

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 02.7 -00.1	N 23 06.3 -00.2	151 53.2 -00.7	N 20 41.1 -00.7	277 56.4 -25.9	S 04 49.5 -13.3	00						
01	194 02.6 -00.1	N 23 06.1 -00.2	166 52.5 -00.7	N 20 40.4 -00.7	292 30.5 -25.8	S 04 36.2 -13.3	01						
02	209 02.5 -00.2	N 23 05.9 -00.1	181 51.8 -00.7	N 20 39.7 -00.7	307 04.7 -25.8	S 04 22.9 -13.4	02						
03	224 02.3 -00.1	N 23 05.8 -00.2	196 51.1 -00.7	N 20 39.0 -00.7	321 38.9 -25.7	S 04 09.5 -13.3	03						
04	239 02.2 -00.1	N 23 05.6 -00.2	211 50.4 -00.6	N 20 38.3 -00.7	336 13.2 -25.7	S 03 56.2 -13.3	04						
05	254 02.1 -00.1	N 23 05.4 -00.2	226 49.8 -00.7	N 20 37.6 -00.7	350 47.5 -25.7	S 03 42.9 -13.4	05						
06	269 02.0 -00.1	N 23 05.2 -00.1	241 49.1 -00.7	N 20 36.9 -00.7	5 21.8 -25.6	S 03 29.5 -13.3	06						
07	284 01.9 -00.2	N 23 05.1 -00.2	256 48.4 -00.7	N 20 36.2 -00.8	19 56.2 -25.6	S 03 16.2 -13.3	07						
08	299 01.7 -00.1	N 23 04.9 -00.2	271 47.7 -00.7	N 20 35.4 -00.7	34 30.6 -25.5	S 03 02.9 -13.4	08						
09	314 01.6 -00.1	N 23 04.7 -00.1	286 47.0 -00.6	N 20 34.7 -00.7	49 05.1 -25.5	S 02 49.5 -13.3	09						
10	329 01.5 -00.1	N 23 04.6 -00.2	301 46.4 -00.7	N 20 34.0 -00.7	63 39.6 -25.5	S 02 36.2 -13.3	10						
11	344 01.4 -00.1	N 23 04.4 -00.2	316 45.7 -00.7	N 20 33.3 -00.7	78 14.1 -25.4	S 02 22.9 -13.3	11						
12	359 01.3 -00.2	N 23 04.2 -00.2	331 45.0 -00.7	N 20 32.6 -00.7	92 48.7 -25.4	S 02 09.6 -13.3	12						
13	14 01.1 -00.1	N 23 04.0 -00.2	346 44.3 -00.6	N 20 31.9 -00.8	107 23.3 -25.3	S 01 56.3 -13.4	13						
14	29 01.0 -00.1	N 23 03.8 -00.1	1 43.7 -00.7	N 20 31.1 -00.7	121 58.0 -25.4	S 01 42.9 -13.3	14						
15	44 00.9 -00.1	N 23 03.7 -00.2	16 43.0 -00.7	N 20 30.4 -00.7	136 32.6 -25.2	S 01 29.6 -13.3	15						
16	59 00.8 -00.1	N 23 03.5 -00.2	31 42.3 -00.7	N 20 29.7 -00.7	151 07.4 -25.3	S 01 16.3 -13.3	16						
17	74 00.7 -00.2	N 23 03.3 -00.2	46 41.6 -00.6	N 20 29.0 -00.8	165 42.1 -25.2	S 01 03.0 -13.2	17						
18	89 00.5 -00.1	N 23 03.1 -00.2	61 41.0 -00.7	N 20 28.2 -00.7	180 16.9 -25.2	S 00 49.8 -13.3	18						
19	104 00.4 -00.1	N 23 02.9 -00.1	76 40.3 -00.7	N 20 27.5 -00.7	194 51.7 -25.2	S 00 36.5 -13.3	19						
20	119 00.3 -00.1	N 23 02.8 -00.2	91 39.6 -00.7	N 20 26.8 -00.7	209 26.5 -25.1	S 00 23.2 -13.2	20						
21	134 00.2 -00.1	N 23 02.6 -00.2	106 38.9 -00.6	N 20 26.1 -00.8	224 01.4 -25.1	S 00 10.0 -13.3	21						
22	149 00.1 -00.2	N 23 02.4 -00.2	121 38.3 -00.7	N 20 25.3 -00.7	238 36.3 -25.1	N 00 03.3 +13.2	22						
23	163 59.9 -00.1	N 23 02.2 -00.2	136 37.6 -00.7	N 20 24.6 -00.7	253 11.2 -25.1	N 00 16.5 +13.2	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 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 15'2 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 55'7 55'5 55'4 55'3 55'2 55'1								
	SHA 260° 260° 259° 259° 259° 259°		SHA 233° 232° 232° 232° 232° 231°		SHA 358° 356° 354° 352° 350° 348°								
	Greenwich Culmination Time: 12:03		Greenwich Culmination Time: 13:53		Greenwich Culmination Time: 05:37								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	144 26.0 +00.9	N 18 23.0 -00.4	304 53.5 +02.5	S 11 42.0 +00.1	324 12.8 +02.6	S 17 46.7 +00.1	00						
01	159 26.9 +00.9	N 18 22.6 -00.5	319 56.0 +02.5	S 11 42.1 +00.0	339 15.4 +02.6	S 17 46.8 +00.0	01						
02	174 27.8 +00.9	N 18 22.1 -00.4	334 58.5 +02.6	S 11 42.1 +00.1	354 18.0 +02.6	S 17 46.8 +00.1	02						
03	189 28.7 +00.9	N 18 21.7 -00.5	350 01.1 +02.5	S 11 42.2 +00.0	9 20.6 +02.6	S 17 46.9 +00.0	03						
04	204 29.6 +00.9	N 18 21.2 -00.4	5 03.6 +02.6	S 11 42.2 +00.0	24 23.2 +02.6	S 17 46.9 +00.1	04						
05	219 30.5 +00.9	N 18 20.8 -00.5	20 06.2 +02.5	S 11 42.2 +00.1	39 25.8 +02.6	S 17 47.0 +00.0	05						
06	234 31.4 +00.9	N 18 20.3 -00.4	35 08.7 +02.5	S 11 42.3 +00.0	54 28.4 +02.6	S 17 47.0 +00.0	06						
07	249 32.3 +00.9	N 18 19.9 -00.5	50 11.2 +02.6	S 11 42.3 +00.1	69 31.0 +02.6	S 17 47.0 +00.1	07						
08	264 33.2 +00.9	N 18 19.4 -00.4	65 13.8 +02.5	S 11 42.4 +00.0	84 33.6 +02.6	S 17 47.1 +00.0	08						
09	279 34.1 +00.9	N 18 19.0 -00.5	80 16.3 +02.6	S 11 42.4 +00.0	99 36.2 +02.7	S 17 47.1 +00.1	09						
10	294 35.0 +00.9	N 18 18.5 -00.4	95 18.9 +02.5	S 11 42.4 +00.1	114 38.9 +02.6	S 17 47.2 +00.0	10						
11	309 35.9 +00.9	N 18 18.1 -00.5	110 21.4 +02.6	S 11 42.5 +00.0	129 41.5 +02.6	S 17 47.2 +00.1	11						
12	324 36.8 +00.9	N 18 17.6 -00.4	125 24.0 +02.5	S 11 42.5 +00.1	144 44.1 +02.6	S 17 47.3 +00.0	12						
13	339 37.7 +00.9	N 18 17.2 -00.5	140 26.5 +02.5	S 11 42.6 +00.0	159 46.7 +02.6	S 17 47.3 +00.1	13						
14	354 38.6 +00.9	N 18 16.7 -00.4	155 29.0 +02.6	S 11 42.6 +00.1	174 49.3 +02.6	S 17 47.4 +00.0	14						
15	9 39.5 +00.9	N 18 16.3 -00.5	170 31.6 +02.5	S 11 42.7 +00.0	189 51.9 +02.6	S 17 47.4 +00.0	15						
16	24 40.4 +00.9	N 18 15.8 -00.4	185 34.1 +02.6	S 11 42.7 +00.0	204 54.5 +02.6	S 17 47.4 +00.1	16						
17	39 41.3 +00.9	N 18 15.4 -00.4	200 36.7 +02.5	S 11 42.7 +00.1	219 57.1 +02.6	S 17 47.5 +00.0	17						
18	54 42.2 +00.9	N 18 15.0 -00.5	215 39.2 +02.6	S 11 42.8 +00.0	234 59.7 +02.6	S 17 47.5 +00.1	18						
19	69 43.1 +00.9	N 18 14.5 -00.4	230 41.8 +02.5	S 11 42.8 +00.1	250 02.3 +02.6	S 17 47.6 +00.0	19						
20	84 44.0 +00.9	N 18 14.1 -00.5	245 44.3 +02.5	S 11 42.9 +00.0	265 04.9 +02.6	S 17 47.6 +00.1	20						
21	99 44.9 +00.9	N 18 13.6 -00.4	260 46.8 +02.6	S 11 42.9 +00.1	280 07.5 +02.6	S 17 47.7 +00.0	21						
22	114 45.8 +00.9	N 18 13.2 -00.5	275 49.4 +02.5	S 11 43.0 +00.0	295 10.1 +02.6	S 17 47.7 +00.1	22						
23	129 46.7 +00.9	N 18 12.7 -00.4	290 51.9 +02.6	S 11 43.0 +00.0	310 12.7 +02.6	S 17 47.8 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 225° 225° 225° 225° 225° 225°		SHA 026° 026° 026° 026° 026° 026°		SHA 045° 045° 045° 045° 045° 045°								
	Greenwich Culmination Time: 14:21		Greenwich Culmination Time: 03:39		Greenwich Culmination Time: 02:22								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 59.8 -00.1	N 23 02.0 -00.2	151 36.9 -00.6	N 20 23.9 -00.8	267 46.1 -25.1	N 00 29.7 +13.2	00						
01	193 59.7 -00.1	N 23 01.8 -00.1	166 36.3 -00.7	N 20 23.1 -00.7	282 21.0 -25.0	N 00 42.9 +13.2	01						
02	208 59.6 -00.1	N 23 01.7 -00.2	181 35.6 -00.7	N 20 22.4 -00.7	296 56.0 -25.0	N 00 56.1 +13.2	02						
03	223 59.5 -00.1	N 23 01.5 -00.2	196 34.9 -00.6	N 20 21.7 -00.8	311 31.0 -25.0	N 01 09.3 +13.1	03						
04	238 59.4 -00.2	N 23 01.3 -00.2	211 34.3 -00.7	N 20 20.9 -00.7	326 06.0 -25.0	N 01 22.4 +13.2	04						
05	253 59.2 -00.1	N 23 01.1 -00.2	226 33.6 -00.7	N 20 20.2 -00.7	340 41.0 -24.9	N 01 35.6 +13.1	05						
06	268 59.1 -00.1	N 23 00.9 -00.2	241 32.9 -00.6	N 20 19.5 -00.8	355 16.1 -25.0	N 01 48.7 +13.1	06						
07	283 59.0 -00.1	N 23 00.7 -00.2	256 32.3 -00.7	N 20 18.7 -00.7	9 51.1 -24.9	N 02 01.8 +13.1	07						
08	298 58.9 -00.1	N 23 00.5 -00.2	271 31.6 -00.7	N 20 18.0 -00.8	24 26.2 -24.9	N 02 14.9 +13.1	08						
09	313 58.8 -00.1	N 23 00.3 -00.2	286 30.9 -00.6	N 20 17.2 -00.7	39 01.3 -24.9	N 02 28.0 +13.1	09						
10	328 58.7 -00.2	N 23 00.1 -00.1	301 30.3 -00.7	N 20 16.5 -00.7	53 36.4 -24.9	N 02 41.1 +13.0	10						
11	343 58.5 -00.1	N 22 60.0 -00.2	316 29.6 -00.7	N 20 15.8 -00.8	68 11.5 -24.9	N 02 54.1 +13.0	11						
12	358 58.4 -00.1	N 22 59.8 -00.2	331 28.9 -00.6	N 20 15.0 -00.7	82 46.6 -24.9	N 03 07.1 +13.0	12						
13	13 58.3 -00.1	N 22 59.6 -00.2	346 28.3 -00.7	N 20 14.3 -00.8	97 21.7 -24.8	N 03 20.1 +13.0	13						
14	28 58.2 -00.1	N 22 59.4 -00.2	1 27.6 -00.6	N 20 13.5 -00.7	111 56.9 -24.9	N 03 33.1 +12.9	14						
15	43 58.1 -00.1	N 22 59.2 -00.2	16 27.0 -00.7	N 20 12.8 -00.8	126 32.0 -24.8	N 03 46.0 +12.9	15						
16	58 58.0 -00.2	N 22 59.0 -00.2	31 26.3 -00.7	N 20 12.0 -00.7	141 07.2 -24.9	N 03 58.9 +12.9	16						
17	73 57.8 -00.1	N 22 58.8 -00.2	46 25.6 -00.6	N 20 11.3 -00.8	155 42.3 -24.8	N 04 11.8 +12.9	17						
18	88 57.7 -00.1	N 22 58.6 -00.2	61 25.0 -00.7	N 20 10.5 -00.7	170 17.5 -24.9	N 04 24.7 +12.9	18						
19	103 57.6 -00.1	N 22 58.4 -00.2	76 24.3 -00.6	N 20 09.8 -00.8	184 52.6 -24.8	N 04 37.6 +12.8	19						
20	118 57.5 -00.1	N 22 58.2 -00.2	91 23.7 -00.7	N 20 09.0 -00.7	199 27.8 -24.9	N 04 50.4 +12.8	20						
21	133 57.4 -00.1	N 22 58.0 -00.2	106 23.0 -00.7	N 20 08.3 -00.8	214 02.9 -24.8	N 05 03.2 +12.8	21						
22	148 57.3 -00.2	N 22 57.8 -00.2	121 22.3 -00.6	N 20 07.5 -00.7	228 38.1 -24.9	N 05 16.0 +12.7	22						
23	163 57.1 -00.1	N 22 57.6 -00.2	136 21.7 -00.7	N 20 06.8 -00.8	243 13.2 -24.8	N 05 28.7 +12.7	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'1 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 55'0 54'9 54'8 54'8 54'7 54'6								
	SHA 259° 258° 258° 258° 258° 258°		SHA 231° 231° 231° 231° 230° 230°		SHA 347° 345° 343° 341° 339° 337°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 13:54		Greenwich Culmination Time: 06:19								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	144 47.6 +00.9	N 18 12.3 -00.5	305 54.5 +02.5	S 11 43.0 +00.1	325 15.3 +02.6	S 17 47.8 +00.1	00						
01	159 48.5 +00.9	N 18 11.8 -00.4	320 57.0 +02.6	S 11 43.1 +00.0	340 17.9 +02.6	S 17 47.9 +00.0	01						
02	174 49.4 +00.9	N 18 11.4 -00.5	335 59.6 +02.5	S 11 43.1 +00.1	355 20.5 +02.6	S 17 47.9 +00.0	02						
03	189 50.3 +00.9	N 18 10.9 -00.4	351 02.1 +02.6	S 11 43.2 +00.0	10 23.1 +02.6	S 17 47.9 +00.1	03						
04	204 51.2 +00.9	N 18 10.5 -00.5	6 04.7 +02.5	S 11 43.2 +00.1	25 25.7 +02.6	S 17 48.0 +00.0	04						
05	219 52.1 +00.9	N 18 10.0 -00.4	21 07.2 +02.6	S 11 43.3 +00.0	40 28.3 +02.7	S 17 48.0 +00.1	05						
06	234 53.0 +00.9	N 18 09.6 -00.5	36 09.8 +02.5	S 11 43.3 +00.0	55 31.0 +02.6	S 17 48.1 +00.0	06						
07	249 53.9 +00.9	N 18 09.1 -00.5	51 12.3 +02.6	S 11 43.3 +00.1	70 33.6 +02.6	S 17 48.1 +00.1	07						
08	264 54.8 +00.9	N 18 08.6 -00.4	66 14.9 +02.5	S 11 43.4 +00.0	85 36.2 +02.6	S 17 48.2 +00.0	08						
09	279 55.7 +01.0	N 18 08.2 -00.5	81 17.4 +02.6	S 11 43.4 +00.1	100 38.8 +02.6	S 17 48.2 +00.1	09						
10	294 56.7 +00.9	N 18 07.7 -00.4	96 20.0 +02.5	S 11 43.5 +00.0	115 41.4 +02.6	S 17 48.3 +00.0	10						
11	309 57.6 +00.9	N 18 07.3 -00.5	111 22.5 +02.6	S 11 43.5 +00.1	130 44.0 +02.6	S 17 48.3 +00.0	11						
12	324 58.5 +00.9	N 18 06.8 -00.4	126 25.1 +02.5	S 11 43.6 +00.0	145 46.6 +02.6	S 17 48.3 +00.1	12						
13	339 59.4 +00.9	N 18 06.4 -00.5	141 27.6 +02.6	S 11 43.6 +00.1	160 49.2 +02.6	S 17 48.4 +00.0	13						
14	355 00.3 +00.9	N 18 05.9 -00.4	156 30.2 +02.5	S 11 43.7 +00.0	175 51.8 +02.6	S 17 48.4 +00.1	14						
15	10 01.2 +00.9	N 18 05.5 -00.5	171 32.7 +02.6	S 11 43.7 +00.0	190 54.4 +02.6	S 17 48.5 +00.0	15						
16	25 02.1 +00.9	N 18 05.0 -00.4	186 35.3 +02.5	S 11 43.7 +00.1	205 57.0 +02.6	S 17 48.5 +00.1	16						
17	40 03.0 +00.9	N 18 04.6 -00.5	201 37.8 +02.6	S 11 43.8 +00.0	220 59.6 +02.6	S 17 48.6 +00.0	17						
18	55 03.9 +00.9	N 18 04.1 -00.4	216 40.4 +02.5	S 11 43.8 +00.1	236 02.2 +02.6	S 17 48.6 +00.1	18						
19	70 04.8 +00.9	N 18 03.7 -00.5	231 42.9 +02.6	S 11 43.9 +00.0	251 04.8 +02.6	S 17 48.7 +00.0	19						
20	85 05.7 +00.9	N 18 03.2 -00.4	246 45.5 +02.5	S 11 43.9 +00.1	266 07.4 +02.7	S 17 48.7 +00.1	20						
21	100 06.6 +00.9	N 18 02.8 -00.5	261 48.0 +02.6	S 11 44.0 +00.0	281 10.1 +02.6	S 17 48.8 +00.0	21						
22	115 07.5 +00.9	N 18 02.3 -00.5	276 50.6 +02.5	S 11 44.0 +00.1	296 12.7 +02.6	S 17 48.8 +00.0	22						
23	130 08.4 +00.9	N 18 01.8 -00.4	291 53.1 +02.6	S 11 44.1 +00.0	311 15.3 +02.6	S 17 48.8 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 224° 224° 224° 224° 224° 224°		SHA 026° 026° 026° 026° 026° 026°		SHA 045° 045° 045° 045° 045° 045°								
	Greenwich Culmination Time: 14:19		Greenwich Culmination Time: 03:35		Greenwich Culmination Time: 02:18								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 57.0 -00.1	N 22 57.4 -00.2	151 21.0 -00.6	N 20 06.0 -00.7	257 48.4 -24.9	N 05 41.4 +12.7	00						
01	193 56.9 -00.1	N 22 57.2 -00.2	166 20.4 -00.7	N 20 05.3 -00.8	272 23.5 -24.8	N 05 54.1 +12.7	01						
02	208 56.8 -00.1	N 22 57.0 -00.2	181 19.7 -00.6	N 20 04.5 -00.7	286 58.7 -24.9	N 06 06.8 +12.6	02						
03	223 56.7 -00.1	N 22 56.8 -00.2	196 19.1 -00.7	N 20 03.8 -00.8	301 33.8 -24.9	N 06 19.4 +12.6	03						
04	238 56.6 -00.1	N 22 56.6 -00.2	211 18.4 -00.7	N 20 03.0 -00.7	316 08.9 -24.9	N 06 32.0 +12.6	04						
05	253 56.5 -00.2	N 22 56.4 -00.2	226 17.7 -00.6	N 20 02.3 -00.8	330 44.0 -24.9	N 06 44.6 +12.5	05						
06	268 56.3 -00.1	N 22 56.2 -00.2	241 17.1 -00.7	N 20 01.5 -00.8	345 19.1 -24.9	N 06 57.1 +12.5	06						
07	283 56.2 -00.1	N 22 56.0 -00.2	256 16.4 -00.6	N 20 00.7 -00.7	359 54.2 -24.9	N 07 09.6 +12.5	07						
08	298 56.1 -00.1	N 22 55.8 -00.3	271 15.8 -00.7	N 19 60.0 -00.8	14 29.3 -24.9	N 07 22.1 +12.4	08						
09	313 56.0 -00.1	N 22 55.5 -00.2	286 15.1 -00.6	N 19 59.2 -00.8	29 04.4 -24.9	N 07 34.5 +12.4	09						
10	328 55.9 -00.1	N 22 55.3 -00.2	301 14.5 -00.7	N 19 58.4 -00.7	43 39.5 -25.0	N 07 46.9 +12.4	10						
11	343 55.8 -00.1	N 22 55.1 -00.2	316 13.8 -00.6	N 19 57.7 -00.8	58 14.5 -25.0	N 07 59.3 +12.3	11						
12	358 55.7 -00.2	N 22 54.9 -00.2	331 13.2 -00.7	N 19 56.9 -00.7	72 49.5 -25.0	N 08 11.6 +12.3	12						
13	13 55.5 -00.1	N 22 54.7 -00.2	346 12.5 -00.6	N 19 56.2 -00.8	87 24.5 -25.0	N 08 23.9 +12.3	13						
14	28 55.4 -00.1	N 22 54.5 -00.2	1 11.9 -00.7	N 19 55.4 -00.8	101 59.5 -25.0	N 08 36.2 +12.2	14						
15	43 55.3 -00.1	N 22 54.3 -00.2	16 11.2 -00.6	N 19 54.6 -00.8	116 34.5 -25.0	N 08 48.4 +12.2	15						
16	58 55.2 -00.1	N 22 54.1 -00.2	31 10.6 -00.7	N 19 53.8 -00.7	131 09.5 -25.1	N 09 00.6 +12.1	16						
17	73 55.1 -00.1	N 22 53.9 -00.3	46 09.9 -00.6	N 19 53.1 -00.8	145 44.4 -25.0	N 09 12.7 +12.1	17						
18	88 55.0 -00.1	N 22 53.6 -00.2	61 09.3 -00.6	N 19 52.3 -00.8	160 19.4 -25.1	N 09 24.8 +12.1	18						
19	103 54.9 -00.2	N 22 53.4 -00.2	76 08.7 -00.7	N 19 51.5 -00.7	174 54.3 -25.2	N 09 36.9 +12.0	19						
20	118 54.7 -00.1	N 22 53.2 -00.2	91 08.0 -00.6	N 19 50.8 -00.8	189 29.1 -25.1	N 09 48.9 +12.0	20						
21	133 54.6 -00.1	N 22 53.0 -00.2	106 07.4 -00.7	N 19 50.0 -00.8	204 04.0 -25.2	N 10 00.9 +11.9	21						
22	148 54.5 -00.1	N 22 52.8 -00.2	121 06.7 -00.6	N 19 49.2 -00.8	218 38.8 -25.2	N 10 12.8 +11.9	22						
23	163 54.4 -00.1	N 22 52.6 -00.3	136 06.1 -00.7	N 19 48.4 -00.7	233 13.6 -25.2	N 10 24.7 +11.8	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'9 14'8 14'8 14'8 14'8 14'8								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'6 54'5 54'4 54'4 54'3 54'3								
	SHA 258° 257° 257° 257° 257° 257°		SHA 230° 230° 230° 229° 229° 229°		SHA 336° 334° 332° 330° 328° 327°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 13:55		Greenwich Culmination Time: 07:00								

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	145 09.3 +00.9	N 18 01.4 -00.5	306 55.7 +02.5	S 11 44.1 +00.1	326 17.9 +02.6	S 17 48.9 +00.0	00						
01	160 10.2 +00.9	N 18 00.9 -00.4	321 58.2 +02.6	S 11 44.2 +00.0	341 20.5 +02.6	S 17 48.9 +00.1	01						
02	175 11.1 +00.9	N 18 00.5 -00.5	337 00.8 +02.6	S 11 44.2 +00.0	356 23.1 +02.6	S 17 49.0 +00.0	02						
03	190 12.0 +00.9	N 18 00.0 -00.4	352 03.4 +02.5	S 11 44.2 +00.1	11 25.7 +02.6	S 17 49.0 +00.1	03						
04	205 12.9 +00.9	N 17 59.6 -00.5	7 05.9 +02.6	S 11 44.3 +00.0	26 28.3 +02.6	S 17 49.1 +00.0	04						
05	220 13.8 +01.0	N 17 59.1 -00.4	22 08.5 +02.5	S 11 44.3 +00.1	41 30.9 +02.6	S 17 49.1 +00.1	05						
06	235 14.8 +00.9	N 17 58.7 -00.5	37 11.0 +02.6	S 11 44.4 +00.0	56 33.5 +02.6	S 17 49.2 +00.0	06						
07	250 15.7 +00.9	N 17 58.2 -00.5	52 13.6 +02.5	S 11 44.4 +00.1	71 36.1 +02.7	S 17 49.2 +00.1	07						
08	265 16.6 +00.9	N 17 57.7 -00.4	67 16.1 +02.6	S 11 44.5 +00.0	86 38.8 +02.6	S 17 49.3 +00.0	08						
09	280 17.5 +00.9	N 17 57.3 -00.5	82 18.7 +02.5	S 11 44.5 +00.1	101 41.4 +02.6	S 17 49.3 +00.1	09						
10	295 18.4 +00.9	N 17 56.8 -00.4	97 21.2 +02.6	S 11 44.6 +00.0	116 44.0 +02.6	S 17 49.4 +00.0	10						
11	310 19.3 +00.9	N 17 56.4 -00.5	112 23.8 +02.6	S 11 44.6 +00.1	131 46.6 +02.6	S 17 49.4 +00.0	11						
12	325 20.2 +00.9	N 17 55.9 -00.4	127 26.4 +02.5	S 11 44.7 +00.0	146 49.2 +02.6	S 17 49.4 +00.1	12						
13	340 21.1 +00.9	N 17 55.5 -00.5	142 28.9 +02.6	S 11 44.7 +00.1	161 51.8 +02.6	S 17 49.5 +00.0	13						
14	355 22.0 +00.9	N 17 55.0 -00.5	157 31.5 +02.5	S 11 44.8 +00.0	176 54.4 +02.6	S 17 49.5 +00.1	14						
15	10 22.9 +00.9	N 17 54.5 -00.4	172 34.0 +02.6	S 11 44.8 +00.1	191 57.0 +02.6	S 17 49.6 +00.0	15						
16	25 23.8 +00.9	N 17 54.1 -00.5	187 36.6 +02.5	S 11 44.9 +00.0	206 59.6 +02.6	S 17 49.6 +00.1	16						
17	40 24.7 +00.9	N 17 53.6 -00.4	202 39.1 +02.6	S 11 44.9 +00.0	222 02.2 +02.6	S 17 49.7 +00.0	17						
18	55 25.6 +00.9	N 17 53.2 -00.5	217 41.7 +02.6	S 11 44.9 +00.1	237 04.8 +02.7	S 17 49.7 +00.1	18						
19	70 26.5 +01.0	N 17 52.7 -00.4	232 44.3 +02.5	S 11 45.0 +00.0	252 07.5 +02.6	S 17 49.8 +00.0	19						
20	85 27.5 +00.9	N 17 52.3 -00.5	247 46.8 +02.6	S 11 45.0 +00.1	267 10.1 +02.6	S 17 49.8 +00.1	20						
21	100 28.4 +00.9	N 17 51.8 -00.5	262 49.4 +02.5	S 11 45.1 +00.0	282 12.7 +02.6	S 17 49.9 +00.0	21						
22	115 29.3 +00.9	N 17 51.3 -00.4	277 51.9 +02.6	S 11 45.1 +00.1	297 15.3 +02.6	S 17 49.9 +00.0	22						
23	130 30.2 +00.9	N 17 50.9 -00.5	292 54.5 +02.6	S 11 45.2 +00.0	312 17.9 +02.6	S 17 49.9 +00.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 224° 224° 224° 224° 223° 223°		SHA 026° 026° 026° 026° 026° 026°		SHA 045° 045° 045° 045° 045° 045°								
	Greenwich Culmination Time: 14:18		Greenwich Culmination Time: 03:31		Greenwich Culmination Time: 02:14								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 54.3 -00.1	N 22 52.3 -00.2	151 05.4 -00.6	N 19 47.7 -00.8	247 48.4 -25.3	N 10 36.5 +11.8	00						
01	193 54.2 -00.1	N 22 52.1 -00.2	166 04.8 -00.7	N 19 46.9 -00.8	262 23.1 -25.2	N 10 48.3 +11.8	01						
02	208 54.1 -00.1	N 22 51.9 -00.2	181 04.1 -00.6	N 19 46.1 -00.8	276 57.9 -25.3	N 11 00.1 +11.7	02						
03	223 54.0 -00.2	N 22 51.7 -00.2	196 03.5 -00.6	N 19 45.3 -00.8	291 32.6 -25.4	N 11 11.8 +11.7	03						
04	238 53.8 -00.1	N 22 51.5 -00.3	211 02.9 -00.7	N 19 44.5 -00.7	306 07.2 -25.3	N 11 23.5 +11.6	04						
05	253 53.7 -00.1	N 22 51.2 -00.2	226 02.2 -00.6	N 19 43.8 -00.8	320 41.9 -25.4	N 11 35.1 +11.6	05						
06	268 53.6 -00.1	N 22 51.0 -00.2	241 01.6 -00.7	N 19 43.0 -00.8	335 16.5 -25.5	N 11 46.7 +11.5	06						
07	283 53.5 -00.1	N 22 50.8 -00.2	256 00.9 -00.6	N 19 42.2 -00.8	349 51.0 -25.4	N 11 58.2 +11.5	07						
08	298 53.4 -00.1	N 22 50.6 -00.2	271 00.3 -00.6	N 19 41.4 -00.8	4 25.6 -25.5	N 12 09.7 +11.4	08						
09	313 53.3 -00.1	N 22 50.4 -00.3	285 59.7 -00.7	N 19 40.6 -00.8	19 00.1 -25.6	N 12 21.1 +11.4	09						
10	328 53.2 -00.1	N 22 50.1 -00.2	300 59.0 -00.6	N 19 39.8 -00.7	33 34.5 -25.5	N 12 32.5 +11.3	10						
11	343 53.1 -00.1	N 22 49.9 -00.2	315 58.4 -00.6	N 19 39.1 -00.8	48 09.0 -25.6	N 12 43.8 +11.3	11						
12	358 53.0 -00.2	N 22 49.7 -00.2	330 57.8 -00.7	N 19 38.3 -00.8	62 43.4 -25.7	N 12 55.1 +11.2	12						
13	13 52.8 -00.1	N 22 49.5 -00.3	345 57.1 -00.6	N 19 37.5 -00.8	77 17.7 -25.7	N 13 06.3 +11.2	13						
14	28 52.7 -00.1	N 22 49.2 -00.2	0 56.5 -00.6	N 19 36.7 -00.8	91 52.0 -25.7	N 13 17.5 +11.1	14						
15	43 52.6 -00.1	N 22 49.0 -00.2	15 55.9 -00.7	N 19 35.9 -00.8	106 26.3 -25.7	N 13 28.6 +11.1	15						
16	58 52.5 -00.1	N 22 48.8 -00.3	30 55.2 -00.6	N 19 35.1 -00.8	121 00.6 -25.8	N 13 39.7 +11.0	16						
17	73 52.4 -00.1	N 22 48.5 -00.2	45 54.6 -00.6	N 19 34.3 -00.8	135 34.8 -25.9	N 13 50.7 +10.9	17						
18	88 52.3 -00.1	N 22 48.3 -00.2	60 54.0 -00.7	N 19 33.5 -00.8	150 08.9 -25.9	N 14 01.6 +10.9	18						
19	103 52.2 -00.1	N 22 48.1 -00.3	75 53.3 -00.6	N 19 32.7 -00.8	164 43.0 -25.9	N 14 12.5 +10.9	19						
20	118 52.1 -00.1	N 22 47.8 -00.2	90 52.7 -00.6	N 19 31.9 -00.8	179 17.1 -25.9	N 14 23.4 +10.8	20						
21	133 52.0 -00.1	N 22 47.6 -00.2	105 52.1 -00.7	N 19 31.1 -00.8	193 51.2 -26.1	N 14 34.2 +10.7	21						
22	148 51.9 -00.1	N 22 47.4 -00.3	120 51.4 -00.6	N 19 30.3 -00.8	208 25.1 -26.0	N 14 44.9 +10.6	22						
23	163 51.8 -00.2	N 22 47.1 -00.2	135 50.8 -00.6	N 19 29.5 -00.8	222 59.1 -26.1	N 14 55.5 +10.6	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'8 14'8 14'8 14'8 14'7 14'7								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'2 54'2 54'2 54'1 54'1 54'1								
	SHA 257° 256° 256° 256° 256° 256°		SHA 229° 229° 228° 228° 228° 228°		SHA 325° 323° 321° 319° 317° 315°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 13:56		Greenwich Culmination Time: 07:41								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	145 31.1 +00.9	N 17 50.4 -00.4	307 57.1 +02.5	S 11 45.2 +00.1	327 20.5 +02.6	S 17 50.0 +00.0	00						
01	160 32.0 +00.9	N 17 50.0 -00.5	322 59.6 +02.6	S 11 45.3 +00.0	342 23.1 +02.6	S 17 50.0 +00.1	01						
02	175 32.9 +00.9	N 17 49.5 -00.5	338 02.2 +02.6	S 11 45.3 +00.1	357 25.7 +02.6	S 17 50.1 +00.0	02						
03	190 33.8 +00.9	N 17 49.0 -00.4	353 04.8 +02.5	S 11 45.4 +00.0	12 28.3 +02.7	S 17 50.1 +00.1	03						
04	205 34.7 +00.9	N 17 48.6 -00.5	8 07.3 +02.6	S 11 45.4 +00.1	27 31.0 +02.6	S 17 50.2 +00.0	04						
05	220 35.6 +00.9	N 17 48.1 -00.4	23 09.9 +02.5	S 11 45.5 +00.0	42 33.6 +02.6	S 17 50.2 +00.1	05						
06	235 36.5 +00.9	N 17 47.7 -00.5	38 12.4 +02.6	S 11 45.5 +00.1	57 36.2 +02.6	S 17 50.3 +00.0	06						
07	250 37.4 +01.0	N 17 47.2 -00.5	53 15.0 +02.6	S 11 45.6 +00.0	72 38.8 +02.6	S 17 50.3 +00.1	07						
08	265 38.4 +00.9	N 17 46.7 -00.4	68 17.6 +02.5	S 11 45.6 +00.1	87 41.4 +02.6	S 17 50.4 +00.0	08						
09	280 39.3 +00.9	N 17 46.3 -00.5	83 20.1 +02.6	S 11 45.7 +00.0	102 44.0 +02.6	S 17 50.4 +00.1	09						
10	295 40.2 +00.9	N 17 45.8 -00.5	98 22.7 +02.6	S 11 45.7 +00.1	117 46.6 +02.6	S 17 50.5 +00.0	10						
11	310 41.1 +00.9	N 17 45.3 -00.4	113 25.3 +02.5	S 11 45.8 +00.0	132 49.2 +02.6	S 17 50.5 +00.1	11						
12	325 42.0 +00.9	N 17 44.9 -00.5	128 27.8 +02.6	S 11 45.8 +00.1	147 51.8 +02.7	S 17 50.6 +00.0	12						
13	340 42.9 +00.9	N 17 44.4 -00.4	143 30.4 +02.6	S 11 45.9 +00.0	162 54.5 +02.6	S 17 50.6 +00.0	13						
14	355 43.8 +00.9	N 17 44.0 -00.5	158 33.0 +02.5	S 11 45.9 +00.1	177 57.1 +02.6	S 17 50.6 +00.1	14						
15	10 44.7 +00.9	N 17 43.5 -00.5	173 35.5 +02.6	S 11 46.0 +00.0	192 59.7 +02.6	S 17 50.7 +00.0	15						
16	25 45.6 +00.9	N 17 43.0 -00.4	188 38.1 +02.6	S 11 46.0 +00.1	208 02.3 +02.6	S 17 50.7 +00.1	16						
17	40 46.5 +00.9	N 17 42.6 -00.5	203 40.7 +02.5	S 11 46.1 +00.0	223 04.9 +02.6	S 17 50.8 +00.0	17						
18	55 47.4 +01.0	N 17 42.1 -00.5	218 43.2 +02.6	S 11 46.1 +00.1	238 07.5 +02.6	S 17 50.8 +00.1	18						
19	70 48.4 +00.9	N 17 41.6 -00.4	233 45.8 +02.6	S 11 46.2 +00.0	253 10.1 +02.6	S 17 50.9 +00.0	19						
20	85 49.3 +00.9	N 17 41.2 -00.5	248 48.4 +02.5	S 11 46.2 +00.1	268 12.7 +02.7	S 17 50.9 +00.1	20						
21	100 50.2 +00.9	N 17 40.7 -00.5	263 50.9 +02.6	S 11 46.3 +00.0	283 15.4 +02.6	S 17 51.0 +00.0	21						
22	115 51.1 +00.9	N 17 40.2 -00.4	278 53.5 +02.6	S 11 46.3 +00.1	298 18.0 +02.6	S 17 51.0 +00.1	22						
23	130 52.0 +00.9	N 17 39.8 -00.5	293 56.1 +02.5	S 11 46.4 +00.0	313 20.6 +02.6	S 17 51.1 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 223° 223° 223° 223° 223° 223°		SHA 026° 026° 026° 026° 026° 026°		SHA 045° 045° 045° 045° 045° 045°								
	Greenwich Culmination Time: 14:17		Greenwich Culmination Time: 03:27		Greenwich Culmination Time: 02:10								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 51.6 -00.1	N 22 46.9 -00.2	150 50.2 -00.7	N 19 28.7 -00.8	237 33.0 -26.2	N 15 06.1 +10.6	00						
01	193 51.5 -00.1	N 22 46.7 -00.3	165 49.5 -00.6	N 19 27.9 -00.8	252 06.8 -26.2	N 15 16.7 +10.5	01						
02	208 51.4 -00.1	N 22 46.4 -00.2	180 48.9 -00.6	N 19 27.1 -00.8	266 40.6 -26.2	N 15 27.2 +10.4	02						
03	223 51.3 -00.1	N 22 46.2 -00.2	195 48.3 -00.6	N 19 26.3 -00.8	281 14.4 -26.3	N 15 37.6 +10.4	03						
04	238 51.2 -00.1	N 22 46.0 -00.3	210 47.7 -00.7	N 19 25.5 -00.8	295 48.1 -26.3	N 15 48.0 +10.2	04						
05	253 51.1 -00.1	N 22 45.7 -00.2	225 47.0 -00.6	N 19 24.7 -00.8	310 21.8 -26.4	N 15 58.2 +10.3	05						
06	268 51.0 -00.1	N 22 45.5 -00.3	240 46.4 -00.6	N 19 23.9 -00.8	324 55.4 -26.4	N 16 08.5 +10.1	06						
07	283 50.9 -00.1	N 22 45.2 -00.2	255 45.8 -00.7	N 19 23.1 -00.8	339 29.0 -26.5	N 16 18.6 +10.1	07						
08	298 50.8 -00.1	N 22 45.0 -00.2	270 45.1 -00.6	N 19 22.3 -00.8	354 02.5 -26.6	N 16 28.7 +10.1	08						
09	313 50.7 -00.1	N 22 44.8 -00.3	285 44.5 -00.6	N 19 21.5 -00.8	8 35.9 -26.5	N 16 38.8 +09.9	09						
10	328 50.6 -00.1	N 22 44.5 -00.2	300 43.9 -00.6	N 19 20.7 -00.8	23 09.4 -26.7	N 16 48.7 +09.9	10						
11	343 50.5 -00.2	N 22 44.3 -00.3	315 43.3 -00.6	N 19 19.9 -00.8	37 42.7 -26.7	N 16 58.6 +09.9	11						
12	358 50.3 -00.1	N 22 44.0 -00.2	330 42.7 -00.7	N 19 19.1 -00.8	52 16.0 -26.7	N 17 08.5 +09.7	12						
13	13 50.2 -00.1	N 22 43.8 -00.2	345 42.0 -00.6	N 19 18.3 -00.8	66 49.3 -26.8	N 17 18.2 +09.7	13						
14	28 50.1 -00.1	N 22 43.6 -00.3	0 41.4 -00.6	N 19 17.5 -00.8	81 22.5 -26.9	N 17 27.9 +09.6	14						
15	43 50.0 -00.1	N 22 43.3 -00.2	15 40.8 -00.6	N 19 16.7 -00.9	95 55.6 -26.9	N 17 37.5 +09.6	15						
16	58 49.9 -00.1	N 22 43.1 -00.3	30 40.2 -00.7	N 19 15.8 -00.8	110 28.7 -26.9	N 17 47.1 +09.5	16						
17	73 49.8 -00.1	N 22 42.8 -00.2	45 39.5 -00.6	N 19 15.0 -00.8	125 01.8 -27.1	N 17 56.6 +09.4	17						
18	88 49.7 -00.1	N 22 42.6 -00.3	60 38.9 -00.6	N 19 14.2 -00.8	139 34.7 -27.0	N 18 06.0 +09.3	18						
19	103 49.6 -00.1	N 22 42.3 -00.2	75 38.3 -00.6	N 19 13.4 -00.8	154 07.7 -27.2	N 18 15.3 +09.3	19						
20	118 49.5 -00.1	N 22 42.1 -00.3	90 37.7 -00.6	N 19 12.6 -00.8	168 40.5 -27.1	N 18 24.6 +09.1	20						
21	133 49.4 -00.1	N 22 41.8 -00.2	105 37.1 -00.6	N 19 11.8 -00.9	183 13.4 -27.3	N 18 33.7 +09.1	21						
22	148 49.3 -00.1	N 22 41.6 -00.3	120 36.5 -00.7	N 19 10.9 -00.8	197 46.1 -27.3	N 18 42.8 +09.1	22						
23	163 49.2 -00.1	N 22 41.3 -00.2	135 35.8 -00.6	N 19 10.1 -00.8	212 18.8 -27.3	N 18 51.9 +08.9	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 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 14'7 14'7 14'7 14'7 14'7 14'7								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'1 54'1 54'1 54'1 54'1 54'1								
	SHA 256° 255° 255° 255° 255° 255°		SHA 228° 227° 227° 227° 227° 226°		SHA 313° 311° 310° 308° 306° 304°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 13:57		Greenwich Culmination Time: 08:24								
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	145 52.9 +00.9	N 17 39.3 -00.4	308 58.6 +02.6	S 11 46.4 +00.1	328 23.2 +02.6	S 17 51.1 +00.1	00						
01	160 53.8 +00.9	N 17 38.9 -00.5	324 01.2 +02.6	S 11 46.5 +00.0	343 25.8 +02.6	S 17 51.2 +00.0	01						
02	175 54.7 +00.9	N 17 38.4 -00.5	339 03.8 +02.5	S 11 46.5 +00.1	358 28.4 +02.6	S 17 51.2 +00.1	02						
03	190 55.6 +00.9	N 17 37.9 -00.4	354 06.3 +02.6	S 11 46.6 +00.0	13 31.0 +02.7	S 17 51.3 +00.0	03						
04	205 56.5 +01.0	N 17 37.5 -00.5	9 08.9 +02.6	S 11 46.6 +00.1	28 33.7 +02.6	S 17 51.3 +00.0	04						
05	220 57.5 +00.9	N 17 37.0 -00.5	24 11.5 +02.6	S 11 46.7 +00.0	43 36.3 +02.6	S 17 51.3 +00.1	05						
06	235 58.4 +00.9	N 17 36.5 -00.4	39 14.1 +02.5	S 11 46.7 +00.1	58 38.9 +02.6	S 17 51.4 +00.0	06						
07	250 59.3 +00.9	N 17 36.1 -00.5	54 16.6 +02.6	S 11 46.8 +00.1	73 41.5 +02.6	S 17 51.4 +00.1	07						
08	266 00.2 +00.9	N 17 35.6 -00.5	69 19.2 +02.6	S 11 46.9 +00.0	88 44.1 +02.6	S 17 51.5 +00.0	08						
09	281 01.1 +00.9	N 17 35.1 -00.4	84 21.8 +02.5	S 11 46.9 +00.1	103 46.7 +02.6	S 17 51.5 +00.1	09						
10	296 02.0 +00.9	N 17 34.7 -00.5	99 24.3 +02.6	S 11 47.0 +00.0	118 49.3 +02.7	S 17 51.6 +00.0	10						
11	311 02.9 +00.9	N 17 34.2 -00.5	114 26.9 +02.6	S 11 47.0 +00.1	133 52.0 +02.6	S 17 51.6 +00.1	11						
12	326 03.8 +00.9	N 17 33.7 -00.4	129 29.5 +02.6	S 11 47.1 +00.0	148 54.6 +02.6	S 17 51.7 +00.0	12						
13	341 04.7 +01.0	N 17 33.3 -00.5	144 32.1 +02.5	S 11 47.1 +00.1	163 57.2 +02.6	S 17 51.7 +00.1	13						
14	356 05.7 +00.9	N 17 32.8 -00.5	159 34.6 +02.6	S 11 47.2 +00.0	178 59.8 +02.6	S 17 51.8 +00.0	14						
15	11 06.6 +00.9	N 17 32.3 -00.4	174 37.2 +02.6	S 11 47.2 +00.1	194 02.4 +02.6	S 17 51.8 +00.1	15						
16	26 07.5 +00.9	N 17 31.9 -00.5	189 39.8 +02.6	S 11 47.3 +00.0	209 05.0 +02.6	S 17 51.9 +00.0	16						
17	41 08.4 +00.9	N 17 31.4 -00.5	204 42.4 +02.5	S 11 47.3 +00.1	224 07.6 +02.7	S 17 51.9 +00.1	17						
18	56 09.3 +00.9	N 17 30.9 -00.4	219 44.9 +02.6	S 11 47.4 +00.0	239 10.3 +02.6	S 17 52.0 +00.0	18						
19	71 10.2 +00.9	N 17 30.5 -00.5	234 47.5 +02.6	S 11 47.4 +00.1	254 12.9 +02.6	S 17 52.0 +00.1	19						
20	86 11.1 +00.9	N 17 30.0 -00.5	249 50.1 +02.5	S 11 47.5 +00.0	269 15.5 +02.6	S 17 52.1 +00.0	20						
21	101 12.0 +01.0	N 17 29.5 -00.5	264 52.6 +02.6	S 11 47.5 +00.1	284 18.1 +02.6	S 17 52.1 +00.0	21						
22	116 13.0 +00.9	N 17 29.0 -00.4	279 55.2 +02.6	S 11 47.6 +00.0	299 20.7 +02.6	S 17 52.1 +00.1	22						
23	131 13.9 +00.9	N 17 28.6 -00.5	294 57.8 +02.6	S 11 47.6 +00.1	314 23.3 +02.7	S 17 52.2 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 223° 223° 222° 222° 222° 222°		SHA 026° 026° 026° 026° 026° 026°		SHA 045° 045° 045° 045° 045° 045°								
	Greenwich Culmination Time: 14:15		Greenwich Culmination Time: 03:23		Greenwich Culmination Time: 02:06								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 49.1 -00.1	N 22 41.1 -00.3	150 35.2 -00.6	N 19 09.3 -00.8	226 51.5 -27.5	N 19 00.8 +08.9	00						
01	193 49.0 -00.1	N 22 40.8 -00.2	165 34.6 -00.6	N 19 08.5 -00.8	241 24.0 -27.4	N 19 09.7 +08.8	01						
02	208 48.9 -00.1	N 22 40.6 -00.3	180 34.0 -00.6	N 19 07.7 -00.9	255 56.6 -27.6	N 19 18.5 +08.7	02						
03	223 48.8 -00.2	N 22 40.3 -00.2	195 33.4 -00.6	N 19 06.8 -00.8	270 29.0 -27.6	N 19 27.2 +08.6	03						
04	238 48.6 -00.1	N 22 40.1 -00.3	210 32.8 -00.6	N 19 06.0 -00.8	285 01.4 -27.6	N 19 35.8 +08.6	04						
05	253 48.5 -00.1	N 22 39.8 -00.2	225 32.2 -00.7	N 19 05.2 -00.8	299 33.8 -27.7	N 19 44.4 +08.4	05						
06	268 48.4 -00.1	N 22 39.6 -00.3	240 31.5 -00.6	N 19 04.4 -00.9	314 06.1 -27.8	N 19 52.8 +08.4	06						
07	283 48.3 -00.1	N 22 39.3 -00.3	255 30.9 -00.6	N 19 03.5 -00.8	328 38.3 -27.8	N 20 01.2 +08.3	07						
08	298 48.2 -00.1	N 22 39.0 -00.2	270 30.3 -00.6	N 19 02.7 -00.8	343 10.5 -27.9	N 20 09.5 +08.2	08						
09	313 48.1 -00.1	N 22 38.8 -00.3	285 29.7 -00.6	N 19 01.9 -00.8	357 42.6 -28.0	N 20 17.7 +08.1	09						
10	328 48.0 -00.1	N 22 38.5 -00.2	300 29.1 -00.6	N 19 01.1 -00.9	12 14.6 -28.0	N 20 25.8 +08.1	10						
11	343 47.9 -00.1	N 22 38.3 -00.3	315 28.5 -00.6	N 19 00.2 -00.8	26 46.6 -28.1	N 20 33.9 +07.9	11						
12	358 47.8 -00.1	N 22 38.0 -00.3	330 27.9 -00.6	N 18 59.4 -00.8	41 18.5 -28.1	N 20 41.8 +07.9	12						
13	13 47.7 -00.1	N 22 37.7 -00.2	345 27.3 -00.6	N 18 58.6 -00.9	55 50.4 -28.2	N 20 49.7 +07.8	13						
14	28 47.6 -00.1	N 22 37.5 -00.3	0 26.7 -00.6	N 18 57.7 -00.8	70 22.2 -28.3	N 20 57.5 +07.7	14						
15	43 47.5 -00.1	N 22 37.2 -00.2	15 26.1 -00.7	N 18 56.9 -00.8	84 53.9 -28.3	N 21 05.2 +07.6	15						
16	58 47.4 -00.1	N 22 37.0 -00.3	30 25.4 -00.6	N 18 56.1 -00.9	99 25.6 -28.4	N 21 12.8 +07.5	16						
17	73 47.3 -00.1	N 22 36.7 -00.3	45 24.8 -00.6	N 18 55.2 -00.8	113 57.2 -28.4	N 21 20.3 +07.4	17						
18	88 47.2 -00.1	N 22 36.4 -00.2	60 24.2 -00.6	N 18 54.4 -00.8	128 28.8 -28.6	N 21 27.7 +07.3	18						
19	103 47.1 -00.1	N 22 36.2 -00.3	75 23.6 -00.6	N 18 53.6 -00.9	143 00.2 -28.5	N 21 35.0 +07.2	19						
20	118 47.0 -00.1	N 22 35.9 -00.3	90 23.0 -00.6	N 18 52.7 -00.8	157 31.7 -28.6	N 21 42.2 +07.2	20						
21	133 46.9 -00.1	N 22 35.6 -00.2	105 22.4 -00.6	N 18 51.9 -00.9	172 03.1 -28.7	N 21 49.4 +07.0	21						
22	148 46.8 -00.1	N 22 35.4 -00.3	120 21.8 -00.6	N 18 51.0 -00.8	186 34.4 -28.8	N 21 56.4 +06.9	22						
23	163 46.7 -00.1	N 22 35.1 -00.3	135 21.2 -00.6	N 18 50.2 -00.8	201 05.6 -28.8	N 22 03.3 +06.9	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 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 14'7 14'7 14'7 14'7 14'8 14'8								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'1 54'1 54'1 54'1 54'2 54'2								
	SHA 255° 254° 254° 254° 254° 254°		SHA 226° 226° 226° 226° 225° 225°		SHA 302° 300° 298° 296° 294° 291°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 13:58		Greenwich Culmination Time: 09:09								
UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	146 14.8 +00.9	N 17 28.1 -00.5	310 00.4 +02.6	S 11 47.7 +00.1	329 26.0 +02.6	S 17 52.2 +00.1	00						
01	161 15.7 +00.9	N 17 27.6 -00.4	325 03.0 +02.5	S 11 47.8 +00.0	344 28.6 +02.6	S 17 52.3 +00.0	01						
02	176 16.6 +00.9	N 17 27.2 -00.5	340 05.5 +02.6	S 11 47.8 +00.1	359 31.2 +02.6	S 17 52.3 +00.1	02						
03	191 17.5 +00.9	N 17 26.7 -00.5	355 08.1 +02.6	S 11 47.9 +00.0	14 33.8 +02.6	S 17 52.4 +00.0	03						
04	206 18.4 +01.0	N 17 26.2 -00.4	10 10.7 +02.6	S 11 47.9 +00.1	29 36.4 +02.6	S 17 52.4 +00.1	04						
05	221 19.4 +00.9	N 17 25.8 -00.5	25 13.3 +02.5	S 11 48.0 +00.0	44 39.0 +02.7	S 17 52.5 +00.0	05						
06	236 20.3 +00.9	N 17 25.3 -00.5	40 15.8 +02.6	S 11 48.0 +00.1	59 41.7 +02.6	S 17 52.5 +00.1	06						
07	251 21.2 +00.9	N 17 24.8 -00.5	55 18.4 +02.6	S 11 48.1 +00.0	74 44.3 +02.6	S 17 52.6 +00.0	07						
08	266 22.1 +00.9	N 17 24.3 -00.4	70 21.0 +02.6	S 11 48.1 +00.1	89 46.9 +02.6	S 17 52.6 +00.1	08						
09	281 23.0 +00.9	N 17 23.9 -00.5	85 23.6 +02.6	S 11 48.2 +00.1	104 49.5 +02.6	S 17 52.7 +00.0	09						
10	296 23.9 +00.9	N 17 23.4 -00.5	100 26.2 +02.5	S 11 48.3 +00.0	119 52.1 +02.6	S 17 52.7 +00.1	10						
11	311 24.8 +00.9	N 17 22.9 -00.4	115 28.7 +02.6	S 11 48.3 +00.1	134 54.7 +02.7	S 17 52.8 +00.0	11						
12	326 25.7 +01.0	N 17 22.5 -00.5	130 31.3 +02.6	S 11 48.4 +00.0	149 57.4 +02.6	S 17 52.8 +00.1	12						
13	341 26.7 +00.9	N 17 22.0 -00.5	145 33.9 +02.6	S 11 48.4 +00.1	164 60.0 +02.6	S 17 52.9 +00.0	13						
14	356 27.6 +00.9	N 17 21.5 -00.5	160 36.5 +02.6	S 11 48.5 +00.0	180 02.6 +02.6	S 17 52.9 +00.1	14						
15	11 28.5 +00.9	N 17 21.0 -00.4	175 39.1 +02.5	S 11 48.5 +00.1	195 05.2 +02.6	S 17 53.0 +00.0	15						
16	26 29.4 +00.9	N 17 20.6 -00.5	190 41.6 +02.6	S 11 48.6 +00.0	210 07.8 +02.6	S 17 53.0 +00.1	16						
17	41 30.3 +00.9	N 17 20.1 -00.5	205 44.2 +02.6	S 11 48.6 +00.1	225 10.4 +02.7	S 17 53.1 +00.0	17						
18	56 31.2 +00.9	N 17 19.6 -00.5	220 46.8 +02.6	S 11 48.7 +00.1	240 13.1 +02.6	S 17 53.1 +00.0	18						
19	71 32.1 +01.0	N 17 19.1 -00.4	235 49.4 +02.6	S 11 48.8 +00.0	255 15.7 +02.6	S 17 53.1 +00.1	19						
20	86 33.1 +00.9	N 17 18.7 -00.5	250 52.0 +02.5	S 11 48.8 +00.1	270 18.3 +02.6	S 17 53.2 +00.0	20						
21	101 34.0 +00.9	N 17 18.2 -00.5	265 54.5 +02.6	S 11 48.9 +00.0	285 20.9 +02.6	S 17 53.2 +00.1	21						
22	116 34.9 +00.9	N 17 17.7 -00.4	280 57.1 +02.6	S 11 48.9 +00.1	300 23.5 +02.6	S 17 53.3 +00.0	22						
23	131 35.8 +00.9	N 17 17.3 -00.5	295 59.7 +02.6	S 11 49.0 +00.0	315 26.1 +02.7	S 17 53.3 +00.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 222° 222° 222° 222° 222° 221°		SHA 026° 026° 026° 026° 026° 026°		SHA 045° 045° 045° 045° 045° 045°								
	Greenwich Culmination Time: 14:14		Greenwich Culmination Time: 03:19		Greenwich Culmination Time: 02:01								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 46.6 -00.1	N 22 34.8 -00.2	150 20.6 -00.6	N 18 49.4 -00.9	215 36.8 -28.9	N 22 10.2 +06.7	00						
01	193 46.5 -00.1	N 22 34.6 -00.3	165 20.0 -00.6	N 18 48.5 -00.8	230 07.9 -28.9	N 22 16.9 +06.7	01						
02	208 46.4 -00.1	N 22 34.3 -00.3	180 19.4 -00.6	N 18 47.7 -00.9	244 39.0 -29.0	N 22 23.6 +06.5	02						
03	223 46.3 -00.1	N 22 34.0 -00.2	195 18.8 -00.6	N 18 46.8 -00.8	259 10.0 -29.1	N 22 30.1 +06.5	03						
04	238 46.2 -00.1	N 22 33.8 -00.3	210 18.2 -00.6	N 18 46.0 -00.9	273 40.9 -29.1	N 22 36.6 +06.3	04						
05	253 46.1 -00.1	N 22 33.5 -00.3	225 17.6 -00.6	N 18 45.1 -00.8	288 11.8 -29.2	N 22 42.9 +06.3	05						
06	268 46.0 -00.1	N 22 33.2 -00.2	240 17.0 -00.6	N 18 44.3 -00.9	302 42.6 -29.2	N 22 49.2 +06.1	06						
07	283 45.9 -00.1	N 22 33.0 -00.3	255 16.4 -00.6	N 18 43.4 -00.8	317 13.4 -29.3	N 22 55.3 +06.1	07						
08	298 45.8 -00.1	N 22 32.7 -00.3	270 15.8 -00.6	N 18 42.6 -00.9	331 44.1 -29.4	N 23 01.4 +05.9	08						
09	313 45.7 -00.1	N 22 32.4 -00.3	285 15.2 -00.6	N 18 41.7 -00.8	346 14.7 -29.4	N 23 07.3 +05.8	09						
10	328 45.6 -00.1	N 22 32.1 -00.2	300 14.6 -00.6	N 18 40.9 -00.9	0 45.3 -29.5	N 23 13.1 +05.8	10						
11	343 45.5 -00.1	N 22 31.9 -00.3	315 14.0 -00.6	N 18 40.0 -00.8	15 15.8 -29.5	N 23 18.9 +05.6	11						
12	358 45.4 -00.1	N 22 31.6 -00.3	330 13.4 -00.6	N 18 39.2 -00.9	29 46.3 -29.6	N 23 24.5 +05.5	12						
13	13 45.3 -00.1	N 22 31.3 -00.3	345 12.8 -00.6	N 18 38.3 -00.8	44 16.7 -29.7	N 23 30.0 +05.4	13						
14	28 45.2 -00.1	N 22 31.0 -00.2	0 12.2 -00.6	N 18 37.5 -00.9	58 47.0 -29.7	N 23 35.4 +05.3	14						
15	43 45.1 -00.1	N 22 30.8 -00.3	15 11.6 -00.5	N 18 36.6 -00.8	73 17.3 -29.7	N 23 40.7 +05.2	15						
16	58 45.0 -00.1	N 22 30.5 -00.3	30 11.1 -00.6	N 18 35.8 -00.9	87 47.6 -29.9	N 23 45.9 +05.1	16						
17	73 44.9 -00.1	N 22 30.2 -00.3	45 10.5 -00.6	N 18 34.9 -00.8	102 17.7 -29.8	N 23 51.0 +05.0	17						
18	88 44.8 -00.1	N 22 29.9 -00.3	60 09.9 -00.6	N 18 34.1 -00.9	116 47.9 -30.0	N 23 56.0 +04.8	18						
19	103 44.7 -00.1	N 22 29.6 -00.2	75 09.3 -00.6	N 18 33.2 -00.9	131 17.9 -30.0	N 24 00.8 +04.8	19						
20	118 44.6 -00.1	N 22 29.4 -00.3	90 08.7 -00.6	N 18 32.3 -00.8	145 47.9 -30.0	N 24 05.6 +04.6	20						
21	133 44.5 -00.1	N 22 29.1 -00.3	105 08.1 -00.6	N 18 31.5 -00.9	160 17.9 -30.1	N 24 10.2 +04.5	21						
22	148 44.4 -00.1	N 22 28.8 -00.3	120 07.5 -00.6	N 18 30.6 -00.8	174 47.8 -30.2	N 24 14.7 +04.4	22						
23	163 44.3 -00.1	N 22 28.5 -00.3	135 06.9 -00.6	N 18 29.8 -00.9	189 17.6 -30.2	N 24 19.1 +04.3	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 14'8 14'8 14'8 14'8 14'8 14'8								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'2 54'2 54'3 54'3 54'4 54'4								
	SHA 254° 253° 253° 253° 253° 253°		SHA 225° 225° 225° 224° 224° 224°		SHA 289° 287° 285° 283° 281° 279°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 13:59		Greenwich Culmination Time: 09:56								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	146 36.7 +00.9	N 17 16.8 -00.5	311 02.3 +02.6	S 11 49.0 +00.1	330 28.8 +02.6	S 17 53.4 +00.0	00						
01	161 37.6 +01.0	N 17 16.3 -00.5	326 04.9 +02.6	S 11 49.1 +00.0	345 31.4 +02.6	S 17 53.4 +00.1	01						
02	176 38.6 +00.9	N 17 15.8 -00.4	341 07.5 +02.5	S 11 49.1 +00.1	0 34.0 +02.6	S 17 53.5 +00.0	02						
03	191 39.5 +00.9	N 17 15.4 -00.5	356 10.0 +02.6	S 11 49.2 +00.1	15 36.6 +02.6	S 17 53.5 +00.1	03						
04	206 40.4 +00.9	N 17 14.9 -00.5	11 12.6 +02.6	S 11 49.3 +00.0	30 39.2 +02.7	S 17 53.6 +00.0	04						
05	221 41.3 +00.9	N 17 14.4 -00.5	26 15.2 +02.6	S 11 49.3 +00.1	45 41.9 +02.6	S 17 53.6 +00.1	05						
06	236 42.2 +00.9	N 17 13.9 -00.4	41 17.8 +02.6	S 11 49.4 +00.0	60 44.5 +02.6	S 17 53.7 +00.0	06						
07	251 43.1 +01.0	N 17 13.5 -00.5	56 20.4 +02.6	S 11 49.4 +00.1	75 47.1 +02.6	S 17 53.7 +00.1	07						
08	266 44.1 +00.9	N 17 13.0 -00.5	71 23.0 +02.6	S 11 49.5 +00.0	90 49.7 +02.6	S 17 53.8 +00.0	08						
09	281 45.0 +00.9	N 17 12.5 -00.5	86 25.6 +02.5	S 11 49.5 +00.1	105 52.3 +02.7	S 17 53.8 +00.1	09						
10	296 45.9 +00.9	N 17 12.0 -00.4	101 28.1 +02.6	S 11 49.6 +00.1	120 55.0 +02.6	S 17 53.9 +00.0	10						
11	311 46.8 +00.9	N 17 11.6 -00.5	116 30.7 +02.6	S 11 49.7 +00.0	135 57.6 +02.6	S 17 53.9 +00.1	11						
12	326 47.7 +00.9	N 17 11.1 -00.5	131 33.3 +02.6	S 11 49.7 +00.1	151 00.2 +02.6	S 17 54.0 +00.0	12						
13	341 48.6 +00.9	N 17 10.6 -00.5	146 35.9 +02.6	S 11 49.8 +00.0	166 02.8 +02.6	S 17 54.0 +00.1	13						
14	356 49.5 +01.0	N 17 10.1 -00.5	161 38.5 +02.6	S 11 49.8 +00.1	181 05.4 +02.7	S 17 54.1 +00.0	14						
15	11 50.5 +00.9	N 17 09.6 -00.4	176 41.1 +02.6	S 11 49.9 +00.1	196 08.1 +02.6	S 17 54.1 +00.1	15						
16	26 51.4 +00.9	N 17 09.2 -00.5	191 43.7 +02.6	S 11 50.0 +00.0	211 10.7 +02.6	S 17 54.2 +00.0	16						
17	41 52.3 +00.9	N 17 08.7 -00.5	206 46.3 +02.6	S 11 50.0 +00.1	226 13.3 +02.6	S 17 54.2 +00.1	17						
18	56 53.2 +00.9	N 17 08.2 -00.5	221 48.9 +02.5	S 11 50.1 +00.0	241 15.9 +02.6	S 17 54.3 +00.0	18						
19	71 54.1 +01.0	N 17 07.7 -00.4	236 51.4 +02.6	S 11 50.1 +00.1	256 18.5 +02.7	S 17 54.3 +00.1	19						
20	86 55.1 +00.9	N 17 07.3 -00.5	251 54.0 +02.6	S 11 50.2 +00.0	271 21.2 +02.6	S 17 54.4 +00.0	20						
21	101 56.0 +00.9	N 17 06.8 -00.5	266 56.6 +02.6	S 11 50.2 +00.1	286 23.8 +02.6	S 17 54.4 +00.1	21						
22	116 56.9 +00.9	N 17 06.3 -00.5	281 59.2 +02.6	S 11 50.3 +00.1	301 26.4 +02.6	S 17 54.5 +00.0	22						
23	131 57.8 +00.9	N 17 05.8 -00.5	297 01.8 +02.6	S 11 50.4 +00.0	316 29.0 +02.6	S 17 54.5 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 221° 221° 221° 221° 221° 221°		SHA 026° 026° 026° 026° 026° 026°		SHA 045° 045° 045° 045° 045° 045°								
	Greenwich Culmination Time: 14:12		Greenwich Culmination Time: 03:15		Greenwich Culmination Time: 01:57								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 44.2 -00.1	N 22 28.2 -00.3	150 06.3 -00.6	N 18 28.9 -00.9	203 47.4 -30.2	N 24 23.4 +04.2	00						
01	193 44.1 -00.1	N 22 27.9 -00.2	165 05.7 -00.5	N 18 28.0 -00.8	218 17.2 -30.3	N 24 27.6 +04.1	01						
02	208 44.0 -00.1	N 22 27.7 -00.3	180 05.2 -00.6	N 18 27.2 -00.9	232 46.9 -30.4	N 24 31.7 +03.9	02						
03	223 43.9 -00.1	N 22 27.4 -00.3	195 04.6 -00.6	N 18 26.3 -00.9	247 16.5 -30.4	N 24 35.6 +03.9	03						
04	238 43.8 -00.1	N 22 27.1 -00.3	210 04.0 -00.6	N 18 25.4 -00.8	261 46.1 -30.5	N 24 39.5 +03.7	04						
05	253 43.7 -00.1	N 22 26.8 -00.3	225 03.4 -00.6	N 18 24.6 -00.9	276 15.6 -30.5	N 24 43.2 +03.6	05						
06	268 43.6 -00.1	N 22 26.5 -00.3	240 02.8 -00.6	N 18 23.7 -00.9	290 45.1 -30.5	N 24 46.8 +03.4	06						
07	283 43.5 -00.1	N 22 26.2 -00.3	255 02.2 -00.6	N 18 22.8 -00.8	305 14.6 -30.6	N 24 50.2 +03.4	07						
08	298 43.4 -00.1	N 22 25.9 -00.3	270 01.6 -00.5	N 18 22.0 -00.9	319 44.0 -30.7	N 24 53.6 +03.2	08						
09	313 43.3 -00.1	N 22 25.6 -00.3	285 01.1 -00.6	N 18 21.1 -00.9	334 13.3 -30.7	N 24 56.8 +03.1	09						
10	328 43.2 -00.1	N 22 25.3 -00.2	300 00.5 -00.6	N 18 20.2 -00.8	348 42.6 -30.7	N 24 59.9 +03.0	10						
11	343 43.1 -00.1	N 22 25.1 -00.3	314 59.9 -00.6	N 18 19.4 -00.9	3 11.9 -30.8	N 25 02.9 +02.9	11						
12	358 43.0 -00.1	N 22 24.8 -00.3	329 59.3 -00.6	N 18 18.5 -00.9	17 41.1 -30.8	N 25 05.8 +02.8	12						
13	13 42.9 -00.1	N 22 24.5 -00.3	344 58.7 -00.6	N 18 17.6 -00.9	32 10.3 -30.9	N 25 08.6 +02.6	13						
14	28 42.8 -00.1	N 22 24.2 -00.3	359 58.1 -00.5	N 18 16.7 -00.8	46 39.4 -30.9	N 25 11.2 +02.5	14						
15	43 42.7 -00.1	N 22 23.9 -00.3	14 57.6 -00.6	N 18 15.9 -00.9	61 08.5 -31.0	N 25 13.7 +02.4	15						
16	58 42.6 -00.1	N 22 23.6 -00.3	29 57.0 -00.6	N 18 15.0 -00.9	75 37.5 -30.9	N 25 16.1 +02.2	16						
17	73 42.5 +00.0	N 22 23.3 -00.3	44 56.4 -00.6	N 18 14.1 -00.9	90 06.6 -31.1	N 25 18.3 +02.2	17						
18	88 42.5 -00.1	N 22 23.0 -00.3	59 55.8 -00.5	N 18 13.2 -00.9	104 35.5 -31.0	N 25 20.5 +02.0	18						
19	103 42.4 -00.1	N 22 22.7 -00.3	74 55.3 -00.6	N 18 12.3 -00.8	119 04.5 -31.1	N 25 22.5 +01.8	19						
20	118 42.3 -00.1	N 22 22.4 -00.3	89 54.7 -00.6	N 18 11.5 -00.9	133 33.4 -31.2	N 25 24.3 +01.8	20						
21	133 42.2 -00.1	N 22 22.1 -00.3	104 54.1 -00.6	N 18 10.6 -00.9	148 02.2 -31.2	N 25 26.1 +01.6	21						
22	148 42.1 -00.1	N 22 21.8 -00.3	119 53.5 -00.5	N 18 09.7 -00.9	162 31.0 -31.2	N 25 27.7 +01.5	22						
23	163 42.0 -00.1	N 22 21.5 -00.3	134 53.0 -00.6	N 18 08.8 -00.9	176 59.8 -31.2	N 25 29.2 +01.4	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'8 14'8 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 54'4 54'5 54'5 54'6 54'6 54'7								
	SHA 252° 252° 252° 252° 252° 252°		SHA 224° 224° 223° 223° 223° 223°		SHA 277° 274° 272° 270° 268° 265°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 14:00		Greenwich Culmination Time: 10:46								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	146 58.7 +00.9	N 17 05.3 -00.4	312 04.4 +02.6	S 11 50.4 +00.1	331 31.6 +02.7	S 17 54.5 +00.1	00						
01	161 59.6 +01.0	N 17 04.9 -00.5	327 07.0 +02.6	S 11 50.5 +00.0	346 34.3 +02.6	S 17 54.6 +00.0	01						
02	177 00.6 +00.9	N 17 04.4 -00.5	342 09.6 +02.6	S 11 50.5 +00.1	1 36.9 +02.6	S 17 54.6 +00.1	02						
03	192 01.5 +00.9	N 17 03.9 -00.5	357 12.2 +02.6	S 11 50.6 +00.1	16 39.5 +02.6	S 17 54.7 +00.0	03						
04	207 02.4 +00.9	N 17 03.4 -00.5	12 14.8 +02.5	S 11 50.7 +00.0	31 42.1 +02.6	S 17 54.7 +00.1	04						
05	222 03.3 +00.9	N 17 02.9 -00.4	27 17.3 +02.6	S 11 50.7 +00.1	46 44.7 +02.7	S 17 54.8 +00.0	05						
06	237 04.2 +00.9	N 17 02.5 -00.5	42 19.9 +02.6	S 11 50.8 +00.0	61 47.4 +02.6	S 17 54.8 +00.1	06						
07	252 05.1 +01.0	N 17 02.0 -00.5	57 22.5 +02.6	S 11 50.8 +00.1	76 50.0 +02.6	S 17 54.9 +00.0	07						
08	267 06.1 +00.9	N 17 01.5 -00.5	72 25.1 +02.6	S 11 50.9 +00.1	91 52.6 +02.6	S 17 54.9 +00.1	08						
09	282 07.0 +00.9	N 17 01.0 -00.5	87 27.7 +02.6	S 11 51.0 +00.0	106 55.2 +02.6	S 17 55.0 +00.0	09						
10	297 07.9 +00.9	N 17 00.5 -00.4	102 30.3 +02.6	S 11 51.0 +00.1	121 57.8 +02.7	S 17 55.0 +00.1	10						
11	312 08.8 +00.9	N 17 00.1 -00.5	117 32.9 +02.6	S 11 51.1 +00.0	137 00.5 +02.6	S 17 55.1 +00.0	11						
12	327 09.7 +01.0	N 16 59.6 -00.5	132 35.5 +02.6	S 11 51.1 +00.1	152 03.1 +02.6	S 17 55.1 +00.1	12						
13	342 10.7 +00.9	N 16 59.1 -00.5	147 38.1 +02.6	S 11 51.2 +00.1	167 05.7 +02.6	S 17 55.2 +00.0	13						
14	357 11.6 +00.9	N 16 58.6 -00.5	162 40.7 +02.6	S 11 51.3 +00.0	182 08.3 +02.7	S 17 55.2 +00.1	14						
15	12 12.5 +00.9	N 16 58.1 -00.4	177 43.3 +02.6	S 11 51.3 +00.1	197 11.0 +02.6	S 17 55.3 +00.0	15						
16	27 13.4 +00.9	N 16 57.7 -00.5	192 45.9 +02.6	S 11 51.4 +00.1	212 13.6 +02.6	S 17 55.3 +00.1	16						
17	42 14.3 +01.0	N 16 57.2 -00.5	207 48.5 +02.6	S 11 51.5 +00.0	227 16.2 +02.6	S 17 55.4 +00.0	17						
18	57 15.3 +00.9	N 16 56.7 -00.5	222 51.1 +02.6	S 11 51.5 +00.1	242 18.8 +02.6	S 17 55.4 +00.1	18						
19	72 16.2 +00.9	N 16 56.2 -00.5	237 53.7 +02.6	S 11 51.6 +00.0	257 21.4 +02.7	S 17 55.5 +00.0	19						
20	87 17.1 +00.9	N 16 55.7 -00.5	252 56.3 +02.6	S 11 51.6 +00.1	272 24.1 +02.6	S 17 55.5 +00.1	20						
21	102 18.0 +00.9	N 16 55.2 -00.4	267 58.9 +02.6	S 11 51.7 +00.1	287 26.7 +02.6	S 17 55.6 +00.0	21						
22	117 18.9 +01.0	N 16 54.8 -00.5	283 01.5 +02.6	S 11 51.8 +00.0	302 29.3 +02.6	S 17 55.6 +00.1	22						
23	132 19.9 +00.9	N 16 54.3 -00.5	298 04.1 +02.6	S 11 51.8 +00.1	317 31.9 +02.7	S 17 55.7 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 221° 221° 221° 220° 220° 220°		SHA 026° 026° 026° 026° 026° 026°		SHA 045° 045° 045° 045° 045° 045°								
	Greenwich Culmination Time: 14:11		Greenwich Culmination Time: 03:11		Greenwich Culmination Time: 01:53								



UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 41.9 -00.1	N 22 21.2 -00.3	149 52.4 -00.6	N 18 07.9 -00.8	191 28.6 -31.3	N 25 30.6 +01.2	00						
01	193 41.8 -00.1	N 22 20.9 -00.3	164 51.8 -00.6	N 18 07.1 -00.9	205 57.3 -31.3	N 25 31.8 +01.1	01						
02	208 41.7 -00.1	N 22 20.6 -00.3	179 51.2 -00.5	N 18 06.2 -00.9	220 26.0 -31.3	N 25 32.9 +01.0	02						
03	223 41.6 -00.1	N 22 20.3 -00.3	194 50.7 -00.6	N 18 05.3 -00.9	234 54.7 -31.4	N 25 33.9 +00.9	03						
04	238 41.5 -00.1	N 22 20.0 -00.3	209 50.1 -00.6	N 18 04.4 -00.9	249 23.3 -31.3	N 25 34.8 +00.7	04						
05	253 41.4 -00.1	N 22 19.7 -00.3	224 49.5 -00.6	N 18 03.5 -00.9	263 52.0 -31.4	N 25 35.5 +00.6	05						
06	268 41.3 -00.1	N 22 19.4 -00.3	239 48.9 -00.5	N 18 02.6 -00.9	278 20.6 -31.5	N 25 36.1 +00.5	06						
07	283 41.2 -00.1	N 22 19.1 -00.3	254 48.4 -00.6	N 18 01.7 -00.8	292 49.1 -31.4	N 25 36.6 +00.3	07						
08	298 41.1 +00.0	N 22 18.8 -00.3	269 47.8 -00.6	N 18 00.9 -00.9	307 17.7 -31.5	N 25 36.9 +00.2	08						
09	313 41.1 -00.1	N 22 18.5 -00.3	284 47.2 -00.5	N 17 60.0 -00.9	321 46.2 -31.5	N 25 37.1 +00.1	09						
10	328 41.0 -00.1	N 22 18.2 -00.3	299 46.7 -00.6	N 17 59.1 -00.9	336 14.7 -31.5	N 25 37.2 -00.1	10						
11	343 40.9 -00.1	N 22 17.9 -00.3	314 46.1 -00.6	N 17 58.2 -00.9	350 43.2 -31.6	N 25 37.1 -00.2	11						
12	358 40.8 -00.1	N 22 17.6 -00.3	329 45.5 -00.5	N 17 57.3 -00.9	5 11.6 -31.5	N 25 36.9 -00.3	12						
13	13 40.7 -00.1	N 22 17.3 -00.4	344 45.0 -00.6	N 17 56.4 -00.9	19 40.1 -31.6	N 25 36.6 -00.5	13						
14	28 40.6 -00.1	N 22 16.9 -00.3	359 44.4 -00.6	N 17 55.5 -00.9	34 08.5 -31.6	N 25 36.1 -00.5	14						
15	43 40.5 -00.1	N 22 16.6 -00.3	14 43.8 -00.5	N 17 54.6 -00.9	48 36.9 -31.6	N 25 35.6 -00.8	15						
16	58 40.4 -00.1	N 22 16.3 -00.3	29 43.3 -00.6	N 17 53.7 -00.9	63 05.3 -31.6	N 25 34.8 -00.8	16						
17	73 40.3 -00.1	N 22 16.0 -00.3	44 42.7 -00.6	N 17 52.8 -00.9	77 33.7 -31.7	N 25 34.0 -01.0	17						
18	88 40.2 -00.1	N 22 15.7 -00.3	59 42.1 -00.5	N 17 51.9 -00.9	92 02.0 -31.6	N 25 33.0 -01.1	18						
19	103 40.1 -00.1	N 22 15.4 -00.3	74 41.6 -00.6	N 17 51.0 -00.9	106 30.4 -31.7	N 25 31.9 -01.2	19						
20	118 40.0 +00.0	N 22 15.1 -00.3	89 41.0 -00.6	N 17 50.1 -00.9	120 58.7 -31.6	N 25 30.7 -01.4	20						
21	133 40.0 -00.1	N 22 14.8 -00.4	104 40.4 -00.5	N 17 49.2 -00.9	135 27.1 -31.7	N 25 29.3 -01.5	21						
22	148 39.9 -00.1	N 22 14.4 -00.3	119 39.9 -00.6	N 17 48.3 -00.9	149 55.4 -31.7	N 25 27.8 -01.7	22						
23	163 39.8 -00.1	N 22 14.1 -00.3	134 39.3 -00.5	N 17 47.4 -00.9	164 23.7 -31.6	N 25 26.1 -01.8	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 14'9 14'9 15'0 15'0 15'0 15'0								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'8 54'8 54'9 54'9 55'0 55'1								
	SHA 251° 251° 251° 251° 251° 251°		SHA 223° 222° 222° 222° 222° 222°		SHA 263° 261° 259° 256° 254° 252°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 14:01		Greenwich Culmination Time: 11:38								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	147 20.8 +00.9	N 16 53.8 -00.5	313 06.7 +02.6	S 11 51.9 +00.0	332 34.6 +02.6	S 17 55.7 +00.1	00						
01	162 21.7 +00.9	N 16 53.3 -00.5	328 09.3 +02.6	S 11 51.9 +00.1	347 37.2 +02.6	S 17 55.8 +00.0	01						
02	177 22.6 +00.9	N 16 52.8 -00.5	343 11.9 +02.6	S 11 52.0 +00.1	2 39.8 +02.6	S 17 55.8 +00.1	02						
03	192 23.5 +01.0	N 16 52.3 -00.4	358 14.5 +02.6	S 11 52.1 +00.0	17 42.4 +02.7	S 17 55.9 +00.0	03						
04	207 24.5 +00.9	N 16 51.9 -00.5	13 17.1 +02.6	S 11 52.1 +00.1	32 45.1 +02.6	S 17 55.9 +00.1	04						
05	222 25.4 +00.9	N 16 51.4 -00.5	28 19.7 +02.6	S 11 52.2 +00.1	47 47.7 +02.6	S 17 56.0 +00.0	05						
06	237 26.3 +00.9	N 16 50.9 -00.5	43 22.3 +02.6	S 11 52.3 +00.0	62 50.3 +02.6	S 17 56.0 +00.1	06						
07	252 27.2 +00.9	N 16 50.4 -00.5	58 24.9 +02.6	S 11 52.3 +00.1	77 52.9 +02.6	S 17 56.1 +00.0	07						
08	267 28.1 +01.0	N 16 49.9 -00.5	73 27.5 +02.6	S 11 52.4 +00.0	92 55.5 +02.7	S 17 56.1 +00.1	08						
09	282 29.1 +00.9	N 16 49.4 -00.5	88 30.1 +02.6	S 11 52.4 +00.1	107 58.2 +02.6	S 17 56.2 +00.0	09						
10	297 30.0 +00.9	N 16 48.9 -00.4	103 32.7 +02.6	S 11 52.5 +00.1	123 00.8 +02.6	S 17 56.2 +00.1	10						
11	312 30.9 +00.9	N 16 48.5 -00.5	118 35.3 +02.6	S 11 52.6 +00.0	138 03.4 +02.6	S 17 56.3 +00.0	11						
12	327 31.8 +00.9	N 16 48.0 -00.5	133 37.9 +02.6	S 11 52.6 +00.1	153 06.0 +02.7	S 17 56.3 +00.1	12						
13	342 32.7 +01.0	N 16 47.5 -00.5	148 40.5 +02.6	S 11 52.7 +00.1	168 08.7 +02.6	S 17 56.4 +00.0	13						
14	357 33.7 +00.9	N 16 47.0 -00.5	163 43.1 +02.6	S 11 52.8 +00.0	183 11.3 +02.6	S 17 56.4 +00.1	14						
15	12 34.6 +00.9	N 16 46.5 -00.5	178 45.7 +02.6	S 11 52.8 +00.1	198 13.9 +02.6	S 17 56.5 +00.0	15						
16	27 35.5 +00.9	N 16 46.0 -00.5	193 48.3 +02.6	S 11 52.9 +00.1	213 16.5 +02.7	S 17 56.5 +00.1	16						
17	42 36.4 +01.0	N 16 45.5 -00.4	208 50.9 +02.6	S 11 53.0 +00.0	228 19.2 +02.6	S 17 56.6 +00.0	17						
18	57 37.4 +00.9	N 16 45.1 -00.5	223 53.5 +02.6	S 11 53.0 +00.1	243 21.8 +02.6	S 17 56.6 +00.1	18						
19	72 38.3 +00.9	N 16 44.6 -00.5	238 56.1 +02.6	S 11 53.1 +00.0	258 24.4 +02.6	S 17 56.7 +00.0	19						
20	87 39.2 +00.9	N 16 44.1 -00.5	253 58.7 +02.6	S 11 53.1 +00.1	273 27.0 +02.7	S 17 56.7 +00.1	20						
21	102 40.1 +00.9	N 16 43.6 -00.5	269 01.3 +02.6	S 11 53.2 +00.1	288 29.7 +02.6	S 17 56.8 +00.0	21						
22	117 41.0 +01.0	N 16 43.1 -00.5	284 03.9 +02.6	S 11 53.3 +00.0	303 32.3 +02.6	S 17 56.8 +00.1	22						
23	132 42.0 +00.9	N 16 42.6 -00.5	299 06.5 +02.6	S 11 53.3 +00.1	318 34.9 +02.6	S 17 56.9 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 220° 220° 220° 220° 220° 220°		SHA 026° 026° 026° 026° 026° 026°		SHA 045° 045° 045° 045° 045° 045°								
	Greenwich Culmination Time: 14:09		Greenwich Culmination Time: 03:07		Greenwich Culmination Time: 01:49								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 39.7 -00.1	N 22 13.8 -00.3	149 38.8 -00.6	N 17 46.5 -00.9	178 52.1 -31.7	N 25 24.3 -01.9	00						
01	193 39.6 -00.1	N 22 13.5 -00.3	164 38.2 -00.6	N 17 45.6 -00.9	193 20.4 -31.7	N 25 22.4 -02.0	01						
02	208 39.5 -00.1	N 22 13.2 -00.3	179 37.6 -00.5	N 17 44.7 -00.9	207 48.7 -31.7	N 25 20.4 -02.2	02						
03	223 39.4 -00.1	N 22 12.9 -00.4	194 37.1 -00.6	N 17 43.8 -00.9	222 17.0 -31.7	N 25 18.2 -02.3	03						
04	238 39.3 -00.1	N 22 12.5 -00.3	209 36.5 -00.5	N 17 42.9 -00.9	236 45.3 -31.7	N 25 15.9 -02.4	04						
05	253 39.2 +00.0	N 22 12.2 -00.3	224 36.0 -00.6	N 17 42.0 -00.9	251 13.6 -31.6	N 25 13.5 -02.6	05						
06	268 39.2 -00.1	N 22 11.9 -00.3	239 35.4 -00.6	N 17 41.1 -00.9	265 42.0 -31.7	N 25 10.9 -02.7	06						
07	283 39.1 -00.1	N 22 11.6 -00.3	254 34.8 -00.5	N 17 40.2 -00.9	280 10.3 -31.7	N 25 08.2 -02.9	07						
08	298 39.0 -00.1	N 22 11.3 -00.4	269 34.3 -00.6	N 17 39.3 -00.9	294 38.6 -31.7	N 25 05.3 -02.9	08						
09	313 38.9 -00.1	N 22 10.9 -00.3	284 33.7 -00.5	N 17 38.4 -01.0	309 06.9 -31.6	N 25 02.4 -03.1	09						
10	328 38.8 -00.1	N 22 10.6 -00.3	299 33.2 -00.6	N 17 37.4 -00.9	323 35.3 -31.7	N 24 59.3 -03.3	10						
11	343 38.7 -00.1	N 22 10.3 -00.3	314 32.6 -00.5	N 17 36.5 -00.9	338 03.6 -31.6	N 24 56.0 -03.3	11						
12	358 38.6 -00.1	N 22 10.0 -00.4	329 32.1 -00.6	N 17 35.6 -00.9	352 32.0 -31.7	N 24 52.7 -03.5	12						
13	13 38.5 +00.0	N 22 09.6 -00.3	344 31.5 -00.5	N 17 34.7 -00.9	7 00.3 -31.6	N 24 49.2 -03.7	13						
14	28 38.5 -00.1	N 22 09.3 -00.3	359 31.0 -00.6	N 17 33.8 -00.9	21 28.7 -31.6	N 24 45.5 -03.7	14						
15	43 38.4 -00.1	N 22 09.0 -00.3	14 30.4 -00.5	N 17 32.9 -00.9	35 57.1 -31.6	N 24 41.8 -03.9	15						
16	58 38.3 -00.1	N 22 08.7 -00.4	29 29.9 -00.6	N 17 32.0 -00.9	50 25.5 -31.6	N 24 37.9 -04.0	16						
17	73 38.2 -00.1	N 22 08.3 -00.3	44 29.3 -00.5	N 17 31.1 -01.0	64 53.9 -31.6	N 24 33.9 -04.2	17						
18	88 38.1 -00.1	N 22 08.0 -00.3	59 28.8 -00.6	N 17 30.1 -00.9	79 22.3 -31.5	N 24 29.7 -04.3	18						
19	103 38.0 -00.1	N 22 07.7 -00.3	74 28.2 -00.5	N 17 29.2 -00.9	93 50.8 -31.6	N 24 25.4 -04.4	19						
20	118 37.9 +00.0	N 22 07.4 -00.4	89 27.7 -00.6	N 17 28.3 -00.9	108 19.2 -31.5	N 24 21.0 -04.5	20						
21	133 37.9 -00.1	N 22 07.0 -00.3	104 27.1 -00.5	N 17 27.4 -00.9	122 47.7 -31.5	N 24 16.5 -04.7	21						
22	148 37.8 -00.1	N 22 06.7 -00.3	119 26.6 -00.6	N 17 26.5 -01.0	137 16.2 -31.5	N 24 11.8 -04.8	22						
23	163 37.7 -00.1	N 22 06.4 -00.4	134 26.0 -00.5	N 17 25.5 -00.9	151 44.7 -31.4	N 24 07.0 -04.9	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'0 15'0 15'1 15'1 15'1 15'1								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 55'1 55'2 55'3 55'4 55'4 55'5								
	SHA 250° 250° 250° 250° 250° 250°		SHA 221° 221° 221° 221° 221° 220°		SHA 250° 247° 245° 243° 240° 238°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 14:01		Greenwich Culmination Time: 12:30								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	147 42.9 +00.9	N 16 42.1 -00.5	314 09.1 +02.6	S 11 53.4 +00.1	333 37.5 +02.7	S 17 56.9 +00.1	00						
01	162 43.8 +00.9	N 16 41.6 -00.4	329 11.7 +02.6	S 11 53.5 +00.0	348 40.2 +02.6	S 17 57.0 +00.0	01						
02	177 44.7 +01.0	N 16 41.2 -00.5	344 14.3 +02.6	S 11 53.5 +00.1	3 42.8 +02.6	S 17 57.0 +00.1	02						
03	192 45.7 +00.9	N 16 40.7 -00.5	359 16.9 +02.6	S 11 53.6 +00.1	18 45.4 +02.6	S 17 57.1 +00.0	03						
04	207 46.6 +00.9	N 16 40.2 -00.5	14 19.5 +02.6	S 11 53.7 +00.0	33 48.0 +02.7	S 17 57.1 +00.1	04						
05	222 47.5 +00.9	N 16 39.7 -00.5	29 22.1 +02.6	S 11 53.7 +00.1	48 50.7 +02.6	S 17 57.2 +00.0	05						
06	237 48.4 +00.9	N 16 39.2 -00.5	44 24.7 +02.6	S 11 53.8 +00.1	63 53.3 +02.6	S 17 57.2 +00.1	06						
07	252 49.3 +01.0	N 16 38.7 -00.5	59 27.3 +02.7	S 11 53.9 +00.0	78 55.9 +02.6	S 17 57.3 +00.0	07						
08	267 50.3 +00.9	N 16 38.2 -00.5	74 30.0 +02.6	S 11 53.9 +00.1	93 58.5 +02.7	S 17 57.3 +00.1	08						
09	282 51.2 +00.9	N 16 37.7 -00.5	89 32.6 +02.6	S 11 54.0 +00.1	109 01.2 +02.6	S 17 57.4 +00.0	09						
10	297 52.1 +00.9	N 16 37.2 -00.4	104 35.2 +02.6	S 11 54.1 +00.0	124 03.8 +02.6	S 17 57.4 +00.1	10						
11	312 53.0 +01.0	N 16 36.8 -00.5	119 37.8 +02.6	S 11 54.1 +00.1	139 06.4 +02.6	S 17 57.5 +00.0	11						
12	327 54.0 +00.9	N 16 36.3 -00.5	134 40.4 +02.6	S 11 54.2 +00.0	154 09.0 +02.7	S 17 57.5 +00.0	12						
13	342 54.9 +00.9	N 16 35.8 -00.5	149 43.0 +02.6	S 11 54.2 +00.1	169 11.7 +02.6	S 17 57.5 +00.1	13						
14	357 55.8 +00.9	N 16 35.3 -00.5	164 45.6 +02.6	S 11 54.3 +00.1	184 14.3 +02.6	S 17 57.6 +00.0	14						
15	12 56.7 +01.0	N 16 34.8 -00.5	179 48.2 +02.6	S 11 54.4 +00.0	199 16.9 +02.7	S 17 57.6 +00.1	15						
16	27 57.7 +00.9	N 16 34.3 -00.5	194 50.8 +02.6	S 11 54.4 +00.1	214 19.6 +02.6	S 17 57.7 +00.0	16						
17	42 58.6 +00.9	N 16 33.8 -00.5	209 53.4 +02.6	S 11 54.5 +00.1	229 22.2 +02.6	S 17 57.7 +00.1	17						
18	57 59.5 +00.9	N 16 33.3 -00.5	224 56.0 +02.7	S 11 54.6 +00.0	244 24.8 +02.6	S 17 57.8 +00.0	18						
19	73 00.4 +01.0	N 16 32.8 -00.5	239 58.7 +02.6	S 11 54.6 +00.1	259 27.4 +02.7	S 17 57.8 +00.1	19						
20	88 01.4 +00.9	N 16 32.3 -00.5	255 01.3 +02.6	S 11 54.7 +00.1	274 30.1 +02.6	S 17 57.9 +00.0	20						
21	103 02.3 +00.9	N 16 31.8 -00.4	270 03.9 +02.6	S 11 54.8 +00.0	289 32.7 +02.6	S 17 57.9 +00.1	21						
22	118 03.2 +00.9	N 16 31.4 -00.5	285 06.5 +02.6	S 11 54.8 +00.1	304 35.3 +02.6	S 17 58.0 +00.0	22						
23	133 04.1 +01.0	N 16 30.9 -00.5	300 09.1 +02.6	S 11 54.9 +00.1	319 37.9 +02.7	S 17 58.0 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 220° 219° 219° 219° 219° 219°		SHA 026° 026° 026° 026° 026° 026°		SHA 045° 046° 046° 046° 046° 046°								
	Greenwich Culmination Time: 14:08		Greenwich Culmination Time: 03:02		Greenwich Culmination Time: 01:45								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 37.6 -00.1	N 22 06.0 -00.3			149 25.5 -00.6	N 17 24.6 -00.9			166 13.3 -31.5	N 24 02.1 -05.1			00
01	193 37.5 -00.1	N 22 05.7 -00.3			164 24.9 -00.5	N 17 23.7 -00.9			180 41.8 -31.4	N 23 57.0 -05.2			01
02	208 37.4 -00.1	N 22 05.4 -00.4			179 24.4 -00.6	N 17 22.8 -01.0			195 10.4 -31.4	N 23 51.8 -05.3			02
03	223 37.3 +00.0	N 22 05.0 -00.3			194 23.8 -00.5	N 17 21.8 -00.9			209 39.0 -31.3	N 23 46.5 -05.4			03
04	238 37.3 -00.1	N 22 04.7 -00.3			209 23.3 -00.6	N 17 20.9 -00.9			224 07.7 -31.4	N 23 41.1 -05.6			04
05	253 37.2 -00.1	N 22 04.4 -00.4			224 22.7 -00.5	N 17 20.0 -00.9			238 36.3 -31.3	N 23 35.5 -05.7			05
06	268 37.1 -00.1	N 22 04.0 -00.3			239 22.2 -00.5	N 17 19.1 -01.0			253 05.0 -31.3	N 23 29.8 -05.8			06
07	283 37.0 -00.1	N 22 03.7 -00.3			254 21.7 -00.6	N 17 18.1 -00.9			267 33.7 -31.2	N 23 24.0 -05.9			07
08	298 36.9 -00.1	N 22 03.4 -00.4			269 21.1 -00.5	N 17 17.2 -00.9			282 02.5 -31.3	N 23 18.1 -06.1			08
09	313 36.8 +00.0	N 22 03.0 -00.3			284 20.6 -00.6	N 17 16.3 -00.9			296 31.2 -31.2	N 23 12.0 -06.2			09
10	328 36.8 -00.1	N 22 02.7 -00.4			299 20.0 -00.5	N 17 15.4 -01.0			311 00.0 -31.1	N 23 05.8 -06.3			10
11	343 36.7 -00.1	N 22 02.3 -00.3			314 19.5 -00.6	N 17 14.4 -00.9			325 28.9 -31.2	N 22 59.5 -06.4			11
12	358 36.6 -00.1	N 22 02.0 -00.3			329 18.9 -00.5	N 17 13.5 -00.9			339 57.7 -31.1	N 22 53.1 -06.6			12
13	13 36.5 -00.1	N 22 01.7 -00.4			344 18.4 -00.5	N 17 12.6 -01.0			354 26.6 -31.1	N 22 46.5 -06.7			13
14	28 36.4 +00.0	N 22 01.3 -00.3			359 17.9 -00.6	N 17 11.6 -00.9			8 55.5 -31.0	N 22 39.8 -06.8			14
15	43 36.4 -00.1	N 22 01.0 -00.4			14 17.3 -00.5	N 17 10.7 -00.9			23 24.5 -31.0	N 22 33.0 -06.9			15
16	58 36.3 -00.1	N 22 00.6 -00.3			29 16.8 -00.5	N 17 09.8 -01.0			37 53.5 -31.0	N 22 26.1 -07.0			16
17	73 36.2 -00.1	N 22 00.3 -00.3			44 16.3 -00.6	N 17 08.8 -00.9			52 22.5 -30.9	N 22 19.1 -07.2			17
18	88 36.1 -00.1	N 21 60.0 -00.4			59 15.7 -00.5	N 17 07.9 -00.9			66 51.6 -30.9	N 22 11.9 -07.3			18
19	103 36.0 -00.1	N 21 59.6 -00.3			74 15.2 -00.6	N 17 07.0 -01.0			81 20.7 -30.9	N 22 04.6 -07.4			19
20	118 35.9 +00.0	N 21 59.3 -00.4			89 14.6 -00.5	N 17 06.0 -00.9			95 49.8 -30.8	N 21 57.2 -07.5			20
21	133 35.9 -00.1	N 21 58.9 -00.3			104 14.1 -00.5	N 17 05.1 -01.0			110 19.0 -30.8	N 21 49.7 -07.6			21
22	148 35.8 -00.1	N 21 58.6 -00.4			119 13.6 -00.6	N 17 04.1 -00.9			124 48.2 -30.8	N 21 42.1 -07.7			22
23	163 35.7 -00.1	N 21 58.2 -00.3			134 13.0 -00.5	N 17 03.2 -00.9			139 17.4 -30.7	N 21 34.4 -07.9			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 15'1 15'2 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 55'6 55'7 55'7 55'8 55'9 56'0				
	SHA 249° 249° 249° 249° 249° 249°				SHA 220° 220° 220° 220° 219° 219°				SHA 236° 234° 231° 229° 227° 225°				
	Greenwich Culmination Time: 12:05				Greenwich Culmination Time: 14:02				Greenwich Culmination Time: 13:23				

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	148 05.1 +00.9	N 16 30.4 -00.5			315 11.7 +02.6	S 11 55.0 +00.0			334 40.6 +02.6	S 17 58.1 +00.0			00
01	163 06.0 +00.9	N 16 29.9 -00.5			330 14.3 +02.6	S 11 55.0 +00.1			349 43.2 +02.6	S 17 58.1 +00.1			01
02	178 06.9 +00.9	N 16 29.4 -00.5			345 16.9 +02.7	S 11 55.1 +00.1			4 45.8 +02.7	S 17 58.2 +00.1			02
03	193 07.8 +01.0	N 16 28.9 -00.5			0 19.6 +02.6	S 11 55.2 +00.1			19 48.5 +02.6	S 17 58.3 +00.0			03
04	208 08.8 +00.9	N 16 28.4 -00.5			15 22.2 +02.6	S 11 55.3 +00.0			34 51.1 +02.6	S 17 58.3 +00.1			04
05	223 09.7 +00.9	N 16 27.9 -00.5			30 24.8 +02.6	S 11 55.3 +00.1			49 53.7 +02.6	S 17 58.4 +00.0			05
06	238 10.6 +00.9	N 16 27.4 -00.5			45 27.4 +02.6	S 11 55.4 +00.1			64 56.3 +02.7	S 17 58.4 +00.1			06
07	253 11.5 +01.0	N 16 26.9 -00.5			60 30.0 +02.6	S 11 55.5 +00.0			79 59.0 +02.6	S 17 58.5 +00.0			07
08	268 12.5 +00.9	N 16 26.4 -00.5			75 32.6 +02.6	S 11 55.5 +00.1			95 01.6 +02.6	S 17 58.5 +00.1			08
09	283 13.4 +00.9	N 16 25.9 -00.5			90 35.2 +02.7	S 11 55.6 +00.1			110 04.2 +02.6	S 17 58.6 +00.0			09
10	298 14.3 +00.9	N 16 25.4 -00.5			105 37.9 +02.6	S 11 55.7 +00.0			125 06.8 +02.7	S 17 58.6 +00.1			10
11	313 15.2 +01.0	N 16 24.9 -00.5			120 40.5 +02.6	S 11 55.7 +00.1			140 09.5 +02.6	S 17 58.7 +00.0			11
12	328 16.2 +00.9	N 16 24.4 -00.5			135 43.1 +02.6	S 11 55.8 +00.1			155 12.1 +02.6	S 17 58.7 +00.1			12
13	343 17.1 +00.9	N 16 23.9 -00.4			150 45.7 +02.6	S 11 55.9 +00.0			170 14.7 +02.7	S 17 58.8 +00.0			13
14	358 18.0 +00.9	N 16 23.5 -00.5			165 48.3 +02.6	S 11 55.9 +00.1			185 17.4 +02.6	S 17 58.8 +00.1			14
15	13 18.9 +01.0	N 16 23.0 -00.5			180 50.9 +02.7	S 11 56.0 +00.1			200 20.0 +02.6	S 17 58.9 +00.0			15
16	28 19.9 +00.9	N 16 22.5 -00.5			195 53.6 +02.6	S 11 56.1 +00.0			215 22.6 +02.6	S 17 58.9 +00.1			16
17	43 20.8 +00.9	N 16 22.0 -00.5			210 56.2 +02.6	S 11 56.1 +00.1			230 25.2 +02.7	S 17 59.0 +00.0			17
18	58 21.7 +01.0	N 16 21.5 -00.5			225 58.8 +02.6	S 11 56.2 +00.1			245 27.9 +02.6	S 17 59.0 +00.1			18
19	73 22.7 +00.9	N 16 21.0 -00.5			241 01.4 +02.6	S 11 56.3 +00.0			260 30.5 +02.6	S 17 59.1 +00.0			19
20	88 23.6 +00.9	N 16 20.5 -00.5			256 04.0 +02.6	S 11 56.3 +00.1			275 33.1 +02.7	S 17 59.1 +00.1			20
21	103 24.5 +00.9	N 16 20.0 -00.5			271 06.6 +02.7	S 11 56.4 +00.1			290 35.8 +02.6	S 17 59.2 +00.0			21
22	118 25.4 +01.0	N 16 19.5 -00.5			286 09.3 +02.6	S 11 56.5 +00.1			305 38.4 +02.6	S 17 59.2 +00.1			22
23	133 26.4 +00.9	N 16 19.0 -00.5			301 11.9 +02.6	S 11 56.6 +00.0			320 41.0 +02.7	S 17 59.3 +00.0			23
	UT 02 06 10 14 18 22				UT 02 06 10 14 18 22				UT 02 06 10 14 18 22				
	SD 00'0 00'0 00'0 00'0 00'0 00'0				SD 00'4 00'4 00'4 00'4 00'4 00'4				SD 00'2 00'2 00'2 00'2 00'2 00'2				
	HP 00'1 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				
	SHA 219° 219° 219° 219° 218° 218°				SHA 026° 026° 026° 026° 026° 026°				SHA 046° 046° 046° 046° 046° 046°				
	Greenwich Culmination Time: 14:06				Greenwich Culmination Time: 02:58				Greenwich Culmination Time: 01:41				

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 35.6 -00.1	N 21 57.9 -00.4	149 12.5 -00.5	N 17 02.3 -01.0	153 46.7 -30.7	N 21 26.5 -08.0	00						
01	193 35.5 +00.0	N 21 57.5 -00.3	164 12.0 -00.6	N 17 01.3 -00.9	168 16.0 -30.7	N 21 18.5 -08.1	01						
02	208 35.5 -00.1	N 21 57.2 -00.4	179 11.4 -00.5	N 17 00.4 -01.0	182 45.3 -30.6	N 21 10.4 -08.2	02						
03	223 35.4 -00.1	N 21 56.8 -00.3	194 10.9 -00.5	N 16 59.4 -00.9	197 14.7 -30.5	N 21 02.2 -08.3	03						
04	238 35.3 -00.1	N 21 56.5 -00.4	209 10.4 -00.5	N 16 58.5 -01.0	211 44.2 -30.6	N 20 53.9 -08.4	04						
05	253 35.2 +00.0	N 21 56.1 -00.3	224 09.9 -00.6	N 16 57.5 -00.9	226 13.6 -30.4	N 20 45.5 -08.5	05						
06	268 35.2 -00.1	N 21 55.8 -00.4	239 09.3 -00.5	N 16 56.6 -00.9	240 43.2 -30.5	N 20 37.0 -08.7	06						
07	283 35.1 -00.1	N 21 55.4 -00.3	254 08.8 -00.5	N 16 55.7 -01.0	255 12.7 -30.4	N 20 28.3 -08.7	07						
08	298 35.0 -00.1	N 21 55.1 -00.4	269 08.3 -00.6	N 16 54.7 -00.9	269 42.3 -30.4	N 20 19.6 -08.9	08						
09	313 34.9 -00.1	N 21 54.7 -00.3	284 07.7 -00.5	N 16 53.8 -01.0	284 11.9 -30.3	N 20 10.7 -09.0	09						
10	328 34.8 +00.0	N 21 54.4 -00.4	299 07.2 -00.5	N 16 52.8 -00.9	298 41.6 -30.3	N 20 01.7 -09.0	10						
11	343 34.8 -00.1	N 21 54.0 -00.3	314 06.7 -00.5	N 16 51.9 -01.0	313 11.3 -30.2	N 19 52.7 -09.2	11						
12	358 34.7 -00.1	N 21 53.7 -00.4	329 06.2 -00.6	N 16 50.9 -00.9	327 41.1 -30.2	N 19 43.5 -09.3	12						
13	13 34.6 -00.1	N 21 53.3 -00.4	344 05.6 -00.5	N 16 50.0 -01.0	342 10.9 -30.2	N 19 34.2 -09.4	13						
14	28 34.5 +00.0	N 21 52.9 -00.3	359 05.1 -00.5	N 16 49.0 -00.9	356 40.7 -30.1	N 19 24.8 -09.5	14						
15	43 34.5 -00.1	N 21 52.6 -00.4	14 04.6 -00.5	N 16 48.1 -01.0	11 10.6 -30.1	N 19 15.3 -09.6	15						
16	58 34.4 -00.1	N 21 52.2 -00.3	29 04.1 -00.6	N 16 47.1 -00.9	25 40.5 -30.0	N 19 05.7 -09.7	16						
17	73 34.3 -00.1	N 21 51.9 -00.4	44 03.5 -00.5	N 16 46.2 -01.0	40 10.5 -30.0	N 18 56.0 -09.8	17						
18	88 34.2 -00.1	N 21 51.5 -00.3	59 03.0 -00.5	N 16 45.2 -01.0	54 40.5 -30.0	N 18 46.2 -09.9	18						
19	103 34.1 +00.0	N 21 51.2 -00.4	74 02.5 -00.5	N 16 44.2 -00.9	69 10.5 -29.9	N 18 36.3 -10.0	19						
20	118 34.1 -00.1	N 21 50.8 -00.4	89 02.0 -00.6	N 16 43.3 -01.0	83 40.6 -29.9	N 18 26.3 -10.1	20						
21	133 34.0 -00.1	N 21 50.4 -00.3	104 01.4 -00.5	N 16 42.3 -00.9	98 10.7 -29.8	N 18 16.2 -10.2	21						
22	148 33.9 -00.1	N 21 50.1 -00.4	119 00.9 -00.5	N 16 41.4 -01.0	112 40.9 -29.8	N 18 06.0 -10.3	22						
23	163 33.8 +00.0	N 21 49.7 -00.4	134 00.4 -00.5	N 16 40.4 -00.9	127 11.1 -29.7	N 17 55.7 -10.4	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 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 15'3 15'3 15'3 15'3 15'4 15'4								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 56'1 56'1 56'2 56'3 56'4 56'5								
	SHA 248° 248° 248° 248° 248° 248°		SHA 219° 219° 219° 218° 218° 218°		SHA 223° 220° 218° 216° 214° 212°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 14:03		Greenwich Culmination Time: 14:13								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	148 27.3 +00.9	N 16 18.5 -00.5	316 14.5 +02.6	S 11 56.6 +00.1	335 43.7 +02.6	S 17 59.3 +00.1	00						
01	163 28.2 +00.9	N 16 18.0 -00.5	331 17.1 +02.6	S 11 56.7 +00.1	350 46.3 +02.6	S 17 59.4 +00.0	01						
02	178 29.1 +01.0	N 16 17.5 -00.5	346 19.7 +02.7	S 11 56.8 +00.0	5 48.9 +02.6	S 17 59.4 +00.1	02						
03	193 30.1 +00.9	N 16 17.0 -00.5	1 22.4 +02.6	S 11 56.8 +00.1	20 51.5 +02.7	S 17 59.5 +00.0	03						
04	208 31.0 +00.9	N 16 16.5 -00.5	16 25.0 +02.6	S 11 56.9 +00.1	35 54.2 +02.6	S 17 59.5 +00.1	04						
05	223 31.9 +01.0	N 16 16.0 -00.5	31 27.6 +02.6	S 11 57.0 +00.0	50 56.8 +02.6	S 17 59.6 +00.0	05						
06	238 32.9 +00.9	N 16 15.5 -00.5	46 30.2 +02.6	S 11 57.0 +00.1	65 59.4 +02.7	S 17 59.6 +00.1	06						
07	253 33.8 +00.9	N 16 15.0 -00.5	61 32.8 +02.7	S 11 57.1 +00.1	81 02.1 +02.6	S 17 59.7 +00.0	07						
08	268 34.7 +00.9	N 16 14.5 -00.5	76 35.5 +02.6	S 11 57.2 +00.1	96 04.7 +02.6	S 17 59.7 +00.1	08						
09	283 35.6 +01.0	N 16 14.0 -00.5	91 38.1 +02.6	S 11 57.3 +00.0	111 07.3 +02.6	S 17 59.8 +00.0	09						
10	298 36.6 +00.9	N 16 13.5 -00.5	106 40.7 +02.6	S 11 57.3 +00.1	126 09.9 +02.7	S 17 59.8 +00.1	10						
11	313 37.5 +00.9	N 16 13.0 -00.5	121 43.3 +02.7	S 11 57.4 +00.1	141 12.6 +02.6	S 17 59.9 +00.0	11						
12	328 38.4 +01.0	N 16 12.5 -00.5	136 46.0 +02.6	S 11 57.5 +00.0	156 15.2 +02.6	S 17 59.9 +00.1	12						
13	343 39.4 +00.9	N 16 12.0 -00.5	151 48.6 +02.6	S 11 57.5 +00.1	171 17.8 +02.7	S 17 60.0 +00.0	13						
14	358 40.3 +00.9	N 16 11.5 -00.5	166 51.2 +02.6	S 11 57.6 +00.1	186 20.5 +02.6	S 18 00.0 +00.1	14						
15	13 41.2 +00.9	N 16 11.0 -00.5	181 53.8 +02.6	S 11 57.7 +00.0	201 23.1 +02.6	S 18 00.1 +00.0	15						
16	28 42.1 +01.0	N 16 10.5 -00.5	196 56.4 +02.7	S 11 57.7 +00.1	216 25.7 +02.7	S 18 00.1 +00.1	16						
17	43 43.1 +00.9	N 16 10.0 -00.5	211 59.1 +02.6	S 11 57.8 +00.1	231 28.4 +02.6	S 18 00.2 +00.0	17						
18	58 44.0 +00.9	N 16 09.5 -00.5	227 01.7 +02.6	S 11 57.9 +00.1	246 31.0 +02.6	S 18 00.2 +00.1	18						
19	73 44.9 +01.0	N 16 09.0 -00.5	242 04.3 +02.6	S 11 58.0 +00.0	261 33.6 +02.7	S 18 00.3 +00.0	19						
20	88 45.9 +00.9	N 16 08.5 -00.5	257 06.9 +02.7	S 11 58.0 +00.1	276 36.3 +02.6	S 18 00.3 +00.1	20						
21	103 46.8 +00.9	N 16 08.0 -00.5	272 09.6 +02.6	S 11 58.1 +00.1	291 38.9 +02.6	S 18 00.4 +00.0	21						
22	118 47.7 +00.9	N 16 07.5 -00.5	287 12.2 +02.6	S 11 58.2 +00.1	306 41.5 +02.6	S 18 00.4 +00.1	22						
23	133 48.6 +01.0	N 16 07.0 -00.5	302 14.8 +02.6	S 11 58.3 +00.0	321 44.1 +02.7	S 18 00.5 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 218° 218° 218° 218° 218° 218°		SHA 026° 026° 026° 026° 026° 026°		SHA 046° 046° 046° 046° 046° 046°								
	Greenwich Culmination Time: 14:05		Greenwich Culmination Time: 02:54		Greenwich Culmination Time: 01:36								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 33.8 -00.1	N 21 49.3 -00.3	148 59.9 -00.5	N 16 39.5 -01.0	141 41.4 -29.8	N 17 45.3 -10.4	00						
01	193 33.7 -00.1	N 21 49.0 -00.4	163 59.4 -00.6	N 16 38.5 -01.0	156 11.6 -29.6	N 17 34.9 -10.6	01						
02	208 33.6 -00.1	N 21 48.6 -00.4	178 58.8 -00.5	N 16 37.5 -00.9	170 42.0 -29.6	N 17 24.3 -10.7	02						
03	223 33.5 +00.0	N 21 48.2 -00.3	193 58.3 -00.5	N 16 36.6 -01.0	185 12.4 -29.6	N 17 13.6 -10.8	03						
04	238 33.5 -00.1	N 21 47.9 -00.4	208 57.8 -00.5	N 16 35.6 -00.9	199 42.8 -29.6	N 17 02.8 -10.8	04						
05	253 33.4 -00.1	N 21 47.5 -00.4	223 57.3 -00.5	N 16 34.7 -01.0	214 13.2 -29.5	N 16 52.0 -10.9	05						
06	268 33.3 -00.1	N 21 47.1 -00.3	238 56.8 -00.5	N 16 33.7 -01.0	228 43.7 -29.5	N 16 41.1 -11.1	06						
07	283 33.2 +00.0	N 21 46.8 -00.4	253 56.3 -00.6	N 16 32.7 -00.9	243 14.2 -29.4	N 16 30.0 -11.1	07						
08	298 33.2 -00.1	N 21 46.4 -00.4	268 55.7 -00.5	N 16 31.8 -01.0	257 44.8 -29.4	N 16 18.9 -11.2	08						
09	313 33.1 -00.1	N 21 46.0 -00.3	283 55.2 -00.5	N 16 30.8 -01.0	272 15.4 -29.3	N 16 07.7 -11.3	09						
10	328 33.0 +00.0	N 21 45.7 -00.4	298 54.7 -00.5	N 16 29.8 -00.9	286 46.1 -29.3	N 15 56.4 -11.4	10						
11	343 33.0 -00.1	N 21 45.3 -00.4	313 54.2 -00.5	N 16 28.9 -01.0	301 16.8 -29.3	N 15 45.0 -11.5	11						
12	358 32.9 -00.1	N 21 44.9 -00.3	328 53.7 -00.5	N 16 27.9 -01.0	315 47.5 -29.2	N 15 33.5 -11.5	12						
13	13 32.8 -00.1	N 21 44.6 -00.4	343 53.2 -00.5	N 16 26.9 -00.9	330 18.3 -29.2	N 15 22.0 -11.6	13						
14	28 32.7 +00.0	N 21 44.2 -00.4	358 52.7 -00.5	N 16 26.0 -01.0	344 49.1 -29.2	N 15 10.4 -11.8	14						
15	43 32.7 -00.1	N 21 43.8 -00.4	13 52.2 -00.6	N 16 25.0 -01.0	359 19.9 -29.1	N 14 58.6 -11.7	15						
16	58 32.6 -00.1	N 21 43.4 -00.3	28 51.6 -00.5	N 16 24.0 -00.9	13 50.8 -29.1	N 14 46.9 -11.9	16						
17	73 32.5 +00.0	N 21 43.1 -00.4	43 51.1 -00.5	N 16 23.1 -01.0	28 21.7 -29.1	N 14 35.0 -12.0	17						
18	88 32.5 -00.1	N 21 42.7 -00.4	58 50.6 -00.5	N 16 22.1 -01.0	42 52.6 -29.0	N 14 23.0 -12.0	18						
19	103 32.4 -00.1	N 21 42.3 -00.4	73 50.1 -00.5	N 16 21.1 -01.0	57 23.6 -29.0	N 14 11.0 -12.1	19						
20	118 32.3 -00.1	N 21 41.9 -00.3	88 49.6 -00.5	N 16 20.1 -00.9	71 54.6 -28.9	N 13 58.9 -12.2	20						
21	133 32.2 +00.0	N 21 41.6 -00.4	103 49.1 -00.5	N 16 19.2 -01.0	86 25.7 -29.0	N 13 46.7 -12.3	21						
22	148 32.2 -00.1	N 21 41.2 -00.4	118 48.6 -00.5	N 16 18.2 -01.0	100 56.7 -28.9	N 13 34.4 -12.3	22						
23	163 32.1 -00.1	N 21 40.8 -00.4	133 48.1 -00.5	N 16 17.2 -01.0	115 27.8 -28.8	N 13 22.1 -12.4	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	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	15'4 15'4 15'5 15'5 15'5 15'5						
HP	00'1 00'1 00'1 00'1 00'1 00'1		HP	00'1 00'1 00'1 00'1 00'1 00'1		HP	56'6 56'6 56'7 56'8 56'9 57'0						
SHA	247° 247° 247° 247° 247° 247°		SHA	218° 218° 217° 217° 217° 217°		SHA	210° 207° 205° 203° 201° 199°						
Greenwich Culmination Time: 12:05			Greenwich Culmination Time: 14:04			Greenwich Culmination Time: 15:02							

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	148 49.6 +00.9	N 16 06.5 -00.5	317 17.4 +02.7	S 11 58.3 +00.1	336 46.8 +02.6	S 18 00.5 +00.1	00						
01	163 50.5 +00.9	N 16 06.0 -00.5	332 20.1 +02.6	S 11 58.4 +00.1	351 49.4 +02.6	S 18 00.6 +00.0	01						
02	178 51.4 +01.0	N 16 05.5 -00.5	347 22.7 +02.6	S 11 58.5 +00.0	6 52.0 +02.7	S 18 00.6 +00.1	02						
03	193 52.4 +00.9	N 16 05.0 -00.5	2 25.3 +02.7	S 11 58.5 +00.1	21 54.7 +02.6	S 18 00.7 +00.0	03						
04	208 53.3 +00.9	N 16 04.5 -00.5	17 28.0 +02.6	S 11 58.6 +00.1	36 57.3 +02.6	S 18 00.7 +00.1	04						
05	223 54.2 +01.0	N 16 04.0 -00.5	32 30.6 +02.6	S 11 58.7 +00.1	51 59.9 +02.7	S 18 00.8 +00.0	05						
06	238 55.2 +00.9	N 16 03.5 -00.5	47 33.2 +02.6	S 11 58.8 +00.0	67 02.6 +02.6	S 18 00.8 +00.1	06						
07	253 56.1 +00.9	N 16 03.0 -00.5	62 35.8 +02.7	S 11 58.8 +00.1	82 05.2 +02.6	S 18 00.9 +00.0	07						
08	268 57.0 +00.9	N 16 02.5 -00.5	77 38.5 +02.6	S 11 58.9 +00.1	97 07.8 +02.7	S 18 00.9 +00.1	08						
09	283 57.9 +01.0	N 16 02.0 -00.5	92 41.1 +02.6	S 11 59.0 +00.0	112 10.5 +02.6	S 18 01.0 +00.0	09						
10	298 58.9 +00.9	N 16 01.5 -00.5	107 43.7 +02.7	S 11 59.0 +00.1	127 13.1 +02.6	S 18 01.0 +00.1	10						
11	313 59.8 +00.9	N 16 01.0 -00.5	122 46.4 +02.6	S 11 59.1 +00.1	142 15.7 +02.7	S 18 01.1 +00.0	11						
12	329 00.7 +01.0	N 16 00.5 -00.5	137 49.0 +02.6	S 11 59.2 +00.1	157 18.4 +02.6	S 18 01.1 +00.1	12						
13	344 01.7 +00.9	N 15 60.0 -00.5	152 51.6 +02.6	S 11 59.3 +00.0	172 21.0 +02.6	S 18 01.2 +00.0	13						
14	359 02.6 +00.9	N 15 59.5 -00.5	167 54.2 +02.7	S 11 59.3 +00.1	187 23.6 +02.7	S 18 01.2 +00.1	14						
15	14 03.5 +01.0	N 15 59.0 -00.5	182 56.9 +02.6	S 11 59.4 +00.1	202 26.3 +02.6	S 18 01.3 +00.0	15						
16	29 04.5 +00.9	N 15 58.5 -00.5	197 59.5 +02.6	S 11 59.5 +00.1	217 28.9 +02.6	S 18 01.3 +00.1	16						
17	44 05.4 +00.9	N 15 58.0 -00.5	213 02.1 +02.7	S 11 59.6 +00.0	232 31.5 +02.7	S 18 01.4 +00.0	17						
18	59 06.3 +01.0	N 15 57.5 -00.5	228 04.8 +02.6	S 11 59.6 +00.1	247 34.2 +02.6	S 18 01.4 +00.1	18						
19	74 07.3 +00.9	N 15 57.0 -00.5	243 07.4 +02.6	S 11 59.7 +00.1	262 36.8 +02.6	S 18 01.5 +00.0	19						
20	89 08.2 +00.9	N 15 56.5 -00.5	258 10.0 +02.7	S 11 59.8 +00.1	277 39.4 +02.7	S 18 01.5 +00.1	20						
21	104 09.1 +01.0	N 15 56.0 -00.6	273 12.7 +02.6	S 11 59.9 +00.0	292 42.1 +02.6	S 18 01.6 +00.1	21						
22	119 10.1 +00.9	N 15 55.4 -00.5	288 15.3 +02.6	S 11 59.9 +00.1	307 44.7 +02.6	S 18 01.7 +00.0	22						
23	134 11.0 +00.9	N 15 54.9 -00.5	303 17.9 +02.7	S 12 00.0 +00.1	322 47.3 +02.7	S 18 01.7 +00.1	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	00'0 00'0 00'0 00'0 00'0 00'0		SD	00'4 00'4 00'4 00'4 00'4 00'4		SD	00'2 00'2 00'2 00'2 00'2 00'2						
HP	00'1 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						
SHA	218° 218° 217° 217° 217° 217°		SHA	026° 026° 026° 026° 026° 026°		SHA	046° 046° 046° 046° 046° 046°						
Greenwich Culmination Time: 14:03			Greenwich Culmination Time: 02:50			Greenwich Culmination Time: 01:32							

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 32.0 +00.0	N 21 40.4 -00.3	148 47.6 -00.5	N 16 16.2 -00.9	129 59.0 -28.8	N 13 09.7 -12.5	00						
01	193 32.0 -00.1	N 21 40.1 -00.4	163 47.1 -00.5	N 16 15.3 -01.0	144 30.2 -28.8	N 12 57.2 -12.5	01						
02	208 31.9 -00.1	N 21 39.7 -00.4	178 46.6 -00.5	N 16 14.3 -01.0	159 01.4 -28.8	N 12 44.7 -12.6	02						
03	223 31.8 +00.0	N 21 39.3 -00.4	193 46.1 -00.5	N 16 13.3 -01.0	173 32.6 -28.7	N 12 32.1 -12.7	03						
04	238 31.8 -00.1	N 21 38.9 -00.4	208 45.6 -00.5	N 16 12.3 -01.0	188 03.9 -28.7	N 12 19.4 -12.8	04						
05	253 31.7 -00.1	N 21 38.5 -00.4	223 45.1 -00.5	N 16 11.3 -00.9	202 35.2 -28.7	N 12 06.6 -12.8	05						
06	268 31.6 +00.0	N 21 38.1 -00.3	238 44.6 -00.5	N 16 10.4 -01.0	217 06.5 -28.7	N 11 53.8 -12.9	06						
07	283 31.6 -00.1	N 21 37.8 -00.4	253 44.1 -00.5	N 16 09.4 -01.0	231 37.8 -28.6	N 11 40.9 -13.0	07						
08	298 31.5 -00.1	N 21 37.4 -00.4	268 43.6 -00.5	N 16 08.4 -01.0	246 09.2 -28.6	N 11 27.9 -13.0	08						
09	313 31.4 -00.1	N 21 37.0 -00.4	283 43.1 -00.5	N 16 07.4 -01.0	260 40.6 -28.6	N 11 14.9 -13.1	09						
10	328 31.3 +00.0	N 21 36.6 -00.4	298 42.6 -00.5	N 16 06.4 -01.0	275 12.0 -28.5	N 11 01.8 -13.1	10						
11	343 31.3 -00.1	N 21 36.2 -00.4	313 42.1 -00.5	N 16 05.4 -00.9	289 43.5 -28.5	N 10 48.7 -13.2	11						
12	358 31.2 -00.1	N 21 35.8 -00.3	328 41.6 -00.5	N 16 04.5 -01.0	304 15.0 -28.5	N 10 35.5 -13.3	12						
13	13 31.1 +00.0	N 21 35.5 -00.4	343 41.1 -00.5	N 16 03.5 -01.0	318 46.5 -28.5	N 10 22.2 -13.3	13						
14	28 31.1 -00.1	N 21 35.1 -00.4	358 40.6 -00.5	N 16 02.5 -01.0	333 18.0 -28.5	N 10 08.9 -13.4	14						
15	43 31.0 -00.1	N 21 34.7 -00.4	13 40.1 -00.5	N 16 01.5 -01.0	347 49.5 -28.4	N 09 55.5 -13.4	15						
16	58 30.9 +00.0	N 21 34.3 -00.4	28 39.6 -00.5	N 16 00.5 -01.0	2 21.1 -28.4	N 09 42.1 -13.5	16						
17	73 30.9 -00.1	N 21 33.9 -00.4	43 39.1 -00.5	N 15 59.5 -01.0	16 52.7 -28.4	N 09 28.6 -13.6	17						
18	88 30.8 -00.1	N 21 33.5 -00.4	58 38.6 -00.5	N 15 58.5 -01.0	31 24.3 -28.4	N 09 15.0 -13.6	18						
19	103 30.7 +00.0	N 21 33.1 -00.4	73 38.1 -00.5	N 15 57.5 -00.9	45 55.9 -28.4	N 09 01.4 -13.6	19						
20	118 30.7 -00.1	N 21 32.7 -00.4	88 37.6 -00.5	N 15 56.6 -01.0	60 27.5 -28.3	N 08 47.8 -13.7	20						
21	133 30.6 +00.0	N 21 32.3 -00.4	103 37.1 -00.5	N 15 55.6 -01.0	74 59.2 -28.4	N 08 34.1 -13.8	21						
22	148 30.6 -00.1	N 21 31.9 -00.4	118 36.6 -00.5	N 15 54.6 -01.0	89 30.8 -28.3	N 08 20.3 -13.8	22						
23	163 30.5 -00.1	N 21 31.5 -00.3	133 36.1 -00.5	N 15 53.6 -01.0	104 02.5 -28.3	N 08 06.5 -13.9	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 15'5 15'6 15'6 15'6 15'6 15'7								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 57'1 57'2 57'2 57'3 57'4 57'5								
	SHA 246° 246° 246° 246° 246° 246°		SHA 217° 216° 216° 216° 216° 216°		SHA 197° 195° 193° 191° 189° 187°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 14:05		Greenwich Culmination Time: 15:50								

