0	297	07.1	+02.5	S	10	55.1	-00.1	17								
18	103	03.3	+00.6	N	21	18.3	+00.4	80	51.8	+01.9	N	23	07.3	+00.0	312	09.6	+02.6	S	10	55.0	+00.0	18								
19	118	03.9	+00.6	N	21	18.7	+00.3	95	53.7	+01.8	N	23	07.3	+00.0	327	12.2	+02.6	S	10	55.0	+00.0	19								
20	133	04.5	+00.6	N	21	19.0	+00.4	110	55.5	+01.9	N	23	07.3	+00.1	342	14.8	+02.6	S	10	55.0	-00.1	20								
21	148	05.1	+00.6	N	21	19.4	+00.3	125	57.4	+01.8	N	23	07.4	+00.0	357	17.4	+02.6	S	10	54.9	+00.0	21								
22	163	05.7	+00.6	N	21	19.7	+00.3	140	59.2	+01.9	N	23	07.4	+00.0	12	20.0	+02.5	S	10	54.9	+00.0	22								
23	178	06.3	+00.6	N	21	20.0	+00.4	156	01.1	+01.8	N	23	07.4	+00.0	27	22.5	+02.6	S	10	54.9	-00.1	23								
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:08							UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:37							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 Greenwich Culmination Time: 21:11																

Sun										Venus										Moon a = 1.00										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA	Dec		dDec	GHA	ddGHA	Dec		dDec	UT													
	°	'		°	'		°	'	°	'		°	'	°	'															
00	180	15.5	-00.1	N	22	50.2	+00.2	159	57.4	-00.9	N	24	23.7	-00.1	187	42.4	-29.2	N	19	54.6	+01.8	00								
01	195	15.4	-00.1	N	22	50.4	+00.2	174	56.5	-00.9	N	24	23.6	-00.1	202	13.2	-29.1	N	19	56.4	+01.6	01								
02	210	15.3	-00.2	N	22	50.6	+00.3	189	55.6	-00.9	N	24	23.5	+00.0	216	44.1	-29.1	N	19	58.0	+01.6	02								
03	225	15.1	-00.1	N	22	50.9	+00.2	204	54.7	-00.9	N	24	23.5	-00.1	231	15.0	-29.1	N	19	59.6	+01.5	03								
04	240	15.0	-00.1	N	22	51.1	+00.2	219	53.8	-00.9	N	24	23.4	+00.0	245	45.9	-29.2	N	20	01.1	+01.4	04								
05	255	14.9	-00.1	N	22	51.3	+00.2	234	52.9	-00.9	N	24	23.4	-00.1	260	16.7	-29.1	N	20	02.5	+01.3	05								
06	270	14.8	-00.1	N	22	51.5	+00.3	249	52.0	-00.8	N	24	23.3	-00.1	274	47.6	-29.1	N	20	03.8	+01.2	06								
07	285	14.7	-00.2	N	22	51.8	+00.2	264	51.2	-00.9	N	24	23.2	+00.0	289	18.5	-29.2	N	20	05.0	+01.1	07								
08	300	14.5	-00.1	N	22	52.0	+00.2	279	50.3	-00.9	N	24	23.2	-00.1	303	49.3	-29.1	N	20	06.1	+01.0	08								
09	315	14.4	-00.1	N	22	52.2	+00.2	294	49.4	-00.9	N	24	23.1	-00.1	318	20.2	-29.2	N	20	07.1	+00.9	09								
10	330	14.3	-00.1	N	22	52.4	+00.2	309	48.5	-00.9	N	24	23.0	-00.1	332	51.0	-29.1	N	20	08.0	+00.8	10								
11	345	14.2	-00.1	N	22	52.6	+00.3	324	47.6	-00.9	N	24	22.9	+00.0	347	21.9	-29.1	N	20	08.8	+00.7	11								
12	0	14.1	-00.2	N	22	52.9	+00.2	339	46.7	-00.9	N	24	22.9	-00.1	1	52.8	-29.2	N	20	09.5	+00.7	12								
13	15	13.9	-00.1	N	22	53.1	+00.2	354	45.8	-00.9	N	24	22.8	-00.1	16	23.6	-29.1	N	20	10.2	+00.5	13								
14	30	13.8	-00.1	N	22	53.3	+00.2	9	44.9	-00.8	N	24	22.7	-00.1	30	54.5	-29.1	N	20	10.7	+00.5	14								
15	45	13.7	-00.1	N	22	53.5	+00.2	24	44.1	-00.9	N	24	22.6	+00.0	45	25.4	-29.2	N	20	11.2	+00.3	15								
16	60	13.6	-00.2	N	22	53.7	+00.2	39	43.2	-00.9	N	24	22.6	-00.1	59	56.2	-29.1	N	20	11.5	+00.3	16								
17	75	13.4	-00.1	N	22	53.9	+00.2	54	42.3	-00.9	N	24	22.5	-00.1	74	27.1	-29.1	N	20	11.8	+00.1	17								
18	90	13.3	-00.1	N	22	54.1	+00.3	69	41.4	-00.9	N	24	22.4	-00.1	88	58.0	-29.1	N	20	11.9	+00.1	18								
19	105	13.2	-00.1	N	22	54.4	+00.2	84	40.5	-00.9	N	24	22.3	-00.1	103	28.9	-29.1	N	20	12.0	+00.0	19								
20	120	13.1	-00.1	N	22	54.6	+00.2	99	39.6	-00.9	N	24	22.2	+00.0	117	59.8	-29.1	N	20	12.0	-00.1	20								
21	135	13.0	-00.2	N	22	54.8	+00.2	114	38.7	-00.8	N	24	22.2	-00.1	132	30.7	-29.1	N	20	11.9	-00.2	21								
22	150	12.8	-00.1	N	22	55.0	+00.2	129	37.9	-00.9	N	24	22.1	-00.1	147	01.6	-29.1	N	20	11.7	-00.3	22								
23	165	12.7	-00.1	N	22	55.2	+00.2	144	37.0	-00.9	N	24	22.0	-00.1	161	32.5	-29.1	N	20	11.4	-00.4	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 Greenwich Culmination Time: 11:59										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 Greenwich Culmination Time: 13:21										UT 02 06 10 14 18 22 SD 14'7 14'7 14'7 14'7 14'7 14'7 HP 54'1 54'0 54'0 54'0 54'0 54'0 Greenwich Culmination Time: 11:52										
Mars										Jupiter										Saturn										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA	Dec		dDec	GHA	ddGHA	Dec		dDec	UT													
	°	'		°	'		°	'	°	'		°	'	°	'															
00	193	06.9	+00.6	N	21	20.4	+00.3	171	02.9	+01.8	N	23	07.4	+00.1	42	25.1	+02.6	S	10	54.8	+00.0	00								
01	208	07.5	+00.6	N	21	20.7	+00.4	186	04.7	+01.9	N	23	07.5	+00.0	57	27.7	+02.6	S	10	54.8	+00.0	01								
02	223	08.1	+00.6	N	21	21.1	+00.3	201	06.6	+01.8	N	23	07.5	+00.0	72	30.3	+02.5	S	10	54.8	+00.0	02								
03	238	08.7	+00.6	N	21	21.4	+00.4	216	08.4	+01.9	N	23	07.5	+00.0	87	32.8	+02.6	S	10	54.8	-00.1	03								
04	253	09.3	+00.6	N	21	21.8	+00.3	231	10.3	+01.8	N	23	07.5	+00.0	102	35.4	+02.6	S	10	54.7	+00.0	04								
05	268	09.9	+00.6	N	21	22.1	+00.3	246	12.1	+01.9	N	23	07.5	+00.1	117	38.0	+02.6	S	10	54.7	+00.0	05								
06	283	10.5	+00.6	N	21	22.4	+00.4	261	14.0	+01.8	N	23	07.6	+00.0	132	40.6	+02.6	S	10	54.7	-00.1	06								
07	298	11.1	+00.6	N	21	22.8	+00.3	276	15.8	+01.8	N	23	07.6	+00.0	147	43.2	+02.5	S	10	54.6	+00.0	07								
08	313	11.7	+00.6	N	21	23.1	+00.3	291	17.6	+01.9	N	23	07.6	+00.0	162	45.7	+02.6	S	10	54.6	+00.0	08								
09	328	12.3	+00.6	N	21	23.4	+00.4	306	19.5	+01.8	N	23	07.6	+00.0	177	48.3	+02.6	S	10	54.6	+00.0	09								
10	343	12.9	+00.6	N	21	23.8	+00.3	321	21.3	+01.9	N	23	07.6	+00.1	192	50.9	+02.6	S	10	54.6	-00.1	10								
11	358	13.5	+00.6	N	21	24.1	+00.4	336	23.2	+01.8	N	23	07.7	+00.0	207	53.5	+02.5	S	10	54.5	+00.0	11								
12	13	14.1	+00.6	N	21	24.5	+00.3	351	25.0	+01.9	N	23	07.7	+00.0	222	56.0	+02.6	S	10	54.5	+00.0	12								
13	28	14.7	+00.6	N	21	24.8	+00.3	6	26.9	+01.8	N	23	07.7	+00.0	237	58.6	+02.6	S	10	54.5	-00.1	13								
14	43	15.3	+00.6	N	21	25.1	+00.4	21	28.7	+01.8	N	23	07.7	+00.1	253	01.2	+02.6	S	10	54.4	+00.0	14								
15	58	15.9	+00.6	N	21	25.5	+00.3	36	30.5	+01.9	N	23	07.8	+00.0	268	03.8	+02.5	S	10	54.4	+00.0	15								
16	73	16.5	+00.6	N	21	25.8	+00.3	51	32.4	+01.8	N	23	07.8	+00.0	283	06.3	+02.6	S	10	54.4	-00.1	16								
17	88	17.1	+00.6	N	21	26.1	+00.4	66	34.2	+01.9	N	23	07.8	+00.0	298	08.9	+02.6	S	10	54.3	+00.0	17								
18	103	17.7	+00.6	N	21	26.5	+00.3	81	36.1	+01.8	N	23	07.8	+00.0	313	11.5	+02.6	S	10	54.3	+00.0	18								
19	118	18.3	+00.6	N	21	26.8	+00.3	96	37.9	+01.9	N	23	07.8	+00.1	328	14.1	+02.6	S	10	54.3	+00.0	19								
20	133	18.9	+00.6	N	21	27.1	+00.4	111	39.8	+01.8	N	23	07.9	+00.0	343	16.7	+02.5	S	10	54.3	-00.1	20								
21	148	19.5	+00.6	N	21	27.5	+00.3	126	41.6	+01.8	N	23	07.9	+00.0	358	19.2	+02.6	S	10	54.2	+00.0	21								
22	163	20.1	+00.6	N	21	27.8	+00.3	141	43.4	+01.9	N	23	07.9	+00.0	13	21.8	+02.6	S	10	54.2	+00.0	22								
23	178	20.7	+00.6	N	21	28.1	+00.4	156	45.3	+01.8	N	23	07.9	+00.0	28	24.4	+02.6	S	10	54.2	-00.1	23								
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:07										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:34										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 Greenwich Culmination Time: 21:07										

Sun										Venus										Moon a = 0.03										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"									
00	180	12.6	-00.1	N	22	55.4	+00.2	159	36.1	-00.9	N	24	21.9	-00.1	176	03.4	-29.1	N	20	11.0	-00.5	00								
01	195	12.5	-00.2	N	22	55.6	+00.2	174	35.2	-00.9	N	24	21.8	-00.1	190	34.3	-29.1	N	20	10.5	-00.6	01								
02	210	12.3	-00.1	N	22	55.8	+00.2	189	34.3	-00.9	N	24	21.7	-00.1	205	05.2	-29.0	N	20	09.9	-00.7	02								
03	225	12.2	-00.1	N	22	56.0	+00.2	204	33.4	-00.9	N	24	21.6	-00.1	219	36.2	-29.1	N	20	09.2	-00.7	03								
04	240	12.1	-00.1	N	22	56.2	+00.2	219	32.5	-00.8	N	24	21.5	-00.1	234	07.1	-29.0	N	20	08.5	-00.9	04								
05	255	12.0	-00.2	N	22	56.4	+00.2	234	31.7	-00.9	N	24	21.4	-00.1	248	38.1	-29.1	N	20	07.6	-01.0	05								
06	270	11.8	-00.1	N	22	56.6	+00.3	249	30.8	-00.9	N	24	21.3	+00.0	263	09.0	-29.0	N	20	06.6	-01.0	06								
07	285	11.7	-00.1	N	22	56.9	+00.2	264	29.9	-00.9	N	24	21.3	-00.1	277	40.0	-29.0	N	20	05.6	-01.2	07								
08	300	11.6	-00.1	N	22	57.1	+00.2	279	29.0	-00.9	N	24	21.2	-00.1	292	11.0	-29.0	N	20	04.4	-01.2	08								
09	315	11.5	-00.2	N	22	57.3	+00.2	294	28.1	-00.9	N	24	21.1	-00.1	306	42.0	-29.0	N	20	03.2	-01.3	09								
10	330	11.3	-00.1	N	22	57.5	+00.2	309	27.2	-00.9	N	24	21.0	-00.1	321	13.0	-29.0	N	20	01.9	-01.4	10								
11	345	11.2	-00.1	N	22	57.7	+00.2	324	26.3	-00.8	N	24	20.9	-00.2	335	44.0	-28.9	N	20	00.5	-01.5	11								
12	0	11.1	-00.1	N	22	57.9	+00.2	339	25.5	-00.9	N	24	20.7	-00.1	350	15.1	-29.0	N	19	59.0	-01.6	12								
13	15	11.0	-00.1	N	22	58.1	+00.2	354	24.6	-00.9	N	24	20.6	-00.1	4	46.1	-28.9	N	19	57.4	-01.7	13								
14	30	10.9	-00.2	N	22	58.3	+00.2	9	23.7	-00.9	N	24	20.5	-00.1	19	17.2	-29.0	N	19	55.7	-01.8	14								
15	45	10.7	-00.1	N	22	58.5	+00.2	24	22.8	-00.9	N	24	20.4	-00.1	33	48.2	-28.9	N	19	53.9	-01.9	15								
16	60	10.6	-00.1	N	22	58.7	+00.2	39	21.9	-00.9	N	24	20.3	-00.1	48	19.3	-28.9	N	19	52.0	-02.0	16								
17	75	10.5	-00.1	N	22	58.9	+00.2	54	21.0	-00.8	N	24	20.2	-00.1	62	50.4	-28.9	N	19	50.0	-02.0	17								
18	90	10.4	-00.2	N	22	59.1	+00.1	69	20.2	-00.9	N	24	20.1	-00.1	77	21.5	-28.8	N	19	48.0	-02.2	18								
19	105	10.2	-00.1	N	22	59.2	+00.2	84	19.3	-00.9	N	24	20.0	-00.1	91	52.7	-28.9	N	19	45.8	-02.2	19								
20	120	10.1	-00.1	N	22	59.4	+00.2	99	18.4	-00.9	N	24	19.9	-00.1	106	23.8	-28.8	N	19	43.6	-02.3	20								
21	135	10.0	-00.1	N	22	59.6	+00.2	114	17.5	-00.9	N	24	19.8	-00.1	120	55.0	-28.8	N	19	41.3	-02.5	21								
22	150	09.9	-00.2	N	22	59.8	+00.2	129	16.6	-00.9	N	24	19.7	-00.2	135	26.2	-28.8	N	19	38.8	-02.5	22								
23	165	09.7	-00.1	N	23	00.0	+00.2	144	15.7	-00.8	N	24	19.5	-00.1	149	57.4	-28.8	N	19	36.3	-02.6	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 Greenwich Culmination Time: 11:59							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 Greenwich Culmination Time: 13:22							UT 02 06 10 14 18 22 SD 14'7 14'7 14'7 14'7 14'7 14'7 HP 53'9 53'9 53'9 53'9 53'9 53'9 Greenwich Culmination Time: 12:40																

Mars										Jupiter										Saturn										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"									
00	193	21.3	+00.6	N	21	28.5	+00.3	171	47.1	+01.9	N	23	07.9	+00.1	43	27.0	+02.5	S	10	54.1	+00.0	00								
01	208	21.9	+00.6	N	21	28.8	+00.3	186	49.0	+01.8	N	23	08.0	+00.0	58	29.5	+02.6	S	10	54.1	+00.0	01								
02	223	22.5	+00.6	N	21	29.1	+00.4	201	50.8	+01.9	N	23	08.0	+00.0	73	32.1	+02.6	S	10	54.1	+00.0	02								
03	238	23.1	+00.6	N	21	29.5	+00.3	216	52.7	+01.8	N	23	08.0	+00.0	88	34.7	+02.6	S	10	54.1	-00.1	03								
04	253	23.7	+00.6	N	21	29.8	+00.3	231	54.5	+01.8	N	23	08.0	+00.1	103	37.3	+02.5	S	10	54.0	+00.0	04								
05	268	24.3	+00.6	N	21	30.1	+00.4	246	56.3	+01.9	N	23	08.1	+00.0	118	39.8	+02.6	S	10	54.0	+00.0	05								
06	283	24.9	+00.6	N	21	30.5	+00.3	261	58.2	+01.8	N	23	08.1	+00.0	133	42.4	+02.6	S	10	54.0	-00.1	06								
07	298	25.5	+00.6	N	21	30.8	+00.3	277	00.0	+01.9	N	23	08.1	+00.0	148	45.0	+02.6	S	10	53.9	+00.0	07								
08	313	26.1	+00.6	N	21	31.1	+00.4	292	01.9	+01.8	N	23	08.1	+00.0	163	47.6	+02.5	S	10	53.9	+00.0	08								
09	328	26.7	+00.6	N	21	31.5	+00.3	307	03.7	+01.9	N	23	08.1	+00.1	178	50.1	+02.6	S	10	53.9	+00.0	09								
10	343	27.3	+00.6	N	21	31.8	+00.3	322	05.6	+01.8	N	23	08.2	+00.0	193	52.7	+02.6	S	10	53.9	-00.1	10								
11	358	27.9	+00.6	N	21	32.1	+00.3	337	07.4	+01.8	N	23	08.2	+00.0	208	55.3	+02.5	S	10	53.8	+00.0	11								
12	13	28.5	+00.6	N	21	32.4	+00.4	352	09.2	+01.9	N	23	08.2	+00.0	223	57.8	+02.6	S	10	53.8	+00.0	12								
13	28	29.1	+00.6	N	21	32.8	+00.3	7	11.1	+01.8	N	23	08.2	+00.0	239	00.4	+02.6	S	10	53.8	-00.1	13								
14	43	29.7	+00.6	N	21	33.1	+00.3	22	12.9	+01.9	N	23	08.2	+00.1	254	03.0	+02.6	S	10	53.7	+00.0	14								
15	58	30.3	+00.6	N	21	33.4	+00.3	37	14.8	+01.8	N	23	08.3	+00.0	269	05.6	+02.5	S	10	53.7	+00.0	15								
16	73	30.9	+00.6	N	21	33.7	+00.4	52	16.6	+01.8	N	23	08.3	+00.0	284	08.1	+02.6	S	10	53.7	+00.0	16								
17	88	31.5	+00.6	N	21	34.1	+00.3	67	18.4	+01.9	N	23	08.3	+00.0	299	10.7	+02.6	S	10	53.7	-00.1	17								
18	103	32.1	+00.6	N	21	34.4	+00.3	82	20.3	+01.8	N	23	08.3	+00.0	314	13.3	+02.6	S	10	53.6	+00.0	18								
19	118	32.7	+00.6	N	21	34.7	+00.4	97	22.1	+01.9	N	23	08.3	+00.1	329	15.9	+02.5	S	10	53.6	+00.0	19								
20	133	33.3	+00.6	N	21	35.1	+00.3	112	24.0	+01.8	N	23	08.4	+00.0	344	18.4	+02.6	S	10	53.6	+00.0	20								
21	148	33.9	+00.5	N	21	35.4	+00.3	127	25.8	+01.9	N	23	08.4	+00.0	359	21.0	+02.6	S	10	53.6	-00.1	21								
22	163	34.4	+00.6	N	21	35.7	+00.3	142	27.7	+01.8	N	23	08.4	+00.0	14	23.6	+02.5	S	10	53.5	+00.0	22								
23	178	35.0	+00.6	N	21	36.0	+00.4	157	29.5	+01.8	N	23	08.4	+00.0	29	26.1	+02.6	S	10	53.5	+00.0	23								
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:06							UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:31							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 Greenwich Culmination Time: 21:03																

Sun										Venus										Moon a = 0.06										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	180	09.6	-00.1		N	23	00.2	+00.2		159	14.9	-00.9		N	24	19.4	-00.1		164	28.6	-28.8		N	19	33.7	-02.7	00			
01	195	09.5	-00.2		N	23	00.4	+00.2		174	14.0	-00.9		N	24	19.3	-00.1		178	59.8	-28.7		N	19	31.0	-02.7	01			
02	210	09.3	-00.1		N	23	00.6	+00.2		189	13.1	-00.9		N	24	19.2	-00.1		193	31.1	-28.7		N	19	28.3	-02.9	02			
03	225	09.2	-00.1		N	23	00.8	+00.2		204	12.2	-00.9		N	24	19.1	-00.2		208	02.4	-28.8		N	19	25.4	-02.9	03			
04	240	09.1	-00.1		N	23	01.0	+00.2		219	11.3	-00.9		N	24	18.9	-00.1		222	33.6	-28.6		N	19	22.5	-03.1	04			
05	255	09.0	-00.2		N	23	01.2	+00.2		234	10.4	-00.8		N	24	18.8	-00.1		237	05.0	-28.7		N	19	19.4	-03.1	05			
06	270	08.8	-00.1		N	23	01.4	+00.1		249	09.6	-00.9		N	24	18.7	-00.1		251	36.3	-28.7		N	19	16.3	-03.2	06			
07	285	08.7	-00.1		N	23	01.5	+00.2		264	08.7	-00.9		N	24	18.6	-00.2		266	07.6	-28.6		N	19	13.1	-03.3	07			
08	300	08.6	-00.1		N	23	01.7	+00.2		279	07.8	-00.9		N	24	18.4	-00.1		280	39.0	-28.6		N	19	09.8	-03.4	08			
09	315	08.5	-00.2		N	23	01.9	+00.2		294	06.9	-00.9		N	24	18.3	-00.1		295	10.4	-28.6		N	19	06.4	-03.5	09			
10	330	08.3	-00.1		N	23	02.1	+00.2		309	06.0	-00.8		N	24	18.2	-00.2		309	41.8	-28.6		N	19	02.9	-03.6	10			
11	345	08.2	-00.1		N	23	02.3	+00.2		324	05.2	-00.9		N	24	18.0	-00.1		324	13.2	-28.5		N	18	59.3	-03.6	11			
12	0	08.1	-00.1		N	23	02.5	+00.2		339	04.3	-00.9		N	24	17.9	-00.1		338	44.7	-28.5		N	18	55.7	-03.8	12			
13	15	08.0	-00.2		N	23	02.7	+00.1		354	03.4	-00.9		N	24	17.8	-00.2		353	16.2	-28.5		N	18	51.9	-03.8	13			
14	30	07.8	-00.1		N	23	02.8	+00.2		9	02.5	-00.9		N	24	17.6	-00.1		7	47.7	-28.5		N	18	48.1	-03.9	14			
15	45	07.7	-00.1		N	23	03.0	+00.2		24	01.6	-00.8		N	24	17.5	-00.1		22	19.2	-28.5		N	18	44.2	-04.0	15			
16	60	07.6	-00.1		N	23	03.2	+00.2		39	00.8	-00.9		N	24	17.4	-00.2		36	50.7	-28.4		N	18	40.2	-04.1	16			
17	75	07.5	-00.2		N	23	03.4	+00.2		53	59.9	-00.9		N	24	17.2	-00.1		51	22.3	-28.4		N	18	36.1	-04.1	17			
18	90	07.3	-00.1		N	23	03.6	+00.1		68	59.0	-00.9		N	24	17.1	-00.1		65	53.9	-28.4		N	18	32.0	-04.3	18			
19	105	07.2	-00.1		N	23	03.7	+00.2		83	58.1	-00.9		N	24	17.0	-00.2		80	25.5	-28.4		N	18	27.7	-04.3	19			
20	120	07.1	-00.2		N	23	03.9	+00.2		98	57.2	-00.8		N	24	16.8	-00.1		94	57.1	-28.3		N	18	23.4	-04.4	20			
21	135	06.9	-00.1		N	23	04.1	+00.2		113	56.4	-00.9		N	24	16.7	-00.2		109	28.8	-28.3		N	18	19.0	-04.5	21			
22	150	06.8	-00.1		N	23	04.3	+00.1		128	55.5	-00.9		N	24	16.5	-00.1		124	00.5	-28.3		N	18	14.5	-04.6	22			
23	165	06.7	-00.1		N	23	04.4	+00.2		143	54.6	-00.9		N	24	16.4	-00.2		138	32.2	-28.3		N	18	09.9	-04.6	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 Greenwich Culmination Time: 11:59										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 Greenwich Culmination Time: 13:24										UT 02 06 10 14 18 22 SD 14'7 14'7 14'7 14'7 14'7 14'7 HP 53'9 53'9 53'9 53'9 54'0 54'0 Greenwich Culmination Time: 13:28										

Mars										Jupiter										Saturn										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	193	35.6	+00.6		N	21	36.4	+00.3		172	31.3	+01.9		N	23	08.4	+00.1		44	28.7	+02.6		S	10	53.5	-00.1	00			
01	208	36.2	+00.6		N	21	36.7	+00.3		187	33.2	+01.8		N	23	08.5	+00.0		59	31.3	+02.6		S	10	53.4	+00.0	01			
02	223	36.8	+00.6		N	21	37.0	+00.3		202	35.0	+01.9		N	23	08.5	+00.0		74	33.9	+02.5		S	10	53.4	+00.0	02			
03	238	37.4	+00.6		N	21	37.3	+00.3		217	36.9	+01.8		N	23	08.5	+00.0		89	36.4	+02.6		S	10	53.4	+00.0	03			
04	253	38.0	+00.6		N	21	37.6	+00.4		232	38.7	+01.8		N	23	08.5	+00.0		104	39.0	+02.6		S	10	53.4	-00.1	04			
05	268	38.6	+00.6		N	21	38.0	+00.3		247	40.5	+01.9		N	23	08.5	+00.1		119	41.6	+02.6		S	10	53.3	+00.0	05			
06	283	39.2	+00.6		N	21	38.3	+00.3		262	42.4	+01.8		N	23	08.6	+00.0		134	44.2	+02.5		S	10	53.3	+00.0	06			
07	298	39.8	+00.6		N	21	38.6	+00.3		277	44.2	+01.9		N	23	08.6	+00.0		149	46.7	+02.6		S	10	53.3	+00.0	07			
08	313	40.4	+00.6		N	21	38.9	+00.4		292	46.1	+01.8		N	23	08.6	+00.0		164	49.3	+02.6		S	10	53.3	-00.1	08			
09	328	41.0	+00.6		N	21	39.3	+00.3		307	47.9	+01.9		N	23	08.6	+00.0		179	51.9	+02.5		S	10	53.2	+00.0	09			
10	343	41.6	+00.6		N	21	39.6	+00.3		322	49.8	+01.8		N	23	08.6	+00.1		194	54.4	+02.6		S	10	53.2	+00.0	10			
11	358	42.2	+00.6		N	21	39.9	+00.3		337	51.6	+01.8		N	23	08.7	+00.0		209	57.0	+02.6		S	10	53.2	-00.1	11			
12	13	42.8	+00.6		N	21	40.2	+00.3		352	53.4	+01.9		N	23	08.7	+00.0		224	59.6	+02.5		S	10	53.1	+00.0	12			
13	28	43.4	+00.6		N	21	40.5	+00.4		7	55.3	+01.8		N	23	08.7	+00.0		240	02.1	+02.6		S	10	53.1	+00.0	13			
14	43	44.0	+00.6		N	21	40.9	+00.3		22	57.1	+01.9		N	23	08.7	+00.0		255	04.7	+02.6		S	10	53.1	+00.0	14			
15	58	44.6	+00.6		N	21	41.2	+00.3		37	59.0	+01.8		N	23	08.7	+00.1		270	07.3	+02.6		S	10	53.1	-00.1	15			
16	73	45.2	+00.6		N	21	41.5	+00.3		53	00.8	+01.8		N	23	08.8	+00.0		285	09.9	+02.5		S	10	53.0	+00.0	16			
17	88	45.8	+00.6		N	21	41.8	+00.3		68	02.6	+01.9		N	23	08.8	+00.0		300	12.4	+02.6		S	10	53.0	+00.0	17			
18	103	46.4	+00.6		N	21	42.1	+00.3		83	04.5	+01.8		N	23	08.8	+00.0		315	15.0	+02.6		S	10	53.0	+00.0	18			
19	118	47.0	+00.6		N	21	42.4	+00.4		98	06.3	+01.9		N	23	08.8	+00.0		330	17.6	+02.5		S	10	53.0	-00.1	19			
20	133	47.6	+00.6		N	21	42.8	+00.3		113	08.2	+01.8		N	23	08.8	+00.1		345	20.1	+02.6		S	10	52.9	+00.0	20			
21	148	48.2	+00.6		N	21	43.1	+00.3		128	10.0	+01.9		N	23	08.9	+00.0		0	22.7	+02.6		S	10	52.9	+00.0	21			
22	163	48.8	+00.6		N	21	43.4	+00.3		143	11.9	+01.8		N	23	08.9	+00.0		15	25.3	+02.5		S	10	52.9	+00.0	22			
23	178	49.4	+00.6		N	21	43.7	+00.3		158	13.7	+01.8		N	23	08.9	+00.0		30	27.8	+02.6		S	10	52.9	-00.1	23			
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:05										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:28										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 Greenwich Culmination Time: 20:58										

Sun										Venus										Moon a = 0.09										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	180	06.6	-00.2		N	23	04.6	+00.2		158	53.7	-00.9		N	24	16.2	-00.1		153	03.9	-28.2		N	18	05.3	-04.8	00			
01	195	06.4	-00.1		N	23	04.8	+00.2		173	52.8	-00.8		N	24	16.1	-00.2		167	35.7	-28.3		N	18	00.5	-04.8	01			
02	210	06.3	-00.1		N	23	05.0	+00.1		188	52.0	-00.9		N	24	15.9	-00.1		182	07.4	-28.1		N	17	55.7	-04.9	02			
03	225	06.2	-00.1		N	23	05.1	+00.2		203	51.1	-00.9		N	24	15.8	-00.2		196	39.3	-28.2		N	17	50.8	-05.0	03			
04	240	06.1	-00.2		N	23	05.3	+00.2		218	50.2	-00.9		N	24	15.6	-00.1		211	11.1	-28.2		N	17	45.8	-05.0	04			
05	255	05.9	-00.1		N	23	05.5	+00.2		233	49.3	-00.8		N	24	15.5	-00.2		225	42.9	-28.1		N	17	40.8	-05.1	05			
06	270	05.8	-00.1		N	23	05.7	+00.1		248	48.5	-00.9		N	24	15.3	-00.1		240	14.8	-28.1		N	17	35.7	-05.3	06			
07	285	05.7	-00.2		N	23	05.8	+00.2		263	47.6	-00.9		N	24	15.2	-00.2		254	46.7	-28.1		N	17	30.4	-05.3	07			
08	300	05.5	-00.1		N	23	06.0	+00.2		278	46.7	-00.9		N	24	15.0	-00.2		269	18.6	-28.0		N	17	25.1	-05.3	08			
09	315	05.4	-00.1		N	23	06.2	+00.1		293	45.8	-00.9		N	24	14.8	-00.1		283	50.6	-28.0		N	17	19.8	-05.5	09			
10	330	05.3	-00.1		N	23	06.3	+00.2		308	44.9	-00.8		N	24	14.7	-00.2		298	22.6	-28.0		N	17	14.3	-05.5	10			
11	345	05.2	-00.2		N	23	06.5	+00.2		323	44.1	-00.9		N	24	14.5	-00.1		312	54.6	-28.0		N	17	08.8	-05.6	11			
12	0	05.0	-00.1		N	23	06.7	+00.1		338	43.2	-00.9		N	24	14.4	-00.2		327	26.6	-27.9		N	17	03.2	-05.7	12			
13	15	04.9	-00.1		N	23	06.8	+00.2		353	42.3	-00.9		N	24	14.2	-00.2		341	58.7	-28.0		N	16	57.5	-05.7	13			
14	30	04.8	-00.2		N	23	07.0	+00.2		8	41.4	-00.8		N	24	14.0	-00.1		356	30.7	-27.9		N	16	51.8	-05.9	14			
15	45	04.6	-00.1		N	23	07.2	+00.1		23	40.6	-00.9		N	24	13.9	-00.2		11	02.8	-27.8		N	16	45.9	-05.9	15			
16	60	04.5	-00.1		N	23	07.3	+00.2		38	39.7	-00.9		N	24	13.7	-00.2		25	35.0	-27.9		N	16	40.0	-06.0	16			
17	75	04.4	-00.1		N	23	07.5	+00.2		53	38.8	-00.9		N	24	13.5	-00.1		40	07.1	-27.8		N	16	34.0	-06.0	17			
18	90	04.3	-00.2		N	23	07.7	+00.1		68	37.9	-00.8		N	24	13.4	-00.2		54	39.3	-27.8		N	16	28.0	-06.1	18			
19	105	04.1	-00.1		N	23	07.8	+00.2		83	37.1	-00.9		N	24	13.2	-00.2		69	11.5	-27.8		N	16	21.9	-06.2	19			
20	120	04.0	-00.1		N	23	08.0	+00.1		98	36.2	-00.9		N	24	13.0	-00.2		83	43.7	-27.7		N	16	15.7	-06.3	20			
21	135	03.9	-00.2		N	23	08.1	+00.2		113	35.3	-00.9		N	24	12.8	-00.1		98	16.0	-27.7		N	16	09.4	-06.4	21			
22	150	03.7	-00.1		N	23	08.3	+00.2		128	34.4	-00.8		N	24	12.7	-00.2		112	48.3	-27.7		N	16	03.0	-06.4	22			
23	165	03.6	-00.1		N	23	08.5	+00.1		143	33.6	-00.9		N	24	12.5	-00.2		127	20.6	-27.7		N	15	56.6	-06.5	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 Greenwich Culmination Time: 12:00										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 Greenwich Culmination Time: 13:25										UT 02 06 10 14 18 22 SD 14'7 14'7 14'7 14'7 14'7 14'7 HP 54'0 54'0 54'0 54'1 54'1 54'1 Greenwich Culmination Time: 14:14										

Mars										Jupiter										Saturn										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	193	50.0	+00.6		N	21	44.0	+00.3		173	15.5	+01.9		N	23	08.9	+00.0		45	30.4	+02.6		S	10	52.8	+00.0	00			
01	208	50.6	+00.5		N	21	44.3	+00.4		188	17.4	+01.8		N	23	08.9	+00.0		60	33.0	+02.5		S	10	52.8	+00.0	01			
02	223	51.1	+00.6		N	21	44.7	+00.3		203	19.2	+01.9		N	23	08.9	+00.1		75	35.5	+02.6		S	10	52.8	+00.0	02			
03	238	51.7	+00.6		N	21	45.0	+00.3		218	21.1	+01.8		N	23	09.0	+00.0		90	38.1	+02.6		S	10	52.8	-00.1	03			
04	253	52.3	+00.6		N	21	45.3	+00.3		233	22.9	+01.8		N	23	09.0	+00.0		105	40.7	+02.6		S	10	52.7	+00.0	04			
05	268	52.9	+00.6		N	21	45.6	+00.3		248	24.7	+01.9		N	23	09.0	+00.0		120	43.3	+02.5		S	10	52.7	+00.0	05			
06	283	53.5	+00.6		N	21	45.9	+00.3		263	26.6	+01.8		N	23	09.0	+00.0		135	45.8	+02.6		S	10	52.7	-00.1	06			
07	298	54.1	+00.6		N	21	46.2	+00.3		278	28.4	+01.9		N	23	09.0	+00.1		150	48.4	+02.6		S	10	52.6	+00.0	07			
08	313	54.7	+00.6		N	21	46.5	+00.3		293	30.3	+01.8		N	23	09.1	+00.0		165	51.0	+02.5		S	10	52.6	+00.0	08			
09	328	55.3	+00.6		N	21	46.8	+00.4		308	32.1	+01.9		N	23	09.1	+00.0		180	53.5	+02.6		S	10	52.6	+00.0	09			
10	343	55.9	+00.6		N	21	47.2	+00.3		323	34.0	+01.8		N	23	09.1	+00.0		195	56.1	+02.6		S	10	52.6	-00.1	10			
11	358	56.5	+00.6		N	21	47.5	+00.3		338	35.8	+01.8		N	23	09.1	+00.0		210	58.7	+02.5		S	10	52.5	+00.0	11			
12	13	57.1	+00.6		N	21	47.8	+00.3		353	37.6	+01.9		N	23	09.1	+00.1		226	01.2	+02.6		S	10	52.5	+00.0	12			
13	28	57.7	+00.6		N	21	48.1	+00.3		8	39.5	+01.8		N	23	09.2	+00.0		241	03.8	+02.6		S	10	52.5	+00.0	13			
14	43	58.3	+00.6		N	21	48.4	+00.3		23	41.3	+01.9		N	23	09.2	+00.0		256	06.4	+02.5		S	10	52.5	-00.1	14			
15	58	58.9	+00.6		N	21	48.7	+00.3		38	43.2	+01.8		N	23	09.2	+00.0		271	08.9	+02.6		S	10	52.4	+00.0	15			
16	73	59.5	+00.6		N	21	49.0	+00.3		53	45.0	+01.8		N	23	09.2	+00.0		286	11.5	+02.6		S	10	52.4	+00.0	16			
17	89	00.1	+00.6		N	21	49.3	+00.3		68	46.8	+01.9		N	23	09.2	+00.0		301	14.1	+02.5		S	10	52.4	+00.0	17			
18	104	00.7	+00.6		N	21	49.6	+00.3		83	48.7	+01.8		N	23	09.2	+00.1		316	16.6	+02.6		S	10	52.4	-00.1	18			
19	119	01.3	+00.6		N	21	49.9	+00.4		98	50.5	+01.9		N	23	09.3	+00.0		331	19.2	+02.6		S	10	52.3	+00.0	19			
20	134	01.9	+00.6		N	21	50.3	+00.3		113	52.4	+01.8		N	23	09.3	+00.0		346	21.8	+02.5		S	10	52.3	+00.0	20			
21	149	02.5	+00.6		N	21	50.6	+00.3		128	54.2	+01.8		N	23	09.3	+00.0		1	24.3	+02.6		S	10	52.3	+00.0	21			
22	164	03.1	+00.6		N	21	50.9	+00.3		143	56.0	+01.9		N	23	09.3	+00.0		16	26.9	+02.6		S	10	52.3	-00.1	22			
23	179	03.7	+00.6		N	21	51.2	+00.3		158	57.9	+01.8		N	23	09.3	+00.1		31	29.5	+02.5		S	10	52.2	+00.0	23			
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:04										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:25										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 Greenwich Culmination Time: 20:54										

Sun										Venus										Moon a = 0.12										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	180	03.5	-00.2	N	23	08.6	+00.2		158	32.7	-00.9	N	24	12.3	-00.2		141	52.9	-27.6	N	15	50.1	-06.5			00				
01	195	03.3	-00.1	N	23	08.8	+00.1		173	31.8	-00.9	N	24	12.1	-00.1		156	25.3	-27.7	N	15	43.6	-06.7			01				
02	210	03.2	-00.1	N	23	08.9	+00.2		188	30.9	-00.8	N	24	12.0	-00.2		170	57.6	-27.6	N	15	36.9	-06.7			02				
03	225	03.1	-00.1	N	23	09.1	+00.1		203	30.1	-00.9	N	24	11.8	-00.2		185	30.0	-27.5	N	15	30.2	-06.7			03				
04	240	03.0	-00.2	N	23	09.2	+00.2		218	29.2	-00.9	N	24	11.6	-00.2		200	02.5	-27.6	N	15	23.5	-06.9			04				
05	255	02.8	-00.1	N	23	09.4	+00.2		233	28.3	-00.9	N	24	11.4	-00.2		214	34.9	-27.5	N	15	16.6	-06.9			05				
06	270	02.7	-00.1	N	23	09.6	+00.1		248	27.4	-00.8	N	24	11.2	-00.2		229	07.4	-27.5	N	15	09.7	-07.0			06				
07	285	02.6	-00.2	N	23	09.7	+00.2		263	26.6	-00.9	N	24	11.0	-00.1		243	39.9	-27.5	N	15	02.7	-07.0			07				
08	300	02.4	-00.1	N	23	09.9	+00.1		278	25.7	-00.9	N	24	10.9	-00.2		258	12.4	-27.4	N	14	55.7	-07.1			08				
09	315	02.3	-00.1	N	23	10.0	+00.2		293	24.8	-00.9	N	24	10.7	-00.2		272	45.0	-27.5	N	14	48.6	-07.2			09				
10	330	02.2	-00.2	N	23	10.2	+00.1		308	23.9	-00.8	N	24	10.5	-00.2		287	17.5	-27.4	N	14	41.4	-07.2			10				
11	345	02.0	-00.1	N	23	10.3	+00.2		323	23.1	-00.9	N	24	10.3	-00.2		301	50.1	-27.4	N	14	34.2	-07.3			11				
12	0	01.9	-00.1	N	23	10.5	+00.1		338	22.2	-00.9	N	24	10.1	-00.2		316	22.7	-27.3	N	14	26.9	-07.4			12				
13	15	01.8	-00.1	N	23	10.6	+00.2		353	21.3	-00.8	N	24	09.9	-00.2		330	55.4	-27.4	N	14	19.5	-07.4			13				
14	30	01.7	-00.2	N	23	10.8	+00.1		8	20.5	-00.9	N	24	09.7	-00.2		345	28.0	-27.3	N	14	12.1	-07.5			14				
15	45	01.5	-00.1	N	23	10.9	+00.2		23	19.6	-00.9	N	24	09.5	-00.2		0	00.7	-27.3	N	14	04.6	-07.6			15				
16	60	01.4	-00.1	N	23	11.1	+00.1		38	18.7	-00.9	N	24	09.3	-00.2		14	33.4	-27.3	N	13	57.0	-07.6			16				
17	75	01.3	-00.2	N	23	11.2	+00.1		53	17.8	-00.8	N	24	09.1	-00.2		29	06.1	-27.2	N	13	49.4	-07.7			17				
18	90	01.1	-00.1	N	23	11.3	+00.2		68	17.0	-00.9	N	24	08.9	-00.2		43	38.9	-27.3	N	13	41.7	-07.8			18				
19	105	01.0	-00.1	N	23	11.5	+00.1		83	16.1	-00.9	N	24	08.7	-00.2		58	11.6	-27.2	N	13	33.9	-07.8			19				
20	120	00.9	-00.2	N	23	11.6	+00.2		98	15.2	-00.8	N	24	08.5	-00.2		72	44.4	-27.2	N	13	26.1	-07.8			20				
21	135	00.7	-00.1	N	23	11.8	+00.1		113	14.4	-00.9	N	24	08.3	-00.2		87	17.2	-27.2	N	13	18.3	-08.0			21				
22	150	00.6	-00.1	N	23	11.9	+00.2		128	13.5	-00.9	N	24	08.1	-00.2		101	50.0	-27.1	N	13	10.3	-08.0			22				
23	165	00.5	-00.2	N	23	12.1	+00.1		143	12.6	-00.8	N	24	07.9	-00.2		116	22.9	-27.1	N	13	02.3	-08.0			23				
UT 02 06 10 14 18 22 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 Greenwich Culmination Time: 12:00										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 Greenwich Culmination Time: 13:27										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 54'3 54'3 54'4 Greenwich Culmination Time: 15:00										

Mars										Jupiter										Saturn										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	194	04.3	+00.5	N	21	51.5	+00.3		173	59.7	+01.9	N	23	09.4	+00.0		46	32.0	+02.6	S	10	52.2	+00.0			00				
01	209	04.8	+00.6	N	21	51.8	+00.3		189	01.6	+01.8	N	23	09.4	+00.0		61	34.6	+02.5	S	10	52.2	+00.0			01				
02	224	05.4	+00.6	N	21	52.1	+00.3		204	03.4	+01.8	N	23	09.4	+00.0		76	37.1	+02.6	S	10	52.2	-00.1			02				
03	239	06.0	+00.6	N	21	52.4	+00.3		219	05.2	+01.9	N	23	09.4	+00.0		91	39.7	+02.6	S	10	52.1	+00.0			03				
04	254	06.6	+00.6	N	21	52.7	+00.3		234	07.1	+01.8	N	23	09.4	+00.0		106	42.3	+02.5	S	10	52.1	+00.0			04				
05	269	07.2	+00.6	N	21	53.0	+00.3		249	08.9	+01.9	N	23	09.4	+00.1		121	44.8	+02.6	S	10	52.1	+00.0			05				
06	284	07.8	+00.6	N	21	53.3	+00.3		264	10.8	+01.8	N	23	09.5	+00.0		136	47.4	+02.6	S	10	52.1	-00.1			06				
07	299	08.4	+00.6	N	21	53.6	+00.3		279	12.6	+01.9	N	23	09.5	+00.0		151	50.0	+02.5	S	10	52.0	+00.0			07				
08	314	09.0	+00.6	N	21	53.9	+00.3		294	14.5	+01.8	N	23	09.5	+00.0		166	52.5	+02.6	S	10	52.0	+00.0			08				
09	329	09.6	+00.6	N	21	54.2	+00.3		309	16.3	+01.8	N	23	09.5	+00.0		181	55.1	+02.6	S	10	52.0	+00.0			09				
10	344	10.2	+00.6	N	21	54.5	+00.3		324	18.1	+01.9	N	23	09.5	+00.1		196	57.7	+02.5	S	10	52.0	-00.1			10				
11	359	10.8	+00.6	N	21	54.8	+00.3		339	20.0	+01.8	N	23	09.6	+00.0		212	00.2	+02.6	S	10	51.9	+00.0			11				
12	14	11.4	+00.6	N	21	55.1	+00.3		354	21.8	+01.9	N	23	09.6	+00.0		227	02.8	+02.6	S	10	51.9	+00.0			12				
13	29	12.0	+00.6	N	21	55.4	+00.3		9	23.7	+01.8	N	23	09.6	+00.0		242	05.4	+02.5	S	10	51.9	+00.0			13				
14	44	12.6	+00.6	N	21	55.7	+00.3		24	25.5	+01.8	N	23	09.6	+00.0		257	07.9	+02.6	S	10	51.9	-00.1			14				
15	59	13.2	+00.6	N	21	56.0	+00.3		39	27.3	+01.9	N	23	09.6	+00.0		272	10.5	+02.5	S	10	51.8	+00.0			15				
16	74	13.8	+00.6	N	21	56.3	+00.3		54	29.2	+01.8	N	23	09.6	+00.1		287	13.0	+02.6	S	10	51.8	+00.0			16				
17	89	14.4	+00.6	N	21	56.6	+00.3		69	31.0	+01.9	N	23	09.7	+00.0		302	15.6	+02.6	S	10	51.8	+00.0			17				
18	104	15.0	+00.6	N	21	56.9	+00.3		84	32.9	+01.8	N	23	09.7	+00.0		317	18.2	+02.5	S	10	51.8	+00.0			18				
19	119	15.6	+00.5	N	21	57.2	+00.3		99	34.7	+01.8	N	23	09.7	+00.0		332	20.7	+02.6	S	10	51.8	-00.1			19				
20	134	16.1	+00.6	N	21	57.5	+00.3		114	36.5	+01.9	N	23	09.7	+00.0		347	23.3	+02.6	S	10	51.7	+00.0			20				
21	149	16.7	+00.6	N	21	57.8	+00.3		129	38.4	+01.8	N	23	09.7	+00.0		2	25.9	+02.5	S	10	51.7	+00.0			21				
22	164	17.3	+00.6	N	21	58.1	+00.3		144	40.2	+01.9	N	23	09.7	+00.1		17	28.4	+02.6	S	10	51.7	+00.0			22				
23	179	17.9	+00.6	N	21	58.4	+00.3		159	42.1	+01.8	N	23	09.8	+00.0		32	31.0	+02.5	S	10	51.7	-00.1			23				
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:03										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:22										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 Greenwich Culmination Time: 20:50										

Sun										Venus										Moon a = 0.15										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	180	00.3	-00.1	N	23	12.2	+00.1		158	11.8	-00.9	N	24	07.7	-00.2		130	55.8	-27.2	N	12	54.3	-08.1				00			
01	195	00.2	-00.1	N	23	12.3	+00.2		173	10.9	-00.9	N	24	07.5	-00.2		145	28.6	-27.1	N	12	46.2	-08.2				01			
02	210	00.1	-00.1	N	23	12.5	+00.1		188	10.0	-00.9	N	24	07.3	-00.2		160	01.5	-27.0	N	12	38.0	-08.2				02			
03	224	60.0	-00.2	N	23	12.6	+00.2		203	09.1	-00.8	N	24	07.1	-00.2		174	34.5	-27.1	N	12	29.8	-08.3				03			
04	239	59.8	-00.1	N	23	12.8	+00.1		218	08.3	-00.9	N	24	06.9	-00.2		189	07.4	-27.1	N	12	21.5	-08.4				04			
05	254	59.7	-00.1	N	23	12.9	+00.1		233	07.4	-00.9	N	24	06.7	-00.3		203	40.3	-27.0	N	12	13.1	-08.4				05			
06	269	59.6	-00.2	N	23	13.0	+00.2		248	06.5	-00.8	N	24	06.4	-00.2		218	13.3	-27.0	N	12	04.7	-08.4				06			
07	284	59.4	-00.1	N	23	13.2	+00.1		263	05.7	-00.9	N	24	06.2	-00.2		232	46.3	-27.0	N	11	56.3	-08.5				07			
08	299	59.3	-00.1	N	23	13.3	+00.1		278	04.8	-00.9	N	24	06.0	-00.2		247	19.3	-27.0	N	11	47.8	-08.6				08			
09	314	59.2	-00.2	N	23	13.4	+00.2		293	03.9	-00.8	N	24	05.8	-00.2		261	52.3	-26.9	N	11	39.2	-08.6				09			
10	329	59.0	-00.1	N	23	13.6	+00.1		308	03.1	-00.9	N	24	05.6	-00.3		276	25.4	-27.0	N	11	30.6	-08.7				10			
11	344	58.9	-00.1	N	23	13.7	+00.1		323	02.2	-00.9	N	24	05.3	-00.2		290	58.4	-26.9	N	11	21.9	-08.7				11			
12	359	58.8	-00.2	N	23	13.8	+00.2		338	01.3	-00.8	N	24	05.1	-00.2		305	31.5	-27.0	N	11	13.2	-08.8				12			
13	14	58.6	-00.1	N	23	14.0	+00.1		353	00.5	-00.9	N	24	04.9	-00.2		320	04.5	-26.9	N	11	04.4	-08.8				13			
14	29	58.5	-00.1	N	23	14.1	+00.1		7	59.6	-00.9	N	24	04.7	-00.2		334	37.6	-26.9	N	10	55.6	-08.9				14			
15	44	58.4	-00.2	N	23	14.2	+00.2		22	58.7	-00.8	N	24	04.5	-00.3		349	10.7	-26.9	N	10	46.7	-08.9				15			
16	59	58.2	-00.1	N	23	14.4	+00.1		37	57.9	-00.9	N	24	04.2	-00.2		3	43.8	-26.8	N	10	37.8	-09.0				16			
17	74	58.1	-00.1	N	23	14.5	+00.1		52	57.0	-00.9	N	24	04.0	-00.2		18	17.0	-26.9	N	10	28.8	-09.0				17			
18	89	58.0	-00.2	N	23	14.6	+00.2		67	56.1	-00.8	N	24	03.8	-00.3		32	50.1	-26.8	N	10	19.8	-09.1				18			
19	104	57.8	-00.1	N	23	14.8	+00.1		82	55.3	-00.9	N	24	03.5	-00.2		47	23.3	-26.9	N	10	10.7	-09.1				19			
20	119	57.7	-00.1	N	23	14.9	+00.1		97	54.4	-00.8	N	24	03.3	-00.2		61	56.4	-26.8	N	10	01.6	-09.2				20			
21	134	57.6	-00.2	N	23	15.0	+00.1		112	53.6	-00.9	N	24	03.1	-00.3		76	29.6	-26.9	N	09	52.4	-09.2				21			
22	149	57.4	-00.1	N	23	15.1	+00.2		127	52.7	-00.9	N	24	02.8	-00.2		91	02.7	-26.8	N	09	43.2	-09.3				22			
23	164	57.3	-00.1	N	23	15.3	+00.1		142	51.8	-00.8	N	24	02.6	-00.2		105	35.9	-26.8	N	09	33.9	-09.3				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 Greenwich Culmination Time: 12:00										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 Greenwich Culmination Time: 13:28										UT 02 06 10 14 18 22 SD 14'8 14'9 14'9 14'9 14'9 14'9 HP 54'5 54'5 54'6 54'6 54'7 54'8 Greenwich Culmination Time: 15:45										

Mars										Jupiter										Saturn										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	194	18.5	+00.6	N	21	58.7	+00.3		174	43.9	+01.8	N	23	09.8	+00.0		47	33.5	+02.6	S	10	51.6	+00.0				00			
01	209	19.1	+00.6	N	21	59.0	+00.3		189	45.7	+01.9	N	23	09.8	+00.0		62	36.1	+02.6	S	10	51.6	+00.0				01			
02	224	19.7	+00.6	N	21	59.3	+00.3		204	47.6	+01.8	N	23	09.8	+00.0		77	38.7	+02.5	S	10	51.6	+00.0				02			
03	239	20.3	+00.6	N	21	59.6	+00.3		219	49.4	+01.9	N	23	09.8	+00.0		92	41.2	+02.6	S	10	51.6	-00.1				03			
04	254	20.9	+00.6	N	21	59.9	+00.3		234	51.3	+01.8	N	23	09.8	+00.1		107	43.8	+02.6	S	10	51.5	+00.0				04			
05	269	21.5	+00.6	N	22	00.2	+00.3		249	53.1	+01.8	N	23	09.9	+00.0		122	46.4	+02.5	S	10	51.5	+00.0				05			
06	284	22.1	+00.6	N	22	00.5	+00.3		264	54.9	+01.9	N	23	09.9	+00.0		137	48.9	+02.6	S	10	51.5	+00.0				06			
07	299	22.7	+00.6	N	22	00.8	+00.3		279	56.8	+01.8	N	23	09.9	+00.0		152	51.5	+02.5	S	10	51.5	-00.1				07			
08	314	23.3	+00.6	N	22	01.1	+00.3		294	58.6	+01.9	N	23	09.9	+00.0		167	54.0	+02.6	S	10	51.4	+00.0				08			
09	329	23.9	+00.6	N	22	01.4	+00.3		310	00.5	+01.8	N	23	09.9	+00.0		182	56.6	+02.6	S	10	51.4	+00.0				09			
10	344	24.5	+00.6	N	22	01.7	+00.3		325	02.3	+01.9	N	23	09.9	+00.1		197	59.2	+02.5	S	10	51.4	+00.0				10			
11	359	25.1	+00.6	N	22	02.0	+00.3		340	04.2	+01.8	N	23	10.0	+00.0		213	01.7	+02.6	S	10	51.4	+00.0				11			
12	14	25.7	+00.6	N	22	02.3	+00.3		355	06.0	+01.8	N	23	10.0	+00.0		228	04.3	+02.5	S	10	51.4	-00.1				12			
13	29	26.3	+00.5	N	22	02.6	+00.3		10	07.8	+01.9	N	23	10.0	+00.0		243	06.8	+02.6	S	10	51.3	+00.0				13			
14	44	26.8	+00.6	N	22	02.9	+00.3		25	09.7	+01.8	N	23	10.0	+00.0		258	09.4	+02.6	S	10	51.3	+00.0				14			
15	59	27.4	+00.6	N	22	03.2	+00.3		40	11.5	+01.9	N	23	10.0	+00.0		273	12.0	+02.5	S	10	51.3	+00.0				15			
16	74	28.0	+00.6	N	22	03.5	+00.2		55	13.4	+01.8	N	23	10.0	+00.1		288	14.5	+02.6	S	10	51.3	-00.1				16			
17	89	28.6	+00.6	N	22	03.7	+00.3		70	15.2	+01.8	N	23	10.1	+00.0		303	17.1	+02.5	S	10	51.2	+00.0				17			
18	104	29.2	+00.6	N	22	04.0	+00.3		85	17.0	+01.9	N	23	10.1	+00.0		318	19.6	+02.6	S	10	51.2	+00.0				18			
19	119	29.8	+00.6	N	22	04.3	+00.3		100	18.9	+01.8	N	23	10.1	+00.0		333	22.2	+02.6	S	10	51.2	+00.0				19			
20	134	30.4	+00.6	N	22	04.6	+00.3		115	20.7	+01.9	N	23	10.1	+00.0		348	24.8	+02.5	S	10	51.2	-00.1				20			
21	149	31.0	+00.6	N	22	04.9	+00.3		130	22.6	+01.8	N	23	10.1	+00.0		3	27.3	+02.6	S	10	51.1	+00.0				21			
22	164	31.6	+00.6	N	22	05.2	+00.3		145	24.4	+01.8	N	23	10.1	+00.1		18	29.9	+02.5	S	10	51.1	+00.0				22			
23	179	32.2	+00.6	N	22	05.5	+00.3		160	26.2	+01.9	N	23	10.2	+00.0		33	32.4	+02.6	S	10	51.1	+00.0				23			
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:02										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:20										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 Greenwich Culmination Time: 20:46										