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	149 11.9 +00.9	N 15 54.4 -00.5	318 20.6 +02.6	S 12 00.1 +00.1	337 50.0 +02.6	S 18 01.8 +00.0	00						
01	164 12.8 +01.0	N 15 53.9 -00.5	333 23.2 +02.6	S 12 00.2 +00.0	352 52.6 +02.6	S 18 01.8 +00.1	01						
02	179 13.8 +00.9	N 15 53.4 -00.5	348 25.8 +02.7	S 12 00.2 +00.1	7 55.2 +02.7	S 18 01.9 +00.0	02						
03	194 14.7 +00.9	N 15 52.9 -00.5	3 28.5 +02.6	S 12 00.3 +00.1	22 57.9 +02.6	S 18 01.9 +00.1	03						
04	209 15.6 +01.0	N 15 52.4 -00.5	18 31.1 +02.6	S 12 00.4 +00.1	38 00.5 +02.6	S 18 02.0 +00.0	04						
05	224 16.6 +00.9	N 15 51.9 -00.5	33 33.7 +02.7	S 12 00.5 +00.0	53 03.1 +02.7	S 18 02.0 +00.1	05						
06	239 17.5 +00.9	N 15 51.4 -00.5	48 36.4 +02.6	S 12 00.5 +00.1	68 05.8 +02.6	S 18 02.1 +00.0	06						
07	254 18.4 +01.0	N 15 50.9 -00.5	63 39.0 +02.6	S 12 00.6 +00.1	83 08.4 +02.6	S 18 02.1 +00.1	07						
08	269 19.4 +00.9	N 15 50.4 -00.5	78 41.6 +02.7	S 12 00.7 +00.1	98 11.0 +02.7	S 18 02.2 +00.0	08						
09	284 20.3 +00.9	N 15 49.9 -00.5	93 44.3 +02.6	S 12 00.8 +00.0	113 13.7 +02.6	S 18 02.2 +00.1	09						
10	299 21.2 +01.0	N 15 49.4 -00.5	108 46.9 +02.6	S 12 00.8 +00.1	128 16.3 +02.6	S 18 02.3 +00.0	10						
11	314 22.2 +00.9	N 15 48.9 -00.5	123 49.5 +02.7	S 12 00.9 +00.1	143 18.9 +02.7	S 18 02.3 +00.1	11						
12	329 23.1 +00.9	N 15 48.4 -00.6	138 52.2 +02.6	S 12 01.0 +00.1	158 21.6 +02.6	S 18 02.4 +00.0	12						
13	344 24.0 +01.0	N 15 47.8 -00.5	153 54.8 +02.7	S 12 01.1 +00.0	173 24.2 +02.6	S 18 02.4 +00.1	13						
14	359 25.0 +00.9	N 15 47.3 -00.5	168 57.5 +02.6	S 12 01.1 +00.1	188 26.8 +02.7	S 18 02.5 +00.0	14						
15	14 25.9 +00.9	N 15 46.8 -00.5	184 00.1 +02.6	S 12 01.2 +00.1	203 29.5 +02.6	S 18 02.5 +00.1	15						
16	29 26.8 +01.0	N 15 46.3 -00.5	199 02.7 +02.7	S 12 01.3 +00.1	218 32.1 +02.6	S 18 02.6 +00.0	16						
17	44 27.8 +00.9	N 15 45.8 -00.5	214 05.4 +02.6	S 12 01.4 +00.0	233 34.7 +02.7	S 18 02.6 +00.1	17						
18	59 28.7 +00.9	N 15 45.3 -00.5	229 08.0 +02.6	S 12 01.4 +00.1	248 37.4 +02.6	S 18 02.7 +00.0	18						
19	74 29.6 +01.0	N 15 44.8 -00.5	244 10.6 +02.7	S 12 01.5 +00.1	263 40.0 +02.6	S 18 02.7 +00.1	19						
20	89 30.6 +00.9	N 15 44.3 -00.5	259 13.3 +02.6	S 12 01.6 +00.1	278 42.6 +02.7	S 18 02.8 +00.0	20						
21	104 31.5 +00.9	N 15 43.8 -00.5	274 15.9 +02.7	S 12 01.7 +00.0	293 45.3 +02.6	S 18 02.8 +00.1	21						
22	119 32.4 +01.0	N 15 43.3 -00.5	289 18.6 +02.6	S 12 01.7 +00.1	308 47.9 +02.6	S 18 02.9 +00.0	22						
23	134 33.4 +00.9	N 15 42.8 -00.5	304 21.2 +02.6	S 12 01.8 +00.1	323 50.5 +02.7	S 18 02.9 +00.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 217° 217° 217° 217° 217° 217°		SHA 026° 026° 026° 026° 026° 026°		SHA 046° 046° 046° 046° 046° 046°								
	Greenwich Culmination Time: 14:02		Greenwich Culmination Time: 02:46		Greenwich Culmination Time: 01:28								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 30.4 +00.0	N 21 31.2 -00.4	148 35.6 -00.5	N 15 52.6 -01.0	118 34.2 -28.3	N 07 52.6 -13.9	00						
01	193 30.4 -00.1	N 21 30.8 -00.4	163 35.1 -00.5	N 15 51.6 -01.0	133 05.9 -28.3	N 07 38.7 -13.9	01						
02	208 30.3 -00.1	N 21 30.4 -00.4	178 34.6 -00.5	N 15 50.6 -01.0	147 37.6 -28.2	N 07 24.8 -14.0	02						
03	223 30.2 +00.0	N 21 30.0 -00.4	193 34.1 -00.5	N 15 49.6 -01.0	162 09.4 -28.3	N 07 10.8 -14.0	03						
04	238 30.2 -00.1	N 21 29.6 -00.4	208 33.6 -00.4	N 15 48.6 -01.0	176 41.1 -28.2	N 06 56.8 -14.1	04						
05	253 30.1 -00.1	N 21 29.2 -00.4	223 33.2 -00.5	N 15 47.6 -01.0	191 12.9 -28.3	N 06 42.7 -14.2	05						
06	268 30.0 +00.0	N 21 28.8 -00.4	238 32.7 -00.5	N 15 46.6 -01.0	205 44.6 -28.2	N 06 28.5 -14.1	06						
07	283 30.0 -00.1	N 21 28.4 -00.4	253 32.2 -00.5	N 15 45.6 -01.0	220 16.4 -28.3	N 06 14.4 -14.2	07						
08	298 29.9 +00.0	N 21 28.0 -00.4	268 31.7 -00.5	N 15 44.6 -01.0	234 48.1 -28.2	N 06 00.2 -14.3	08						
09	313 29.9 -00.1	N 21 27.6 -00.4	283 31.2 -00.5	N 15 43.6 -01.0	249 19.9 -28.2	N 05 45.9 -14.2	09						
10	328 29.8 -00.1	N 21 27.2 -00.4	298 30.7 -00.5	N 15 42.6 -01.0	263 51.7 -28.2	N 05 31.7 -14.4	10						
11	343 29.7 +00.0	N 21 26.8 -00.4	313 30.2 -00.5	N 15 41.6 -01.0	278 23.5 -28.3	N 05 17.3 -14.3	11						
12	358 29.7 -00.1	N 21 26.4 -00.4	328 29.7 -00.4	N 15 40.6 -01.0	292 55.2 -28.2	N 05 03.0 -14.4	12						
13	13 29.6 -00.1	N 21 26.0 -00.4	343 29.3 -00.5	N 15 39.6 -01.0	307 27.0 -28.2	N 04 48.6 -14.4	13						
14	28 29.5 +00.0	N 21 25.6 -00.4	358 28.8 -00.5	N 15 38.6 -01.0	321 58.8 -28.2	N 04 34.2 -14.5	14						
15	43 29.5 -00.1	N 21 25.2 -00.4	13 28.3 -00.5	N 15 37.6 -01.0	336 30.6 -28.3	N 04 19.7 -14.5	15						
16	58 29.4 +00.0	N 21 24.8 -00.4	28 27.8 -00.5	N 15 36.6 -01.0	351 02.3 -28.2	N 04 05.2 -14.5	16						
17	73 29.4 -00.1	N 21 24.4 -00.4	43 27.3 -00.5	N 15 35.6 -01.0	5 34.1 -28.2	N 03 50.7 -14.5	17						
18	88 29.3 -00.1	N 21 24.0 -00.5	58 26.8 -00.4	N 15 34.6 -01.0	20 05.9 -28.3	N 03 36.2 -14.6	18						
19	103 29.2 +00.0	N 21 23.5 -00.4	73 26.4 -00.5	N 15 33.6 -01.0	34 37.6 -28.2	N 03 21.6 -14.6	19						
20	118 29.2 -00.1	N 21 23.1 -00.4	88 25.9 -00.5	N 15 32.6 -01.0	49 09.4 -28.3	N 03 07.0 -14.6	20						
21	133 29.1 +00.0	N 21 22.7 -00.4	103 25.4 -00.5	N 15 31.6 -01.1	63 41.1 -28.2	N 02 52.4 -14.7	21						
22	148 29.1 -00.1	N 21 22.3 -00.4	118 24.9 -00.5	N 15 30.5 -01.0	78 12.9 -28.3	N 02 37.7 -14.7	22						
23	163 29.0 -00.1	N 21 21.9 -00.4	133 24.4 -00.4	N 15 29.5 -01.0	92 44.6 -28.3	N 02 23.0 -14.7	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'7 15'7 15'7 15'8 15'8 15'8								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 57'6 57'7 57'8 57'9 58'0 58'1								
	SHA 245° 245° 245° 245° 245° 245°		SHA 215° 215° 215° 215° 215° 214°		SHA 184° 182° 180° 178° 176° 174°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:06		Greenwich Culmination Time: 16:37								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	149 34.3 +00.9	N 15 42.3 -00.6	319 23.8 +02.7	S 12 01.9 +00.1	338 53.2 +02.6	S 18 03.0 +00.0	00						
01	164 35.2 +01.0	N 15 41.7 -00.5	334 26.5 +02.6	S 12 02.0 +00.1	353 55.8 +02.6	S 18 03.0 +00.1	01						
02	179 36.2 +00.9	N 15 41.2 -00.5	349 29.1 +02.7	S 12 02.1 +00.0	8 58.4 +02.7	S 18 03.1 +00.0	02						
03	194 37.1 +01.0	N 15 40.7 -00.5	4 31.8 +02.6	S 12 02.1 +00.1	24 01.1 +02.6	S 18 03.1 +00.1	03						
04	209 38.1 +00.9	N 15 40.2 -00.5	19 34.4 +02.6	S 12 02.2 +00.1	39 03.7 +02.6	S 18 03.2 +00.1	04						
05	224 39.0 +00.9	N 15 39.7 -00.5	34 37.0 +02.7	S 12 02.3 +00.1	54 06.3 +02.7	S 18 03.3 +00.0	05						
06	239 39.9 +01.0	N 15 39.2 -00.5	49 39.7 +02.6	S 12 02.4 +00.0	69 09.0 +02.6	S 18 03.3 +00.1	06						
07	254 40.9 +00.9	N 15 38.7 -00.5	64 42.3 +02.7	S 12 02.4 +00.1	84 11.6 +02.7	S 18 03.4 +00.0	07						
08	269 41.8 +00.9	N 15 38.2 -00.5	79 45.0 +02.6	S 12 02.5 +00.1	99 14.3 +02.6	S 18 03.4 +00.1	08						
09	284 42.7 +01.0	N 15 37.7 -00.6	94 47.6 +02.6	S 12 02.6 +00.1	114 16.9 +02.6	S 18 03.5 +00.0	09						
10	299 43.7 +00.9	N 15 37.1 -00.5	109 50.2 +02.7	S 12 02.7 +00.1	129 19.5 +02.7	S 18 03.5 +00.1	10						
11	314 44.6 +00.9	N 15 36.6 -00.5	124 52.9 +02.6	S 12 02.8 +00.0	144 22.2 +02.6	S 18 03.6 +00.0	11						
12	329 45.5 +01.0	N 15 36.1 -00.5	139 55.5 +02.7	S 12 02.8 +00.1	159 24.8 +02.6	S 18 03.6 +00.1	12						
13	344 46.5 +00.9	N 15 35.6 -00.5	154 58.2 +02.6	S 12 02.9 +00.1	174 27.4 +02.7	S 18 03.7 +00.0	13						
14	359 47.4 +00.9	N 15 35.1 -00.5	170 00.8 +02.7	S 12 03.0 +00.1	189 30.1 +02.6	S 18 03.7 +00.1	14						
15	14 48.3 +01.0	N 15 34.6 -00.5	185 03.5 +02.6	S 12 03.1 +00.0	204 32.7 +02.6	S 18 03.8 +00.0	15						
16	29 49.3 +00.9	N 15 34.1 -00.5	200 06.1 +02.7	S 12 03.1 +00.1	219 35.3 +02.7	S 18 03.8 +00.1	16						
17	44 50.2 +01.0	N 15 33.6 -00.6	215 08.8 +02.6	S 12 03.2 +00.1	234 38.0 +02.6	S 18 03.9 +00.0	17						
18	59 51.2 +00.9	N 15 33.0 -00.5	230 11.4 +02.6	S 12 03.3 +00.1	249 40.6 +02.7	S 18 03.9 +00.1	18						
19	74 52.1 +00.9	N 15 32.5 -00.5	245 14.0 +02.7	S 12 03.4 +00.1	264 43.3 +02.6	S 18 04.0 +00.0	19						
20	89 53.0 +01.0	N 15 32.0 -00.5	260 16.7 +02.6	S 12 03.5 +00.0	279 45.9 +02.6	S 18 04.0 +00.1	20						
21	104 54.0 +00.9	N 15 31.5 -00.5	275 19.3 +02.7	S 12 03.5 +00.1	294 48.5 +02.7	S 18 04.1 +00.0	21						
22	119 54.9 +00.9	N 15 31.0 -00.5	290 22.0 +02.6	S 12 03.6 +00.1	309 51.2 +02.6	S 18 04.1 +00.1	22						
23	134 55.8 +01.0	N 15 30.5 -00.5	305 24.6 +02.7	S 12 03.7 +00.1	324 53.8 +02.6	S 18 04.2 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 216° 216° 216° 216° 216° 216°		SHA 026° 026° 026° 026° 026° 026°		SHA 046° 046° 046° 046° 046° 046°								
	Greenwich Culmination Time: 14:00		Greenwich Culmination Time: 02:41		Greenwich Culmination Time: 01:24								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 28.9 +00.0	N 21 21.5 -00.4	148 24.0 -00.5	N 15 28.5 -01.0	107 16.3 -28.3	N 02 08.3 -14.7	00					00	
01	193 28.9 -00.1	N 21 21.1 -00.4	163 23.5 -00.5	N 15 27.5 -01.0	121 48.0 -28.3	N 01 53.6 -14.7	01					01	
02	208 28.8 +00.0	N 21 20.7 -00.4	178 23.0 -00.5	N 15 26.5 -01.0	136 19.7 -28.4	N 01 38.9 -14.8	02					02	
03	223 28.8 -00.1	N 21 20.3 -00.4	193 22.5 -00.4	N 15 25.5 -01.0	150 51.3 -28.3	N 01 24.1 -14.8	03					03	
04	238 28.7 +00.0	N 21 19.9 -00.4	208 22.1 -00.5	N 15 24.5 -01.0	165 23.0 -28.4	N 01 09.3 -14.7	04					04	
05	253 28.7 -00.1	N 21 19.5 -00.5	223 21.6 -00.5	N 15 23.5 -01.1	179 54.6 -28.3	N 00 54.6 -14.9	05					05	
06	268 28.6 -00.1	N 21 19.0 -00.4	238 21.1 -00.5	N 15 22.4 -01.0	194 26.3 -28.4	N 00 39.7 -14.8	06					06	
07	283 28.5 +00.0	N 21 18.6 -00.4	253 20.6 -00.4	N 15 21.4 -01.0	208 57.9 -28.5	N 00 24.9 -14.8	07					07	
08	298 28.5 -00.1	N 21 18.2 -00.4	268 20.2 -00.5	N 15 20.4 -01.0	223 29.4 -28.4	N 00 10.1 -14.9	08					08	
09	313 28.4 +00.0	N 21 17.8 -00.4	283 19.7 -00.5	N 15 19.4 -01.0	238 01.0 -28.5	S 00 04.8 +14.8	09					09	
10	328 28.4 -00.1	N 21 17.4 -00.4	298 19.2 -00.5	N 15 18.4 -01.0	252 32.5 -28.5	S 00 19.6 +14.9	10					10	
11	343 28.3 +00.0	N 21 17.0 -00.4	313 18.7 -00.4	N 15 17.4 -01.1	267 04.0 -28.5	S 00 34.5 +14.9	11					11	
12	358 28.3 -00.1	N 21 16.6 -00.5	328 18.3 -00.5	N 15 16.3 -01.0	281 35.5 -28.5	S 00 49.4 +14.8	12					12	
13	13 28.2 -00.1	N 21 16.1 -00.4	343 17.8 -00.5	N 15 15.3 -01.0	296 07.0 -28.6	S 01 04.2 +14.9	13					13	
14	28 28.1 +00.0	N 21 15.7 -00.4	358 17.3 -00.5	N 15 14.3 -01.0	310 38.4 -28.6	S 01 19.1 +14.9	14					14	
15	43 28.1 -00.1	N 21 15.3 -00.4	13 16.8 -00.4	N 15 13.3 -01.0	325 09.8 -28.6	S 01 34.0 +14.9	15					15	
16	58 28.0 +00.0	N 21 14.9 -00.4	28 16.4 -00.5	N 15 12.3 -01.1	339 41.2 -28.7	S 01 48.9 +14.9	16					16	
17	73 28.0 -00.1	N 21 14.5 -00.5	43 15.9 -00.5	N 15 11.2 -01.0	354 12.5 -28.7	S 02 03.8 +14.9	17					17	
18	88 27.9 +00.0	N 21 14.0 -00.4	58 15.4 -00.4	N 15 10.2 -01.0	8 43.8 -28.7	S 02 18.7 +14.9	18					18	
19	103 27.9 -00.1	N 21 13.6 -00.4	73 15.0 -00.5	N 15 09.2 -01.0	23 15.1 -28.8	S 02 33.6 +14.9	19					19	
20	118 27.8 +00.0	N 21 13.2 -00.4	88 14.5 -00.5	N 15 08.2 -01.1	37 46.3 -28.8	S 02 48.5 +14.9	20					20	
21	133 27.8 -00.1	N 21 12.8 -00.5	103 14.0 -00.4	N 15 07.1 -01.0	52 17.5 -28.8	S 03 03.4 +14.9	21					21	
22	148 27.7 +00.0	N 21 12.3 -00.4	118 13.6 -00.5	N 15 06.1 -01.0	66 48.7 -28.9	S 03 18.3 +14.9	22					22	
23	163 27.7 -00.1	N 21 11.9 -00.4	133 13.1 -00.5	N 15 05.1 -01.0	81 19.8 -28.9	S 03 33.2 +14.8	23					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 15'9 15'9 15'9 15'9 16'0								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 58'2 58'2 58'3 58'4 58'5 58'6								
	SHA 244° 244° 244° 244° 244° 244°		SHA 214° 214° 214° 214° 213° 213°		SHA 172° 170° 168° 166° 164° 162°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:06		Greenwich Culmination Time: 17:23								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	149 56.8 +00.9	N 15 30.0 -00.5	320 27.3 +02.6	S 12 03.8 +00.1	339 56.4 +02.7	S 18 04.2 +00.1	00					00	
01	164 57.7 +00.9	N 15 29.5 -00.6	335 29.9 +02.7	S 12 03.9 +00.0	354 59.1 +02.6	S 18 04.3 +00.0	01					01	
02	179 58.6 +01.0	N 15 28.9 -00.5	350 32.6 +02.6	S 12 03.9 +00.1	10 01.7 +02.6	S 18 04.3 +00.1	02					02	
03	194 59.6 +00.9	N 15 28.4 -00.5	5 35.2 +02.7	S 12 04.0 +00.1	25 04.3 +02.7	S 18 04.4 +00.0	03					03	
04	210 00.5 +01.0	N 15 27.9 -00.5	20 37.9 +02.6	S 12 04.1 +00.1	40 07.0 +02.6	S 18 04.4 +00.1	04					04	
05	225 01.5 +00.9	N 15 27.4 -00.5	35 40.5 +02.7	S 12 04.2 +00.0	55 09.6 +02.7	S 18 04.5 +00.1	05					05	
06	240 02.4 +00.9	N 15 26.9 -00.5	50 43.2 +02.6	S 12 04.2 +00.1	70 12.3 +02.6	S 18 04.6 +00.0	06					06	
07	255 03.3 +01.0	N 15 26.4 -00.6	65 45.8 +02.7	S 12 04.3 +00.1	85 14.9 +02.6	S 18 04.6 +00.1	07					07	
08	270 04.3 +00.9	N 15 25.8 -00.5	80 48.5 +02.6	S 12 04.4 +00.1	100 17.5 +02.7	S 18 04.7 +00.0	08					08	
09	285 05.2 +00.9	N 15 25.3 -00.5	95 51.1 +02.7	S 12 04.5 +00.1	115 20.2 +02.6	S 18 04.7 +00.1	09					09	
10	300 06.1 +01.0	N 15 24.8 -00.5	110 53.8 +02.6	S 12 04.6 +00.0	130 22.8 +02.6	S 18 04.8 +00.0	10					10	
11	315 07.1 +00.9	N 15 24.3 -00.5	125 56.4 +02.6	S 12 04.6 +00.1	145 25.4 +02.7	S 18 04.8 +00.1	11					11	
12	330 08.0 +01.0	N 15 23.8 -00.5	140 59.0 +02.7	S 12 04.7 +00.1	160 28.1 +02.6	S 18 04.9 +00.0	12					12	
13	345 09.0 +00.9	N 15 23.3 -00.5	156 01.7 +02.6	S 12 04.8 +00.1	175 30.7 +02.7	S 18 04.9 +00.1	13					13	
14	0 09.9 +00.9	N 15 22.8 -00.6	171 04.3 +02.7	S 12 04.9 +00.1	190 33.4 +02.6	S 18 05.0 +00.0	14					14	
15	15 10.8 +01.0	N 15 22.2 -00.5	186 07.0 +02.7	S 12 05.0 +00.1	205 36.0 +02.6	S 18 05.0 +00.1	15					15	
16	30 11.8 +00.9	N 15 21.7 -00.5	201 09.7 +02.6	S 12 05.1 +00.0	220 38.6 +02.7	S 18 05.1 +00.0	16					16	
17	45 12.7 +01.0	N 15 21.2 -00.5	216 12.3 +02.7	S 12 05.1 +00.1	235 41.3 +02.6	S 18 05.1 +00.1	17					17	
18	60 13.7 +00.9	N 15 20.7 -00.5	231 15.0 +02.6	S 12 05.2 +00.1	250 43.9 +02.6	S 18 05.2 +00.0	18					18	
19	75 14.6 +00.9	N 15 20.2 -00.5	246 17.6 +02.7	S 12 05.3 +00.1	265 46.5 +02.7	S 18 05.2 +00.1	19					19	
20	90 15.5 +01.0	N 15 19.7 -00.6	261 20.3 +02.6	S 12 05.4 +00.1	280 49.2 +02.6	S 18 05.3 +00.0	20					20	
21	105 16.5 +00.9	N 15 19.1 -00.5	276 22.9 +02.7	S 12 05.5 +00.0	295 51.8 +02.7	S 18 05.3 +00.1	21					21	
22	120 17.4 +00.9	N 15 18.6 -00.5	291 25.6 +02.6	S 12 05.5 +00.1	310 54.5 +02.6	S 18 05.4 +00.0	22					22	
23	135 18.3 +01.0	N 15 18.1 -00.5	306 28.2 +02.7	S 12 05.6 +00.1	325 57.1 +02.6	S 18 05.4 +00.1	23					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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 216° 216° 216° 216° 215° 215°		SHA 026° 026° 026° 026° 026° 026°		SHA 046° 046° 046° 046° 046° 046°								
	Greenwich Culmination Time: 13:59		Greenwich Culmination Time: 02:37		Greenwich Culmination Time: 01:20								



UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT	
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec		
00	178 27.6 -00.1	N 21 11.5 -00.4	148 12.6 -00.4	N 15 04.1 -01.1	95 50.9 -29.0	S 03 48.0 +14.9	00							
01	193 27.5 +00.0	N 21 11.1 -00.4	163 12.2 -00.5	N 15 03.0 -01.0	110 21.9 -29.0	S 04 02.9 +14.9	01							
02	208 27.5 -00.1	N 21 10.7 -00.5	178 11.7 -00.5	N 15 02.0 -01.0	124 52.9 -29.0	S 04 17.8 +14.8	02							
03	223 27.4 +00.0	N 21 10.2 -00.4	193 11.2 -00.4	N 15 01.0 -01.0	139 23.9 -29.1	S 04 32.6 +14.9	03							
04	238 27.4 -00.1	N 21 09.8 -00.4	208 10.8 -00.5	N 14 60.0 -01.1	153 54.8 -29.2	S 04 47.5 +14.8	04							
05	253 27.3 +00.0	N 21 09.4 -00.5	223 10.3 -00.4	N 14 58.9 -01.0	168 25.6 -29.1	S 05 02.3 +14.8	05							
06	268 27.3 -00.1	N 21 08.9 -00.4	238 09.9 -00.5	N 14 57.9 -01.0	182 56.5 -29.3	S 05 17.1 +14.8	06							
07	283 27.2 +00.0	N 21 08.5 -00.4	253 09.4 -00.5	N 14 56.9 -01.1	197 27.2 -29.3	S 05 31.9 +14.8	07							
08	298 27.2 -00.1	N 21 08.1 -00.4	268 08.9 -00.4	N 14 55.8 -01.0	211 57.9 -29.3	S 05 46.7 +14.7	08							
09	313 27.1 +00.0	N 21 07.7 -00.5	283 08.5 -00.5	N 14 54.8 -01.0	226 28.6 -29.4	S 06 01.4 +14.7	09							
10	328 27.1 -00.1	N 21 07.2 -00.4	298 08.0 -00.4	N 14 53.8 -01.1	240 59.2 -29.4	S 06 16.1 +14.8	10							
11	343 27.0 +00.0	N 21 06.8 -00.4	313 07.6 -00.5	N 14 52.7 -01.0	255 29.8 -29.5	S 06 30.9 +14.7	11							
12	358 27.0 -00.1	N 21 06.4 -00.5	328 07.1 -00.5	N 14 51.7 -01.0	270 00.3 -29.5	S 06 45.6 +14.6	12							
13	13 26.9 +00.0	N 21 05.9 -00.4	343 06.6 -00.4	N 14 50.7 -01.1	284 30.8 -29.6	S 07 00.2 +14.7	13							
14	28 26.9 -00.1	N 21 05.5 -00.4	358 06.2 -00.5	N 14 49.6 -01.0	299 01.2 -29.7	S 07 14.9 +14.6	14							
15	43 26.8 +00.0	N 21 05.1 -00.5	13 05.7 -00.4	N 14 48.6 -01.1	313 31.5 -29.7	S 07 29.5 +14.6	15							
16	58 26.8 -00.1	N 21 04.6 -00.4	28 05.3 -00.5	N 14 47.5 -01.0	328 01.8 -29.8	S 07 44.1 +14.5	16							
17	73 26.7 +00.0	N 21 04.2 -00.4	43 04.8 -00.4	N 14 46.5 -01.0	342 32.0 -29.8	S 07 58.6 +14.6	17							
18	88 26.7 -00.1	N 21 03.8 -00.5	58 04.4 -00.5	N 14 45.5 -01.1	357 02.2 -29.9	S 08 13.2 +14.5	18							
19	103 26.6 +00.0	N 21 03.3 -00.4	73 03.9 -00.5	N 14 44.4 -01.0	11 32.3 -30.0	S 08 27.7 +14.4	19							
20	118 26.6 -00.1	N 21 02.9 -00.5	88 03.4 -00.4	N 14 43.4 -01.0	26 02.3 -30.0	S 08 42.1 +14.4	20							
21	133 26.5 +00.0	N 21 02.4 -00.4	103 03.0 -00.5	N 14 42.4 -01.1	40 32.3 -30.1	S 08 56.5 +14.4	21							
22	148 26.5 -00.1	N 21 02.0 -00.4	118 02.5 -00.4	N 14 41.3 -01.0	55 02.2 -30.2	S 09 10.9 +14.4	22							
23	163 26.4 +00.0	N 21 01.6 -00.5	133 02.1 -00.5	N 14 40.3 -01.1	69 32.0 -30.2	S 09 25.3 +14.3	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	SHA 243° 243° 243° 243° 243° 243°	Greenwich Culmination Time: 12:06	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 213° 213° 213° 212° 212° 212°	Greenwich Culmination Time: 14:07	UT 02 06 10 14 18 22	SD 16'0 16'0 16'0 16'1 16'1 16'1	HP 58'7 58'8 58'9 58'9 59'0 59'1	SHA 160° 158° 156° 153° 151° 149°	Greenwich Culmination Time: 18:12

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT	
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec		
00	150 19.3 +00.9	N 15 17.6 -00.5	321 30.9 +02.6	S 12 05.7 +00.1	340 59.7 +02.7	S 18 05.5 +00.0	00							
01	165 20.2 +01.0	N 15 17.1 -00.6	336 33.5 +02.7	S 12 05.8 +00.1	356 02.4 +02.6	S 18 05.5 +00.1	01							
02	180 21.2 +00.9	N 15 16.5 -00.5	351 36.2 +02.6	S 12 05.9 +00.0	11 05.0 +02.6	S 18 05.6 +00.0	02							
03	195 22.1 +00.9	N 15 16.0 -00.5	6 38.8 +02.7	S 12 05.9 +00.1	26 07.6 +02.7	S 18 05.6 +00.1	03							
04	210 23.0 +01.0	N 15 15.5 -00.5	21 41.5 +02.6	S 12 06.0 +00.1	41 10.3 +02.6	S 18 05.7 +00.1	04							
05	225 24.0 +00.9	N 15 15.0 -00.5	36 44.1 +02.7	S 12 06.1 +00.1	56 12.9 +02.7	S 18 05.8 +00.0	05							
06	240 24.9 +01.0	N 15 14.5 -00.6	51 46.8 +02.6	S 12 06.2 +00.1	71 15.6 +02.6	S 18 05.8 +00.1	06							
07	255 25.9 +00.9	N 15 13.9 -00.5	66 49.4 +02.7	S 12 06.3 +00.1	86 18.2 +02.6	S 18 05.9 +00.0	07							
08	270 26.8 +00.9	N 15 13.4 -00.5	81 52.1 +02.7	S 12 06.4 +00.0	101 20.8 +02.7	S 18 05.9 +00.1	08							
09	285 27.7 +01.0	N 15 12.9 -00.5	96 54.8 +02.6	S 12 06.4 +00.1	116 23.5 +02.6	S 18 06.0 +00.0	09							
10	300 28.7 +00.9	N 15 12.4 -00.5	111 57.4 +02.7	S 12 06.5 +00.1	131 26.1 +02.7	S 18 06.0 +00.1	10							
11	315 29.6 +01.0	N 15 11.9 -00.5	127 00.1 +02.6	S 12 06.6 +00.1	146 28.8 +02.6	S 18 06.1 +00.0	11							
12	330 30.6 +00.9	N 15 11.4 -00.6	142 02.7 +02.7	S 12 06.7 +00.1	161 31.4 +02.6	S 18 06.1 +00.1	12							
13	345 31.5 +00.9	N 15 10.8 -00.5	157 05.4 +02.6	S 12 06.8 +00.0	176 34.0 +02.7	S 18 06.2 +00.0	13							
14	0 32.4 +01.0	N 15 10.3 -00.5	172 08.0 +02.7	S 12 06.8 +00.1	191 36.7 +02.6	S 18 06.2 +00.1	14							
15	15 33.4 +00.9	N 15 09.8 -00.5	187 10.7 +02.6	S 12 06.9 +00.1	206 39.3 +02.7	S 18 06.3 +00.0	15							
16	30 34.3 +01.0	N 15 09.3 -00.6	202 13.3 +02.7	S 12 07.0 +00.1	221 42.0 +02.6	S 18 06.3 +00.1	16							
17	45 35.3 +00.9	N 15 08.7 -00.5	217 16.0 +02.7	S 12 07.1 +00.1	236 44.6 +02.6	S 18 06.4 +00.0	17							
18	60 36.2 +00.9	N 15 08.2 -00.5	232 18.7 +02.6	S 12 07.2 +00.1	251 47.2 +02.7	S 18 06.4 +00.1	18							
19	75 37.1 +01.0	N 15 07.7 -00.5	247 21.3 +02.7	S 12 07.3 +00.0	266 49.9 +02.6	S 18 06.5 +00.0	19							
20	90 38.1 +00.9	N 15 07.2 -00.5	262 24.0 +02.6	S 12 07.3 +00.1	281 52.5 +02.7	S 18 06.5 +00.1	20							
21	105 39.0 +01.0	N 15 06.7 -00.6	277 26.6 +02.7	S 12 07.4 +00.1	296 55.2 +02.6	S 18 06.6 +00.0	21							
22	120 40.0 +00.9	N 15 06.1 -00.5	292 29.3 +02.7	S 12 07.5 +00.1	311 57.8 +02.6	S 18 06.6 +00.1	22							
23	135 40.9 +01.0	N 15 05.6 -00.5	307 32.0 +02.6	S 12 07.6 +00.1	327 00.4 +02.7	S 18 06.7 +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	SHA 215° 215° 215° 215° 215° 215°	Greenwich Culmination Time: 13:57	UT 02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 026° 026° 027° 027° 027° 027°	Greenwich Culmination Time: 02:33	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 046° 046° 046° 046° 046° 046°	Greenwich Culmination Time: 01:15

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 26.4 -00.1	N 21 01.1 -00.4	148 01.6 -00.4	N 14 39.2 -01.0	84 01.8 -30.3	S 09 39.6 +14.2	00						
01	193 26.3 +00.0	N 21 00.7 -00.4	163 01.2 -00.5	N 14 38.2 -01.1	98 31.5 -30.4	S 09 53.8 +14.3	01						
02	208 26.3 +00.0	N 21 00.3 -00.5	178 00.7 -00.4	N 14 37.1 -01.0	113 01.1 -30.5	S 10 08.1 +14.2	02						
03	223 26.3 -00.1	N 20 59.8 -00.4	193 00.3 -00.5	N 14 36.1 -01.1	127 30.6 -30.5	S 10 22.3 +14.1	03						
04	238 26.2 +00.0	N 20 59.4 -00.5	207 59.8 -00.4	N 14 35.0 -01.0	142 00.1 -30.6	S 10 36.4 +14.1	04						
05	253 26.2 -00.1	N 20 58.9 -00.4	222 59.4 -00.5	N 14 34.0 -01.0	156 29.5 -30.6	S 10 50.5 +14.0	05						
06	268 26.1 +00.0	N 20 58.5 -00.5	237 58.9 -00.4	N 14 33.0 -01.1	170 58.9 -30.8	S 11 04.5 +14.0	06						
07	283 26.1 -00.1	N 20 58.0 -00.4	252 58.5 -00.5	N 14 31.9 -01.0	185 28.1 -30.8	S 11 18.5 +13.9	07						
08	298 26.0 +00.0	N 20 57.6 -00.4	267 58.0 -00.4	N 14 30.9 -01.1	199 57.3 -30.9	S 11 32.4 +13.9	08						
09	313 26.0 -00.1	N 20 57.2 -00.5	282 57.6 -00.5	N 14 29.8 -01.0	214 26.4 -30.9	S 11 46.3 +13.8	09						
10	328 25.9 +00.0	N 20 56.7 -00.4	297 57.1 -00.4	N 14 28.8 -01.1	228 55.5 -31.1	S 12 00.1 +13.8	10						
11	343 25.9 -00.1	N 20 56.3 -00.5	312 56.7 -00.5	N 14 27.7 -01.0	243 24.4 -31.1	S 12 13.9 +13.7	11						
12	358 25.8 +00.0	N 20 55.8 -00.4	327 56.2 -00.4	N 14 26.7 -01.1	257 53.3 -31.2	S 12 27.6 +13.6	12						
13	13 25.8 +00.0	N 20 55.4 -00.5	342 55.8 -00.4	N 14 25.6 -01.0	272 22.1 -31.3	S 12 41.2 +13.6	13						
14	28 25.8 -00.1	N 20 54.9 -00.4	357 55.4 -00.5	N 14 24.6 -01.1	286 50.8 -31.4	S 12 54.8 +13.5	14						
15	43 25.7 +00.0	N 20 54.5 -00.5	12 54.9 -00.4	N 14 23.5 -01.0	301 19.4 -31.5	S 13 08.3 +13.5	15						
16	58 25.7 -00.1	N 20 54.0 -00.4	27 54.5 -00.5	N 14 22.5 -01.1	315 47.9 -31.5	S 13 21.8 +13.4	16						
17	73 25.6 +00.0	N 20 53.6 -00.5	42 54.0 -00.4	N 14 21.4 -01.1	330 16.4 -31.6	S 13 35.2 +13.3	17						
18	88 25.6 -00.1	N 20 53.1 -00.4	57 53.6 -00.5	N 14 20.3 -01.0	344 44.8 -31.8	S 13 48.5 +13.3	18						
19	103 25.5 +00.0	N 20 52.7 -00.5	72 53.1 -00.4	N 14 19.3 -01.1	359 13.0 -31.8	S 14 01.8 +13.1	19						
20	118 25.5 +00.0	N 20 52.2 -00.4	87 52.7 -00.4	N 14 18.2 -01.0	13 41.2 -31.9	S 14 14.9 +13.1	20						
21	133 25.5 -00.1	N 20 51.8 -00.5	102 52.3 -00.5	N 14 17.2 -01.1	28 09.3 -31.9	S 14 28.0 +13.1	21						
22	148 25.4 +00.0	N 20 51.3 -00.4	117 51.8 -00.4	N 14 16.1 -01.0	42 37.4 -32.1	S 14 41.1 +12.9	22						
23	163 25.4 -00.1	N 20 50.9 -00.5	132 51.4 -00.5	N 14 15.1 -01.1	57 05.3 -32.2	S 14 54.0 +12.9	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 16'1 16'1 16'2 16'2 16'2 16'2								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 59'2 59'3 59'3 59'4 59'5 59'6								
	SHA 242° 242° 242° 242° 242° 241°		SHA 212° 212° 212° 211° 211° 211°		SHA 147° 145° 142° 140° 138° 136°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:08		Greenwich Culmination Time: 19:03								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	150 41.9 +00.9	N 15 05.1 -00.5	322 34.6 +02.7	S 12 07.7 +00.1	342 03.1 +02.6	S 18 06.8 +00.0	00						
01	165 42.8 +00.9	N 15 04.6 -00.5	337 37.3 +02.6	S 12 07.8 +00.0	357 05.7 +02.6	S 18 06.8 +00.1	01						
02	180 43.7 +01.0	N 15 04.1 -00.6	352 39.9 +02.7	S 12 07.8 +00.1	12 08.3 +02.7	S 18 06.9 +00.0	02						
03	195 44.7 +00.9	N 15 03.5 -00.5	7 42.6 +02.7	S 12 07.9 +00.1	27 11.0 +02.6	S 18 06.9 +00.1	03						
04	210 45.6 +01.0	N 15 03.0 -00.5	22 45.3 +02.6	S 12 08.0 +00.1	42 13.6 +02.7	S 18 07.0 +00.0	04						
05	225 46.6 +00.9	N 15 02.5 -00.5	37 47.9 +02.7	S 12 08.1 +00.1	57 16.3 +02.6	S 18 07.0 +00.1	05						
06	240 47.5 +00.9	N 15 02.0 -00.6	52 50.6 +02.6	S 12 08.2 +00.1	72 18.9 +02.6	S 18 07.1 +00.0	06						
07	255 48.4 +01.0	N 15 01.4 -00.5	67 53.2 +02.7	S 12 08.3 +00.1	87 21.5 +02.7	S 18 07.1 +00.1	07						
08	270 49.4 +00.9	N 15 00.9 -00.5	82 55.9 +02.7	S 12 08.4 +00.0	102 24.2 +02.6	S 18 07.2 +00.0	08						
09	285 50.3 +01.0	N 15 00.4 -00.5	97 58.6 +02.6	S 12 08.4 +00.1	117 26.8 +02.7	S 18 07.2 +00.1	09						
10	300 51.3 +00.9	N 14 59.9 -00.6	113 01.2 +02.7	S 12 08.5 +00.1	132 29.5 +02.6	S 18 07.3 +00.0	10						
11	315 52.2 +01.0	N 14 59.3 -00.5	128 03.9 +02.6	S 12 08.6 +00.1	147 32.1 +02.7	S 18 07.3 +00.1	11						
12	330 53.2 +00.9	N 14 58.8 -00.5	143 06.5 +02.7	S 12 08.7 +00.1	162 34.8 +02.6	S 18 07.4 +00.0	12						
13	345 54.1 +00.9	N 14 58.3 -00.5	158 09.2 +02.7	S 12 08.8 +00.1	177 37.4 +02.6	S 18 07.4 +00.1	13						
14	0 55.0 +01.0	N 14 57.8 -00.6	173 11.9 +02.6	S 12 08.9 +00.0	192 40.0 +02.7	S 18 07.5 +00.0	14						
15	15 56.0 +00.9	N 14 57.2 -00.5	188 14.5 +02.7	S 12 08.9 +00.1	207 42.7 +02.6	S 18 07.5 +00.1	15						
16	30 56.9 +01.0	N 14 56.7 -00.5	203 17.2 +02.7	S 12 09.0 +00.1	222 45.3 +02.7	S 18 07.6 +00.0	16						
17	45 57.9 +00.9	N 14 56.2 -00.5	218 19.9 +02.6	S 12 09.1 +00.1	237 48.0 +02.6	S 18 07.6 +00.1	17						
18	60 58.8 +01.0	N 14 55.7 -00.6	233 22.5 +02.7	S 12 09.2 +00.1	252 50.6 +02.6	S 18 07.7 +00.1	18						
19	75 59.8 +00.9	N 14 55.1 -00.5	248 25.2 +02.7	S 12 09.3 +00.1	267 53.2 +02.7	S 18 07.8 +00.0	19						
20	91 00.7 +00.9	N 14 54.6 -00.5	263 27.9 +02.6	S 12 09.4 +00.1	282 55.9 +02.6	S 18 07.8 +00.1	20						
21	106 01.6 +01.0	N 14 54.1 -00.5	278 30.5 +02.7	S 12 09.5 +00.0	297 58.5 +02.7	S 18 07.9 +00.0	21						
22	121 02.6 +00.9	N 14 53.6 -00.6	293 33.2 +02.6	S 12 09.5 +00.1	313 01.2 +02.6	S 18 07.9 +00.1	22						
23	136 03.5 +01.0	N 14 53.0 -00.5	308 35.8 +02.7	S 12 09.6 +00.1	328 03.8 +02.6	S 18 08.0 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 215° 215° 214° 214° 214° 214°		SHA 027° 027° 027° 027° 027° 027°		SHA 046° 046° 046° 046° 046° 046°								
	Greenwich Culmination Time: 13:56		Greenwich Culmination Time: 02:29		Greenwich Culmination Time: 01:11								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 25.3 +00.0	N 20	50.4 -00.4	147 50.9 -00.4	N 14	14.0 -01.0	71 33.1 -32.2	S 15	06.9 +12.8	00			
01	193 25.3 -00.1	N 20	50.0 -00.5	162 50.5 -00.4	N 14	13.0 -01.1	86 00.9 -32.4	S 15	19.7 +12.7	01			
02	208 25.2 +00.0	N 20	49.5 -00.5	177 50.1 -00.5	N 14	11.9 -01.1	100 28.5 -32.4	S 15	32.4 +12.6	02			
03	223 25.2 +00.0	N 20	49.0 -00.4	192 49.6 -00.4	N 14	10.8 -01.0	114 56.1 -32.5	S 15	45.0 +12.6	03			
04	238 25.2 -00.1	N 20	48.6 -00.5	207 49.2 -00.4	N 14	09.8 -01.1	129 23.6 -32.7	S 15	57.6 +12.4	04			
05	253 25.1 +00.0	N 20	48.1 -00.4	222 48.8 -00.5	N 14	08.7 -01.0	143 50.9 -32.7	S 16	10.0 +12.4	05			
06	268 25.1 -00.1	N 20	47.7 -00.5	237 48.3 -00.4	N 14	07.7 -01.1	158 18.2 -32.8	S 16	22.4 +12.3	06			
07	283 25.0 +00.0	N 20	47.2 -00.4	252 47.9 -00.5	N 14	06.6 -01.1	172 45.4 -32.9	S 16	34.7 +12.1	07			
08	298 25.0 +00.0	N 20	46.8 -00.5	267 47.4 -00.4	N 14	05.5 -01.0	187 12.5 -33.0	S 16	46.8 +12.1	08			
09	313 25.0 -00.1	N 20	46.3 -00.5	282 47.0 -00.4	N 14	04.5 -01.1	201 39.5 -33.1	S 16	58.9 +12.0	09			
10	328 24.9 +00.0	N 20	45.8 -00.4	297 46.6 -00.5	N 14	03.4 -01.1	216 06.4 -33.2	S 17	10.9 +11.9	10			
11	343 24.9 -00.1	N 20	45.4 -00.5	312 46.1 -00.4	N 14	02.3 -01.0	230 33.2 -33.3	S 17	22.8 +11.8	11			
12	358 24.8 +00.0	N 20	44.9 -00.4	327 45.7 -00.4	N 14	01.3 -01.1	244 59.9 -33.3	S 17	34.6 +11.7	12			
13	13 24.8 +00.0	N 20	44.5 -00.5	342 45.3 -00.5	N 14	00.2 -01.1	259 26.6 -33.5	S 17	46.3 +11.6	13			
14	28 24.8 -00.1	N 20	44.0 -00.5	357 44.8 -00.4	N 13	59.1 -01.0	273 53.1 -33.6	S 17	57.9 +11.5	14			
15	43 24.7 +00.0	N 20	43.5 -00.4	12 44.4 -00.4	N 13	58.1 -01.1	288 19.5 -33.7	S 18	09.4 +11.3	15			
16	58 24.7 +00.0	N 20	43.1 -00.5	27 44.0 -00.4	N 13	57.0 -01.1	302 45.8 -33.7	S 18	20.7 +11.3	16			
17	73 24.7 -00.1	N 20	42.6 -00.5	42 43.6 -00.5	N 13	55.9 -01.0	317 12.1 -33.9	S 18	32.0 +11.2	17			
18	88 24.6 +00.0	N 20	42.1 -00.4	57 43.1 -00.4	N 13	54.9 -01.1	331 38.2 -34.0	S 18	43.2 +11.0	18			
19	103 24.6 -00.1	N 20	41.7 -00.5	72 42.7 -00.4	N 13	53.8 -01.1	346 04.2 -34.0	S 18	54.2 +11.0	19			
20	118 24.5 +00.0	N 20	41.2 -00.5	87 42.3 -00.5	N 13	52.7 -01.0	0 30.2 -34.2	S 19	05.2 +10.8	20			
21	133 24.5 +00.0	N 20	40.7 -00.4	102 41.8 -00.4	N 13	51.7 -01.1	14 56.0 -34.2	S 19	16.0 +10.7	21			
22	148 24.5 -00.1	N 20	40.3 -00.5	117 41.4 -00.4	N 13	50.6 -01.1	29 21.8 -34.4	S 19	26.7 +10.6	22			
23	163 24.4 +00.0	N 20	39.8 -00.5	132 41.0 -00.4	N 13	49.5 -01.1	43 47.4 -34.4	S 19	37.3 +10.4	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 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 16'2 16'3 16'3 16'3 16'3 16'3						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 59'6 59'7 59'7 59'8 59'9 59'9						
	SHA 241° 241° 241° 241° 241° 240°			SHA 211° 211° 210° 210° 210° 210°			SHA 133° 131° 129° 126° 124° 121°						
	Greenwich Culmination Time: 12:06			Greenwich Culmination Time: 14:09			Greenwich Culmination Time: 19:57						

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	151 04.5 +00.9	N 14	52.5 -00.5	323 38.5 +02.7	S 12	09.7 +00.1	343 06.4 +02.7	S 18	08.0 +00.1	00			
01	166 05.4 +01.0	N 14	52.0 -00.5	338 41.2 +02.6	S 12	09.8 +00.1	358 09.1 +02.6	S 18	08.1 +00.0	01			
02	181 06.4 +00.9	N 14	51.5 -00.6	353 43.8 +02.7	S 12	09.9 +00.1	13 11.7 +02.7	S 18	08.1 +00.1	02			
03	196 07.3 +01.0	N 14	50.9 -00.5	8 46.5 +02.7	S 12	10.0 +00.1	28 14.4 +02.6	S 18	08.2 +00.0	03			
04	211 08.3 +00.9	N 14	50.4 -00.5	23 49.2 +02.6	S 12	10.1 +00.0	43 17.0 +02.6	S 18	08.2 +00.1	04			
05	226 09.2 +00.9	N 14	49.9 -00.5	38 51.8 +02.7	S 12	10.1 +00.1	58 19.6 +02.7	S 18	08.3 +00.0	05			
06	241 10.1 +01.0	N 14	49.4 -00.6	53 54.5 +02.7	S 12	10.2 +00.1	73 22.3 +02.6	S 18	08.3 +00.1	06			
07	256 11.1 +00.9	N 14	48.8 -00.5	68 57.2 +02.6	S 12	10.3 +00.1	88 24.9 +02.7	S 18	08.4 +00.0	07			
08	271 12.0 +01.0	N 14	48.3 -00.5	83 59.8 +02.7	S 12	10.4 +00.1	103 27.6 +02.6	S 18	08.4 +00.1	08			
09	286 13.0 +00.9	N 14	47.8 -00.6	99 02.5 +02.7	S 12	10.5 +00.1	118 30.2 +02.7	S 18	08.5 +00.0	09			
10	301 13.9 +01.0	N 14	47.2 -00.5	114 05.2 +02.6	S 12	10.6 +00.1	133 32.9 +02.6	S 18	08.5 +00.1	10			
11	316 14.9 +00.9	N 14	46.7 -00.5	129 07.8 +02.7	S 12	10.7 +00.0	148 35.5 +02.6	S 18	08.6 +00.1	11			
12	331 15.8 +01.0	N 14	46.2 -00.5	144 10.5 +02.7	S 12	10.7 +00.1	163 38.1 +02.7	S 18	08.7 +00.0	12			
13	346 16.8 +00.9	N 14	45.7 -00.6	159 13.2 +02.7	S 12	10.8 +00.1	178 40.8 +02.6	S 18	08.7 +00.1	13			
14	1 17.7 +00.9	N 14	45.1 -00.5	174 15.9 +02.6	S 12	10.9 +00.1	193 43.4 +02.7	S 18	08.8 +00.0	14			
15	16 18.6 +01.0	N 14	44.6 -00.5	189 18.5 +02.7	S 12	11.0 +00.1	208 46.1 +02.6	S 18	08.8 +00.1	15			
16	31 19.6 +00.9	N 14	44.1 -00.5	204 21.2 +02.7	S 12	11.1 +00.1	223 48.7 +02.6	S 18	08.9 +00.0	16			
17	46 20.5 +01.0	N 14	43.6 -00.6	219 23.9 +02.6	S 12	11.2 +00.1	238 51.3 +02.7	S 18	08.9 +00.1	17			
18	61 21.5 +00.9	N 14	43.0 -00.5	234 26.5 +02.7	S 12	11.3 +00.1	253 54.0 +02.6	S 18	09.0 +00.0	18			
19	76 22.4 +01.0	N 14	42.5 -00.5	249 29.2 +02.7	S 12	11.4 +00.0	268 56.6 +02.7	S 18	09.0 +00.1	19			
20	91 23.4 +00.9	N 14	42.0 -00.6	264 31.9 +02.6	S 12	11.4 +00.1	283 59.3 +02.6	S 18	09.1 +00.0	20			
21	106 24.3 +01.0	N 14	41.4 -00.5	279 34.5 +02.7	S 12	11.5 +00.1	299 01.9 +02.7	S 18	09.1 +00.1	21			
22	121 25.3 +00.9	N 14	40.9 -00.5	294 37.2 +02.7	S 12	11.6 +00.1	314 04.6 +02.6	S 18	09.2 +00.0	22			
23	136 26.2 +01.0	N 14	40.4 -00.6	309 39.9 +02.7	S 12	11.7 +00.1	329 07.2 +02.6	S 18	09.2 +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 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'2 00'2 00'2 00'2 00'2 00'2						
	HP 00'1 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						
	SHA 214° 214° 214° 214° 214° 214°			SHA 027° 027° 027° 027° 027° 027°			SHA 046° 046° 046° 046° 046° 046°						
	Greenwich Culmination Time: 13:54			Greenwich Culmination Time: 02:25			Greenwich Culmination Time: 01:07						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 24.4 +00.0	N 20 39.3 -00.4	147 40.6 -00.5	N 13 48.4 -01.0	58 13.0 -34.6	S 19 47.7 +10.4	00						
01	193 24.4 -00.1	N 20 38.9 -00.5	162 40.1 -00.4	N 13 47.4 -01.1	72 38.4 -34.6	S 19 58.1 +10.2	01						
02	208 24.3 +00.0	N 20 38.4 -00.5	177 39.7 -00.4	N 13 46.3 -01.1	87 03.8 -34.8	S 20 08.3 +10.1	02						
03	223 24.3 +00.0	N 20 37.9 -00.4	192 39.3 -00.4	N 13 45.2 -01.1	101 29.0 -34.8	S 20 18.4 +09.9	03						
04	238 24.3 -00.1	N 20 37.5 -00.5	207 38.9 -00.5	N 13 44.1 -01.0	115 54.2 -34.9	S 20 28.3 +09.9	04						
05	253 24.2 +00.0	N 20 37.0 -00.5	222 38.4 -00.4	N 13 43.1 -01.1	130 19.3 -35.1	S 20 38.2 +09.7	05						
06	268 24.2 +00.0	N 20 36.5 -00.5	237 38.0 -00.4	N 13 42.0 -01.1	144 44.2 -35.1	S 20 47.9 +09.5	06						
07	283 24.2 -00.1	N 20 36.0 -00.4	252 37.6 -00.4	N 13 40.9 -01.1	159 09.1 -35.2	S 20 57.4 +09.5	07						
08	298 24.1 +00.0	N 20 35.6 -00.5	267 37.2 -00.5	N 13 39.8 -01.0	173 33.9 -35.3	S 21 06.9 +09.3	08						
09	313 24.1 +00.0	N 20 35.1 -00.5	282 36.7 -00.4	N 13 38.8 -01.1	187 58.6 -35.4	S 21 16.2 +09.1	09						
10	328 24.1 -00.1	N 20 34.6 -00.5	297 36.3 -00.4	N 13 37.7 -01.1	202 23.2 -35.5	S 21 25.3 +09.1	10						
11	343 24.0 +00.0	N 20 34.1 -00.4	312 35.9 -00.4	N 13 36.6 -01.1	216 47.7 -35.6	S 21 34.4 +08.8	11						
12	358 24.0 +00.0	N 20 33.7 -00.5	327 35.5 -00.4	N 13 35.5 -01.1	231 12.1 -35.6	S 21 43.2 +08.8	12						
13	13 24.0 -00.1	N 20 33.2 -00.5	342 35.1 -00.5	N 13 34.4 -01.0	245 36.5 -35.8	S 21 52.0 +08.6	13						
14	28 23.9 +00.0	N 20 32.7 -00.5	357 34.6 -00.4	N 13 33.4 -01.1	260 00.7 -35.8	S 22 00.6 +08.4	14						
15	43 23.9 +00.0	N 20 32.2 -00.4	12 34.2 -00.4	N 13 32.3 -01.1	274 24.9 -36.0	S 22 09.0 +08.3	15						
16	58 23.9 -00.1	N 20 31.8 -00.5	27 33.8 -00.4	N 13 31.2 -01.1	288 48.9 -36.0	S 22 17.3 +08.2	16						
17	73 23.8 +00.0	N 20 31.3 -00.5	42 33.4 -00.4	N 13 30.1 -01.1	303 12.9 -36.1	S 22 25.5 +08.0	17						
18	88 23.8 +00.0	N 20 30.8 -00.5	57 33.0 -00.4	N 13 29.0 -01.1	317 36.8 -36.2	S 22 33.5 +07.8	18						
19	103 23.8 -00.1	N 20 30.3 -00.5	72 32.6 -00.5	N 13 27.9 -01.0	332 00.6 -36.2	S 22 41.3 +07.7	19						
20	118 23.7 +00.0	N 20 29.8 -00.4	87 32.1 -00.4	N 13 26.9 -01.1	346 24.4 -36.4	S 22 49.0 +07.6	20						
21	133 23.7 +00.0	N 20 29.4 -00.5	102 31.7 -00.4	N 13 25.8 -01.1	0 48.0 -36.4	S 22 56.6 +07.4	21						
22	148 23.7 +00.0	N 20 28.9 -00.5	117 31.3 -00.4	N 13 24.7 -01.1	15 11.6 -36.5	S 23 04.0 +07.2	22						
23	163 23.7 -00.1	N 20 28.4 -00.5	132 30.9 -00.4	N 13 23.6 -01.1	29 35.1 -36.6	S 23 11.2 +07.1	23						
UT	02 06 10 14 18 22	SD 15'7 15'7 15'7 15'7 15'7 15'7	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 16'3 16'3 16'4 16'4 16'4 16'4					
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 59'9 60'0 60'0 60'1 60'1 60'1		HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 240° 240° 240° 240° 240° 239°		SHA 210° 209° 209° 209° 209° 209°		SHA 119° 116° 114° 111° 109° 106°		SHA 046° 046° 046° 046° 046° 046°						
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:09		Greenwich Culmination Time: 20:56								
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	151 27.2 +00.9	N 14 39.8 -00.5	324 42.6 +02.6	S 12 11.8 +00.1	344 09.8 +02.7	S 18 09.3 +00.0	00						
01	166 28.1 +01.0	N 14 39.3 -00.5	339 45.2 +02.7	S 12 11.9 +00.1	359 12.5 +02.6	S 18 09.3 +00.1	01						
02	181 29.1 +00.9	N 14 38.8 -00.5	354 47.9 +02.7	S 12 12.0 +00.1	14 15.1 +02.7	S 18 09.4 +00.0	02						
03	196 30.0 +00.9	N 14 38.3 -00.6	9 50.6 +02.6	S 12 12.1 +00.0	29 17.8 +02.6	S 18 09.4 +00.1	03						
04	211 30.9 +01.0	N 14 37.7 -00.5	24 53.2 +02.7	S 12 12.1 +00.1	44 20.4 +02.7	S 18 09.5 +00.1	04						
05	226 31.9 +00.9	N 14 37.2 -00.5	39 55.9 +02.7	S 12 12.2 +00.1	59 23.1 +02.6	S 18 09.6 +00.0	05						
06	241 32.8 +01.0	N 14 36.7 -00.6	54 58.6 +02.7	S 12 12.3 +00.1	74 25.7 +02.6	S 18 09.6 +00.1	06						
07	256 33.8 +00.9	N 14 36.1 -00.5	70 01.3 +02.6	S 12 12.4 +00.1	89 28.3 +02.7	S 18 09.7 +00.0	07						
08	271 34.7 +01.0	N 14 35.6 -00.5	85 03.9 +02.7	S 12 12.5 +00.1	104 31.0 +02.6	S 18 09.7 +00.1	08						
09	286 35.7 +00.9	N 14 35.1 -00.6	100 06.6 +02.7	S 12 12.6 +00.1	119 33.6 +02.7	S 18 09.8 +00.0	09						
10	301 36.6 +01.0	N 14 34.5 -00.5	115 09.3 +02.7	S 12 12.7 +00.1	134 36.3 +02.6	S 18 09.8 +00.1	10						
11	316 37.6 +00.9	N 14 34.0 -00.5	130 12.0 +02.6	S 12 12.8 +00.1	149 38.9 +02.7	S 18 09.9 +00.0	11						
12	331 38.5 +01.0	N 14 33.5 -00.6	145 14.6 +02.7	S 12 12.9 +00.0	164 41.6 +02.6	S 18 09.9 +00.1	12						
13	346 39.5 +00.9	N 14 32.9 -00.5	160 17.3 +02.7	S 12 12.9 +00.1	179 44.2 +02.6	S 18 10.0 +00.0	13						
14	1 40.4 +01.0	N 14 32.4 -00.5	175 20.0 +02.7	S 12 13.0 +00.1	194 46.8 +02.7	S 18 10.0 +00.1	14						
15	16 41.4 +00.9	N 14 31.9 -00.6	190 22.7 +02.6	S 12 13.1 +00.1	209 49.5 +02.6	S 18 10.1 +00.0	15						
16	31 42.3 +01.0	N 14 31.3 -00.5	205 25.3 +02.7	S 12 13.2 +00.1	224 52.1 +02.7	S 18 10.1 +00.1	16						
17	46 43.3 +00.9	N 14 30.8 -00.5	220 28.0 +02.7	S 12 13.3 +00.1	239 54.8 +02.6	S 18 10.2 +00.0	17						
18	61 44.2 +01.0	N 14 30.3 -00.6	235 30.7 +02.7	S 12 13.4 +00.1	254 57.4 +02.7	S 18 10.2 +00.1	18						
19	76 45.2 +00.9	N 14 29.7 -00.5	250 33.4 +02.6	S 12 13.5 +00.1	270 00.1 +02.6	S 18 10.3 +00.1	19						
20	91 46.1 +00.9	N 14 29.2 -00.5	265 36.0 +02.7	S 12 13.6 +00.1	285 02.7 +02.6	S 18 10.4 +00.0	20						
21	106 47.0 +01.0	N 14 28.7 -00.6	280 38.7 +02.7	S 12 13.7 +00.0	300 05.3 +02.7	S 18 10.4 +00.1	21						
22	121 48.0 +00.9	N 14 28.1 -00.5	295 41.4 +02.7	S 12 13.7 +00.1	315 08.0 +02.6	S 18 10.5 +00.0	22						
23	136 48.9 +01.0	N 14 27.6 -00.5	310 44.1 +02.7	S 12 13.8 +00.1	330 10.6 +02.7	S 18 10.5 +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 00'4 00'4 00'4 00'4 00'4 00'4	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		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0		HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 213° 213° 213° 213° 213° 213°		SHA 027° 027° 027° 027° 027° 027°		SHA 046° 046° 046° 046° 046° 046°		SHA 046° 046° 046° 046° 046° 046°						
	Greenwich Culmination Time: 13:53		Greenwich Culmination Time: 02:20		Greenwich Culmination Time: 01:03								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 23.6 +00.0	N 20 27.9 -00.5	147 30.5 -00.4	N 13 22.5 -01.1	43 58.5 -36.7	S 23 18.3 +06.9	00						
01	193 23.6 +00.0	N 20 27.4 -00.4	162 30.1 -00.4	N 13 21.4 -01.1	58 21.8 -36.7	S 23 25.2 +06.7	01						
02	208 23.6 -00.1	N 20 27.0 -00.5	177 29.7 -00.5	N 13 20.3 -01.0	72 45.1 -36.8	S 23 31.9 +06.6	02						
03	223 23.5 +00.0	N 20 26.5 -00.5	192 29.2 -00.4	N 13 19.3 -01.1	87 08.3 -36.9	S 23 38.5 +06.4	03						
04	238 23.5 +00.0	N 20 26.0 -00.5	207 28.8 -00.4	N 13 18.2 -01.1	101 31.4 -37.0	S 23 44.9 +06.3	04						
05	253 23.5 +00.0	N 20 25.5 -00.5	222 28.4 -00.4	N 13 17.1 -01.1	115 54.4 -37.0	S 23 51.2 +06.1	05						
06	268 23.5 -00.1	N 20 25.0 -00.5	237 28.0 -00.4	N 13 16.0 -01.1	130 17.4 -37.1	S 23 57.3 +05.9	06						
07	283 23.4 +00.0	N 20 24.5 -00.5	252 27.6 -00.4	N 13 14.9 -01.1	144 40.3 -37.1	S 24 03.2 +05.7	07						
08	298 23.4 +00.0	N 20 24.0 -00.4	267 27.2 -00.4	N 13 13.8 -01.1	159 03.2 -37.3	S 24 08.9 +05.6	08						
09	313 23.4 -00.1	N 20 23.6 -00.5	282 26.8 -00.4	N 13 12.7 -01.1	173 25.9 -37.2	S 24 14.5 +05.4	09						
10	328 23.3 +00.0	N 20 23.1 -00.5	297 26.4 -00.4	N 13 11.6 -01.1	187 48.7 -37.4	S 24 19.9 +05.3	10						
11	343 23.3 +00.0	N 20 22.6 -00.5	312 26.0 -00.4	N 13 10.5 -01.1	202 11.3 -37.3	S 24 25.2 +05.0	11						
12	358 23.3 +00.0	N 20 22.1 -00.5	327 25.6 -00.5	N 13 09.4 -01.1	216 34.0 -37.5	S 24 30.2 +04.9	12						
13	13 23.3 -00.1	N 20 21.6 -00.5	342 25.1 -00.4	N 13 08.3 -01.1	230 56.5 -37.5	S 24 35.1 +04.7	13						
14	28 23.2 +00.0	N 20 21.1 -00.5	357 24.7 -00.4	N 13 07.2 -01.0	245 19.0 -37.5	S 24 39.8 +04.6	14						
15	43 23.2 +00.0	N 20 20.6 -00.5	12 24.3 -00.4	N 13 06.2 -01.1	259 41.5 -37.6	S 24 44.4 +04.3	15						
16	58 23.2 +00.0	N 20 20.1 -00.5	27 23.9 -00.4	N 13 05.1 -01.1	274 03.9 -37.7	S 24 48.7 +04.2	16						
17	73 23.2 -00.1	N 20 19.6 -00.5	42 23.5 -00.4	N 13 04.0 -01.1	288 26.2 -37.7	S 24 52.9 +04.0	17						
18	88 23.1 +00.0	N 20 19.1 -00.5	57 23.1 -00.4	N 13 02.9 -01.1	302 48.5 -37.7	S 24 56.9 +03.8	18						
19	103 23.1 +00.0	N 20 18.6 -00.5	72 22.7 -00.4	N 13 01.8 -01.1	317 10.8 -37.7	S 25 00.7 +03.7	19						
20	118 23.1 +00.0	N 20 18.1 -00.5	87 22.3 -00.4	N 13 00.7 -01.1	331 33.1 -37.8	S 25 04.4 +03.4	20						
21	133 23.1 -00.1	N 20 17.6 -00.4	102 21.9 -00.4	N 12 59.6 -01.1	345 55.3 -37.9	S 25 07.8 +03.3	21						
22	148 23.0 +00.0	N 20 17.2 -00.5	117 21.5 -00.4	N 12 58.5 -01.1	0 17.4 -37.8	S 25 11.1 +03.1	22						
23	163 23.0 +00.0	N 20 16.7 -00.5	132 21.1 -00.4	N 12 57.4 -01.1	14 39.6 -37.9	S 25 14.2 +02.9	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 16'4 16'4 16'4 16'4 16'4 16'4								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 60'1 60'1 60'1 60'1 60'1 60'1								
	SHA 239° 239° 239° 239° 239° 239°		SHA 208° 208° 208° 208° 208° 207°		SHA 104° 101° 098° 096° 093° 090°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:10		Greenwich Culmination Time: 21:58								

  