Sun										Venus										Moon a = 0.18										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	179	57.2	-00.1	N	23	15.4	+00.1		157	51.0	-00.9	N	24	02.4	-00.3		120	09.1	-26.8	N	09	24.6	-09.4				00			
01	194	57.1	-00.2	N	23	15.5	+00.1		172	50.1	-00.9	N	24	02.1	-00.2		134	42.3	-26.8	N	09	15.2	-09.4				01			
02	209	56.9	-00.1	N	23	15.6	+00.2		187	49.2	-00.8	N	24	01.9	-00.2		149	15.5	-26.8	N	09	05.8	-09.5				02			
03	224	56.8	-00.1	N	23	15.8	+00.1		202	48.4	-00.9	N	24	01.7	-00.3		163	48.7	-26.7	N	08	56.3	-09.5				03			
04	239	56.7	-00.2	N	23	15.9	+00.1		217	47.5	-00.9	N	24	01.4	-00.2		178	22.0	-26.8	N	08	46.8	-09.5				04			
05	254	56.5	-00.1	N	23	16.0	+00.1		232	46.6	-00.8	N	24	01.2	-00.3		192	55.2	-26.8	N	08	37.3	-09.6				05			
06	269	56.4	-00.1	N	23	16.1	+00.1		247	45.8	-00.9	N	24	00.9	-00.2		207	28.4	-26.8	N	08	27.7	-09.6				06			
07	284	56.3	-00.2	N	23	16.2	+00.2		262	44.9	-00.8	N	24	00.7	-00.3		222	01.6	-26.7	N	08	18.1	-09.7				07			
08	299	56.1	-00.1	N	23	16.4	+00.1		277	44.1	-00.9	N	24	00.4	-00.2		236	34.9	-26.8	N	08	08.4	-09.7				08			
09	314	56.0	-00.1	N	23	16.5	+00.1		292	43.2	-00.9	N	24	00.2	-00.2		251	08.1	-26.8	N	07	58.7	-09.8				09			
10	329	55.9	-00.2	N	23	16.6	+00.1		307	42.3	-00.8	N	23	60.0	-00.3		265	41.3	-26.7	N	07	48.9	-09.8				10			
11	344	55.7	-00.1	N	23	16.7	+00.1		322	41.5	-00.9	N	23	59.7	-00.2		280	14.6	-26.8	N	07	39.1	-09.8				11			
12	359	55.6	-00.1	N	23	16.8	+00.1		337	40.6	-00.8	N	23	59.5	-00.3		294	47.8	-26.8	N	07	29.3	-09.9				12			
13	14	55.5	-00.2	N	23	16.9	+00.2		352	39.8	-00.9	N	23	59.2	-00.3		309	21.0	-26.7	N	07	19.4	-09.9				13			
14	29	55.3	-00.1	N	23	17.1	+00.1		7	38.9	-00.9	N	23	58.9	-00.2		323	54.3	-26.8	N	07	09.5	-10.0				14			
15	44	55.2	-00.1	N	23	17.2	+00.1		22	38.0	-00.8	N	23	58.7	-00.3		338	27.5	-26.7	N	06	59.5	-10.0				15			
16	59	55.1	-00.2	N	23	17.3	+00.1		37	37.2	-00.9	N	23	58.4	-00.2		353	00.8	-26.8	N	06	49.5	-10.0				16			
17	74	54.9	-00.1	N	23	17.4	+00.1		52	36.3	-00.8	N	23	58.2	-00.3		7	34.0	-26.8	N	06	39.5	-10.1				17			
18	89	54.8	-00.1	N	23	17.5	+00.1		67	35.5	-00.9	N	23	57.9	-00.2		22	07.2	-26.8	N	06	29.4	-10.1				18			
19	104	54.7	-00.2	N	23	17.6	+00.1		82	34.6	-00.9	N	23	57.7	-00.3		36	40.4	-26.7	N	06	19.3	-10.1				19			
20	119	54.5	-00.1	N	23	17.7	+00.1		97	33.7	-00.8	N	23	57.4	-00.3		51	13.7	-26.8	N	06	09.2	-10.2				20			
21	134	54.4	-00.1	N	23	17.8	+00.1		112	32.9	-00.9	N	23	57.1	-00.2		65	46.9	-26.8	N	05	59.0	-10.2				21			
22	149	54.3	-00.2	N	23	17.9	+00.2		127	32.0	-00.8	N	23	56.9	-00.3		80	20.1	-26.8	N	05	48.8	-10.2				22			
23	164	54.1	-00.1	N	23	18.1	+00.1		142	31.2	-00.9	N	23	56.6	-00.2		94	53.3	-26.8	N	05	38.6	-10.3				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 Greenwich Culmination Time: 12:00										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 Greenwich Culmination Time: 13:29										UT 02 06 10 14 18 22 SD 15'0 15'0 15'0 15'0 15'0 15'1 HP 54'9 55'0 55'0 55'1 55'2 55'3 Greenwich Culmination Time: 16:29										

Mars										Jupiter										Saturn										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	194	32.8	+00.6	N	22	05.8	+00.3		175	28.1	+01.8	N	23	10.2	+00.0		48	35.0	+02.6	S	10	51.1	+00.0				00			
01	209	33.4	+00.6	N	22	06.1	+00.3		190	29.9	+01.9	N	23	10.2	+00.0		63	37.6	+02.5	S	10	51.1	-00.1				01			
02	224	34.0	+00.6	N	22	06.4	+00.2		205	31.8	+01.8	N	23	10.2	+00.0		78	40.1	+02.6	S	10	51.0	+00.0				02			
03	239	34.6	+00.6	N	22	06.6	+00.3		220	33.6	+01.8	N	23	10.2	+00.0		93	42.7	+02.5	S	10	51.0	+00.0				03			
04	254	35.2	+00.6	N	22	06.9	+00.3		235	35.4	+01.9	N	23	10.2	+00.1		108	45.2	+02.6	S	10	51.0	+00.0				04			
05	269	35.8	+00.5	N	22	07.2	+00.3		250	37.3	+01.8	N	23	10.3	+00.0		123	47.8	+02.5	S	10	51.0	-00.1				05			
06	284	36.3	+00.6	N	22	07.5	+00.3		265	39.1	+01.9	N	23	10.3	+00.0		138	50.3	+02.6	S	10	50.9	+00.0				06			
07	299	36.9	+00.6	N	22	07.8	+00.3		280	41.0	+01.8	N	23	10.3	+00.0		153	52.9	+02.6	S	10	50.9	+00.0				07			
08	314	37.5	+00.6	N	22	08.1	+00.3		295	42.8	+01.8	N	23	10.3	+00.0		168	55.5	+02.5	S	10	50.9	+00.0				08			
09	329	38.1	+00.6	N	22	08.4	+00.3		310	44.6	+01.9	N	23	10.3	+00.0		183	58.0	+02.6	S	10	50.9	+00.0				09			
10	344	38.7	+00.6	N	22	08.7	+00.2		325	46.5	+01.8	N	23	10.3	+00.1		199	00.6	+02.5	S	10	50.9	-00.1				10			
11	359	39.3	+00.6	N	22	08.9	+00.3		340	48.3	+01.9	N	23	10.4	+00.0		214	03.1	+02.6	S	10	50.8	+00.0				11			
12	14	39.9	+00.6	N	22	09.2	+00.3		355	50.2	+01.8	N	23	10.4	+00.0		229	05.7	+02.5	S	10	50.8	+00.0				12			
13	29	40.5	+00.6	N	22	09.5	+00.3		10	52.0	+01.8	N	23	10.4	+00.0		244	08.2	+02.6	S	10	50.8	+00.0				13			
14	44	41.1	+00.6	N	22	09.8	+00.3		25	53.8	+01.9	N	23	10.4	+00.0		259	10.8	+02.6	S	10	50.8	+00.0				14			
15	59	41.7	+00.6	N	22	10.1	+00.3		40	55.7	+01.8	N	23	10.4	+00.0		274	13.4	+02.5	S	10	50.8	-00.1				15			
16	74	42.3	+00.6	N	22	10.4	+00.2		55	57.5	+01.9	N	23	10.4	+00.0		289	15.9	+02.6	S	10	50.7	+00.0				16			
17	89	42.9	+00.6	N	22	10.6	+00.3		70	59.4	+01.8	N	23	10.4	+00.1		304	18.5	+02.5	S	10	50.7	+00.0				17			
18	104	43.5	+00.6	N	22	10.9	+00.3		86	01.2	+01.8	N	23	10.5	+00.0		319	21.0	+02.6	S	10	50.7	+00.0				18			
19	119	44.1	+00.6	N	22	11.2	+00.3		101	03.0	+01.9	N	23	10.5	+00.0		334	23.6	+02.5	S	10	50.7	-00.1				19			
20	134	44.7	+00.5	N	22	11.5	+00.3		116	04.9	+01.8	N	23	10.5	+00.0		349	26.1	+02.6	S	10	50.6	+00.0				20			
21	149	45.2	+00.6	N	22	11.8	+00.3		131	06.7	+01.9	N	23	10.5	+00.0		4	28.7	+02.5	S	10	50.6	+00.0				21			
22	164	45.8	+00.6	N	22	12.1	+00.2		146	08.6	+01.8	N	23	10.5	+00.0		19	31.2	+02.6	S	10	50.6	+00.0				22			
23	179	46.4	+00.6	N	22	12.3	+00.3		161	10.4	+01.8	N	23	10.5	+00.1		34	33.8	+02.6	S	10	50.6	+00.0				23			
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:01										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:17										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 Greenwich Culmination Time: 20:42										

Sun										Venus										Moon a = 0.21										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	'			°	'	°	'	°	'	'			°	'	°	'	°	'	'					
00	179	54.0	-00.1		N	23	18.2	+00.1		157	30.3	-00.8		N	23	56.4	-00.3		109	26.5	-26.9		N	05	28.3	-10.3	00			
01	194	53.9	-00.2		N	23	18.3	+00.1		172	29.5	-00.9		N	23	56.1	-00.3		123	59.6	-26.8		N	05	18.0	-10.3	01			
02	209	53.7	-00.1		N	23	18.4	+00.1		187	28.6	-00.9		N	23	55.8	-00.3		138	32.8	-26.8		N	05	07.7	-10.4	02			
03	224	53.6	-00.1		N	23	18.5	+00.1		202	27.7	-00.8		N	23	55.5	-00.2		153	06.0	-26.9		N	04	57.3	-10.4	03			
04	239	53.5	-00.2		N	23	18.6	+00.1		217	26.9	-00.9		N	23	55.3	-00.3		167	39.1	-26.8		N	04	46.9	-10.4	04			
05	254	53.3	-00.1		N	23	18.7	+00.1		232	26.0	-00.8		N	23	55.0	-00.3		182	12.3	-26.9		N	04	36.5	-10.5	05			
06	269	53.2	-00.1		N	23	18.8	+00.1		247	25.2	-00.9		N	23	54.7	-00.2		196	45.4	-26.9		N	04	26.0	-10.5	06			
07	284	53.1	-00.2		N	23	18.9	+00.1		262	24.3	-00.8		N	23	54.5	-00.3		211	18.5	-26.9		N	04	15.5	-10.5	07			
08	299	52.9	-00.1		N	23	19.0	+00.1		277	23.5	-00.9		N	23	54.2	-00.3		225	51.6	-26.9		N	04	05.0	-10.6	08			
09	314	52.8	-00.2		N	23	19.1	+00.1		292	22.6	-00.8		N	23	53.9	-00.3		240	24.7	-27.0		N	03	54.4	-10.5	09			
10	329	52.6	-00.1		N	23	19.2	+00.1		307	21.8	-00.9		N	23	53.6	-00.2		254	57.7	-26.9		N	03	43.9	-10.6	10			
11	344	52.5	-00.1		N	23	19.3	+00.1		322	20.9	-00.9		N	23	53.4	-00.3		269	30.8	-27.0		N	03	33.3	-10.6	11			
12	359	52.4	-00.2		N	23	19.4	+00.1		337	20.0	-00.8		N	23	53.1	-00.3		284	03.8	-27.0		N	03	22.7	-10.7	12			
13	14	52.2	-00.1		N	23	19.5	+00.1		352	19.2	-00.9		N	23	52.8	-00.3		298	36.8	-27.0		N	03	12.0	-10.7	13			
14	29	52.1	-00.1		N	23	19.6	+00.1		7	18.3	-00.8		N	23	52.5	-00.3		313	09.8	-27.0		N	03	01.3	-10.7	14			
15	44	52.0	-00.2		N	23	19.7	+00.1		22	17.5	-00.9		N	23	52.2	-00.3		327	42.8	-27.0		N	02	50.6	-10.7	15			
16	59	51.8	-00.1		N	23	19.8	+00.1		37	16.6	-00.8		N	23	51.9	-00.2		342	15.8	-27.1		N	02	39.9	-10.7	16			
17	74	51.7	-00.1		N	23	19.9	+00.1		52	15.8	-00.9		N	23	51.7	-00.3		356	48.7	-27.1		N	02	29.2	-10.8	17			
18	89	51.6	-00.2		N	23	20.0	+00.1		67	14.9	-00.8		N	23	51.4	-00.3		11	21.6	-27.1		N	02	18.4	-10.8	18			
19	104	51.4	-00.1		N	23	20.1	+00.1		82	14.1	-00.9		N	23	51.1	-00.3		25	54.5	-27.1		N	02	07.6	-10.8	19			
20	119	51.3	-00.1		N	23	20.2	+00.0		97	13.2	-00.8		N	23	50.8	-00.3		40	27.4	-27.2		N	01	56.8	-10.8	20			
21	134	51.2	-00.2		N	23	20.2	+00.1		112	12.4	-00.9		N	23	50.5	-00.3		55	00.2	-27.2		N	01	46.0	-10.9	21			
22	149	51.0	-00.1		N	23	20.3	+00.1		127	11.5	-00.8		N	23	50.2	-00.3		69	33.0	-27.2		N	01	35.1	-10.8	22			
23	164	50.9	-00.1		N	23	20.4	+00.1		142	10.7	-00.9		N	23	49.9	-00.3		84	05.8	-27.2		N	01	24.3	-10.9	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 Greenwich Culmination Time: 12:01										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 Greenwich Culmination Time: 13:31										UT 02 06 10 14 18 22 SD 15'1 15'1 15'2 15'2 15'2 15'3 HP 55'4 55'5 55'6 55'8 55'9 56'0 Greenwich Culmination Time: 17:13										

Mars										Jupiter										Saturn										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	'			°	'	°	'	°	'	'			°	'	°	'	°	'	'					
00	194	47.0	+00.6		N	22	12.6	+00.3		176	12.2	+01.9		N	23	10.6	+00.0		49	36.4	+02.5		S	10	50.6	-00.1	00			
01	209	47.6	+00.6		N	22	12.9	+00.3		191	14.1	+01.8		N	23	10.6	+00.0		64	38.9	+02.6		S	10	50.5	+00.0	01			
02	224	48.2	+00.6		N	22	13.2	+00.3		206	15.9	+01.9		N	23	10.6	+00.0		79	41.5	+02.5		S	10	50.5	+00.0	02			
03	239	48.8	+00.6		N	22	13.5	+00.2		221	17.8	+01.8		N	23	10.6	+00.0		94	44.0	+02.6		S	10	50.5	+00.0	03			
04	254	49.4	+00.6		N	22	13.7	+00.3		236	19.6	+01.8		N	23	10.6	+00.0		109	46.6	+02.5		S	10	50.5	+00.0	04			
05	269	50.0	+00.6		N	22	14.0	+00.3		251	21.4	+01.9		N	23	10.6	+00.0		124	49.1	+02.6		S	10	50.5	-00.1	05			
06	284	50.6	+00.6		N	22	14.3	+00.3		266	23.3	+01.8		N	23	10.6	+00.1		139	51.7	+02.5		S	10	50.4	+00.0	06			
07	299	51.2	+00.6		N	22	14.6	+00.2		281	25.1	+01.9		N	23	10.7	+00.0		154	54.2	+02.6		S	10	50.4	+00.0	07			
08	314	51.8	+00.6		N	22	14.8	+00.3		296	27.0	+01.8		N	23	10.7	+00.0		169	56.8	+02.5		S	10	50.4	+00.0	08			
09	329	52.4	+00.6		N	22	15.1	+00.3		311	28.8	+01.8		N	23	10.7	+00.0		184	59.3	+02.6		S	10	50.4	+00.0	09			
10	344	53.0	+00.6		N	22	15.4	+00.3		326	30.6	+01.9		N	23	10.7	+00.0		200	01.9	+02.6		S	10	50.4	-00.1	10			
11	359	53.6	+00.5		N	22	15.7	+00.2		341	32.5	+01.8		N	23	10.7	+00.0		215	04.5	+02.5		S	10	50.3	+00.0	11			
12	14	54.1	+00.6		N	22	15.9	+00.3		356	34.3	+01.9		N	23	10.7	+00.0		230	07.0	+02.6		S	10	50.3	+00.0	12			
13	29	54.7	+00.6		N	22	16.2	+00.3		11	36.2	+01.8		N	23	10.7	+00.1		245	09.6	+02.5		S	10	50.3	+00.0	13			
14	44	55.3	+00.6		N	22	16.5	+00.3		26	38.0	+01.8		N	23	10.8	+00.0		260	12.1	+02.6		S	10	50.3	+00.0	14			
15	59	55.9	+00.6		N	22	16.8	+00.2		41	39.8	+01.9		N	23	10.8	+00.0		275	14.7	+02.5		S	10	50.3	-00.1	15			
16	74	56.5	+00.6		N	22	17.0	+00.3		56	41.7	+01.8		N	23	10.8	+00.0		290	17.2	+02.6		S	10	50.2	+00.0	16			
17	89	57.1	+00.6		N	22	17.3	+00.3		71	43.5	+01.9		N	23	10.8	+00.0		305	19.8	+02.5		S	10	50.2	+00.0	17			
18	104	57.7	+00.6		N	22	17.6	+00.3		86	45.4	+01.8		N	23	10.8	+00.0		320	22.3	+02.6		S	10	50.2	+00.0	18			
19	119	58.3	+00.6		N	22	17.9	+00.2		101	47.2	+01.8		N	23	10.8	+00.0		335	24.9	+02.5		S	10	50.2	-00.1	19			
20	134	58.9	+00.6		N	22	18.1	+00.3		116	49.0	+01.9		N	23	10.8	+00.1		350	27.4	+02.6		S	10	50.1	+00.0	20			
21	149	59.5	+00.6		N	22	18.4	+00.3		131	50.9	+01.8		N	23	10.9	+00.0		5	30.0	+02.5		S	10	50.1	+00.0	21			
22	165	00.1	+00.6		N	22	18.7	+00.3		146	52.7	+01.9		N	23	10.9	+00.0		20	32.5	+02.6		S	10	50.1	+00.0	22			
23	180	00.7	+00.6		N	22	19.0	+00.2		161	54.6	+01.8		N	23	10.9	+00.0		35	35.1	+02.5		S	10	50.1	+00.0	23			
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 11:00										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:14										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 Greenwich Culmination Time: 20:38										

Sun										Venus										Moon a = 0.24										
UT	GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			UT					
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"						
00	179	50.8	-00.2	N	23	20.5	+00.1			157	09.8	-00.8	N	23	49.6	-00.3			98	38.6	-27.3	N	01	13.4	-10.9	00				
01	194	50.6	-00.1	N	23	20.6	+00.1			172	09.0	-00.9	N	23	49.3	-00.3			113	11.3	-27.3	N	01	02.5	-10.9	01				
02	209	50.5	-00.1	N	23	20.7	+00.1			187	08.1	-00.8	N	23	49.0	-00.3			127	44.0	-27.3	N	00	51.6	-11.0	02				
03	224	50.4	-00.2	N	23	20.8	+00.1			202	07.3	-00.9	N	23	48.7	-00.3			142	16.7	-27.4	N	00	40.6	-10.9	03				
04	239	50.2	-00.1	N	23	20.9	+00.1			217	06.4	-00.8	N	23	48.4	-00.3			156	49.3	-27.4	N	00	29.7	-11.0	04				
05	254	50.1	-00.1	N	23	21.0	+00.0			232	05.6	-00.9	N	23	48.1	-00.3			171	21.9	-27.4	N	00	18.7	-11.0	05				
06	269	50.0	-00.2	N	23	21.0	+00.1			247	04.7	-00.8	N	23	47.8	-00.3			185	54.5	-27.4	N	00	07.7	-10.9	06				
07	284	49.8	-00.1	N	23	21.1	+00.1			262	03.9	-00.9	N	23	47.5	-00.3			200	27.1	-27.5	S	00	03.2	+11.0	07				
08	299	49.7	-00.1	N	23	21.2	+00.1			277	03.0	-00.8	N	23	47.2	-00.3			214	59.6	-27.6	S	00	14.2	+11.1	08				
09	314	49.6	-00.2	N	23	21.3	+00.1			292	02.2	-00.9	N	23	46.9	-00.3			229	32.0	-27.5	S	00	25.3	+11.0	09				
10	329	49.4	-00.1	N	23	21.4	+00.1			307	01.3	-00.8	N	23	46.6	-00.3			244	04.5	-27.6	S	00	36.3	+11.0	10				
11	344	49.3	-00.1	N	23	21.5	+00.0			322	00.5	-00.9	N	23	46.3	-00.3			258	36.9	-27.7	S	00	47.3	+11.1	11				
12	359	49.2	-00.2	N	23	21.5	+00.1			336	59.6	-00.8	N	23	46.0	-00.3			273	09.2	-27.6	S	00	58.4	+11.0	12				
13	14	49.0	-00.1	N	23	21.6	+00.1			351	58.8	-00.9	N	23	45.7	-00.3			287	41.6	-27.7	S	01	09.4	+11.1	13				
14	29	48.9	-00.2	N	23	21.7	+00.1			6	57.9	-00.8	N	23	45.4	-00.3			302	13.9	-27.8	S	01	20.5	+11.0	14				
15	44	48.7	-00.1	N	23	21.8	+00.1			21	57.1	-00.8	N	23	45.1	-00.3			316	46.1	-27.8	S	01	31.5	+11.1	15				
16	59	48.6	-00.1	N	23	21.9	+00.0			36	56.3	-00.9	N	23	44.8	-00.4			331	18.3	-27.8	S	01	42.6	+11.1	16				
17	74	48.5	-00.2	N	23	21.9	+00.1			51	55.4	-00.8	N	23	44.4	-00.3			345	50.5	-27.9	S	01	53.7	+11.1	17				
18	89	48.3	-00.1	N	23	22.0	+00.1			66	54.6	-00.9	N	23	44.1	-00.3			0	22.6	-27.9	S	02	04.8	+11.1	18				
19	104	48.2	-00.1	N	23	22.1	+00.1			81	53.7	-00.8	N	23	43.8	-00.3			14	54.7	-28.0	S	02	15.9	+11.1	19				
20	119	48.1	-00.2	N	23	22.2	+00.0			96	52.9	-00.9	N	23	43.5	-00.3			29	26.7	-28.0	S	02	27.0	+11.0	20				
21	134	47.9	-00.1	N	23	22.2	+00.1			111	52.0	-00.8	N	23	43.2	-00.3			43	58.7	-28.1	S	02	38.0	+11.1	21				
22	149	47.8	-00.1	N	23	22.3	+00.1			126	51.2	-00.9	N	23	42.9	-00.4			58	30.6	-28.1	S	02	49.1	+11.1	22				
23	164	47.7	-00.2	N	23	22.4	+00.1			141	50.3	-00.8	N	23	42.5	-00.3			73	02.5	-28.2	S	03	00.2	+11.1	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 Greenwich Culmination Time: 12:01										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 Greenwich Culmination Time: 13:32										UT 02 06 10 14 18 22 SD 15'3 15'3 15'4 15'4 15'4 15'5 HP 56'1 56'2 56'4 56'5 56'7 56'8 Greenwich Culmination Time: 17:58										

Mars										Jupiter										Saturn										
UT	GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			UT					
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"						
00	195	01.3	+00.5	N	22	19.2	+00.3			176	56.4	+01.8	N	23	10.9	+00.0			50	37.6	+02.6	S	10	50.1	-00.1	00				
01	210	01.8	+00.6	N	22	19.5	+00.3			191	58.2	+01.9	N	23	10.9	+00.0			65	40.2	+02.5	S	10	50.0	+00.0	01				
02	225	02.4	+00.6	N	22	19.8	+00.2			207	00.1	+01.8	N	23	10.9	+00.0			80	42.7	+02.6	S	10	50.0	+00.0	02				
03	240	03.0	+00.6	N	22	20.0	+00.3			222	01.9	+01.9	N	23	10.9	+00.1			95	45.3	+02.5	S	10	50.0	+00.0	03				
04	255	03.6	+00.6	N	22	20.3	+00.3			237	03.8	+01.8	N	23	11.0	+00.0			110	47.8	+02.6	S	10	50.0	+00.0	04				
05	270	04.2	+00.6	N	22	20.6	+00.3			252	05.6	+01.8	N	23	11.0	+00.0			125	50.4	+02.5	S	10	50.0	+00.0	05				
06	285	04.8	+00.6	N	22	20.9	+00.2			267	07.4	+01.9	N	23	11.0	+00.0			140	52.9	+02.6	S	10	50.0	-00.1	06				
07	300	05.4	+00.6	N	22	21.1	+00.3			282	09.3	+01.8	N	23	11.0	+00.0			155	55.5	+02.5	S	10	49.9	+00.0	07				
08	315	06.0	+00.6	N	22	21.4	+00.3			297	11.1	+01.9	N	23	11.0	+00.0			170	58.0	+02.6	S	10	49.9	+00.0	08				
09	330	06.6	+00.6	N	22	21.7	+00.2			312	13.0	+01.8	N	23	11.0	+00.0			186	00.6	+02.5	S	10	49.9	+00.0	09				
10	345	07.2	+00.6	N	22	21.9	+00.3			327	14.8	+01.8	N	23	11.0	+00.1			201	03.1	+02.6	S	10	49.9	+00.0	10				
11	0	07.8	+00.6	N	22	22.2	+00.3			342	16.6	+01.9	N	23	11.1	+00.0			216	05.7	+02.5	S	10	49.9	-00.1	11				
12	15	08.4	+00.6	N	22	22.5	+00.2			357	18.5	+01.8	N	23	11.1	+00.0			231	08.2	+02.6	S	10	49.8	+00.0	12				
13	30	09.0	+00.6	N	22	22.7	+00.3			12	20.3	+01.9	N	23	11.1	+00.0			246	10.8	+02.5	S	10	49.8	+00.0	13				
14	45	09.6	+00.5	N	22	23.0	+00.3			27	22.2	+01.8	N	23	11.1	+00.0			261	13.3	+02.6	S	10	49.8	+00.0	14				
15	60	10.1	+00.6	N	22	23.3	+00.2			42	24.0	+01.8	N	23	11.1	+00.0			276	15.9	+02.5	S	10	49.8	+00.0	15				
16	75	10.7	+00.6	N	22	23.5	+00.3			57	25.8	+01.9	N	23	11.1	+00.0			291	18.4	+02.6	S	10	49.8	-00.1	16				
17	90	11.3	+00.6	N	22	23.8	+00.3			72	27.7	+01.8	N	23	11.1	+00.0			306	21.0	+02.5	S	10	49.7	+00.0	17				
18	105	11.9	+00.6	N	22	24.1	+00.2			87	29.5	+01.9	N	23	11.1	+00.1			321	23.5	+02.6	S	10	49.7	+00.0	18				
19	120	12.5	+00.6	N	22	24.3	+00.3			102	31.4	+01.8	N	23	11.2	+00.0			336	26.1	+02.5	S	10	49.7	+00.0	19				
20	135	13.1	+00.6	N	22	24.6	+00.2			117	33.2	+01.8	N	23	11.2	+00.0			351	28.6	+02.6	S	10	49.7	+00.0	20				
21	150	13.7	+00.6	N	22	24.8	+00.3			132	35.0	+01.9	N	23	11.2	+00.0			6	31.2	+02.5	S	10	49.7	-00.1	21				
22	165	14.3	+00.6	N	22	25.1	+00.3			147	36.9	+01.8	N	23	11.2	+00.0			21	33.7	+02.6	S	10	49.6	+00.0	22				
23	180	14.9	+00.6	N	22	25.4	+00.2			162	38.7	+01.9	N	23	11.2	+00.0			36	36.3	+02.5	S	10	49.6	+00.0	23				
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 10:59										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:11										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 Greenwich Culmination Time: 20:34										