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	151 49.9 +00.9	N 14 27.1 -00.6	325 46.8 +02.6	S 12 13.9 +00.1	345 13.3 +02.6	S 18 10.6 +00.0	00						
01	166 50.8 +01.0	N 14 26.5 -00.5	340 49.4 +02.7	S 12 14.0 +00.1	0 15.9 +02.7	S 18 10.6 +00.1	01						
02	181 51.8 +00.9	N 14 26.0 -00.5	355 52.1 +02.7	S 12 14.1 +00.1	15 18.6 +02.6	S 18 10.7 +00.0	02						
03	196 52.7 +01.0	N 14 25.5 -00.6	10 54.8 +02.7	S 12 14.2 +00.1	30 21.2 +02.7	S 18 10.7 +00.1	03						
04	211 53.7 +00.9	N 14 24.9 -00.5	25 57.5 +02.6	S 12 14.3 +00.1	45 23.9 +02.6	S 18 10.8 +00.0	04						
05	226 54.6 +01.0	N 14 24.4 -00.5	41 00.1 +02.7	S 12 14.4 +00.1	60 26.5 +02.6	S 18 10.8 +00.1	05						
06	241 55.6 +00.9	N 14 23.9 -00.6	56 02.8 +02.7	S 12 14.5 +00.1	75 29.1 +02.7	S 18 10.9 +00.0	06						
07	256 56.5 +01.0	N 14 23.3 -00.5	71 05.5 +02.7	S 12 14.6 +00.0	90 31.8 +02.6	S 18 10.9 +00.1	07						
08	271 57.5 +00.9	N 14 22.8 -00.5	86 08.2 +02.7	S 12 14.6 +00.1	105 34.4 +02.7	S 18 11.0 +00.0	08						
09	286 58.4 +01.0	N 14 22.3 -00.6	101 10.9 +02.6	S 12 14.7 +00.1	120 37.1 +02.6	S 18 11.0 +00.1	09						
10	301 59.4 +00.9	N 14 21.7 -00.5	116 13.5 +02.7	S 12 14.8 +00.1	135 39.7 +02.7	S 18 11.1 +00.1	10						
11	317 00.3 +01.0	N 14 21.2 -00.5	131 16.2 +02.7	S 12 14.9 +00.1	150 42.4 +02.6	S 18 11.2 +00.0	11						
12	332 01.3 +00.9	N 14 20.7 -00.6	146 18.9 +02.7	S 12 15.0 +00.1	165 45.0 +02.7	S 18 11.2 +00.1	12						
13	347 02.2 +01.0	N 14 20.1 -00.5	161 21.6 +02.7	S 12 15.1 +00.1	180 47.7 +02.6	S 18 11.3 +00.0	13						
14	2 03.2 +00.9	N 14 19.6 -00.6	176 24.3 +02.6	S 12 15.2 +00.1	195 50.3 +02.6	S 18 11.3 +00.1	14						
15	17 04.1 +01.0	N 14 19.0 -00.5	191 26.9 +02.7	S 12 15.3 +00.1	210 52.9 +02.7	S 18 11.4 +00.0	15						
16	32 05.1 +00.9	N 14 18.5 -00.5	206 29.6 +02.7	S 12 15.4 +00.1	225 55.6 +02.6	S 18 11.4 +00.1	16						
17	47 06.0 +01.0	N 14 18.0 -00.6	221 32.3 +02.7	S 12 15.5 +00.1	240 58.2 +02.7	S 18 11.5 +00.0	17						
18	62 07.0 +00.9	N 14 17.4 -00.5	236 35.0 +02.7	S 12 15.6 +00.0	256 00.9 +02.6	S 18 11.5 +00.1	18						
19	77 07.9 +01.0	N 14 16.9 -00.5	251 37.7 +02.7	S 12 15.6 +00.1	271 03.5 +02.7	S 18 11.6 +00.0	19						
20	92 08.9 +00.9	N 14 16.4 -00.6	266 40.4 +02.6	S 12 15.7 +00.1	286 06.2 +02.6	S 18 11.6 +00.1	20						
21	107 09.8 +01.0	N 14 15.8 -00.5	281 43.0 +02.7	S 12 15.8 +00.1	301 08.8 +02.7	S 18 11.7 +00.0	21						
22	122 10.8 +00.9	N 14 15.3 -00.5	296 45.7 +02.7	S 12 15.9 +00.1	316 11.5 +02.6	S 18 11.7 +00.1	22						
23	137 11.7 +01.0	N 14 14.8 -00.6	311 48.4 +02.7	S 12 16.0 +00.1	331 14.1 +02.6	S 18 11.8 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 213° 213° 213° 212° 212° 212°		SHA 027° 027° 027° 027° 027° 027°		SHA 046° 046° 046° 046° 046° 046°								
	Greenwich Culmination Time: 13:51		Greenwich Culmination Time: 02:16		Greenwich Culmination Time: 00:58								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 23.0 +00.0	N 20 16.2 -00.5	147 20.7 -00.4	N 12 56.3 -01.1	29 01.7 -38.0	S 25 17.1 +02.7	00						
01	193 23.0 -00.1	N 20 15.7 -00.5	162 20.3 -00.4	N 12 55.2 -01.1	43 23.7 -37.9	S 25 19.8 +02.6	01						
02	208 22.9 +00.0	N 20 15.2 -00.5	177 19.9 -00.4	N 12 54.1 -01.1	57 45.8 -38.0	S 25 22.4 +02.3	02						
03	223 22.9 +00.0	N 20 14.7 -00.5	192 19.5 -00.4	N 12 53.0 -01.1	72 07.8 -38.0	S 25 24.7 +02.2	03						
04	238 22.9 +00.0	N 20 14.2 -00.5	207 19.1 -00.4	N 12 51.9 -01.1	86 29.8 -38.0	S 25 26.9 +02.0	04						
05	253 22.9 +00.0	N 20 13.7 -00.5	222 18.7 -00.4	N 12 50.8 -01.1	100 51.8 -38.0	S 25 28.9 +01.8	05						
06	268 22.9 -00.1	N 20 13.2 -00.5	237 18.3 -00.4	N 12 49.7 -01.2	115 13.8 -38.0	S 25 30.7 +01.6	06						
07	283 22.8 +00.0	N 20 12.7 -00.5	252 17.9 -00.4	N 12 48.5 -01.1	129 35.8 -38.1	S 25 32.3 +01.4	07						
08	298 22.8 +00.0	N 20 12.2 -00.5	267 17.5 -00.4	N 12 47.4 -01.1	143 57.7 -38.0	S 25 33.7 +01.3	08						
09	313 22.8 +00.0	N 20 11.7 -00.5	282 17.1 -00.4	N 12 46.3 -01.1	158 19.7 -38.1	S 25 35.0 +01.0	09						
10	328 22.8 -00.1	N 20 11.2 -00.5	297 16.7 -00.4	N 12 45.2 -01.1	172 41.6 -38.0	S 25 36.0 +00.9	10						
11	343 22.7 +00.0	N 20 10.7 -00.5	312 16.3 -00.4	N 12 44.1 -01.1	187 03.6 -38.1	S 25 36.9 +00.7	11						
12	358 22.7 +00.0	N 20 10.2 -00.6	327 15.9 -00.4	N 12 43.0 -01.1	201 25.5 -38.0	S 25 37.6 +00.5	12						
13	13 22.7 +00.0	N 20 09.6 -00.5	342 15.5 -00.4	N 12 41.9 -01.1	215 47.5 -38.0	S 25 38.1 +00.3	13						
14	28 22.7 +00.0	N 20 09.1 -00.5	357 15.1 -00.4	N 12 40.8 -01.1	230 09.5 -38.1	S 25 38.4 +00.1	14						
15	43 22.7 -00.1	N 20 08.6 -00.5	12 14.7 -00.4	N 12 39.7 -01.1	244 31.4 -38.0	S 25 38.5 +00.0	15						
16	58 22.6 +00.0	N 20 08.1 -00.5	27 14.3 -00.3	N 12 38.6 -01.1	258 53.4 -38.0	S 25 38.5 -00.3	16						
17	73 22.6 +00.0	N 20 07.6 -00.5	42 14.0 -00.4	N 12 37.5 -01.1	273 15.4 -38.0	S 25 38.2 -00.4	17						
18	88 22.6 +00.0	N 20 07.1 -00.5	57 13.6 -00.4	N 12 36.4 -01.1	287 37.4 -37.9	S 25 37.8 -00.6	18						
19	103 22.6 +00.0	N 20 06.6 -00.5	72 13.2 -00.4	N 12 35.3 -01.2	301 59.5 -38.0	S 25 37.2 -00.8	19						
20	118 22.6 +00.0	N 20 06.1 -00.5	87 12.8 -00.4	N 12 34.1 -01.1	316 21.5 -37.9	S 25 36.4 -01.0	20						
21	133 22.6 -00.1	N 20 05.6 -00.5	102 12.4 -00.4	N 12 33.0 -01.1	330 43.6 -37.9	S 25 35.4 -01.2	21						
22	148 22.5 +00.0	N 20 05.1 -00.5	117 12.0 -00.4	N 12 31.9 -01.1	345 05.7 -37.8	S 25 34.2 -01.4	22						
23	163 22.5 +00.0	N 20 04.6 -00.5	132 11.6 -00.4	N 12 30.8 -01.1	359 27.9 -37.8	S 25 32.8 -01.5	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 16'4 16'4 16'4 16'3 16'3 16'3								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 60'1 60'1 60'0 60'0 59'9 59'9								
	SHA 238° 238° 238° 238° 238° 238°		SHA 207° 207° 207° 207° 207° 206°		SHA 088° 085° 082° 080° 077° 074°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:10		Greenwich Culmination Time: 23:02								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	152 12.7 +00.9	N 14 14.2 -00.5	326 51.1 +02.7	S 12 16.1 +00.1	346 16.7 +02.7	S 18 11.8 +00.1	00						
01	167 13.6 +01.0	N 14 13.7 -00.6	341 53.8 +02.7	S 12 16.2 +00.1	1 19.4 +02.6	S 18 11.9 +00.1	01						
02	182 14.6 +00.9	N 14 13.1 -00.5	356 56.5 +02.6	S 12 16.3 +00.1	16 22.0 +02.7	S 18 12.0 +00.0	02						
03	197 15.5 +01.0	N 14 12.6 -00.5	11 59.1 +02.7	S 12 16.4 +00.1	31 24.7 +02.6	S 18 12.0 +00.1	03						
04	212 16.5 +00.9	N 14 12.1 -00.6	27 01.8 +02.7	S 12 16.5 +00.1	46 27.3 +02.7	S 18 12.1 +00.0	04						
05	227 17.4 +01.0	N 14 11.5 -00.5	42 04.5 +02.7	S 12 16.6 +00.1	61 30.0 +02.6	S 18 12.1 +00.1	05						
06	242 18.4 +00.9	N 14 11.0 -00.6	57 07.2 +02.7	S 12 16.7 +00.0	76 32.6 +02.7	S 18 12.2 +00.0	06						
07	257 19.3 +01.0	N 14 10.4 -00.5	72 09.9 +02.7	S 12 16.7 +00.1	91 35.3 +02.6	S 18 12.2 +00.1	07						
08	272 20.3 +00.9	N 14 09.9 -00.5	87 12.6 +02.7	S 12 16.8 +00.1	106 37.9 +02.7	S 18 12.3 +00.0	08						
09	287 21.2 +01.0	N 14 09.4 -00.6	102 15.3 +02.6	S 12 16.9 +00.1	121 40.6 +02.6	S 18 12.3 +00.1	09						
10	302 22.2 +00.9	N 14 08.8 -00.5	117 17.9 +02.7	S 12 17.0 +00.1	136 43.2 +02.6	S 18 12.4 +00.0	10						
11	317 23.1 +01.0	N 14 08.3 -00.5	132 20.6 +02.7	S 12 17.1 +00.1	151 45.8 +02.7	S 18 12.4 +00.1	11						
12	332 24.1 +00.9	N 14 07.8 -00.6	147 23.3 +02.7	S 12 17.2 +00.1	166 48.5 +02.6	S 18 12.5 +00.0	12						
13	347 25.0 +01.0	N 14 07.2 -00.5	162 26.0 +02.7	S 12 17.3 +00.1	181 51.1 +02.7	S 18 12.5 +00.1	13						
14	2 26.0 +00.9	N 14 06.7 -00.6	177 28.7 +02.7	S 12 17.4 +00.1	196 53.8 +02.6	S 18 12.6 +00.1	14						
15	17 26.9 +01.0	N 14 06.1 -00.5	192 31.4 +02.7	S 12 17.5 +00.1	211 56.4 +02.7	S 18 12.7 +00.0	15						
16	32 27.9 +01.0	N 14 05.6 -00.5	207 34.1 +02.6	S 12 17.6 +00.1	226 59.1 +02.6	S 18 12.7 +00.1	16						
17	47 28.9 +00.9	N 14 05.1 -00.6	222 36.7 +02.7	S 12 17.7 +00.1	242 01.7 +02.7	S 18 12.8 +00.0	17						
18	62 29.8 +01.0	N 14 04.5 -00.5	237 39.4 +02.7	S 12 17.8 +00.1	257 04.4 +02.6	S 18 12.8 +00.1	18						
19	77 30.8 +00.9	N 14 04.0 -00.6	252 42.1 +02.7	S 12 17.9 +00.1	272 07.0 +02.7	S 18 12.9 +00.0	19						
20	92 31.7 +01.0	N 14 03.4 -00.5	267 44.8 +02.7	S 12 18.0 +00.0	287 09.7 +02.6	S 18 12.9 +00.1	20						
21	107 32.7 +00.9	N 14 02.9 -00.6	282 47.5 +02.7	S 12 18.0 +00.1	302 12.3 +02.6	S 18 13.0 +00.0	21						
22	122 33.6 +01.0	N 14 02.3 -00.5	297 50.2 +02.7	S 12 18.1 +00.1	317 14.9 +02.7	S 18 13.0 +00.1	22						
23	137 34.6 +00.9	N 14 01.8 -00.5	312 52.9 +02.7	S 12 18.2 +00.1	332 17.6 +02.6	S 18 13.1 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 212° 212° 212° 212° 212° 212°		SHA 027° 027° 027° 027° 027° 027°		SHA 046° 046° 046° 046° 046° 046°								
	Greenwich Culmination Time: 13:50		Greenwich Culmination Time: 02:12		Greenwich Culmination Time: 00:54								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 22.5 +00.0	N 20 04.1 -00.5	147 11.2 -00.4	N 12 29.7 -01.1	13 50.1 -37.8	S 25 31.3 -01.7	00						
01	193 22.5 +00.0	N 20 03.6 -00.6	162 10.8 -00.4	N 12 28.6 -01.1	28 12.3 -37.8	S 25 29.6 -01.9	01						
02	208 22.5 -00.1	N 20 03.0 -00.5	177 10.4 -00.3	N 12 27.5 -01.2	42 34.5 -37.7	S 25 27.7 -02.1	02						
03	223 22.4 +00.0	N 20 02.5 -00.5	192 10.1 -00.4	N 12 26.3 -01.1	56 56.8 -37.6	S 25 25.6 -02.3	03						
04	238 22.4 +00.0	N 20 02.0 -00.5	207 09.7 -00.4	N 12 25.2 -01.1	71 19.2 -37.6	S 25 23.3 -02.5	04						
05	253 22.4 +00.0	N 20 01.5 -00.5	222 09.3 -00.4	N 12 24.1 -01.1	85 41.6 -37.6	S 25 20.8 -02.6	05						
06	268 22.4 +00.0	N 20 01.0 -00.5	237 08.9 -00.4	N 12 23.0 -01.1	100 04.0 -37.5	S 25 18.2 -02.8	06						
07	283 22.4 +00.0	N 20 00.5 -00.5	252 08.5 -00.4	N 12 21.9 -01.1	114 26.5 -37.5	S 25 15.4 -03.0	07						
08	298 22.4 +00.0	N 19 60.0 -00.6	267 08.1 -00.4	N 12 20.8 -01.2	128 49.0 -37.4	S 25 12.4 -03.1	08						
09	313 22.4 -00.1	N 19 59.4 -00.5	282 07.7 -00.3	N 12 19.6 -01.1	143 11.6 -37.4	S 25 09.3 -03.4	09						
10	328 22.3 +00.0	N 19 58.9 -00.5	297 07.4 -00.4	N 12 18.5 -01.1	157 34.2 -37.3	S 25 05.9 -03.5	10						
11	343 22.3 +00.0	N 19 58.4 -00.5	312 07.0 -00.4	N 12 17.4 -01.1	171 56.9 -37.2	S 25 02.4 -03.7	11						
12	358 22.3 +00.0	N 19 57.9 -00.5	327 06.6 -00.4	N 12 16.3 -01.1	186 19.7 -37.1	S 24 58.7 -03.9	12						
13	13 22.3 +00.0	N 19 57.4 -00.5	342 06.2 -00.4	N 12 15.2 -01.2	200 42.6 -37.1	S 24 54.8 -04.0	13						
14	28 22.3 +00.0	N 19 56.9 -00.6	357 05.8 -00.4	N 12 14.0 -01.1	215 05.5 -37.1	S 24 50.8 -04.2	14						
15	43 22.3 +00.0	N 19 56.3 -00.5	12 05.4 -00.3	N 12 12.9 -01.1	229 28.4 -36.9	S 24 46.6 -04.4	15						
16	58 22.3 -00.1	N 19 55.8 -00.5	27 05.1 -00.4	N 12 11.8 -01.1	243 51.5 -36.9	S 24 42.2 -04.5	16						
17	73 22.2 +00.0	N 19 55.3 -00.5	42 04.7 -00.4	N 12 10.7 -01.1	258 14.6 -36.8	S 24 37.7 -04.7	17						
18	88 22.2 +00.0	N 19 54.8 -00.6	57 04.3 -00.4	N 12 09.6 -01.2	272 37.8 -36.8	S 24 33.0 -04.9	18						
19	103 22.2 +00.0	N 19 54.2 -00.5	72 03.9 -00.4	N 12 08.4 -01.1	287 01.0 -36.6	S 24 28.1 -05.1	19						
20	118 22.2 +00.0	N 19 53.7 -00.5	87 03.5 -00.3	N 12 07.3 -01.1	301 24.4 -36.6	S 24 23.0 -05.2	20						
21	133 22.2 +00.0	N 19 53.2 -00.5	102 03.2 -00.4	N 12 06.2 -01.1	315 47.8 -36.5	S 24 17.8 -05.3	21						
22	148 22.2 +00.0	N 19 52.7 -00.5	117 02.8 -00.4	N 12 05.1 -01.2	330 11.3 -36.4	S 24 12.5 -05.6	22						
23	163 22.2 +00.0	N 19 52.2 -00.6	132 02.4 -00.4	N 12 03.9 -01.1	344 34.9 -36.3	S 24 06.9 -05.7	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 16'3 16'3 16'3 16'2 16'2 16'2								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 59'8 59'8 59'7 59'6 59'5 59'5								
	SHA 237° 237° 237° 237° 237° 237°		SHA 206° 206° 206° 206° 205° 205°		SHA 072° 069° 066° 064° 061° 058°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:11		Greenwich Culmination Time: -1:00								

  

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	152 35.5 +01.0	N 14 01.3 -00.6	327 55.6 +02.7	S 12 18.3 +00.1	347 20.2 +02.7	S 18 13.1 +00.1	00						
01	167 36.5 +00.9	N 14 00.7 -00.5	342 58.3 +02.6	S 12 18.4 +00.1	2 22.9 +02.6	S 18 13.2 +00.0	01						
02	182 37.4 +01.0	N 14 00.2 -00.6	358 00.9 +02.7	S 12 18.5 +00.1	17 25.5 +02.7	S 18 13.2 +00.1	02						
03	197 38.4 +00.9	N 13 59.6 -00.5	13 03.6 +02.7	S 12 18.6 +00.1	32 28.2 +02.6	S 18 13.3 +00.0	03						
04	212 39.3 +01.0	N 13 59.1 -00.5	28 06.3 +02.7	S 12 18.7 +00.1	47 30.8 +02.7	S 18 13.3 +00.1	04						
05	227 40.3 +00.9	N 13 58.6 -00.6	43 09.0 +02.7	S 12 18.8 +00.1	62 33.5 +02.6	S 18 13.4 +00.1	05						
06	242 41.2 +01.0	N 13 58.0 -00.5	58 11.7 +02.7	S 12 18.9 +00.1	77 36.1 +02.7	S 18 13.5 +00.0	06						
07	257 42.2 +00.9	N 13 57.5 -00.6	73 14.4 +02.7	S 12 19.0 +00.1	92 38.8 +02.6	S 18 13.5 +00.1	07						
08	272 43.1 +01.0	N 13 56.9 -00.5	88 17.1 +02.7	S 12 19.1 +00.1	107 41.4 +02.7	S 18 13.6 +00.0	08						
09	287 44.1 +00.9	N 13 56.4 -00.6	103 19.8 +02.7	S 12 19.2 +00.1	122 44.1 +02.6	S 18 13.6 +00.1	09						
10	302 45.0 +01.0	N 13 55.8 -00.5	118 22.5 +02.7	S 12 19.3 +00.1	137 46.7 +02.6	S 18 13.7 +00.0	10						
11	317 46.0 +01.0	N 13 55.3 -00.5	133 25.2 +02.7	S 12 19.4 +00.1	152 49.3 +02.7	S 18 13.7 +00.1	11						
12	332 47.0 +00.9	N 13 54.8 -00.6	148 27.9 +02.6	S 12 19.5 +00.1	167 52.0 +02.6	S 18 13.8 +00.0	12						
13	347 47.9 +01.0	N 13 54.2 -00.5	163 30.5 +02.7	S 12 19.6 +00.0	182 54.6 +02.7	S 18 13.8 +00.1	13						
14	2 48.9 +00.9	N 13 53.7 -00.6	178 33.2 +02.7	S 12 19.6 +00.1	197 57.3 +02.6	S 18 13.9 +00.0	14						
15	17 49.8 +01.0	N 13 53.1 -00.5	193 35.9 +02.7	S 12 19.7 +00.1	212 59.9 +02.7	S 18 13.9 +00.1	15						
16	32 50.8 +00.9	N 13 52.6 -00.6	208 38.6 +02.7	S 12 19.8 +00.1	228 02.6 +02.6	S 18 14.0 +00.0	16						
17	47 51.7 +01.0	N 13 52.0 -00.5	223 41.3 +02.7	S 12 19.9 +00.1	243 05.2 +02.7	S 18 14.0 +00.1	17						
18	62 52.7 +00.9	N 13 51.5 -00.6	238 44.0 +02.7	S 12 20.0 +00.1	258 07.9 +02.6	S 18 14.1 +00.1	18						
19	77 53.6 +01.0	N 13 50.9 -00.5	253 46.7 +02.7	S 12 20.1 +00.1	273 10.5 +02.7	S 18 14.2 +00.0	19						
20	92 54.6 +00.9	N 13 50.4 -00.5	268 49.4 +02.7	S 12 20.2 +00.1	288 13.2 +02.6	S 18 14.2 +00.1	20						
21	107 55.5 +01.0	N 13 49.9 -00.6	283 52.1 +02.7	S 12 20.3 +00.1	303 15.8 +02.7	S 18 14.3 +00.0	21						
22	122 56.5 +01.0	N 13 49.3 -00.5	298 54.8 +02.7	S 12 20.4 +00.1	318 18.5 +02.6	S 18 14.3 +00.1	22						
23	137 57.5 +00.9	N 13 48.8 -00.6	313 57.5 +02.7	S 12 20.5 +00.1	333 21.1 +02.7	S 18 14.4 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 212° 211° 211° 211° 211° 211°		SHA 027° 027° 027° 027° 027° 027°		SHA 046° 046° 046° 046° 046° 046°								
	Greenwich Culmination Time: 13:48		Greenwich Culmination Time: 02:07		Greenwich Culmination Time: 00:50								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 22.2 -00.1	N 19 51.6 -00.5	147 02.0 -00.4	N 12 02.8 -01.1	358 58.6 -36.3	S 24 01.2 -05.8	00						
01	193 22.1 +00.0	N 19 51.1 -00.5	162 01.6 -00.3	N 12 01.7 -01.2	13 22.3 -36.1	S 23 55.4 -06.0	01						
02	208 22.1 +00.0	N 19 50.6 -00.5	177 01.3 -00.4	N 12 00.5 -01.1	27 46.2 -36.1	S 23 49.4 -06.2	02						
03	223 22.1 +00.0	N 19 50.1 -00.6	192 00.9 -00.4	N 11 59.4 -01.1	42 10.1 -35.9	S 23 43.2 -06.3	03						
04	238 22.1 +00.0	N 19 49.5 -00.5	207 00.5 -00.4	N 11 58.3 -01.1	56 34.2 -35.9	S 23 36.9 -06.5	04						
05	253 22.1 +00.0	N 19 49.0 -00.5	222 00.1 -00.3	N 11 57.2 -01.2	70 58.3 -35.8	S 23 30.4 -06.6	05						
06	268 22.1 +00.0	N 19 48.5 -00.6	236 59.8 -00.4	N 11 56.0 -01.1	85 22.5 -35.7	S 23 23.8 -06.8	06						
07	283 22.1 +00.0	N 19 47.9 -00.5	251 59.4 -00.4	N 11 54.9 -01.1	99 46.8 -35.6	S 23 17.0 -06.9	07						
08	298 22.1 +00.0	N 19 47.4 -00.5	266 59.0 -00.4	N 11 53.8 -01.2	114 11.2 -35.5	S 23 10.1 -07.0	08						
09	313 22.1 +00.0	N 19 46.9 -00.5	281 58.6 -00.3	N 11 52.6 -01.1	128 35.7 -35.4	S 23 03.1 -07.2	09						
10	328 22.1 +00.0	N 19 46.4 -00.6	296 58.3 -00.3	N 11 51.5 -01.1	143 00.3 -35.2	S 22 55.9 -07.4	10						
11	343 22.1 -00.1	N 19 45.8 -00.5	311 57.9 -00.4	N 11 50.4 -01.2	157 25.1 -35.2	S 22 48.5 -07.5	11						
12	358 22.0 +00.0	N 19 45.3 -00.5	326 57.5 -00.3	N 11 49.2 -01.1	171 49.9 -35.1	S 22 41.0 -07.6	12						
13	13 22.0 +00.0	N 19 44.8 -00.6	341 57.2 -00.4	N 11 48.1 -01.1	186 14.8 -35.0	S 22 33.4 -07.8	13						
14	28 22.0 +00.0	N 19 44.2 -00.5	356 56.8 -00.4	N 11 47.0 -01.2	200 39.8 -34.9	S 22 25.6 -07.9	14						
15	43 22.0 +00.0	N 19 43.7 -00.5	11 56.4 -00.4	N 11 45.8 -01.1	215 04.9 -34.7	S 22 17.7 -08.0	15						
16	58 22.0 +00.0	N 19 43.2 -00.6	26 56.0 -00.3	N 11 44.7 -01.1	229 30.2 -34.7	S 22 09.7 -08.2	16						
17	73 22.0 +00.0	N 19 42.6 -00.5	41 55.7 -00.4	N 11 43.6 -01.2	243 55.5 -34.6	S 22 01.5 -08.3	17						
18	88 22.0 +00.0	N 19 42.1 -00.5	56 55.3 -00.4	N 11 42.4 -01.1	258 20.9 -34.4	S 21 53.2 -08.5	18						
19	103 22.0 +00.0	N 19 41.6 -00.6	71 54.9 -00.3	N 11 41.3 -01.1	272 46.5 -34.4	S 21 44.7 -08.5	19						
20	118 22.0 +00.0	N 19 41.0 -00.5	86 54.6 -00.4	N 11 40.2 -01.2	287 12.1 -34.2	S 21 36.2 -08.7	20						
21	133 22.0 +00.0	N 19 40.5 -00.6	101 54.2 -00.4	N 11 39.0 -01.1	301 37.9 -34.1	S 21 27.5 -08.8	21						
22	148 22.0 +00.0	N 19 39.9 -00.5	116 53.8 -00.3	N 11 37.9 -01.1	316 03.8 -34.0	S 21 18.7 -09.0	22						
23	163 22.0 +00.0	N 19 39.4 -00.5	131 53.5 -00.4	N 11 36.8 -01.2	330 29.8 -33.9	S 21 09.7 -09.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 16'2 16'2 16'1 16'1 16'1 16'0								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 59'4 59'3 59'2 59'1 59'0 58'9								
	SHA 236° 236° 236° 236° 236° 236°		SHA 205° 205° 205° 204° 204° 204°		SHA 056° 053° 051° 048° 046° 043°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:12		Greenwich Culmination Time: 00:04								

  

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	152 58.4 +01.0	N 13 48.2 -00.5	329 00.2 +02.7	S 12 20.6 +00.1	348 23.8 +02.6	S 18 14.4 +00.1	00						
01	167 59.4 +00.9	N 13 47.7 -00.6	344 02.9 +02.7	S 12 20.7 +00.1	3 26.4 +02.6	S 18 14.5 +00.0	01						
02	183 00.3 +01.0	N 13 47.1 -00.5	359 05.6 +02.7	S 12 20.8 +00.1	18 29.0 +02.7	S 18 14.5 +00.1	02						
03	198 01.3 +00.9	N 13 46.6 -00.6	14 08.3 +02.7	S 12 20.9 +00.1	33 31.7 +02.6	S 18 14.6 +00.0	03						
04	213 02.2 +01.0	N 13 46.0 -00.5	29 11.0 +02.7	S 12 21.0 +00.1	48 34.3 +02.7	S 18 14.6 +00.1	04						
05	228 03.2 +00.9	N 13 45.5 -00.5	44 13.7 +02.6	S 12 21.1 +00.1	63 37.0 +02.6	S 18 14.7 +00.0	05						
06	243 04.1 +01.0	N 13 45.0 -00.6	59 16.3 +02.7	S 12 21.2 +00.1	78 39.6 +02.7	S 18 14.7 +00.1	06						
07	258 05.1 +00.9	N 13 44.4 -00.5	74 19.0 +02.7	S 12 21.3 +00.1	93 42.3 +02.6	S 18 14.8 +00.1	07						
08	273 06.0 +01.0	N 13 43.9 -00.6	89 21.7 +02.7	S 12 21.4 +00.1	108 44.9 +02.7	S 18 14.9 +00.0	08						
09	288 07.0 +01.0	N 13 43.3 -00.5	104 24.4 +02.7	S 12 21.5 +00.1	123 47.6 +02.6	S 18 14.9 +00.1	09						
10	303 08.0 +00.9	N 13 42.8 -00.6	119 27.1 +02.7	S 12 21.6 +00.1	138 50.2 +02.7	S 18 15.0 +00.0	10						
11	318 08.9 +01.0	N 13 42.2 -00.5	134 29.8 +02.7	S 12 21.7 +00.0	153 52.9 +02.6	S 18 15.0 +00.1	11						
12	333 09.9 +00.9	N 13 41.7 -00.6	149 32.5 +02.7	S 12 21.7 +00.1	168 55.5 +02.7	S 18 15.1 +00.0	12						
13	348 10.8 +01.0	N 13 41.1 -00.5	164 35.2 +02.7	S 12 21.8 +00.1	183 58.2 +02.6	S 18 15.1 +00.1	13						
14	3 11.8 +00.9	N 13 40.6 -00.6	179 37.9 +02.7	S 12 21.9 +00.1	199 00.8 +02.7	S 18 15.2 +00.0	14						
15	18 12.7 +01.0	N 13 40.0 -00.5	194 40.6 +02.7	S 12 22.0 +00.1	214 03.5 +02.6	S 18 15.2 +00.1	15						
16	33 13.7 +01.0	N 13 39.5 -00.6	209 43.3 +02.7	S 12 22.1 +00.1	229 06.1 +02.7	S 18 15.3 +00.0	16						
17	48 14.7 +00.9	N 13 38.9 -00.5	224 46.0 +02.7	S 12 22.2 +00.1	244 08.8 +02.6	S 18 15.3 +00.1	17						
18	63 15.6 +01.0	N 13 38.4 -00.6	239 48.7 +02.7	S 12 22.3 +00.1	259 11.4 +02.6	S 18 15.4 +00.0	18						
19	78 16.6 +00.9	N 13 37.8 -00.5	254 51.4 +02.7	S 12 22.4 +00.1	274 14.0 +02.7	S 18 15.4 +00.1	19						
20	93 17.5 +01.0	N 13 37.3 -00.6	269 54.1 +02.7	S 12 22.5 +00.1	289 16.7 +02.6	S 18 15.5 +00.1	20						
21	108 18.5 +00.9	N 13 36.7 -00.5	284 56.8 +02.7	S 12 22.6 +00.1	304 19.3 +02.7	S 18 15.6 +00.0	21						
22	123 19.4 +01.0	N 13 36.2 -00.6	299 59.5 +02.7	S 12 22.7 +00.1	319 22.0 +02.6	S 18 15.6 +00.1	22						
23	138 20.4 +00.9	N 13 35.6 -00.5	315 02.2 +02.7	S 12 22.8 +00.1	334 24.6 +02.7	S 18 15.7 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 211° 211° 211° 211° 211° 210°		SHA 027° 027° 027° 027° 027° 027°		SHA 046° 046° 046° 047° 047° 047°								
	Greenwich Culmination Time: 13:47		Greenwich Culmination Time: 02:03		Greenwich Culmination Time: 00:46								



UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 22.0 +00.0	N 19 38.9 -00.6	146 53.1 -00.4	N 11 35.6 -01.1	344 55.9 -33.8	S 21 00.6 -09.1	00						
01	193 22.0 +00.0	N 19 38.3 -00.5	161 52.7 -00.3	N 11 34.5 -01.2	359 22.1 -33.7	S 20 51.5 -09.3	01						
02	208 22.0 -00.1	N 19 37.8 -00.5	176 52.4 -00.4	N 11 33.3 -01.1	13 48.4 -33.6	S 20 42.2 -09.4	02						
03	223 21.9 +00.0	N 19 37.3 -00.6	191 52.0 -00.4	N 11 32.2 -01.1	28 14.8 -33.4	S 20 32.8 -09.6	03						
04	238 21.9 +00.0	N 19 36.7 -00.5	206 51.6 -00.3	N 11 31.1 -01.2	42 41.4 -33.4	S 20 23.2 -09.6	04						
05	253 21.9 +00.0	N 19 36.2 -00.6	221 51.3 -00.4	N 11 29.9 -01.1	57 08.0 -33.2	S 20 13.6 -09.8	05						
06	268 21.9 +00.0	N 19 35.6 -00.5	236 50.9 -00.3	N 11 28.8 -01.2	71 34.8 -33.1	S 20 03.8 -09.8	06						
07	283 21.9 +00.0	N 19 35.1 -00.6	251 50.6 -00.4	N 11 27.6 -01.1	86 01.7 -33.0	S 19 54.0 -10.0	07						
08	298 21.9 +00.0	N 19 34.5 -00.5	266 50.2 -00.4	N 11 26.5 -01.2	100 28.7 -32.9	S 19 44.0 -10.1	08						
09	313 21.9 +00.0	N 19 34.0 -00.5	281 49.8 -00.3	N 11 25.3 -01.1	114 55.8 -32.8	S 19 33.9 -10.2	09						
10	328 21.9 +00.0	N 19 33.5 -00.6	296 49.5 -00.4	N 11 24.2 -01.1	129 23.0 -32.7	S 19 23.7 -10.2	10						
11	343 21.9 +00.0	N 19 32.9 -00.5	311 49.1 -00.4	N 11 23.1 -01.2	143 50.3 -32.6	S 19 13.5 -10.4	11						
12	358 21.9 +00.0	N 19 32.4 -00.6	326 48.7 -00.3	N 11 21.9 -01.1	158 17.7 -32.4	S 19 03.1 -10.5	12						
13	13 21.9 +00.0	N 19 31.8 -00.5	341 48.4 -00.4	N 11 20.8 -01.2	172 45.3 -32.4	S 18 52.6 -10.6	13						
14	28 21.9 +00.0	N 19 31.3 -00.6	356 48.0 -00.3	N 11 19.6 -01.1	187 12.9 -32.2	S 18 42.0 -10.6	14						
15	43 21.9 +00.0	N 19 30.7 -00.5	11 47.7 -00.4	N 11 18.5 -01.2	201 40.7 -32.1	S 18 31.4 -10.8	15						
16	58 21.9 +00.0	N 19 30.2 -00.6	26 47.3 -00.3	N 11 17.3 -01.1	216 08.6 -32.0	S 18 20.6 -10.9	16						
17	73 21.9 +00.0	N 19 29.6 -00.5	41 47.0 -00.4	N 11 16.2 -01.2	230 36.6 -31.9	S 18 09.7 -10.9	17						
18	88 21.9 +00.0	N 19 29.1 -00.6	56 46.6 -00.4	N 11 15.0 -01.1	245 04.7 -31.8	S 17 58.8 -11.0	18						
19	103 21.9 +00.0	N 19 28.5 -00.5	71 46.2 -00.3	N 11 13.9 -01.2	259 32.9 -31.6	S 17 47.8 -11.2	19						
20	118 21.9 +00.0	N 19 28.0 -00.6	86 45.9 -00.4	N 11 12.7 -01.1	274 01.3 -31.6	S 17 36.6 -11.2	20						
21	133 21.9 +00.0	N 19 27.4 -00.5	101 45.5 -00.3	N 11 11.6 -01.2	288 29.7 -31.4	S 17 25.4 -11.3	21						
22	148 21.9 +00.0	N 19 26.9 -00.6	116 45.2 -00.4	N 11 10.4 -01.1	302 58.3 -31.4	S 17 14.1 -11.3	22						
23	163 21.9 +00.0	N 19 26.3 -00.5	131 44.8 -00.3	N 11 09.3 -01.2	317 26.9 -31.2	S 17 02.8 -11.5	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'7 15'7 15'7		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 16'0 16'0 15'9 15'9 15'9 15'8								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 58'7 58'6 58'5 58'4 58'3 58'1								
	SHA 235° 235° 235° 235° 235° 235°		SHA 204° 204° 203° 203° 203° 203°		SHA 041° 038° 036° 034° 031° 029°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:12		Greenwich Culmination Time: 01:02								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	153 21.3 +01.0	N 13 35.1 -00.6	330 04.9 +02.7	S 12 22.9 +00.1	349 27.3 +02.6	S 18 15.7 +00.1	00						
01	168 22.3 +01.0	N 13 34.5 -00.5	345 07.6 +02.7	S 12 23.0 +00.1	4 29.9 +02.7	S 18 15.8 +00.0	01						
02	183 23.3 +00.9	N 13 34.0 -00.5	0 10.3 +02.7	S 12 23.1 +00.1	19 32.6 +02.6	S 18 15.8 +00.1	02						
03	198 24.2 +01.0	N 13 33.5 -00.6	15 13.0 +02.7	S 12 23.2 +00.1	34 35.2 +02.7	S 18 15.9 +00.0	03						
04	213 25.2 +00.9	N 13 32.9 -00.5	30 15.7 +02.7	S 12 23.3 +00.1	49 37.9 +02.6	S 18 15.9 +00.1	04						
05	228 26.1 +01.0	N 13 32.4 -00.6	45 18.4 +02.7	S 12 23.4 +00.1	64 40.5 +02.7	S 18 16.0 +00.0	05						
06	243 27.1 +00.9	N 13 31.8 -00.5	60 21.1 +02.7	S 12 23.5 +00.1	79 43.2 +02.6	S 18 16.0 +00.1	06						
07	258 28.0 +01.0	N 13 31.3 -00.6	75 23.8 +02.7	S 12 23.6 +00.1	94 45.8 +02.7	S 18 16.1 +00.0	07						
08	273 29.0 +01.0	N 13 30.7 -00.5	90 26.5 +02.7	S 12 23.7 +00.1	109 48.5 +02.6	S 18 16.1 +00.1	08						
09	288 30.0 +00.9	N 13 30.2 -00.6	105 29.2 +02.7	S 12 23.8 +00.1	124 51.1 +02.7	S 18 16.2 +00.1	09						
10	303 30.9 +01.0	N 13 29.6 -00.5	120 31.9 +02.7	S 12 23.9 +00.1	139 53.8 +02.6	S 18 16.3 +00.0	10						
11	318 31.9 +00.9	N 13 29.1 -00.6	135 34.6 +02.7	S 12 24.0 +00.1	154 56.4 +02.7	S 18 16.3 +00.1	11						
12	333 32.8 +01.0	N 13 28.5 -00.5	150 37.3 +02.7	S 12 24.1 +00.1	169 59.1 +02.6	S 18 16.4 +00.0	12						
13	348 33.8 +00.9	N 13 28.0 -00.6	165 40.0 +02.7	S 12 24.2 +00.1	185 01.7 +02.7	S 18 16.4 +00.1	13						
14	3 34.7 +01.0	N 13 27.4 -00.6	180 42.7 +02.8	S 12 24.3 +00.1	200 04.4 +02.6	S 18 16.5 +00.0	14						
15	18 35.7 +01.0	N 13 26.8 -00.5	195 45.5 +02.7	S 12 24.4 +00.1	215 07.0 +02.7	S 18 16.5 +00.1	15						
16	33 36.7 +00.9	N 13 26.3 -00.6	210 48.2 +02.7	S 12 24.5 +00.1	230 09.7 +02.6	S 18 16.6 +00.0	16						
17	48 37.6 +01.0	N 13 25.7 -00.5	225 50.9 +02.7	S 12 24.6 +00.1	245 12.3 +02.7	S 18 16.6 +00.1	17						
18	63 38.6 +00.9	N 13 25.2 -00.6	240 53.6 +02.7	S 12 24.7 +00.1	260 15.0 +02.6	S 18 16.7 +00.0	18						
19	78 39.5 +01.0	N 13 24.6 -00.5	255 56.3 +02.7	S 12 24.8 +00.1	275 17.6 +02.7	S 18 16.7 +00.1	19						
20	93 40.5 +01.0	N 13 24.1 -00.6	270 59.0 +02.7	S 12 24.9 +00.1	290 20.3 +02.6	S 18 16.8 +00.0	20						
21	108 41.5 +00.9	N 13 23.5 -00.5	286 01.7 +02.7	S 12 25.0 +00.1	305 22.9 +02.6	S 18 16.8 +00.1	21						
22	123 42.4 +01.0	N 13 23.0 -00.6	301 04.4 +02.7	S 12 25.1 +00.1	320 25.5 +02.7	S 18 16.9 +00.1	22						
23	138 43.4 +00.9	N 13 22.4 -00.5	316 07.1 +02.7	S 12 25.2 +00.1	335 28.2 +02.6	S 18 17.0 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 210° 210° 210° 210° 210° 210°		SHA 027° 027° 027° 027° 027° 027°		SHA 047° 047° 047° 047° 047° 047°								
	Greenwich Culmination Time: 13:45		Greenwich Culmination Time: 01:59		Greenwich Culmination Time: 00:42								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 21.9 +00.0	N 19 25.8 -00.6	146 44.5 -00.4	N 11 08.1 -01.1	331 55.7 -31.1	S 16 51.3 -11.5	00						
01	193 21.9 +00.0	N 19 25.2 -00.5	161 44.1 -00.3	N 11 07.0 -01.2	346 24.6 -31.1	S 16 39.8 -11.6	01						
02	208 21.9 +00.0	N 19 24.7 -00.6	176 43.8 -00.4	N 11 05.8 -01.1	0 53.5 -30.9	S 16 28.2 -11.7	02						
03	223 21.9 +00.0	N 19 24.1 -00.5	191 43.4 -00.4	N 11 04.7 -01.2	15 22.6 -30.8	S 16 16.5 -11.7	03						
04	238 21.9 +00.0	N 19 23.6 -00.6	206 43.0 -00.3	N 11 03.5 -01.1	29 51.8 -30.7	S 16 04.8 -11.9	04						
05	253 21.9 +00.0	N 19 23.0 -00.5	221 42.7 -00.4	N 11 02.4 -01.2	44 21.1 -30.6	S 15 52.9 -11.9	05						
06	268 21.9 +00.0	N 19 22.5 -00.6	236 42.3 -00.3	N 11 01.2 -01.1	58 50.5 -30.5	S 15 41.0 -11.9	06						
07	283 21.9 +00.0	N 19 21.9 -00.6	251 42.0 -00.4	N 11 00.1 -01.2	73 20.0 -30.4	S 15 29.1 -12.0	07						
08	298 21.9 +00.0	N 19 21.3 -00.5	266 41.6 -00.3	N 10 58.9 -01.1	87 49.6 -30.2	S 15 17.1 -12.1	08						
09	313 21.9 +00.0	N 19 20.8 -00.6	281 41.3 -00.4	N 10 57.8 -01.2	102 19.4 -30.2	S 15 05.0 -12.2	09						
10	328 21.9 +00.0	N 19 20.2 -00.5	296 40.9 -00.3	N 10 56.6 -01.1	116 49.2 -30.1	S 14 52.8 -12.2	10						
11	343 21.9 +00.0	N 19 19.7 -00.6	311 40.6 -00.4	N 10 55.5 -01.2	131 19.1 -30.0	S 14 40.6 -12.3	11						
12	358 21.9 +00.1	N 19 19.1 -00.5	326 40.2 -00.3	N 10 54.3 -01.2	145 49.1 -29.9	S 14 28.3 -12.3	12						
13	13 22.0 +00.0	N 19 18.6 -00.6	341 39.9 -00.4	N 10 53.1 -01.1	160 19.2 -29.7	S 14 16.0 -12.4	13						
14	28 22.0 +00.0	N 19 18.0 -00.6	356 39.5 -00.3	N 10 52.0 -01.2	174 49.5 -29.7	S 14 03.6 -12.5	14						
15	43 22.0 +00.0	N 19 17.4 -00.5	11 39.2 -00.4	N 10 50.8 -01.1	189 19.8 -29.6	S 13 51.1 -12.5	15						
16	58 22.0 +00.0	N 19 16.9 -00.6	26 38.8 -00.3	N 10 49.7 -01.2	203 50.2 -29.5	S 13 38.6 -12.6	16						
17	73 22.0 +00.0	N 19 16.3 -00.5	41 38.5 -00.3	N 10 48.5 -01.1	218 20.7 -29.4	S 13 26.0 -12.6	17						
18	88 22.0 +00.0	N 19 15.8 -00.6	56 38.2 -00.4	N 10 47.4 -01.2	232 51.3 -29.3	S 13 13.4 -12.6	18						
19	103 22.0 +00.0	N 19 15.2 -00.6	71 37.8 -00.3	N 10 46.2 -01.2	247 22.0 -29.2	S 13 00.8 -12.7	19						
20	118 22.0 +00.0	N 19 14.6 -00.5	86 37.5 -00.4	N 10 45.0 -01.1	261 52.8 -29.1	S 12 48.1 -12.8	20						
21	133 22.0 +00.0	N 19 14.1 -00.6	101 37.1 -00.3	N 10 43.9 -01.2	276 23.7 -29.0	S 12 35.3 -12.8	21						
22	148 22.0 +00.0	N 19 13.5 -00.6	116 36.8 -00.4	N 10 42.7 -01.1	290 54.7 -29.0	S 12 22.5 -12.8	22						
23	163 22.0 +00.0	N 19 12.9 -00.5	131 36.4 -00.3	N 10 41.6 -01.2	305 25.7 -28.8	S 12 09.7 -12.9	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 15'7 15'7 15'7 15'6								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 58'0 57'9 57'7 57'6 57'5 57'3								
	SHA 234° 234° 234° 234° 234° 234°		SHA 203° 203° 202° 202° 202° 202°		SHA 027° 025° 023° 020° 018° 016°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:13		Greenwich Culmination Time: 01:56								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	153 44.3 +01.0	N 13 21.9 -00.6	331 09.8 +02.7	S 12 25.3 +00.1	350 30.8 +02.7	S 18 17.0 +00.1	00						
01	168 45.3 +01.0	N 13 21.3 -00.5	346 12.5 +02.7	S 12 25.4 +00.1	5 33.5 +02.6	S 18 17.1 +00.0	01						
02	183 46.3 +00.9	N 13 20.8 -00.6	1 15.2 +02.7	S 12 25.5 +00.1	20 36.1 +02.7	S 18 17.1 +00.1	02						
03	198 47.2 +01.0	N 13 20.2 -00.5	16 17.9 +02.7	S 12 25.6 +00.1	35 38.8 +02.6	S 18 17.2 +00.0	03						
04	213 48.2 +00.9	N 13 19.7 -00.6	31 20.6 +02.7	S 12 25.7 +00.1	50 41.4 +02.7	S 18 17.2 +00.1	04						
05	228 49.1 +01.0	N 13 19.1 -00.5	46 23.3 +02.7	S 12 25.8 +00.1	65 44.1 +02.6	S 18 17.3 +00.0	05						
06	243 50.1 +00.9	N 13 18.6 -00.6	61 26.0 +02.7	S 12 25.9 +00.1	80 46.7 +02.7	S 18 17.3 +00.1	06						
07	258 51.0 +01.0	N 13 18.0 -00.5	76 28.7 +02.8	S 12 26.0 +00.1	95 49.4 +02.6	S 18 17.4 +00.0	07						
08	273 52.0 +01.0	N 13 17.5 -00.6	91 31.5 +02.7	S 12 26.1 +00.1	110 52.0 +02.7	S 18 17.4 +00.1	08						
09	288 53.0 +00.9	N 13 16.9 -00.5	106 34.2 +02.7	S 12 26.2 +00.1	125 54.7 +02.6	S 18 17.5 +00.1	09						
10	303 53.9 +01.0	N 13 16.4 -00.6	121 36.9 +02.7	S 12 26.3 +00.1	140 57.3 +02.7	S 18 17.6 +00.0	10						
11	318 54.9 +00.9	N 13 15.8 -00.6	136 39.6 +02.7	S 12 26.4 +00.1	155 60.0 +02.6	S 18 17.6 +00.1	11						
12	333 55.8 +01.0	N 13 15.2 -00.5	151 42.3 +02.7	S 12 26.5 +00.1	171 02.6 +02.7	S 18 17.7 +00.0	12						
13	348 56.8 +01.0	N 13 14.7 -00.6	166 45.0 +02.7	S 12 26.6 +00.1	186 05.3 +02.6	S 18 17.7 +00.1	13						
14	3 57.8 +00.9	N 13 14.1 -00.5	181 47.7 +02.7	S 12 26.7 +00.1	201 07.9 +02.7	S 18 17.8 +00.0	14						
15	18 58.7 +01.0	N 13 13.6 -00.6	196 50.4 +02.7	S 12 26.8 +00.1	216 10.6 +02.6	S 18 17.8 +00.1	15						
16	33 59.7 +00.9	N 13 13.0 -00.5	211 53.1 +02.7	S 12 26.9 +00.1	231 13.2 +02.7	S 18 17.9 +00.0	16						
17	49 00.6 +01.0	N 13 12.5 -00.6	226 55.8 +02.7	S 12 27.0 +00.1	246 15.9 +02.6	S 18 17.9 +00.1	17						
18	64 01.6 +01.0	N 13 11.9 -00.5	241 58.5 +02.7	S 12 27.1 +00.1	261 18.5 +02.7	S 18 18.0 +00.0	18						
19	79 02.6 +00.9	N 13 11.4 -00.6	257 01.2 +02.8	S 12 27.2 +00.1	276 21.2 +02.6	S 18 18.0 +00.1	19						
20	94 03.5 +01.0	N 13 10.8 -00.5	272 04.0 +02.7	S 12 27.3 +00.1	291 23.8 +02.7	S 18 18.1 +00.0	20						
21	109 04.5 +00.9	N 13 10.3 -00.6	287 06.7 +02.7	S 12 27.4 +00.1	306 26.5 +02.6	S 18 18.1 +00.1	21						
22	124 05.4 +01.0	N 13 09.7 -00.6	302 09.4 +02.7	S 12 27.5 +00.1	321 29.1 +02.7	S 18 18.2 +00.1	22						
23	139 06.4 +01.0	N 13 09.1 -00.5	317 12.1 +02.7	S 12 27.6 +00.1	336 31.8 +02.6	S 18 18.3 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 210° 210° 210° 209° 209° 209°		SHA 027° 027° 027° 027° 027° 027°		SHA 047° 047° 047° 047° 047° 047°								
	Greenwich Culmination Time: 13:44		Greenwich Culmination Time: 01:55		Greenwich Culmination Time: 00:37								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 22.0 +00.0	N 19 12.4 -00.6	146 36.1 -00.4	N 10 40.4 -01.2	319 56.9 -28.7	S 11 56.8 -13.0	00						
01	193 22.0 +00.0	N 19 11.8 -00.6	161 35.7 -00.3	N 10 39.2 -01.1	334 28.2 -28.7	S 11 43.8 -12.9	01						
02	208 22.0 +00.0	N 19 11.2 -00.5	176 35.4 -00.3	N 10 38.1 -01.2	348 59.5 -28.6	S 11 30.9 -13.1	02						
03	223 22.0 +00.0	N 19 10.7 -00.6	191 35.1 -00.4	N 10 36.9 -01.2	3 30.9 -28.5	S 11 17.8 -13.0	03						
04	238 22.0 +00.1	N 19 10.1 -00.6	206 34.7 -00.3	N 10 35.7 -01.1	18 02.4 -28.4	S 11 04.8 -13.1	04						
05	253 22.1 +00.0	N 19 09.5 -00.5	221 34.4 -00.4	N 10 34.6 -01.2	32 34.0 -28.3	S 10 51.7 -13.1	05						
06	268 22.1 +00.0	N 19 09.0 -00.6	236 34.0 -00.3	N 10 33.4 -01.2	47 05.7 -28.2	S 10 38.6 -13.2	06						
07	283 22.1 +00.0	N 19 08.4 -00.6	251 33.7 -00.4	N 10 32.2 -01.1	61 37.5 -28.2	S 10 25.4 -13.2	07						
08	298 22.1 +00.0	N 19 07.8 -00.5	266 33.3 -00.3	N 10 31.1 -01.2	76 09.3 -28.1	S 10 12.2 -13.2	08						
09	313 22.1 +00.0	N 19 07.3 -00.6	281 33.0 -00.3	N 10 29.9 -01.1	90 41.2 -28.0	S 09 59.0 -13.2	09						
10	328 22.1 +00.0	N 19 06.7 -00.6	296 32.7 -00.4	N 10 28.8 -01.2	105 13.2 -27.9	S 09 45.8 -13.3	10						
11	343 22.1 +00.0	N 19 06.1 -00.5	311 32.3 -00.3	N 10 27.6 -01.2	119 45.3 -27.8	S 09 32.5 -13.3	11						
12	358 22.1 +00.0	N 19 05.6 -00.6	326 32.0 -00.4	N 10 26.4 -01.2	134 17.5 -27.8	S 09 19.2 -13.3	12						
13	13 22.1 +00.0	N 19 05.0 -00.6	341 31.6 -00.3	N 10 25.2 -01.1	148 49.7 -27.7	S 09 05.9 -13.4	13						
14	28 22.1 +00.1	N 19 04.4 -00.6	356 31.3 -00.3	N 10 24.1 -01.2	163 22.0 -27.6	S 08 52.5 -13.4	14						
15	43 22.2 +00.0	N 19 03.8 -00.5	11 31.0 -00.4	N 10 22.9 -01.2	177 54.4 -27.5	S 08 39.1 -13.4	15						
16	58 22.2 +00.0	N 19 03.3 -00.6	26 30.6 -00.3	N 10 21.7 -01.1	192 26.9 -27.5	S 08 25.7 -13.4	16						
17	73 22.2 +00.0	N 19 02.7 -00.6	41 30.3 -00.3	N 10 20.6 -01.2	206 59.4 -27.4	S 08 12.3 -13.4	17						
18	88 22.2 +00.0	N 19 02.1 -00.6	56 30.0 -00.4	N 10 19.4 -01.2	221 32.0 -27.3	S 07 58.9 -13.5	18						
19	103 22.2 +00.0	N 19 01.5 -00.5	71 29.6 -00.3	N 10 18.2 -01.1	236 04.7 -27.3	S 07 45.4 -13.5	19						
20	118 22.2 +00.0	N 19 01.0 -00.6	86 29.3 -00.3	N 10 17.1 -01.2	250 37.4 -27.2	S 07 31.9 -13.5	20						
21	133 22.2 +00.0	N 19 00.4 -00.6	101 29.0 -00.4	N 10 15.9 -01.2	265 10.2 -27.1	S 07 18.4 -13.5	21						
22	148 22.2 +00.0	N 18 59.8 -00.6	116 28.6 -00.3	N 10 14.7 -01.2	279 43.1 -27.1	S 07 04.9 -13.5	22						
23	163 22.2 +00.1	N 18 59.2 -00.6	131 28.3 -00.3	N 10 13.5 -01.1	294 16.0 -27.0	S 06 51.4 -13.6	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'7 15'7 15'7 15'8 15'8 15'8		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'6 15'5 15'5 15'5 15'4 15'4								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 57'2 57'1 56'9 56'8 56'7 56'5								
	SHA 233° 233° 233° 233° 233° 233°		SHA 202° 201° 201° 201° 201° 201°		SHA 014° 012° 010° 008° 006° 004°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:13		Greenwich Culmination Time: 02:45								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	154 07.4 +00.9	N 13 08.6 -00.6	332 14.8 +02.7	S 12 27.7 +00.1	351 34.4 +02.7	S 18 18.3 +00.1	00						
01	169 08.3 +01.0	N 13 08.0 -00.5	347 17.5 +02.7	S 12 27.8 +00.1	6 37.1 +02.6	S 18 18.4 +00.0	01						
02	184 09.3 +00.9	N 13 07.5 -00.6	2 20.2 +02.7	S 12 27.9 +00.1	21 39.7 +02.7	S 18 18.4 +00.1	02						
03	199 10.2 +01.0	N 13 06.9 -00.5	17 22.9 +02.7	S 12 28.0 +00.1	36 42.4 +02.6	S 18 18.5 +00.0	03						
04	214 11.2 +01.0	N 13 06.4 -00.6	32 25.6 +02.8	S 12 28.1 +00.1	51 45.0 +02.7	S 18 18.5 +00.1	04						
05	229 12.2 +00.9	N 13 05.8 -00.6	47 28.4 +02.7	S 12 28.2 +00.1	66 47.7 +02.6	S 18 18.6 +00.0	05						
06	244 13.1 +01.0	N 13 05.2 -00.5	62 31.1 +02.7	S 12 28.3 +00.1	81 50.3 +02.7	S 18 18.6 +00.1	06						
07	259 14.1 +01.0	N 13 04.7 -00.6	77 33.8 +02.7	S 12 28.4 +00.1	96 53.0 +02.6	S 18 18.7 +00.0	07						
08	274 15.1 +00.9	N 13 04.1 -00.5	92 36.5 +02.7	S 12 28.5 +00.1	111 55.6 +02.7	S 18 18.7 +00.1	08						
09	289 16.0 +01.0	N 13 03.6 -00.6	107 39.2 +02.7	S 12 28.6 +00.1	126 58.3 +02.6	S 18 18.8 +00.0	09						
10	304 17.0 +00.9	N 13 03.0 -00.5	122 41.9 +02.7	S 12 28.7 +00.1	142 00.9 +02.7	S 18 18.8 +00.1	10						
11	319 17.9 +01.0	N 13 02.5 -00.6	137 44.6 +02.7	S 12 28.8 +00.1	157 03.6 +02.6	S 18 18.9 +00.1	11						
12	334 18.9 +01.0	N 13 01.9 -00.6	152 47.3 +02.8	S 12 28.9 +00.1	172 06.2 +02.7	S 18 19.0 +00.0	12						
13	349 19.9 +00.9	N 13 01.3 -00.5	167 50.1 +02.7	S 12 29.0 +00.1	187 08.9 +02.6	S 18 19.0 +00.1	13						
14	4 20.8 +01.0	N 13 00.8 -00.6	182 52.8 +02.7	S 12 29.1 +00.1	202 11.5 +02.7	S 18 19.1 +00.0	14						
15	19 21.8 +00.9	N 13 00.2 -00.5	197 55.5 +02.7	S 12 29.2 +00.1	217 14.2 +02.6	S 18 19.1 +00.1	15						
16	34 22.7 +01.0	N 12 59.7 -00.6	212 58.2 +02.7	S 12 29.3 +00.1	232 16.8 +02.7	S 18 19.2 +00.0	16						
17	49 23.7 +01.0	N 12 59.1 -00.5	228 00.9 +02.7	S 12 29.4 +00.1	247 19.5 +02.6	S 18 19.2 +00.1	17						
18	64 24.7 +00.9	N 12 58.6 -00.6	243 03.6 +02.7	S 12 29.5 +00.1	262 22.1 +02.7	S 18 19.3 +00.0	18						
19	79 25.6 +01.0	N 12 58.0 -00.6	258 06.3 +02.8	S 12 29.6 +00.1	277 24.8 +02.6	S 18 19.3 +00.1	19						
20	94 26.6 +01.0	N 12 57.4 -00.5	273 09.1 +02.7	S 12 29.7 +00.1	292 27.4 +02.7	S 18 19.4 +00.0	20						
21	109 27.6 +00.9	N 12 56.9 -00.6	288 11.8 +02.7	S 12 29.8 +00.1	307 30.1 +02.6	S 18 19.4 +00.1	21						
22	124 28.5 +01.0	N 12 56.3 -00.5	303 14.5 +02.7	S 12 29.9 +00.1	322 32.7 +02.7	S 18 19.5 +00.1	22						
23	139 29.5 +00.9	N 12 55.8 -00.6	318 17.2 +02.7	S 12 30.0 +00.1	337 35.4 +02.6	S 18 19.6 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 209° 209° 209° 209° 209° 209°		SHA 027° 027° 027° 027° 027° 027°		SHA 047° 047° 047° 047° 047° 047°								
	Greenwich Culmination Time: 13:42		Greenwich Culmination Time: 01:50		Greenwich Culmination Time: 00:33								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	178 22.3 +00.0	N 18 58.6 -00.5	146 28.0 -00.4	N 10 12.4 -01.2	308 49.0 -26.9	S 06 37.8 -13.5	00								
01	193 22.3 +00.0	N 18 58.1 -00.6	161 27.6 -00.3	N 10 11.2 -01.2	323 22.1 -26.9	S 06 24.3 -13.6	01								
02	208 22.3 +00.0	N 18 57.5 -00.6	176 27.3 -00.3	N 10 10.0 -01.1	337 55.2 -26.8	S 06 10.7 -13.6	02								
03	223 22.3 +00.0	N 18 56.9 -00.6	191 27.0 -00.4	N 10 08.9 -01.2	352 28.4 -26.8	S 05 57.1 -13.6	03								
04	238 22.3 +00.0	N 18 56.3 -00.6	206 26.6 -00.3	N 10 07.7 -01.2	7 01.6 -26.7	S 05 43.5 -13.6	04								
05	253 22.3 +00.0	N 18 55.7 -00.5	221 26.3 -00.3	N 10 06.5 -01.2	21 34.9 -26.6	S 05 29.9 -13.6	05								
06	268 22.3 +00.1	N 18 55.2 -00.6	236 26.0 -00.4	N 10 05.3 -01.1	36 08.3 -26.6	S 05 16.3 -13.6	06								
07	283 22.4 +00.0	N 18 54.6 -00.6	251 25.6 -00.3	N 10 04.2 -01.2	50 41.7 -26.5	S 05 02.7 -13.6	07								
08	298 22.4 +00.0	N 18 54.0 -00.6	266 25.3 -00.3	N 10 03.0 -01.2	65 15.2 -26.5	S 04 49.1 -13.6	08								
09	313 22.4 +00.0	N 18 53.4 -00.6	281 25.0 -00.4	N 10 01.8 -01.2	79 48.7 -26.4	S 04 35.5 -13.6	09								
10	328 22.4 +00.0	N 18 52.8 -00.5	296 24.6 -00.3	N 10 00.6 -01.1	94 22.3 -26.4	S 04 21.9 -13.7	10								
11	343 22.4 +00.0	N 18 52.3 -00.6	311 24.3 -00.3	N 09 59.5 -01.2	108 55.9 -26.3	S 04 08.2 -13.6	11								
12	358 22.4 +00.1	N 18 51.7 -00.6	326 24.0 -00.3	N 09 58.3 -01.2	123 29.6 -26.3	S 03 54.6 -13.6	12								
13	13 22.5 +00.0	N 18 51.1 -00.6	341 23.7 -00.4	N 09 57.1 -01.2	138 03.3 -26.2	S 03 41.0 -13.7	13								
14	28 22.5 +00.0	N 18 50.5 -00.6	356 23.3 -00.3	N 09 55.9 -01.2	152 37.1 -26.2	S 03 27.3 -13.6	14								
15	43 22.5 +00.0	N 18 49.9 -00.6	11 23.0 -00.3	N 09 54.7 -01.1	167 10.9 -26.1	S 03 13.7 -13.6	15								
16	58 22.5 +00.0	N 18 49.3 -00.6	26 22.7 -00.3	N 09 53.6 -01.2	181 44.8 -26.1	S 03 00.1 -13.6	16								
17	73 22.5 +00.0	N 18 48.7 -00.6	41 22.4 -00.4	N 09 52.4 -01.2	196 18.7 -26.1	S 02 46.5 -13.6	17								
18	88 22.5 +00.1	N 18 48.1 -00.5	56 22.0 -00.3	N 09 51.2 -01.2	210 52.6 -26.0	S 02 32.9 -13.7	18								
19	103 22.6 +00.0	N 18 47.6 -00.6	71 21.7 -00.3	N 09 50.0 -01.2	225 26.6 -25.9	S 02 19.2 -13.6	19								
20	118 22.6 +00.0	N 18 47.0 -00.6	86 21.4 -00.3	N 09 48.8 -01.1	240 00.7 -25.9	S 02 05.6 -13.6	20								
21	133 22.6 +00.0	N 18 46.4 -00.6	101 21.1 -00.4	N 09 47.7 -01.2	254 34.8 -25.9	S 01 52.0 -13.6	21								
22	148 22.6 +00.0	N 18 45.8 -00.6	116 20.7 -00.3	N 09 46.5 -01.2	269 08.9 -25.9	S 01 38.4 -13.6	22								
23	163 22.6 +00.1	N 18 45.2 -00.6	131 20.4 -00.3	N 09 45.3 -01.2	283 43.0 -25.8	S 01 24.8 -13.5	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	SHA 232° 232° 232° 232° 232° 232°	Greenwich Culmination Time: 12:06	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 200° 200° 200° 200° 200° 200°	Greenwich Culmination Time: 14:14	UT 02 06 10 14 18 22	SD 15'4 15'3 15'3 15'3 15'2 15'2	HP 56'4 56'3 56'1 56'0 55'9 55'8	SHA 002° 000° 358° 356° 354° 352°	Greenwich Culmination Time: 03:31
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	154 30.4 +01.0	N 12 55.2 -00.6	333 19.9 +02.7	S 12 30.1 +00.1	352 38.0 +02.7	S 18 19.6 +00.1	00								
01	169 31.4 +01.0	N 12 54.6 -00.5	348 22.6 +02.8	S 12 30.2 +00.1	7 40.7 +02.6	S 18 19.7 +00.0	01								
02	184 32.4 +00.9	N 12 54.1 -00.6	3 25.4 +02.7	S 12 30.3 +00.1	22 43.3 +02.7	S 18 19.7 +00.1	02								
03	199 33.3 +01.0	N 12 53.5 -00.5	18 28.1 +02.7	S 12 30.4 +00.1	37 46.0 +02.6	S 18 19.8 +00.0	03								
04	214 34.3 +01.0	N 12 53.0 -00.6	33 30.8 +02.7	S 12 30.5 +00.1	52 48.6 +02.7	S 18 19.8 +00.1	04								
05	229 35.3 +00.9	N 12 52.4 -00.6	48 33.5 +02.7	S 12 30.6 +00.1	67 51.3 +02.6	S 18 19.9 +00.0	05								
06	244 36.2 +01.0	N 12 51.8 -00.5	63 36.2 +02.7	S 12 30.7 +00.1	82 53.9 +02.7	S 18 19.9 +00.1	06								
07	259 37.2 +00.9	N 12 51.3 -00.6	78 38.9 +02.8	S 12 30.8 +00.1	97 56.6 +02.6	S 18 20.0 +00.0	07								
08	274 38.1 +01.0	N 12 50.7 -00.5	93 41.7 +02.7	S 12 30.9 +00.1	112 59.2 +02.7	S 18 20.0 +00.1	08								
09	289 39.1 +01.0	N 12 50.2 -00.6	108 44.4 +02.7	S 12 31.0 +00.1	128 01.9 +02.6	S 18 20.1 +00.0	09								
10	304 40.1 +00.9	N 12 49.6 -00.6	123 47.1 +02.7	S 12 31.1 +00.1	143 04.5 +02.7	S 18 20.1 +00.1	10								
11	319 41.0 +01.0	N 12 49.0 -00.5	138 49.8 +02.7	S 12 31.2 +00.1	158 07.2 +02.6	S 18 20.2 +00.1	11								
12	334 42.0 +01.0	N 12 48.5 -00.6	153 52.5 +02.8	S 12 31.3 +00.1	173 09.8 +02.7	S 18 20.3 +00.0	12								
13	349 43.0 +00.9	N 12 47.9 -00.5	168 55.3 +02.7	S 12 31.4 +00.1	188 12.5 +02.6	S 18 20.3 +00.1	13								
14	4 43.9 +01.0	N 12 47.4 -00.6	183 58.0 +02.7	S 12 31.5 +00.1	203 15.1 +02.7	S 18 20.4 +00.0	14								
15	19 44.9 +01.0	N 12 46.8 -00.6	199 00.7 +02.7	S 12 31.6 +00.1	218 17.8 +02.6	S 18 20.4 +00.1	15								
16	34 45.9 +00.9	N 12 46.2 -00.5	214 03.4 +02.7	S 12 31.7 +00.2	233 20.4 +02.7	S 18 20.5 +00.0	16								
17	49 46.8 +01.0	N 12 45.7 -00.6	229 06.1 +02.8	S 12 31.9 +00.1	248 23.1 +02.6	S 18 20.5 +00.1	17								
18	64 47.8 +00.9	N 12 45.1 -00.6	244 08.9 +02.7	S 12 32.0 +00.1	263 25.7 +02.7	S 18 20.6 +00.0	18								
19	79 48.7 +01.0	N 12 44.5 -00.5	259 11.6 +02.7	S 12 32.1 +00.1	278 28.4 +02.6	S 18 20.6 +00.1	19								
20	94 49.7 +01.0	N 12 44.0 -00.6	274 14.3 +02.7	S 12 32.2 +00.1	293 31.0 +02.7	S 18 20.7 +00.0	20								
21	109 50.7 +00.9	N 12 43.4 -00.5	289 17.0 +02.7	S 12 32.3 +00.1	308 33.7 +02.6	S 18 20.7 +00.1	21								
22	124 51.6 +01.0	N 12 42.9 -00.6	304 19.7 +02.8	S 12 32.4 +00.1	323 36.3 +02.7	S 18 20.8 +00.0	22								
23	139 52.6 +01.0	N 12 42.3 -00.6	319 22.5 +02.7	S 12 32.5 +00.1	338 39.0 +02.6	S 18 20.8 +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	SHA 209° 208° 208° 208° 208° 208°	Greenwich Culmination Time: 13:41	UT 02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 027° 027° 027° 028° 028° 028°	Greenwich Culmination Time: 01:46	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	SHA 047° 047° 047° 047° 047° 047°	Greenwich Culmination Time: 00:29

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 22.7 +00.0	N 18 44.6 -00.6	146 20.1 -00.3	N 09 44.1 -01.2	298 17.2 -25.8	S 01 11.3 -13.6	00						00
01	193 22.7 +00.0	N 18 44.0 -00.6	161 19.8 -00.4	N 09 42.9 -01.2	312 51.4 -25.7	S 00 57.7 -13.6	01						01
02	208 22.7 +00.0	N 18 43.4 -00.6	176 19.4 -00.3	N 09 41.7 -01.1	327 25.7 -25.7	S 00 44.1 -13.5	02						02
03	223 22.7 +00.0	N 18 42.8 -00.6	191 19.1 -00.3	N 09 40.6 -01.2	341 60.0 -25.7	S 00 30.6 -13.5	03						03
04	238 22.7 +00.1	N 18 42.2 -00.6	206 18.8 -00.3	N 09 39.4 -01.2	356 34.3 -25.6	S 00 17.1 -13.6	04						04
05	253 22.8 +00.0	N 18 41.6 -00.5	221 18.5 -00.3	N 09 38.2 -01.2	11 08.7 -25.6	S 00 03.5 -13.5	05						05
06	268 22.8 +00.0	N 18 41.1 -00.6	236 18.2 -00.4	N 09 37.0 -01.2	25 43.1 -25.6	N 00 10.0 +13.5	06						06
07	283 22.8 +00.0	N 18 40.5 -00.6	251 17.8 -00.3	N 09 35.8 -01.2	40 17.5 -25.6	N 00 23.5 +13.4	07						07
08	298 22.8 +00.0	N 18 39.9 -00.6	266 17.5 -00.3	N 09 34.6 -01.2	54 51.9 -25.5	N 00 36.9 +13.5	08						08
09	313 22.8 +00.1	N 18 39.3 -00.6	281 17.2 -00.3	N 09 33.4 -01.1	69 26.4 -25.5	N 00 50.4 +13.5	09						09
10	328 22.9 +00.0	N 18 38.7 -00.6	296 16.9 -00.3	N 09 32.3 -01.2	84 00.9 -25.5	N 01 03.9 +13.4	10						10
11	343 22.9 +00.0	N 18 38.1 -00.6	311 16.6 -00.4	N 09 31.1 -01.2	98 35.4 -25.5	N 01 17.3 +13.4	11						11
12	358 22.9 +00.0	N 18 37.5 -00.6	326 16.2 -00.3	N 09 29.9 -01.2	113 09.9 -25.4	N 01 30.7 +13.4	12						12
13	13 22.9 +00.1	N 18 36.9 -00.6	341 15.9 -00.3	N 09 28.7 -01.2	127 44.5 -25.4	N 01 44.1 +13.4	13						13
14	28 23.0 +00.0	N 18 36.3 -00.6	356 15.6 -00.3	N 09 27.5 -01.2	142 19.1 -25.4	N 01 57.5 +13.3	14						14
15	43 23.0 +00.0	N 18 35.7 -00.6	11 15.3 -00.3	N 09 26.3 -01.2	156 53.7 -25.4	N 02 10.8 +13.3	15						15
16	58 23.0 +00.0	N 18 35.1 -00.6	26 15.0 -00.3	N 09 25.1 -01.2	171 28.3 -25.4	N 02 24.1 +13.3	16						16
17	73 23.0 +00.0	N 18 34.5 -00.6	41 14.7 -00.4	N 09 23.9 -01.2	186 02.9 -25.3	N 02 37.4 +13.3	17						17
18	88 23.0 +00.1	N 18 33.9 -00.6	56 14.3 -00.3	N 09 22.7 -01.1	200 37.6 -25.3	N 02 50.7 +13.3	18						18
19	103 23.1 +00.0	N 18 33.3 -00.6	71 14.0 -00.3	N 09 21.6 -01.2	215 12.3 -25.4	N 03 04.0 +13.2	19						19
20	118 23.1 +00.0	N 18 32.7 -00.6	86 13.7 -00.3	N 09 20.4 -01.2	229 46.9 -25.3	N 03 17.2 +13.2	20						20
21	133 23.1 +00.0	N 18 32.1 -00.6	101 13.4 -00.3	N 09 19.2 -01.2	244 21.6 -25.3	N 03 30.4 +13.2	21						21
22	148 23.1 +00.1	N 18 31.5 -00.6	116 13.1 -00.3	N 09 18.0 -01.2	258 56.3 -25.2	N 03 43.6 +13.2	22						22
23	163 23.2 +00.0	N 18 30.9 -00.6	131 12.8 -00.4	N 09 16.8 -01.2	273 31.1 -25.3	N 03 56.8 +13.1	23						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 15'2 15'1 15'1 15'1 15'1 15'0								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 55'7 55'6 55'5 55'4 55'3 55'2								
	SHA 231° 231° 231° 231° 231° 231°		SHA 199° 199° 199° 199° 199° 198°		SHA 350° 349° 347° 345° 343° 341°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:14		Greenwich Culmination Time: 04:14								

  

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	154 53.6 +00.9	N 12 41.7 -00.5	334 25.2 +02.7	S 12 32.6 +00.1	353 41.6 +02.7	S 18 20.9 +00.1	00						00
01	169 54.5 +01.0	N 12 41.2 -00.6	349 27.9 +02.7	S 12 32.7 +00.1	8 44.3 +02.6	S 18 21.0 +00.0	01						01
02	184 55.5 +01.0	N 12 40.6 -00.6	4 30.6 +02.7	S 12 32.8 +00.1	23 46.9 +02.7	S 18 21.0 +00.1	02						02
03	199 56.5 +00.9	N 12 40.0 -00.5	19 33.3 +02.8	S 12 32.9 +00.1	38 49.6 +02.6	S 18 21.1 +00.0	03						03
04	214 57.4 +01.0	N 12 39.5 -00.6	34 36.1 +02.7	S 12 33.0 +00.1	53 52.2 +02.7	S 18 21.1 +00.1	04						04
05	229 58.4 +01.0	N 12 38.9 -00.5	49 38.8 +02.7	S 12 33.1 +00.1	68 54.9 +02.6	S 18 21.2 +00.0	05						05
06	244 59.4 +00.9	N 12 38.4 -00.6	64 41.5 +02.7	S 12 33.2 +00.1	83 57.5 +02.7	S 18 21.2 +00.1	06						06
07	260 00.3 +01.0	N 12 37.8 -00.6	79 44.2 +02.8	S 12 33.3 +00.1	99 00.2 +02.6	S 18 21.3 +00.0	07						07
08	275 01.3 +00.9	N 12 37.2 -00.5	94 47.0 +02.7	S 12 33.4 +00.1	114 02.8 +02.7	S 18 21.3 +00.1	08						08
09	290 02.2 +01.0	N 12 36.7 -00.6	109 49.7 +02.7	S 12 33.5 +00.1	129 05.5 +02.6	S 18 21.4 +00.0	09						09
10	305 03.2 +01.0	N 12 36.1 -00.6	124 52.4 +02.7	S 12 33.6 +00.1	144 08.1 +02.7	S 18 21.4 +00.1	10						10
11	320 04.2 +00.9	N 12 35.5 -00.5	139 55.1 +02.7	S 12 33.7 +00.1	159 10.8 +02.6	S 18 21.5 +00.1	11						11
12	335 05.1 +01.0	N 12 35.0 -00.6	154 57.8 +02.8	S 12 33.8 +00.1	174 13.4 +02.7	S 18 21.6 +00.0	12						12
13	350 06.1 +01.0	N 12 34.4 -00.6	170 00.6 +02.7	S 12 33.9 +00.1	189 16.1 +02.6	S 18 21.6 +00.1	13						13
14	5 07.1 +00.9	N 12 33.8 -00.5	185 03.3 +02.7	S 12 34.0 +00.1	204 18.7 +02.7	S 18 21.7 +00.0	14						14
15	20 08.0 +01.0	N 12 33.3 -00.6	200 06.0 +02.7	S 12 34.1 +00.1	219 21.4 +02.6	S 18 21.7 +00.1	15						15
16	35 09.0 +01.0	N 12 32.7 -00.6	215 08.7 +02.8	S 12 34.2 +00.2	234 24.0 +02.7	S 18 21.8 +00.0	16						16
17	50 10.0 +00.9	N 12 32.1 -00.5	230 11.5 +02.7	S 12 34.4 +00.1	249 26.7 +02.6	S 18 21.8 +00.1	17						17
18	65 10.9 +01.0	N 12 31.6 -00.6	245 14.2 +02.7	S 12 34.5 +00.1	264 29.3 +02.7	S 18 21.9 +00.0	18						18
19	80 11.9 +01.0	N 12 31.0 -00.6	260 16.9 +02.7	S 12 34.6 +00.1	279 32.0 +02.6	S 18 21.9 +00.1	19						19
20	95 12.9 +00.9	N 12 30.4 -00.5	275 19.6 +02.8	S 12 34.7 +00.1	294 34.6 +02.7	S 18 22.0 +00.0	20						20
21	110 13.8 +01.0	N 12 29.9 -00.6	290 22.4 +02.7	S 12 34.8 +00.1	309 37.3 +02.6	S 18 22.0 +00.1	21						21
22	125 14.8 +01.0	N 12 29.3 -00.5	305 25.1 +02.7	S 12 34.9 +00.1	324 39.9 +02.7	S 18 22.1 +00.0	22						22
23	140 15.8 +00.9	N 12 28.8 -00.6	320 27.8 +02.7	S 12 35.0 +00.1	339 42.6 +02.6	S 18 22.1 +00.1	23						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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 208° 208° 208° 208° 208° 207°		SHA 028° 028° 028° 028° 028° 028°		SHA 047° 047° 047° 047° 047° 047°								
	Greenwich Culmination Time: 13:39		Greenwich Culmination Time: 01:42		Greenwich Culmination Time: 00:25								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 23.2 +00.0	N 18 30.3 -00.6	146 12.4 -00.3	N 09 15.6 -01.2	288 05.8 -25.3	N 04 09.9 +13.1	00						
01	193 23.2 +00.0	N 18 29.7 -00.6	161 12.1 -00.3	N 09 14.4 -01.2	302 40.5 -25.2	N 04 23.0 +13.1	01						
02	208 23.2 +00.1	N 18 29.1 -00.7	176 11.8 -00.3	N 09 13.2 -01.2	317 15.3 -25.3	N 04 36.1 +13.1	02						
03	223 23.3 +00.0	N 18 28.4 -00.6	191 11.5 -00.3	N 09 12.0 -01.2	331 50.0 -25.2	N 04 49.2 +13.0	03						
04	238 23.3 +00.0	N 18 27.8 -00.6	206 11.2 -00.3	N 09 10.8 -01.2	346 24.8 -25.2	N 05 02.2 +13.0	04						
05	253 23.3 +00.1	N 18 27.2 -00.6	221 10.9 -00.3	N 09 09.6 -01.2	0 59.6 -25.3	N 05 15.2 +12.9	05						
06	268 23.4 +00.0	N 18 26.6 -00.6	236 10.6 -00.3	N 09 08.4 -01.2	15 34.3 -25.2	N 05 28.1 +12.9	06						
07	283 23.4 +00.0	N 18 26.0 -00.6	251 10.3 -00.3	N 09 07.2 -01.2	30 09.1 -25.2	N 05 41.0 +12.9	07						
08	298 23.4 +00.0	N 18 25.4 -00.6	266 10.0 -00.4	N 09 06.0 -01.2	44 43.9 -25.3	N 05 53.9 +12.9	08						
09	313 23.4 +00.1	N 18 24.8 -00.6	281 09.6 -00.3	N 09 04.8 -01.1	59 18.6 -25.2	N 06 06.8 +12.8	09						
10	328 23.5 +00.0	N 18 24.2 -00.6	296 09.3 -00.3	N 09 03.7 -01.2	73 53.4 -25.2	N 06 19.6 +12.8	10						
11	343 23.5 +00.0	N 18 23.6 -00.6	311 09.0 -00.3	N 09 02.5 -01.2	88 28.2 -25.2	N 06 32.4 +12.8	11						
12	358 23.5 +00.0	N 18 23.0 -00.6	326 08.7 -00.3	N 09 01.3 -01.2	103 03.0 -25.3	N 06 45.2 +12.7	12						
13	13 23.5 +00.1	N 18 22.4 -00.6	341 08.4 -00.3	N 09 00.1 -01.2	117 37.7 -25.2	N 06 57.9 +12.7	13						
14	28 23.6 +00.0	N 18 21.8 -00.7	356 08.1 -00.3	N 08 58.9 -01.2	132 12.5 -25.3	N 07 10.6 +12.6	14						
15	43 23.6 +00.0	N 18 21.1 -00.6	11 07.8 -00.3	N 08 57.7 -01.2	146 47.2 -25.2	N 07 23.2 +12.7	15						
16	58 23.6 +00.1	N 18 20.5 -00.6	26 07.5 -00.3	N 08 56.5 -01.2	161 22.0 -25.3	N 07 35.9 +12.5	16						
17	73 23.7 +00.0	N 18 19.9 -00.6	41 07.2 -00.3	N 08 55.3 -01.2	175 56.7 -25.2	N 07 48.4 +12.6	17						
18	88 23.7 +00.0	N 18 19.3 -00.6	56 06.9 -00.3	N 08 54.1 -01.2	190 31.5 -25.3	N 08 01.0 +12.5	18						
19	103 23.7 +00.1	N 18 18.7 -00.6	71 06.6 -00.3	N 08 52.9 -01.2	205 06.2 -25.3	N 08 13.5 +12.4	19						
20	118 23.8 +00.0	N 18 18.1 -00.6	86 06.3 -00.3	N 08 51.7 -01.2	219 40.9 -25.3	N 08 25.9 +12.4	20						
21	133 23.8 +00.0	N 18 17.5 -00.7	101 06.0 -00.3	N 08 50.5 -01.2	234 15.6 -25.3	N 08 38.3 +12.4	21						
22	148 23.8 +00.1	N 18 16.8 -00.6	116 05.7 -00.3	N 08 49.3 -01.2	248 50.3 -25.4	N 08 50.7 +12.3	22						
23	163 23.9 +00.0	N 18 16.2 -00.6	131 05.4 -00.4	N 08 48.1 -01.2	263 24.9 -25.3	N 09 03.0 +12.3	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 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 15'0 14'9 14'9 14'9								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 55'1 55'0 54'9 54'8 54'7 54'7								
	SHA 230° 230° 230° 230° 230° 230°		SHA 198° 198° 198° 198° 198° 197°		SHA 339° 337° 336° 334° 332° 330°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:15		Greenwich Culmination Time: 04:55								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	155 16.7 +01.0	N 12 28.2 -00.6	335 30.5 +02.8	S 12 35.1 +00.1	354 45.2 +02.7	S 18 22.2 +00.1	00						
01	170 17.7 +01.0	N 12 27.6 -00.5	350 33.3 +02.7	S 12 35.2 +00.1	9 47.9 +02.6	S 18 22.3 +00.0	01						
02	185 18.7 +00.9	N 12 27.1 -00.6	5 36.0 +02.7	S 12 35.3 +00.1	24 50.5 +02.7	S 18 22.3 +00.1	02						
03	200 19.6 +01.0	N 12 26.5 -00.6	20 38.7 +02.7	S 12 35.4 +00.1	39 53.2 +02.7	S 18 22.4 +00.0	03						
04	215 20.6 +01.0	N 12 25.9 -00.5	35 41.4 +02.8	S 12 35.5 +00.1	54 55.9 +02.6	S 18 22.4 +00.1	04						
05	230 21.6 +00.9	N 12 25.4 -00.6	50 44.2 +02.7	S 12 35.6 +00.1	69 58.5 +02.7	S 18 22.5 +00.0	05						
06	245 22.5 +01.0	N 12 24.8 -00.6	65 46.9 +02.7	S 12 35.7 +00.1	85 01.2 +02.6	S 18 22.5 +00.1	06						
07	260 23.5 +01.0	N 12 24.2 -00.5	80 49.6 +02.8	S 12 35.8 +00.1	100 03.8 +02.7	S 18 22.6 +00.0	07						
08	275 24.5 +00.9	N 12 23.7 -00.6	95 52.4 +02.7	S 12 35.9 +00.1	115 06.5 +02.6	S 18 22.6 +00.1	08						
09	290 25.4 +01.0	N 12 23.1 -00.6	110 55.1 +02.7	S 12 36.0 +00.1	130 09.1 +02.7	S 18 22.7 +00.0	09						
10	305 26.4 +01.0	N 12 22.5 -00.6	125 57.8 +02.7	S 12 36.1 +00.1	145 11.8 +02.6	S 18 22.7 +00.1	10						
11	320 27.4 +00.9	N 12 21.9 -00.5	141 00.5 +02.8	S 12 36.2 +00.2	160 14.4 +02.7	S 18 22.8 +00.0	11						
12	335 28.3 +01.0	N 12 21.4 -00.6	156 03.3 +02.7	S 12 36.4 +00.1	175 17.1 +02.6	S 18 22.8 +00.1	12						
13	350 29.3 +01.0	N 12 20.8 -00.6	171 06.0 +02.7	S 12 36.5 +00.1	190 19.7 +02.7	S 18 22.9 +00.1	13						
14	5 30.3 +00.9	N 12 20.2 -00.5	186 08.7 +02.7	S 12 36.6 +00.1	205 22.4 +02.6	S 18 23.0 +00.0	14						
15	20 31.2 +01.0	N 12 19.7 -00.6	201 11.4 +02.8	S 12 36.7 +00.1	220 25.0 +02.7	S 18 23.0 +00.1	15						
16	35 32.2 +01.0	N 12 19.1 -00.6	216 14.2 +02.7	S 12 36.8 +00.1	235 27.7 +02.6	S 18 23.1 +00.0	16						
17	50 33.2 +00.9	N 12 18.5 -00.5	231 16.9 +02.7	S 12 36.9 +00.1	250 30.3 +02.7	S 18 23.1 +00.1	17						
18	65 34.1 +01.0	N 12 18.0 -00.6	246 19.6 +02.8	S 12 37.0 +00.1	265 33.0 +02.6	S 18 23.2 +00.0	18						
19	80 35.1 +01.0	N 12 17.4 -00.6	261 22.4 +02.7	S 12 37.1 +00.1	280 35.6 +02.7	S 18 23.2 +00.1	19						
20	95 36.1 +00.9	N 12 16.8 -00.5	276 25.1 +02.7	S 12 37.2 +00.1	295 38.3 +02.6	S 18 23.3 +00.0	20						
21	110 37.0 +01.0	N 12 16.3 -00.6	291 27.8 +02.8	S 12 37.3 +00.1	310 40.9 +02.7	S 18 23.3 +00.1	21						
22	125 38.0 +01.0	N 12 15.7 -00.6	306 30.6 +02.7	S 12 37.4 +00.1	325 43.6 +02.6	S 18 23.4 +00.0	22						
23	140 39.0 +00.9	N 12 15.1 -00.5	321 33.3 +02.7	S 12 37.5 +00.1	340 46.2 +02.7	S 18 23.4 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 207° 207° 207° 207° 207° 207°		SHA 028° 028° 028° 028° 028° 028°		SHA 047° 047° 047° 047° 047° 047°								
	Greenwich Culmination Time: 13:38		Greenwich Culmination Time: 01:37		Greenwich Culmination Time: 00:20								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	178 23.9 +00.0	N 18 15.6 -00.6	146 05.0 -00.3	N 08 46.9 -01.2	277 59.6 -25.3	N 09 15.3 +12.3	00								
01	193 23.9 +00.0	N 18 15.0 -00.6	161 04.7 -00.3	N 08 45.7 -01.2	292 34.3 -25.4	N 09 27.6 +12.2	01								
02	208 23.9 +00.1	N 18 14.4 -00.6	176 04.4 -00.3	N 08 44.5 -01.2	307 08.9 -25.4	N 09 39.8 +12.1	02								
03	223 24.0 +00.0	N 18 13.8 -00.7	191 04.1 -00.3	N 08 43.3 -01.3	321 43.5 -25.4	N 09 51.9 +12.1	03								
04	238 24.0 +00.0	N 18 13.1 -00.6	206 03.8 -00.3	N 08 42.0 -01.2	336 18.1 -25.4	N 10 04.0 +12.1	04								
05	253 24.0 +00.1	N 18 12.5 -00.6	221 03.5 -00.3	N 08 40.8 -01.2	350 52.7 -25.5	N 10 16.1 +12.0	05								
06	268 24.1 +00.0	N 18 11.9 -00.6	236 03.2 -00.3	N 08 39.6 -01.2	5 27.2 -25.4	N 10 28.1 +12.0	06								
07	283 24.1 +00.0	N 18 11.3 -00.6	251 02.9 -00.3	N 08 38.4 -01.2	20 01.8 -25.5	N 10 40.1 +11.9	07								
08	298 24.1 +00.1	N 18 10.7 -00.7	266 02.6 -00.3	N 08 37.2 -01.2	34 36.3 -25.5	N 10 52.0 +11.9	08								
09	313 24.2 +00.0	N 18 10.0 -00.6	281 02.3 -00.3	N 08 36.0 -01.2	49 10.8 -25.6	N 11 03.9 +11.8	09								
10	328 24.2 +00.0	N 18 09.4 -00.6	296 02.0 -00.3	N 08 34.8 -01.2	63 45.2 -25.5	N 11 15.7 +11.8	10								
11	343 24.2 +00.1	N 18 08.8 -00.6	311 01.7 -00.3	N 08 33.6 -01.2	78 19.7 -25.6	N 11 27.5 +11.7	11								
12	358 24.3 +00.0	N 18 08.2 -00.7	326 01.4 -00.3	N 08 32.4 -01.2	92 54.1 -25.6	N 11 39.2 +11.7	12								
13	13 24.3 +00.1	N 18 07.5 -00.6	341 01.1 -00.3	N 08 31.2 -01.2	107 28.5 -25.7	N 11 50.9 +11.7	13								
14	28 24.4 +00.0	N 18 06.9 -00.6	356 00.8 -00.3	N 08 30.0 -01.2	122 02.8 -25.6	N 12 02.6 +11.5	14								
15	43 24.4 +00.0	N 18 06.3 -00.6	11 00.5 -00.3	N 08 28.8 -01.2	136 37.2 -25.7	N 12 14.1 +11.6	15								
16	58 24.4 +00.1	N 18 05.7 -00.6	26 00.2 -00.3	N 08 27.6 -01.2	151 11.5 -25.7	N 12 25.7 +11.4	16								
17	73 24.5 +00.0	N 18 05.1 -00.7	40 59.9 -00.3	N 08 26.4 -01.2	165 45.8 -25.8	N 12 37.1 +11.4	17								
18	88 24.5 +00.0	N 18 04.4 -00.6	55 59.6 -00.3	N 08 25.2 -01.2	180 20.0 -25.8	N 12 48.5 +11.4	18								
19	103 24.5 +00.1	N 18 03.8 -00.6	70 59.3 -00.3	N 08 24.0 -01.3	194 54.2 -25.8	N 12 59.9 +11.3	19								
20	118 24.6 +00.0	N 18 03.2 -00.7	85 59.0 -00.2	N 08 22.7 -01.2	209 28.4 -25.9	N 13 11.2 +11.2	20								
21	133 24.6 +00.0	N 18 02.5 -00.6	100 58.8 -00.3	N 08 21.5 -01.2	224 02.5 -25.8	N 13 22.4 +11.2	21								
22	148 24.6 +00.1	N 18 01.9 -00.6	115 58.5 -00.3	N 08 20.3 -01.2	238 36.7 -26.0	N 13 33.6 +11.2	22								
23	163 24.7 +00.0	N 18 01.3 -00.6	130 58.2 -00.3	N 08 19.1 -01.2	253 10.7 -25.9	N 13 44.8 +11.0	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	SHA 229° 229° 229° 229° 229° 229°	Greenwich Culmination Time: 12:06	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 197° 197° 197° 197° 196° 196°	Greenwich Culmination Time: 14:15	UT 02 06 10 14 18 22	SD 14'9 14'9 14'8 14'8 14'8 14'8	HP 54'6 54'6 54'5 54'4 54'4 54'4	SHA 328° 326° 325° 323° 321° 319°	Greenwich Culmination Time: 05:37
UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	155 39.9 +01.0	N 12 14.6 -00.6	336 36.0 +02.7	S 12 37.6 +00.1	355 48.9 +02.6	S 18 23.5 +00.0	00								
01	170 40.9 +01.0	N 12 14.0 -00.6	351 38.7 +02.8	S 12 37.7 +00.1	10 51.5 +02.7	S 18 23.5 +00.1	01								
02	185 41.9 +00.9	N 12 13.4 -00.6	6 41.5 +02.7	S 12 37.8 +00.1	25 54.2 +02.6	S 18 23.6 +00.1	02								
03	200 42.8 +01.0	N 12 12.8 -00.5	21 44.2 +02.7	S 12 37.9 +00.2	40 56.8 +02.7	S 18 23.7 +00.0	03								
04	215 43.8 +01.0	N 12 12.3 -00.6	36 46.9 +02.8	S 12 38.1 +00.1	55 59.5 +02.6	S 18 23.7 +00.1	04								
05	230 44.8 +00.9	N 12 11.7 -00.6	51 49.7 +02.7	S 12 38.2 +00.1	71 02.1 +02.7	S 18 23.8 +00.0	05								
06	245 45.7 +01.0	N 12 11.1 -00.5	66 52.4 +02.7	S 12 38.3 +00.1	86 04.8 +02.6	S 18 23.8 +00.1	06								
07	260 46.7 +01.0	N 12 10.6 -00.6	81 55.1 +02.8	S 12 38.4 +00.1	101 07.4 +02.7	S 18 23.9 +00.0	07								
08	275 47.7 +00.9	N 12 10.0 -00.6	96 57.9 +02.7	S 12 38.5 +00.1	116 10.1 +02.6	S 18 23.9 +00.1	08								
09	290 48.6 +01.0	N 12 09.4 -00.5	112 00.6 +02.7	S 12 38.6 +00.1	131 12.7 +02.7	S 18 24.0 +00.0	09								
10	305 49.6 +01.0	N 12 08.9 -00.6	127 03.3 +02.8	S 12 38.7 +00.1	146 15.4 +02.6	S 18 24.0 +00.1	10								
11	320 50.6 +01.0	N 12 08.3 -00.6	142 06.1 +02.7	S 12 38.8 +00.1	161 18.0 +02.7	S 18 24.1 +00.0	11								
12	335 51.6 +00.9	N 12 07.7 -00.6	157 08.8 +02.7	S 12 38.9 +00.1	176 20.7 +02.6	S 18 24.1 +00.1	12								
13	350 52.5 +01.0	N 12 07.1 -00.5	172 11.5 +02.8	S 12 39.0 +00.1	191 23.3 +02.7	S 18 24.2 +00.1	13								
14	5 53.5 +01.0	N 12 06.6 -00.6	187 14.3 +02.7	S 12 39.1 +00.1	206 26.0 +02.7	S 18 24.3 +00.0	14								
15	20 54.5 +00.9	N 12 06.0 -00.6	202 17.0 +02.7	S 12 39.2 +00.1	221 28.7 +02.6	S 18 24.3 +00.1	15								
16	35 55.4 +01.0	N 12 05.4 -00.5	217 19.7 +02.8	S 12 39.3 +00.2	236 31.3 +02.7	S 18 24.4 +00.0	16								
17	50 56.4 +01.0	N 12 04.9 -00.6	232 22.5 +02.7	S 12 39.5 +00.1	251 34.0 +02.6	S 18 24.4 +00.1	17								
18	65 57.4 +00.9	N 12 04.3 -00.6	247 25.2 +02.7	S 12 39.6 +00.1	266 36.6 +02.7	S 18 24.5 +00.0	18								
19	80 58.3 +01.0	N 12 03.7 -00.6	262 27.9 +02.8	S 12 39.7 +00.1	281 39.3 +02.6	S 18 24.5 +00.1	19								
20	95 59.3 +01.0	N 12 03.1 -00.5	277 30.7 +02.7	S 12 39.8 +00.1	296 41.9 +02.7	S 18 24.6 +00.0	20								
21	111 00.3 +00.9	N 12 02.6 -00.6	292 33.4 +02.7	S 12 39.9 +00.1	311 44.6 +02.6	S 18 24.6 +00.1	21								
22	126 01.2 +01.0	N 12 02.0 -00.6	307 36.1 +02.8	S 12 40.0 +00.1	326 47.2 +02.7	S 18 24.7 +00.0	22								
23	141 02.2 +01.0	N 12 01.4 -00.6	322 38.9 +02.7	S 12 40.1 +00.1	341 49.9 +02.6	S 18 24.7 +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	SHA 207° 207° 207° 206° 206° 206°	Greenwich Culmination Time: 13:36	UT 02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 028° 028° 028° 028° 028° 028°	Greenwich Culmination Time: 01:33	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 047° 047° 047° 047° 047° 047°	Greenwich Culmination Time: 00:16

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 24.7 +00.1	N 18 00.7 -00.7	145 57.9 -00.3	N 08 17.9 -01.2	267 44.8 -26.0	N 13 55.8 +11.1	00						
01	193 24.8 +00.0	N 18 00.0 -00.6	160 57.6 -00.3	N 08 16.7 -01.2	282 18.8 -26.0	N 14 06.9 +10.9	01						
02	208 24.8 +00.0	N 17 59.4 -00.6	175 57.3 -00.3	N 08 15.5 -01.2	296 52.8 -26.1	N 14 17.8 +10.9	02						
03	223 24.8 +00.1	N 17 58.8 -00.7	190 57.0 -00.3	N 08 14.3 -01.2	311 26.7 -26.1	N 14 28.7 +10.9	03						
04	238 24.9 +00.0	N 17 58.1 -00.6	205 56.7 -00.3	N 08 13.1 -01.3	326 00.6 -26.1	N 14 39.6 +10.7	04						
05	253 24.9 +00.0	N 17 57.5 -00.6	220 56.4 -00.3	N 08 11.8 -01.2	340 34.5 -26.2	N 14 50.3 +10.8	05						
06	268 24.9 +00.1	N 17 56.9 -00.7	235 56.1 -00.3	N 08 10.6 -01.2	355 08.3 -26.2	N 15 01.1 +10.6	06						
07	283 25.0 +00.0	N 17 56.2 -00.6	250 55.8 -00.3	N 08 09.4 -01.2	9 42.1 -26.3	N 15 11.7 +10.6	07						
08	298 25.0 +00.1	N 17 55.6 -00.6	265 55.5 -00.3	N 08 08.2 -01.2	24 15.8 -26.3	N 15 22.3 +10.5	08						
09	313 25.1 +00.0	N 17 55.0 -00.7	280 55.2 -00.3	N 08 07.0 -01.2	38 49.5 -26.3	N 15 32.8 +10.5	09						
10	328 25.1 +00.0	N 17 54.3 -00.6	295 54.9 -00.2	N 08 05.8 -01.2	53 23.2 -26.4	N 15 43.3 +10.4	10						
11	343 25.1 +00.1	N 17 53.7 -00.6	310 54.7 -00.3	N 08 04.6 -01.3	67 56.8 -26.5	N 15 53.7 +10.3	11						
12	358 25.2 +00.0	N 17 53.1 -00.7	325 54.4 -00.3	N 08 03.3 -01.2	82 30.3 -26.4	N 16 04.0 +10.3	12						
13	13 25.2 +00.1	N 17 52.4 -00.6	340 54.1 -00.3	N 08 02.1 -01.2	97 03.9 -26.6	N 16 14.3 +10.2	13						
14	28 25.3 +00.0	N 17 51.8 -00.6	355 53.8 -00.3	N 08 00.9 -01.2	111 37.3 -26.5	N 16 24.5 +10.1	14						
15	43 25.3 +00.1	N 17 51.2 -00.7	10 53.5 -00.3	N 07 59.7 -01.2	126 10.8 -26.7	N 16 34.6 +10.1	15						
16	58 25.4 +00.0	N 17 50.5 -00.6	25 53.2 -00.3	N 07 58.5 -01.2	140 44.1 -26.6	N 16 44.7 +09.9	16						
17	73 25.4 +00.0	N 17 49.9 -00.6	40 52.9 -00.3	N 07 57.3 -01.3	155 17.5 -26.7	N 16 54.6 +10.0	17						
18	88 25.4 +00.1	N 17 49.3 -00.7	55 52.6 -00.3	N 07 56.0 -01.2	169 50.8 -26.8	N 17 04.6 +09.8	18						
19	103 25.5 +00.0	N 17 48.6 -00.6	70 52.3 -00.2	N 07 54.8 -01.2	184 24.0 -26.8	N 17 14.4 +09.8	19						
20	118 25.5 +00.1	N 17 48.0 -00.7	85 52.1 -00.3	N 07 53.6 -01.2	198 57.2 -26.9	N 17 24.2 +09.7	20						
21	133 25.6 +00.0	N 17 47.3 -00.6	100 51.8 -00.3	N 07 52.4 -01.2	213 30.3 -26.9	N 17 33.9 +09.6	21						
22	148 25.6 +00.1	N 17 46.7 -00.6	115 51.5 -00.3	N 07 51.2 -01.2	228 03.4 -26.9	N 17 43.5 +09.6	22						
23	163 25.7 +00.0	N 17 46.1 -00.7	130 51.2 -00.3	N 07 50.0 -01.3	242 36.5 -27.0	N 17 53.1 +09.5	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'8 14'8 14'8 14'8 14'8 14'8								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'3 54'3 54'3 54'2 54'2 54'2								
	SHA 229° 228° 228° 228° 228° 228°		SHA 196° 196° 196° 195° 195° 195°		SHA 317° 315° 313° 311° 309° 307°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:16		Greenwich Culmination Time: 06:20								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	156 03.2 +01.0	N 12 00.8 -00.5	337 41.6 +02.7	S 12 40.2 +00.1	356 52.5 +02.7	S 18 24.8 +00.0	00						
01	171 04.2 +00.9	N 12 00.3 -00.6	352 44.3 +02.8	S 12 40.3 +00.1	11 55.2 +02.6	S 18 24.8 +00.1	01						
02	186 05.1 +01.0	N 11 59.7 -00.6	7 47.1 +02.7	S 12 40.4 +00.1	26 57.8 +02.7	S 18 24.9 +00.1	02						
03	201 06.1 +01.0	N 11 59.1 -00.5	22 49.8 +02.7	S 12 40.5 +00.1	42 00.5 +02.6	S 18 25.0 +00.0	03						
04	216 07.1 +00.9	N 11 58.6 -00.6	37 52.5 +02.8	S 12 40.6 +00.1	57 03.1 +02.7	S 18 25.0 +00.1	04						
05	231 08.0 +01.0	N 11 58.0 -00.6	52 55.3 +02.7	S 12 40.7 +00.2	72 05.8 +02.6	S 18 25.1 +00.0	05						
06	246 09.0 +01.0	N 11 57.4 -00.6	67 58.0 +02.7	S 12 40.9 +00.1	87 08.4 +02.7	S 18 25.1 +00.1	06						
07	261 10.0 +00.9	N 11 56.8 -00.5	83 00.7 +02.8	S 12 41.0 +00.1	102 11.1 +02.6	S 18 25.2 +00.0	07						
08	276 10.9 +01.0	N 11 56.3 -00.6	98 03.5 +02.7	S 12 41.1 +00.1	117 13.7 +02.7	S 18 25.2 +00.1	08						
09	291 11.9 +01.0	N 11 55.7 -00.6	113 06.2 +02.8	S 12 41.2 +00.1	132 16.4 +02.6	S 18 25.3 +00.0	09						
10	306 12.9 +00.9	N 11 55.1 -00.6	128 09.0 +02.7	S 12 41.3 +00.1	147 19.0 +02.7	S 18 25.3 +00.1	10						
11	321 13.8 +01.0	N 11 54.5 -00.5	143 11.7 +02.7	S 12 41.4 +00.1	162 21.7 +02.6	S 18 25.4 +00.0	11						
12	336 14.8 +01.0	N 11 54.0 -00.6	158 14.4 +02.8	S 12 41.5 +00.1	177 24.3 +02.7	S 18 25.4 +00.1	12						
13	351 15.8 +01.0	N 11 53.4 -00.6	173 17.2 +02.7	S 12 41.6 +00.1	192 27.0 +02.6	S 18 25.5 +00.0	13						
14	6 16.8 +00.9	N 11 52.8 -00.6	188 19.9 +02.7	S 12 41.7 +00.1	207 29.6 +02.7	S 18 25.5 +00.1	14						
15	21 17.7 +01.0	N 11 52.2 -00.5	203 22.6 +02.8	S 12 41.8 +00.1	222 32.3 +02.6	S 18 25.6 +00.1	15						
16	36 18.7 +01.0	N 11 51.7 -00.6	218 25.4 +02.7	S 12 41.9 +00.1	237 34.9 +02.7	S 18 25.7 +00.0	16						
17	51 19.7 +00.9	N 11 51.1 -00.6	233 28.1 +02.8	S 12 42.0 +00.2	252 37.6 +02.6	S 18 25.7 +00.1	17						
18	66 20.6 +01.0	N 11 50.5 -00.6	248 30.9 +02.7	S 12 42.2 +00.1	267 40.2 +02.7	S 18 25.8 +00.0	18						
19	81 21.6 +01.0	N 11 49.9 -00.5	263 33.6 +02.7	S 12 42.3 +00.1	282 42.9 +02.7	S 18 25.8 +00.1	19						
20	96 22.6 +01.0	N 11 49.4 -00.6	278 36.3 +02.8	S 12 42.4 +00.1	297 45.6 +02.6	S 18 25.9 +00.0	20						
21	111 23.6 +00.9	N 11 48.8 -00.6	293 39.1 +02.7	S 12 42.5 +00.1	312 48.2 +02.7	S 18 25.9 +00.1	21						
22	126 24.5 +01.0	N 11 48.2 -00.6	308 41.8 +02.8	S 12 42.6 +00.1	327 50.9 +02.6	S 18 26.0 +00.0	22						
23	141 25.5 +01.0	N 11 47.6 -00.5	323 44.6 +02.7	S 12 42.7 +00.1	342 53.5 +02.7	S 18 26.0 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 206° 206° 206° 206° 206° 206°		SHA 028° 028° 028° 028° 028° 028°		SHA 047° 047° 047° 047° 047° 047°								
	Greenwich Culmination Time: 13:34		Greenwich Culmination Time: 01:28		Greenwich Culmination Time: 00:12								



UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 25.7 +00.0	N 17 45.4 -00.6	145 50.9 -00.3	N 07 48.7 -01.2	257 09.5 -27.1	N 18 02.6 +09.4	00						
01	193 25.7 +00.1	N 17 44.8 -00.7	160 50.6 -00.3	N 07 47.5 -01.2	271 42.4 -27.1	N 18 12.0 +09.3	01						
02	208 25.8 +00.0	N 17 44.1 -00.6	175 50.3 -00.2	N 07 46.3 -01.2	286 15.3 -27.2	N 18 21.3 +09.3	02						
03	223 25.8 +00.1	N 17 43.5 -00.7	190 50.1 -00.3	N 07 45.1 -01.2	300 48.1 -27.2	N 18 30.6 +09.2	03						
04	238 25.9 +00.0	N 17 42.8 -00.6	205 49.8 -00.3	N 07 43.9 -01.3	315 20.9 -27.3	N 18 39.8 +09.1	04						
05	253 25.9 +00.1	N 17 42.2 -00.6	220 49.5 -00.3	N 07 42.6 -01.2	329 53.6 -27.3	N 18 48.9 +09.0	05						
06	268 26.0 +00.0	N 17 41.6 -00.7	235 49.2 -00.3	N 07 41.4 -01.2	344 26.3 -27.4	N 18 57.9 +08.9	06						
07	283 26.0 +00.1	N 17 40.9 -00.6	250 48.9 -00.3	N 07 40.2 -01.2	358 58.9 -27.4	N 19 06.8 +08.9	07						
08	298 26.1 +00.0	N 17 40.3 -00.7	265 48.6 -00.3	N 07 39.0 -01.3	13 31.5 -27.5	N 19 15.7 +08.8	08						
09	313 26.1 +00.1	N 17 39.6 -00.6	280 48.3 -00.2	N 07 37.7 -01.2	28 04.0 -27.6	N 19 24.5 +08.7	09						
10	328 26.2 +00.0	N 17 39.0 -00.7	295 48.1 -00.3	N 07 36.5 -01.2	42 36.4 -27.6	N 19 33.2 +08.6	10						
11	343 26.2 +00.0	N 17 38.3 -00.6	310 47.8 -00.3	N 07 35.3 -01.2	57 08.8 -27.7	N 19 41.8 +08.5	11						
12	358 26.2 +00.1	N 17 37.7 -00.7	325 47.5 -00.3	N 07 34.1 -01.2	71 41.1 -27.7	N 19 50.3 +08.5	12						
13	13 26.3 +00.0	N 17 37.0 -00.6	340 47.2 -00.3	N 07 32.9 -01.3	86 13.4 -27.8	N 19 58.8 +08.3	13						
14	28 26.3 +00.1	N 17 36.4 -00.7	355 46.9 -00.2	N 07 31.6 -01.2	100 45.6 -27.8	N 20 07.1 +08.3	14						
15	43 26.4 +00.0	N 17 35.7 -00.6	10 46.7 -00.3	N 07 30.4 -01.2	115 17.8 -27.9	N 20 15.4 +08.2	15						
16	58 26.4 +00.1	N 17 35.1 -00.7	25 46.4 -00.3	N 07 29.2 -01.2	129 49.9 -27.9	N 20 23.6 +08.1	16						
17	73 26.5 +00.0	N 17 34.4 -00.6	40 46.1 -00.3	N 07 28.0 -01.3	144 22.0 -28.0	N 20 31.7 +08.1	17						
18	88 26.5 +00.1	N 17 33.8 -00.7	55 45.8 -00.3	N 07 26.7 -01.2	158 54.0 -28.1	N 20 39.8 +07.9	18						
19	103 26.6 +00.0	N 17 33.1 -00.6	70 45.5 -00.2	N 07 25.5 -01.2	173 25.9 -28.1	N 20 47.7 +07.8	19						
20	118 26.6 +00.1	N 17 32.5 -00.7	85 45.3 -00.3	N 07 24.3 -01.2	187 57.8 -28.2	N 20 55.5 +07.8	20						
21	133 26.7 +00.0	N 17 31.8 -00.6	100 45.0 -00.3	N 07 23.1 -01.3	202 29.6 -28.3	N 21 03.3 +07.7	21						
22	148 26.7 +00.1	N 17 31.2 -00.7	115 44.7 -00.3	N 07 21.8 -01.2	217 01.3 -28.3	N 21 11.0 +07.5	22						
23	163 26.8 +00.0	N 17 30.5 -00.6	130 44.4 -00.2	N 07 20.6 -01.2	231 33.0 -28.3	N 21 18.5 +07.5	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'8 14'8 14'8 14'8 14'8 14'8								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'2 54'2 54'2 54'2 54'2 54'2								
	SHA 228° 227° 227° 227° 227° 227°		SHA 195° 195° 195° 194° 194° 194°		SHA 305° 303° 301° 299° 297° 295°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:16		Greenwich Culmination Time: 07:04								

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	156 26.5 +00.9	N 11 47.1 -00.6	338 47.3 +02.7	S 12 42.8 +00.1	357 56.2 +02.6	S 18 26.1 +00.0	00						
01	171 27.4 +01.0	N 11 46.5 -00.6	353 50.0 +02.8	S 12 42.9 +00.1	12 58.8 +02.7	S 18 26.1 +00.1	01						
02	186 28.4 +01.0	N 11 45.9 -00.6	8 52.8 +02.7	S 12 43.0 +00.1	28 01.5 +02.6	S 18 26.2 +00.0	02						
03	201 29.4 +01.0	N 11 45.3 -00.5	23 55.5 +02.7	S 12 43.1 +00.1	43 04.1 +02.7	S 18 26.2 +00.1	03						
04	216 30.4 +00.9	N 11 44.8 -00.6	38 58.2 +02.8	S 12 43.2 +00.2	58 06.8 +02.6	S 18 26.3 +00.0	04						
05	231 31.3 +01.0	N 11 44.2 -00.6	54 01.0 +02.7	S 12 43.4 +00.1	73 09.4 +02.7	S 18 26.3 +00.1	05						
06	246 32.3 +01.0	N 11 43.6 -00.6	69 03.7 +02.8	S 12 43.5 +00.1	88 12.1 +02.6	S 18 26.4 +00.1	06						
07	261 33.3 +00.9	N 11 43.0 -00.6	84 06.5 +02.7	S 12 43.6 +00.1	103 14.7 +02.7	S 18 26.5 +00.0	07						
08	276 34.2 +01.0	N 11 42.4 -00.5	99 09.2 +02.8	S 12 43.7 +00.1	118 17.4 +02.6	S 18 26.5 +00.1	08						
09	291 35.2 +01.0	N 11 41.9 -00.6	114 12.0 +02.7	S 12 43.8 +00.1	133 20.0 +02.7	S 18 26.6 +00.0	09						
10	306 36.2 +01.0	N 11 41.3 -00.6	129 14.7 +02.7	S 12 43.9 +00.1	148 22.7 +02.6	S 18 26.6 +00.1	10						
11	321 37.2 +00.9	N 11 40.7 -00.6	144 17.4 +02.8	S 12 44.0 +00.1	163 25.3 +02.7	S 18 26.7 +00.0	11						
12	336 38.1 +01.0	N 11 40.1 -00.5	159 20.2 +02.7	S 12 44.1 +00.1	178 28.0 +02.6	S 18 26.7 +00.1	12						
13	351 39.1 +01.0	N 11 39.6 -00.6	174 22.9 +02.8	S 12 44.2 +00.1	193 30.6 +02.7	S 18 26.8 +00.0	13						
14	6 40.1 +00.9	N 11 39.0 -00.6	189 25.7 +02.7	S 12 44.3 +00.2	208 33.3 +02.6	S 18 26.8 +00.1	14						
15	21 41.0 +01.0	N 11 38.4 -00.6	204 28.4 +02.7	S 12 44.5 +00.1	223 35.9 +02.7	S 18 26.9 +00.0	15						
16	36 42.0 +01.0	N 11 37.8 -00.6	219 31.1 +02.8	S 12 44.6 +00.1	238 38.6 +02.6	S 18 26.9 +00.1	16						
17	51 43.0 +01.0	N 11 37.2 -00.5	234 33.9 +02.7	S 12 44.7 +00.1	253 41.2 +02.7	S 18 27.0 +00.0	17						
18	66 44.0 +00.9	N 11 36.7 -00.6	249 36.6 +02.8	S 12 44.8 +00.1	268 43.9 +02.6	S 18 27.0 +00.1	18						
19	81 44.9 +01.0	N 11 36.1 -00.6	264 39.4 +02.7	S 12 44.9 +00.1	283 46.5 +02.7	S 18 27.1 +00.1	19						
20	96 45.9 +01.0	N 11 35.5 -00.6	279 42.1 +02.8	S 12 45.0 +00.1	298 49.2 +02.6	S 18 27.2 +00.0	20						
21	111 46.9 +00.9	N 11 34.9 -00.5	294 44.9 +02.7	S 12 45.1 +00.1	313 51.8 +02.7	S 18 27.2 +00.1	21						
22	126 47.8 +01.0	N 11 34.4 -00.6	309 47.6 +02.7	S 12 45.2 +00.1	328 54.5 +02.7	S 18 27.3 +00.0	22						
23	141 48.8 +01.0	N 11 33.8 -00.6	324 50.3 +02.8	S 12 45.3 +00.1	343 57.2 +02.6	S 18 27.3 +00.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 206° 205° 205° 205° 205° 205°		SHA 028° 028° 028° 028° 028° 028°		SHA 047° 047° 047° 047° 047° 047°								
	Greenwich Culmination Time: 13:33		Greenwich Culmination Time: 01:24		Greenwich Culmination Time: 00:08								

UT	Sun				Venus				Moon				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	178 26.8 +00.1	N 17 29.9 -00.7	145 44.2 -00.3	N 07 19.4 -01.3	246 04.7 -28.5	N 21 26.0 +07.4	00								
01	193 26.9 +00.0	N 17 29.2 -00.6	160 43.9 -00.3	N 07 18.1 -01.2	260 36.2 -28.4	N 21 33.4 +07.3	01								
02	208 26.9 +00.1	N 17 28.6 -00.7	175 43.6 -00.3	N 07 16.9 -01.2	275 07.8 -28.6	N 21 40.7 +07.2	02								
03	223 27.0 +00.0	N 17 27.9 -00.6	190 43.3 -00.3	N 07 15.7 -01.2	289 39.2 -28.6	N 21 47.9 +07.1	03								
04	238 27.0 +00.1	N 17 27.3 -00.7	205 43.0 -00.2	N 07 14.5 -01.3	304 10.6 -28.7	N 21 55.0 +07.0	04								
05	253 27.1 +00.0	N 17 26.6 -00.7	220 42.8 -00.3	N 07 13.2 -01.2	318 41.9 -28.7	N 22 02.0 +07.0	05								
06	268 27.1 +00.1	N 17 25.9 -00.6	235 42.5 -00.3	N 07 12.0 -01.2	333 13.2 -28.8	N 22 09.0 +06.8	06								
07	283 27.2 +00.0	N 17 25.3 -00.7	250 42.2 -00.3	N 07 10.8 -01.3	347 44.4 -28.8	N 22 15.8 +06.7	07								
08	298 27.2 +00.1	N 17 24.6 -00.6	265 41.9 -00.2	N 07 09.5 -01.2	2 15.6 -28.9	N 22 22.5 +06.6	08								
09	313 27.3 +00.0	N 17 24.0 -00.7	280 41.7 -00.3	N 07 08.3 -01.2	16 46.7 -29.0	N 22 29.1 +06.5	09								
10	328 27.3 +00.1	N 17 23.3 -00.6	295 41.4 -00.3	N 07 07.1 -01.2	31 17.7 -29.0	N 22 35.6 +06.5	10								
11	343 27.4 +00.1	N 17 22.7 -00.7	310 41.1 -00.3	N 07 05.9 -01.3	45 48.7 -29.1	N 22 42.1 +06.3	11								
12	358 27.5 +00.0	N 17 22.0 -00.7	325 40.8 -00.2	N 07 04.6 -01.2	60 19.6 -29.1	N 22 48.4 +06.2	12								
13	13 27.5 +00.1	N 17 21.3 -00.6	340 40.6 -00.3	N 07 03.4 -01.2	74 50.5 -29.2	N 22 54.6 +06.1	13								
14	28 27.6 +00.0	N 17 20.7 -00.7	355 40.3 -00.3	N 07 02.2 -01.3	89 21.3 -29.3	N 23 00.7 +06.0	14								
15	43 27.6 +00.1	N 17 20.0 -00.6	10 40.0 -00.2	N 07 00.9 -01.2	103 52.0 -29.3	N 23 06.7 +06.0	15								
16	58 27.7 +00.0	N 17 19.4 -00.7	25 39.8 -00.3	N 06 59.7 -01.2	118 22.7 -29.4	N 23 12.7 +05.8	16								
17	73 27.7 +00.1	N 17 18.7 -00.7	40 39.5 -00.3	N 06 58.5 -01.3	132 53.3 -29.4	N 23 18.5 +05.7	17								
18	88 27.8 +00.0	N 17 18.0 -00.6	55 39.2 -00.3	N 06 57.2 -01.2	147 23.9 -29.5	N 23 24.2 +05.6	18								
19	103 27.8 +00.1	N 17 17.4 -00.7	70 38.9 -00.2	N 06 56.0 -01.2	161 54.4 -29.6	N 23 29.8 +05.4	19								
20	118 27.9 +00.0	N 17 16.7 -00.6	85 38.7 -00.3	N 06 54.8 -01.3	176 24.8 -29.6	N 23 35.2 +05.4	20								
21	133 27.9 +00.1	N 17 16.1 -00.7	100 38.4 -00.3	N 06 53.5 -01.2	190 55.2 -29.7	N 23 40.6 +05.3	21								
22	148 28.0 +00.1	N 17 15.4 -00.7	115 38.1 -00.2	N 06 52.3 -01.2	205 25.5 -29.7	N 23 45.9 +05.2	22								
23	163 28.1 +00.0	N 17 14.7 -00.6	130 37.9 -00.3	N 06 51.1 -01.3	219 55.8 -29.8	N 23 51.1 +05.0	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	SHA 227° 226° 226° 226° 226° 226°	Greenwich Culmination Time: 12:06	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 194° 194° 193° 193° 193° 193°	Greenwich Culmination Time: 14:17	UT 02 06 10 14 18 22	SD 14'8 14'8 14'8 14'8 14'8 14'8	HP 54'2 54'3 54'3 54'3 54'4 54'4	SHA 293° 291° 289° 287° 285° 283°	Greenwich Culmination Time: 07:50
UT	Mars				Jupiter				Saturn				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	156 49.8 +01.0	N 11 33.2 -00.6	339 53.1 +02.7	S 12 45.4 +00.2	358 59.8 +02.7	S 18 27.4 +00.0	00								
01	171 50.8 +00.9	N 11 32.6 -00.6	354 55.8 +02.8	S 12 45.6 +00.1	14 02.5 +02.6	S 18 27.4 +00.1	01								
02	186 51.7 +01.0	N 11 32.0 -00.5	9 58.6 +02.7	S 12 45.7 +00.1	29 05.1 +02.7	S 18 27.5 +00.0	02								
03	201 52.7 +01.0	N 11 31.5 -00.6	25 01.3 +02.8	S 12 45.8 +00.1	44 07.8 +02.6	S 18 27.5 +00.1	03								
04	216 53.7 +01.0	N 11 30.9 -00.6	40 04.1 +02.7	S 12 45.9 +00.1	59 10.4 +02.7	S 18 27.6 +00.0	04								
05	231 54.7 +00.9	N 11 30.3 -00.6	55 06.8 +02.7	S 12 46.0 +00.1	74 13.1 +02.6	S 18 27.6 +00.1	05								
06	246 55.6 +01.0	N 11 29.7 -00.6	70 09.5 +02.8	S 12 46.1 +00.1	89 15.7 +02.7	S 18 27.7 +00.0	06								
07	261 56.6 +01.0	N 11 29.1 -00.5	85 12.3 +02.7	S 12 46.2 +00.1	104 18.4 +02.6	S 18 27.7 +00.1	07								
08	276 57.6 +00.9	N 11 28.6 -00.6	100 15.0 +02.8	S 12 46.3 +00.1	119 21.0 +02.7	S 18 27.8 +00.1	08								
09	291 58.5 +01.0	N 11 28.0 -00.6	115 17.8 +02.7	S 12 46.4 +00.2	134 23.7 +02.6	S 18 27.9 +00.0	09								
10	306 59.5 +01.0	N 11 27.4 -00.6	130 20.5 +02.8	S 12 46.6 +00.1	149 26.3 +02.7	S 18 27.9 +00.1	10								
11	322 00.5 +01.0	N 11 26.8 -00.6	145 23.3 +02.7	S 12 46.7 +00.1	164 29.0 +02.6	S 18 28.0 +00.0	11								
12	337 01.5 +00.9	N 11 26.2 -00.5	160 26.0 +02.8	S 12 46.8 +00.1	179 31.6 +02.7	S 18 28.0 +00.1	12								
13	352 02.4 +01.0	N 11 25.7 -00.6	175 28.8 +02.7	S 12 46.9 +00.1	194 34.3 +02.6	S 18 28.1 +00.0	13								
14	7 03.4 +01.0	N 11 25.1 -00.6	190 31.5 +02.7	S 12 47.0 +00.1	209 36.9 +02.7	S 18 28.1 +00.1	14								
15	22 04.4 +01.0	N 11 24.5 -00.6	205 34.2 +02.8	S 12 47.1 +00.1	224 39.6 +02.6	S 18 28.2 +00.0	15								
16	37 05.4 +00.9	N 11 23.9 -00.6	220 37.0 +02.7	S 12 47.2 +00.1	239 42.2 +02.7	S 18 28.2 +00.1	16								
17	52 06.3 +01.0	N 11 23.3 -00.6	235 39.7 +02.8	S 12 47.3 +00.1	254 44.9 +02.6	S 18 28.3 +00.0	17								
18	67 07.3 +01.0	N 11 22.7 -00.5	250 42.5 +02.7	S 12 47.4 +00.2	269 47.5 +02.7	S 18 28.3 +00.1	18								
19	82 08.3 +01.0	N 11 22.2 -00.6	265 45.2 +02.8	S 12 47.6 +00.1	284 50.2 +02.6	S 18 28.4 +00.0	19								
20	97 09.3 +00.9	N 11 21.6 -00.6	280 48.0 +02.7	S 12 47.7 +00.1	299 52.8 +02.7	S 18 28.4 +00.1	20								
21	112 10.2 +01.0	N 11 21.0 -00.6	295 50.7 +02.8	S 12 47.8 +00.1	314 55.5 +02.6	S 18 28.5 +00.0	21								
22	127 11.2 +01.0	N 11 20.4 -00.6	310 53.5 +02.7	S 12 47.9 +00.1	329 58.1 +02.7	S 18 28.5 +00.1	22								
23	142 12.2 +00.9	N 11 19.8 -00.5	325 56.2 +02.8	S 12 48.0 +00.1	345 00.8 +02.6	S 18 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	SHA 205° 205° 205° 205° 205° 204°	Greenwich Culmination Time: 13:31	UT 02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 028° 028° 028° 028° 028° 028°	Greenwich Culmination Time: 01:20	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	SHA 047° 047° 047° 047° 047° 047°	Greenwich Culmination Time: 00:04

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 28.1 +00.1	N 17 14.1 -00.7	145 37.6 -00.3	N 06 49.8 -01.2	234 26.0 -29.9	N 23 56.1 +05.0	00						
01	193 28.2 +00.0	N 17 13.4 -00.7	160 37.3 -00.2	N 06 48.6 -01.2	248 56.1 -29.9	N 24 01.1 +04.8	01						
02	208 28.2 +00.1	N 17 12.7 -00.6	175 37.1 -00.3	N 06 47.4 -01.3	263 26.2 -29.9	N 24 05.9 +04.7	02						
03	223 28.3 +00.0	N 17 12.1 -00.7	190 36.8 -00.3	N 06 46.1 -01.2	277 56.3 -30.0	N 24 10.6 +04.6	03						
04	238 28.3 +00.1	N 17 11.4 -00.7	205 36.5 -00.2	N 06 44.9 -01.2	292 26.3 -30.1	N 24 15.2 +04.5	04						
05	253 28.4 +00.1	N 17 10.7 -00.6	220 36.3 -00.3	N 06 43.7 -01.3	306 56.2 -30.1	N 24 19.7 +04.4	05						
06	268 28.5 +00.0	N 17 10.1 -00.7	235 36.0 -00.3	N 06 42.4 -01.2	321 26.1 -30.2	N 24 24.1 +04.3	06						
07	283 28.5 +00.1	N 17 09.4 -00.7	250 35.7 -00.2	N 06 41.2 -01.3	335 55.9 -30.3	N 24 28.4 +04.1	07						
08	298 28.6 +00.0	N 17 08.7 -00.6	265 35.5 -00.3	N 06 39.9 -01.2	350 25.6 -30.2	N 24 32.5 +04.1	08						
09	313 28.6 +00.1	N 17 08.1 -00.7	280 35.2 -00.3	N 06 38.7 -01.2	4 55.4 -30.4	N 24 36.6 +03.9	09						
10	328 28.7 +00.0	N 17 07.4 -00.7	295 34.9 -00.2	N 06 37.5 -01.3	19 25.0 -30.4	N 24 40.5 +03.8	10						
11	343 28.7 +00.1	N 17 06.7 -00.7	310 34.7 -00.3	N 06 36.2 -01.2	33 54.6 -30.4	N 24 44.3 +03.7	11						
12	358 28.8 +00.1	N 17 06.0 -00.6	325 34.4 -00.3	N 06 35.0 -01.2	48 24.2 -30.5	N 24 48.0 +03.5	12						
13	13 28.9 +00.0	N 17 05.4 -00.7	340 34.1 -00.2	N 06 33.8 -01.3	62 53.7 -30.6	N 24 51.5 +03.5	13						
14	28 28.9 +00.1	N 17 04.7 -00.7	355 33.9 -00.3	N 06 32.5 -01.2	77 23.1 -30.5	N 24 55.0 +03.3	14						
15	43 29.0 +00.0	N 17 04.0 -00.6	10 33.6 -00.3	N 06 31.3 -01.3	91 52.6 -30.7	N 24 58.3 +03.2	15						
16	58 29.0 +00.1	N 17 03.4 -00.7	25 33.3 -00.2	N 06 30.0 -01.2	106 21.9 -30.7	N 25 01.5 +03.1	16						
17	73 29.1 +00.1	N 17 02.7 -00.7	40 33.1 -00.3	N 06 28.8 -01.2	120 51.2 -30.7	N 25 04.6 +03.0	17						
18	88 29.2 +00.0	N 17 02.0 -00.7	55 32.8 -00.3	N 06 27.6 -01.3	135 20.5 -30.8	N 25 07.6 +02.8	18						
19	103 29.2 +00.1	N 17 01.3 -00.6	70 32.5 -00.2	N 06 26.3 -01.2	149 49.7 -30.8	N 25 10.4 +02.8	19						
20	118 29.3 +00.0	N 17 00.7 -00.7	85 32.3 -00.3	N 06 25.1 -01.3	164 18.9 -30.9	N 25 13.2 +02.6	20						
21	133 29.3 +00.1	N 16 60.0 -00.7	100 32.0 -00.3	N 06 23.8 -01.2	178 48.0 -30.9	N 25 15.8 +02.4	21						
22	148 29.4 +00.1	N 16 59.3 -00.7	115 31.7 -00.2	N 06 22.6 -01.2	193 17.1 -31.0	N 25 18.2 +02.4	22						
23	163 29.5 +00.0	N 16 58.6 -00.6	130 31.5 -00.3	N 06 21.4 -01.3	207 46.1 -31.0	N 25 20.6 +02.2	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 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 14'8 14'8 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 54'4 54'5 54'5 54'6 54'6 54'7								
	SHA 226° 225° 225° 225° 225° 225°		SHA 193° 193° 192° 192° 192° 192°		SHA 281° 278° 276° 274° 272° 270°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 14:17		Greenwich Culmination Time: 08:39								

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	157 13.1 +01.0	N 11 19.3 -00.6	340 59.0 +02.7	S 12 48.1 +00.1	0 03.4 +02.7	S 18 28.7 +00.0	00						
01	172 14.1 +01.0	N 11 18.7 -00.6	356 01.7 +02.8	S 12 48.2 +00.1	15 06.1 +02.7	S 18 28.7 +00.1	01						
02	187 15.1 +01.0	N 11 18.1 -00.6	11 04.5 +02.7	S 12 48.3 +00.1	30 08.8 +02.6	S 18 28.8 +00.0	02						
03	202 16.1 +00.9	N 11 17.5 -00.6	26 07.2 +02.8	S 12 48.4 +00.2	45 11.4 +02.7	S 18 28.8 +00.1	03						
04	217 17.0 +01.0	N 11 16.9 -00.6	41 10.0 +02.7	S 12 48.6 +00.1	60 14.1 +02.6	S 18 28.9 +00.0	04						
05	232 18.0 +01.0	N 11 16.3 -00.5	56 12.7 +02.8	S 12 48.7 +00.1	75 16.7 +02.7	S 18 28.9 +00.1	05						
06	247 19.0 +01.0	N 11 15.8 -00.6	71 15.5 +02.7	S 12 48.8 +00.1	90 19.4 +02.6	S 18 29.0 +00.0	06						
07	262 20.0 +00.9	N 11 15.2 -00.6	86 18.2 +02.7	S 12 48.9 +00.1	105 22.0 +02.7	S 18 29.0 +00.1	07						
08	277 20.9 +01.0	N 11 14.6 -00.6	101 20.9 +02.8	S 12 49.0 +00.1	120 24.7 +02.6	S 18 29.1 +00.0	08						
09	292 21.9 +01.0	N 11 14.0 -00.6	116 23.7 +02.7	S 12 49.1 +00.1	135 27.3 +02.7	S 18 29.1 +00.1	09						
10	307 22.9 +01.0	N 11 13.4 -00.6	131 26.4 +02.8	S 12 49.2 +00.1	150 30.0 +02.6	S 18 29.2 +00.0	10						
11	322 23.9 +00.9	N 11 12.8 -00.5	146 29.2 +02.7	S 12 49.3 +00.1	165 32.6 +02.7	S 18 29.2 +00.1	11						
12	337 24.8 +01.0	N 11 12.3 -00.6	161 31.9 +02.8	S 12 49.4 +00.2	180 35.3 +02.6	S 18 29.3 +00.0	12						
13	352 25.8 +01.0	N 11 11.7 -00.6	176 34.7 +02.7	S 12 49.6 +00.1	195 37.9 +02.7	S 18 29.3 +00.1	13						
14	7 26.8 +01.0	N 11 11.1 -00.6	191 37.4 +02.8	S 12 49.7 +00.1	210 40.6 +02.6	S 18 29.4 +00.1	14						
15	22 27.8 +00.9	N 11 10.5 -00.6	206 40.2 +02.7	S 12 49.8 +00.1	225 43.2 +02.7	S 18 29.5 +00.0	15						
16	37 28.7 +01.0	N 11 09.9 -00.6	221 42.9 +02.8	S 12 49.9 +00.1	240 45.9 +02.6	S 18 29.5 +00.1	16						
17	52 29.7 +01.0	N 11 09.3 -00.5	236 45.7 +02.7	S 12 50.0 +00.1	255 48.5 +02.7	S 18 29.6 +00.0	17						
18	67 30.7 +01.0	N 11 08.8 -00.6	251 48.4 +02.8	S 12 50.1 +00.1	270 51.2 +02.6	S 18 29.6 +00.1	18						
19	82 31.7 +00.9	N 11 08.2 -00.6	266 51.2 +02.7	S 12 50.2 +00.1	285 53.8 +02.7	S 18 29.7 +00.0	19						
20	97 32.6 +01.0	N 11 07.6 -00.6	281 53.9 +02.8	S 12 50.3 +00.2	300 56.5 +02.6	S 18 29.7 +00.1	20						
21	112 33.6 +01.0	N 11 07.0 -00.6	296 56.7 +02.7	S 12 50.5 +00.1	315 59.1 +02.7	S 18 29.8 +00.0	21						
22	127 34.6 +01.0	N 11 06.4 -00.6	311 59.4 +02.8	S 12 50.6 +00.1	331 01.8 +02.6	S 18 29.8 +00.1	22						
23	142 35.6 +00.9	N 11 05.8 -00.6	327 02.2 +02.7	S 12 50.7 +00.1	346 04.4 +02.7	S 18 29.9 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 204° 204° 204° 204° 204° 204°		SHA 028° 028° 028° 028° 028° 028°		SHA 047° 047° 047° 047° 047° 047°								
	Greenwich Culmination Time: 13:30		Greenwich Culmination Time: 01:15		Greenwich Culmination Time: 23:55								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	178 29.5 +00.1	N 16 58.0 -00.7	145 31.2 -00.2	N 06 20.1 -01.2	222 15.1 -31.0	N 25 22.8 +02.1	00								
01	193 29.6 +00.1	N 16 57.3 -00.7	160 31.0 -00.3	N 06 18.9 -01.3	236 44.1 -31.1	N 25 24.9 +02.0	01								
02	208 29.7 +00.0	N 16 56.6 -00.7	175 30.7 -00.3	N 06 17.6 -01.2	251 13.0 -31.2	N 25 26.9 +01.8	02								
03	223 29.7 +00.1	N 16 55.9 -00.7	190 30.4 -00.2	N 06 16.4 -01.3	265 41.8 -31.1	N 25 28.7 +01.8	03								
04	238 29.8 +00.0	N 16 55.2 -00.6	205 30.2 -00.3	N 06 15.1 -01.2	280 10.7 -31.2	N 25 30.5 +01.6	04								
05	253 29.8 +00.1	N 16 54.6 -00.7	220 29.9 -00.2	N 06 13.9 -01.2	294 39.5 -31.3	N 25 32.1 +01.4	05								
06	268 29.9 +00.1	N 16 53.9 -00.7	235 29.7 -00.3	N 06 12.7 -01.3	309 08.2 -31.3	N 25 33.5 +01.4	06								
07	283 30.0 +00.0	N 16 53.2 -00.7	250 29.4 -00.3	N 06 11.4 -01.2	323 36.9 -31.3	N 25 34.9 +01.2	07								
08	298 30.0 +00.1	N 16 52.5 -00.7	265 29.1 -00.2	N 06 10.2 -01.3	338 05.6 -31.3	N 25 36.1 +01.1	08								
09	313 30.1 +00.1	N 16 51.8 -00.6	280 28.9 -00.3	N 06 08.9 -01.2	352 34.3 -31.4	N 25 37.2 +00.9	09								
10	328 30.2 +00.0	N 16 51.2 -00.7	295 28.6 -00.2	N 06 07.7 -01.3	7 02.9 -31.4	N 25 38.1 +00.8	10								
11	343 30.2 +00.1	N 16 50.5 -00.7	310 28.4 -00.3	N 06 06.4 -01.2	21 31.5 -31.5	N 25 38.9 +00.7	11								
12	358 30.3 +00.1	N 16 49.8 -00.7	325 28.1 -00.2	N 06 05.2 -01.3	36 00.0 -31.5	N 25 39.6 +00.6	12								
13	13 30.4 +00.0	N 16 49.1 -00.7	340 27.9 -00.3	N 06 03.9 -01.2	50 28.5 -31.5	N 25 40.2 +00.4	13								
14	28 30.4 +00.1	N 16 48.4 -00.6	355 27.6 -00.3	N 06 02.7 -01.2	64 57.0 -31.5	N 25 40.6 +00.3	14								
15	43 30.5 +00.1	N 16 47.8 -00.7	10 27.3 -00.2	N 06 01.5 -01.3	79 25.5 -31.6	N 25 40.9 +00.2	15								
16	58 30.6 +00.0	N 16 47.1 -00.7	25 27.1 -00.3	N 06 00.2 -01.2	93 53.9 -31.6	N 25 41.1 +00.0	16								
17	73 30.6 +00.1	N 16 46.4 -00.7	40 26.8 -00.2	N 05 59.0 -01.3	108 22.3 -31.6	N 25 41.1 -00.1	17								
18	88 30.7 +00.1	N 16 45.7 -00.7	55 26.6 -00.3	N 05 57.7 -01.2	122 50.7 -31.6	N 25 41.0 -00.2	18								
19	103 30.8 +00.0	N 16 45.0 -00.7	70 26.3 -00.2	N 05 56.5 -01.3	137 19.1 -31.7	N 25 40.8 -00.4	19								
20	118 30.8 +00.1	N 16 44.3 -00.7	85 26.1 -00.3	N 05 55.2 -01.2	151 47.4 -31.7	N 25 40.4 -00.5	20								
21	133 30.9 +00.1	N 16 43.6 -00.6	100 25.8 -00.3	N 05 54.0 -01.3	166 15.7 -31.7	N 25 39.9 -00.6	21								
22	148 31.0 +00.0	N 16 43.0 -00.7	115 25.5 -00.2	N 05 52.7 -01.2	180 44.0 -31.7	N 25 39.3 -00.7	22								
23	163 31.0 +00.1	N 16 42.3 -00.7	130 25.3 -00.3	N 05 51.5 -01.3	195 12.3 -31.8	N 25 38.6 -00.9	23								
	UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 225° 224° 224° 224° 224° 224°	Greenwich Culmination Time: 12:05	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 192° 191° 191° 191° 191° 191°	Greenwich Culmination Time: 14:18	UT 02 06 10 14 18 22	SD 14'9 14'9 15'0 15'0 15'0 15'0	HP 54'8 54'8 54'9 55'0 55'0 55'1	SHA 267° 265° 263° 261° 258° 256°	Greenwich Culmination Time: 09:30