Sun										Venus										Moon a = 0.27										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	179	47.5	-00.1		N	23	22.5	+00.0		156	49.5	-00.8		N	23	42.2	-00.3		87	34.3	-28.2		S	03	11.3	+11.1	00			
01	194	47.4	-00.1		N	23	22.5	+00.1		171	48.7	-00.9		N	23	41.9	-00.3		102	06.1	-28.3		S	03	22.4	+11.1	01			
02	209	47.3	-00.2		N	23	22.6	+00.1		186	47.8	-00.8		N	23	41.6	-00.4		116	37.8	-28.3		S	03	33.5	+11.1	02			
03	224	47.1	-00.1		N	23	22.7	+00.0		201	47.0	-00.9		N	23	41.2	-00.3		131	09.5	-28.3		S	03	44.6	+11.1	03			
04	239	47.0	-00.1		N	23	22.7	+00.1		216	46.1	-00.8		N	23	40.9	-00.3		145	41.2	-28.5		S	03	55.7	+11.1	04			
05	254	46.9	-00.2		N	23	22.8	+00.1		231	45.3	-00.9		N	23	40.6	-00.4		160	12.7	-28.4		S	04	06.8	+11.0	05			
06	269	46.7	-00.1		N	23	22.9	+00.1		246	44.4	-00.8		N	23	40.2	-00.3		174	44.3	-28.6		S	04	17.8	+11.1	06			
07	284	46.6	-00.2		N	23	23.0	+00.0		261	43.6	-00.8		N	23	39.9	-00.3		189	15.7	-28.5		S	04	28.9	+11.1	07			
08	299	46.4	-00.1		N	23	23.0	+00.1		276	42.8	-00.9		N	23	39.6	-00.4		203	47.2	-28.7		S	04	40.0	+11.0	08			
09	314	46.3	-00.1		N	23	23.1	+00.1		291	41.9	-00.8		N	23	39.2	-00.3		218	18.5	-28.7		S	04	51.0	+11.1	09			
10	329	46.2	-00.2		N	23	23.2	+00.0		306	41.1	-00.9		N	23	38.9	-00.3		232	49.8	-28.8		S	05	02.1	+11.0	10			
11	344	46.0	-00.1		N	23	23.2	+00.1		321	40.2	-00.8		N	23	38.6	-00.4		247	21.0	-28.8		S	05	13.1	+11.0	11			
12	359	45.9	-00.1		N	23	23.3	+00.0		336	39.4	-00.8		N	23	38.2	-00.3		261	52.2	-28.9		S	05	24.1	+11.0	12			
13	14	45.8	-00.2		N	23	23.3	+00.1		351	38.6	-00.9		N	23	37.9	-00.3		276	23.3	-28.9		S	05	35.1	+11.0	13			
14	29	45.6	-00.1		N	23	23.4	+00.1		6	37.7	-00.8		N	23	37.6	-00.4		290	54.4	-29.0		S	05	46.1	+11.0	14			
15	44	45.5	-00.1		N	23	23.5	+00.0		21	36.9	-00.8		N	23	37.2	-00.3		305	25.4	-29.1		S	05	57.1	+11.0	15			
16	59	45.4	-00.2		N	23	23.5	+00.1		36	36.1	-00.9		N	23	36.9	-00.4		319	56.3	-29.1		S	06	08.1	+10.9	16			
17	74	45.2	-00.1		N	23	23.6	+00.1		51	35.2	-00.8		N	23	36.5	-00.3		334	27.2	-29.2		S	06	19.0	+11.0	17			
18	89	45.1	-00.1		N	23	23.7	+00.0		66	34.4	-00.9		N	23	36.2	-00.4		348	58.0	-29.3		S	06	30.0	+10.9	18			
19	104	45.0	-00.2		N	23	23.7	+00.1		81	33.5	-00.8		N	23	35.8	-00.3		3	28.7	-29.3		S	06	40.9	+10.9	19			
20	119	44.8	-00.1		N	23	23.8	+00.0		96	32.7	-00.8		N	23	35.5	-00.3		17	59.4	-29.4		S	06	51.8	+10.9	20			
21	134	44.7	-00.1		N	23	23.8	+00.1		111	31.9	-00.9		N	23	35.2	-00.4		32	30.0	-29.5		S	07	02.7	+10.8	21			
22	149	44.6	-00.2		N	23	23.9	+00.0		126	31.0	-00.8		N	23	34.8	-00.3		47	00.5	-29.5		S	07	13.5	+10.9	22			
23	164	44.4	-00.1		N	23	23.9	+00.1		141	30.2	-00.8		N	23	34.5	-00.4		61	31.0	-29.6		S	07	24.4	+10.8	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 Greenwich Culmination Time: 12:01										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 Greenwich Culmination Time: 13:33										UT 02 06 10 14 18 22 SD 15'5 15'6 15'6 15'6 15'7 15'7 HP 56'9 57'1 57'2 57'4 57'5 57'7 Greenwich Culmination Time: 18:46										

Mars										Jupiter										Saturn										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	195	15.5	+00.6		N	22	25.6	+00.3		177	40.6	+01.8		N	23	11.2	+00.0		51	38.8	+02.6		S	10	49.6	+00.0	00			
01	210	16.1	+00.6		N	22	25.9	+00.3		192	42.4	+01.8		N	23	11.2	+00.1		66	41.4	+02.5		S	10	49.6	+00.0	01			
02	225	16.7	+00.6		N	22	26.2	+00.2		207	44.2	+01.9		N	23	11.3	+00.0		81	43.9	+02.6		S	10	49.6	+00.0	02			
03	240	17.3	+00.5		N	22	26.4	+00.3		222	46.1	+01.8		N	23	11.3	+00.0		96	46.5	+02.5		S	10	49.6	-00.1	03			
04	255	17.8	+00.6		N	22	26.7	+00.2		237	47.9	+01.9		N	23	11.3	+00.0		111	49.0	+02.6		S	10	49.5	+00.0	04			
05	270	18.4	+00.6		N	22	26.9	+00.3		252	49.8	+01.8		N	23	11.3	+00.0		126	51.6	+02.5		S	10	49.5	+00.0	05			
06	285	19.0	+00.6		N	22	27.2	+00.3		267	51.6	+01.8		N	23	11.3	+00.0		141	54.1	+02.6		S	10	49.5	+00.0	06			
07	300	19.6	+00.6		N	22	27.5	+00.2		282	53.4	+01.9		N	23	11.3	+00.0		156	56.7	+02.5		S	10	49.5	+00.0	07			
08	315	20.2	+00.6		N	22	27.7	+00.3		297	55.3	+01.8		N	23	11.3	+00.0		171	59.2	+02.6		S	10	49.5	-00.1	08			
09	330	20.8	+00.6		N	22	28.0	+00.2		312	57.1	+01.9		N	23	11.3	+00.1		187	01.8	+02.5		S	10	49.4	+00.0	09			
10	345	21.4	+00.6		N	22	28.2	+00.3		327	59.0	+01.8		N	23	11.4	+00.0		202	04.3	+02.6		S	10	49.4	+00.0	10			
11	0	22.0	+00.6		N	22	28.5	+00.3		343	00.8	+01.8		N	23	11.4	+00.0		217	06.9	+02.5		S	10	49.4	+00.0	11			
12	15	22.6	+00.6		N	22	28.8	+00.2		358	02.6	+01.9		N	23	11.4	+00.0		232	09.4	+02.6		S	10	49.4	+00.0	12			
13	30	23.2	+00.6		N	22	29.0	+00.3		13	04.5	+01.8		N	23	11.4	+00.0		247	12.0	+02.5		S	10	49.4	+00.0	13			
14	45	23.8	+00.6		N	22	29.3	+00.2		28	06.3	+01.9		N	23	11.4	+00.0		262	14.5	+02.5		S	10	49.4	-00.1	14			
15	60	24.4	+00.5		N	22	29.5	+00.3		43	08.2	+01.8		N	23	11.4	+00.0		277	17.0	+02.6		S	10	49.3	+00.0	15			
16	75	24.9	+00.6		N	22	29.8	+00.2		58	10.0	+01.8		N	23	11.4	+00.0		292	19.6	+02.5		S	10	49.3	+00.0	16			
17	90	25.5	+00.6		N	22	30.0	+00.3		73	11.8	+01.9		N	23	11.4	+00.1		307	22.1	+02.6		S	10	49.3	+00.0	17			
18	105	26.1	+00.6		N	22	30.3	+00.3		88	13.7	+01.8		N	23	11.5	+00.0		322	24.7	+02.5		S	10	49.3	+00.0	18			
19	120	26.7	+00.6		N	22	30.6	+00.2		103	15.5	+01.9		N	23	11.5	+00.0		337	27.2	+02.6		S	10	49.3	+00.0	19			
20	135	27.3	+00.6		N	22	30.8	+00.3		118	17.4	+01.8		N	23	11.5	+00.0		352	29.8	+02.5		S	10	49.3	-00.1	20			
21	150	27.9	+00.6		N	22	31.1	+00.2		133	19.2	+01.8		N	23	11.5	+00.0		7	32.3	+02.6		S	10	49.2	+00.0	21			
22	165	28.5	+00.6		N	22	31.3	+00.3		148	21.0	+01.9		N	23	11.5	+00.0		22	34.9	+02.5		S	10	49.2	+00.0	22			
23	180	29.1	+00.6		N	22	31.6	+00.2		163	22.9	+01.8		N	23	11.5	+00.0		37	37.4	+02.5		S	10	49.2	+00.0	23			
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 10:59										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 12:08										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 Greenwich Culmination Time: 20:30										

Sun										Venus										Moon a = 0.30										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'		°	'		°	'		°	'		°	'		°	'													
00	179	44.3	-00.2	N	23	24.0	+00.1	156	29.4	-00.9	N	23	34.1	-00.4	76	01.4	-29.7	S	07	35.2	+10.8	00								
01	194	44.1	-00.1	N	23	24.1	+00.0	171	28.5	-00.8	N	23	33.7	-00.3	90	31.7	-29.7	S	07	46.0	+10.7	01								
02	209	44.0	-00.1	N	23	24.1	+00.1	186	27.7	-00.8	N	23	33.4	-00.4	105	02.0	-29.9	S	07	56.7	+10.8	02								
03	224	43.9	-00.2	N	23	24.2	+00.0	201	26.9	-00.9	N	23	33.0	-00.3	119	32.1	-29.9	S	08	07.5	+10.7	03								
04	239	43.7	-00.1	N	23	24.2	+00.1	216	26.0	-00.8	N	23	32.7	-00.4	134	02.2	-29.9	S	08	18.2	+10.6	04								
05	254	43.6	-00.1	N	23	24.3	+00.0	231	25.2	-00.8	N	23	32.3	-00.3	148	32.3	-30.1	S	08	28.8	+10.7	05								
06	269	43.5	-00.2	N	23	24.3	+00.1	246	24.4	-00.9	N	23	32.0	-00.4	163	02.2	-30.1	S	08	39.5	+10.6	06								
07	284	43.3	-00.1	N	23	24.4	+00.0	261	23.5	-00.8	N	23	31.6	-00.4	177	32.1	-30.2	S	08	50.1	+10.6	07								
08	299	43.2	-00.1	N	23	24.4	+00.1	276	22.7	-00.8	N	23	31.2	-00.3	192	01.9	-30.3	S	09	00.7	+10.6	08								
09	314	43.1	-00.2	N	23	24.5	+00.0	291	21.9	-00.9	N	23	30.9	-00.4	206	31.6	-30.3	S	09	11.3	+10.5	09								
10	329	42.9	-00.1	N	23	24.5	+00.1	306	21.0	-00.8	N	23	30.5	-00.3	221	01.3	-30.5	S	09	21.8	+10.5	10								
11	344	42.8	-00.1	N	23	24.6	+00.0	321	20.2	-00.8	N	23	30.2	-00.4	235	30.8	-30.5	S	09	32.3	+10.4	11								
12	359	42.7	-00.2	N	23	24.6	+00.1	336	19.4	-00.9	N	23	29.8	-00.4	250	00.3	-30.6	S	09	42.7	+10.4	12								
13	14	42.5	-00.1	N	23	24.7	+00.0	351	18.5	-00.8	N	23	29.4	-00.3	264	29.7	-30.7	S	09	53.1	+10.4	13								
14	29	42.4	-00.2	N	23	24.7	+00.0	6	17.7	-00.8	N	23	29.1	-00.4	278	59.0	-30.7	S	10	03.5	+10.3	14								
15	44	42.2	-00.1	N	23	24.7	+00.1	21	16.9	-00.8	N	23	28.7	-00.4	293	28.3	-30.9	S	10	13.8	+10.3	15								
16	59	42.1	-00.1	N	23	24.8	+00.0	36	16.1	-00.9	N	23	28.3	-00.4	307	57.4	-30.9	S	10	24.1	+10.3	16								
17	74	42.0	-00.2	N	23	24.8	+00.1	51	15.2	-00.8	N	23	27.9	-00.3	322	26.5	-31.0	S	10	34.4	+10.2	17								
18	89	41.8	-00.1	N	23	24.9	+00.0	66	14.4	-00.8	N	23	27.6	-00.4	336	55.5	-31.1	S	10	44.6	+10.1	18								
19	104	41.7	-00.1	N	23	24.9	+00.1	81	13.6	-00.9	N	23	27.2	-00.4	351	24.4	-31.2	S	10	54.7	+10.1	19								
20	119	41.6	-00.2	N	23	25.0	+00.0	96	12.7	-00.8	N	23	26.8	-00.4	5	53.2	-31.3	S	11	04.8	+10.1	20								
21	134	41.4	-00.1	N	23	25.0	+00.0	111	11.9	-00.8	N	23	26.4	-00.3	20	21.9	-31.3	S	11	14.9	+10.0	21								
22	149	41.3	-00.1	N	23	25.0	+00.1	126	11.1	-00.8	N	23	26.1	-00.4	34	50.6	-31.4	S	11	24.9	+10.0	22								
23	164	41.2	-00.2	N	23	25.1	+00.0	141	10.3	-00.9	N	23	25.7	-00.4	49	19.2	-31.6	S	11	34.9	+09.9	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 00'1 00'1 00'1 00'1 00'1 00'1							SD 15'8 15'8 15'8 15'9 15'9 16'0																
HP 00'1 00'1 00'1 00'1 00'1 00'1							HP 00'1 00'1 00'1 00'1 00'1 00'1							HP 57'8 58'0 58'2 58'3 58'5 58'6																
Greenwich Culmination Time: 12:01							Greenwich Culmination Time: 13:35							Greenwich Culmination Time: 19:36																

Mars										Jupiter										Saturn										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'		°	'		°	'		°	'		°	'		°	'													
00	195	29.7	+00.6	N	22	31.8	+00.3	178	24.7	+01.9	N	23	11.5	+00.0	52	39.9	+02.6	S	10	49.2	+00.0	00								
01	210	30.3	+00.6	N	22	32.1	+00.2	193	26.6	+01.8	N	23	11.5	+00.0	67	42.5	+02.5	S	10	49.2	-00.1	01								
02	225	30.9	+00.6	N	22	32.3	+00.3	208	28.4	+01.8	N	23	11.5	+00.1	82	45.0	+02.6	S	10	49.1	+00.0	02								
03	240	31.5	+00.6	N	22	32.6	+00.2	223	30.2	+01.9	N	23	11.6	+00.0	97	47.6	+02.5	S	10	49.1	+00.0	03								
04	255	32.1	+00.5	N	22	32.8	+00.3	238	32.1	+01.8	N	23	11.6	+00.0	112	50.1	+02.6	S	10	49.1	+00.0	04								
05	270	32.6	+00.6	N	22	33.1	+00.2	253	33.9	+01.9	N	23	11.6	+00.0	127	52.7	+02.5	S	10	49.1	+00.0	05								
06	285	33.2	+00.6	N	22	33.3	+00.3	268	35.8	+01.8	N	23	11.6	+00.0	142	55.2	+02.6	S	10	49.1	+00.0	06								
07	300	33.8	+00.6	N	22	33.6	+00.2	283	37.6	+01.8	N	23	11.6	+00.0	157	57.8	+02.5	S	10	49.1	-00.1	07								
08	315	34.4	+00.6	N	22	33.8	+00.3	298	39.4	+01.9	N	23	11.6	+00.0	173	00.3	+02.5	S	10	49.0	+00.0	08								
09	330	35.0	+00.6	N	22	34.1	+00.2	313	41.3	+01.8	N	23	11.6	+00.0	188	02.8	+02.6	S	10	49.0	+00.0	09								
10	345	35.6	+00.6	N	22	34.3	+00.3	328	43.1	+01.9	N	23	11.6	+00.1	203	05.4	+02.5	S	10	49.0	+00.0	10								
11	0	36.2	+00.6	N	22	34.6	+00.2	343	45.0	+01.8	N	23	11.7	+00.0	218	07.9	+02.6	S	10	49.0	+00.0	11								
12	15	36.8	+00.6	N	22	34.8	+00.3	358	46.8	+01.8	N	23	11.7	+00.0	233	10.5	+02.5	S	10	49.0	+00.0	12								
13	30	37.4	+00.6	N	22	35.1	+00.2	13	48.6	+01.9	N	23	11.7	+00.0	248	13.0	+02.6	S	10	49.0	-00.1	13								
14	45	38.0	+00.6	N	22	35.3	+00.3	28	50.5	+01.8	N	23	11.7	+00.0	263	15.6	+02.5	S	10	48.9	+00.0	14								
15	60	38.6	+00.6	N	22	35.6	+00.2	43	52.3	+01.9	N	23	11.7	+00.0	278	18.1	+02.5	S	10	48.9	+00.0	15								
16	75	39.2	+00.5	N	22	35.8	+00.3	58	54.2	+01.8	N	23	11.7	+00.0	293	20.6	+02.6	S	10	48.9	+00.0	16								
17	90	39.7	+00.6	N	22	36.1	+00.2	73	56.0	+01.8	N	23	11.7	+00.0	308	23.2	+02.5	S	10	48.9	+00.0	17								
18	105	40.3	+00.6	N	22	36.3	+00.3	88	57.8	+01.9	N	23	11.7	+00.0	323	25.7	+02.6	S	10	48.9	+00.0	18								
19	120	40.9	+00.6	N	22	36.6	+00.2	103	59.7	+01.8	N	23	11.7	+00.1	338	28.3	+02.5	S	10	48.9	-00.1	19								
20	135	41.5	+00.6	N	22	36.8	+00.3	119	01.5	+01.9	N	23	11.8	+00.0	353	30.8	+02.6	S	10	48.8	+00.0	20								
21	150	42.1	+00.6	N	22	37.1	+00.2	134	03.4	+01.8	N	23	11.8	+00.0	8	33.4	+02.5	S	10	48.8	+00.0	21								
22	165	42.7	+00.6	N	22	37.3	+00.3	149	05.2	+01.8	N	23	11.8	+00.0	23	35.9	+02.5	S	10	48.8	+00.0	22								
23	180	43.3	+00.6	N	22	37.6	+00.2	164	07.0	+01.9	N	23	11.8	+00.0	38	38.4	+02.6	S	10	48.8	+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 00'0 00'0 00'0 00'0 00'0 00'0							SD 00'3 00'3 00'3 00'3 00'3 00'3							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 00'0 00'0 00'0 00'0 00'0 00'0							HP 00'0 00'0 00'0 00'0 00'0 00'0																
Greenwich Culmination Time: 10:58							Greenwich Culmination Time: 12:05							Greenwich Culmination Time: 20:26																

Sun										Venus										Moon a = 0.34										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'		°	'		°	'		°	'		°	'		°	'													
00	179	41.0	-00.1	N	23	25.1	+00.1	156	09.4	-00.8	N	23	25.3	-00.4	63	47.6	-31.6	S	11	44.8	+09.8	00								
01	194	40.9	-00.1	N	23	25.2	+00.0	171	08.6	-00.8	N	23	24.9	-00.4	78	16.0	-31.7	S	11	54.6	+09.8	01								
02	209	40.8	-00.2	N	23	25.2	+00.0	186	07.8	-00.8	N	23	24.5	-00.3	92	44.3	-31.8	S	12	04.4	+09.8	02								
03	224	40.6	-00.1	N	23	25.2	+00.1	201	07.0	-00.9	N	23	24.2	-00.4	107	12.5	-31.9	S	12	14.2	+09.7	03								
04	239	40.5	-00.2	N	23	25.3	+00.0	216	06.1	-00.8	N	23	23.8	-00.4	121	40.6	-32.0	S	12	23.9	+09.6	04								
05	254	40.3	-00.1	N	23	25.3	+00.0	231	05.3	-00.8	N	23	23.4	-00.4	136	08.6	-32.0	S	12	33.5	+09.6	05								
06	269	40.2	-00.1	N	23	25.3	+00.1	246	04.5	-00.8	N	23	23.0	-00.4	150	36.6	-32.2	S	12	43.1	+09.5	06								
07	284	40.1	-00.2	N	23	25.4	+00.0	261	03.7	-00.9	N	23	22.6	-00.4	165	04.4	-32.2	S	12	52.6	+09.4	07								
08	299	39.9	-00.1	N	23	25.4	+00.0	276	02.8	-00.8	N	23	22.2	-00.4	179	32.2	-32.4	S	13	02.0	+09.4	08								
09	314	39.8	-00.1	N	23	25.4	+00.1	291	02.0	-00.8	N	23	21.8	-00.4	193	59.8	-32.4	S	13	11.4	+09.3	09								
10	329	39.7	-00.2	N	23	25.5	+00.0	306	01.2	-00.8	N	23	21.4	-00.3	208	27.4	-32.5	S	13	20.7	+09.3	10								
11	344	39.5	-00.1	N	23	25.5	+00.0	321	00.4	-00.9	N	23	21.1	-00.4	222	54.9	-32.7	S	13	30.0	+09.1	11								
12	359	39.4	-00.1	N	23	25.5	+00.1	335	59.5	-00.8	N	23	20.7	-00.4	237	22.2	-32.7	S	13	39.1	+09.2	12								
13	14	39.3	-00.2	N	23	25.6	+00.0	350	58.7	-00.8	N	23	20.3	-00.4	251	49.5	-32.8	S	13	48.3	+09.0	13								
14	29	39.1	-00.1	N	23	25.6	+00.0	5	57.9	-00.8	N	23	19.9	-00.4	266	16.7	-32.9	S	13	57.3	+09.0	14								
15	44	39.0	-00.1	N	23	25.6	+00.0	20	57.1	-00.8	N	23	19.5	-00.4	280	43.8	-33.0	S	14	06.3	+08.9	15								
16	59	38.9	-00.2	N	23	25.6	+00.1	35	56.3	-00.9	N	23	19.1	-00.4	295	10.8	-33.1	S	14	15.2	+08.8	16								
17	74	38.7	-00.1	N	23	25.7	+00.0	50	55.4	-00.8	N	23	18.7	-00.4	309	37.7	-33.1	S	14	24.0	+08.7	17								
18	89	38.6	-00.1	N	23	25.7	+00.0	65	54.6	-00.8	N	23	18.3	-00.4	324	04.6	-33.3	S	14	32.7	+08.7	18								
19	104	38.5	-00.2	N	23	25.7	+00.0	80	53.8	-00.8	N	23	17.9	-00.4	338	31.3	-33.4	S	14	41.4	+08.6	19								
20	119	38.3	-00.1	N	23	25.7	+00.1	95	53.0	-00.8	N	23	17.5	-00.4	352	57.9	-33.5	S	14	50.0	+08.5	20								
21	134	38.2	-00.2	N	23	25.8	+00.0	110	52.2	-00.9	N	23	17.1	-00.4	7	24.4	-33.5	S	14	58.5	+08.4	21								
22	149	38.0	-00.1	N	23	25.8	+00.0	125	51.3	-00.8	N	23	16.7	-00.4	21	50.9	-33.7	S	15	06.9	+08.3	22								
23	164	37.9	-00.1	N	23	25.8	+00.0	140	50.5	-00.8	N	23	16.3	-00.5	36	17.2	-33.7	S	15	15.2	+08.3	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 00'1 00'1 00'1 00'1 00'1 00'1							SD 16'0 16'1 16'1 16'1 16'2 16'2																
HP 00'1 00'1 00'1 00'1 00'1 00'1							HP 00'1 00'1 00'1 00'1 00'1 00'1							HP 58'8 58'9 59'1 59'3 59'4 59'6																
Greenwich Culmination Time: 12:01							Greenwich Culmination Time: 13:36							Greenwich Culmination Time: 20:29																