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	157 36.5 +01.0	N 11 05.2 -00.5	342 04.9 +02.8	S 12 50.8 +00.1	1 07.1 +02.6	S 18 29.9 +00.1	00								
01	172 37.5 +01.0	N 11 04.7 -00.6	357 07.7 +02.7	S 12 50.9 +00.1	16 09.7 +02.7	S 18 30.0 +00.0	01								
02	187 38.5 +01.0	N 11 04.1 -00.6	12 10.4 +02.8	S 12 51.0 +00.1	31 12.4 +02.6	S 18 30.0 +00.1	02								
03	202 39.5 +00.9	N 11 03.5 -00.6	27 13.2 +02.7	S 12 51.1 +00.1	46 15.0 +02.7	S 18 30.1 +00.0	03								
04	217 40.4 +01.0	N 11 02.9 -00.6	42 15.9 +02.8	S 12 51.2 +00.2	61 17.7 +02.7	S 18 30.1 +00.1	04								
05	232 41.4 +01.0	N 11 02.3 -00.6	57 18.7 +02.7	S 12 51.4 +00.1	76 20.4 +02.6	S 18 30.2 +00.1	05								
06	247 42.4 +01.0	N 11 01.7 -00.6	72 21.4 +02.8	S 12 51.5 +00.1	91 23.0 +02.7	S 18 30.3 +00.0	06								
07	262 43.4 +00.9	N 11 01.1 -00.5	87 24.2 +02.8	S 12 51.6 +00.1	106 25.7 +02.6	S 18 30.3 +00.1	07								
08	277 44.3 +01.0	N 11 00.6 -00.6	102 27.0 +02.7	S 12 51.7 +00.1	121 28.3 +02.7	S 18 30.4 +00.0	08								
09	292 45.3 +01.0	N 10 60.0 -00.6	117 29.7 +02.8	S 12 51.8 +00.1	136 31.0 +02.6	S 18 30.4 +00.1	09								
10	307 46.3 +01.0	N 10 59.4 -00.6	132 32.5 +02.7	S 12 51.9 +00.1	151 33.6 +02.7	S 18 30.5 +00.0	10								
11	322 47.3 +01.0	N 10 58.8 -00.6	147 35.2 +02.8	S 12 52.0 +00.1	166 36.3 +02.6	S 18 30.5 +00.1	11								
12	337 48.3 +00.9	N 10 58.2 -00.6	162 38.0 +02.7	S 12 52.1 +00.2	181 38.9 +02.7	S 18 30.6 +00.0	12								
13	352 49.2 +01.0	N 10 57.6 -00.6	177 40.7 +02.8	S 12 52.3 +00.1	196 41.6 +02.6	S 18 30.6 +00.1	13								
14	7 50.2 +01.0	N 10 57.0 -00.6	192 43.5 +02.7	S 12 52.4 +00.1	211 44.2 +02.7	S 18 30.7 +00.0	14								
15	22 51.2 +01.0	N 10 56.4 -00.5	207 46.2 +02.8	S 12 52.5 +00.1	226 46.9 +02.6	S 18 30.7 +00.1	15								
16	37 52.2 +00.9	N 10 55.9 -00.6	222 49.0 +02.7	S 12 52.6 +00.1	241 49.5 +02.7	S 18 30.8 +00.0	16								
17	52 53.1 +01.0	N 10 55.3 -00.6	237 51.7 +02.8	S 12 52.7 +00.1	256 52.2 +02.6	S 18 30.8 +00.1	17								
18	67 54.1 +01.0	N 10 54.7 -00.6	252 54.5 +02.7	S 12 52.8 +00.1	271 54.8 +02.7	S 18 30.9 +00.0	18								
19	82 55.1 +01.0	N 10 54.1 -00.6	267 57.2 +02.8	S 12 52.9 +00.1	286 57.5 +02.6	S 18 30.9 +00.1	19								
20	97 56.1 +00.9	N 10 53.5 -00.6	282 60.0 +02.7	S 12 53.0 +00.2	302 00.1 +02.7	S 18 31.0 +00.1	20								
21	112 57.0 +01.0	N 10 52.9 -00.6	298 02.7 +02.8	S 12 53.2 +00.1	317 02.8 +02.6	S 18 31.1 +00.0	21								
22	127 58.0 +01.0	N 10 52.3 -00.6	313 05.5 +02.7	S 12 53.3 +00.1	332 05.4 +02.7	S 18 31.1 +00.1	22								
23	142 59.0 +01.0	N 10 51.7 -00.5	328 08.2 +02.8	S 12 53.4 +00.1	347 08.1 +02.6	S 18 31.2 +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	SHA 204° 204° 204° 203° 203° 203°	Greenwich Culmination Time: 13:28	UT 02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 028° 028° 028° 028° 028° 028°	Greenwich Culmination Time: 01:11	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	SHA 047° 047° 047° 047° 047° 047°	Greenwich Culmination Time: 23:51

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	178 31.1 +00.1	N 16 41.6 -00.7	145 25.0 -00.2	N 05 50.2 -01.2	209 40.5 -31.7	N 25 37.7 -01.1	00								
01	193 31.2 +00.0	N 16 40.9 -00.7	160 24.8 -00.3	N 05 49.0 -01.3	224 08.8 -31.8	N 25 36.6 -01.1	01								
02	208 31.2 +00.1	N 16 40.2 -00.7	175 24.5 -00.2	N 05 47.7 -01.2	238 37.0 -31.8	N 25 35.5 -01.3	02								
03	223 31.3 +00.1	N 16 39.5 -00.7	190 24.3 -00.3	N 05 46.5 -01.3	253 05.2 -31.8	N 25 34.2 -01.5	03								
04	238 31.4 +00.1	N 16 38.8 -00.7	205 24.0 -00.2	N 05 45.2 -01.2	267 33.4 -31.8	N 25 32.7 -01.5	04								
05	253 31.5 +00.0	N 16 38.1 -00.7	220 23.8 -00.3	N 05 44.0 -01.3	282 01.6 -31.8	N 25 31.2 -01.7	05								
06	268 31.5 +00.1	N 16 37.4 -00.6	235 23.5 -00.2	N 05 42.7 -01.2	296 29.8 -31.9	N 25 29.5 -01.9	06								
07	283 31.6 +00.1	N 16 36.8 -00.7	250 23.3 -00.3	N 05 41.5 -01.3	310 57.9 -31.8	N 25 27.6 -01.9	07								
08	298 31.7 +00.0	N 16 36.1 -00.7	265 23.0 -00.2	N 05 40.2 -01.2	325 26.1 -31.9	N 25 25.7 -02.1	08								
09	313 31.7 +00.1	N 16 35.4 -00.7	280 22.8 -00.3	N 05 39.0 -01.3	339 54.2 -31.9	N 25 23.6 -02.3	09								
10	328 31.8 +00.1	N 16 34.7 -00.7	295 22.5 -00.2	N 05 37.7 -01.2	354 22.3 -31.8	N 25 21.3 -02.4	10								
11	343 31.9 +00.0	N 16 34.0 -00.7	310 22.3 -00.3	N 05 36.5 -01.3	8 50.5 -31.9	N 25 18.9 -02.5	11								
12	358 31.9 +00.1	N 16 33.3 -00.7	325 22.0 -00.2	N 05 35.2 -01.2	23 18.6 -31.9	N 25 16.4 -02.6	12								
13	13 32.0 +00.1	N 16 32.6 -00.7	340 21.8 -00.3	N 05 34.0 -01.3	37 46.7 -31.9	N 25 13.8 -02.8	13								
14	28 32.1 +00.1	N 16 31.9 -00.7	355 21.5 -00.2	N 05 32.7 -01.2	52 14.8 -31.9	N 25 11.0 -02.9	14								
15	43 32.2 +00.0	N 16 31.2 -00.7	10 21.3 -00.3	N 05 31.5 -01.3	66 42.9 -31.8	N 25 08.1 -03.1	15								
16	58 32.2 +00.1	N 16 30.5 -00.7	25 21.0 -00.2	N 05 30.2 -01.2	81 11.1 -31.9	N 25 05.0 -03.1	16								
17	73 32.3 +00.1	N 16 29.8 -00.7	40 20.8 -00.3	N 05 29.0 -01.3	95 39.2 -31.9	N 25 01.9 -03.4	17								
18	88 32.4 +00.1	N 16 29.1 -00.7	55 20.5 -00.2	N 05 27.7 -01.2	110 07.3 -31.9	N 24 58.5 -03.4	18								
19	103 32.5 +00.0	N 16 28.4 -00.7	70 20.3 -00.3	N 05 26.5 -01.3	124 35.4 -31.9	N 24 55.1 -03.6	19								
20	118 32.5 +00.1	N 16 27.7 -00.7	85 20.0 -00.2	N 05 25.2 -01.2	139 03.5 -31.8	N 24 51.5 -03.7	20								
21	133 32.6 +00.1	N 16 27.0 -00.7	100 19.8 -00.3	N 05 24.0 -01.3	153 31.7 -31.9	N 24 47.8 -03.9	21								
22	148 32.7 +00.0	N 16 26.3 -00.7	115 19.5 -00.2	N 05 22.7 -01.2	167 59.8 -31.8	N 24 43.9 -04.0	22								
23	163 32.7 +00.1	N 16 25.6 -00.7	130 19.3 -00.3	N 05 21.5 -01.3	182 28.0 -31.9	N 24 39.9 -04.1	23								
	UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 224° 224° 223° 223° 223° 223°	Greenwich Culmination Time: 12:05	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 191° 190° 190° 190° 190° 190°	Greenwich Culmination Time: 14:18	UT 02 06 10 14 18 22	SD 15'0 15'1 15'1 15'1 15'1 15'2	HP 55'2 55'3 55'4 55'4 55'5 55'6	SHA 254° 251° 249° 247° 245° 242°	Greenwich Culmination Time: 10:23

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	157 60.0 +00.9	N 10 51.2 -00.6	343 11.0 +02.8	S 12 53.5 +00.1	2 10.7 +02.7	S 18 31.2 +00.1	00								
01	173 00.9 +01.0	N 10 50.6 -00.6	358 13.8 +02.7	S 12 53.6 +00.1	17 13.4 +02.6	S 18 31.3 +00.0	01								
02	188 01.9 +01.0	N 10 50.0 -00.6	13 16.5 +02.8	S 12 53.7 +00.1	32 16.0 +02.7	S 18 31.3 +00.1	02								
03	203 02.9 +01.0	N 10 49.4 -00.6	28 19.3 +02.7	S 12 53.8 +00.2	47 18.7 +02.6	S 18 31.4 +00.0	03								
04	218 03.9 +01.0	N 10 48.8 -00.6	43 22.0 +02.8	S 12 54.0 +00.1	62 21.3 +02.7	S 18 31.4 +00.1	04								
05	233 04.9 +00.9	N 10 48.2 -00.6	58 24.8 +02.7	S 12 54.1 +00.1	77 24.0 +02.6	S 18 31.5 +00.0	05								
06	248 05.8 +01.0	N 10 47.6 -00.6	73 27.5 +02.8	S 12 54.2 +00.1	92 26.6 +02.7	S 18 31.5 +00.1	06								
07	263 06.8 +01.0	N 10 47.0 -00.6	88 30.3 +02.7	S 12 54.3 +00.1	107 29.3 +02.6	S 18 31.6 +00.0	07								
08	278 07.8 +01.0	N 10 46.4 -00.5	103 33.0 +02.8	S 12 54.4 +00.1	122 31.9 +02.7	S 18 31.6 +00.1	08								
09	293 08.8 +00.9	N 10 45.9 -00.6	118 35.8 +02.8	S 12 54.5 +00.1	137 34.6 +02.6	S 18 31.7 +00.0	09								
10	308 09.7 +01.0	N 10 45.3 -00.6	133 38.6 +02.7	S 12 54.6 +00.2	152 37.2 +02.7	S 18 31.7 +00.1	10								
11	323 10.7 +01.0	N 10 44.7 -00.6	148 41.3 +02.8	S 12 54.8 +00.1	167 39.9 +02.7	S 18 31.8 +00.0	11								
12	338 11.7 +01.0	N 10 44.1 -00.6	163 44.1 +02.7	S 12 54.9 +00.1	182 42.6 +02.6	S 18 31.8 +00.1	12								
13	353 12.7 +01.0	N 10 43.5 -00.6	178 46.8 +02.8	S 12 55.0 +00.1	197 45.2 +02.7	S 18 31.9 +00.1	13								
14	8 13.7 +00.9	N 10 42.9 -00.6	193 49.6 +02.7	S 12 55.1 +00.1	212 47.9 +02.6	S 18 32.0 +00.0	14								
15	23 14.6 +01.0	N 10 42.3 -00.6	208 52.3 +02.8	S 12 55.2 +00.1	227 50.5 +02.7	S 18 32.0 +00.1	15								
16	38 15.6 +01.0	N 10 41.7 -00.6	223 55.1 +02.7	S 12 55.3 +00.1	242 53.2 +02.6	S 18 32.1 +00.0	16								
17	53 16.6 +01.0	N 10 41.1 -00.6	238 57.8 +02.8	S 12 55.4 +00.1	257 55.8 +02.7	S 18 32.1 +00.1	17								
18	68 17.6 +00.9	N 10 40.5 -00.5	254 00.6 +02.8	S 12 55.5 +00.2	272 58.5 +02.6	S 18 32.2 +00.0	18								
19	83 18.5 +01.0	N 10 40.0 -00.6	269 03.4 +02.7	S 12 55.7 +00.1	288 01.1 +02.7	S 18 32.2 +00.1	19								
20	98 19.5 +01.0	N 10 39.4 -00.6	284 06.1 +02.8	S 12 55.8 +00.1	303 03.8 +02.6	S 18 32.3 +00.0	20								
21	113 20.5 +01.0	N 10 38.8 -00.6	299 08.9 +02.7	S 12 55.9 +00.1	318 06.4 +02.7	S 18 32.3 +00.1	21								
22	128 21.5 +01.0	N 10 38.2 -00.6	314 11.6 +02.8	S 12 56.0 +00.1	333 09.1 +02.6	S 18 32.4 +00.0	22								
23	143 22.5 +00.9	N 10 37.6 -00.6	329 14.4 +02.7	S 12 56.1 +00.1	348 11.7 +02.7	S 18 32.4 +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	SHA 203° 203° 203° 203° 203° 203°	Greenwich Culmination Time: 13:27	UT 02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 028° 028° 028° 029° 029° 029°	Greenwich Culmination Time: 01:07	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 047° 047° 047° 047° 047° 047°	Greenwich Culmination Time: 23:47

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA ° ' "	ddGHA	Dec ° ' "	dDec	GHA ° ' "	ddGHA	Dec ° ' "	dDec	GHA ° ' "	ddGHA	Dec ° ' "	dDec	
00	178 32.8 +00.1	N 16 24.9 -00.7	145 19.0 -00.2	N 05 20.2 -01.3	196 56.1 -31.8	N 24 35.8 -04.2	00						
01	193 32.9 +00.1	N 16 24.2 -00.7	160 18.8 -00.3	N 05 18.9 -01.2	211 24.3 -31.9	N 24 31.6 -04.4	01						
02	208 33.0 +00.0	N 16 23.5 -00.7	175 18.5 -00.2	N 05 17.7 -01.3	225 52.4 -31.8	N 24 27.2 -04.6	02						
03	223 33.0 +00.1	N 16 22.8 -00.7	190 18.3 -00.3	N 05 16.4 -01.2	240 20.6 -31.8	N 24 22.6 -04.6	03						
04	238 33.1 +00.1	N 16 22.1 -00.7	205 18.0 -00.2	N 05 15.2 -01.3	254 48.8 -31.8	N 24 18.0 -04.8	04						
05	253 33.2 +00.1	N 16 21.4 -00.7	220 17.8 -00.3	N 05 13.9 -01.2	269 17.0 -31.7	N 24 13.2 -04.9	05						
06	268 33.3 +00.1	N 16 20.7 -00.7	235 17.5 -00.2	N 05 12.7 -01.3	283 45.3 -31.8	N 24 08.3 -05.1	06						
07	283 33.4 +00.0	N 16 20.0 -00.7	250 17.3 -00.2	N 05 11.4 -01.2	298 13.5 -31.7	N 24 03.2 -05.2	07						
08	298 33.4 +00.1	N 16 19.3 -00.7	265 17.1 -00.3	N 05 10.2 -01.3	312 41.8 -31.7	N 23 58.0 -05.3	08						
09	313 33.5 +00.1	N 16 18.6 -00.7	280 16.8 -00.2	N 05 08.9 -01.3	327 10.1 -31.8	N 23 52.7 -05.4	09						
10	328 33.6 +00.1	N 16 17.9 -00.7	295 16.6 -00.3	N 05 07.6 -01.2	341 38.3 -31.6	N 23 47.3 -05.6	10						
11	343 33.7 +00.0	N 16 17.2 -00.7	310 16.3 -00.2	N 05 06.4 -01.3	356 06.7 -31.7	N 23 41.7 -05.7	11						
12	358 33.7 +00.1	N 16 16.5 -00.7	325 16.1 -00.3	N 05 05.1 -01.2	10 35.0 -31.6	N 23 36.0 -05.8	12						
13	13 33.8 +00.1	N 16 15.8 -00.7	340 15.8 -00.2	N 05 03.9 -01.3	25 03.4 -31.7	N 23 30.2 -06.0	13						
14	28 33.9 +00.1	N 16 15.1 -00.7	355 15.6 -00.3	N 05 02.6 -01.2	39 31.7 -31.6	N 23 24.2 -06.1	14						
15	43 34.0 +00.1	N 16 14.4 -00.7	10 15.3 -00.2	N 05 01.4 -01.3	54 00.1 -31.5	N 23 18.1 -06.2	15						
16	58 34.1 +00.0	N 16 13.7 -00.7	25 15.1 -00.2	N 05 00.1 -01.3	68 28.6 -31.6	N 23 11.9 -06.3	16						
17	73 34.1 +00.1	N 16 13.0 -00.7	40 14.9 -00.3	N 04 58.8 -01.2	82 57.0 -31.5	N 23 05.6 -06.5	17						
18	88 34.2 +00.1	N 16 12.3 -00.7	55 14.6 -00.2	N 04 57.6 -01.3	97 25.5 -31.5	N 22 59.1 -06.6	18						
19	103 34.3 +00.1	N 16 11.6 -00.7	70 14.4 -00.3	N 04 56.3 -01.2	111 54.0 -31.5	N 22 52.5 -06.8	19						
20	118 34.4 +00.0	N 16 10.9 -00.7	85 14.1 -00.2	N 04 55.1 -01.3	126 22.5 -31.4	N 22 45.7 -06.8	20						
21	133 34.4 +00.1	N 16 10.2 -00.8	100 13.9 -00.2	N 04 53.8 -01.3	140 51.1 -31.4	N 22 38.9 -07.0	21						
22	148 34.5 +00.1	N 16 09.4 -00.7	115 13.7 -00.3	N 04 52.5 -01.2	155 19.7 -31.4	N 22 31.9 -07.1	22						
23	163 34.6 +00.1	N 16 08.7 -00.7	130 13.4 -00.2	N 04 51.3 -01.3	169 48.3 -31.3	N 22 24.8 -07.2	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 SHA 223° 223° 222° 222° 222° 222° Greenwich Culmination Time: 12:05	UT 02 06 10 14 18 22 SD 00'1 00'1 00'1 00'1 00'1 00'1 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 189° 189° 189° 189° 189° 189° Greenwich Culmination Time: 14:18	UT 02 06 10 14 18 22 SD 15'2 15'2 15'2 15'2 15'3 15'3 HP 55'7 55'8 55'9 56'0 56'1 56'1 SHA 240° 238° 235° 233° 231° 229° Greenwich Culmination Time: 11:16										
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA ° ' "	ddGHA	Dec ° ' "	dDec	GHA ° ' "	ddGHA	Dec ° ' "	dDec	GHA ° ' "	ddGHA	Dec ° ' "	dDec	
00	158 23.4 +01.0	N 10 37.0 -00.6	344 17.1 +02.8	S 12 56.2 +00.1	3 14.4 +02.6	S 18 32.5 +00.0	00						
01	173 24.4 +01.0	N 10 36.4 -00.6	359 19.9 +02.8	S 12 56.3 +00.2	18 17.0 +02.7	S 18 32.5 +00.1	01						
02	188 25.4 +01.0	N 10 35.8 -00.6	14 22.7 +02.7	S 12 56.5 +00.1	33 19.7 +02.6	S 18 32.6 +00.0	02						
03	203 26.4 +00.9	N 10 35.2 -00.6	29 25.4 +02.8	S 12 56.6 +00.1	48 22.3 +02.7	S 18 32.6 +00.1	03						
04	218 27.3 +01.0	N 10 34.6 -00.6	44 28.2 +02.7	S 12 56.7 +00.1	63 25.0 +02.6	S 18 32.7 +00.0	04						
05	233 28.3 +01.0	N 10 34.0 -00.6	59 30.9 +02.8	S 12 56.8 +00.1	78 27.6 +02.7	S 18 32.7 +00.1	05						
06	248 29.3 +01.0	N 10 33.4 -00.5	74 33.7 +02.7	S 12 56.9 +00.1	93 30.3 +02.6	S 18 32.8 +00.1	06						
07	263 30.3 +01.0	N 10 32.9 -00.6	89 36.4 +02.8	S 12 57.0 +00.1	108 32.9 +02.7	S 18 32.9 +00.0	07						
08	278 31.3 +00.9	N 10 32.3 -00.6	104 39.2 +02.8	S 12 57.1 +00.2	123 35.6 +02.6	S 18 32.9 +00.1	08						
09	293 32.2 +01.0	N 10 31.7 -00.6	119 42.0 +02.7	S 12 57.3 +00.1	138 38.2 +02.7	S 18 33.0 +00.0	09						
10	308 33.2 +01.0	N 10 31.1 -00.6	134 44.7 +02.8	S 12 57.4 +00.1	153 40.9 +02.6	S 18 33.0 +00.1	10						
11	323 34.2 +01.0	N 10 30.5 -00.6	149 47.5 +02.7	S 12 57.5 +00.1	168 43.5 +02.7	S 18 33.1 +00.0	11						
12	338 35.2 +01.0	N 10 29.9 -00.6	164 50.2 +02.8	S 12 57.6 +00.1	183 46.2 +02.6	S 18 33.1 +00.1	12						
13	353 36.2 +00.9	N 10 29.3 -00.6	179 53.0 +02.8	S 12 57.7 +00.1	198 48.8 +02.7	S 18 33.2 +00.0	13						
14	8 37.1 +01.0	N 10 28.7 -00.6	194 55.8 +02.7	S 12 57.8 +00.1	213 51.5 +02.6	S 18 33.2 +00.1	14						
15	23 38.1 +01.0	N 10 28.1 -00.6	209 58.5 +02.8	S 12 57.9 +00.2	228 54.1 +02.7	S 18 33.3 +00.0	15						
16	38 39.1 +01.0	N 10 27.5 -00.6	225 01.3 +02.7	S 12 58.1 +00.1	243 56.8 +02.6	S 18 33.3 +00.1	16						
17	53 40.1 +00.9	N 10 26.9 -00.6	240 04.0 +02.8	S 12 58.2 +00.1	258 59.4 +02.7	S 18 33.4 +00.0	17						
18	68 41.0 +01.0	N 10 26.3 -00.6	255 06.8 +02.8	S 12 58.3 +00.1	274 02.1 +02.6	S 18 33.4 +00.1	18						
19	83 42.0 +01.0	N 10 25.7 -00.6	270 09.6 +02.7	S 12 58.4 +00.1	289 04.7 +02.7	S 18 33.5 +00.0	19						
20	98 43.0 +01.0	N 10 25.1 -00.5	285 12.3 +02.8	S 12 58.5 +00.1	304 07.4 +02.6	S 18 33.5 +00.1	20						
21	113 44.0 +01.0	N 10 24.6 -00.6	300 15.1 +02.7	S 12 58.6 +00.2	319 10.0 +02.7	S 18 33.6 +00.0	21						
22	128 45.0 +00.9	N 10 24.0 -00.6	315 17.8 +02.8	S 12 58.8 +00.1	334 12.7 +02.6	S 18 33.6 +00.1	22						
23	143 45.9 +01.0	N 10 23.4 -00.6	330 20.6 +02.8	S 12 58.9 +00.1	349 15.3 +02.7	S 18 33.7 +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 SHA 203° 203° 202° 202° 202° 202° Greenwich Culmination Time: 13:25	UT 02 06 10 14 18 22 SD 00'4 00'4 00'4 00'4 00'4 00'4 HP 00'0 00'0 00'0 00'0 00'0 00'0 SHA 029° 029° 029° 029° 029° 029° Greenwich Culmination Time: 01:02	UT 02 06 10 14 18 22 SD 00'2 00'2 00'2 00'2 00'2 00'2 HP 00'0 00'0 00'0 00'0 00'0 00'0 SHA 048° 048° 048° 048° 048° 048° Greenwich Culmination Time: 23:42										

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 34.7 +00.1	N 16 08.0 -00.7	145 13.2 -00.3	N 04 50.0 -01.2	184 17.0 -31.4	N 22 17.6 -07.4	00						
01	193 34.8 +00.1	N 16 07.3 -00.7	160 12.9 -00.2	N 04 48.8 -01.3	198 45.6 -31.3	N 22 10.2 -07.4	01						
02	208 34.9 +00.0	N 16 06.6 -00.7	175 12.7 -00.2	N 04 47.5 -01.3	213 14.3 -31.2	N 22 02.8 -07.6	02						
03	223 34.9 +00.1	N 16 05.9 -00.7	190 12.5 -00.3	N 04 46.2 -01.2	227 43.1 -31.2	N 21 55.2 -07.7	03						
04	238 35.0 +00.1	N 16 05.2 -00.7	205 12.2 -00.2	N 04 45.0 -01.3	242 11.9 -31.2	N 21 47.5 -07.9	04						
05	253 35.1 +00.1	N 16 04.5 -00.7	220 12.0 -00.3	N 04 43.7 -01.2	256 40.7 -31.2	N 21 39.6 -07.9	05						
06	268 35.2 +00.1	N 16 03.8 -00.8	235 11.7 -00.2	N 04 42.5 -01.3	271 09.5 -31.1	N 21 31.7 -08.1	06						
07	283 35.3 +00.0	N 16 03.0 -00.7	250 11.5 -00.2	N 04 41.2 -01.3	285 38.4 -31.1	N 21 23.6 -08.2	07						
08	298 35.3 +00.1	N 16 02.3 -00.7	265 11.3 -00.3	N 04 39.9 -01.2	300 07.3 -31.1	N 21 15.4 -08.3	08						
09	313 35.4 +00.1	N 16 01.6 -00.7	280 11.0 -00.2	N 04 38.7 -01.3	314 36.2 -31.0	N 21 07.1 -08.4	09						
10	328 35.5 +00.1	N 16 00.9 -00.7	295 10.8 -00.3	N 04 37.4 -01.2	329 05.2 -31.0	N 20 58.7 -08.6	10						
11	343 35.6 +00.1	N 16 00.2 -00.7	310 10.5 -00.2	N 04 36.2 -01.3	343 34.2 -30.9	N 20 50.1 -08.6	11						
12	358 35.7 +00.1	N 15 59.5 -00.7	325 10.3 -00.2	N 04 34.9 -01.3	358 03.3 -30.9	N 20 41.5 -08.8	12						
13	13 35.8 +00.0	N 15 58.8 -00.8	340 10.1 -00.3	N 04 33.6 -01.2	12 32.4 -30.9	N 20 32.7 -08.9	13						
14	28 35.8 +00.1	N 15 58.0 -00.7	355 09.8 -00.2	N 04 32.4 -01.3	27 01.5 -30.8	N 20 23.8 -09.0	14						
15	43 35.9 +00.1	N 15 57.3 -00.7	10 09.6 -00.2	N 04 31.1 -01.3	41 30.7 -30.8	N 20 14.8 -09.1	15						
16	58 36.0 +00.1	N 15 56.6 -00.7	25 09.4 -00.3	N 04 29.8 -01.2	55 59.9 -30.8	N 20 05.7 -09.2	16						
17	73 36.1 +00.1	N 15 55.9 -00.7	40 09.1 -00.2	N 04 28.6 -01.3	70 29.1 -30.7	N 19 56.5 -09.4	17						
18	88 36.2 +00.1	N 15 55.2 -00.8	55 08.9 -00.3	N 04 27.3 -01.2	84 58.4 -30.7	N 19 47.1 -09.4	18						
19	103 36.3 +00.1	N 15 54.4 -00.7	70 08.6 -00.2	N 04 26.1 -01.3	99 27.7 -30.6	N 19 37.7 -09.6	19						
20	118 36.4 +00.0	N 15 53.7 -00.7	85 08.4 -00.2	N 04 24.8 -01.3	113 57.1 -30.6	N 19 28.1 -09.6	20						
21	133 36.4 +00.1	N 15 53.0 -00.7	100 08.2 -00.3	N 04 23.5 -01.2	128 26.5 -30.6	N 19 18.5 -09.8	21						
22	148 36.5 +00.1	N 15 52.3 -00.7	115 07.9 -00.2	N 04 22.3 -01.3	142 55.9 -30.5	N 19 08.7 -09.9	22						
23	163 36.6 +00.1	N 15 51.6 -00.7	130 07.7 -00.2	N 04 21.0 -01.3	157 25.4 -30.5	N 18 58.8 -10.0	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 SHA 222° 222° 221° 221° 221° 221° Greenwich Culmination Time: 12:05	UT 02 06 10 14 18 22 SD 00'1 00'1 00'1 00'1 00'1 00'1 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 188° 188° 188° 188° 188° 188° Greenwich Culmination Time: 14:19	UT 02 06 10 14 18 22 SD 15'3 15'3 15'4 15'4 15'4 15'4 HP 56'2 56'3 56'4 56'5 56'6 56'7 SHA 226° 224° 222° 220° 218° 215° Greenwich Culmination Time: 12:08										
UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	158 46.9 +01.0	N 10 22.8 -00.6	345 23.4 +02.7	S 12 59.0 +00.1	4 18.0 +02.6	S 18 33.7 +00.1	00						
01	173 47.9 +01.0	N 10 22.2 -00.6	0 26.1 +02.8	S 12 59.1 +00.1	19 20.6 +02.7	S 18 33.8 +00.1	01						
02	188 48.9 +01.0	N 10 21.6 -00.6	15 28.9 +02.7	S 12 59.2 +00.1	34 23.3 +02.6	S 18 33.9 +00.0	02						
03	203 49.9 +00.9	N 10 21.0 -00.6	30 31.6 +02.8	S 12 59.3 +00.1	49 25.9 +02.7	S 18 33.9 +00.1	03						
04	218 50.8 +01.0	N 10 20.4 -00.6	45 34.4 +02.8	S 12 59.4 +00.2	64 28.6 +02.6	S 18 34.0 +00.0	04						
05	233 51.8 +01.0	N 10 19.8 -00.6	60 37.2 +02.7	S 12 59.6 +00.1	79 31.2 +02.7	S 18 34.0 +00.1	05						
06	248 52.8 +01.0	N 10 19.2 -00.6	75 39.9 +02.8	S 12 59.7 +00.1	94 33.9 +02.6	S 18 34.1 +00.0	06						
07	263 53.8 +01.0	N 10 18.6 -00.6	90 42.7 +02.7	S 12 59.8 +00.1	109 36.5 +02.7	S 18 34.1 +00.1	07						
08	278 54.8 +00.9	N 10 18.0 -00.6	105 45.4 +02.8	S 12 59.9 +00.1	124 39.2 +02.6	S 18 34.2 +00.0	08						
09	293 55.7 +01.0	N 10 17.4 -00.6	120 48.2 +02.8	S 13 00.0 +00.1	139 41.8 +02.7	S 18 34.2 +00.1	09						
10	308 56.7 +01.0	N 10 16.8 -00.6	135 51.0 +02.7	S 13 00.1 +00.1	154 44.5 +02.6	S 18 34.3 +00.0	10						
11	323 57.7 +01.0	N 10 16.2 -00.6	150 53.7 +02.8	S 13 00.2 +00.2	169 47.1 +02.7	S 18 34.3 +00.1	11						
12	338 58.7 +01.0	N 10 15.6 -00.6	165 56.5 +02.8	S 13 00.4 +00.1	184 49.8 +02.6	S 18 34.4 +00.0	12						
13	353 59.7 +00.9	N 10 15.0 -00.6	180 59.3 +02.7	S 13 00.5 +00.1	199 52.4 +02.7	S 18 34.4 +00.1	13						
14	9 00.6 +01.0	N 10 14.4 -00.6	196 02.0 +02.8	S 13 00.6 +00.1	214 55.1 +02.6	S 18 34.5 +00.0	14						
15	24 01.6 +01.0	N 10 13.8 -00.6	211 04.8 +02.7	S 13 00.7 +00.1	229 57.7 +02.7	S 18 34.5 +00.1	15						
16	39 02.6 +01.0	N 10 13.2 -00.5	226 07.5 +02.8	S 13 00.8 +00.1	245 00.4 +02.7	S 18 34.6 +00.0	16						
17	54 03.6 +01.0	N 10 12.7 -00.6	241 10.3 +02.8	S 13 00.9 +00.2	260 03.1 +02.6	S 18 34.6 +00.1	17						
18	69 04.6 +00.9	N 10 12.1 -00.6	256 13.1 +02.7	S 13 01.1 +00.1	275 05.7 +02.7	S 18 34.7 +00.0	18						
19	84 05.5 +01.0	N 10 11.5 -00.6	271 15.8 +02.8	S 13 01.2 +00.1	290 08.4 +02.6	S 18 34.7 +00.1	19						
20	99 06.5 +01.0	N 10 10.9 -00.6	286 18.6 +02.8	S 13 01.3 +00.1	305 11.0 +02.7	S 18 34.8 +00.0	20						
21	114 07.5 +01.0	N 10 10.3 -00.6	301 21.4 +02.7	S 13 01.4 +00.1	320 13.7 +02.6	S 18 34.8 +00.1	21						
22	129 08.5 +01.0	N 10 09.7 -00.6	316 24.1 +02.8	S 13 01.5 +00.1	335 16.3 +02.7	S 18 34.9 +00.1	22						
23	144 09.5 +01.0	N 10 09.1 -00.6	331 26.9 +02.7	S 13 01.6 +00.1	350 19.0 +02.6	S 18 35.0 +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 SHA 202° 202° 202° 202° 202° 202° Greenwich Culmination Time: 13:23	UT 02 06 10 14 18 22 SD 00'4 00'4 00'4 00'4 00'4 00'4 HP 00'0 00'0 00'0 00'0 00'0 00'0 SHA 029° 029° 029° 029° 029° 029° Greenwich Culmination Time: 00:58	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 SHA 048° 048° 048° 048° 048° 048° Greenwich Culmination Time: 23:38										

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	178 36.7 +00.1	N 15 50.9 -00.8	145 07.5 -00.3	N 04 19.7 -01.2	171 54.9 -30.5	N 18 48.8 -10.0	00								
01	193 36.8 +00.1	N 15 50.1 -00.7	160 07.2 -00.2	N 04 18.5 -01.3	186 24.4 -30.4	N 18 38.8 -10.2	01								
02	208 36.9 +00.1	N 15 49.4 -00.7	175 07.0 -00.2	N 04 17.2 -01.3	200 54.0 -30.3	N 18 28.6 -10.3	02								
03	223 37.0 +00.0	N 15 48.7 -00.7	190 06.8 -00.3	N 04 15.9 -01.2	215 23.7 -30.4	N 18 18.3 -10.4	03								
04	238 37.0 +00.1	N 15 48.0 -00.8	205 06.5 -00.2	N 04 14.7 -01.3	229 53.3 -30.3	N 18 07.9 -10.5	04								
05	253 37.1 +00.1	N 15 47.2 -00.7	220 06.3 -00.2	N 04 13.4 -01.3	244 23.0 -30.2	N 17 57.4 -10.6	05								
06	268 37.2 +00.1	N 15 46.5 -00.7	235 06.1 -00.3	N 04 12.1 -01.2	258 52.8 -30.2	N 17 46.8 -10.7	06								
07	283 37.3 +00.1	N 15 45.8 -00.7	250 05.8 -00.2	N 04 10.9 -01.3	273 22.6 -30.2	N 17 36.1 -10.8	07								
08	298 37.4 +00.1	N 15 45.1 -00.8	265 05.6 -00.2	N 04 09.6 -01.3	287 52.4 -30.1	N 17 25.3 -10.9	08								
09	313 37.5 +00.1	N 15 44.3 -00.7	280 05.4 -00.3	N 04 08.3 -01.2	302 22.3 -30.1	N 17 14.4 -11.0	09								
10	328 37.6 +00.1	N 15 43.6 -00.7	295 05.1 -00.2	N 04 07.1 -01.3	316 52.2 -30.0	N 17 03.4 -11.1	10								
11	343 37.7 +00.1	N 15 42.9 -00.7	310 04.9 -00.2	N 04 05.8 -01.3	331 22.2 -30.0	N 16 52.3 -11.1	11								
12	358 37.8 +00.0	N 15 42.2 -00.8	325 04.7 -00.2	N 04 04.5 -01.2	345 52.2 -30.0	N 16 41.2 -11.3	12								
13	13 37.8 +00.1	N 15 41.4 -00.7	340 04.5 -00.3	N 04 03.3 -01.3	0 22.2 -29.9	N 16 29.9 -11.3	13								
14	28 37.9 +00.1	N 15 40.7 -00.7	355 04.2 -00.2	N 04 02.0 -01.3	14 52.3 -29.9	N 16 18.6 -11.5	14								
15	43 38.0 +00.1	N 15 40.0 -00.7	10 04.0 -00.2	N 04 00.7 -01.2	29 22.4 -29.9	N 16 07.1 -11.5	15								
16	58 38.1 +00.1	N 15 39.3 -00.8	25 03.8 -00.3	N 03 59.5 -01.3	43 52.5 -29.8	N 15 55.6 -11.7	16								
17	73 38.2 +00.1	N 15 38.5 -00.7	40 03.5 -00.2	N 03 58.2 -01.3	58 22.7 -29.8	N 15 43.9 -11.7	17								
18	88 38.3 +00.1	N 15 37.8 -00.7	55 03.3 -00.2	N 03 56.9 -01.2	72 52.9 -29.7	N 15 32.2 -11.8	18								
19	103 38.4 +00.1	N 15 37.1 -00.8	70 03.1 -00.3	N 03 55.7 -01.3	87 23.2 -29.7	N 15 20.4 -11.9	19								
20	118 38.5 +00.1	N 15 36.3 -00.7	85 02.8 -00.2	N 03 54.4 -01.3	101 53.5 -29.6	N 15 08.5 -12.0	20								
21	133 38.6 +00.1	N 15 35.6 -00.7	100 02.6 -00.2	N 03 53.1 -01.2	116 23.9 -29.7	N 14 56.5 -12.0	21								
22	148 38.7 +00.1	N 15 34.9 -00.7	115 02.4 -00.2	N 03 51.9 -01.3	130 54.2 -29.6	N 14 44.5 -12.1	22								
23	163 38.8 +00.1	N 15 34.2 -00.8	130 02.2 -00.3	N 03 50.6 -01.3	145 24.6 -29.5	N 14 32.4 -12.3	23								
	UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 221° 221° 221° 220° 220° 220°	Greenwich Culmination Time: 12:05	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 187° 187° 187° 187° 187° 186°	Greenwich Culmination Time: 14:19	UT 02 06 10 14 18 22	SD 15'5 15'5 15'5 15'5 15'6 15'6	HP 56'8 56'9 57'0 57'1 57'1 57'2	SHA 213° 211° 209° 207° 204° 202°	Greenwich Culmination Time: 12:58

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	159 10.5 +00.9	N 10 08.5 -00.6	346 29.6 +02.8	S 13 01.7 +00.2	5 21.6 +02.7	S 18 35.0 +00.1	00								
01	174 11.4 +01.0	N 10 07.9 -00.6	1 32.4 +02.8	S 13 01.9 +00.1	20 24.3 +02.6	S 18 35.1 +00.0	01								
02	189 12.4 +01.0	N 10 07.3 -00.6	16 35.2 +02.7	S 13 02.0 +00.1	35 26.9 +02.7	S 18 35.1 +00.1	02								
03	204 13.4 +01.0	N 10 06.7 -00.6	31 37.9 +02.8	S 13 02.1 +00.1	50 29.6 +02.6	S 18 35.2 +00.0	03								
04	219 14.4 +01.0	N 10 06.1 -00.6	46 40.7 +02.8	S 13 02.2 +00.1	65 32.2 +02.7	S 18 35.2 +00.1	04								
05	234 15.4 +00.9	N 10 05.5 -00.6	61 43.5 +02.7	S 13 02.3 +00.1	80 34.9 +02.6	S 18 35.3 +00.0	05								
06	249 16.3 +01.0	N 10 04.9 -00.6	76 46.2 +02.8	S 13 02.4 +00.2	95 37.5 +02.7	S 18 35.3 +00.1	06								
07	264 17.3 +01.0	N 10 04.3 -00.6	91 49.0 +02.8	S 13 02.6 +00.1	110 40.2 +02.6	S 18 35.4 +00.0	07								
08	279 18.3 +01.0	N 10 03.7 -00.6	106 51.8 +02.7	S 13 02.7 +00.1	125 42.8 +02.7	S 18 35.4 +00.1	08								
09	294 19.3 +01.0	N 10 03.1 -00.6	121 54.5 +02.8	S 13 02.8 +00.1	140 45.5 +02.6	S 18 35.5 +00.0	09								
10	309 20.3 +00.9	N 10 02.5 -00.6	136 57.3 +02.8	S 13 02.9 +00.1	155 48.1 +02.7	S 18 35.5 +00.1	10								
11	324 21.2 +01.0	N 10 01.9 -00.6	152 00.1 +02.7	S 13 03.0 +00.1	170 50.8 +02.6	S 18 35.6 +00.0	11								
12	339 22.2 +01.0	N 10 01.3 -00.6	167 02.8 +02.8	S 13 03.1 +00.2	185 53.4 +02.7	S 18 35.6 +00.1	12								
13	354 23.2 +01.0	N 10 00.7 -00.6	182 05.6 +02.7	S 13 03.3 +00.1	200 56.1 +02.6	S 18 35.7 +00.0	13								
14	9 24.2 +01.0	N 10 00.1 -00.6	197 08.3 +02.8	S 13 03.4 +00.1	215 58.7 +02.7	S 18 35.7 +00.1	14								
15	24 25.2 +01.0	N 09 59.5 -00.6	212 11.1 +02.8	S 13 03.5 +00.1	231 01.4 +02.6	S 18 35.8 +00.0	15								
16	39 26.2 +00.9	N 09 58.9 -00.6	227 13.9 +02.7	S 13 03.6 +00.1	246 04.0 +02.7	S 18 35.8 +00.1	16								
17	54 27.1 +01.0	N 09 58.3 -00.6	242 16.6 +02.8	S 13 03.7 +00.1	261 06.7 +02.6	S 18 35.9 +00.0	17								
18	69 28.1 +01.0	N 09 57.7 -00.6	257 19.4 +02.8	S 13 03.8 +00.1	276 09.3 +02.7	S 18 35.9 +00.1	18								
19	84 29.1 +01.0	N 09 57.1 -00.6	272 22.2 +02.7	S 13 03.9 +00.2	291 12.0 +02.6	S 18 36.0 +00.1	19								
20	99 30.1 +01.0	N 09 56.5 -00.6	287 24.9 +02.8	S 13 04.1 +00.1	306 14.6 +02.7	S 18 36.1 +00.0	20								
21	114 31.1 +00.9	N 09 55.9 -00.6	302 27.7 +02.8	S 13 04.2 +00.1	321 17.3 +02.6	S 18 36.1 +00.1	21								
22	129 32.0 +01.0	N 09 55.3 -00.6	317 30.5 +02.7	S 13 04.3 +00.1	336 19.9 +02.7	S 18 36.2 +00.0	22								
23	144 33.0 +01.0	N 09 54.7 -00.6	332 33.2 +02.8	S 13 04.4 +00.1	351 22.6 +02.6	S 18 36.2 +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	SHA 201° 201° 201° 201° 201° 201°	Greenwich Culmination Time: 13:22	UT 02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 029° 029° 029° 029° 029° 029°	Greenwich Culmination Time: 00:53	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 048° 048° 048° 048° 048° 048°	Greenwich Culmination Time: 23:34



UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 38.9 +00.0	N 15 33.4 -00.7	145 01.9 -00.2	N 03 49.3 -01.3	159 55.1 -29.5	N 14 20.1 -12.3	00						
01	193 38.9 +00.1	N 15 32.7 -00.7	160 01.7 -00.2	N 03 48.0 -01.2	174 25.6 -29.5	N 14 07.8 -12.4	01						
02	208 39.0 +00.1	N 15 32.0 -00.8	175 01.5 -00.3	N 03 46.8 -01.3	188 56.1 -29.4	N 13 55.4 -12.4	02						
03	223 39.1 +00.1	N 15 31.2 -00.7	190 01.2 -00.2	N 03 45.5 -01.3	203 26.7 -29.4	N 13 43.0 -12.5	03						
04	238 39.2 +00.1	N 15 30.5 -00.7	205 01.0 -00.2	N 03 44.2 -01.2	217 57.3 -29.4	N 13 30.5 -12.7	04						
05	253 39.3 +00.1	N 15 29.8 -00.8	220 00.8 -00.2	N 03 43.0 -01.3	232 27.9 -29.4	N 13 17.8 -12.6	05						
06	268 39.4 +00.1	N 15 29.0 -00.7	235 00.6 -00.3	N 03 41.7 -01.3	246 58.5 -29.3	N 13 05.2 -12.8	06						
07	283 39.5 +00.1	N 15 28.3 -00.7	250 00.3 -00.2	N 03 40.4 -01.2	261 29.2 -29.2	N 12 52.4 -12.8	07						
08	298 39.6 +00.1	N 15 27.6 -00.8	265 00.1 -00.2	N 03 39.2 -01.3	275 60.0 -29.3	N 12 39.6 -12.9	08						
09	313 39.7 +00.1	N 15 26.8 -00.7	279 59.9 -00.2	N 03 37.9 -01.3	290 30.7 -29.2	N 12 26.7 -13.0	09						
10	328 39.8 +00.1	N 15 26.1 -00.7	294 59.7 -00.3	N 03 36.6 -01.3	305 01.5 -29.2	N 12 13.7 -13.1	10						
11	343 39.9 +00.1	N 15 25.4 -00.8	309 59.4 -00.2	N 03 35.3 -01.2	319 32.3 -29.1	N 12 00.6 -13.1	11						
12	358 40.0 +00.1	N 15 24.6 -00.7	324 59.2 -00.2	N 03 34.1 -01.3	334 03.2 -29.1	N 11 47.5 -13.2	12						
13	13 40.1 +00.1	N 15 23.9 -00.8	339 59.0 -00.3	N 03 32.8 -01.3	348 34.1 -29.1	N 11 34.3 -13.2	13						
14	28 40.2 +00.1	N 15 23.1 -00.7	354 58.7 -00.2	N 03 31.5 -01.2	3 05.0 -29.1	N 11 21.1 -13.3	14						
15	43 40.3 +00.1	N 15 22.4 -00.7	9 58.5 -00.2	N 03 30.3 -01.3	17 35.9 -29.0	N 11 07.8 -13.4	15						
16	58 40.4 +00.1	N 15 21.7 -00.8	24 58.3 -00.2	N 03 29.0 -01.3	32 06.9 -29.0	N 10 54.4 -13.4	16						
17	73 40.5 +00.1	N 15 20.9 -00.7	39 58.1 -00.2	N 03 27.7 -01.3	46 37.9 -29.0	N 10 41.0 -13.5	17						
18	88 40.6 +00.1	N 15 20.2 -00.7	54 57.9 -00.3	N 03 26.4 -01.2	61 08.9 -28.9	N 10 27.5 -13.6	18						
19	103 40.7 +00.1	N 15 19.5 -00.8	69 57.6 -00.2	N 03 25.2 -01.3	75 40.0 -29.0	N 10 13.9 -13.6	19						
20	118 40.8 +00.1	N 15 18.7 -00.7	84 57.4 -00.2	N 03 23.9 -01.3	90 11.0 -28.9	N 10 00.3 -13.7	20						
21	133 40.9 +00.1	N 15 18.0 -00.8	99 57.2 -00.2	N 03 22.6 -01.3	104 42.1 -28.9	N 09 46.6 -13.7	21						
22	148 41.0 +00.1	N 15 17.2 -00.7	114 57.0 -00.3	N 03 21.3 -01.2	119 13.2 -28.8	N 09 32.9 -13.8	22						
23	163 41.1 +00.1	N 15 16.5 -00.7	129 56.7 -00.2	N 03 20.1 -01.3	133 44.4 -28.8	N 09 19.1 -13.8	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'6 15'6 15'7 15'7 15'7 15'7								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 57'3 57'4 57'5 57'6 57'6 57'7								
	SHA 220° 220° 220° 219° 219° 219°		SHA 186° 186° 186° 186° 186° 185°		SHA 200° 198° 196° 194° 192° 190°								
	Greenwich Culmination Time: 12:05		Greenwich Culmination Time: 14:20		Greenwich Culmination Time: 13:47								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	159 34.0 +01.0	N 09 54.1 -00.6	347 36.0 +02.8	S 13 04.5 +00.1	6 25.2 +02.7	S 18 36.3 +00.0	00						
01	174 35.0 +01.0	N 09 53.5 -00.6	2 38.8 +02.7	S 13 04.6 +00.2	21 27.9 +02.6	S 18 36.3 +00.1	01						
02	189 36.0 +01.0	N 09 52.9 -00.6	17 41.5 +02.8	S 13 04.8 +00.1	36 30.5 +02.6	S 18 36.4 +00.0	02						
03	204 37.0 +00.9	N 09 52.3 -00.6	32 44.3 +02.8	S 13 04.9 +00.1	51 33.1 +02.7	S 18 36.4 +00.1	03						
04	219 37.9 +01.0	N 09 51.7 -00.6	47 47.1 +02.7	S 13 05.0 +00.1	66 35.8 +02.6	S 18 36.5 +00.0	04						
05	234 38.9 +01.0	N 09 51.1 -00.6	62 49.8 +02.8	S 13 05.1 +00.1	81 38.4 +02.7	S 18 36.5 +00.1	05						
06	249 39.9 +01.0	N 09 50.5 -00.6	77 52.6 +02.8	S 13 05.2 +00.1	96 41.1 +02.6	S 18 36.6 +00.0	06						
07	264 40.9 +01.0	N 09 49.9 -00.6	92 55.4 +02.7	S 13 05.3 +00.2	111 43.7 +02.7	S 18 36.6 +00.1	07						
08	279 41.9 +01.0	N 09 49.3 -00.6	107 58.1 +02.8	S 13 05.5 +00.1	126 46.4 +02.6	S 18 36.7 +00.0	08						
09	294 42.9 +00.9	N 09 48.7 -00.6	123 00.9 +02.8	S 13 05.6 +00.1	141 49.0 +02.7	S 18 36.7 +00.1	09						
10	309 43.8 +01.0	N 09 48.1 -00.6	138 03.7 +02.7	S 13 05.7 +00.1	156 51.7 +02.6	S 18 36.8 +00.0	10						
11	324 44.8 +01.0	N 09 47.5 -00.6	153 06.4 +02.8	S 13 05.8 +00.1	171 54.3 +02.7	S 18 36.8 +00.1	11						
12	339 45.8 +01.0	N 09 46.9 -00.6	168 09.2 +02.8	S 13 05.9 +00.1	186 57.0 +02.6	S 18 36.9 +00.0	12						
13	354 46.8 +01.0	N 09 46.3 -00.6	183 12.0 +02.7	S 13 06.0 +00.2	201 59.6 +02.7	S 18 36.9 +00.1	13						
14	9 47.8 +00.9	N 09 45.7 -00.6	198 14.7 +02.8	S 13 06.2 +00.1	217 02.3 +02.6	S 18 37.0 +00.0	14						
15	24 48.7 +01.0	N 09 45.1 -00.6	213 17.5 +02.8	S 13 06.3 +00.1	232 04.9 +02.7	S 18 37.0 +00.1	15						
16	39 49.7 +01.0	N 09 44.5 -00.6	228 20.3 +02.7	S 13 06.4 +00.1	247 07.6 +02.6	S 18 37.1 +00.0	16						
17	54 50.7 +01.0	N 09 43.9 -00.6	243 23.0 +02.8	S 13 06.5 +00.1	262 10.2 +02.7	S 18 37.1 +00.1	17						
18	69 51.7 +01.0	N 09 43.3 -00.6	258 25.8 +02.8	S 13 06.6 +00.1	277 12.9 +02.6	S 18 37.2 +00.0	18						
19	84 52.7 +01.0	N 09 42.7 -00.6	273 28.6 +02.7	S 13 06.7 +00.2	292 15.5 +02.7	S 18 37.2 +00.1	19						
20	99 53.7 +00.9	N 09 42.1 -00.6	288 31.3 +02.8	S 13 06.9 +00.1	307 18.2 +02.6	S 18 37.3 +00.0	20						
21	114 54.6 +01.0	N 09 41.5 -00.6	303 34.1 +02.8	S 13 07.0 +00.1	322 20.8 +02.7	S 18 37.3 +00.1	21						
22	129 55.6 +01.0	N 09 40.9 -00.6	318 36.9 +02.7	S 13 07.1 +00.1	337 23.5 +02.6	S 18 37.4 +00.1	22						
23	144 56.6 +01.0	N 09 40.3 -00.6	333 39.6 +02.8	S 13 07.2 +00.1	352 26.1 +02.7	S 18 37.5 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 201° 201° 201° 201° 200° 200°		SHA 029° 029° 029° 029° 029° 029°		SHA 048° 048° 048° 048° 048° 048°								
	Greenwich Culmination Time: 13:20		Greenwich Culmination Time: 00:49		Greenwich Culmination Time: 23:30								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 41.2 +00.1	N 15 15.8 -00.8	144 56.5 -00.2	N 03 18.8 -01.3	148 15.6 -28.8	N 09 05.3 -13.9	00						
01	193 41.3 +00.1	N 15 15.0 -00.7	159 56.3 -00.2	N 03 17.5 -01.2	162 46.8 -28.8	N 08 51.4 -14.0	01						
02	208 41.4 +00.1	N 15 14.3 -00.8	174 56.1 -00.3	N 03 16.3 -01.3	177 18.0 -28.8	N 08 37.4 -14.0	02						
03	223 41.5 +00.1	N 15 13.5 -00.7	189 55.8 -00.2	N 03 15.0 -01.3	191 49.2 -28.8	N 08 23.4 -14.0	03						
04	238 41.6 +00.1	N 15 12.8 -00.8	204 55.6 -00.2	N 03 13.7 -01.3	206 20.4 -28.7	N 08 09.4 -14.1	04						
05	253 41.7 +00.1	N 15 12.0 -00.7	219 55.4 -00.2	N 03 12.4 -01.2	220 51.7 -28.7	N 07 55.3 -14.2	05						
06	268 41.8 +00.1	N 15 11.3 -00.7	234 55.2 -00.2	N 03 11.2 -01.3	235 23.0 -28.7	N 07 41.1 -14.2	06						
07	283 41.9 +00.1	N 15 10.6 -00.8	249 55.0 -00.3	N 03 09.9 -01.3	249 54.3 -28.7	N 07 26.9 -14.2	07						
08	298 42.0 +00.1	N 15 09.8 -00.7	264 54.7 -00.2	N 03 08.6 -01.3	264 25.6 -28.6	N 07 12.7 -14.3	08						
09	313 42.1 +00.1	N 15 09.1 -00.8	279 54.5 -00.2	N 03 07.3 -01.2	278 57.0 -28.7	N 06 58.4 -14.3	09						
10	328 42.2 +00.1	N 15 08.3 -00.7	294 54.3 -00.2	N 03 06.1 -01.3	293 28.3 -28.6	N 06 44.1 -14.3	10						
11	343 42.3 +00.1	N 15 07.6 -00.8	309 54.1 -00.2	N 03 04.8 -01.3	307 59.7 -28.7	N 06 29.8 -14.4	11						
12	358 42.4 +00.1	N 15 06.8 -00.7	324 53.9 -00.3	N 03 03.5 -01.3	322 31.0 -28.6	N 06 15.4 -14.5	12						
13	13 42.5 +00.1	N 15 06.1 -00.8	339 53.6 -00.2	N 03 02.2 -01.2	337 02.4 -28.6	N 06 00.9 -14.5	13						
14	28 42.6 +00.1	N 15 05.3 -00.7	354 53.4 -00.2	N 03 01.0 -01.3	351 33.8 -28.6	N 05 46.4 -14.5	14						
15	43 42.7 +00.1	N 15 04.6 -00.8	9 53.2 -00.2	N 02 59.7 -01.3	6 05.2 -28.6	N 05 31.9 -14.5	15						
16	58 42.8 +00.1	N 15 03.8 -00.7	24 53.0 -00.2	N 02 58.4 -01.3	20 36.6 -28.5	N 05 17.4 -14.6	16						
17	73 42.9 +00.1	N 15 03.1 -00.8	39 52.8 -00.3	N 02 57.1 -01.2	35 08.1 -28.6	N 05 02.8 -14.6	17						
18	88 43.0 +00.1	N 15 02.3 -00.7	54 52.5 -00.2	N 02 55.9 -01.3	49 39.5 -28.6	N 04 48.2 -14.7	18						
19	103 43.1 +00.1	N 15 01.6 -00.8	69 52.3 -00.2	N 02 54.6 -01.3	64 10.9 -28.5	N 04 33.5 -14.6	19						
20	118 43.2 +00.1	N 15 00.8 -00.7	84 52.1 -00.2	N 02 53.3 -01.3	78 42.4 -28.6	N 04 18.9 -14.7	20						
21	133 43.3 +00.1	N 15 00.1 -00.8	99 51.9 -00.2	N 02 52.0 -01.3	93 13.8 -28.5	N 04 04.2 -14.8	21						
22	148 43.4 +00.1	N 14 59.3 -00.7	114 51.7 -00.3	N 02 50.7 -01.2	107 45.3 -28.6	N 03 49.4 -14.7	22						
23	163 43.5 +00.1	N 14 58.6 -00.8	129 51.4 -00.2	N 02 49.5 -01.3	122 16.7 -28.5	N 03 34.7 -14.8	23						
	UT 02 06 10 14 18 22	UT 02 06 10 14 18 22	UT 02 06 10 14 18 22	UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'8	SD 00'1 00'1 00'1 00'1 00'1 00'1	SD 15'7 15'8 15'8 15'8 15'8 15'8						
	HP 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	HP 57'8 57'9 58'0 58'0 58'1 58'2	HP 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 219° 219° 219° 218° 218° 218°	SHA 185° 185° 185° 185° 184° 184°	SHA 185° 185° 185° 185° 184° 184°	SHA 188° 185° 183° 181° 179° 177°	SHA 200° 200° 200° 200° 200° 200°	SHA 029° 029° 029° 029° 029° 029°	SHA 048° 048° 048° 048° 048° 048°						
	Greenwich Culmination Time: 12:05	Greenwich Culmination Time: 14:20	Greenwich Culmination Time: 14:20	Greenwich Culmination Time: 14:34	Greenwich Culmination Time: 13:19	Greenwich Culmination Time: 00:45	Greenwich Culmination Time: 23:25						

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	159 57.6 +01.0	N 09 39.7 -00.6	348 42.4 +02.8	S 13 07.3 +00.1	7 28.8 +02.6	S 18 37.5 +00.1	00						
01	174 58.6 +01.0	N 09 39.1 -00.6	3 45.2 +02.8	S 13 07.4 +00.2	22 31.4 +02.7	S 18 37.6 +00.0	01						
02	189 59.6 +00.9	N 09 38.5 -00.6	18 48.0 +02.7	S 13 07.6 +00.1	37 34.1 +02.6	S 18 37.6 +00.1	02						
03	205 00.5 +01.0	N 09 37.9 -00.6	33 50.7 +02.8	S 13 07.7 +00.1	52 36.7 +02.7	S 18 37.7 +00.0	03						
04	220 01.5 +01.0	N 09 37.3 -00.6	48 53.5 +02.8	S 13 07.8 +00.1	67 39.4 +02.6	S 18 37.7 +00.1	04						
05	235 02.5 +01.0	N 09 36.7 -00.6	63 56.3 +02.7	S 13 07.9 +00.1	82 42.0 +02.7	S 18 37.8 +00.0	05						
06	250 03.5 +01.0	N 09 36.1 -00.6	78 59.0 +02.8	S 13 08.0 +00.1	97 44.7 +02.6	S 18 37.8 +00.1	06						
07	265 04.5 +01.0	N 09 35.5 -00.6	94 01.8 +02.8	S 13 08.1 +00.2	112 47.3 +02.7	S 18 37.9 +00.0	07						
08	280 05.5 +00.9	N 09 34.9 -00.6	109 04.6 +02.7	S 13 08.3 +00.1	127 50.0 +02.6	S 18 37.9 +00.1	08						
09	295 06.4 +01.0	N 09 34.3 -00.6	124 07.3 +02.8	S 13 08.4 +00.1	142 52.6 +02.7	S 18 38.0 +00.0	09						
10	310 07.4 +01.0	N 09 33.7 -00.6	139 10.1 +02.8	S 13 08.5 +00.1	157 55.3 +02.6	S 18 38.0 +00.1	10						
11	325 08.4 +01.0	N 09 33.1 -00.6	154 12.9 +02.7	S 13 08.6 +00.1	172 57.9 +02.7	S 18 38.1 +00.0	11						
12	340 09.4 +01.0	N 09 32.5 -00.6	169 15.6 +02.8	S 13 08.7 +00.1	188 00.6 +02.6	S 18 38.1 +00.1	12						
13	355 10.4 +01.0	N 09 31.9 -00.7	184 18.4 +02.8	S 13 08.8 +00.2	203 03.2 +02.7	S 18 38.2 +00.0	13						
14	10 11.4 +01.0	N 09 31.2 -00.6	199 21.2 +02.8	S 13 09.0 +00.1	218 05.9 +02.6	S 18 38.2 +00.1	14						
15	25 12.4 +00.9	N 09 30.6 -00.6	214 24.0 +02.7	S 13 09.1 +00.1	233 08.5 +02.7	S 18 38.3 +00.0	15						
16	40 13.3 +01.0	N 09 30.0 -00.6	229 26.7 +02.8	S 13 09.2 +00.1	248 11.2 +02.6	S 18 38.3 +00.1	16						
17	55 14.3 +01.0	N 09 29.4 -00.6	244 29.5 +02.8	S 13 09.3 +00.1	263 13.8 +02.7	S 18 38.4 +00.0	17						
18	70 15.3 +01.0	N 09 28.8 -00.6	259 32.3 +02.7	S 13 09.4 +00.1	278 16.5 +02.6	S 18 38.4 +00.1	18						
19	85 16.3 +01.0	N 09 28.2 -00.6	274 35.0 +02.8	S 13 09.5 +00.2	293 19.1 +02.7	S 18 38.5 +00.0	19						
20	100 17.3 +01.0	N 09 27.6 -00.6	289 37.8 +02.8	S 13 09.7 +00.1	308 21.8 +02.6	S 18 38.5 +00.1	20						
21	115 18.3 +00.9	N 09 27.0 -00.6	304 40.6 +02.7	S 13 09.8 +00.1	323 24.4 +02.6	S 18 38.6 +00.0	21						
22	130 19.2 +01.0	N 09 26.4 -00.6	319 43.3 +02.8	S 13 09.9 +00.1	338 27.0 +02.7	S 18 38.6 +00.1	22						
23	145 20.2 +01.0	N 09 25.8 -00.6	334 46.1 +02.8	S 13 10.0 +00.1	353 29.7 +02.6	S 18 38.7 +00.0	23						
	UT 02 06 10 14 18 22	UT 02 06 10 14 18 22	UT 02 06 10 14 18 22	UT 02 06 10 14 18 22	SD 00'0 00'0 00'0 00'0 00'0 00'0	SD 00'4 00'4 00'4 00'4 00'4 00'4	SD 00'2 00'2 00'2 00'2 00'2 00'2						
	HP 00'1 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	HP 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'0 00'0 00'0 00'0 00'0 00'0	HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 200° 200° 200° 200° 200° 200°	SHA 029° 029° 029° 029° 029° 029°	SHA 029° 029° 029° 029° 029° 029°	SHA 048° 048° 048° 048° 048° 048°	SHA 000° 000° 000° 000° 000° 000°	SHA 000° 000° 000° 000° 000° 000°	SHA 000° 000° 000° 000° 000° 000°						
	Greenwich Culmination Time: 13:19	Greenwich Culmination Time: 00:45	Greenwich Culmination Time: 00:45	Greenwich Culmination Time: 23:25	Greenwich Culmination Time: 13:19	Greenwich Culmination Time: 00:45	Greenwich Culmination Time: 23:25						