Mars										Jupiter										Saturn										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'		°	'		°	'		°	'		°	'		°	'													
00	195	43.9	+00.6	N	22	37.8	+00.3	179	08.9	+01.8	N	23	11.8	+00.0	53	41.0	+02.5	S	10	48.8	+00.0	00								
01	210	44.5	+00.6	N	22	38.1	+00.2	194	10.7	+01.9	N	23	11.8	+00.0	68	43.5	+02.6	S	10	48.8	+00.0	01								
02	225	45.1	+00.6	N	22	38.3	+00.2	209	12.6	+01.8	N	23	11.8	+00.0	83	46.1	+02.5	S	10	48.8	-00.1	02								
03	240	45.7	+00.6	N	22	38.5	+00.3	224	14.4	+01.8	N	23	11.8	+00.0	98	48.6	+02.5	S	10	48.7	+00.0	03								
04	255	46.3	+00.5	N	22	38.8	+00.2	239	16.2	+01.9	N	23	11.8	+00.0	113	51.1	+02.6	S	10	48.7	+00.0	04								
05	270	46.8	+00.6	N	22	39.0	+00.3	254	18.1	+01.8	N	23	11.8	+00.1	128	53.7	+02.5	S	10	48.7	+00.0	05								
06	285	47.4	+00.6	N	22	39.3	+00.2	269	19.9	+01.9	N	23	11.9	+00.0	143	56.2	+02.6	S	10	48.7	+00.0	06								
07	300	48.0	+00.6	N	22	39.5	+00.3	284	21.8	+01.8	N	23	11.9	+00.0	158	58.8	+02.5	S	10	48.7	+00.0	07								
08	315	48.6	+00.6	N	22	39.8	+00.2	299	23.6	+01.8	N	23	11.9	+00.0	174	01.3	+02.5	S	10	48.7	-00.1	08								
09	330	49.2	+00.6	N	22	40.0	+00.2	314	25.4	+01.9	N	23	11.9	+00.0	189	03.8	+02.6	S	10	48.6	+00.0	09								
10	345	49.8	+00.6	N	22	40.2	+00.3	329	27.3	+01.8	N	23	11.9	+00.0	204	06.4	+02.5	S	10	48.6	+00.0	10								
11	0	50.4	+00.6	N	22	40.5	+00.2	344	29.1	+01.9	N	23	11.9	+00.0	219	08.9	+02.6	S	10	48.6	+00.0	11								
12	15	51.0	+00.6	N	22	40.7	+00.3	359	31.0	+01.8	N	23	11.9	+00.0	234	11.5	+02.5	S	10	48.6	+00.0	12								
13	30	51.6	+00.6	N	22	41.0	+00.2	14	32.8	+01.8	N	23	11.9	+00.0	249	14.0	+02.5	S	10	48.6	+00.0	13								
14	45	52.2	+00.6	N	22	41.2	+00.2	29	34.6	+01.9	N	23	11.9	+00.0	264	16.5	+02.6	S	10	48.6	+00.0	14								
15	60	52.8	+00.5	N	22	41.4	+00.3	44	36.5	+01.8	N	23	11.9	+00.0	279	19.1	+02.5	S	10	48.6	-00.1	15								
16	75	53.3	+00.6	N	22	41.7	+00.2	59	38.3	+01.9	N	23	11.9	+00.1	294	21.6	+02.5	S	10	48.5	+00.0	16								
17	90	53.9	+00.6	N	22	41.9	+00.3	74	40.2	+01.8	N	23	12.0	+00.0	309	24.1	+02.6	S	10	48.5	+00.0	17								
18	105	54.5	+00.6	N	22	42.2	+00.2	89	42.0	+01.9	N	23	12.0	+00.0	324	26.7	+02.5	S	10	48.5	+00.0	18								
19	120	55.1	+00.6	N	22	42.4	+00.2	104	43.9	+01.8	N	23	12.0	+00.0	339	29.2	+02.6	S	10	48.5	+00.0	19								
20	135	55.7	+00.6	N	22	42.6	+00.3	119	45.7	+01.8	N	23	12.0	+00.0	354	31.8	+02.5	S	10	48.5	+00.0	20								
21	150	56.3	+00.6	N	22	42.9	+00.2	134	47.5	+01.9	N	23	12.0	+00.0	9	34.3	+02.5	S	10	48.5	-00.1	21								
22	165	56.9	+00.6	N	22	43.1	+00.2	149	49.4	+01.8	N	23	12.0	+00.0	24	36.8	+02.6	S	10	48.4	+00.0	22								
23	180	57.5	+00.6	N	22	43.3	+00.3	164	51.2	+01.9	N	23	12.0	+00.0	39	39.4	+02.5	S	10	48.4	+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 00'0 00'0 00'0 00'0 00'0 00'0							SD 00'3 00'3 00'3 00'3 00'3 00'3							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 00'0 00'0 00'0 00'0 00'0 00'0							HP 00'0 00'0 00'0 00'0 00'0 00'0																
Greenwich Culmination Time: 10:57							Greenwich Culmination Time: 12:02							Greenwich Culmination Time: 20:22																

Sun										Venus										Moon a = 0.38										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	''	°	'	''	°	'	''	°	'	''	°	'	''	°	'	''												
00	179	37.8	-00.2	N	23	25.8	+00.0	155	49.7	-00.8	N	23	15.8	-00.4	50	43.5	-33.9	S	15	23.5	+08.2	00								
01	194	37.6	-00.1	N	23	25.8	+00.1	170	48.9	-00.8	N	23	15.4	-00.4	65	09.6	-33.9	S	15	31.7	+08.0	01								
02	209	37.5	-00.1	N	23	25.9	+00.0	185	48.1	-00.8	N	23	15.0	-00.4	79	35.7	-34.1	S	15	39.7	+08.0	02								
03	224	37.4	-00.2	N	23	25.9	+00.0	200	47.3	-00.9	N	23	14.6	-00.4	94	01.6	-34.1	S	15	47.7	+07.9	03								
04	239	37.2	-00.1	N	23	25.9	+00.0	215	46.4	-00.8	N	23	14.2	-00.4	108	27.5	-34.2	S	15	55.6	+07.8	04								
05	254	37.1	-00.1	N	23	25.9	+00.0	230	45.6	-00.8	N	23	13.8	-00.4	122	53.3	-34.3	S	16	03.4	+07.7	05								
06	269	37.0	-00.2	N	23	25.9	+00.1	245	44.8	-00.8	N	23	13.4	-00.4	137	19.0	-34.5	S	16	11.1	+07.6	06								
07	284	36.8	-00.1	N	23	26.0	+00.0	260	44.0	-00.8	N	23	13.0	-00.5	151	44.5	-34.5	S	16	18.7	+07.5	07								
08	299	36.7	-00.1	N	23	26.0	+00.0	275	43.2	-00.8	N	23	12.5	-00.4	166	10.0	-34.6	S	16	26.2	+07.5	08								
09	314	36.6	-00.2	N	23	26.0	+00.0	290	42.4	-00.8	N	23	12.1	-00.4	180	35.4	-34.6	S	16	33.7	+07.3	09								
10	329	36.4	-00.1	N	23	26.0	+00.0	305	41.6	-00.9	N	23	11.7	-00.4	195	00.8	-34.8	S	16	41.0	+07.2	10								
11	344	36.3	-00.2	N	23	26.0	+00.0	320	40.7	-00.8	N	23	11.3	-00.4	209	26.0	-34.9	S	16	48.2	+07.1	11								
12	359	36.1	-00.1	N	23	26.0	+00.0	335	39.9	-00.8	N	23	10.9	-00.5	223	51.1	-35.0	S	16	55.3	+07.0	12								
13	14	36.0	-00.1	N	23	26.0	+00.1	350	39.1	-00.8	N	23	10.4	-00.4	238	16.1	-35.0	S	17	02.3	+06.9	13								
14	29	35.9	-00.2	N	23	26.1	+00.0	5	38.3	-00.8	N	23	10.0	-00.4	252	41.1	-35.2	S	17	09.2	+06.8	14								
15	44	35.7	-00.1	N	23	26.1	+00.0	20	37.5	-00.8	N	23	09.6	-00.4	267	05.9	-35.2	S	17	16.0	+06.7	15								
16	59	35.6	-00.1	N	23	26.1	+00.0	35	36.7	-00.8	N	23	09.2	-00.5	281	30.7	-35.3	S	17	22.7	+06.5	16								
17	74	35.5	-00.2	N	23	26.1	+00.0	50	35.9	-00.8	N	23	08.7	-00.4	295	55.4	-35.5	S	17	29.2	+06.5	17								
18	89	35.3	-00.1	N	23	26.1	+00.0	65	35.1	-00.8	N	23	08.3	-00.4	310	19.9	-35.5	S	17	35.7	+06.4	18								
19	104	35.2	-00.1	N	23	26.1	+00.0	80	34.3	-00.9	N	23	07.9	-00.5	324	44.4	-35.6	S	17	42.1	+06.2	19								
20	119	35.1	-00.2	N	23	26.1	+00.0	95	33.4	-00.8	N	23	07.4	-00.4	339	08.8	-35.6	S	17	48.3	+06.1	20								
21	134	34.9	-00.1	N	23	26.1	+00.0	110	32.6	-00.8	N	23	07.0	-00.4	353	33.2	-35.8	S	17	54.4	+06.0	21								
22	149	34.8	-00.1	N	23	26.1	+00.0	125	31.8	-00.8	N	23	06.6	-00.5	7	57.4	-35.8	S	18	00.4	+05.9	22								
23	164	34.7	-00.2	N	23	26.1	+00.0	140	31.0	-00.8	N	23	06.1	-00.4	22	21.6	-36.0	S	18	06.3	+05.8	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 15'7 15'7 15'7							SD 00'1 00'1 00'1 00'1 00'1 00'1							SD 16'3 16'3 16'3 16'4 16'4 16'4																
HP 00'1 00'1 00'1 00'1 00'1 00'1							HP 00'1 00'1 00'1 00'1 00'1 00'1							HP 59'7 59'8 60'0 60'1 60'2 60'4																
Greenwich Culmination Time: 12:02							Greenwich Culmination Time: 13:37							Greenwich Culmination Time: 21:27																

Mars										Jupiter										Saturn										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	''	°	'	''	°	'	''	°	'	''	°	'	''	°	'	''												
00	195	58.1	+00.6	N	22	43.6	+00.2	179	53.1	+01.8	N	23	12.0	+00.1	54	41.9	+02.6	S	10	48.4	+00.0	00								
01	210	58.7	+00.6	N	22	43.8	+00.2	194	54.9	+01.8	N	23	12.1	+00.0	69	44.5	+02.5	S	10	48.4	+00.0	01								
02	225	59.3	+00.6	N	22	44.0	+00.3	209	56.7	+01.9	N	23	12.1	+00.0	84	47.0	+02.5	S	10	48.4	+00.0	02								
03	240	59.9	+00.5	N	22	44.3	+00.2	224	58.6	+01.8	N	23	12.1	+00.0	99	49.5	+02.6	S	10	48.4	+00.0	03								
04	256	00.4	+00.6	N	22	44.5	+00.3	240	00.4	+01.9	N	23	12.1	+00.0	114	52.1	+02.5	S	10	48.4	-00.1	04								
05	271	01.0	+00.6	N	22	44.8	+00.2	255	02.3	+01.8	N	23	12.1	+00.0	129	54.6	+02.5	S	10	48.3	+00.0	05								
06	286	01.6	+00.6	N	22	45.0	+00.2	270	04.1	+01.8	N	23	12.1	+00.0	144	57.1	+02.6	S	10	48.3	+00.0	06								
07	301	02.2	+00.6	N	22	45.2	+00.3	285	05.9	+01.9	N	23	12.1	+00.0	159	59.7	+02.5	S	10	48.3	+00.0	07								
08	316	02.8	+00.6	N	22	45.5	+00.2	300	07.8	+01.8	N	23	12.1	+00.0	175	02.2	+02.5	S	10	48.3	+00.0	08								
09	331	03.4	+00.6	N	22	45.7	+00.2	315	09.6	+01.9	N	23	12.1	+00.0	190	04.7	+02.6	S	10	48.3	+00.0	09								
10	346	04.0	+00.6	N	22	45.9	+00.2	330	11.5	+01.8	N	23	12.1	+00.1	205	07.3	+02.5	S	10	48.3	+00.0	10								
11	1	04.6	+00.6	N	22	46.1	+00.3	345	13.3	+01.8	N	23	12.2	+00.0	220	09.8	+02.6	S	10	48.3	-00.1	11								
12	16	05.2	+00.6	N	22	46.4	+00.2	0	15.1	+01.9	N	23	12.2	+00.0	235	12.4	+02.5	S	10	48.2	+00.0	12								
13	31	05.8	+00.6	N	22	46.6	+00.2	15	17.0	+01.8	N	23	12.2	+00.0	250	14.9	+02.5	S	10	48.2	+00.0	13								
14	46	06.4	+00.5	N	22	46.8	+00.3	30	18.8	+01.9	N	23	12.2	+00.0	265	17.4	+02.6	S	10	48.2	+00.0	14								
15	61	06.9	+00.6	N	22	47.1	+00.2	45	20.7	+01.8	N	23	12.2	+00.0	280	20.0	+02.5	S	10	48.2	+00.0	15								
16	76	07.5	+00.6	N	22	47.3	+00.2	60	22.5	+01.8	N	23	12.2	+00.0	295	22.5	+02.5	S	10	48.2	+00.0	16								
17	91	08.1	+00.6	N	22	47.5	+00.3	75	24.3	+01.9	N	23	12.2	+00.0	310	25.0	+02.6	S	10	48.2	+00.0	17								
18	106	08.7	+00.6	N	22	47.8	+00.2	90	26.2	+01.8	N	23	12.2	+00.0	325	27.6	+02.5	S	10	48.2	+00.0	18								
19	121	09.3	+00.6	N	22	48.0	+00.2	105	28.0	+01.9	N	23	12.2	+00.0	340	30.1	+02.5	S	10	48.2	-00.1	19								
20	136	09.9	+00.6	N	22	48.2	+00.2	120	29.9	+01.8	N	23	12.2	+00.1	355	32.6	+02.6	S	10	48.1	+00.0	20								
21	151	10.5	+00.6	N	22	48.4	+00.3	135	31.7	+01.8	N	23	12.3	+00.0	10	35.2	+02.5	S	10	48.1	+00.0	21								
22	166	11.1	+00.6	N	22	48.7	+00.2	150	33.5	+01.9	N	23	12.3	+00.0	25	37.7	+02.5	S	10	48.1	+00.0	22								
23	181	11.7	+00.6	N	22	48.9	+00.2	165	35.4	+01.8	N	23	12.3	+00.0	40	40.2	+02.6	S	10	48.1	+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 00'0 00'0 00'0 00'0 00'0 00'0							SD 00'3 00'3 00'3 00'3 00'3 00'3							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 00'0 00'0 00'0 00'0 00'0 00'0							HP 00'0 00'0 00'0 00'0 00'0 00'0																
Greenwich Culmination Time: 10:56							Greenwich Culmination Time: 11:59							Greenwich Culmination Time: 20:18																

Sun										Venus										Moon a = 0.42															
UT	GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			GHA	ddGHA			Dec			dDec			UT
	°	'	"		'	"	°	'	"		'	"	°	'	"	°	'	"		'	"	°	'	"	°	'	"	°	'	"	°	'	"		
00	179	34.5	-00.1	N	23	26.1	+00.0						155	30.2	-00.8	N	23	05.7	-00.4						36	45.6	-36.0	S	18	12.1	+05.6			00	
01	194	34.4	-00.1	N	23	26.1	+00.0						170	29.4	-00.8	N	23	05.3	-00.5						51	09.6	-36.1	S	18	17.7	+05.5			01	
02	209	34.3	-00.2	N	23	26.1	+00.0						185	28.6	-00.8	N	23	04.8	-00.4						65	33.5	-36.1	S	18	23.2	+05.4			02	
03	224	34.1	-00.1	N	23	26.1	+00.0						200	27.8	-00.8	N	23	04.4	-00.4						79	57.4	-36.3	S	18	28.6	+05.3			03	
04	239	34.0	-00.2	N	23	26.1	+00.0						215	27.0	-00.8	N	23	04.0	-00.5						94	21.1	-36.3	S	18	33.9	+05.1			04	
05	254	33.8	-00.1	N	23	26.1	+00.0						230	26.2	-00.8	N	23	03.5	-00.4						108	44.8	-36.4	S	18	39.0	+05.0			05	
06	269	33.7	-00.1	N	23	26.1	+00.0						245	25.4	-00.8	N	23	03.1	-00.5						123	08.4	-36.5	S	18	44.0	+04.9			06	
07	284	33.6	-00.2	N	23	26.1	+00.0						260	24.6	-00.8	N	23	02.6	-00.4						137	31.9	-36.6	S	18	48.9	+04.8			07	
08	299	33.4	-00.1	N	23	26.1	+00.0						275	23.8	-00.8	N	23	02.2	-00.5						151	55.3	-36.6	S	18	53.7	+04.6			08	
09	314	33.3	-00.1	N	23	26.1	+00.0						290	23.0	-00.8	N	23	01.7	-00.4						166	18.7	-36.7	S	18	58.3	+04.5			09	
10	329	33.2	-00.2	N	23	26.1	+00.0						305	22.2	-00.8	N	23	01.3	-00.5						180	42.0	-36.8	S	19	02.8	+04.4			10	
11	344	33.0	-00.1	N	23	26.1	+00.0						320	21.4	-00.8	N	23	00.8	-00.4						195	05.2	-36.8	S	19	07.2	+04.2			11	
12	359	32.9	-00.1	N	23	26.1	+00.0						335	20.6	-00.9	N	23	00.4	-00.5						209	28.4	-36.9	S	19	11.4	+04.1			12	
13	14	32.8	-00.2	N	23	26.1	+00.0						350	19.7	-00.8	N	22	59.9	-00.4						223	51.5	-37.0	S	19	15.5	+03.9			13	
14	29	32.6	-00.1	N	23	26.1	+00.0						5	18.9	-00.8	N	22	59.5	-00.5						238	14.5	-37.1	S	19	19.4	+03.8			14	
15	44	32.5	-00.1	N	23	26.1	+00.0						20	18.1	-00.8	N	22	59.0	-00.4						252	37.4	-37.1	S	19	23.2	+03.7			15	
16	59	32.4	-00.2	N	23	26.1	+00.0						35	17.3	-00.8	N	22	58.6	-00.5						267	00.3	-37.1	S	19	26.9	+03.6			16	
17	74	32.2	-00.1	N	23	26.1	+00.0						50	16.5	-00.8	N	22	58.1	-00.4						281	23.2	-37.3	S	19	30.5	+03.3			17	
18	89	32.1	-00.1	N	23	26.1	+00.0						65	15.7	-00.8	N	22	57.7	-00.5						295	45.9	-37.3	S	19	33.8	+03.3			18	
19	104	32.0	-00.2	N	23	26.1	+00.0						80	14.9	-00.8	N	22	57.2	-00.4						310	08.6	-37.3	S	19	37.1	+03.1			19	
20	119	31.8	-00.1	N	23	26.1	-00.1						95	14.1	-00.8	N	22	56.8	-00.5						324	31.3	-37.4	S	19	40.2	+03.0			20	
21	134	31.7	-00.1	N	23	26.0	+00.0						110	13.3	-00.8	N	22	56.3	-00.5						338	53.9	-37.5	S	19	43.2	+02.8			21	
22	149	31.6	-00.2	N	23	26.0	+00.0						125	12.5	-00.8	N	22	55.8	-00.4						353	16.4	-37.5	S	19	46.0	+02.7			22	
23	164	31.4	-00.1	N	23	26.0	+00.0						140	11.7	-00.8	N	22	55.4	-00.5						7	38.9	-37.5	S	19	48.7	+02.5			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 00'1 00'1 00'1 00'1 00'1 00'1										SD 16'5 16'5 16'5 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 60'5 60'6 60'7 60'8 60'9 61'0															
Greenwich Culmination Time: 12:02										Greenwich Culmination Time: 13:39										Greenwich Culmination Time: 22:28															

Mars										Jupiter										Saturn															
UT	GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			GHA	ddGHA			Dec			dDec			UT
	°	'	"		'	"	°	'	"		'	"	°	'	"	°	'	"		'	"	°	'	"	°	'	"	°	'	"	°	'	"		
00	196	12.3	+00.6	N	22	49.1	+00.3						180	37.2	+01.9	N	23	12.3	+00.0						55	42.8	+02.5	S	10	48.1	+00.0			00	
01	211	12.9	+00.6	N	22	49.4	+00.2						195	39.1	+01.8	N	23	12.3	+00.0						70	45.3	+02.5	S	10	48.1	+00.0			01	
02	226	13.5	+00.5	N	22	49.6	+00.2						210	40.9	+01.8	N	23	12.3	+00.0						85	47.8	+02.6	S	10	48.1	-00.1			02	
03	241	14.0	+00.6	N	22	49.8	+00.2						225	42.7	+01.9	N	23	12.3	+00.0						100	50.4	+02.5	S	10	48.0	+00.0			03	
04	256	14.6	+00.6	N	22	50.0	+00.3						240	44.6	+01.8	N	23	12.3	+00.0						115	52.9	+02.5	S	10	48.0	+00.0			04	
05	271	15.2	+00.6	N	22	50.3	+00.2						255	46.4	+01.9	N	23	12.3	+00.0						130	55.4	+02.6	S	10	48.0	+00.0			05	
06	286	15.8	+00.6	N	22	50.5	+00.2						270	48.3	+01.8	N	23	12.3	+00.0						145	58.0	+02.5	S	10	48.0	+00.0			06	
07	301	16.4	+00.6	N	22	50.7	+00.2						285	50.1	+01.8	N	23	12.3	+00.1						161	00.5	+02.5	S	10	48.0	+00.0			07	
08	316	17.0	+00.6	N	22	50.9	+00.3						300	51.9	+01.9	N	23	12.4	+00.0						176	03.0	+02.6	S	10	48.0	+00.0			08	
09	331	17.6	+00.6	N	22	51.2	+00.2						315	53.8	+01.8	N	23	12.4	+00.0						191	05.6	+02.5	S	10	48.0	+00.0			09	
10	346	18.2	+00.6	N	22	51.4	+00.2						330	55.6	+01.9	N	23	12.4	+00.0						206	08.1	+02.5	S	10	48.0	-00.1			10	
11	1	18.8	+00.6	N	22	51.6	+00.2						345	57.5	+01.8	N	23	12.4	+00.0						221	10.6	+02.6	S	10	47.9	+00.0			11	
12	16	19.4	+00.6	N	22	51.8	+00.2						0	59.3	+01.8	N	23	12.4	+00.0						236	13.2	+02.5	S	10	47.9	+00.0			12	
13	31	20.0	+00.5	N	22	52.0	+00.3						16	01.1	+01.9	N	23	12.4	+00.0						251	15.7	+02.5	S	10	47.9	+00.0			13	
14	46	20.5	+00.6	N	22	52.3	+00.2						31	03.0	+01.8	N	23	12.4	+00.0						266	18.2	+02.6	S	10	47.9	+00.0			14	
15	61	21.1	+00.6	N	22	52.5	+00.2						46	04.8	+01.9	N	23	12.4	+00.0						281	20.8	+02.5	S	10	47.9	+00.0			15	
16	76	21.7	+00.6	N	22	52.7	+00.2						61	06.7	+01.8	N	23	12.4	+00.0						296	23.3	+02.5	S	10	47.9	+00.0			16	
17	91	22.3	+00.6	N	22	52.9	+00.3						76	08.5	+01.8	N	23	12.4	+00.0						311	25.8	+02.5	S	10	47.9	+00.0			17	
18	106	22.9	+00.6	N	22	53.2	+00.2						91	10.3	+01.9	N	23	12.4	+00.0						326	28.3	+02.6	S	10	47.9	-00.1			18	
19	121	23.5	+00.6	N	22	53.4	+00.2						106	12.2	+01.8	N	23	12.4	+00.1						341	30.9	+02.5	S	10	47.8	+00.0			19	
20	136	24.1	+00.6	N	22	53.6	+00.2						121	14.0	+01.9	N	23	12.5	+00.0						356	33.4	+02.5	S	10	47.8	+00.0			20	
21	151	24.7	+00.6	N	22	53.8	+00.2						136	15.9	+01.8	N	23	12.5	+00.0						11	35.9	+02.6	S	10	47.8	+00.0			21	
22	166	25.3	+00.6	N	22	54.0	+00.2						151	17.7	+01.8	N	23	12.5	+00.0						26	38.5	+02.5	S	10	47.8	+00.0			22	
23	181	25.9	+00.6	N	22	54.2	+00.3						166	19.5	+01.9	N	23	12.5	+00.0						41	41.0	+02.5	S	10	47.8	+00.0			23	
UT 02 06 10 14 18 22										UT 02 06 10 14 1																									

Sun										Venus										Moon a = 0.46															
UT	GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			GHA	ddGHA			Dec			dDec			UT
	°	'	"		'	"	°	'	"		'	"	°	'	"	°	'	"		'	"	°	'	"	°	'	"	°	'	"	°	'	"		
00	179	31.3	-00.2	N	23	26.0	+00.0						155	10.9	-00.7	N	22	54.9	-00.5						22	01.4	-37.6	S	19	51.2	+02.4			00	
01	194	31.1	-00.1	N	23	26.0	+00.0						170	10.2	-00.8	N	22	54.4	-00.4						36	23.8	-37.7	S	19	53.6	+02.2			01	
02	209	31.0	-00.1	N	23	26.0	+00.0						185	09.4	-00.8	N	22	54.0	-00.5						50	46.1	-37.7	S	19	55.8	+02.1			02	
03	224	30.9	-00.2	N	23	26.0	-00.1						200	08.6	-00.8	N	22	53.5	-00.5						65	08.4	-37.7	S	19	57.9	+01.9			03	
04	239	30.7	-00.1	N	23	25.9	+00.0						215	07.8	-00.8	N	22	53.0	-00.4						79	30.7	-37.8	S	19	59.8	+01.8			04	
05	254	30.6	-00.1	N	23	25.9	+00.0						230	07.0	-00.8	N	22	52.6	-00.5						93	52.9	-37.8	S	20	01.6	+01.7			05	
06	269	30.5	-00.2	N	23	25.9	+00.0						245	06.2	-00.8	N	22	52.1	-00.5						108	15.1	-37.9	S	20	03.3	+01.5			06	
07	284	30.3	-00.1	N	23	25.9	+00.0						260	05.4	-00.8	N	22	51.6	-00.4						122	37.2	-37.9	S	20	04.8	+01.3			07	
08	299	30.2	-00.1	N	23	25.9	+00.0						275	04.6	-00.8	N	22	51.2	-00.5						136	59.3	-37.9	S	20	06.1	+01.2			08	
09	314	30.1	-00.2	N	23	25.9	-00.1						290	03.8	-00.8	N	22	50.7	-00.5						151	21.4	-37.9	S	20	07.3	+01.0			09	
10	329	29.9	-00.1	N	23	25.8	+00.0						305	03.0	-00.8	N	22	50.2	-00.5						165	43.5	-38.0	S	20	08.3	+00.9			10	
11	344	29.8	-00.1	N	23	25.8	+00.0						320	02.2	-00.8	N	22	49.7	-00.4						180	05.5	-38.0	S	20	09.2	+00.7			11	
12	359	29.7	-00.2	N	23	25.8	+00.0						335	01.4	-00.8	N	22	49.3	-00.5						194	27.5	-38.1	S	20	09.9	+00.6			12	
13	14	29.5	-00.1	N	23	25.8	-00.1						350	00.6	-00.8	N	22	48.8	-00.5						208	49.4	-38.0	S	20	10.5	+00.4			13	
14	29	29.4	-00.1	N	23	25.7	+00.0						4	59.8	-00.8	N	22	48.3	-00.5						223	11.4	-38.1	S	20	10.9	+00.2			14	
15	44	29.3	-00.2	N	23	25.7	+00.0						19	59.0	-00.8	N	22	47.8	-00.5						237	33.3	-38.1	S	20	11.1	+00.2			15	
16	59	29.1	-00.1	N	23	25.7	+00.0						34	58.2	-00.7	N	22	47.3	-00.4						251	55.2	-38.1	S	20	11.3	-00.1			16	
17	74	29.0	-00.1	N	23	25.7	-00.1						49	57.5	-00.8	N	22	46.9	-00.5						266	17.1	-38.1	S	20	11.2	-00.2			17	
18	89	28.9	-00.2	N	23	25.6	+00.0						64	56.7	-00.8	N	22	46.4	-00.5						280	39.0	-38.2	S	20	11.0	-00.4			18	
19	104	28.7	-00.1	N	23	25.6	+00.0						79	55.9	-00.8	N	22	45.9	-00.5						295	00.8	-38.1	S	20	10.6	-00.5			19	
20	119	28.6	-00.1	N	23	25.6	+00.0						94	55.1	-00.8	N	22	45.4	-00.5						309	22.7	-38.2	S	20	10.1	-00.6			20	
21	134	28.5	-00.2	N	23	25.6	-00.1						109	54.3	-00.8	N	22	44.9	-00.5						323	44.5	-38.1	S	20	09.5	-00.9			21	
22	149	28.3	-00.1	N	23	25.5	+00.0						124	53.5	-00.8	N	22	44.4	-00.5						338	06.4	-38.2	S	20	08.6	-00.9			22	
23	164	28.2	-00.1	N	23	25.5	+00.0						139	52.7	-00.8	N	22	43.9	-00.4						352	28.2	-38.1	S	20	07.7	-01.2			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 00'1 00'1 00'1 00'1 00'1 00'1										SD 16'6 16'7 16'7 16'7 16'7 16'7															
HP 00'1 00'1 00'1 00'1 00'1 00'1										HP 00'1 00'1 00'1 00'1 00'1 00'1										HP 61'1 61'1 61'2 61'3 61'3 61'3															
Greenwich Culmination Time: 12:02										Greenwich Culmination Time: 13:40										Greenwich Culmination Time: 23:31															

Mars										Jupiter										Saturn															
UT	GHA			ddGHA			Dec			dDec			GHA			ddGHA			Dec			dDec			GHA	ddGHA			Dec			dDec			UT
	°	'	"		'	"	°	'	"		'	"	°	'	"	°	'	"		'	"	°	'	"	°	'	"	°	'	"	°	'	"		
00	196	26.5	+00.5	N	22	54.5	+00.2						181	21.4	+01.8	N	23	12.5	+00.0						56	43.5	+02.6	S	10	47.8	+00.0			00	
01	211	27.0	+00.6	N	22	54.7	+00.2						196	23.2	+01.9	N	23	12.5	+00.0						71	46.1	+02.5	S	10	47.8	+00.0			01	
02	226	27.6	+00.6	N	22	54.9	+00.2						211	25.1	+01.8	N	23	12.5	+00.0						86	48.6	+02.5	S	10	47.8	+00.0			02	
03	241	28.2	+00.6	N	22	55.1	+00.2						226	26.9	+01.8	N	23	12.5	+00.0						101	51.1	+02.6	S	10	47.8	-00.1			03	
04	256	28.8	+00.6	N	22	55.3	+00.2						241	28.7	+01.9	N	23	12.5	+00.0						116	53.7	+02.5	S	10	47.7	+00.0			04	
05	271	29.4	+00.6	N	22	55.5	+00.3						256	30.6	+01.8	N	23	12.5	+00.0						131	56.2	+02.5	S	10	47.7	+00.0			05	
06	286	30.0	+00.6	N	22	55.8	+00.2						271	32.4	+01.9	N	23	12.5	+00.0						146	58.7	+02.5	S	10	47.7	+00.0			06	
07	301	30.6	+00.6	N	22	56.0	+00.2						286	34.3	+01.8	N	23	12.5	+00.0						162	01.2	+02.6	S	10	47.7	+00.0			07	
08	316	31.2	+00.6	N	22	56.2	+00.2						301	36.1	+01.8	N	23	12.5	+00.1						177	03.8	+02.5	S	10	47.7	+00.0			08	
09	331	31.8	+00.6	N	22	56.4	+00.2						316	37.9	+01.9	N	23	12.6	+00.0						192	06.3	+02.5	S	10	47.7	+00.0			09	
10	346	32.4	+00.6	N	22	56.6	+00.2						331	39.8	+01.8	N	23	12.6	+00.0						207	08.8	+02.6	S	10	47.7	+00.0			10	
11	1	33.0	+00.6	N	22	56.8	+00.3						346	41.6	+01.9	N	23	12.6	+00.0						222	11.4	+02.5	S	10	47.7	+00.0			11	
12	16	33.6	+00.5	N	22	57.1	+00.2						1	43.5	+01.8	N	23	12.6	+00.0						237	13.9	+02.5	S	10	47.7	-00.1			12	
13	31	34.1	+00.6	N	22	57.3	+00.2						16	45.3	+01.8	N	23	12.6	+00.0						252	16.4	+02.5	S	10	47.6	+00.0			13	
14	46	34.7	+00.6	N	22	57.5	+00.2						31	47.1	+01.9	N	23	12.6	+00.0						267	18.9	+02.6	S	10	47.6	+00.0			14	
15	61	35.3	+00.6	N	22	57.7	+00.2						46	49.0	+01.8	N	23	12.6	+00.0						282	21.5	+02.5	S	10	47.6	+00.0			15	
16	76	35.9	+00.6	N	22	57.9	+00.2						61	50.8	+01.9	N	23	12.6	+00.0						297	24.0	+02.5	S	10	47.6	+00.0			16	
17	91	36.5	+00.6	N	22	58.1	+00.2						76	52.7	+01.8	N	23	12.6	+00.0						312	26.5	+02.5	S	10	47.6	+00.0			17	
18	106	37.1	+00.6	N	22	58.3	+00.2						91	54.5	+01.8	N	23	12.6	+00.0						327	29.0	+02.6	S	10	47.6	+00.0			18	
19	121	37.7	+00.6	N	22	58.5	+00.2						106	56.3	+01.9	N	23	12.6	+00.0						342	31.6	+02.5	S	10	47.6	+00.0			19	
20	136	38.3	+00.6	N	22	58.7	+00.3						121	58.2	+01.8	N	23	12.6	+00.0						357	34.1	+02.5	S	10	47.6	+00.0			20	
21	151	38.9	+00.6	N	22	59.0	+00.2						137	00.0	+01.9	N	23	12.6	+00.0						12	36.6	+02.6	S	10	47.6	-00.1			21	
22	166	39.5	+00.6	N	22	59.2	+00.2						152	01.9	+01.8	N	23	12.6	+00.1						27	39.2	+02.5	S	10	47.5	+00.0			22	
23	181	40.1	+00.5	N	22	59.4	+00.2						167	03.7	+01.9	N	23	12.7	+00.0						42	41.7	+02.5	S	10	47.5	+00.0			23	
UT 02 06 10 14 18 22										UT 02 06 10 14																									

Sun										Venus										Moon a = 0.50										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	179	28.1	-00.2		N	23	25.5	-00.1		154	51.9	-00.8		N	22	43.5	-00.5		6	50.1	-38.2		S	20	06.5	-01.3	00			
01	194	27.9	-00.1		N	23	25.4	+00.0		169	51.1	-00.7		N	22	43.0	-00.5		21	11.9	-38.2		S	20	05.2	-01.4	01			
02	209	27.8	-00.1		N	23	25.4	+00.0		184	50.4	-00.8		N	22	42.5	-00.5		35	33.7	-38.1		S	20	03.8	-01.6	02			
03	224	27.7	-00.2		N	23	25.4	-00.1		199	49.6	-00.8		N	22	42.0	-00.5		49	55.6	-38.2		S	20	02.2	-01.7	03			
04	239	27.5	-00.1		N	23	25.3	+00.0		214	48.8	-00.8		N	22	41.5	-00.5		64	17.4	-38.1		S	20	00.5	-02.0	04			
05	254	27.4	-00.1		N	23	25.3	+00.0		229	48.0	-00.8		N	22	41.0	-00.5		78	39.3	-38.1		S	19	58.5	-02.0	05			
06	269	27.3	-00.2		N	23	25.3	-00.1		244	47.2	-00.8		N	22	40.5	-00.5		93	01.2	-38.1		S	19	56.5	-02.2	06			
07	284	27.1	-00.1		N	23	25.2	+00.0		259	46.4	-00.8		N	22	40.0	-00.5		107	23.1	-38.1		S	19	54.3	-02.4	07			
08	299	27.0	-00.1		N	23	25.2	+00.0		274	45.6	-00.7		N	22	39.5	-00.5		121	45.0	-38.1		S	19	51.9	-02.5	08			
09	314	26.9	-00.2		N	23	25.2	-00.1		289	44.9	-00.8		N	22	39.0	-00.5		136	06.9	-38.0		S	19	49.4	-02.7	09			
10	329	26.7	-00.1		N	23	25.1	+00.0		304	44.1	-00.8		N	22	38.5	-00.5		150	28.9	-38.1		S	19	46.7	-02.8	10			
11	344	26.6	-00.1		N	23	25.1	+00.0		319	43.3	-00.8		N	22	38.0	-00.5		164	50.8	-38.0		S	19	43.9	-03.0	11			
12	359	26.5	-00.2		N	23	25.1	-00.1		334	42.5	-00.8		N	22	37.5	-00.5		179	12.8	-38.0		S	19	40.9	-03.1	12			
13	14	26.3	-00.1		N	23	25.0	+00.0		349	41.7	-00.7		N	22	37.0	-00.5		193	34.8	-37.9		S	19	37.8	-03.3	13			
14	29	26.2	-00.1		N	23	25.0	-00.1		4	41.0	-00.8		N	22	36.5	-00.5		207	56.9	-37.9		S	19	34.5	-03.4	14			
15	44	26.1	-00.2		N	23	24.9	+00.0		19	40.2	-00.8		N	22	36.0	-00.5		222	19.0	-37.9		S	19	31.1	-03.6	15			
16	59	25.9	-00.1		N	23	24.9	-00.1		34	39.4	-00.8		N	22	35.5	-00.5		236	41.1	-37.9		S	19	27.5	-03.7	16			
17	74	25.8	-00.1		N	23	24.8	+00.0		49	38.6	-00.8		N	22	35.0	-00.6		251	03.2	-37.8		S	19	23.8	-03.9	17			
18	89	25.7	-00.2		N	23	24.8	+00.0		64	37.8	-00.7		N	22	34.4	-00.5		265	25.4	-37.8		S	19	19.9	-04.0	18			
19	104	25.5	-00.1		N	23	24.8	-00.1		79	37.1	-00.8		N	22	33.9	-00.5		279	47.6	-37.7		S	19	15.9	-04.1	19			
20	119	25.4	-00.1		N	23	24.7	+00.0		94	36.3	-00.8		N	22	33.4	-00.5		294	09.9	-37.7		S	19	11.8	-04.3	20			
21	134	25.3	-00.2		N	23	24.7	-00.1		109	35.5	-00.8		N	22	32.9	-00.5		308	32.2	-37.7		S	19	07.5	-04.5	21			
22	149	25.1	-00.1		N	23	24.6	+00.0		124	34.7	-00.8		N	22	32.4	-00.5		322	54.5	-37.6		S	19	03.0	-04.6	22			
23	164	25.0	-00.1		N	23	24.6	-00.1		139	33.9	-00.7		N	22	31.9	-00.5		337	16.9	-37.6		S	18	58.4	-04.7	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 Greenwich Culmination Time: 12:02										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 Greenwich Culmination Time: 13:41										UT 02 06 10 14 18 22 SD 16'7 16'7 16'7 16'7 16'7 16'7 HP 61'4 61'4 61'4 61'4 61'4 61'4 Greenwich Culmination Time: --:--										

Mars										Jupiter										Saturn										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	196	40.6	+00.6		N	22	59.6	+00.2		182	05.6	+01.8		N	23	12.7	+00.0		57	44.2	+02.5		S	10	47.5	+00.0	00			
01	211	41.2	+00.6		N	22	59.8	+00.2		197	07.4	+01.8		N	23	12.7	+00.0		72	46.7	+02.6		S	10	47.5	+00.0	01			
02	226	41.8	+00.6		N	23	00.0	+00.2		212	09.2	+01.9		N	23	12.7	+00.0		87	49.3	+02.5		S	10	47.5	+00.0	02			
03	241	42.4	+00.6		N	23	00.2	+00.2		227	11.1	+01.8		N	23	12.7	+00.0		102	51.8	+02.5		S	10	47.5	+00.0	03			
04	256	43.0	+00.6		N	23	00.4	+00.2		242	12.9	+01.9		N	23	12.7	+00.0		117	54.3	+02.5		S	10	47.5	+00.0	04			
05	271	43.6	+00.6		N	23	00.6	+00.2		257	14.8	+01.8		N	23	12.7	+00.0		132	56.8	+02.6		S	10	47.5	+00.0	05			
06	286	44.2	+00.6		N	23	00.8	+00.2		272	16.6	+01.8		N	23	12.7	+00.0		147	59.4	+02.5		S	10	47.5	-00.1	06			
07	301	44.8	+00.6		N	23	01.0	+00.2		287	18.4	+01.9		N	23	12.7	+00.0		163	01.9	+02.5		S	10	47.4	+00.0	07			
08	316	45.4	+00.6		N	23	01.2	+00.3		302	20.3	+01.8		N	23	12.7	+00.0		178	04.4	+02.5		S	10	47.4	+00.0	08			
09	331	46.0	+00.6		N	23	01.5	+00.2		317	22.1	+01.9		N	23	12.7	+00.0		193	06.9	+02.6		S	10	47.4	+00.0	09			
10	346	46.6	+00.5		N	23	01.7	+00.2		332	24.0	+01.8		N	23	12.7	+00.0		208	09.5	+02.5		S	10	47.4	+00.0	10			
11	1	47.1	+00.6		N	23	01.9	+00.2		347	25.8	+01.8		N	23	12.7	+00.0		223	12.0	+02.5		S	10	47.4	+00.0	11			
12	16	47.7	+00.6		N	23	02.1	+00.2		2	27.6	+01.9		N	23	12.7	+00.1		238	14.5	+02.5		S	10	47.4	+00.0	12			
13	31	48.3	+00.6		N	23	02.3	+00.2		17	29.5	+01.8		N	23	12.8	+00.0		253	17.0	+02.6		S	10	47.4	+00.0	13			
14	46	48.9	+00.6		N	23	02.5	+00.2		32	31.3	+01.9		N	23	12.8	+00.0		268	19.6	+02.5		S	10	47.4	+00.0	14			
15	61	49.5	+00.6		N	23	02.7	+00.2		47	33.2	+01.8		N	23	12.8	+00.0		283	22.1	+02.5		S	10	47.4	+00.0	15			
16	76	50.1	+00.6		N	23	02.9	+00.2		62	35.0	+01.8		N	23	12.8	+00.0		298	24.6	+02.5		S	10	47.4	+00.0	16			
17	91	50.7	+00.6		N	23	03.1	+00.2		77	36.8	+01.9		N	23	12.8	+00.0		313	27.1	+02.6		S	10	47.4	-00.1	17			
18	106	51.3	+00.6		N	23	03.3	+00.2		92	38.7	+01.8		N	23	12.8	+00.0		328	29.7	+02.5		S	10	47.3	+00.0	18			
19	121	51.9	+00.6		N	23	03.5	+00.2		107	40.5	+01.9		N	23	12.8	+00.0		343	32.2	+02.5		S	10	47.3	+00.0	19			
20	136	52.5	+00.6		N	23	03.7	+00.2		122	42.4	+01.8		N	23	12.8	+00.0		358	34.7	+02.5		S	10	47.3	+00.0	20			
21	151	53.1	+00.5		N	23	03.9	+00.2		137	44.2	+01.8		N	23	12.8	+00.0		13	37.2	+02.6		S	10	47.3	+00.0	21			
22	166	53.6	+00.6		N	23	04.1	+00.2		152	46.0	+01.9		N	23	12.8	+00.0		28	39.8	+02.5		S	10	47.3	+00.0	22			
23	181	54.2	+00.6		N	23	04.3	+00.2		167	47.9	+01.8		N	23	12.8	+00.0		43	42.3	+02.5		S	10	47.3	+00.0	23			
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 10:53										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 11:50										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 Greenwich Culmination Time: 20:06										

Sun										Venus										Moon a = 0.54										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"									
00	179	24.9	-00.2	N	23	24.5	+00.0	154	33.2	-00.8	N	22	31.4	-00.6	351	39.3	-37.5	S	18	53.7	-04.9	00								
01	194	24.7	-00.1	N	23	24.5	-00.1	169	32.4	-00.8	N	22	30.8	-00.5	6	01.8	-37.5	S	18	48.8	-05.0	01								
02	209	24.6	-00.1	N	23	24.4	+00.0	184	31.6	-00.8	N	22	30.3	-00.5	20	24.3	-37.4	S	18	43.8	-05.2	02								
03	224	24.5	-00.2	N	23	24.4	-00.1	199	30.8	-00.7	N	22	29.8	-00.5	34	46.9	-37.3	S	18	38.6	-05.3	03								
04	239	24.3	-00.1	N	23	24.3	+00.0	214	30.1	-00.8	N	22	29.3	-00.5	49	09.6	-37.3	S	18	33.3	-05.4	04								
05	254	24.2	-00.1	N	23	24.3	-00.1	229	29.3	-00.8	N	22	28.8	-00.6	63	32.3	-37.3	S	18	27.9	-05.5	05								
06	269	24.1	-00.2	N	23	24.2	+00.0	244	28.5	-00.8	N	22	28.2	-00.5	77	55.0	-37.2	S	18	22.4	-05.7	06								
07	284	23.9	-00.1	N	23	24.2	-00.1	259	27.7	-00.7	N	22	27.7	-00.5	92	17.8	-37.1	S	18	16.7	-05.9	07								
08	299	23.8	-00.1	N	23	24.1	+00.0	274	27.0	-00.8	N	22	27.2	-00.5	106	40.7	-37.1	S	18	10.8	-05.9	08								
09	314	23.7	-00.2	N	23	24.1	-00.1	289	26.2	-00.8	N	22	26.7	-00.6	121	03.6	-37.0	S	18	04.9	-06.1	09								
10	329	23.5	-00.1	N	23	24.0	+00.0	304	25.4	-00.7	N	22	26.1	-00.5	135	26.6	-36.9	S	17	58.8	-06.3	10								
11	344	23.4	-00.1	N	23	24.0	-00.1	319	24.7	-00.8	N	22	25.6	-00.5	149	49.7	-36.9	S	17	52.5	-06.3	11								
12	359	23.3	-00.2	N	23	23.9	-00.1	334	23.9	-00.8	N	22	25.1	-00.6	164	12.8	-36.8	S	17	46.2	-06.5	12								
13	14	23.1	-00.1	N	23	23.8	+00.0	349	23.1	-00.8	N	22	24.5	-00.5	178	36.0	-36.8	S	17	39.7	-06.6	13								
14	29	23.0	-00.1	N	23	23.8	-00.1	4	22.3	-00.7	N	22	24.0	-00.5	192	59.2	-36.6	S	17	33.1	-06.7	14								
15	44	22.9	-00.2	N	23	23.7	+00.0	19	21.6	-00.8	N	22	23.5	-00.6	207	22.6	-36.6	S	17	26.4	-06.9	15								
16	59	22.7	-00.1	N	23	23.7	-00.1	34	20.8	-00.8	N	22	22.9	-00.5	221	46.0	-36.6	S	17	19.5	-07.0	16								
17	74	22.6	-00.1	N	23	23.6	+00.0	49	20.0	-00.7	N	22	22.4	-00.5	236	09.4	-36.4	S	17	12.5	-07.1	17								
18	89	22.5	-00.2	N	23	23.6	-00.1	64	19.3	-00.8	N	22	21.9	-00.6	250	33.0	-36.4	S	17	05.4	-07.2	18								
19	104	22.3	-00.1	N	23	23.5	-00.1	79	18.5	-00.8	N	22	21.3	-00.5	264	56.6	-36.3	S	16	58.2	-07.3	19								
20	119	22.2	-00.1	N	23	23.4	+00.0	94	17.7	-00.7	N	22	20.8	-00.6	279	20.3	-36.3	S	16	50.9	-07.5	20								
21	134	22.1	-00.2	N	23	23.4	-00.1	109	17.0	-00.8	N	22	20.2	-00.5	293	44.0	-36.1	S	16	43.4	-07.5	21								
22	149	21.9	-00.1	N	23	23.3	-00.1	124	16.2	-00.8	N	22	19.7	-00.5	308	07.9	-36.1	S	16	35.9	-07.7	22								
23	164	21.8	-00.1	N	23	23.2	+00.0	139	15.4	-00.7	N	22	19.2	-00.6	322	31.8	-36.0	S	16	28.2	-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 15'7 15'7 15'7 15'7 15'7 15'7							SD 00'1 00'1 00'1 00'1 00'1 00'1							SD 16'7 16'7 16'7 16'7 16'7 16'6																
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 61'3 61'3 61'2 61'2 61'1 61'0																
Greenwich Culmination Time: 12:02							Greenwich Culmination Time: 13:42							Greenwich Culmination Time: 00:35																

Mars										Jupiter										Saturn										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"									
00	196	54.8	+00.6	N	23	04.5	+00.2	182	49.7	+01.9	N	23	12.8	+00.0	58	44.8	+02.5	S	10	47.3	+00.0	00								
01	211	55.4	+00.6	N	23	04.7	+00.2	197	51.6	+01.8	N	23	12.8	+00.0	73	47.3	+02.5	S	10	47.3	+00.0	01								
02	226	56.0	+00.6	N	23	04.9	+00.2	212	53.4	+01.8	N	23	12.8	+00.0	88	49.8	+02.6	S	10	47.3	+00.0	02								
03	241	56.6	+00.6	N	23	05.1	+00.2	227	55.2	+01.9	N	23	12.8	+00.0	103	52.4	+02.5	S	10	47.3	+00.0	03								
04	256	57.2	+00.6	N	23	05.3	+00.2	242	57.1	+01.8	N	23	12.8	+00.0	118	54.9	+02.5	S	10	47.3	-00.1	04								
05	271	57.8	+00.6	N	23	05.5	+00.2	257	58.9	+01.9	N	23	12.8	+00.1	133	57.4	+02.5	S	10	47.2	+00.0	05								
06	286	58.4	+00.6	N	23	05.7	+00.2	273	00.8	+01.8	N	23	12.9	+00.0	148	59.9	+02.6	S	10	47.2	+00.0	06								
07	301	59.0	+00.6	N	23	05.9	+00.2	288	02.6	+01.9	N	23	12.9	+00.0	164	02.5	+02.5	S	10	47.2	+00.0	07								
08	316	59.6	+00.6	N	23	06.1	+00.2	303	04.5	+01.8	N	23	12.9	+00.0	179	05.0	+02.5	S	10	47.2	+00.0	08								
09	332	00.2	+00.5	N	23	06.3	+00.2	318	06.3	+01.8	N	23	12.9	+00.0	194	07.5	+02.5	S	10	47.2	+00.0	09								
10	347	00.7	+00.6	N	23	06.5	+00.2	333	08.1	+01.9	N	23	12.9	+00.0	209	10.0	+02.5	S	10	47.2	+00.0	10								
11	2	01.3	+00.6	N	23	06.7	+00.2	348	10.0	+01.8	N	23	12.9	+00.0	224	12.5	+02.6	S	10	47.2	+00.0	11								
12	17	01.9	+00.6	N	23	06.9	+00.2	3	11.8	+01.9	N	23	12.9	+00.0	239	15.1	+02.5	S	10	47.2	+00.0	12								
13	32	02.5	+00.6	N	23	07.1	+00.2	18	13.7	+01.8	N	23	12.9	+00.0	254	17.6	+02.5	S	10	47.2	+00.0	13								
14	47	03.1	+00.6	N	23	07.3	+00.2	33	15.5	+01.8	N	23	12.9	+00.0	269	20.1	+02.5	S	10	47.2	+00.0	14								
15	62	03.7	+00.6	N	23	07.5	+00.1	48	17.3	+01.9	N	23	12.9	+00.0	284	22.6	+02.5	S	10	47.2	-00.1	15								
16	77	04.3	+00.6	N	23	07.6	+00.2	63	19.2	+01.8	N	23	12.9	+00.0	299	25.1	+02.6	S	10	47.1	+00.0	16								
17	92	04.9	+00.6	N	23	07.8	+00.2	78	21.0	+01.9	N	23	12.9	+00.0	314	27.7	+02.5	S	10	47.1	+00.0	17								
18	107	05.5	+00.6	N	23	08.0	+00.2	93	22.9	+01.8	N	23	12.9	+00.0	329	30.2	+02.5	S	10	47.1	+00.0	18								
19	122	06.1	+00.6	N	23	08.2	+00.2	108	24.7	+01.8	N	23	12.9	+00.0	344	32.7	+02.5	S	10	47.1	+00.0	19								
20	137	06.7	+00.5	N	23	08.4	+00.2	123	26.5	+01.9	N	23	12.9	+00.0	359	35.2	+02.5	S	10	47.1	+00.0	20								
21	152	07.2	+00.6	N	23	08.6	+00.2	138	28.4	+01.8	N	23	12.9	+00.0	14	37.7	+02.6	S	10	47.1	+00.0	21								
22	167	07.8	+00.6	N	23	08.8	+00.2	153	30.2	+01.9	N	23	12.9	+00.0	29	40.3	+02.5	S	10	47.1	+00.0	22								
23	182	08.4	+00.6	N	23	09.0	+00.2	168	32.1	+01.8	N	23	12.9	+00.1	44	42.8	+02.5	S	10	47.1	+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 00'0 00'0 00'0 00'0 00'0 00'0							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 00'1 00'1 00'1 00'1 00'1 00'1							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																
Greenwich Culmination Time: 10:52							Greenwich Culmination Time: 11:47							Greenwich Culmination Time: 20:02																

Sun										Venus										Moon a = 0.58										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"									
00	179	21.7	-00.2	N	23	23.2	-00.1	154	14.7	-00.8	N	22	18.6	-00.5	336	55.8	-35.9	S	16	20.4	-07.9	00								
01	194	21.5	-00.1	N	23	23.1	-00.1	169	13.9	-00.8	N	22	18.1	-00.6	351	19.9	-35.9	S	16	12.5	-08.0	01								
02	209	21.4	-00.1	N	23	23.0	+00.0	184	13.1	-00.7	N	22	17.5	-00.5	5	44.0	-35.8	S	16	04.5	-08.1	02								
03	224	21.3	-00.2	N	23	23.0	-00.1	199	12.4	-00.8	N	22	17.0	-00.6	20	08.2	-35.6	S	15	56.4	-08.2	03								
04	239	21.1	-00.1	N	23	22.9	-00.1	214	11.6	-00.8	N	22	16.4	-00.5	34	32.6	-35.6	S	15	48.2	-08.3	04								
05	254	21.0	-00.1	N	23	22.8	+00.0	229	10.8	-00.7	N	22	15.9	-00.6	48	57.0	-35.6	S	15	39.9	-08.5	05								
06	269	20.9	-00.2	N	23	22.8	-00.1	244	10.1	-00.8	N	22	15.3	-00.5	63	21.4	-35.4	S	15	31.4	-08.5	06								
07	284	20.7	-00.1	N	23	22.7	-00.1	259	09.3	-00.7	N	22	14.8	-00.6	77	46.0	-35.4	S	15	22.9	-08.6	07								
08	299	20.6	-00.1	N	23	22.6	+00.0	274	08.6	-00.8	N	22	14.2	-00.5	92	10.6	-35.2	S	15	14.3	-08.7	08								
09	314	20.5	-00.1	N	23	22.6	-00.1	289	07.8	-00.8	N	22	13.7	-00.6	106	35.4	-35.2	S	15	05.6	-08.9	09								
10	329	20.4	-00.2	N	23	22.5	-00.1	304	07.0	-00.7	N	22	13.1	-00.5	121	00.2	-35.1	S	14	56.7	-08.9	10								
11	344	20.2	-00.1	N	23	22.4	-00.1	319	06.3	-00.8	N	22	12.6	-00.6	135	25.1	-35.0	S	14	47.8	-09.0	11								
12	359	20.1	-00.1	N	23	22.3	+00.0	334	05.5	-00.7	N	22	12.0	-00.6	149	50.1	-35.0	S	14	38.8	-09.1	12								
13	14	20.0	-00.2	N	23	22.3	-00.1	349	04.8	-00.8	N	22	11.4	-00.5	164	15.1	-34.8	S	14	29.7	-09.2	13								
14	29	19.8	-00.1	N	23	22.2	-00.1	4	04.0	-00.8	N	22	10.9	-00.6	178	40.3	-34.8	S	14	20.5	-09.2	14								
15	44	19.7	-00.1	N	23	22.1	-00.1	19	03.2	-00.7	N	22	10.3	-00.5	193	05.5	-34.6	S	14	11.3	-09.4	15								
16	59	19.6	-00.2	N	23	22.0	+00.0	34	02.5	-00.8	N	22	09.8	-00.6	207	30.9	-34.6	S	14	01.9	-09.4	16								
17	74	19.4	-00.1	N	23	22.0	-00.1	49	01.7	-00.7	N	22	09.2	-00.6	221	56.3	-34.5	S	13	52.5	-09.6	17								
18	89	19.3	-00.1	N	23	21.9	-00.1	64	01.0	-00.8	N	22	08.6	-00.5	236	21.8	-34.4	S	13	42.9	-09.6	18								
19	104	19.2	-00.2	N	23	21.8	-00.1	79	00.2	-00.7	N	22	08.1	-00.6	250	47.4	-34.4	S	13	33.3	-09.7	19								
20	119	19.0	-00.1	N	23	21.7	+00.0	93	59.5	-00.8	N	22	07.5	-00.6	265	13.0	-34.2	S	13	23.6	-09.7	20								
21	134	18.9	-00.1	N	23	21.7	-00.1	108	58.7	-00.8	N	22	06.9	-00.5	279	38.8	-34.1	S	13	13.9	-09.9	21								
22	149	18.8	-00.2	N	23	21.6	-00.1	123	57.9	-00.7	N	22	06.4	-00.6	294	04.7	-34.1	S	13	04.0	-09.9	22								
23	164	18.6	-00.1	N	23	21.5	-00.1	138	57.2	-00.8	N	22	05.8	-00.6	308	30.6	-34.0	S	12	54.1	-10.0	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																														
Greenwich Culmination Time: 12:03																														