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	178 43.6 +00.1	N 14 57.8 -00.7	144 51.2 -00.2	N 02 48.2 -01.3	136 48.2 -28.6	N 03 19.9 -14.8	00								
01	193 43.7 +00.1	N 14 57.1 -00.8	159 51.0 -00.2	N 02 46.9 -01.3	151 19.6 -28.5	N 03 05.1 -14.9	01								
02	208 43.8 +00.1	N 14 56.3 -00.7	174 50.8 -00.2	N 02 45.6 -01.2	165 51.1 -28.6	N 02 50.2 -14.8	02								
03	223 43.9 +00.1	N 14 55.6 -00.8	189 50.6 -00.2	N 02 44.4 -01.3	180 22.5 -28.5	N 02 35.4 -14.9	03								
04	238 44.0 +00.1	N 14 54.8 -00.7	204 50.4 -00.3	N 02 43.1 -01.3	194 54.0 -28.6	N 02 20.5 -14.9	04								
05	253 44.1 +00.1	N 14 54.1 -00.8	219 50.1 -00.2	N 02 41.8 -01.3	209 25.4 -28.6	N 02 05.6 -14.9	05								
06	268 44.2 +00.1	N 14 53.3 -00.7	234 49.9 -00.2	N 02 40.5 -01.3	223 56.8 -28.5	N 01 50.7 -14.9	06								
07	283 44.3 +00.2	N 14 52.6 -00.8	249 49.7 -00.2	N 02 39.2 -01.2	238 28.3 -28.6	N 01 35.8 -14.9	07								
08	298 44.5 +00.1	N 14 51.8 -00.7	264 49.5 -00.2	N 02 38.0 -01.3	252 59.7 -28.6	N 01 20.9 -15.0	08								
09	313 44.6 +00.1	N 14 51.1 -00.8	279 49.3 -00.2	N 02 36.7 -01.3	267 31.1 -28.6	N 01 05.9 -15.0	09								
10	328 44.7 +00.1	N 14 50.3 -00.8	294 49.1 -00.3	N 02 35.4 -01.3	282 02.5 -28.6	N 00 50.9 -14.9	10								
11	343 44.8 +00.1	N 14 49.5 -00.7	309 48.8 -00.2	N 02 34.1 -01.2	296 33.9 -28.6	N 00 36.0 -15.0	11								
12	358 44.9 +00.1	N 14 48.8 -00.8	324 48.6 -00.2	N 02 32.9 -01.3	311 05.3 -28.6	N 00 21.0 -15.0	12								
13	13 45.0 +00.1	N 14 48.0 -00.7	339 48.4 -00.2	N 02 31.6 -01.3	325 36.7 -28.7	N 00 06.0 -15.0	13								
14	28 45.1 +00.1	N 14 47.3 -00.8	354 48.2 -00.2	N 02 30.3 -01.3	340 08.0 -28.6	S 00 09.0 +15.0	14								
15	43 45.2 +00.1	N 14 46.5 -00.7	9 48.0 -00.2	N 02 29.0 -01.3	354 39.4 -28.7	S 00 24.0 +15.1	15								
16	58 45.3 +00.1	N 14 45.8 -00.8	24 47.8 -00.2	N 02 27.7 -01.2	9 10.7 -28.7	S 00 39.1 +15.0	16								
17	73 45.4 +00.1	N 14 45.0 -00.8	39 47.6 -00.3	N 02 26.5 -01.3	23 42.0 -28.7	S 00 54.1 +15.0	17								
18	88 45.5 +00.1	N 14 44.2 -00.7	54 47.3 -00.2	N 02 25.2 -01.3	38 13.3 -28.7	S 01 09.1 +15.0	18								
19	103 45.6 +00.2	N 14 43.5 -00.8	69 47.1 -00.2	N 02 23.9 -01.3	52 44.6 -28.8	S 01 24.1 +15.0	19								
20	118 45.8 +00.1	N 14 42.7 -00.7	84 46.9 -00.2	N 02 22.6 -01.3	67 15.8 -28.7	S 01 39.1 +15.1	20								
21	133 45.9 +00.1	N 14 42.0 -00.8	99 46.7 -00.2	N 02 21.3 -01.2	81 47.1 -28.8	S 01 54.2 +15.0	21								
22	148 46.0 +00.1	N 14 41.2 -00.8	114 46.5 -00.2	N 02 20.1 -01.3	96 18.3 -28.8	S 02 09.2 +15.0	22								
23	163 46.1 +00.1	N 14 40.4 -00.7	129 46.3 -00.2	N 02 18.8 -01.3	110 49.5 -28.9	S 02 24.2 +15.0	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	SHA 218° 218° 218° 218° 217° 217°	Greenwich Culmination Time: 12:05	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 184° 184° 184° 184° 183° 183°	Greenwich Culmination Time: 14:20	UT 02 06 10 14 18 22	SD 15'9 15'9 15'9 15'9 15'9 15'9	HP 58'2 58'3 58'4 58'4 58'5 58'5	SHA 175° 173° 171° 169° 167° 165°	Greenwich Culmination Time: 15:22

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	160 21.2 +01.0	N 09 25.2 -00.6	349 48.9 +02.8	S 13 10.1 +00.1	8 32.3 +02.7	S 18 38.7 +00.1	00								
01	175 22.2 +01.0	N 09 24.6 -00.6	4 51.7 +02.7	S 13 10.2 +00.2	23 35.0 +02.6	S 18 38.8 +00.0	01								
02	190 23.2 +01.0	N 09 24.0 -00.6	19 54.4 +02.8	S 13 10.4 +00.1	38 37.6 +02.7	S 18 38.8 +00.1	02								
03	205 24.2 +01.0	N 09 23.4 -00.6	34 57.2 +02.8	S 13 10.5 +00.1	53 40.3 +02.6	S 18 38.9 +00.0	03								
04	220 25.2 +00.9	N 09 22.8 -00.6	49 60.0 +02.7	S 13 10.6 +00.1	68 42.9 +02.7	S 18 38.9 +00.1	04								
05	235 26.1 +01.0	N 09 22.2 -00.6	65 02.7 +02.8	S 13 10.7 +00.1	83 45.6 +02.6	S 18 39.0 +00.0	05								
06	250 27.1 +01.0	N 09 21.6 -00.6	80 05.5 +02.8	S 13 10.8 +00.1	98 48.2 +02.7	S 18 39.0 +00.1	06								
07	265 28.1 +01.0	N 09 21.0 -00.6	95 08.3 +02.8	S 13 10.9 +00.2	113 50.9 +02.6	S 18 39.1 +00.0	07								
08	280 29.1 +01.0	N 09 20.4 -00.6	110 11.1 +02.7	S 13 11.1 +00.1	128 53.5 +02.7	S 18 39.1 +00.1	08								
09	295 30.1 +01.0	N 09 19.8 -00.7	125 13.8 +02.8	S 13 11.2 +00.1	143 56.2 +02.6	S 18 39.2 +00.1	09								
10	310 31.1 +00.9	N 09 19.1 -00.6	140 16.6 +02.8	S 13 11.3 +00.1	158 58.8 +02.7	S 18 39.3 +00.0	10								
11	325 32.0 +01.0	N 09 18.5 -00.6	155 19.4 +02.7	S 13 11.4 +00.1	174 01.5 +02.6	S 18 39.3 +00.1	11								
12	340 33.0 +01.0	N 09 17.9 -00.6	170 22.1 +02.8	S 13 11.5 +00.1	189 04.1 +02.7	S 18 39.4 +00.0	12								
13	355 34.0 +01.0	N 09 17.3 -00.6	185 24.9 +02.8	S 13 11.6 +00.2	204 06.8 +02.6	S 18 39.4 +00.1	13								
14	10 35.0 +01.0	N 09 16.7 -00.6	200 27.7 +02.8	S 13 11.8 +00.1	219 09.4 +02.7	S 18 39.5 +00.0	14								
15	25 36.0 +01.0	N 09 16.1 -00.6	215 30.5 +02.7	S 13 11.9 +00.1	234 12.1 +02.6	S 18 39.5 +00.1	15								
16	40 37.0 +01.0	N 09 15.5 -00.6	230 33.2 +02.8	S 13 12.0 +00.1	249 14.7 +02.7	S 18 39.6 +00.0	16								
17	55 38.0 +00.9	N 09 14.9 -00.6	245 36.0 +02.8	S 13 12.1 +00.1	264 17.4 +02.6	S 18 39.6 +00.1	17								
18	70 38.9 +01.0	N 09 14.3 -00.6	260 38.8 +02.7	S 13 12.2 +00.2	279 20.0 +02.7	S 18 39.7 +00.0	18								
19	85 39.9 +01.0	N 09 13.7 -00.6	275 41.5 +02.8	S 13 12.4 +00.1	294 22.7 +02.6	S 18 39.7 +00.1	19								
20	100 40.9 +01.0	N 09 13.1 -00.6	290 44.3 +02.8	S 13 12.5 +00.1	309 25.3 +02.6	S 18 39.8 +00.0	20								
21	115 41.9 +01.0	N 09 12.5 -00.6	305 47.1 +02.8	S 13 12.6 +00.1	324 27.9 +02.7	S 18 39.8 +00.1	21								
22	130 42.9 +01.0	N 09 11.9 -00.6	320 49.9 +02.7	S 13 12.7 +00.1	339 30.6 +02.6	S 18 39.9 +00.0	22								
23	145 43.9 +01.0	N 09 11.3 -00.6	335 52.6 +02.8	S 13 12.8 +00.1	354 33.2 +02.7	S 18 39.9 +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	SHA 200° 200° 199° 199° 199° 199°	Greenwich Culmination Time: 13:17	UT 02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 029° 029° 029° 029° 029° 029°	Greenwich Culmination Time: 00:40	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	SHA 048° 048° 048° 048° 048° 048°	Greenwich Culmination Time: 23:21

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 46.2 +00.1	N 14 39.7 -00.8	144 46.1 -00.3	N 02 17.5 -01.3	125 20.6 -28.8	S 02 39.2 +15.0	00						
01	193 46.3 +00.1	N 14 38.9 -00.7	159 45.8 -00.2	N 02 16.2 -01.3	139 51.8 -28.9	S 02 54.2 +15.0	01						
02	208 46.4 +00.1	N 14 38.2 -00.8	174 45.6 -00.2	N 02 14.9 -01.2	154 22.9 -28.9	S 03 09.2 +15.0	02						
03	223 46.5 +00.1	N 14 37.4 -00.8	189 45.4 -00.2	N 02 13.7 -01.3	168 54.0 -29.0	S 03 24.2 +15.0	03						
04	238 46.6 +00.2	N 14 36.6 -00.7	204 45.2 -00.2	N 02 12.4 -01.3	183 25.0 -29.0	S 03 39.2 +14.9	04						
05	253 46.8 +00.1	N 14 35.9 -00.8	219 45.0 -00.2	N 02 11.1 -01.3	197 56.0 -29.0	S 03 54.1 +15.0	05						
06	268 46.9 +00.1	N 14 35.1 -00.8	234 44.8 -00.2	N 02 09.8 -01.3	212 27.0 -29.0	S 04 09.1 +14.9	06						
07	283 47.0 +00.1	N 14 34.3 -00.7	249 44.6 -00.2	N 02 08.5 -01.2	226 58.0 -29.1	S 04 24.0 +14.9	07						
08	298 47.1 +00.1	N 14 33.6 -00.8	264 44.4 -00.2	N 02 07.3 -01.3	241 28.9 -29.1	S 04 38.9 +14.9	08						
09	313 47.2 +00.1	N 14 32.8 -00.8	279 44.2 -00.3	N 02 06.0 -01.3	255 59.8 -29.1	S 04 53.8 +14.9	09						
10	328 47.3 +00.1	N 14 32.0 -00.7	294 43.9 -00.2	N 02 04.7 -01.3	270 30.7 -29.2	S 05 08.7 +14.9	10						
11	343 47.4 +00.1	N 14 31.3 -00.8	309 43.7 -00.2	N 02 03.4 -01.3	285 01.5 -29.2	S 05 23.6 +14.8	11						
12	358 47.5 +00.2	N 14 30.5 -00.8	324 43.5 -00.2	N 02 02.1 -01.3	299 32.3 -29.3	S 05 38.4 +14.8	12						
13	13 47.7 +00.1	N 14 29.7 -00.7	339 43.3 -00.2	N 02 00.8 -01.2	314 03.0 -29.3	S 05 53.2 +14.8	13						
14	28 47.8 +00.1	N 14 29.0 -00.8	354 43.1 -00.2	N 01 59.6 -01.3	328 33.7 -29.3	S 06 08.0 +14.8	14						
15	43 47.9 +00.1	N 14 28.2 -00.8	9 42.9 -00.2	N 01 58.3 -01.3	343 04.4 -29.4	S 06 22.8 +14.7	15						
16	58 48.0 +00.1	N 14 27.4 -00.7	24 42.7 -00.2	N 01 57.0 -01.3	357 35.0 -29.4	S 06 37.5 +14.7	16						
17	73 48.1 +00.1	N 14 26.7 -00.8	39 42.5 -00.2	N 01 55.7 -01.3	12 05.6 -29.5	S 06 52.2 +14.7	17						
18	88 48.2 +00.1	N 14 25.9 -00.8	54 42.3 -00.2	N 01 54.4 -01.2	26 36.1 -29.5	S 07 06.9 +14.7	18						
19	103 48.3 +00.2	N 14 25.1 -00.7	69 42.1 -00.3	N 01 53.2 -01.3	41 06.6 -29.6	S 07 21.6 +14.6	19						
20	118 48.5 +00.1	N 14 24.4 -00.8	84 41.8 -00.2	N 01 51.9 -01.3	55 37.0 -29.6	S 07 36.2 +14.6	20						
21	133 48.6 +00.1	N 14 23.6 -00.8	99 41.6 -00.2	N 01 50.6 -01.3	70 07.4 -29.6	S 07 50.8 +14.5	21						
22	148 48.7 +00.1	N 14 22.8 -00.7	114 41.4 -00.2	N 01 49.3 -01.3	84 37.8 -29.7	S 08 05.3 +14.5	22						
23	163 48.8 +00.1	N 14 22.1 -00.8	129 41.2 -00.2	N 01 48.0 -01.3	99 08.1 -29.8	S 08 19.8 +14.5	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'1 00'1 00'1 00'1 00'1 00'1		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		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 58'6 58'7 58'7 58'8 58'8 58'9								
	SHA 217° 217° 217° 217° 216° 216°		SHA 183° 183° 183° 182° 182° 182°		SHA 163° 161° 158° 156° 154° 152°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 14:21		Greenwich Culmination Time: 16:09								

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	160 44.9 +00.9	N 09 10.7 -00.7	350 55.4 +02.8	S 13 12.9 +00.2	9 35.9 +02.6	S 18 40.0 +00.0	00						
01	175 45.8 +01.0	N 09 10.0 -00.6	5 58.2 +02.7	S 13 13.1 +00.1	24 38.5 +02.7	S 18 40.0 +00.1	01						
02	190 46.8 +01.0	N 09 09.4 -00.6	21 00.9 +02.8	S 13 13.2 +00.1	39 41.2 +02.6	S 18 40.1 +00.0	02						
03	205 47.8 +01.0	N 09 08.8 -00.6	36 03.7 +02.8	S 13 13.3 +00.1	54 43.8 +02.7	S 18 40.1 +00.1	03						
04	220 48.8 +01.0	N 09 08.2 -00.6	51 06.5 +02.8	S 13 13.4 +00.1	69 46.5 +02.6	S 18 40.2 +00.0	04						
05	235 49.8 +01.0	N 09 07.6 -00.6	66 09.3 +02.7	S 13 13.5 +00.1	84 49.1 +02.7	S 18 40.2 +00.1	05						
06	250 50.8 +01.0	N 09 07.0 -00.6	81 12.0 +02.8	S 13 13.6 +00.2	99 51.8 +02.6	S 18 40.3 +00.0	06						
07	265 51.8 +00.9	N 09 06.4 -00.6	96 14.8 +02.8	S 13 13.8 +00.1	114 54.4 +02.7	S 18 40.3 +00.1	07						
08	280 52.7 +01.0	N 09 05.8 -00.6	111 17.6 +02.8	S 13 13.9 +00.1	129 57.1 +02.6	S 18 40.4 +00.0	08						
09	295 53.7 +01.0	N 09 05.2 -00.6	126 20.4 +02.7	S 13 14.0 +00.1	144 59.7 +02.7	S 18 40.4 +00.1	09						
10	310 54.7 +01.0	N 09 04.6 -00.6	141 23.1 +02.8	S 13 14.1 +00.1	160 02.4 +02.6	S 18 40.5 +00.0	10						
11	325 55.7 +01.0	N 09 04.0 -00.6	156 25.9 +02.8	S 13 14.2 +00.1	175 05.0 +02.6	S 18 40.5 +00.1	11						
12	340 56.7 +01.0	N 09 03.4 -00.7	171 28.7 +02.7	S 13 14.3 +00.2	190 07.6 +02.7	S 18 40.6 +00.0	12						
13	355 57.7 +01.0	N 09 02.7 -00.6	186 31.4 +02.8	S 13 14.5 +00.1	205 10.3 +02.6	S 18 40.6 +00.1	13						
14	10 58.7 +00.9	N 09 02.1 -00.6	201 34.2 +02.8	S 13 14.6 +00.1	220 12.9 +02.7	S 18 40.7 +00.0	14						
15	25 59.6 +01.0	N 09 01.5 -00.6	216 37.0 +02.8	S 13 14.7 +00.1	235 15.6 +02.6	S 18 40.7 +00.1	15						
16	41 00.6 +01.0	N 09 00.9 -00.6	231 39.8 +02.7	S 13 14.8 +00.1	250 18.2 +02.7	S 18 40.8 +00.0	16						
17	56 01.6 +01.0	N 09 00.3 -00.6	246 42.5 +02.8	S 13 14.9 +00.2	265 20.9 +02.6	S 18 40.8 +00.1	17						
18	71 02.6 +01.0	N 08 59.7 -00.6	261 45.3 +02.8	S 13 15.1 +00.1	280 23.5 +02.7	S 18 40.9 +00.0	18						
19	86 03.6 +01.0	N 08 59.1 -00.6	276 48.1 +02.8	S 13 15.2 +00.1	295 26.2 +02.6	S 18 40.9 +00.1	19						
20	101 04.6 +01.0	N 08 58.5 -00.6	291 50.9 +02.7	S 13 15.3 +00.1	310 28.8 +02.7	S 18 41.0 +00.0	20						
21	116 05.6 +01.0	N 08 57.9 -00.6	306 53.6 +02.8	S 13 15.4 +00.1	325 31.5 +02.6	S 18 41.0 +00.1	21						
22	131 06.6 +00.9	N 08 57.3 -00.6	321 56.4 +02.8	S 13 15.5 +00.1	340 34.1 +02.7	S 18 41.1 +00.0	22						
23	146 07.5 +01.0	N 08 56.7 -00.7	336 59.2 +02.8	S 13 15.6 +00.2	355 36.8 +02.6	S 18 41.1 +00.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 199° 199° 199° 199° 199° 199°		SHA 029° 029° 029° 029° 029° 029°		SHA 048° 048° 048° 048° 048° 048°								
	Greenwich Culmination Time: 13:16		Greenwich Culmination Time: 00:36		Greenwich Culmination Time: 23:17								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 48.9 +00.1	N 14 21.3 -00.8	144 41.0 -00.2	N 01 46.7 -01.2	113 38.3 -29.8	S 08 34.3 +14.5	00						
01	193 49.0 +00.2	N 14 20.5 -00.8	159 40.8 -00.2	N 01 45.5 -01.3	128 08.5 -29.8	S 08 48.8 +14.3	01						
02	208 49.2 +00.1	N 14 19.7 -00.7	174 40.6 -00.2	N 01 44.2 -01.3	142 38.7 -29.9	S 09 03.1 +14.4	02						
03	223 49.3 +00.1	N 14 19.0 -00.8	189 40.4 -00.2	N 01 42.9 -01.3	157 08.8 -30.0	S 09 17.5 +14.3	03						
04	238 49.4 +00.1	N 14 18.2 -00.8	204 40.2 -00.2	N 01 41.6 -01.3	171 38.8 -30.0	S 09 31.8 +14.3	04						
05	253 49.5 +00.1	N 14 17.4 -00.7	219 40.0 -00.2	N 01 40.3 -01.3	186 08.8 -30.1	S 09 46.1 +14.2	05						
06	268 49.6 +00.2	N 14 16.7 -00.8	234 39.8 -00.2	N 01 39.0 -01.2	200 38.7 -30.2	S 10 00.3 +14.2	06						
07	283 49.8 +00.1	N 14 15.9 -00.8	249 39.6 -00.3	N 01 37.8 -01.3	215 08.5 -30.2	S 10 14.5 +14.1	07						
08	298 49.9 +00.1	N 14 15.1 -00.8	264 39.3 -00.2	N 01 36.5 -01.3	229 38.3 -30.2	S 10 28.6 +14.0	08						
09	313 50.0 +00.1	N 14 14.3 -00.7	279 39.1 -00.2	N 01 35.2 -01.3	244 08.1 -30.3	S 10 42.6 +14.1	09						
10	328 50.1 +00.1	N 14 13.6 -00.8	294 38.9 -00.2	N 01 33.9 -01.3	258 37.8 -30.4	S 10 56.7 +13.9	10						
11	343 50.2 +00.1	N 14 12.8 -00.8	309 38.7 -00.2	N 01 32.6 -01.3	273 07.4 -30.4	S 11 10.6 +13.9	11						
12	358 50.3 +00.2	N 14 12.0 -00.8	324 38.5 -00.2	N 01 31.3 -01.3	287 37.0 -30.6	S 11 24.5 +13.9	12						
13	13 50.5 +00.1	N 14 11.2 -00.7	339 38.3 -00.2	N 01 30.0 -01.2	302 06.4 -30.5	S 11 38.4 +13.8	13						
14	28 50.6 +00.1	N 14 10.5 -00.8	354 38.1 -00.2	N 01 28.8 -01.3	316 35.9 -30.7	S 11 52.2 +13.7	14						
15	43 50.7 +00.1	N 14 09.7 -00.8	9 37.9 -00.2	N 01 27.5 -01.3	331 05.2 -30.7	S 12 05.9 +13.7	15						
16	58 50.8 +00.1	N 14 08.9 -00.8	24 37.7 -00.2	N 01 26.2 -01.3	345 34.5 -30.7	S 12 19.6 +13.6	16						
17	73 50.9 +00.2	N 14 08.1 -00.8	39 37.5 -00.2	N 01 24.9 -01.3	0 03.8 -30.9	S 12 33.2 +13.5	17						
18	88 51.1 +00.1	N 14 07.3 -00.7	54 37.3 -00.2	N 01 23.6 -01.3	14 32.9 -30.9	S 12 46.7 +13.5	18						
19	103 51.2 +00.1	N 14 06.6 -00.8	69 37.1 -00.2	N 01 22.3 -01.2	29 02.0 -30.9	S 13 00.2 +13.4	19						
20	118 51.3 +00.1	N 14 05.8 -00.8	84 36.9 -00.2	N 01 21.1 -01.3	43 31.1 -31.1	S 13 13.6 +13.3	20						
21	133 51.4 +00.2	N 14 05.0 -00.8	99 36.7 -00.2	N 01 19.8 -01.3	58 00.0 -31.1	S 13 26.9 +13.3	21						
22	148 51.6 +00.1	N 14 04.2 -00.7	114 36.5 -00.2	N 01 18.5 -01.3	72 28.9 -31.2	S 13 40.2 +13.2	22						
23	163 51.7 +00.1	N 14 03.5 -00.8	129 36.3 -00.2	N 01 17.2 -01.3	86 57.7 -31.3	S 13 53.4 +13.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 16'0 16'1 16'1 16'1 16'1 16'1								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 58'9 58'9 59'0 59'0 59'1 59'1								
	SHA 216° 216° 216° 216° 215° 215°		SHA 182° 182° 182° 181° 181° 181°		SHA 150° 148° 146° 143° 141° 139°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 14:21		Greenwich Culmination Time: 16:59								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	161 08.5 +01.0	N 08 56.0 -00.6	352 02.0 +02.7	S 13 15.8 +00.1	10 39.4 +02.7	S 18 41.2 +00.0	00						
01	176 09.5 +01.0	N 08 55.4 -00.6	7 04.7 +02.8	S 13 15.9 +00.1	25 42.1 +02.6	S 18 41.2 +00.1	01						
02	191 10.5 +01.0	N 08 54.8 -00.6	22 07.5 +02.8	S 13 16.0 +00.1	40 44.7 +02.6	S 18 41.3 +00.0	02						
03	206 11.5 +01.0	N 08 54.2 -00.6	37 10.3 +02.8	S 13 16.1 +00.1	55 47.3 +02.7	S 18 41.3 +00.1	03						
04	221 12.5 +01.0	N 08 53.6 -00.6	52 13.1 +02.7	S 13 16.2 +00.1	70 50.0 +02.6	S 18 41.4 +00.0	04						
05	236 13.5 +00.9	N 08 53.0 -00.6	67 15.8 +02.8	S 13 16.3 +00.2	85 52.6 +02.7	S 18 41.4 +00.1	05						
06	251 14.4 +01.0	N 08 52.4 -00.6	82 18.6 +02.8	S 13 16.5 +00.1	100 55.3 +02.6	S 18 41.5 +00.0	06						
07	266 15.4 +01.0	N 08 51.8 -00.6	97 21.4 +02.8	S 13 16.6 +00.1	115 57.9 +02.7	S 18 41.5 +00.1	07						
08	281 16.4 +01.0	N 08 51.2 -00.7	112 24.2 +02.7	S 13 16.7 +00.1	131 00.6 +02.6	S 18 41.6 +00.0	08						
09	296 17.4 +01.0	N 08 50.5 -00.6	127 26.9 +02.8	S 13 16.8 +00.1	146 03.2 +02.7	S 18 41.6 +00.1	09						
10	311 18.4 +01.0	N 08 49.9 -00.6	142 29.7 +02.8	S 13 16.9 +00.1	161 05.9 +02.6	S 18 41.7 +00.0	10						
11	326 19.4 +01.0	N 08 49.3 -00.6	157 32.5 +02.8	S 13 17.0 +00.2	176 08.5 +02.7	S 18 41.7 +00.1	11						
12	341 20.4 +01.0	N 08 48.7 -00.6	172 35.3 +02.7	S 13 17.2 +00.1	191 11.2 +02.6	S 18 41.8 +00.0	12						
13	356 21.4 +00.9	N 08 48.1 -00.6	187 38.0 +02.8	S 13 17.3 +00.1	206 13.8 +02.6	S 18 41.8 +00.1	13						
14	11 22.3 +01.0	N 08 47.5 -00.6	202 40.8 +02.8	S 13 17.4 +00.1	221 16.4 +02.7	S 18 41.9 +00.0	14						
15	26 23.3 +01.0	N 08 46.9 -00.6	217 43.6 +02.8	S 13 17.5 +00.1	236 19.1 +02.6	S 18 41.9 +00.1	15						
16	41 24.3 +01.0	N 08 46.3 -00.6	232 46.4 +02.7	S 13 17.6 +00.2	251 21.7 +02.7	S 18 42.0 +00.0	16						
17	56 25.3 +01.0	N 08 45.7 -00.7	247 49.1 +02.8	S 13 17.8 +00.1	266 24.4 +02.6	S 18 42.0 +00.1	17						
18	71 26.3 +01.0	N 08 45.0 -00.6	262 51.9 +02.8	S 13 17.9 +00.1	281 27.0 +02.7	S 18 42.1 +00.0	18						
19	86 27.3 +01.0	N 08 44.4 -00.6	277 54.7 +02.8	S 13 18.0 +00.1	296 29.7 +02.6	S 18 42.1 +00.1	19						
20	101 28.3 +01.0	N 08 43.8 -00.6	292 57.5 +02.7	S 13 18.1 +00.1	311 32.3 +02.7	S 18 42.2 +00.0	20						
21	116 29.3 +00.9	N 08 43.2 -00.6	308 00.2 +02.8	S 13 18.2 +00.1	326 35.0 +02.6	S 18 42.2 +00.1	21						
22	131 30.2 +01.0	N 08 42.6 -00.6	323 03.0 +02.8	S 13 18.3 +00.2	341 37.6 +02.7	S 18 42.3 +00.0	22						
23	146 31.2 +01.0	N 08 42.0 -00.6	338 05.8 +02.8	S 13 18.5 +00.1	356 40.3 +02.6	S 18 42.3 +00.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 198° 198° 198° 198° 198° 198°		SHA 029° 029° 029° 029° 029° 030°		SHA 048° 048° 048° 048° 048° 048°								
	Greenwich Culmination Time: 13:14		Greenwich Culmination Time: 00:31		Greenwich Culmination Time: 23:13								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 51.8 +00.1	N 14 02.7 -00.8	144 36.1 -00.2	N 01 15.9 -01.3	101 26.4 -31.3	S 14 06.5 +13.1	00						
01	193 51.9 +00.1	N 14 01.9 -00.8	159 35.9 -00.2	N 01 14.6 -01.3	115 55.1 -31.4	S 14 19.6 +13.0	01						
02	208 52.0 +00.2	N 14 01.1 -00.8	174 35.7 -00.3	N 01 13.3 -01.2	130 23.7 -31.5	S 14 32.6 +12.8	02						
03	223 52.2 +00.1	N 14 00.3 -00.7	189 35.4 -00.2	N 01 12.1 -01.3	144 52.2 -31.6	S 14 45.4 +12.9	03						
04	238 52.3 +00.1	N 13 59.6 -00.8	204 35.2 -00.2	N 01 10.8 -01.3	159 20.6 -31.6	S 14 58.3 +12.7	04						
05	253 52.4 +00.1	N 13 58.8 -00.8	219 35.0 -00.2	N 01 09.5 -01.3	173 49.0 -31.7	S 15 11.0 +12.7	05						
06	268 52.5 +00.2	N 13 58.0 -00.8	234 34.8 -00.2	N 01 08.2 -01.3	188 17.3 -31.8	S 15 23.7 +12.5	06						
07	283 52.7 +00.1	N 13 57.2 -00.8	249 34.6 -00.2	N 01 06.9 -01.3	202 45.5 -31.9	S 15 36.2 +12.5	07						
08	298 52.8 +00.1	N 13 56.4 -00.8	264 34.4 -00.2	N 01 05.6 -01.3	217 13.6 -31.9	S 15 48.7 +12.4	08						
09	313 52.9 +00.1	N 13 55.6 -00.7	279 34.2 -00.2	N 01 04.3 -01.2	231 41.7 -32.0	S 16 01.1 +12.3	09						
10	328 53.0 +00.2	N 13 54.9 -00.8	294 34.0 -00.2	N 01 03.1 -01.3	246 09.7 -32.2	S 16 13.4 +12.2	10						
11	343 53.2 +00.1	N 13 54.1 -00.8	309 33.8 -00.2	N 01 01.8 -01.3	260 37.5 -32.1	S 16 25.6 +12.2	11						
12	358 53.3 +00.1	N 13 53.3 -00.8	324 33.6 -00.2	N 01 00.5 -01.3	275 05.4 -32.3	S 16 37.8 +12.0	12						
13	13 53.4 +00.1	N 13 52.5 -00.8	339 33.4 -00.2	N 00 59.2 -01.3	289 33.1 -32.4	S 16 49.8 +11.9	13						
14	28 53.5 +00.2	N 13 51.7 -00.8	354 33.2 -00.2	N 00 57.9 -01.3	304 00.7 -32.4	S 17 01.7 +11.9	14						
15	43 53.7 +00.1	N 13 50.9 -00.8	9 33.0 -00.2	N 00 56.6 -01.3	318 28.3 -32.5	S 17 13.6 +11.7	15						
16	58 53.8 +00.1	N 13 50.1 -00.7	24 32.8 -00.2	N 00 55.3 -01.2	332 55.8 -32.6	S 17 25.3 +11.7	16						
17	73 53.9 +00.1	N 13 49.4 -00.8	39 32.6 -00.2	N 00 54.1 -01.3	347 23.2 -32.7	S 17 37.0 +11.5	17						
18	88 54.0 +00.2	N 13 48.6 -00.8	54 32.4 -00.2	N 00 52.8 -01.3	1 50.5 -32.8	S 17 48.5 +11.4	18						
19	103 54.2 +00.1	N 13 47.8 -00.8	69 32.2 -00.2	N 00 51.5 -01.3	16 17.7 -32.8	S 17 59.9 +11.4	19						
20	118 54.3 +00.1	N 13 47.0 -00.8	84 32.0 -00.2	N 00 50.2 -01.3	30 44.9 -32.9	S 18 11.3 +11.2	20						
21	133 54.4 +00.2	N 13 46.2 -00.8	99 31.8 -00.2	N 00 48.9 -01.3	45 12.0 -33.0	S 18 22.5 +11.1	21						
22	148 54.6 +00.1	N 13 45.4 -00.8	114 31.6 -00.2	N 00 47.6 -01.3	59 39.0 -33.1	S 18 33.6 +11.1	22						
23	163 54.7 +00.1	N 13 44.6 -00.8	129 31.4 -00.2	N 00 46.3 -01.3	74 05.9 -33.2	S 18 44.7 +10.9	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 16'1 16'1 16'1 16'1 16'1 16'1								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 59'1 59'2 59'2 59'2 59'2 59'3								
	SHA 215° 215° 215° 215° 215° 214°		SHA 181° 181° 181° 180° 180° 180°		SHA 137° 134° 132° 130° 127° 125°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 14:21		Greenwich Culmination Time: 17:52								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	161 32.2 +01.0	N 08 41.4 -00.6	353 08.6 +02.7	S 13 18.6 +00.1	11 42.9 +02.6	S 18 42.4 +00.0	00						
01	176 33.2 +01.0	N 08 40.8 -00.7	8 11.3 +02.8	S 13 18.7 +00.1	26 45.5 +02.7	S 18 42.4 +00.1	01						
02	191 34.2 +01.0	N 08 40.1 -00.6	23 14.1 +02.8	S 13 18.8 +00.1	41 48.2 +02.6	S 18 42.5 +00.0	02						
03	206 35.2 +01.0	N 08 39.5 -00.6	38 16.9 +02.8	S 13 18.9 +00.1	56 50.8 +02.7	S 18 42.5 +00.1	03						
04	221 36.2 +01.0	N 08 38.9 -00.6	53 19.7 +02.7	S 13 19.0 +00.2	71 53.5 +02.6	S 18 42.6 +00.0	04						
05	236 37.2 +01.0	N 08 38.3 -00.6	68 22.4 +02.8	S 13 19.2 +00.1	86 56.1 +02.7	S 18 42.6 +00.1	05						
06	251 38.2 +00.9	N 08 37.7 -00.6	83 25.2 +02.8	S 13 19.3 +00.1	101 58.8 +02.6	S 18 42.7 +00.0	06						
07	266 39.1 +01.0	N 08 37.1 -00.6	98 28.0 +02.8	S 13 19.4 +00.1	117 01.4 +02.7	S 18 42.7 +00.1	07						
08	281 40.1 +01.0	N 08 36.5 -00.6	113 30.8 +02.7	S 13 19.5 +00.1	132 04.1 +02.6	S 18 42.8 +00.0	08						
09	296 41.1 +01.0	N 08 35.9 -00.7	128 33.5 +02.8	S 13 19.6 +00.2	147 06.7 +02.6	S 18 42.8 +00.1	09						
10	311 42.1 +01.0	N 08 35.2 -00.6	143 36.3 +02.8	S 13 19.8 +00.1	162 09.3 +02.7	S 18 42.9 +00.0	10						
11	326 43.1 +01.0	N 08 34.6 -00.6	158 39.1 +02.8	S 13 19.9 +00.1	177 12.0 +02.6	S 18 42.9 +00.1	11						
12	341 44.1 +01.0	N 08 34.0 -00.6	173 41.9 +02.7	S 13 20.0 +00.1	192 14.6 +02.7	S 18 43.0 +00.0	12						
13	356 45.1 +01.0	N 08 33.4 -00.6	188 44.6 +02.8	S 13 20.1 +00.1	207 17.3 +02.6	S 18 43.0 +00.1	13						
14	11 46.1 +00.9	N 08 32.8 -00.6	203 47.4 +02.8	S 13 20.2 +00.1	222 19.9 +02.7	S 18 43.1 +00.0	14						
15	26 47.0 +01.0	N 08 32.2 -00.6	218 50.2 +02.8	S 13 20.3 +00.2	237 22.6 +02.6	S 18 43.1 +00.1	15						
16	41 48.0 +01.0	N 08 31.6 -00.7	233 53.0 +02.7	S 13 20.5 +00.1	252 25.2 +02.7	S 18 43.2 +00.0	16						
17	56 49.0 +01.0	N 08 30.9 -00.6	248 55.7 +02.8	S 13 20.6 +00.1	267 27.9 +02.6	S 18 43.2 +00.1	17						
18	71 50.0 +01.0	N 08 30.3 -00.6	263 58.5 +02.8	S 13 20.7 +00.1	282 30.5 +02.6	S 18 43.3 +00.0	18						
19	86 51.0 +01.0	N 08 29.7 -00.6	279 01.3 +02.8	S 13 20.8 +00.1	297 33.1 +02.7	S 18 43.3 +00.1	19						
20	101 52.0 +01.0	N 08 29.1 -00.6	294 04.1 +02.8	S 13 20.9 +00.1	312 35.8 +02.6	S 18 43.4 +00.0	20						
21	116 53.0 +01.0	N 08 28.5 -00.6	309 06.9 +02.7	S 13 21.0 +00.2	327 38.4 +02.7	S 18 43.4 +00.1	21						
22	131 54.0 +01.0	N 08 27.9 -00.6	324 09.6 +02.8	S 13 21.2 +00.1	342 41.1 +02.6	S 18 43.5 +00.0	22						
23	146 55.0 +00.9	N 08 27.3 -00.7	339 12.4 +02.8	S 13 21.3 +00.1	357 43.7 +02.7	S 18 43.5 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 198° 198° 198° 198° 197° 197°		SHA 030° 030° 030° 030° 030° 030°		SHA 048° 048° 048° 048° 048° 048°								
	Greenwich Culmination Time: 13:12		Greenwich Culmination Time: 00:27		Greenwich Culmination Time: 23:09								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 54.8 +00.1	N 13 43.8 -00.8	144 31.2 -00.2	N 00 45.0 -01.2	88 32.7 -33.3	S 18 55.6 +10.8	00						00
01	193 54.9 +00.2	N 13 43.0 -00.7	159 31.0 -00.2	N 00 43.8 -01.3	102 59.4 -33.3	S 19 06.4 +10.6	01						01
02	208 55.1 +00.1	N 13 42.3 -00.8	174 30.8 -00.2	N 00 42.5 -01.3	117 26.1 -33.5	S 19 17.0 +10.6	02						02
03	223 55.2 +00.1	N 13 41.5 -00.8	189 30.6 -00.2	N 00 41.2 -01.3	131 52.6 -33.5	S 19 27.6 +10.5	03						03
04	238 55.3 +00.2	N 13 40.7 -00.8	204 30.4 -00.2	N 00 39.9 -01.3	146 19.1 -33.6	S 19 38.1 +10.3	04						04
05	253 55.5 +00.1	N 13 39.9 -00.8	219 30.2 -00.2	N 00 38.6 -01.3	160 45.5 -33.7	S 19 48.4 +10.2	05						05
06	268 55.6 +00.1	N 13 39.1 -00.8	234 30.0 -00.2	N 00 37.3 -01.3	175 11.8 -33.8	S 19 58.6 +10.1	06						06
07	283 55.7 +00.1	N 13 38.3 -00.8	249 29.8 -00.2	N 00 36.0 -01.2	189 38.0 -33.8	S 20 08.7 +10.0	07						07
08	298 55.8 +00.2	N 13 37.5 -00.8	264 29.6 -00.2	N 00 34.8 -01.3	204 04.2 -34.0	S 20 18.7 +09.8	08						08
09	313 56.0 +00.1	N 13 36.7 -00.8	279 29.4 -00.2	N 00 33.5 -01.3	218 30.2 -34.0	S 20 28.5 +09.7	09						09
10	328 56.1 +00.1	N 13 35.9 -00.8	294 29.2 -00.2	N 00 32.2 -01.3	232 56.2 -34.1	S 20 38.2 +09.6	10						10
11	343 56.2 +00.2	N 13 35.1 -00.8	309 29.0 -00.2	N 00 30.9 -01.3	247 22.1 -34.2	S 20 47.8 +09.5	11						11
12	358 56.4 +00.1	N 13 34.3 -00.8	324 28.8 -00.2	N 00 29.6 -01.3	261 47.9 -34.2	S 20 57.3 +09.3	12						12
13	13 56.5 +00.1	N 13 33.5 -00.8	339 28.6 -00.2	N 00 28.3 -01.3	276 13.7 -34.4	S 21 06.6 +09.3	13						13
14	28 56.6 +00.2	N 13 32.7 -00.7	354 28.4 -00.2	N 00 27.0 -01.3	290 39.3 -34.4	S 21 15.9 +09.0	14						14
15	43 56.8 +00.1	N 13 32.0 -00.8	9 28.2 -00.2	N 00 25.7 -01.2	305 04.9 -34.5	S 21 24.9 +09.0	15						15
16	58 56.9 +00.1	N 13 31.2 -00.8	24 28.0 -00.2	N 00 24.5 -01.3	319 30.4 -34.6	S 21 33.9 +08.8	16						16
17	73 57.0 +00.2	N 13 30.4 -00.8	39 27.8 -00.2	N 00 23.2 -01.3	333 55.8 -34.7	S 21 42.7 +08.6	17						17
18	88 57.2 +00.1	N 13 29.6 -00.8	54 27.6 -00.2	N 00 21.9 -01.3	348 21.1 -34.8	S 21 51.3 +08.6	18						18
19	103 57.3 +00.1	N 13 28.8 -00.8	69 27.4 -00.2	N 00 20.6 -01.3	2 46.3 -34.8	S 21 59.9 +08.4	19						19
20	118 57.4 +00.2	N 13 28.0 -00.8	84 27.2 -00.2	N 00 19.3 -01.3	17 11.5 -34.9	S 22 08.3 +08.2	20						20
21	133 57.6 +00.1	N 13 27.2 -00.8	99 27.0 -00.2	N 00 18.0 -01.3	31 36.6 -35.0	S 22 16.5 +08.1	21						21
22	148 57.7 +00.1	N 13 26.4 -00.8	114 26.8 -00.2	N 00 16.7 -01.3	46 01.6 -35.1	S 22 24.6 +08.0	22						22
23	163 57.8 +00.2	N 13 25.6 -00.8	129 26.6 -00.2	N 00 15.4 -01.3	60 26.5 -35.1	S 22 32.6 +07.8	23						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 16'2 16'2 16'2 16'2 16'2 16'2								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 59'3 59'3 59'3 59'3 59'4 59'4								
	SHA 214° 214° 214° 214° 214° 213°		SHA 180° 180° 179° 179° 179° 179°		SHA 123° 120° 118° 115° 113° 111°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 14:22		Greenwich Culmination Time: 18:48								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	161 55.9 +01.0	N 08 26.6 -00.6	354 15.2 +02.8	S 13 21.4 +00.1	12 46.4 +02.6	S 18 43.6 +00.0	00						00
01	176 56.9 +01.0	N 08 26.0 -00.6	9 18.0 +02.7	S 13 21.5 +00.1	27 49.0 +02.6	S 18 43.6 +00.1	01						01
02	191 57.9 +01.0	N 08 25.4 -00.6	24 20.7 +02.8	S 13 21.6 +00.2	42 51.6 +02.7	S 18 43.7 +00.0	02						02
03	206 58.9 +01.0	N 08 24.8 -00.6	39 23.5 +02.8	S 13 21.8 +00.1	57 54.3 +02.6	S 18 43.7 +00.1	03						03
04	221 59.9 +01.0	N 08 24.2 -00.6	54 26.3 +02.8	S 13 21.9 +00.1	72 56.9 +02.7	S 18 43.8 +00.0	04						04
05	237 00.9 +01.0	N 08 23.6 -00.6	69 29.1 +02.7	S 13 22.0 +00.1	87 59.6 +02.6	S 18 43.8 +00.1	05						05
06	252 01.9 +01.0	N 08 23.0 -00.7	84 31.8 +02.8	S 13 22.1 +00.1	103 02.2 +02.7	S 18 43.9 +00.0	06						06
07	267 02.9 +01.0	N 08 22.3 -00.6	99 34.6 +02.8	S 13 22.2 +00.1	118 04.9 +02.6	S 18 43.9 +00.1	07						07
08	282 03.9 +00.9	N 08 21.7 -00.6	114 37.4 +02.8	S 13 22.3 +00.2	133 07.5 +02.7	S 18 44.0 +00.0	08						08
09	297 04.8 +01.0	N 08 21.1 -00.6	129 40.2 +02.8	S 13 22.5 +00.1	148 10.2 +02.6	S 18 44.0 +00.1	09						09
10	312 05.8 +01.0	N 08 20.5 -00.6	144 43.0 +02.7	S 13 22.6 +00.1	163 12.8 +02.6	S 18 44.1 +00.0	10						10
11	327 06.8 +01.0	N 08 19.9 -00.6	159 45.7 +02.8	S 13 22.7 +00.1	178 15.4 +02.7	S 18 44.1 +00.1	11						11
12	342 07.8 +01.0	N 08 19.3 -00.7	174 48.5 +02.8	S 13 22.8 +00.1	193 18.1 +02.6	S 18 44.2 +00.0	12						12
13	357 08.8 +01.0	N 08 18.6 -00.6	189 51.3 +02.8	S 13 22.9 +00.1	208 20.7 +02.7	S 18 44.2 +00.1	13						13
14	12 09.8 +01.0	N 08 18.0 -00.6	204 54.1 +02.7	S 13 23.0 +00.2	223 23.4 +02.6	S 18 44.3 +00.0	14						14
15	27 10.8 +01.0	N 08 17.4 -00.6	219 56.8 +02.8	S 13 23.2 +00.1	238 26.0 +02.7	S 18 44.3 +00.1	15						15
16	42 11.8 +01.0	N 08 16.8 -00.6	234 59.6 +02.8	S 13 23.3 +00.1	253 28.7 +02.6	S 18 44.4 +00.0	16						16
17	57 12.8 +01.0	N 08 16.2 -00.6	250 02.4 +02.8	S 13 23.4 +00.1	268 31.3 +02.6	S 18 44.4 +00.1	17						17
18	72 13.8 +00.9	N 08 15.6 -00.7	265 05.2 +02.7	S 13 23.5 +00.1	283 33.9 +02.7	S 18 44.5 +00.0	18						18
19	87 14.7 +01.0	N 08 14.9 -00.6	280 07.9 +02.8	S 13 23.6 +00.2	298 36.6 +02.6	S 18 44.5 +00.1	19						19
20	102 15.7 +01.0	N 08 14.3 -00.6	295 10.7 +02.8	S 13 23.8 +00.1	313 39.2 +02.7	S 18 44.6 +00.0	20						20
21	117 16.7 +01.0	N 08 13.7 -00.6	310 13.5 +02.8	S 13 23.9 +00.1	328 41.9 +02.6	S 18 44.6 +00.1	21						21
22	132 17.7 +01.0	N 08 13.1 -00.6	325 16.3 +02.8	S 13 24.0 +00.1	343 44.5 +02.7	S 18 44.7 +00.0	22						22
23	147 18.7 +01.0	N 08 12.5 -00.6	340 19.1 +02.7	S 13 24.1 +00.1	358 47.2 +02.6	S 18 44.7 +00.1	23						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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 197° 197° 197° 197° 197° 197°		SHA 030° 030° 030° 030° 030° 030°		SHA 048° 048° 048° 048° 048° 048°								
	Greenwich Culmination Time: 13:11		Greenwich Culmination Time: 00:22		Greenwich Culmination Time: 23:04								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 58.0 +00.1	N 13 24.8 -00.8	144 26.4 -00.2	N 00 14.1 -01.2	74 51.4 -35.2	S 22 40.4 +07.7	00						00
01	193 58.1 +00.1	N 13 24.0 -00.8	159 26.2 -00.2	N 00 12.9 -01.3	89 16.2 -35.3	S 22 48.1 +07.5	01						01
02	208 58.2 +00.2	N 13 23.2 -00.8	174 26.0 -00.2	N 00 11.6 -01.3	103 40.9 -35.4	S 22 55.6 +07.4	02						02
03	223 58.4 +00.1	N 13 22.4 -00.8	189 25.8 -00.2	N 00 10.3 -01.3	118 05.5 -35.4	S 23 03.0 +07.2	03						03
04	238 58.5 +00.1	N 13 21.6 -00.8	204 25.6 -00.1	N 00 09.0 -01.3	132 30.1 -35.5	S 23 10.2 +07.1	04						04
05	253 58.6 +00.2	N 13 20.8 -00.8	219 25.5 -00.2	N 00 07.7 -01.3	146 54.6 -35.6	S 23 17.3 +06.9	05						05
06	268 58.8 +00.1	N 13 20.0 -00.8	234 25.3 -00.2	N 00 06.4 -01.3	161 19.0 -35.6	S 23 24.2 +06.8	06						06
07	283 58.9 +00.1	N 13 19.2 -00.8	249 25.1 -00.2	N 00 05.1 -01.3	175 43.4 -35.7	S 23 31.0 +06.6	07						07
08	298 59.0 +00.2	N 13 18.4 -00.8	264 24.9 -00.2	N 00 03.8 -01.2	190 07.7 -35.8	S 23 37.6 +06.5	08						08
09	313 59.2 +00.1	N 13 17.6 -00.8	279 24.7 -00.2	N 00 02.6 -01.3	204 31.9 -35.8	S 23 44.1 +06.3	09						09
10	328 59.3 +00.1	N 13 16.8 -00.8	294 24.5 -00.2	N 00 01.3 -01.3	218 56.1 -35.9	S 23 50.4 +06.1	10						10
11	343 59.4 +00.2	N 13 16.0 -00.8	309 24.3 -00.2	S 00 00.0 -01.3	233 20.2 -36.0	S 23 56.5 +06.0	11						11
12	358 59.6 +00.1	N 13 15.2 -00.8	324 24.1 -00.2	S 00 01.3 +01.3	247 44.2 -36.0	S 24 02.5 +05.9	12						12
13	13 59.7 +00.2	N 13 14.4 -00.8	339 23.9 -00.2	S 00 02.6 +01.3	262 08.2 -36.1	S 24 08.4 +05.6	13						13
14	28 59.9 +00.1	N 13 13.6 -00.8	354 23.7 -00.2	S 00 03.9 +01.3	276 32.1 -36.1	S 24 14.0 +05.5	14						14
15	43 60.0 +00.1	N 13 12.8 -00.8	9 23.5 -00.2	S 00 05.2 +01.3	290 56.0 -36.2	S 24 19.5 +05.4	15						15
16	59 00.1 +00.2	N 13 12.0 -00.8	24 23.3 -00.2	S 00 06.5 +01.3	305 19.8 -36.3	S 24 24.9 +05.2	16						16
17	74 00.3 +00.1	N 13 11.2 -00.8	39 23.1 -00.2	S 00 07.8 +01.2	319 43.5 -36.3	S 24 30.1 +05.0	17						17
18	89 00.4 +00.1	N 13 10.4 -00.9	54 22.9 -00.2	S 00 09.0 +01.3	334 07.2 -36.3	S 24 35.1 +04.8	18						18
19	104 00.5 +00.2	N 13 09.5 -00.8	69 22.7 -00.2	S 00 10.3 +01.3	348 30.9 -36.4	S 24 39.9 +04.7	19						19
20	119 00.7 +00.1	N 13 08.7 -00.8	84 22.5 -00.2	S 00 11.6 +01.3	2 54.5 -36.5	S 24 44.6 +04.5	20						20
21	134 00.8 +00.2	N 13 07.9 -00.8	99 22.3 -00.2	S 00 12.9 +01.3	17 18.0 -36.5	S 24 49.1 +04.4	21						21
22	149 01.0 +00.1	N 13 07.1 -00.8	114 22.1 -00.2	S 00 14.2 +01.3	31 41.5 -36.5	S 24 53.5 +04.1	22						22
23	164 01.1 +00.1	N 13 06.3 -00.8	129 21.9 -00.2	S 00 15.5 +01.3	46 05.0 -36.6	S 24 57.6 +04.1	23						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 16'2 16'2 16'2 16'2 16'2 16'2								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 59'4 59'4 59'4 59'4 59'4 59'4								
	SHA 213° 213° 213° 213° 213° 213°		SHA 179° 179° 178° 178° 178° 178°		SHA 108° 105° 103° 100° 098° 095°								
	Greenwich Culmination Time: 12:04		Greenwich Culmination Time: 14:22		Greenwich Culmination Time: 19:47								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	162 19.7 +01.0	N 08 11.9 -00.7	355 21.8 +02.8	S 13 24.2 +00.1	13 49.8 +02.6	S 18 44.8 +00.0	00						00
01	177 20.7 +01.0	N 08 11.2 -00.6	10 24.6 +02.8	S 13 24.3 +00.2	28 52.4 +02.7	S 18 44.8 +00.1	01						01
02	192 21.7 +01.0	N 08 10.6 -00.6	25 27.4 +02.8	S 13 24.5 +00.1	43 55.1 +02.6	S 18 44.9 +00.0	02						02
03	207 22.7 +01.0	N 08 10.0 -00.6	40 30.2 +02.7	S 13 24.6 +00.1	58 57.7 +02.7	S 18 44.9 +00.1	03						03
04	222 23.7 +00.9	N 08 09.4 -00.6	55 32.9 +02.8	S 13 24.7 +00.1	74 00.4 +02.6	S 18 45.0 +00.0	04						04
05	237 24.6 +01.0	N 08 08.8 -00.6	70 35.7 +02.8	S 13 24.8 +00.1	89 03.0 +02.6	S 18 45.0 +00.1	05						05
06	252 25.6 +01.0	N 08 08.2 -00.7	85 38.5 +02.8	S 13 24.9 +00.1	104 05.6 +02.7	S 18 45.1 +00.0	06						06
07	267 26.6 +01.0	N 08 07.5 -00.6	100 41.3 +02.8	S 13 25.0 +00.2	119 08.3 +02.6	S 18 45.1 +00.1	07						07
08	282 27.6 +01.0	N 08 06.9 -00.6	115 44.1 +02.7	S 13 25.2 +00.1	134 10.9 +02.7	S 18 45.2 +00.0	08						08
09	297 28.6 +01.0	N 08 06.3 -00.6	130 46.8 +02.8	S 13 25.3 +00.1	149 13.6 +02.6	S 18 45.2 +00.1	09						09
10	312 29.6 +01.0	N 08 05.7 -00.6	145 49.6 +02.8	S 13 25.4 +00.1	164 16.2 +02.7	S 18 45.3 +00.0	10						10
11	327 30.6 +01.0	N 08 05.1 -00.7	160 52.4 +02.8	S 13 25.5 +00.1	179 18.9 +02.6	S 18 45.3 +00.0	11						11
12	342 31.6 +01.0	N 08 04.4 -00.6	175 55.2 +02.8	S 13 25.6 +00.1	194 21.5 +02.6	S 18 45.3 +00.1	12						12
13	357 32.6 +01.0	N 08 03.8 -00.6	190 58.0 +02.7	S 13 25.7 +00.2	209 24.1 +02.7	S 18 45.4 +00.0	13						13
14	12 33.6 +00.9	N 08 03.2 -00.6	206 00.7 +02.8	S 13 25.9 +00.1	224 26.8 +02.6	S 18 45.4 +00.1	14						14
15	27 34.5 +01.0	N 08 02.6 -00.6	221 03.5 +02.8	S 13 26.0 +00.1	239 29.4 +02.7	S 18 45.5 +00.0	15						15
16	42 35.5 +01.0	N 08 02.0 -00.6	236 06.3 +02.8	S 13 26.1 +00.1	254 32.1 +02.6	S 18 45.5 +00.1	16						16
17	57 36.5 +01.0	N 08 01.4 -00.7	251 09.1 +02.7	S 13 26.2 +00.1	269 34.7 +02.6	S 18 45.6 +00.0	17						17
18	72 37.5 +01.0	N 08 00.7 -00.6	266 11.8 +02.8	S 13 26.3 +00.2	284 37.3 +02.7	S 18 45.6 +00.1	18						18
19	87 38.5 +01.0	N 08 00.1 -00.6	281 14.6 +02.8	S 13 26.5 +00.1	299 40.0 +02.6	S 18 45.7 +00.0	19						19
20	102 39.5 +01.0	N 07 59.5 -00.6	296 17.4 +02.8	S 13 26.6 +00.1	314 42.6 +02.7	S 18 45.7 +00.1	20						20
21	117 40.5 +01.0	N 07 58.9 -00.6	311 20.2 +02.8	S 13 26.7 +00.1	329 45.3 +02.6	S 18 45.8 +00.0	21						21
22	132 41.5 +01.0	N 07 58.3 -00.7	326 23.0 +02.7	S 13 26.8 +00.1	344 47.9 +02.7	S 18 45.8 +00.1	22						22
23	147 42.5 +01.0	N 07 57.6 -00.6	341 25.7 +02.8	S 13 26.9 +00.1	359 50.6 +02.6	S 18 45.9 +00.0	23						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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 197° 197° 196° 196° 196° 196°		SHA 030° 030° 030° 030° 030° 030°		SHA 048° 048° 048° 048° 048° 048°								
	Greenwich Culmination Time: 13:09		Greenwich Culmination Time: 00:18		Greenwich Culmination Time: 23:00								



UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 01.2 +00.2	N 13 05.5 -00.8	144 21.7 -00.1	S 00 16.8 +01.3	60 28.4 -36.6	S 25 01.7 +03.8	00						00
01	194 01.4 +00.1	N 13 04.7 -00.8	159 21.6 -00.2	S 00 18.1 +01.3	74 51.8 -36.7	S 25 05.5 +03.7	01						01
02	209 01.5 +00.2	N 13 03.9 -00.8	174 21.4 -00.2	S 00 19.4 +01.2	89 15.1 -36.7	S 25 09.2 +03.5	02						02
03	224 01.7 +00.1	N 13 03.1 -00.8	189 21.2 -00.2	S 00 20.6 +01.3	103 38.4 -36.7	S 25 12.7 +03.3	03						03
04	239 01.8 +00.1	N 13 02.3 -00.8	204 21.0 -00.2	S 00 21.9 +01.3	118 01.7 -36.8	S 25 16.0 +03.1	04						04
05	254 01.9 +00.2	N 13 01.5 -00.8	219 20.8 -00.2	S 00 23.2 +01.3	132 24.9 -36.8	S 25 19.1 +03.0	05						05
06	269 02.1 +00.1	N 13 00.7 -00.8	234 20.6 -00.2	S 00 24.5 +01.3	146 48.1 -36.8	S 25 22.1 +02.8	06						06
07	284 02.2 +00.2	N 12 59.9 -00.9	249 20.4 -00.2	S 00 25.8 +01.3	161 11.3 -36.9	S 25 24.9 +02.6	07						07
08	299 02.4 +00.1	N 12 59.0 -00.8	264 20.2 -00.2	S 00 27.1 +01.3	175 34.4 -36.9	S 25 27.5 +02.5	08						08
09	314 02.5 +00.1	N 12 58.2 -00.8	279 20.0 -00.2	S 00 28.4 +01.3	189 57.5 -36.8	S 25 30.0 +02.2	09						09
10	329 02.6 +00.2	N 12 57.4 -00.8	294 19.8 -00.2	S 00 29.7 +01.3	204 20.7 -37.0	S 25 32.2 +02.1	10						10
11	344 02.8 +00.1	N 12 56.6 -00.8	309 19.6 -00.2	S 00 31.0 +01.3	218 43.7 -36.9	S 25 34.3 +02.0	11						11
12	359 02.9 +00.2	N 12 55.8 -00.8	324 19.4 -00.2	S 00 32.3 +01.2	233 06.8 -37.0	S 25 36.3 +01.7	12						12
13	14 03.1 +00.1	N 12 55.0 -00.8	339 19.2 -00.2	S 00 33.5 +01.3	247 29.8 -36.9	S 25 38.0 +01.6	13						13
14	29 03.2 +00.2	N 12 54.2 -00.8	354 19.0 -00.2	S 00 34.8 +01.3	261 52.9 -37.0	S 25 39.6 +01.4	14						14
15	44 03.4 +00.1	N 12 53.4 -00.8	9 18.8 -00.1	S 00 36.1 +01.3	276 15.9 -37.0	S 25 41.0 +01.2	15						15
16	59 03.5 +00.1	N 12 52.6 -00.9	24 18.7 -00.2	S 00 37.4 +01.3	290 38.9 -37.0	S 25 42.2 +01.0	16						16
17	74 03.6 +00.2	N 12 51.7 -00.8	39 18.5 -00.2	S 00 38.7 +01.3	305 01.9 -37.0	S 25 43.2 +00.9	17						17
18	89 03.8 +00.1	N 12 50.9 -00.8	54 18.3 -00.2	S 00 40.0 +01.3	319 24.9 -37.0	S 25 44.1 +00.7	18						18
19	104 03.9 +00.2	N 12 50.1 -00.8	69 18.1 -00.2	S 00 41.3 +01.3	333 47.9 -37.0	S 25 44.8 +00.5	19						19
20	119 04.1 +00.1	N 12 49.3 -00.8	84 17.9 -00.2	S 00 42.6 +01.3	348 10.9 -37.0	S 25 45.3 +00.3	20						20
21	134 04.2 +00.2	N 12 48.5 -00.8	99 17.7 -00.2	S 00 43.9 +01.2	2 33.9 -37.0	S 25 45.6 +00.2	21						21
22	149 04.4 +00.1	N 12 47.7 -00.8	114 17.5 -00.2	S 00 45.1 +01.3	16 56.9 -37.0	S 25 45.8 -00.1	22						22
23	164 04.5 +00.1	N 12 46.9 -00.9	129 17.3 -00.2	S 00 46.4 +01.3	31 19.9 -36.9	S 25 45.7 -00.2	23						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 16'2 16'2 16'2 16'2 16'1 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 59'3 59'3 59'3 59'3 59'3 59'2								
	SHA 212° 212° 212° 212° 212° 212°		SHA 178° 178° 177° 177° 177° 177°		SHA 093° 090° 087° 085° 082° 079°								
	Greenwich Culmination Time: 12:03		Greenwich Culmination Time: 14:22		Greenwich Culmination Time: 20:49								

  