Mars										Jupiter										Saturn										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"									
00	197	09.0	+00.6	N	23	09.2	+00.2	183	33.9	+01.8	N	23	13.0	+00.0	59	45.3	+02.5	S	10	47.1	+00.0	00								
01	212	09.6	+00.6	N	23	09.4	+00.2	198	35.7	+01.9	N	23	13.0	+00.0	74	47.8	+02.5	S	10	47.1	+00.0	01								
02	227	10.2	+00.6	N	23	09.6	+00.2	213	37.6	+01.8	N	23	13.0	+00.0	89	50.3	+02.6	S	10	47.1	+00.0	02								
03	242	10.8	+00.6	N	23	09.8	+00.1	228	39.4	+01.9	N	23	13.0	+00.0	104	52.9	+02.5	S	10	47.1	+00.0	03								
04	257	11.4	+00.6	N	23	09.9	+00.2	243	41.3	+01.8	N	23	13.0	+00.0	119	55.4	+02.5	S	10	47.1	-00.1	04								
05	272	12.0	+00.6	N	23	10.1	+00.2	258	43.1	+01.9	N	23	13.0	+00.0	134	57.9	+02.5	S	10	47.0	+00.0	05								
06	287	12.6	+00.6	N	23	10.3	+00.2	273	45.0	+01.8	N	23	13.0	+00.0	150	00.4	+02.5	S	10	47.0	+00.0	06								
07	302	13.2	+00.5	N	23	10.5	+00.2	288	46.8	+01.8	N	23	13.0	+00.0	165	02.9	+02.5	S	10	47.0	+00.0	07								
08	317	13.7	+00.6	N	23	10.7	+00.2	303	48.6	+01.9	N	23	13.0	+00.0	180	05.4	+02.6	S	10	47.0	+00.0	08								
09	332	14.3	+00.6	N	23	10.9	+00.2	318	50.5	+01.8	N	23	13.0	+00.0	195	08.0	+02.5	S	10	47.0	+00.0	09								
10	347	14.9	+00.6	N	23	11.1	+00.2	333	52.3	+01.9	N	23	13.0	+00.0	210	10.5	+02.5	S	10	47.0	+00.0	10								
11	2	15.5	+00.6	N	23	11.3	+00.2	348	54.2	+01.8	N	23	13.0	+00.0	225	13.0	+02.5	S	10	47.0	+00.0	11								
12	17	16.1	+00.6	N	23	11.5	+00.1	3	56.0	+01.8	N	23	13.0	+00.0	240	15.5	+02.5	S	10	47.0	+00.0	12								
13	32	16.7	+00.6	N	23	11.6	+00.2	18	57.8	+01.9	N	23	13.0	+00.0	255	18.0	+02.5	S	10	47.0	+00.0	13								
14	47	17.3	+00.6	N	23	11.8	+00.2	33	59.7	+01.8	N	23	13.0	+00.0	270	20.5	+02.6	S	10	47.0	+00.0	14								
15	62	17.9	+00.6	N	23	12.0	+00.2	49	01.5	+01.9	N	23	13.0	+00.0	285	23.1	+02.5	S	10	47.0	+00.0	15								
16	77	18.5	+00.6	N	23	12.2	+00.2	64	03.4	+01.8	N	23	13.0	+00.0	300	25.6	+02.5	S	10	47.0	+00.0	16								
17	92	19.1	+00.6	N	23	12.4	+00.2	79	05.2	+01.8	N	23	13.0	+00.0	315	28.1	+02.5	S	10	47.0	+00.0	17								
18	107	19.7	+00.6	N	23	12.6	+00.2	94	07.0	+01.9	N	23	13.0	+00.0	330	30.6	+02.5	S	10	47.0	-00.1	18								
19	122	20.3	+00.5	N	23	12.8	+00.1	109	08.9	+01.8	N	23	13.0	+00.0	345	33.1	+02.5	S	10	46.9	+00.0	19								
20	137	20.8	+00.6	N	23	12.9	+00.2	124	10.7	+01.9	N	23	13.0	+00.0	0	35.6	+02.6	S	10	46.9	+00.0	20								
21	152	21.4	+00.6	N	23	13.1	+00.2	139	12.6	+01.8	N	23	13.0	+00.1	15	38.2	+02.5	S	10	46.9	+00.0	21								
22	167	22.0	+00.6	N	23	13.3	+00.2	154	14.4	+01.9	N	23	13.1	+00.0	30	40.7	+02.5	S	10	46.9	+00.0	22								
23	182	22.6	+00.6	N	23	13.5	+00.2	169	16.3	+01.8	N	23	13.1	+00.0	45	43.2	+02.5	S	10	46.9	+00.0	23								
UT 02 06 10 14 18 22																														
SD 00'0 00'0 00'0 00'0 00'0 00'0																														
HP 00'1 00'1 00'1 00'1 00'1 00'1																														
Greenwich Culmination Time: 10:51																														

Jupiter										Saturn												
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT			
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	
00	183	33.9	+01.8	N	23	13.0	+00.0	59	45.3	+02.5	S	10	47.1	+00.0	00							
01	198	35.7	+01.9	N	23	13.0	+00.0	74	47.8	+02.5	S	10	47.1	+00.0	01							
02	213	37.6	+01.8	N	23	13.0	+00.0	89	50.3	+02.6	S	10	47.1	+00.0	02							
03	228	39.4	+01.9	N	23	13.0	+00.0	104	52.9	+02.5	S	10	47.1	+00.0	03							
04	243	41.3	+01.8	N	23	13.0	+00.0	119	55.4	+02.5	S	10	47.1	-00.1	04							
05	258	43.1	+01.9	N	23	13.0	+00.0	134	57.9	+02.5	S	10	47.0	+00.0	05							
06	273	45.0	+01.8	N	23	13.0	+00.0	150	00.4	+02.5	S	10	47.0	+00.0	06							
07	288	46.8	+01.8	N	23	13.0	+00.0	165	02.9	+02.5	S	10	47.0	+00.0	07							
08	303	48.6	+01.9	N	23	13.0	+00.0	180	05.4	+02.6	S	10	47.0	+00.0	08							
09	318	50.5	+01.8	N	23	13.0	+00.0	195	08.0	+02.5	S	10	47.0	+00.0	09							
10	333	52.3	+01.9	N	23	13.0	+00.0	210	10.5	+02.5	S	10	47.0	+00.0	10							
11	348	54.2	+01.8	N	23	13.0	+00.0	225	13.0	+02.5	S	10	47.0	+00.0	11							
12	3	56.0	+01.8	N	23	13.0	+00.0	240	15.5	+02.5	S	10	47.0	+00.0	12							
13	18	57.8	+01.9	N	23	13.0	+00.0	255	18.0	+02.5	S	10	47.0	+00.0	13							
14	33	59.7	+01.8	N	23	13.0	+00.0	270	20.5	+02.6	S	10	47.0	+00.0	14							
15	49	01.5	+01.9	N	23	13.0	+00.0	285	23.1	+02.5	S	10	47.0	+00.0	15							
16	64	03.4	+01.8	N	23	13.0	+00.0	300	25.6	+02.5	S	10	47.0	+00.0	16							
17	79	05.2	+01.8	N	23	13.0	+00.0	315	28.1	+02.5	S	10	47.0	+00.0	17							
18	94	07.0	+01.9	N	23</																	

Sun										Venus										Moon a = 0.62										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"												
00	179	18.5	-00.1	N	23	21.4	-00.1	153	56.4	-00.7	N	22	05.2	-00.5	322	56.6	-33.9	S	12	44.1	-10.1	00								
01	194	18.4	-00.1	N	23	21.3	-00.1	168	55.7	-00.8	N	22	04.7	-00.6	337	22.7	-33.8	S	12	34.0	-10.1	01								
02	209	18.3	-00.2	N	23	21.2	+00.0	183	54.9	-00.7	N	22	04.1	-00.6	351	48.9	-33.7	S	12	23.9	-10.2	02								
03	224	18.1	-00.1	N	23	21.2	-00.1	198	54.2	-00.8	N	22	03.5	-00.5	6	15.2	-33.6	S	12	13.7	-10.3	03								
04	239	18.0	-00.1	N	23	21.1	-00.1	213	53.4	-00.7	N	22	03.0	-00.6	20	41.6	-33.6	S	12	03.4	-10.3	04								
05	254	17.9	-00.2	N	23	21.0	-00.1	228	52.7	-00.8	N	22	02.4	-00.6	35	08.0	-33.4	S	11	53.1	-10.4	05								
06	269	17.7	-00.1	N	23	20.9	-00.1	243	51.9	-00.7	N	22	01.8	-00.6	49	34.6	-33.4	S	11	42.7	-10.5	06								
07	284	17.6	-00.1	N	23	20.8	-00.1	258	51.2	-00.8	N	22	01.2	-00.6	64	01.2	-33.3	S	11	32.2	-10.5	07								
08	299	17.5	-00.2	N	23	20.7	-00.1	273	50.4	-00.7	N	22	00.6	-00.5	78	27.9	-33.2	S	11	21.7	-10.6	08								
09	314	17.3	-00.1	N	23	20.6	+00.0	288	49.7	-00.8	N	22	00.1	-00.6	92	54.7	-33.1	S	11	11.1	-10.6	09								
10	329	17.2	-00.1	N	23	20.6	-00.1	303	48.9	-00.7	N	21	59.5	-00.6	107	21.6	-33.0	S	11	00.5	-10.7	10								
11	344	17.1	-00.2	N	23	20.5	-00.1	318	48.2	-00.8	N	21	58.9	-00.6	121	48.6	-32.9	S	10	49.8	-10.8	11								
12	359	16.9	-00.1	N	23	20.4	-00.1	333	47.4	-00.7	N	21	58.3	-00.6	136	15.7	-32.9	S	10	39.0	-10.8	12								
13	14	16.8	-00.1	N	23	20.3	-00.1	348	46.7	-00.8	N	21	57.7	-00.5	150	42.8	-32.8	S	10	28.2	-10.8	13								
14	29	16.7	-00.1	N	23	20.2	-00.1	3	45.9	-00.7	N	21	57.2	-00.6	165	10.0	-32.7	S	10	17.4	-10.9	14								
15	44	16.6	-00.2	N	23	20.1	-00.1	18	45.2	-00.8	N	21	56.6	-00.6	179	37.3	-32.6	S	10	06.5	-11.0	15								
16	59	16.4	-00.1	N	23	20.0	-00.1	33	44.4	-00.7	N	21	56.0	-00.6	194	04.7	-32.5	S	09	55.5	-11.0	16								
17	74	16.3	-00.1	N	23	19.9	-00.1	48	43.7	-00.7	N	21	55.4	-00.6	208	32.2	-32.4	S	09	44.5	-11.0	17								
18	89	16.2	-00.2	N	23	19.8	-00.1	63	43.0	-00.8	N	21	54.8	-00.6	222	59.8	-32.4	S	09	33.5	-11.1	18								
19	104	16.0	-00.1	N	23	19.7	-00.1	78	42.2	-00.7	N	21	54.2	-00.6	237	27.4	-32.3	S	09	22.4	-11.1	19								
20	119	15.9	-00.1	N	23	19.6	-00.1	93	41.5	-00.8	N	21	53.6	-00.6	251	55.1	-32.2	S	09	11.3	-11.2	20								
21	134	15.8	-00.1	N	23	19.5	-00.1	108	40.7	-00.7	N	21	53.0	-00.6	266	22.9	-32.1	S	09	00.1	-11.2	21								
22	149	15.7	-00.2	N	23	19.4	-00.1	123	40.0	-00.8	N	21	52.4	-00.6	280	50.8	-32.0	S	08	48.9	-11.2	22								
23	164	15.5	-00.1	N	23	19.3	-00.1	138	39.2	-00.7	N	21	51.8	-00.6	295	18.8	-32.0	S	08	37.7	-11.3	23								
UT 02 06 10 14 18 22							UT 02 06 10 14 18 22							UT 02 06 10 14 18 22																
SD 15'7 15'7 15'7 15'7 15'7 15'7							SD 00'1 00'1 00'1 00'1 00'1 00'1							SD 16'4 16'4 16'4 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 60'3 60'2 60'1 59'9 59'8 59'6																
Greenwich Culmination Time: 12:03							Greenwich Culmination Time: 13:45							Greenwich Culmination Time: 02:34																

Mars										Jupiter										Saturn										
UT	GHA		ddGHA	Dec		dDec	GHA	ddGHA		Dec		dDec	GHA	ddGHA		Dec		dDec	UT											
	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"	°	'	"												
00	197	23.2	+00.6	N	23	13.7	+00.1	184	18.1	+01.8	N	23	13.1	+00.0	60	45.7	+02.5	S	10	46.9	+00.0	00								
01	212	23.8	+00.6	N	23	13.8	+00.2	199	19.9	+01.9	N	23	13.1	+00.0	75	48.2	+02.5	S	10	46.9	+00.0	01								
02	227	24.4	+00.6	N	23	14.0	+00.2	214	21.8	+01.8	N	23	13.1	+00.0	90	50.7	+02.6	S	10	46.9	+00.0	02								
03	242	25.0	+00.6	N	23	14.2	+00.2	229	23.6	+01.9	N	23	13.1	+00.0	105	53.3	+02.5	S	10	46.9	+00.0	03								
04	257	25.6	+00.6	N	23	14.4	+00.2	244	25.5	+01.8	N	23	13.1	+00.0	120	55.8	+02.5	S	10	46.9	+00.0	04								
05	272	26.2	+00.6	N	23	14.6	+00.2	259	27.3	+01.8	N	23	13.1	+00.0	135	58.3	+02.5	S	10	46.9	+00.0	05								
06	287	26.8	+00.6	N	23	14.8	+00.1	274	29.1	+01.9	N	23	13.1	+00.0	151	00.8	+02.5	S	10	46.9	+00.0	06								
07	302	27.4	+00.5	N	23	14.9	+00.2	289	31.0	+01.8	N	23	13.1	+00.0	166	03.3	+02.5	S	10	46.9	+00.0	07								
08	317	27.9	+00.6	N	23	15.1	+00.2	304	32.8	+01.9	N	23	13.1	+00.0	181	05.8	+02.5	S	10	46.9	+00.0	08								
09	332	28.5	+00.6	N	23	15.3	+00.2	319	34.7	+01.8	N	23	13.1	+00.0	196	08.3	+02.6	S	10	46.9	+00.0	09								
10	347	29.1	+00.6	N	23	15.5	+00.1	334	36.5	+01.9	N	23	13.1	+00.0	211	10.9	+02.5	S	10	46.9	-00.1	10								
11	2	29.7	+00.6	N	23	15.6	+00.2	349	38.4	+01.8	N	23	13.1	+00.0	226	13.4	+02.5	S	10	46.8	+00.0	11								
12	17	30.3	+00.6	N	23	15.8	+00.2	4	40.2	+01.8	N	23	13.1	+00.0	241	15.9	+02.5	S	10	46.8	+00.0	12								
13	32	30.9	+00.6	N	23	16.0	+00.2	19	42.0	+01.9	N	23	13.1	+00.0	256	18.4	+02.5	S	10	46.8	+00.0	13								
14	47	31.5	+00.6	N	23	16.2	+00.2	34	43.9	+01.8	N	23	13.1	+00.0	271	20.9	+02.5	S	10	46.8	+00.0	14								
15	62	32.1	+00.6	N	23	16.4	+00.1	49	45.7	+01.9	N	23	13.1	+00.0	286	23.4	+02.5	S	10	46.8	+00.0	15								
16	77	32.7	+00.6	N	23	16.5	+00.2	64	47.6	+01.8	N	23	13.1	+00.0	301	25.9	+02.5	S	10	46.8	+00.0	16								
17	92	33.3	+00.6	N	23	16.7	+00.2	79	49.4	+01.8	N	23	13.1	+00.0	316	28.4	+02.6	S	10	46.8	+00.0	17								
18	107	33.9	+00.5	N	23	16.9	+00.2	94	51.2	+01.9	N	23	13.1	+00.0	331	31.0	+02.5	S	10	46.8	+00.0	18								
19	122	34.4	+00.6	N	23	17.1	+00.1	109	53.1	+01.8	N	23	13.1	+00.0	346	33.5	+02.5	S	10	46.8	+00.0	19								
20	137	35.0	+00.6	N	23	17.2	+00.2	124	54.9	+01.9	N	23	13.1	+00.0	1	36.0	+02.5	S	10	46.8	+00.0	20								
21	152	35.6	+00.6	N	23	17.4	+00.2	139	56.8	+01.8	N	23	13.1	+00.0	16	38.5	+02.5	S	10	46.8	+00.0	21								
22	167	36.2	+00.6	N	23	17.6	+00.2	154	58.6	+01.9	N	23	13.1	+00.0	31	41.0	+02.5	S	10	46.8	+00.0	22								
23	182	36.8	+00.6	N	23	17.8	+00.1	170	00.5	+01.8	N	23	13.1	+00.0	46	43.5	+02.5	S	10	46.8	+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 00'0 00'0 00'0 00'0 00'0 00'0							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 00'1 00'1 00'1 00'1 00'1 00'1							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																
Greenwich Culmination Time: 10:50							Greenwich Culmination Time: 11:41							Greenwich Culmination Time: 19:54																

Sun										Venus										Moon $a = 0.65$										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	179	15.4	-00.1	N	23	19.2	-00.1		153	38.5	-00.7	N	21	51.2	-00.6		309	46.8	-31.9	S	08	26.4	-11.4				00			
01	194	15.3	-00.2	N	23	19.1	-00.1		168	37.8	-00.8	N	21	50.6	-00.5		324	14.9	-31.8	S	08	15.0	-11.3				01			
02	209	15.1	-00.1	N	23	19.0	-00.1		183	37.0	-00.7	N	21	50.1	-00.6		338	43.1	-31.7	S	08	03.7	-11.4				02			
03	224	15.0	-00.1	N	23	18.9	-00.1		198	36.3	-00.8	N	21	49.5	-00.6		353	11.4	-31.6	S	07	52.3	-11.4				03			
04	239	14.9	-00.2	N	23	18.8	-00.1		213	35.5	-00.7	N	21	48.9	-00.6		7	39.8	-31.6	S	07	40.9	-11.4				04			
05	254	14.7	-00.1	N	23	18.7	-00.1		228	34.8	-00.8	N	21	48.3	-00.7		22	08.2	-31.5	S	07	29.5	-11.5				05			
06	269	14.6	-00.1	N	23	18.6	-00.1		243	34.0	-00.7	N	21	47.6	-00.6		36	36.7	-31.4	S	07	18.0	-11.5				06			
07	284	14.5	-00.1	N	23	18.5	-00.1		258	33.3	-00.7	N	21	47.0	-00.6		51	05.3	-31.4	S	07	06.5	-11.5				07			
08	299	14.4	-00.2	N	23	18.4	-00.1		273	32.6	-00.8	N	21	46.4	-00.6		65	33.9	-31.2	S	06	55.0	-11.6				08			
09	314	14.2	-00.1	N	23	18.3	-00.1		288	31.8	-00.7	N	21	45.8	-00.6		80	02.7	-31.2	S	06	43.4	-11.6				09			
10	329	14.1	-00.1	N	23	18.2	-00.1		303	31.1	-00.7	N	21	45.2	-00.6		94	31.5	-31.2	S	06	31.8	-11.5				10			
11	344	14.0	-00.2	N	23	18.1	-00.1		318	30.4	-00.8	N	21	44.6	-00.6		109	00.3	-31.0	S	06	20.3	-11.7				11			
12	359	13.8	-00.1	N	23	18.0	-00.1		333	29.6	-00.7	N	21	44.0	-00.6		123	29.3	-31.0	S	06	08.6	-11.6				12			
13	14	13.7	-00.1	N	23	17.9	-00.1		348	28.9	-00.7	N	21	43.4	-00.6		137	58.3	-30.9	S	05	57.0	-11.6				13			
14	29	13.6	-00.1	N	23	17.8	-00.1		3	28.2	-00.8	N	21	42.8	-00.6		152	27.4	-30.9	S	05	45.4	-11.7				14			
15	44	13.5	-00.2	N	23	17.7	-00.1		18	27.4	-00.7	N	21	42.2	-00.6		166	56.5	-30.8	S	05	33.7	-11.7				15			
16	59	13.3	-00.1	N	23	17.6	-00.2		33	26.7	-00.7	N	21	41.6	-00.6		181	25.7	-30.7	S	05	22.0	-11.7				16			
17	74	13.2	-00.1	N	23	17.4	-00.1		48	26.0	-00.8	N	21	41.0	-00.7		195	55.0	-30.6	S	05	10.3	-11.7				17			
18	89	13.1	-00.2	N	23	17.3	-00.1		63	25.2	-00.7	N	21	40.3	-00.6		210	24.4	-30.6	S	04	58.6	-11.7				18			
19	104	12.9	-00.1	N	23	17.2	-00.1		78	24.5	-00.7	N	21	39.7	-00.6		224	53.8	-30.5	S	04	46.9	-11.7				19			
20	119	12.8	-00.1	N	23	17.1	-00.1		93	23.8	-00.8	N	21	39.1	-00.6		239	23.3	-30.5	S	04	35.2	-11.7				20			
21	134	12.7	-00.1	N	23	17.0	-00.1		108	23.0	-00.7	N	21	38.5	-00.6		253	52.8	-30.4	S	04	23.5	-11.8				21			
22	149	12.6	-00.2	N	23	16.9	-00.1		123	22.3	-00.7	N	21	37.9	-00.6		268	22.4	-30.3	S	04	11.7	-11.7				22			
23	164	12.4	-00.1	N	23	16.8	-00.2		138	21.6	-00.8	N	21	37.3	-00.7		282	52.1	-30.3	S	03	60.0	-11.8				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 Greenwich Culmination Time: 12:03										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 Greenwich Culmination Time: 13:46										UT 02 06 10 14 18 22 SD 16'2 16'2 16'1 16'1 16'0 16'0 HP 59'5 59'3 59'2 59'0 58'9 58'7 Greenwich Culmination Time: 03:28										

Mars										Jupiter										Saturn										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	197	37.4	+00.6	N	23	17.9	+00.2		185	02.3	+01.8	N	23	13.1	+00.0		61	46.0	+02.5	S	10	46.8	+00.0				00			
01	212	38.0	+00.6	N	23	18.1	+00.2		200	04.1	+01.9	N	23	13.1	+00.0		76	48.5	+02.5	S	10	46.8	+00.0				01			
02	227	38.6	+00.6	N	23	18.3	+00.1		215	06.0	+01.8	N	23	13.1	+00.1		91	51.0	+02.6	S	10	46.8	+00.0				02			
03	242	39.2	+00.6	N	23	18.4	+00.2		230	07.8	+01.9	N	23	13.2	+00.0		106	53.6	+02.5	S	10	46.8	+00.0				03			
04	257	39.8	+00.6	N	23	18.6	+00.2		245	09.7	+01.8	N	23	13.2	+00.0		121	56.1	+02.5	S	10	46.8	+00.0				04			
05	272	40.4	+00.6	N	23	18.8	+00.2		260	11.5	+01.8	N	23	13.2	+00.0		136	58.6	+02.5	S	10	46.8	-00.1				05			
06	287	41.0	+00.5	N	23	19.0	+00.1		275	13.3	+01.9	N	23	13.2	+00.0		152	01.1	+02.5	S	10	46.7	+00.0				06			
07	302	41.5	+00.6	N	23	19.1	+00.2		290	15.2	+01.8	N	23	13.2	+00.0		167	03.6	+02.5	S	10	46.7	+00.0				07			
08	317	42.1	+00.6	N	23	19.3	+00.2		305	17.0	+01.9	N	23	13.2	+00.0		182	06.1	+02.5	S	10	46.7	+00.0				08			
09	332	42.7	+00.6	N	23	19.5	+00.1		320	18.9	+01.8	N	23	13.2	+00.0		197	08.6	+02.5	S	10	46.7	+00.0				09			
10	347	43.3	+00.6	N	23	19.6	+00.2		335	20.7	+01.9	N	23	13.2	+00.0		212	11.1	+02.5	S	10	46.7	+00.0				10			
11	2	43.9	+00.6	N	23	19.8	+00.2		350	22.6	+01.8	N	23	13.2	+00.0		227	13.6	+02.6	S	10	46.7	+00.0				11			
12	17	44.5	+00.6	N	23	20.0	+00.1		5	24.4	+01.8	N	23	13.2	+00.0		242	16.2	+02.5	S	10	46.7	+00.0				12			
13	32	45.1	+00.6	N	23	20.1	+00.2		20	26.2	+01.9	N	23	13.2	+00.0		257	18.7	+02.5	S	10	46.7	+00.0				13			
14	47	45.7	+00.6	N	23	20.3	+00.2		35	28.1	+01.8	N	23	13.2	+00.0		272	21.2	+02.5	S	10	46.7	+00.0				14			
15	62	46.3	+00.6	N	23	20.5	+00.1		50	29.9	+01.9	N	23	13.2	+00.0		287	23.7	+02.5	S	10	46.7	+00.0				15			
16	77	46.9	+00.6	N	23	20.6	+00.2		65	31.8	+01.8	N	23	13.2	+00.0		302	26.2	+02.5	S	10	46.7	+00.0				16			
17	92	47.5	+00.6	N	23	20.8	+00.2		80	33.6	+01.8	N	23	13.2	+00.0		317	28.7	+02.5	S	10	46.7	+00.0				17			
18	107	48.1	+00.6	N	23	21.0	+00.1		95	35.4	+01.9	N	23	13.2	+00.0		332	31.2	+02.5	S	10	46.7	+00.0				18			
19	122	48.7	+00.5	N	23	21.1	+00.2		110	37.3	+01.8	N	23	13.2	+00.0		347	33.7	+02.5	S	10	46.7	+00.0				19			
20	137	49.2	+00.6	N	23	21.3	+00.2		125	39.1	+01.9	N	23	13.2	+00.0		2	36.2	+02.5	S	10	46.7	+00.0				20			
21	152	49.8	+00.6	N	23	21.5	+00.1		140	41.0	+01.8	N	23	13.2	+00.0		17	38.7	+02.5	S	10	46.7	+00.0				21			
22	167	50.4	+00.6	N	23	21.6	+00.2		155	42.8	+01.9	N	23	13.2	+00.0		32	41.2	+02.5	S	10	46.7	+00.0				22			
23	182	51.0	+00.6	N	23	21.8	+00.2		170	44.7	+01.8	N	23	13.2	+00.0		47	43.7	+02.6	S	10	46.7	+00.0				23			
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 10:49										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 11:38										UT 02 06 10 14 18 22 SD 00'1 00'1 00'1 00'1 00'1 00'1 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 19:50										

Sun										Venus										Moon a = 0.69										
UT	GHA			ddGHA	Dec			dDec		GHA			ddGHA	Dec			dDec		GHA			ddGHA	Dec			dDec	UT			
	°	'	"		°	'	"			°	'	"		°	'	"			°	'	"		°	'	"					
00	179	12.3	-00.1	N	23	16.6	-00.1			153	20.8	-00.7	N	21	36.6	-00.6			297	21.8	-30.2	S	03	48.2	-11.7	00				
01	194	12.2	-00.1	N	23	16.5	-00.1			168	20.1	-00.7	N	21	36.0	-00.6			311	51.6	-30.1	S	03	36.5	-11.8	01				
02	209	12.1	-00.2	N	23	16.4	-00.1			183	19.4	-00.8	N	21	35.4	-00.6			326	21.5	-30.1	S	03	24.7	-11.7	02				
03	224	11.9	-00.1	N	23	16.3	-00.1			198	18.6	-00.7	N	21	34.8	-00.7			340	51.4	-30.0	S	03	13.0	-11.8	03				
04	239	11.8	-00.1	N	23	16.2	-00.1			213	17.9	-00.7	N	21	34.1	-00.6			355	21.4	-30.0	S	03	01.2	-11.8	04				
05	254	11.7	-00.2	N	23	16.1	-00.2			228	17.2	-00.7	N	21	33.5	-00.6			9	51.4	-29.9	S	02	49.4	-11.7	05				
06	269	11.5	-00.1	N	23	15.9	-00.1			243	16.5	-00.8	N	21	32.9	-00.6			24	21.5	-29.9	S	02	37.7	-11.8	06				
07	284	11.4	-00.1	N	23	15.8	-00.1			258	15.7	-00.7	N	21	32.3	-00.7			38	51.6	-29.8	S	02	25.9	-11.7	07				
08	299	11.3	-00.1	N	23	15.7	-00.1			273	15.0	-00.7	N	21	31.6	-00.6			53	21.8	-29.7	S	02	14.2	-11.8	08				
09	314	11.2	-00.2	N	23	15.6	-00.2			288	14.3	-00.7	N	21	31.0	-00.6			67	52.1	-29.7	S	02	02.4	-11.7	09				
10	329	11.0	-00.1	N	23	15.4	-00.1			303	13.6	-00.8	N	21	30.4	-00.7			82	22.4	-29.7	S	01	50.7	-11.7	10				
11	344	10.9	-00.1	N	23	15.3	-00.1			318	12.8	-00.7	N	21	29.7	-00.6			96	52.7	-29.6	S	01	39.0	-11.8	11				
12	359	10.8	-00.1	N	23	15.2	-00.1			333	12.1	-00.7	N	21	29.1	-00.6			111	23.1	-29.5	S	01	27.2	-11.7	12				
13	14	10.7	-00.2	N	23	15.1	-00.2			348	11.4	-00.7	N	21	28.5	-00.7			125	53.6	-29.5	S	01	15.5	-11.7	13				
14	29	10.5	-00.1	N	23	14.9	-00.1			3	10.7	-00.8	N	21	27.8	-00.6			140	24.1	-29.5	S	01	03.8	-11.7	14				
15	44	10.4	-00.1	N	23	14.8	-00.1			18	09.9	-00.7	N	21	27.2	-00.6			154	54.6	-29.4	S	00	52.1	-11.7	15				
16	59	10.3	-00.1	N	23	14.7	-00.1			33	09.2	-00.7	N	21	26.6	-00.7			169	25.2	-29.3	S	00	40.4	-11.6	16				
17	74	10.2	-00.2	N	23	14.6	-00.2			48	08.5	-00.7	N	21	25.9	-00.6			183	55.9	-29.3	S	00	28.8	-11.7	17				
18	89	10.0	-00.1	N	23	14.4	-00.1			63	07.8	-00.7	N	21	25.3	-00.7			198	26.6	-29.3	S	00	17.1	-11.6	18				
19	104	09.9	-00.1	N	23	14.3	-00.1			78	07.1	-00.8	N	21	24.6	-00.6			212	57.3	-29.2	S	00	05.5	-11.7	19				
20	119	09.8	-00.2	N	23	14.2	-00.2			93	06.3	-00.7	N	21	24.0	-00.6			227	28.1	-29.2	N	00	06.2	+11.6	20				
21	134	09.6	-00.1	N	23	14.0	-00.1			108	05.6	-00.7	N	21	23.4	-00.7			241	58.9	-29.1	N	00	17.8	+11.6	21				
22	149	09.5	-00.1	N	23	13.9	-00.1			123	04.9	-00.7	N	21	22.7	-00.6			256	29.8	-29.1	N	00	29.4	+11.5	22				
23	164	09.4	-00.1	N	23	13.8	-00.2			138	04.2	-00.7	N	21	22.1	-00.7			271	00.7	-29.0	N	00	40.9	+11.6	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 Greenwich Culmination Time: 12:03										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 Greenwich Culmination Time: 13:47										UT 02 06 10 14 18 22 SD 16'0 15'9 15'9 15'8 15'8 15'7 HP 58'6 58'4 58'2 58'1 57'9 57'8 Greenwich Culmination Time: 04:19										

Mars										Jupiter										Saturn										
UT	GHA			ddGHA	Dec			dDec		GHA			ddGHA	Dec			dDec		GHA			ddGHA	Dec			dDec	UT			
	°	'	"		°	'	"			°	'	"		°	'	"			°	'	"		°	'	"					
00	197	51.6	+00.6	N	23	22.0	+00.1			185	46.5	+01.8	N	23	13.2	+00.0			62	46.3	+02.5	S	10	46.7	+00.0	00				
01	212	52.2	+00.6	N	23	22.1	+00.2			200	48.3	+01.9	N	23	13.2	+00.0			77	48.8	+02.5	S	10	46.7	+00.0	01				
02	227	52.8	+00.6	N	23	22.3	+00.2			215	50.2	+01.8	N	23	13.2	+00.0			92	51.3	+02.5	S	10	46.7	+00.0	02				
03	242	53.4	+00.6	N	23	22.5	+00.1			230	52.0	+01.9	N	23	13.2	+00.0			107	53.8	+02.5	S	10	46.7	+00.0	03				
04	257	54.0	+00.6	N	23	22.6	+00.2			245	53.9	+01.8	N	23	13.2	+00.0			122	56.3	+02.5	S	10	46.7	+00.0	04				
05	272	54.6	+00.6	N	23	22.8	+00.2			260	55.7	+01.9	N	23	13.2	+00.0			137	58.8	+02.5	S	10	46.7	+00.0	05				
06	287	55.2	+00.6	N	23	23.0	+00.1			275	57.6	+01.8	N	23	13.2	+00.0			153	01.3	+02.5	S	10	46.7	-00.1	06				
07	302	55.8	+00.5	N	23	23.1	+00.2			290	59.4	+01.8	N	23	13.2	+00.0			168	03.8	+02.5	S	10	46.6	+00.0	07				
08	317	56.3	+00.6	N	23	23.3	+00.1			306	01.2	+01.9	N	23	13.2	+00.0			183	06.3	+02.5	S	10	46.6	+00.0	08				
09	332	56.9	+00.6	N	23	23.4	+00.2			321	03.1	+01.8	N	23	13.2	+00.0			198	08.8	+02.5	S	10	46.6	+00.0	09				
10	347	57.5	+00.6	N	23	23.6	+00.2			336	04.9	+01.9	N	23	13.2	+00.0			213	11.3	+02.5	S	10	46.6	+00.0	10				
11	2	58.1	+00.6	N	23	23.8	+00.1			351	06.8	+01.8	N	23	13.2	+00.0			228	13.8	+02.5	S	10	46.6	+00.0	11				
12	17	58.7	+00.6	N	23	23.9	+00.2			6	08.6	+01.9	N	23	13.2	+00.0			243	16.3	+02.5	S	10	46.6	+00.0	12				
13	32	59.3	+00.6	N	23	24.1	+00.1			21	10.5	+01.8	N	23	13.2	+00.0			258	18.8	+02.5	S	10	46.6	+00.0	13				
14	47	59.9	+00.6	N	23	24.2	+00.2			36	12.3	+01.8	N	23	13.2	+00.0			273	21.3	+02.6	S	10	46.6	+00.0	14				
15	63	00.5	+00.6	N	23	24.4	+00.1			51	14.1	+01.9	N	23	13.2	+00.0			288	23.9	+02.5	S	10	46.6	+00.0	15				
16	78	01.1	+00.6	N	23	24.5	+00.2			66	16.0	+01.8	N	23	13.2	+00.0			303	26.4	+02.5	S	10	46.6	+00.0	16				
17	93	01.7	+00.6	N	23	24.7	+00.2			81	17.8	+01.9	N	23	13.2	+00.0			318	28.9	+02.5	S	10	46.6	+00.0	17				
18	108	02.3	+00.6	N	23	24.9	+00.1			96	19.7	+01.8	N	23	13.2	+00.0			333	31.4	+02.5	S	10	46.6	+00.0	18				
19	123	02.9	+00.6	N	23	25.0	+00.2			111	21.5	+01.9	N	23	13.2	+00.0			348	33.9	+02.5	S	10	46.6	+00.0	19				
20	138	03.5	+00.5	N	23	25.2	+00.1			126	23.4	+01.8	N	23	13.2	+00.0			3	36.4	+02.5	S	10	46.6	+00.0	20				
21	153	04.0	+00.6	N	23	25.3	+00.2			141	25.2	+01.8	N	23	13.2	+00.0			18	38.9	+02.5	S	10	46.6	+00.0	21				
22	168	04.6	+00.6	N	23	25.5	+00.1			156	27.0	+01.9	N	23	13.2	+00.0			33	41.4	+02.5	S	10	46.6	+00.0	22				
23	183	05.2	+00.6	N	23	25.6	+00.2			171	28.9	+01.8	N	23	13.2	+00.0			48	43.9	+02.5	S	10	46.6	+00.0	23				
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 10:48										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 11:35										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 Greenwich Culmination Time: 19:46										

Sun										Venus										Moon a = 0.72										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	179	09.3	-00.2		N	23	13.6	-00.1		153	03.5	-00.8		N	21	21.4	-00.6		285	31.7	-29.0		N	00	52.5	+11.5	00			
01	194	09.1	-00.1		N	23	13.5	-00.1		168	02.7	-00.7		N	21	20.8	-00.7		300	02.7	-29.0		N	01	04.0	+11.5	01			
02	209	09.0	-00.1		N	23	13.4	-00.2		183	02.0	-00.7		N	21	20.1	-00.6		314	33.7	-28.9		N	01	15.5	+11.5	02			
03	224	08.9	-00.1		N	23	13.2	-00.1		198	01.3	-00.7		N	21	19.5	-00.7		329	04.8	-28.9		N	01	27.0	+11.5	03			
04	239	08.8	-00.2		N	23	13.1	-00.1		213	00.6	-00.7		N	21	18.8	-00.6		343	35.9	-28.9		N	01	38.5	+11.4	04			
05	254	08.6	-00.1		N	23	13.0	-00.2		227	59.9	-00.7		N	21	18.2	-00.7		358	07.0	-28.8		N	01	49.9	+11.5	05			
06	269	08.5	-00.1		N	23	12.8	-00.1		242	59.2	-00.8		N	21	17.5	-00.6		12	38.2	-28.8		N	02	01.4	+11.4	06			
07	284	08.4	-00.1		N	23	12.7	-00.1		257	58.4	-00.7		N	21	16.9	-00.7		27	09.4	-28.7		N	02	12.8	+11.3	07			
08	299	08.3	-00.2		N	23	12.6	-00.2		272	57.7	-00.7		N	21	16.2	-00.6		41	40.7	-28.7		N	02	24.1	+11.4	08			
09	314	08.1	-00.1		N	23	12.4	-00.1		287	57.0	-00.7		N	21	15.6	-00.7		56	12.0	-28.7		N	02	35.5	+11.3	09			
10	329	08.0	-00.1		N	23	12.3	-00.2		302	56.3	-00.7		N	21	14.9	-00.7		70	43.3	-28.7		N	02	46.8	+11.3	10			
11	344	07.9	-00.1		N	23	12.1	-00.1		317	55.6	-00.7		N	21	14.2	-00.6		85	14.6	-28.6		N	02	58.1	+11.2	11			
12	359	07.8	-00.2		N	23	12.0	-00.1		332	54.9	-00.7		N	21	13.6	-00.7		99	46.0	-28.6		N	03	09.3	+11.2	12			
13	14	07.6	-00.1		N	23	11.9	-00.2		347	54.2	-00.7		N	21	12.9	-00.6		114	17.4	-28.5		N	03	20.5	+11.2	13			
14	29	07.5	-00.1		N	23	11.7	-00.1		2	53.5	-00.7		N	21	12.3	-00.7		128	48.9	-28.6		N	03	31.7	+11.2	14			
15	44	07.4	-00.1		N	23	11.6	-00.2		17	52.8	-00.8		N	21	11.6	-00.7		143	20.3	-28.5		N	03	42.9	+11.1	15			
16	59	07.3	-00.2		N	23	11.4	-00.1		32	52.0	-00.7		N	21	10.9	-00.6		157	51.8	-28.5		N	03	54.0	+11.1	16			
17	74	07.1	-00.1		N	23	11.3	-00.2		47	51.3	-00.7		N	21	10.3	-00.7		172	23.3	-28.4		N	04	05.1	+11.1	17			
18	89	07.0	-00.1		N	23	11.1	-00.1		62	50.6	-00.7		N	21	09.6	-00.6		186	54.9	-28.4		N	04	16.2	+11.0	18			
19	104	06.9	-00.1		N	23	11.0	-00.2		77	49.9	-00.7		N	21	09.0	-00.7		201	26.5	-28.4		N	04	27.2	+11.0	19			
20	119	06.8	-00.2		N	23	10.8	-00.1		92	49.2	-00.7		N	21	08.3	-00.7		215	58.1	-28.4		N	04	38.2	+10.9	20			
21	134	06.6	-00.1		N	23	10.7	-00.2		107	48.5	-00.7		N	21	07.6	-00.6		230	29.7	-28.4		N	04	49.1	+10.9	21			
22	149	06.5	-00.1		N	23	10.5	-00.1		122	47.8	-00.7		N	21	07.0	-00.7		245	01.3	-28.3		N	05	00.0	+10.9	22			
23	164	06.4	-00.1		N	23	10.4	-00.2		137	47.1	-00.7		N	21	06.3	-00.7		259	33.0	-28.3		N	05	10.9	+10.9	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 Greenwich Culmination Time: 12:03										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 Greenwich Culmination Time: 13:48										UT 02 06 10 14 18 22 SD 15'7 15'7 15'6 15'6 15'5 15'5 HP 57'6 57'5 57'3 57'2 57'0 56'9 Greenwich Culmination Time: 05:08										

Mars										Jupiter										Saturn										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	198	05.8	+00.6		N	23	25.8	+00.2		186	30.7	+01.9		N	23	13.2	+00.0		63	46.4	+02.5		S	10	46.6	+00.0	00			
01	213	06.4	+00.6		N	23	26.0	+00.1		201	32.6	+01.8		N	23	13.2	+00.0		78	48.9	+02.5		S	10	46.6	+00.0	01			
02	228	07.0	+00.6		N	23	26.1	+00.2		216	34.4	+01.9		N	23	13.2	+00.0		93	51.4	+02.5		S	10	46.6	+00.0	02			
03	243	07.6	+00.6		N	23	26.3	+00.1		231	36.3	+01.8		N	23	13.2	+00.0		108	53.9	+02.5		S	10	46.6	+00.0	03			
04	258	08.2	+00.6		N	23	26.4	+00.2		246	38.1	+01.8		N	23	13.2	+00.0		123	56.4	+02.5		S	10	46.6	+00.0	04			
05	273	08.8	+00.6		N	23	26.6	+00.1		261	39.9	+01.9		N	23	13.2	+00.0		138	58.9	+02.5		S	10	46.6	+00.0	05			
06	288	09.4	+00.6		N	23	26.7	+00.2		276	41.8	+01.8		N	23	13.2	+00.0		154	01.4	+02.5		S	10	46.6	+00.0	06			
07	303	10.0	+00.6		N	23	26.9	+00.1		291	43.6	+01.9		N	23	13.2	+00.0		169	03.9	+02.5		S	10	46.6	+00.0	07			
08	318	10.6	+00.6		N	23	27.0	+00.2		306	45.5	+01.8		N	23	13.2	+00.0		184	06.4	+02.5		S	10	46.6	+00.0	08			
09	333	11.2	+00.6		N	23	27.2	+00.1		321	47.3	+01.9		N	23	13.2	+00.0		199	08.9	+02.5		S	10	46.6	+00.0	09			
10	348	11.8	+00.5		N	23	27.3	+00.2		336	49.2	+01.8		N	23	13.2	+00.0		214	11.4	+02.5		S	10	46.6	+00.0	10			
11	3	12.3	+00.6		N	23	27.5	+00.1		351	51.0	+01.8		N	23	13.2	+00.0		229	13.9	+02.5		S	10	46.6	+00.0	11			
12	18	12.9	+00.6		N	23	27.6	+00.2		6	52.8	+01.9		N	23	13.2	+00.0		244	16.4	+02.5		S	10	46.6	+00.0	12			
13	33	13.5	+00.6		N	23	27.8	+00.1		21	54.7	+01.8		N	23	13.2	+00.0		259	18.9	+02.5		S	10	46.6	+00.0	13			
14	48	14.1	+00.6		N	23	27.9	+00.2		36	56.5	+01.9		N	23	13.2	+00.0		274	21.4	+02.5		S	10	46.6	+00.0	14			
15	63	14.7	+00.6		N	23	28.1	+00.1		51	58.4	+01.8		N	23	13.2	+00.0		289	23.9	+02.5		S	10	46.6	+00.0	15			
16	78	15.3	+00.6		N	23	28.2	+00.2		67	00.2	+01.9		N	23	13.2	+00.0		304	26.4	+02.5		S	10	46.6	+00.0	16			
17	93	15.9	+00.6		N	23	28.4	+00.1		82	02.1	+01.8		N	23	13.2	+00.0		319	28.9	+02.5		S	10	46.6	+00.0	17			
18	108	16.5	+00.6		N	23	28.5	+00.2		97	03.9	+01.8		N	23	13.2	+00.0		334	31.4	+02.5		S	10	46.6	+00.0	18			
19	123	17.1	+00.6		N	23	28.7	+00.1		112	05.7	+01.9		N	23	13.2	+00.0		349	33.9	+02.5		S	10	46.6	+00.0	19			
20	138	17.7	+00.6		N	23	28.8	+00.2		127	07.6	+01.8		N	23	13.2	+00.0		4	36.4	+02.5		S	10	46.6	+00.0	20			
21	153	18.3	+00.6		N	23	29.0	+00.1		142	09.4	+01.9		N	23	13.2	+00.0		19	38.9	+02.5		S	10	46.6	+00.0	21			
22	168	18.9	+00.6		N	23	29.1	+00.2		157	11.3	+01.8		N	23	13.2	+00.0		34	41.4	+02.5		S	10	46.6	+00.0	22			
23	183	19.5	+00.6		N	23	29.3	+00.1		172	13.1	+01.9		N	23	13.2	+00.0		49	43.9	+02.5		S	10	46.6	+00.0	23			
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 10:47										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 11:33										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 Greenwich Culmination Time: 19:42										

Sun										Venus										Moon a = 0.75										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	179	06.3	-00.1		N	23	10.2	-00.1		152	46.4	-00.7		N	21	05.6	-00.7		274	04.7	-28.3		N	05	21.8	+10.8	00			
01	194	06.2	-00.2		N	23	10.1	-00.2		167	45.7	-00.7		N	21	04.9	-00.6		288	36.4	-28.3		N	05	32.6	+10.7	01			
02	209	06.0	-00.1		N	23	09.9	-00.1		182	45.0	-00.7		N	21	04.3	-00.7		303	08.1	-28.3		N	05	43.3	+10.7	02			
03	224	05.9	-00.1		N	23	09.8	-00.2		197	44.3	-00.7		N	21	03.6	-00.7		317	39.8	-28.2		N	05	54.0	+10.7	03			
04	239	05.8	-00.1		N	23	09.6	-00.1		212	43.6	-00.7		N	21	02.9	-00.7		332	11.6	-28.2		N	06	04.7	+10.6	04			
05	254	05.7	-00.2		N	23	09.5	-00.2		227	42.9	-00.7		N	21	02.2	-00.6		346	43.4	-28.2		N	06	15.3	+10.6	05			
06	269	05.5	-00.1		N	23	09.3	-00.1		242	42.2	-00.7		N	21	01.6	-00.7		1	15.2	-28.2		N	06	25.9	+10.6	06			
07	284	05.4	-00.1		N	23	09.2	-00.2		257	41.5	-00.7		N	21	00.9	-00.7		15	47.0	-28.2		N	06	36.5	+10.5	07			
08	299	05.3	-00.1		N	23	09.0	-00.1		272	40.8	-00.7		N	21	00.2	-00.7		30	18.8	-28.1		N	06	47.0	+10.5	08			
09	314	05.2	-00.2		N	23	08.9	-00.2		287	40.1	-00.7		N	20	59.5	-00.6		44	50.7	-28.2		N	06	57.5	+10.4	09			
10	329	05.0	-00.1		N	23	08.7	-00.2		302	39.4	-00.7		N	20	58.9	-00.7		59	22.5	-28.1		N	07	07.9	+10.3	10			
11	344	04.9	-00.1		N	23	08.5	-00.1		317	38.7	-00.7		N	20	58.2	-00.7		73	54.4	-28.1		N	07	18.2	+10.4	11			
12	359	04.8	-00.1		N	23	08.4	-00.2		332	38.0	-00.7		N	20	57.5	-00.7		88	26.3	-28.1		N	07	28.6	+10.2	12			
13	14	04.7	-00.1		N	23	08.2	-00.1		347	37.3	-00.7		N	20	56.8	-00.7		102	58.2	-28.1		N	07	38.8	+10.3	13			
14	29	04.6	-00.2		N	23	08.1	-00.2		2	36.6	-00.7		N	20	56.1	-00.7		117	30.1	-28.1		N	07	49.1	+10.1	14			
15	44	04.4	-00.1		N	23	07.9	-00.2		17	35.9	-00.7		N	20	55.4	-00.7		132	02.0	-28.1		N	07	59.2	+10.2	15			
16	59	04.3	-00.1		N	23	07.7	-00.1		32	35.2	-00.7		N	20	54.7	-00.6		146	33.9	-28.1		N	08	09.4	+10.1	16			
17	74	04.2	-00.1		N	23	07.6	-00.2		47	34.5	-00.7		N	20	54.1	-00.7		161	05.8	-28.0		N	08	19.5	+10.0	17			
18	89	04.1	-00.2		N	23	07.4	-00.1		62	33.8	-00.7		N	20	53.4	-00.7		175	37.8	-28.1		N	08	29.5	+10.0	18			
19	104	03.9	-00.1		N	23	07.3	-00.2		77	33.1	-00.7		N	20	52.7	-00.7		190	09.7	-28.0		N	08	39.5	+09.9	19			
20	119	03.8	-00.1		N	23	07.1	-00.2		92	32.4	-00.7		N	20	52.0	-00.7		204	41.7	-28.0		N	08	49.4	+09.9	20			
21	134	03.7	-00.1		N	23	06.9	-00.1		107	31.7	-00.7		N	20	51.3	-00.7		219	13.7	-28.1		N	08	59.3	+09.8	21			
22	149	03.6	-00.1		N	23	06.8	-00.2		122	31.0	-00.7		N	20	50.6	-00.7		233	45.6	-28.0		N	09	09.1	+09.8	22			
23	164	03.5	-00.2		N	23	06.6	-00.2		137	30.3	-00.7		N	20	49.9	-00.7		248	17.6	-28.0		N	09	18.9	+09.7	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 Greenwich Culmination Time: 12:04										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 Greenwich Culmination Time: 13:50										UT 02 06 10 14 18 22 SD 15'5 15'4 15'4 15'3 15'3 15'3 HP 56'7 56'6 56'5 56'3 56'2 56'1 Greenwich Culmination Time: 05:55										
Mars										Jupiter										Saturn										
UT	GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec			GHA		ddGHA		Dec		dDec		UT			
	°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'		°	'	°	'	°	'	°	'				
00	198	20.1	+00.5		N	23	29.4	+00.2		187	15.0	+01.8		N	23	13.2	+00.0		64	46.4	+02.5		S	10	46.6	+00.0	00			
01	213	20.6	+00.6		N	23	29.6	+00.1		202	16.8	+01.8		N	23	13.2	+00.0		79	48.9	+02.5		S	10	46.6	+00.0	01			
02	228	21.2	+00.6		N	23	29.7	+00.2		217	18.6	+01.9		N	23	13.2	+00.0		94	51.4	+02.5		S	10	46.6	+00.0	02			
03	243	21.8	+00.6		N	23	29.9	+00.1		232	20.5	+01.8		N	23	13.2	+00.0		109	53.9	+02.5		S	10	46.6	+00.0	03			
04	258	22.4	+00.6		N	23	30.0	+00.1		247	22.3	+01.9		N	23	13.2	+00.0		124	56.4	+02.5		S	10	46.6	+00.0	04			
05	273	23.0	+00.6		N	23	30.1	+00.2		262	24.2	+01.8		N	23	13.2	+00.0		139	58.9	+02.5		S	10	46.6	+00.0	05			
06	288	23.6	+00.6		N	23	30.3	+00.1		277	26.0	+01.9		N	23	13.2	+00.0		155	01.4	+02.5		S	10	46.6	+00.0	06			
07	303	24.2	+00.6		N	23	30.4	+00.2		292	27.9	+01.8		N	23	13.2	+00.0		170	03.9	+02.5		S	10	46.6	+00.0	07			
08	318	24.8	+00.6		N	23	30.6	+00.1		307	29.7	+01.8		N	23	13.2	+00.0		185	06.4	+02.5		S	10	46.6	+00.0	08			
09	333	25.4	+00.6		N	23	30.7	+00.2		322	31.5	+01.9		N	23	13.2	+00.0		200	08.9	+02.5		S	10	46.6	+00.0	09			
10	348	26.0	+00.6		N	23	30.9	+00.1		337	33.4	+01.8		N	23	13.2	+00.0		215	11.4	+02.5		S	10	46.6	+00.0	10			
11	3	26.6	+00.6		N	23	31.0	+00.1		352	35.2	+01.9		N	23	13.2	+00.0		230	13.9	+02.5		S	10	46.6	+00.0	11			
12	18	27.2	+00.6		N	23	31.1	+00.2		7	37.1	+01.8		N	23	13.2	+00.0		245	16.4	+02.5		S	10	46.6	+00.0	12			
13	33	27.8	+00.6		N	23	31.3	+00.1		22	38.9	+01.9		N	23	13.2	+00.0		260	18.9	+02.5		S	10	46.6	+00.0	13			
14	48	28.4	+00.5		N	23	31.4	+00.2		37	40.8	+01.8		N	23	13.2	+00.0		275	21.4	+02.5		S	10	46.6	+00.0	14			
15	63	28.9	+00.6		N	23	31.6	+00.1		52	42.6	+01.8		N	23	13.2	+00.0		290	23.9	+02.5		S	10	46.6	+00.0	15			
16	78	29.5	+00.6		N	23	31.7	+00.1		67	44.4	+01.9		N	23	13.2	+00.0		305	26.4	+02.5		S	10	46.6	+00.0	16			
17	93	30.1	+00.6		N	23	31.8	+00.2		82	46.3	+01.8		N	23	13.2	+00.0		320	28.9	+02.5		S	10	46.6	+00.0	17			
18	108	30.7	+00.6		N	23	32.0	+00.1		97	48.1	+01.9		N	23	13.2	+00.0		335	31.4	+02.5		S	10	46.6	+00.0	18			
19	123	31.3	+00.6		N	23	32.1	+00.2		112	50.0	+01.8		N	23	13.2	+00.0		350	33.9	+02.5		S	10	46.6	+00.0	19			
20	138	31.9	+00.6		N	23	32.3	+00.1		127	51.8	+01.9		N	23	13.2	+00.0		5	36.4	+02.5		S	10	46.6	+00.0	20			
21	153	32.5	+00.6		N	23	32.4	+00.1		142	53.7	+01.8		N	23	13.2	+00.0		20	38.9	+02.5		S	10	46.6	+00.0	21			
22	168	33.1	+00.6		N	23	32.5	+00.2		157	55.5	+01.9		N	23	13.2	+00.0		35	41.4	+02.5		S	10	46.6	+00.0	22			
23	183	33.7	+00.6		N	23	32.7	+00.1		172	57.4	+01.8		N	23	13.2	+00.0		50	43.9	+02.5		S	10	46.6	+00.0	23			
UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 Greenwich Culmination Time: 10:46										UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'0 00'0 00'0 00'0 00'0 00'0 Greenwich Culmination Time: 11:30										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 Greenwich Culmination Time: 19:38										