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	162 43.5 +01.0	N 07 57.0 -00.6	356 28.5 +02.8	S 13 27.0 +00.2	14 53.2 +02.6	S 18 45.9 +00.1	00						00
01	177 44.5 +00.9	N 07 56.4 -00.6	11 31.3 +02.8	S 13 27.2 +00.1	29 55.8 +02.7	S 18 46.0 +00.0	01						01
02	192 45.4 +01.0	N 07 55.8 -00.6	26 34.1 +02.7	S 13 27.3 +00.1	44 58.5 +02.6	S 18 46.0 +00.1	02						02
03	207 46.4 +01.0	N 07 55.2 -00.7	41 36.8 +02.8	S 13 27.4 +00.1	60 01.1 +02.7	S 18 46.1 +00.0	03						03
04	222 47.4 +01.0	N 07 54.5 -00.6	56 39.6 +02.8	S 13 27.5 +00.1	75 03.8 +02.6	S 18 46.1 +00.1	04						04
05	237 48.4 +01.0	N 07 53.9 -00.6	71 42.4 +02.8	S 13 27.6 +00.1	90 06.4 +02.6	S 18 46.2 +00.0	05						05
06	252 49.4 +01.0	N 07 53.3 -00.6	86 45.2 +02.8	S 13 27.7 +00.2	105 09.0 +02.7	S 18 46.2 +00.1	06						06
07	267 50.4 +01.0	N 07 52.7 -00.6	101 48.0 +02.7	S 13 27.9 +00.1	120 11.7 +02.6	S 18 46.3 +00.0	07						07
08	282 51.4 +01.0	N 07 52.1 -00.7	116 50.7 +02.8	S 13 28.0 +00.1	135 14.3 +02.7	S 18 46.3 +00.1	08						08
09	297 52.4 +01.0	N 07 51.4 -00.6	131 53.5 +02.8	S 13 28.1 +00.1	150 17.0 +02.6	S 18 46.4 +00.0	09						09
10	312 53.4 +01.0	N 07 50.8 -00.6	146 56.3 +02.8	S 13 28.2 +00.1	165 19.6 +02.6	S 18 46.4 +00.1	10						10
11	327 54.4 +01.0	N 07 50.2 -00.6	161 59.1 +02.8	S 13 28.3 +00.1	180 22.2 +02.7	S 18 46.5 +00.0	11						11
12	342 55.4 +00.9	N 07 49.6 -00.6	177 01.9 +02.7	S 13 28.4 +00.2	195 24.9 +02.6	S 18 46.5 +00.1	12						12
13	357 56.3 +01.0	N 07 49.0 -00.7	192 04.6 +02.8	S 13 28.6 +00.1	210 27.5 +02.7	S 18 46.6 +00.0	13						13
14	12 57.3 +01.0	N 07 48.3 -00.6	207 07.4 +02.8	S 13 28.7 +00.1	225 30.2 +02.6	S 18 46.6 +00.1	14						14
15	27 58.3 +01.0	N 07 47.7 -00.6	222 10.2 +02.8	S 13 28.8 +00.1	240 32.8 +02.6	S 18 46.7 +00.0	15						15
16	42 59.3 +01.0	N 07 47.1 -00.6	237 13.0 +02.7	S 13 28.9 +00.1	255 35.4 +02.7	S 18 46.7 +00.1	16						16
17	58 00.3 +01.0	N 07 46.5 -00.6	252 15.7 +02.8	S 13 29.0 +00.1	270 38.1 +02.6	S 18 46.8 +00.0	17						17
18	73 01.3 +01.0	N 07 45.9 -00.7	267 18.5 +02.8	S 13 29.1 +00.2	285 40.7 +02.7	S 18 46.8 +00.0	18						18
19	88 02.3 +01.0	N 07 45.2 -00.6	282 21.3 +02.8	S 13 29.3 +00.1	300 43.4 +02.6	S 18 46.8 +00.1	19						19
20	103 03.3 +01.0	N 07 44.6 -00.6	297 24.1 +02.8	S 13 29.4 +00.1	315 46.0 +02.6	S 18 46.9 +00.0	20						20
21	118 04.3 +01.0	N 07 44.0 -00.6	312 26.9 +02.7	S 13 29.5 +00.1	330 48.6 +02.7	S 18 46.9 +00.1	21						21
22	133 05.3 +01.0	N 07 43.4 -00.6	327 29.6 +02.8	S 13 29.6 +00.1	345 51.3 +02.6	S 18 47.0 +00.0	22						22
23	148 06.3 +01.0	N 07 42.8 -00.7	342 32.4 +02.8	S 13 29.7 +00.2	0 53.9 +02.7	S 18 47.0 +00.1	23						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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 196° 196° 196° 196° 196° 196°		SHA 030° 030° 030° 030° 030° 030°		SHA 048° 048° 048° 048° 048° 048°								
	Greenwich Culmination Time: 13:08		Greenwich Culmination Time: 00:14		Greenwich Culmination Time: 22:56								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 04.6 +00.2	N 12 46.0 -00.8	144 17.1 -00.2	S 00 47.7 +01.3	45 43.0 -37.0	S 25 45.5 -00.4	00						00
01	194 04.8 +00.1	N 12 45.2 -00.8	159 16.9 -00.2	S 00 49.0 +01.3	60 06.0 -37.0	S 25 45.1 -00.5	01						01
02	209 04.9 +00.2	N 12 44.4 -00.8	174 16.7 -00.2	S 00 50.3 +01.3	74 29.0 -36.9	S 25 44.6 -00.8	02						02
03	224 05.1 +00.1	N 12 43.6 -00.8	189 16.5 -00.1	S 00 51.6 +01.3	88 52.1 -36.9	S 25 43.8 -00.9	03						03
04	239 05.2 +00.2	N 12 42.8 -00.8	204 16.4 -00.2	S 00 52.9 +01.3	103 15.2 -36.9	S 25 42.9 -01.1	04						04
05	254 05.4 +00.1	N 12 42.0 -00.9	219 16.2 -00.2	S 00 54.2 +01.3	117 38.3 -36.9	S 25 41.8 -01.2	05						05
06	269 05.5 +00.2	N 12 41.1 -00.8	234 16.0 -00.2	S 00 55.5 +01.2	132 01.4 -36.9	S 25 40.6 -01.5	06						06
07	284 05.7 +00.1	N 12 40.3 -00.8	249 15.8 -00.2	S 00 56.7 +01.3	146 24.5 -36.8	S 25 39.1 -01.6	07						07
08	299 05.8 +00.2	N 12 39.5 -00.8	264 15.6 -00.2	S 00 58.0 +01.3	160 47.7 -36.8	S 25 37.5 -01.8	08						08
09	314 06.0 +00.1	N 12 38.7 -00.8	279 15.4 -00.2	S 00 59.3 +01.3	175 10.9 -36.8	S 25 35.7 -01.9	09						09
10	329 06.1 +00.1	N 12 37.9 -00.8	294 15.2 -00.2	S 01 00.6 +01.3	189 34.1 -36.7	S 25 33.8 -02.2	10						10
11	344 06.2 +00.2	N 12 37.1 -00.9	309 15.0 -00.2	S 01 01.9 +01.3	203 57.4 -36.7	S 25 31.6 -02.3	11						11
12	359 06.4 +00.1	N 12 36.2 -00.8	324 14.8 -00.2	S 01 03.2 +01.3	218 20.7 -36.7	S 25 29.3 -02.5	12						12
13	14 06.5 +00.2	N 12 35.4 -00.8	339 14.6 -00.2	S 01 04.5 +01.3	232 44.0 -36.6	S 25 26.8 -02.6	13						13
14	29 06.7 +00.1	N 12 34.6 -00.8	354 14.4 -00.1	S 01 05.8 +01.3	247 07.4 -36.6	S 25 24.2 -02.9	14						14
15	44 06.8 +00.2	N 12 33.8 -00.8	9 14.3 -00.2	S 01 07.1 +01.3	261 30.8 -36.5	S 25 21.3 -03.0	15						15
16	59 07.0 +00.1	N 12 33.0 -00.9	24 14.1 -00.2	S 01 08.4 +01.2	275 54.3 -36.5	S 25 18.3 -03.1	16						16
17	74 07.1 +00.2	N 12 32.1 -00.8	39 13.9 -00.2	S 01 09.6 +01.3	290 17.8 -36.5	S 25 15.2 -03.4	17						17
18	89 07.3 +00.1	N 12 31.3 -00.8	54 13.7 -00.2	S 01 10.9 +01.3	304 41.3 -36.4	S 25 11.8 -03.5	18						18
19	104 07.4 +00.2	N 12 30.5 -00.8	69 13.5 -00.2	S 01 12.2 +01.3	319 04.9 -36.3	S 25 08.3 -03.7	19						19
20	119 07.6 +00.1	N 12 29.7 -00.9	84 13.3 -00.2	S 01 13.5 +01.3	333 28.6 -36.3	S 25 04.6 -03.8	20						20
21	134 07.7 +00.2	N 12 28.8 -00.8	99 13.1 -00.2	S 01 14.8 +01.3	347 52.3 -36.2	S 25 00.8 -04.0	21						21
22	149 07.9 +00.1	N 12 28.0 -00.8	114 12.9 -00.2	S 01 16.1 +01.3	2 16.1 -36.2	S 24 56.8 -04.2	22						22
23	164 08.0 +00.2	N 12 27.2 -00.8	129 12.7 -00.1	S 01 17.4 +01.3	16 39.9 -36.1	S 24 52.6 -04.3	23						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 16'1 16'1 16'1 16'1 16'1 16'1								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 59'2 59'2 59'1 59'1 59'0 59'0								
	SHA 211° 211° 211° 211° 211° 211°		SHA 177° 176° 176° 176° 176° 176°		SHA 077° 074° 072° 069° 066° 064°								
	Greenwich Culmination Time: 12:03		Greenwich Culmination Time: 14:23		Greenwich Culmination Time: 21:50								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	163 07.3 +00.9	N 07 42.1 -00.6	357 35.2 +02.8	S 13 29.9 +00.1	15 56.6 +02.6	S 18 47.1 +00.0	00						00
01	178 08.2 +01.0	N 07 41.5 -00.6	12 38.0 +02.8	S 13 30.0 +00.1	30 59.2 +02.6	S 18 47.1 +00.1	01						01
02	193 09.2 +01.0	N 07 40.9 -00.6	27 40.8 +02.7	S 13 30.1 +00.1	46 01.8 +02.7	S 18 47.2 +00.0	02						02
03	208 10.2 +01.0	N 07 40.3 -00.7	42 43.5 +02.8	S 13 30.2 +00.1	61 04.5 +02.6	S 18 47.2 +00.1	03						03
04	223 11.2 +01.0	N 07 39.6 -00.6	57 46.3 +02.8	S 13 30.3 +00.1	76 07.1 +02.7	S 18 47.3 +00.0	04						04
05	238 12.2 +01.0	N 07 39.0 -00.6	72 49.1 +02.8	S 13 30.4 +00.2	91 09.8 +02.6	S 18 47.3 +00.1	05						05
06	253 13.2 +01.0	N 07 38.4 -00.6	87 51.9 +02.8	S 13 30.6 +00.1	106 12.4 +02.6	S 18 47.4 +00.0	06						06
07	268 14.2 +01.0	N 07 37.8 -00.6	102 54.7 +02.7	S 13 30.7 +00.1	121 15.0 +02.7	S 18 47.4 +00.1	07						07
08	283 15.2 +01.0	N 07 37.2 -00.7	117 57.4 +02.8	S 13 30.8 +00.1	136 17.7 +02.6	S 18 47.5 +00.0	08						08
09	298 16.2 +01.0	N 07 36.5 -00.6	133 00.2 +02.8	S 13 30.9 +00.1	151 20.3 +02.6	S 18 47.5 +00.1	09						09
10	313 17.2 +01.0	N 07 35.9 -00.6	148 03.0 +02.8	S 13 31.0 +00.1	166 22.9 +02.7	S 18 47.6 +00.0	10						10
11	328 18.2 +01.0	N 07 35.3 -00.6	163 05.8 +02.8	S 13 31.1 +00.2	181 25.6 +02.6	S 18 47.6 +00.1	11						11
12	343 19.2 +00.9	N 07 34.7 -00.7	178 08.6 +02.7	S 13 31.3 +00.1	196 28.2 +02.7	S 18 47.7 +00.0	12						12
13	358 20.1 +01.0	N 07 34.0 -00.6	193 11.3 +02.8	S 13 31.4 +00.1	211 30.9 +02.6	S 18 47.7 +00.1	13						13
14	13 21.1 +01.0	N 07 33.4 -00.6	208 14.1 +02.8	S 13 31.5 +00.1	226 33.5 +02.6	S 18 47.8 +00.0	14						14
15	28 22.1 +01.0	N 07 32.8 -00.6	223 16.9 +02.8	S 13 31.6 +00.1	241 36.1 +02.7	S 18 47.8 +00.1	15						15
16	43 23.1 +01.0	N 07 32.2 -00.6	238 19.7 +02.7	S 13 31.7 +00.1	256 38.8 +02.6	S 18 47.9 +00.0	16						16
17	58 24.1 +01.0	N 07 31.6 -00.7	253 22.4 +02.8	S 13 31.8 +00.2	271 41.4 +02.7	S 18 47.9 +00.0	17						17
18	73 25.1 +01.0	N 07 30.9 -00.6	268 25.2 +02.8	S 13 32.0 +00.1	286 44.1 +02.6	S 18 47.9 +00.1	18						18
19	88 26.1 +01.0	N 07 30.3 -00.6	283 28.0 +02.8	S 13 32.1 +00.1	301 46.7 +02.6	S 18 48.0 +00.0	19						19
20	103 27.1 +01.0	N 07 29.7 -00.6	298 30.8 +02.8	S 13 32.2 +00.1	316 49.3 +02.7	S 18 48.0 +00.1	20						20
21	118 28.1 +01.0	N 07 29.1 -00.7	313 33.6 +02.7	S 13 32.3 +00.1	331 52.0 +02.6	S 18 48.1 +00.0	21						21
22	133 29.1 +01.0	N 07 28.4 -00.6	328 36.3 +02.8	S 13 32.4 +00.1	346 54.6 +02.6	S 18 48.1 +00.1	22						22
23	148 30.1 +01.0	N 07 27.8 -00.6	343 39.1 +02.8	S 13 32.5 +00.2	1 57.2 +02.7	S 18 48.2 +00.0	23						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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 196° 195° 195° 195° 195° 195°		SHA 030° 030° 030° 030° 030° 030°		SHA 048° 048° 048° 048° 048° 048°								
	Greenwich Culmination Time: 13:06		Greenwich Culmination Time: 00:09		Greenwich Culmination Time: 22:52								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 08.2 +00.1	N 12 26.4 -00.8	144 12.6 -00.2	S 01 18.7 +01.3	31 03.8 -36.1	S 24 48.3 -04.5	00						
01	194 08.3 +00.2	N 12 25.6 -00.9	159 12.4 -00.2	S 01 20.0 +01.2	45 27.7 -36.0	S 24 43.8 -04.7	01						
02	209 08.5 +00.1	N 12 24.7 -00.8	174 12.2 -00.2	S 01 21.2 +01.3	59 51.7 -35.9	S 24 39.1 -04.8	02						
03	224 08.6 +00.2	N 12 23.9 -00.8	189 12.0 -00.2	S 01 22.5 +01.3	74 15.8 -35.9	S 24 34.3 -05.0	03						
04	239 08.8 +00.1	N 12 23.1 -00.8	204 11.8 -00.2	S 01 23.8 +01.3	88 39.9 -35.8	S 24 29.3 -05.2	04						
05	254 08.9 +00.2	N 12 22.3 -00.9	219 11.6 -00.2	S 01 25.1 +01.3	103 04.1 -35.7	S 24 24.1 -05.3	05						
06	269 09.1 +00.1	N 12 21.4 -00.8	234 11.4 -00.2	S 01 26.4 +01.3	117 28.4 -35.7	S 24 18.8 -05.4	06						
07	284 09.2 +00.2	N 12 20.6 -00.8	249 11.2 -00.2	S 01 27.7 +01.3	131 52.7 -35.6	S 24 13.4 -05.6	07						
08	299 09.4 +00.1	N 12 19.8 -00.9	264 11.0 -00.1	S 01 29.0 +01.3	146 17.1 -35.5	S 24 07.8 -05.8	08						
09	314 09.5 +00.2	N 12 18.9 -00.8	279 10.9 -00.2	S 01 30.3 +01.3	160 41.6 -35.4	S 24 02.0 -05.9	09						
10	329 09.7 +00.1	N 12 18.1 -00.8	294 10.7 -00.2	S 01 31.6 +01.2	175 06.2 -35.4	S 23 56.1 -06.1	10						
11	344 09.8 +00.2	N 12 17.3 -00.8	309 10.5 -00.2	S 01 32.8 +01.3	189 30.8 -35.2	S 23 50.0 -06.2	11						
12	359 10.0 +00.1	N 12 16.5 -00.9	324 10.3 -00.2	S 01 34.1 +01.3	203 55.6 -35.2	S 23 43.8 -06.4	12						
13	14 10.1 +00.2	N 12 15.6 -00.8	339 10.1 -00.2	S 01 35.4 +01.3	218 20.4 -35.2	S 23 37.4 -06.5	13						
14	29 10.3 +00.1	N 12 14.8 -00.8	354 09.9 -00.2	S 01 36.7 +01.3	232 45.2 -35.0	S 23 30.9 -06.7	14						
15	44 10.4 +00.2	N 12 14.0 -00.8	9 09.7 -00.2	S 01 38.0 +01.3	247 10.2 -35.0	S 23 24.2 -06.8	15						
16	59 10.6 +00.2	N 12 13.2 -00.9	24 09.5 -00.2	S 01 39.3 +01.3	261 35.2 -34.8	S 23 17.4 -07.0	16						
17	74 10.8 +00.1	N 12 12.3 -00.8	39 09.3 -00.1	S 01 40.6 +01.3	276 00.4 -34.8	S 23 10.4 -07.1	17						
18	89 10.9 +00.2	N 12 11.5 -00.8	54 09.2 -00.2	S 01 41.9 +01.3	290 25.6 -34.7	S 23 03.3 -07.2	18						
19	104 11.1 +00.1	N 12 10.7 -00.9	69 09.0 -00.2	S 01 43.2 +01.2	304 50.9 -34.6	S 22 56.1 -07.4	19						
20	119 11.2 +00.2	N 12 09.8 -00.8	84 08.8 -00.2	S 01 44.4 +01.3	319 16.3 -34.6	S 22 48.7 -07.6	20						
21	134 11.4 +00.1	N 12 09.0 -00.8	99 08.6 -00.2	S 01 45.7 +01.3	333 41.7 -34.4	S 22 41.1 -07.6	21						
22	149 11.5 +00.2	N 12 08.2 -00.9	114 08.4 -00.2	S 01 47.0 +01.3	348 07.3 -34.4	S 22 33.5 -07.8	22						
23	164 11.7 +00.1	N 12 07.3 -00.8	129 08.2 -00.2	S 01 48.3 +01.3	2 32.9 -34.2	S 22 25.7 -08.0	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 16'1 16'0 16'0 16'0 16'0 16'0								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 58'9 58'9 58'8 58'8 58'7 58'6								
	SHA 211° 210° 210° 210° 210° 210°		SHA 176° 175° 175° 175° 175° 175°		SHA 061° 059° 056° 054° 051° 049°								
	Greenwich Culmination Time: 12:03		Greenwich Culmination Time: 14:23		Greenwich Culmination Time: 22:49								

  

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	163 31.1 +01.0	N 07 27.2 -00.6	358 41.9 +02.8	S 13 32.7 +00.1	16 59.9 +02.6	S 18 48.2 +00.1	00						
01	178 32.1 +00.9	N 07 26.6 -00.7	13 44.7 +02.8	S 13 32.8 +00.1	32 02.5 +02.7	S 18 48.3 +00.0	01						
02	193 33.0 +01.0	N 07 25.9 -00.6	28 47.5 +02.7	S 13 32.9 +00.1	47 05.2 +02.6	S 18 48.3 +00.1	02						
03	208 34.0 +01.0	N 07 25.3 -00.6	43 50.2 +02.8	S 13 33.0 +00.1	62 07.8 +02.6	S 18 48.4 +00.0	03						
04	223 35.0 +01.0	N 07 24.7 -00.6	58 53.0 +02.8	S 13 33.1 +00.1	77 10.4 +02.7	S 18 48.4 +00.1	04						
05	238 36.0 +01.0	N 07 24.1 -00.7	73 55.8 +02.8	S 13 33.2 +00.2	92 13.1 +02.6	S 18 48.5 +00.0	05						
06	253 37.0 +01.0	N 07 23.4 -00.6	88 58.6 +02.8	S 13 33.4 +00.1	107 15.7 +02.6	S 18 48.5 +00.1	06						
07	268 38.0 +01.0	N 07 22.8 -00.6	104 01.4 +02.7	S 13 33.5 +00.1	122 18.3 +02.7	S 18 48.6 +00.0	07						
08	283 39.0 +01.0	N 07 22.2 -00.6	119 04.1 +02.8	S 13 33.6 +00.1	137 21.0 +02.6	S 18 48.6 +00.1	08						
09	298 40.0 +01.0	N 07 21.6 -00.6	134 06.9 +02.8	S 13 33.7 +00.1	152 23.6 +02.7	S 18 48.7 +00.0	09						
10	313 41.0 +01.0	N 07 21.0 -00.7	149 09.7 +02.8	S 13 33.8 +00.1	167 26.3 +02.6	S 18 48.7 +00.1	10						
11	328 42.0 +01.0	N 07 20.3 -00.6	164 12.5 +02.8	S 13 33.9 +00.2	182 28.9 +02.6	S 18 48.8 +00.0	11						
12	343 43.0 +01.0	N 07 19.7 -00.6	179 15.3 +02.7	S 13 34.1 +00.1	197 31.5 +02.7	S 18 48.8 +00.0	12						
13	358 44.0 +01.0	N 07 19.1 -00.6	194 18.0 +02.8	S 13 34.2 +00.1	212 34.2 +02.6	S 18 48.8 +00.1	13						
14	13 45.0 +01.0	N 07 18.5 -00.7	209 20.8 +02.8	S 13 34.3 +00.1	227 36.8 +02.6	S 18 48.9 +00.0	14						
15	28 46.0 +00.9	N 07 17.8 -00.6	224 23.6 +02.8	S 13 34.4 +00.1	242 39.4 +02.7	S 18 48.9 +00.1	15						
16	43 46.9 +01.0	N 07 17.2 -00.6	239 26.4 +02.7	S 13 34.5 +00.1	257 42.1 +02.6	S 18 49.0 +00.0	16						
17	58 47.9 +01.0	N 07 16.6 -00.6	254 29.1 +02.8	S 13 34.6 +00.2	272 44.7 +02.7	S 18 49.0 +00.1	17						
18	73 48.9 +01.0	N 07 16.0 -00.7	269 31.9 +02.8	S 13 34.8 +00.1	287 47.4 +02.6	S 18 49.1 +00.0	18						
19	88 49.9 +01.0	N 07 15.3 -00.6	284 34.7 +02.8	S 13 34.9 +00.1	302 50.0 +02.6	S 18 49.1 +00.1	19						
20	103 50.9 +01.0	N 07 14.7 -00.6	299 37.5 +02.8	S 13 35.0 +00.1	317 52.6 +02.7	S 18 49.2 +00.0	20						
21	118 51.9 +01.0	N 07 14.1 -00.6	314 40.3 +02.7	S 13 35.1 +00.1	332 55.3 +02.6	S 18 49.2 +00.1	21						
22	133 52.9 +01.0	N 07 13.5 -00.7	329 43.0 +02.8	S 13 35.2 +00.1	347 57.9 +02.6	S 18 49.3 +00.0	22						
23	148 53.9 +01.0	N 07 12.8 -00.6	344 45.8 +02.8	S 13 35.3 +00.2	3 00.5 +02.7	S 18 49.3 +00.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 195° 195° 195° 195° 195° 194°		SHA 030° 030° 030° 030° 030° 030°		SHA 048° 048° 048° 048° 049° 049°								
	Greenwich Culmination Time: 13:05		Greenwich Culmination Time: 00:05		Greenwich Culmination Time: 22:47								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	179 11.8 +00.2	N 12 06.5 -00.8	144 08.0 -00.2	S 01 49.6 +01.3	16 58.7 -34.2	S 22 17.7 -08.0	00								
01	194 12.0 +00.1	N 12 05.7 -00.9	159 07.8 -00.1	S 01 50.9 +01.3	31 24.5 -34.0	S 22 09.7 -08.2	01								
02	209 12.1 +00.2	N 12 04.8 -00.8	174 07.7 -00.2	S 01 52.2 +01.3	45 50.5 -34.0	S 22 01.5 -08.4	02								
03	224 12.3 +00.2	N 12 04.0 -00.8	189 07.5 -00.2	S 01 53.5 +01.3	60 16.5 -33.9	S 21 53.1 -08.4	03								
04	239 12.5 +00.1	N 12 03.2 -00.9	204 07.3 -00.2	S 01 54.8 +01.2	74 42.6 -33.8	S 21 44.7 -08.6	04								
05	254 12.6 +00.2	N 12 02.3 -00.8	219 07.1 -00.2	S 01 56.0 +01.3	89 08.8 -33.7	S 21 36.1 -08.7	05								
06	269 12.8 +00.1	N 12 01.5 -00.8	234 06.9 -00.2	S 01 57.3 +01.3	103 35.1 -33.6	S 21 27.4 -08.8	06								
07	284 12.9 +00.2	N 12 00.7 -00.9	249 06.7 -00.2	S 01 58.6 +01.3	118 01.5 -33.5	S 21 18.6 -09.0	07								
08	299 13.1 +00.1	N 11 59.8 -00.8	264 06.5 -00.1	S 01 59.9 +01.3	132 28.0 -33.4	S 21 09.6 -09.1	08								
09	314 13.2 +00.2	N 11 59.0 -00.8	279 06.4 -00.2	S 02 01.2 +01.3	146 54.6 -33.3	S 21 00.5 -09.2	09								
10	329 13.4 +00.1	N 11 58.2 -00.9	294 06.2 -00.2	S 02 02.5 +01.3	161 21.3 -33.2	S 20 51.3 -09.3	10								
11	344 13.5 +00.2	N 11 57.3 -00.8	309 06.0 -00.2	S 02 03.8 +01.3	175 48.1 -33.1	S 20 42.0 -09.4	11								
12	359 13.7 +00.2	N 11 56.5 -00.8	324 05.8 -00.2	S 02 05.1 +01.2	190 15.0 -33.0	S 20 32.6 -09.6	12								
13	14 13.9 +00.1	N 11 55.7 -00.9	339 05.6 -00.2	S 02 06.3 +01.3	204 42.0 -32.9	S 20 23.0 -09.6	13								
14	29 14.0 +00.2	N 11 54.8 -00.8	354 05.4 -00.2	S 02 07.6 +01.3	219 09.1 -32.9	S 20 13.4 -09.8	14								
15	44 14.2 +00.1	N 11 54.0 -00.8	9 05.2 -00.2	S 02 08.9 +01.3	233 36.2 -32.7	S 20 03.6 -09.9	15								
16	59 14.3 +00.2	N 11 53.2 -00.9	24 05.0 -00.1	S 02 10.2 +01.3	248 03.5 -32.6	S 19 53.7 -09.9	16								
17	74 14.5 +00.2	N 11 52.3 -00.8	39 04.9 -00.2	S 02 11.5 +01.3	262 30.9 -32.5	S 19 43.8 -10.1	17								
18	89 14.7 +00.1	N 11 51.5 -00.9	54 04.7 -00.2	S 02 12.8 +01.3	276 58.4 -32.4	S 19 33.7 -10.2	18								
19	104 14.8 +00.2	N 11 50.6 -00.8	69 04.5 -00.2	S 02 14.1 +01.3	291 26.0 -32.4	S 19 23.5 -10.3	19								
20	119 15.0 +00.1	N 11 49.8 -00.8	84 04.3 -00.2	S 02 15.4 +01.3	305 53.6 -32.2	S 19 13.2 -10.4	20								
21	134 15.1 +00.2	N 11 49.0 -00.9	99 04.1 -00.2	S 02 16.7 +01.2	320 21.4 -32.1	S 19 02.8 -10.5	21								
22	149 15.3 +00.1	N 11 48.1 -00.8	114 03.9 -00.2	S 02 17.9 +01.3	334 49.3 -32.0	S 18 52.3 -10.6	22								
23	164 15.4 +00.2	N 11 47.3 -00.8	129 03.7 -00.1	S 02 19.2 +01.3	349 17.3 -32.0	S 18 41.7 -10.7	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	SHA 210° 209° 209° 209° 209° 209°	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	SHA 175° 174° 174° 174° 174° 174°	Greenwich Culmination Time: 14:23	UT 02 06 10 14 18 22	SD 16'0 15'9 15'9 15'9 15'9 15'8	HP 58'5 58'5 58'4 58'3 58'2 58'1	SHA 046° 044° 041° 039° 037° 034°	Greenwich Culmination Time: 23:44

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	163 54.9 +01.0	N 07 12.2 -00.6	359 48.6 +02.8	S 13 35.5 +00.1	18 03.2 +02.6	S 18 49.4 +00.0	00								
01	178 55.9 +01.0	N 07 11.6 -00.7	14 51.4 +02.8	S 13 35.6 +00.1	33 05.8 +02.6	S 18 49.4 +00.1	01								
02	193 56.9 +01.0	N 07 10.9 -00.6	29 54.2 +02.7	S 13 35.7 +00.1	48 08.4 +02.7	S 18 49.5 +00.0	02								
03	208 57.9 +01.0	N 07 10.3 -00.6	44 56.9 +02.8	S 13 35.8 +00.1	63 11.1 +02.6	S 18 49.5 +00.1	03								
04	223 58.9 +01.0	N 07 09.7 -00.6	59 59.7 +02.8	S 13 35.9 +00.1	78 13.7 +02.7	S 18 49.6 +00.0	04								
05	238 59.9 +01.0	N 07 09.1 -00.7	75 02.5 +02.8	S 13 36.0 +00.2	93 16.4 +02.6	S 18 49.6 +00.0	05								
06	254 00.9 +00.9	N 07 08.4 -00.6	90 05.3 +02.8	S 13 36.2 +00.1	108 19.0 +02.6	S 18 49.6 +00.1	06								
07	269 01.8 +01.0	N 07 07.8 -00.6	105 08.1 +02.7	S 13 36.3 +00.1	123 21.6 +02.7	S 18 49.7 +00.0	07								
08	284 02.8 +01.0	N 07 07.2 -00.6	120 10.8 +02.8	S 13 36.4 +00.1	138 24.3 +02.6	S 18 49.7 +00.1	08								
09	299 03.8 +01.0	N 07 06.6 -00.7	135 13.6 +02.8	S 13 36.5 +00.1	153 26.9 +02.6	S 18 49.8 +00.0	09								
10	314 04.8 +01.0	N 07 05.9 -00.6	150 16.4 +02.8	S 13 36.6 +00.1	168 29.5 +02.7	S 18 49.8 +00.1	10								
11	329 05.8 +01.0	N 07 05.3 -00.6	165 19.2 +02.8	S 13 36.7 +00.2	183 32.2 +02.6	S 18 49.9 +00.0	11								
12	344 06.8 +01.0	N 07 04.7 -00.6	180 22.0 +02.7	S 13 36.9 +00.1	198 34.8 +02.6	S 18 49.9 +00.1	12								
13	359 07.8 +01.0	N 07 04.1 -00.7	195 24.7 +02.8	S 13 37.0 +00.1	213 37.4 +02.7	S 18 50.0 +00.0	13								
14	14 08.8 +01.0	N 07 03.4 -00.6	210 27.5 +02.8	S 13 37.1 +00.1	228 40.1 +02.6	S 18 50.0 +00.1	14								
15	29 09.8 +01.0	N 07 02.8 -00.6	225 30.3 +02.8	S 13 37.2 +00.1	243 42.7 +02.6	S 18 50.1 +00.0	15								
16	44 10.8 +01.0	N 07 02.2 -00.6	240 33.1 +02.8	S 13 37.3 +00.1	258 45.3 +02.7	S 18 50.1 +00.1	16								
17	59 11.8 +01.0	N 07 01.6 -00.7	255 35.9 +02.7	S 13 37.4 +00.2	273 48.0 +02.6	S 18 50.2 +00.0	17								
18	74 12.8 +01.0	N 07 00.9 -00.6	270 38.6 +02.8	S 13 37.6 +00.1	288 50.6 +02.6	S 18 50.2 +00.1	18								
19	89 13.8 +01.0	N 07 00.3 -00.6	285 41.4 +02.8	S 13 37.7 +00.1	303 53.2 +02.7	S 18 50.3 +00.0	19								
20	104 14.8 +01.0	N 06 59.7 -00.7	300 44.2 +02.8	S 13 37.8 +00.1	318 55.9 +02.6	S 18 50.3 +00.0	20								
21	119 15.8 +00.9	N 06 59.0 -00.6	315 47.0 +02.7	S 13 37.9 +00.1	333 58.5 +02.7	S 18 50.3 +00.1	21								
22	134 16.7 +01.0	N 06 58.4 -00.6	330 49.7 +02.8	S 13 38.0 +00.1	349 01.2 +02.6	S 18 50.4 +00.0	22								
23	149 17.7 +01.0	N 06 57.8 -00.6	345 52.5 +02.8	S 13 38.1 +00.1	4 03.8 +02.6	S 18 50.4 +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	SHA 194° 194° 194° 194° 194° 194°	Greenwich Culmination Time: 13:03	UT 02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 030° 030° 030° 030° 030° 030°	Greenwich Culmination Time: 00:00	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	SHA 049° 049° 049° 049° 049° 049°	Greenwich Culmination Time: 22:43

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 15.6 +00.2	N 11 46.5 -00.9	144 03.6 -00.2	S 02 20.5 +01.3	3 45.3 -31.8	S 18 31.0 -10.8	00						
01	194 15.8 +00.1	N 11 45.6 -00.8	159 03.4 -00.2	S 02 21.8 +01.3	18 13.5 -31.7	S 18 20.2 -10.9	01						
02	209 15.9 +00.2	N 11 44.8 -00.9	174 03.2 -00.2	S 02 23.1 +01.3	32 41.8 -31.6	S 18 09.3 -11.0	02						
03	224 16.1 +00.1	N 11 43.9 -00.8	189 03.0 -00.2	S 02 24.4 +01.3	47 10.2 -31.6	S 17 58.3 -11.1	03						
04	239 16.2 +00.2	N 11 43.1 -00.8	204 02.8 -00.2	S 02 25.7 +01.2	61 38.6 -31.4	S 17 47.2 -11.1	04						
05	254 16.4 +00.2	N 11 42.3 -00.9	219 02.6 -00.2	S 02 26.9 +01.3	76 07.2 -31.3	S 17 36.1 -11.3	05						
06	269 16.6 +00.1	N 11 41.4 -00.8	234 02.4 -00.1	S 02 28.2 +01.3	90 35.9 -31.3	S 17 24.8 -11.3	06						
07	284 16.7 +00.2	N 11 40.6 -00.9	249 02.3 -00.2	S 02 29.5 +01.3	105 04.6 -31.1	S 17 13.5 -11.4	07						
08	299 16.9 +00.1	N 11 39.7 -00.8	264 02.1 -00.2	S 02 30.8 +01.3	119 33.5 -31.1	S 17 02.1 -11.5	08						
09	314 17.0 +00.2	N 11 38.9 -00.9	279 01.9 -00.2	S 02 32.1 +01.3	134 02.4 -30.9	S 16 50.6 -11.6	09						
10	329 17.2 +00.2	N 11 38.0 -00.8	294 01.7 -00.2	S 02 33.4 +01.3	148 31.5 -30.9	S 16 39.0 -11.7	10						
11	344 17.4 +00.1	N 11 37.2 -00.8	309 01.5 -00.2	S 02 34.7 +01.3	163 00.6 -30.7	S 16 27.3 -11.7	11						
12	359 17.5 +00.2	N 11 36.4 -00.9	324 01.3 -00.2	S 02 36.0 +01.2	177 29.9 -30.7	S 16 15.6 -11.8	12						
13	14 17.7 +00.2	N 11 35.5 -00.8	339 01.1 -00.1	S 02 37.2 +01.3	191 59.2 -30.5	S 16 03.8 -11.9	13						
14	29 17.9 +00.1	N 11 34.7 -00.9	354 01.0 -00.2	S 02 38.5 +01.3	206 28.7 -30.5	S 15 51.9 -12.0	14						
15	44 18.0 +00.2	N 11 33.8 -00.8	9 00.8 -00.2	S 02 39.8 +01.3	220 58.2 -30.4	S 15 39.9 -12.0	15						
16	59 18.2 +00.1	N 11 33.0 -00.9	24 00.6 -00.2	S 02 41.1 +01.3	235 27.8 -30.3	S 15 27.9 -12.1	16						
17	74 18.3 +00.2	N 11 32.1 -00.8	39 00.4 -00.2	S 02 42.4 +01.3	249 57.5 -30.2	S 15 15.8 -12.2	17						
18	89 18.5 +00.2	N 11 31.3 -00.9	54 00.2 -00.2	S 02 43.7 +01.3	264 27.3 -30.1	S 15 03.6 -12.2	18						
19	104 18.7 +00.1	N 11 30.4 -00.8	69 00.0 -00.2	S 02 45.0 +01.3	278 57.2 -30.0	S 14 51.4 -12.3	19						
20	119 18.8 +00.2	N 11 29.6 -00.8	83 59.8 -00.1	S 02 46.3 +01.2	293 27.2 -29.9	S 14 39.1 -12.4	20						
21	134 19.0 +00.2	N 11 28.8 -00.9	98 59.7 -00.2	S 02 47.5 +01.3	307 57.3 -29.8	S 14 26.7 -12.4	21						
22	149 19.2 +00.1	N 11 27.9 -00.8	113 59.5 -00.2	S 02 48.8 +01.3	322 27.5 -29.8	S 14 14.3 -12.5	22						
23	164 19.3 +00.2	N 11 27.1 -00.9	128 59.3 -00.2	S 02 50.1 +01.3	336 57.7 -29.6	S 14 01.8 -12.6	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'8 15'8 15'8 15'7 15'7 15'7								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 58'0 57'9 57'8 57'7 57'6 57'5								
	SHA 209° 209° 208° 208° 208° 208°		SHA 173° 173° 173° 173° 173° 173°		SHA 032° 030° 028° 025° 023° 021°								
	Greenwich Culmination Time: 12:02		Greenwich Culmination Time: 14:23		Greenwich Culmination Time: -1:00								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	164 18.7 +01.0	N 06 57.2 -00.7	0 55.3 +02.8	S 13 38.2 +00.2	19 06.4 +02.7	S 18 50.5 +00.0	00						
01	179 19.7 +01.0	N 06 56.5 -00.6	15 58.1 +02.8	S 13 38.4 +00.1	34 09.1 +02.6	S 18 50.5 +00.1	01						
02	194 20.7 +01.0	N 06 55.9 -00.6	31 00.9 +02.7	S 13 38.5 +00.1	49 11.7 +02.6	S 18 50.6 +00.0	02						
03	209 21.7 +01.0	N 06 55.3 -00.6	46 03.6 +02.8	S 13 38.6 +00.1	64 14.3 +02.7	S 18 50.6 +00.1	03						
04	224 22.7 +01.0	N 06 54.7 -00.7	61 06.4 +02.8	S 13 38.7 +00.1	79 17.0 +02.6	S 18 50.7 +00.0	04						
05	239 23.7 +01.0	N 06 54.0 -00.6	76 09.2 +02.8	S 13 38.8 +00.1	94 19.6 +02.6	S 18 50.7 +00.1	05						
06	254 24.7 +01.0	N 06 53.4 -00.6	91 12.0 +02.8	S 13 38.9 +00.2	109 22.2 +02.7	S 18 50.8 +00.0	06						
07	269 25.7 +01.0	N 06 52.8 -00.7	106 14.8 +02.7	S 13 39.1 +00.1	124 24.9 +02.6	S 18 50.8 +00.1	07						
08	284 26.7 +01.0	N 06 52.1 -00.6	121 17.5 +02.8	S 13 39.2 +00.1	139 27.5 +02.6	S 18 50.9 +00.0	08						
09	299 27.7 +01.0	N 06 51.5 -00.6	136 20.3 +02.8	S 13 39.3 +00.1	154 30.1 +02.7	S 18 50.9 +00.0	09						
10	314 28.7 +01.0	N 06 50.9 -00.6	151 23.1 +02.8	S 13 39.4 +00.1	169 32.8 +02.6	S 18 50.9 +00.1	10						
11	329 29.7 +01.0	N 06 50.3 -00.7	166 25.9 +02.8	S 13 39.5 +00.1	184 35.4 +02.6	S 18 51.0 +00.0	11						
12	344 30.7 +01.0	N 06 49.6 -00.6	181 28.7 +02.7	S 13 39.6 +00.2	199 38.0 +02.7	S 18 51.0 +00.1	12						
13	359 31.7 +01.0	N 06 49.0 -00.6	196 31.4 +02.8	S 13 39.8 +00.1	214 40.7 +02.6	S 18 51.1 +00.0	13						
14	14 32.7 +00.9	N 06 48.4 -00.7	211 34.2 +02.8	S 13 39.9 +00.1	229 43.3 +02.6	S 18 51.1 +00.1	14						
15	29 33.6 +01.0	N 06 47.7 -00.6	226 37.0 +02.8	S 13 40.0 +00.1	244 45.9 +02.7	S 18 51.2 +00.0	15						
16	44 34.6 +01.0	N 06 47.1 -00.6	241 39.8 +02.8	S 13 40.1 +00.1	259 48.6 +02.6	S 18 51.2 +00.1	16						
17	59 35.6 +01.0	N 06 46.5 -00.6	256 42.6 +02.7	S 13 40.2 +00.1	274 51.2 +02.6	S 18 51.3 +00.0	17						
18	74 36.6 +01.0	N 06 45.9 -00.7	271 45.3 +02.8	S 13 40.3 +00.1	289 53.8 +02.7	S 18 51.3 +00.1	18						
19	89 37.6 +01.0	N 06 45.2 -00.6	286 48.1 +02.8	S 13 40.4 +00.2	304 56.5 +02.6	S 18 51.4 +00.0	19						
20	104 38.6 +01.0	N 06 44.6 -00.6	301 50.9 +02.8	S 13 40.6 +00.1	319 59.1 +02.6	S 18 51.4 +00.1	20						
21	119 39.6 +01.0	N 06 44.0 -00.7	316 53.7 +02.7	S 13 40.7 +00.1	335 01.7 +02.7	S 18 51.5 +00.0	21						
22	134 40.6 +01.0	N 06 43.3 -00.6	331 56.4 +02.8	S 13 40.8 +00.1	350 04.4 +02.6	S 18 51.5 +00.0	22						
23	149 41.6 +01.0	N 06 42.7 -00.6	346 59.2 +02.8	S 13 40.9 +00.1	5 07.0 +02.6	S 18 51.5 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 194° 194° 194° 193° 193° 193°		SHA 030° 030° 030° 030° 030° 031°		SHA 049° 049° 049° 049° 049° 049°								
	Greenwich Culmination Time: 13:01		Greenwich Culmination Time: 23:51		Greenwich Culmination Time: 22:39								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 19.5 +00.2	N 11 26.2 -00.8	143 59.1 -00.2	S 02 51.4 +01.3	351 28.1 -29.6	S 13 49.2 -12.6	00						
01	194 19.7 +00.1	N 11 25.4 -00.9	158 58.9 -00.2	S 02 52.7 +01.3	5 58.5 -29.5	S 13 36.6 -12.6	01						
02	209 19.8 +00.2	N 11 24.5 -00.8	173 58.7 -00.1	S 02 54.0 +01.3	20 29.0 -29.4	S 13 24.0 -12.8	02						
03	224 20.0 +00.1	N 11 23.7 -00.9	188 58.6 -00.2	S 02 55.3 +01.2	34 59.6 -29.3	S 13 11.2 -12.7	03						
04	239 20.1 +00.2	N 11 22.8 -00.8	203 58.4 -00.2	S 02 56.5 +01.3	49 30.3 -29.2	S 12 58.5 -12.9	04						
05	254 20.3 +00.2	N 11 22.0 -00.9	218 58.2 -00.2	S 02 57.8 +01.3	64 01.1 -29.1	S 12 45.6 -12.8	05						
06	269 20.5 +00.1	N 11 21.1 -00.8	233 58.0 -00.2	S 02 59.1 +01.3	78 32.0 -29.1	S 12 32.8 -13.0	06						
07	284 20.6 +00.2	N 11 20.3 -00.9	248 57.8 -00.2	S 03 00.4 +01.3	93 02.9 -29.0	S 12 19.8 -12.9	07						
08	299 20.8 +00.2	N 11 19.4 -00.8	263 57.6 -00.2	S 03 01.7 +01.3	107 33.9 -28.8	S 12 06.9 -13.1	08						
09	314 21.0 +00.1	N 11 18.6 -00.9	278 57.4 -00.1	S 03 03.0 +01.3	122 05.1 -28.9	S 11 53.8 -13.0	09						
10	329 21.1 +00.2	N 11 17.7 -00.8	293 57.3 -00.2	S 03 04.3 +01.2	136 36.2 -28.7	S 11 40.8 -13.1	10						
11	344 21.3 +00.2	N 11 16.9 -00.9	308 57.1 -00.2	S 03 05.5 +01.3	151 07.5 -28.6	S 11 27.7 -13.2	11						
12	359 21.5 +00.1	N 11 16.0 -00.8	323 56.9 -00.2	S 03 06.8 +01.3	165 38.9 -28.6	S 11 14.5 -13.2	12						
13	14 21.6 +00.2	N 11 15.2 -00.9	338 56.7 -00.2	S 03 08.1 +01.3	180 10.3 -28.5	S 11 01.3 -13.2	13						
14	29 21.8 +00.2	N 11 14.3 -00.8	353 56.5 -00.2	S 03 09.4 +01.3	194 41.8 -28.4	S 10 48.1 -13.3	14						
15	44 22.0 +00.1	N 11 13.5 -00.9	8 56.3 -00.1	S 03 10.7 +01.3	209 13.4 -28.4	S 10 34.8 -13.3	15						
16	59 22.1 +00.2	N 11 12.6 -00.8	23 56.2 -00.2	S 03 12.0 +01.2	223 45.0 -28.2	S 10 21.5 -13.3	16						
17	74 22.3 +00.2	N 11 11.8 -00.9	38 56.0 -00.2	S 03 13.2 +01.3	238 16.8 -28.2	S 10 08.2 -13.4	17						
18	89 22.5 +00.1	N 11 10.9 -00.8	53 55.8 -00.2	S 03 14.5 +01.3	252 48.6 -28.1	S 09 54.8 -13.4	18						
19	104 22.6 +00.2	N 11 10.1 -00.9	68 55.6 -00.2	S 03 15.8 +01.3	267 20.5 -28.1	S 09 41.4 -13.5	19						
20	119 22.8 +00.2	N 11 09.2 -00.8	83 55.4 -00.2	S 03 17.1 +01.3	281 52.4 -28.0	S 09 27.9 -13.5	20						
21	134 23.0 +00.1	N 11 08.4 -00.9	98 55.2 -00.2	S 03 18.4 +01.3	296 24.4 -27.9	S 09 14.4 -13.5	21						
22	149 23.1 +00.2	N 11 07.5 -00.9	113 55.0 -00.1	S 03 19.7 +01.3	310 56.5 -27.8	S 09 00.9 -13.5	22						
23	164 23.3 +00.2	N 11 06.6 -00.8	128 54.9 -00.2	S 03 21.0 +01.2	325 28.7 -27.8	S 08 47.4 -13.6	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'6 15'6 15'6 15'6 15'5 15'5								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 57'4 57'3 57'2 57'1 57'0 56'9								
	SHA 208° 208° 207° 207° 207° 207°		SHA 172° 172° 172° 172° 172° 172°		SHA 019° 017° 015° 013° 011° 009°								
	Greenwich Culmination Time: 12:02		Greenwich Culmination Time: 14:24		Greenwich Culmination Time: 00:35								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	164 42.6 +01.0	N 06 42.1 -00.7	2 02.0 +02.8	S 13 41.0 +00.1	20 09.6 +02.7	S 18 51.6 +00.0	00						
01	179 43.6 +01.0	N 06 41.4 -00.6	17 04.8 +02.8	S 13 41.1 +00.2	35 12.3 +02.6	S 18 51.6 +00.1	01						
02	194 44.6 +01.0	N 06 40.8 -00.6	32 07.6 +02.7	S 13 41.3 +00.1	50 14.9 +02.6	S 18 51.7 +00.0	02						
03	209 45.6 +01.0	N 06 40.2 -00.6	47 10.3 +02.8	S 13 41.4 +00.1	65 17.5 +02.7	S 18 51.7 +00.1	03						
04	224 46.6 +01.0	N 06 39.6 -00.7	62 13.1 +02.8	S 13 41.5 +00.1	80 20.2 +02.6	S 18 51.8 +00.0	04						
05	239 47.6 +01.0	N 06 38.9 -00.6	77 15.9 +02.8	S 13 41.6 +00.1	95 22.8 +02.6	S 18 51.8 +00.1	05						
06	254 48.6 +01.0	N 06 38.3 -00.6	92 18.7 +02.8	S 13 41.7 +00.1	110 25.4 +02.7	S 18 51.9 +00.0	06						
07	269 49.6 +00.9	N 06 37.7 -00.7	107 21.5 +02.7	S 13 41.8 +00.1	125 28.1 +02.6	S 18 51.9 +00.1	07						
08	284 50.5 +01.0	N 06 37.0 -00.6	122 24.2 +02.8	S 13 41.9 +00.2	140 30.7 +02.6	S 18 52.0 +00.0	08						
09	299 51.5 +01.0	N 06 36.4 -00.6	137 27.0 +02.8	S 13 42.1 +00.1	155 33.3 +02.6	S 18 52.0 +00.0	09						
10	314 52.5 +01.0	N 06 35.8 -00.7	152 29.8 +02.8	S 13 42.2 +00.1	170 35.9 +02.7	S 18 52.0 +00.1	10						
11	329 53.5 +01.0	N 06 35.1 -00.6	167 32.6 +02.7	S 13 42.3 +00.1	185 38.6 +02.6	S 18 52.1 +00.0	11						
12	344 54.5 +01.0	N 06 34.5 -00.6	182 35.3 +02.8	S 13 42.4 +00.1	200 41.2 +02.6	S 18 52.1 +00.1	12						
13	359 55.5 +01.0	N 06 33.9 -00.6	197 38.1 +02.8	S 13 42.5 +00.1	215 43.8 +02.7	S 18 52.2 +00.0	13						
14	14 56.5 +01.0	N 06 33.3 -00.7	212 40.9 +02.8	S 13 42.6 +00.2	230 46.5 +02.6	S 18 52.2 +00.1	14						
15	29 57.5 +01.0	N 06 32.6 -00.6	227 43.7 +02.8	S 13 42.8 +00.1	245 49.1 +02.6	S 18 52.3 +00.0	15						
16	44 58.5 +01.0	N 06 32.0 -00.6	242 46.5 +02.7	S 13 42.9 +00.1	260 51.7 +02.7	S 18 52.3 +00.1	16						
17	59 59.5 +01.0	N 06 31.4 -00.7	257 49.2 +02.8	S 13 43.0 +00.1	275 54.4 +02.6	S 18 52.4 +00.0	17						
18	75 00.5 +01.0	N 06 30.7 -00.6	272 52.0 +02.8	S 13 43.1 +00.1	290 57.0 +02.6	S 18 52.4 +00.1	18						
19	90 01.5 +01.0	N 06 30.1 -00.6	287 54.8 +02.8	S 13 43.2 +00.1	305 59.6 +02.7	S 18 52.5 +00.0	19						
20	105 02.5 +01.0	N 06 29.5 -00.7	302 57.6 +02.8	S 13 43.3 +00.1	321 02.3 +02.6	S 18 52.5 +00.0	20						
21	120 03.5 +01.0	N 06 28.8 -00.6	318 00.4 +02.7	S 13 43.4 +00.2	336 04.9 +02.6	S 18 52.5 +00.1	21						
22	135 04.5 +01.0	N 06 28.2 -00.6	333 03.1 +02.8	S 13 43.6 +00.1	351 07.5 +02.7	S 18 52.6 +00.0	22						
23	150 05.5 +01.0	N 06 27.6 -00.7	348 05.9 +02.8	S 13 43.7 +00.1	6 10.2 +02.6	S 18 52.6 +00.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 193° 193° 193° 193° 193° 193°		SHA 031° 031° 031° 031° 031° 031°		SHA 049° 049° 049° 049° 049° 049°								
	Greenwich Culmination Time: 13:00		Greenwich Culmination Time: 23:47		Greenwich Culmination Time: 22:35								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 23.5 +00.2	N 11 05.8 -00.9	143 54.7 -00.2	S 03 22.2 +01.3	340 00.9 -27.7	S 08 33.8 -13.6	00						
01	194 23.7 +00.1	N 11 04.9 -00.8	158 54.5 -00.2	S 03 23.5 +01.3	354 33.2 -27.6	S 08 20.2 -13.6	01						
02	209 23.8 +00.2	N 11 04.1 -00.9	173 54.3 -00.2	S 03 24.8 +01.3	9 05.6 -27.6	S 08 06.6 -13.6	02						
03	224 24.0 +00.2	N 11 03.2 -00.8	188 54.1 -00.2	S 03 26.1 +01.3	23 38.0 -27.5	S 07 53.0 -13.7	03						
04	239 24.2 +00.1	N 11 02.4 -00.9	203 53.9 -00.1	S 03 27.4 +01.3	38 10.5 -27.5	S 07 39.3 -13.6	04						
05	254 24.3 +00.2	N 11 01.5 -00.8	218 53.8 -00.2	S 03 28.7 +01.2	52 43.0 -27.4	S 07 25.7 -13.7	05						
06	269 24.5 +00.2	N 11 00.7 -00.9	233 53.6 -00.2	S 03 29.9 +01.3	67 15.6 -27.3	S 07 12.0 -13.7	06						
07	284 24.7 +00.1	N 10 59.8 -00.9	248 53.4 -00.2	S 03 31.2 +01.3	81 48.3 -27.3	S 06 58.3 -13.8	07						
08	299 24.8 +00.2	N 10 58.9 -00.8	263 53.2 -00.2	S 03 32.5 +01.3	96 21.0 -27.2	S 06 44.5 -13.7	08						
09	314 25.0 +00.2	N 10 58.1 -00.9	278 53.0 -00.2	S 03 33.8 +01.3	110 53.8 -27.1	S 06 30.8 -13.8	09						
10	329 25.2 +00.1	N 10 57.2 -00.8	293 52.8 -00.1	S 03 35.1 +01.3	125 26.7 -27.1	S 06 17.0 -13.8	10						
11	344 25.3 +00.2	N 10 56.4 -00.9	308 52.7 -00.2	S 03 36.4 +01.2	139 59.6 -27.1	S 06 03.2 -13.8	11						
12	359 25.5 +00.2	N 10 55.5 -00.8	323 52.5 -00.2	S 03 37.6 +01.3	154 32.5 -26.9	S 05 49.4 -13.8	12						
13	14 25.7 +00.2	N 10 54.7 -00.9	338 52.3 -00.2	S 03 38.9 +01.3	169 05.6 -27.0	S 05 35.6 -13.8	13						
14	29 25.9 +00.1	N 10 53.8 -00.9	353 52.1 -00.2	S 03 40.2 +01.3	183 38.6 -26.8	S 05 21.8 -13.8	14						
15	44 26.0 +00.2	N 10 52.9 -00.8	8 51.9 -00.2	S 03 41.5 +01.3	198 11.8 -26.9	S 05 08.0 -13.8	15						
16	59 26.2 +00.2	N 10 52.1 -00.9	23 51.7 -00.2	S 03 42.8 +01.3	212 44.9 -26.7	S 04 54.2 -13.9	16						
17	74 26.4 +00.1	N 10 51.2 -00.8	38 51.5 -00.1	S 03 44.1 +01.2	227 18.2 -26.8	S 04 40.3 -13.8	17						
18	89 26.5 +00.2	N 10 50.4 -00.9	53 51.4 -00.2	S 03 45.3 +01.3	241 51.4 -26.6	S 04 26.5 -13.8	18						
19	104 26.7 +00.2	N 10 49.5 -00.9	68 51.2 -00.2	S 03 46.6 +01.3	256 24.8 -26.7	S 04 12.7 -13.9	19						
20	119 26.9 +00.2	N 10 48.6 -00.8	83 51.0 -00.2	S 03 47.9 +01.3	270 58.1 -26.6	S 03 58.8 -13.9	20						
21	134 27.1 +00.1	N 10 47.8 -00.9	98 50.8 -00.2	S 03 49.2 +01.3	285 31.5 -26.5	S 03 44.9 -13.8	21						
22	149 27.2 +00.2	N 10 46.9 -00.8	113 50.6 -00.2	S 03 50.5 +01.2	300 05.0 -26.5	S 03 31.1 -13.9	22						
23	164 27.4 +00.2	N 10 46.1 -00.9	128 50.4 -00.1	S 03 51.7 +01.3	314 38.5 -26.4	S 03 17.2 -13.8	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'5 15'4 15'4 15'4 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 56'8 56'7 56'6 56'4 56'3 56'2								
	SHA 207° 207° 207° 206° 206° 206°		SHA 171° 171° 171° 171° 171° 170°		SHA 007° 005° 003° 001° 359° 357°								
	Greenwich Culmination Time: 12:02		Greenwich Culmination Time: 14:24		Greenwich Culmination Time: 01:22								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	165 06.5 +01.0	N 06 26.9 -00.6	3 08.7 +02.8	S 13 43.8 +00.1	21 12.8 +02.6	S 18 52.7 +00.0	00						
01	180 07.5 +01.0	N 06 26.3 -00.6	18 11.5 +02.7	S 13 43.9 +00.1	36 15.4 +02.6	S 18 52.7 +00.1	01						
02	195 08.5 +00.9	N 06 25.7 -00.7	33 14.2 +02.8	S 13 44.0 +00.1	51 18.0 +02.7	S 18 52.8 +00.0	02						
03	210 09.4 +01.0	N 06 25.0 -00.6	48 17.0 +02.8	S 13 44.1 +00.1	66 20.7 +02.6	S 18 52.8 +00.1	03						
04	225 10.4 +01.0	N 06 24.4 -00.6	63 19.8 +02.8	S 13 44.2 +00.2	81 23.3 +02.6	S 18 52.9 +00.0	04						
05	240 11.4 +01.0	N 06 23.8 -00.6	78 22.6 +02.8	S 13 44.4 +00.1	96 25.9 +02.7	S 18 52.9 +00.0	05						
06	255 12.4 +01.0	N 06 23.2 -00.7	93 25.4 +02.7	S 13 44.5 +00.1	111 28.6 +02.6	S 18 52.9 +00.1	06						
07	270 13.4 +01.0	N 06 22.5 -00.6	108 28.1 +02.8	S 13 44.6 +00.1	126 31.2 +02.6	S 18 53.0 +00.0	07						
08	285 14.4 +01.0	N 06 21.9 -00.6	123 30.9 +02.8	S 13 44.7 +00.1	141 33.8 +02.7	S 18 53.0 +00.1	08						
09	300 15.4 +01.0	N 06 21.3 -00.7	138 33.7 +02.8	S 13 44.8 +00.1	156 36.5 +02.6	S 18 53.1 +00.0	09						
10	315 16.4 +01.0	N 06 20.6 -00.6	153 36.5 +02.7	S 13 44.9 +00.1	171 39.1 +02.6	S 18 53.1 +00.1	10						
11	330 17.4 +01.0	N 06 20.0 -00.6	168 39.2 +02.8	S 13 45.0 +00.2	186 41.7 +02.7	S 18 53.2 +00.0	11						
12	345 18.4 +01.0	N 06 19.4 -00.7	183 42.0 +02.8	S 13 45.2 +00.1	201 44.4 +02.6	S 18 53.2 +00.1	12						
13	0 19.4 +01.0	N 06 18.7 -00.6	198 44.8 +02.8	S 13 45.3 +00.1	216 47.0 +02.6	S 18 53.3 +00.0	13						
14	15 20.4 +01.0	N 06 18.1 -00.6	213 47.6 +02.8	S 13 45.4 +00.1	231 49.6 +02.6	S 18 53.3 +00.1	14						
15	30 21.4 +01.0	N 06 17.5 -00.7	228 50.4 +02.7	S 13 45.5 +00.1	246 52.2 +02.7	S 18 53.4 +00.0	15						
16	45 22.4 +01.0	N 06 16.8 -00.6	243 53.1 +02.8	S 13 45.6 +00.1	261 54.9 +02.6	S 18 53.4 +00.0	16						
17	60 23.4 +01.0	N 06 16.2 -00.6	258 55.9 +02.8	S 13 45.7 +00.1	276 57.5 +02.6	S 18 53.4 +00.1	17						
18	75 24.4 +01.0	N 06 15.6 -00.7	273 58.7 +02.8	S 13 45.8 +00.2	292 00.1 +02.7	S 18 53.5 +00.0	18						
19	90 25.4 +01.0	N 06 14.9 -00.6	289 01.5 +02.7	S 13 46.0 +00.1	307 02.8 +02.6	S 18 53.5 +00.1	19						
20	105 26.4 +01.0	N 06 14.3 -00.6	304 04.2 +02.8	S 13 46.1 +00.1	322 05.4 +02.6	S 18 53.6 +00.0	20						
21	120 27.4 +01.0	N 06 13.7 -00.7	319 07.0 +02.8	S 13 46.2 +00.1	337 08.0 +02.6	S 18 53.6 +00.1	21						
22	135 28.4 +00.9	N 06 13.0 -00.6	334 09.8 +02.8	S 13 46.3 +00.1	352 10.6 +02.7	S 18 53.7 +00.0	22						
23	150 29.3 +01.0	N 06 12.4 -00.6	349 12.6 +02.8	S 13 46.4 +00.1	7 13.3 +02.6	S 18 53.7 +00.1	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 193° 192° 192° 192° 192° 192°		SHA 031° 031° 031° 031° 031° 031°		SHA 049° 049° 049° 049° 049° 049°								
	Greenwich Culmination Time: 12:58		Greenwich Culmination Time: 23:43		Greenwich Culmination Time: 22:31								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 27.6 +00.2	N 10	45.2 -00.9	143 50.3 -00.2	S 03	53.0 +01.3	329 12.1 -26.4	S 03	03.4 -13.9	00			
01	194 27.8 +00.1	N 10	44.3 -00.8	158 50.1 -00.2	S 03	54.3 +01.3	343 45.7 -26.4	S 02	49.5 -13.8	01			
02	209 27.9 +00.2	N 10	43.5 -00.9	173 49.9 -00.2	S 03	55.6 +01.3	358 19.3 -26.3	S 02	35.7 -13.9	02			
03	224 28.1 +00.2	N 10	42.6 -00.8	188 49.7 -00.2	S 03	56.9 +01.3	12 53.0 -26.3	S 02	21.8 -13.8	03			
04	239 28.3 +00.1	N 10	41.8 -00.9	203 49.5 -00.2	S 03	58.2 +01.2	27 26.7 -26.3	S 02	08.0 -13.9	04			
05	254 28.4 +00.2	N 10	40.9 -00.9	218 49.3 -00.1	S 03	59.4 +01.3	42 00.4 -26.2	S 01	54.1 -13.8	05			
06	269 28.6 +00.2	N 10	40.0 -00.8	233 49.2 -00.2	S 04	00.7 +01.3	56 34.2 -26.1	S 01	40.3 -13.9	06			
07	284 28.8 +00.2	N 10	39.2 -00.9	248 49.0 -00.2	S 04	02.0 +01.3	71 08.1 -26.2	S 01	26.4 -13.8	07			
08	299 29.0 +00.1	N 10	38.3 -00.9	263 48.8 -00.2	S 04	03.3 +01.3	85 41.9 -26.1	S 01	12.6 -13.8	08			
09	314 29.1 +00.2	N 10	37.4 -00.8	278 48.6 -00.2	S 04	04.6 +01.2	100 15.8 -26.1	S 00	58.8 -13.8	09			
10	329 29.3 +00.2	N 10	36.6 -00.9	293 48.4 -00.2	S 04	05.8 +01.3	114 49.7 -26.0	S 00	45.0 -13.8	10			
11	344 29.5 +00.2	N 10	35.7 -00.9	308 48.2 -00.2	S 04	07.1 +01.3	129 23.7 -26.0	S 00	31.2 -13.8	11			
12	359 29.7 +00.1	N 10	34.8 -00.8	323 48.0 -00.1	S 04	08.4 +01.3	143 57.7 -26.0	S 00	17.4 -13.8	12			
13	14 29.8 +00.2	N 10	34.0 -00.9	338 47.9 -00.2	S 04	09.7 +01.3	158 31.7 -25.9	S 00	03.6 -13.7	13			
14	29 30.0 +00.2	N 10	33.1 -00.9	353 47.7 -00.2	S 04	11.0 +01.2	173 05.8 -26.0	N 00	10.1 +13.8	14			
15	44 30.2 +00.2	N 10	32.2 -00.8	8 47.5 -00.2	S 04	12.2 +01.3	187 39.8 -25.9	N 00	23.9 +13.7	15			
16	59 30.4 +00.1	N 10	31.4 -00.9	23 47.3 -00.2	S 04	13.5 +01.3	202 13.9 -25.8	N 00	37.6 +13.7	16			
17	74 30.5 +00.2	N 10	30.5 -00.9	38 47.1 -00.2	S 04	14.8 +01.3	216 48.1 -25.9	N 00	51.3 +13.7	17			
18	89 30.7 +00.2	N 10	29.6 -00.8	53 46.9 -00.1	S 04	16.1 +01.3	231 22.2 -25.8	N 01	05.0 +13.7	18			
19	104 30.9 +00.2	N 10	28.8 -00.9	68 46.8 -00.2	S 04	17.4 +01.2	245 56.4 -25.8	N 01	18.7 +13.6	19			
20	119 31.1 +00.1	N 10	27.9 -00.9	83 46.6 -00.2	S 04	18.6 +01.3	260 30.6 -25.8	N 01	32.3 +13.7	20			
21	134 31.2 +00.2	N 10	27.0 -00.8	98 46.4 -00.2	S 04	19.9 +01.3	275 04.8 -25.7	N 01	46.0 +13.6	21			
22	149 31.4 +00.2	N 10	26.2 -00.9	113 46.2 -00.2	S 04	21.2 +01.3	289 39.1 -25.8	N 01	59.6 +13.6	22			
23	164 31.6 +00.2	N 10	25.3 -00.9	128 46.0 -00.2	S 04	22.5 +01.3	304 13.3 -25.7	N 02	13.2 +13.6	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'8 15'8 15'8 15'8 15'8 15'8			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'3 15'3 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 56'1 56'0 55'9 55'8 55'7 55'6						
	SHA 206° 206° 206° 205° 205° 205°			SHA 170° 170° 170° 170° 170° 169°			SHA 355° 353° 351° 349° 347° 345°						
	Greenwich Culmination Time: 12:02			Greenwich Culmination Time: 14:24			Greenwich Culmination Time: 02:06						
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	165 30.3 +01.0	N 06	11.8 -00.7	4 15.4 +02.7	S 13	46.5 +00.1	22 15.9 +02.6	S 18	53.8 +00.0	00			
01	180 31.3 +01.0	N 06	11.1 -00.6	19 18.1 +02.8	S 13	46.6 +00.2	37 18.5 +02.7	S 18	53.8 +00.0	01			
02	195 32.3 +01.0	N 06	10.5 -00.6	34 20.9 +02.8	S 13	46.8 +00.1	52 21.2 +02.6	S 18	53.8 +00.1	02			
03	210 33.3 +01.0	N 06	09.9 -00.7	49 23.7 +02.8	S 13	46.9 +00.1	67 23.8 +02.6	S 18	53.9 +00.0	03			
04	225 34.3 +01.0	N 06	09.2 -00.6	64 26.5 +02.7	S 13	47.0 +00.1	82 26.4 +02.6	S 18	53.9 +00.1	04			
05	240 35.3 +01.0	N 06	08.6 -00.6	79 29.2 +02.8	S 13	47.1 +00.1	97 29.0 +02.7	S 18	54.0 +00.0	05			
06	255 36.3 +01.0	N 06	08.0 -00.7	94 32.0 +02.8	S 13	47.2 +00.1	112 31.7 +02.6	S 18	54.0 +00.1	06			
07	270 37.3 +01.0	N 06	07.3 -00.6	109 34.8 +02.8	S 13	47.3 +00.1	127 34.3 +02.6	S 18	54.1 +00.0	07			
08	285 38.3 +01.0	N 06	06.7 -00.6	124 37.6 +02.8	S 13	47.4 +00.2	142 36.9 +02.7	S 18	54.1 +00.1	08			
09	300 39.3 +01.0	N 06	06.1 -00.7	139 40.4 +02.7	S 13	47.6 +00.1	157 39.6 +02.6	S 18	54.2 +00.0	09			
10	315 40.3 +01.0	N 06	05.4 -00.6	154 43.1 +02.8	S 13	47.7 +00.1	172 42.2 +02.6	S 18	54.2 +00.0	10			
11	330 41.3 +01.0	N 06	04.8 -00.6	169 45.9 +02.8	S 13	47.8 +00.1	187 44.8 +02.6	S 18	54.2 +00.1	11			
12	345 42.3 +01.0	N 06	04.2 -00.7	184 48.7 +02.8	S 13	47.9 +00.1	202 47.4 +02.7	S 18	54.3 +00.0	12			
13	0 43.3 +01.0	N 06	03.5 -00.6	199 51.5 +02.7	S 13	48.0 +00.1	217 50.1 +02.6	S 18	54.3 +00.1	13			
14	15 44.3 +01.0	N 06	02.9 -00.6	214 54.2 +02.8	S 13	48.1 +00.1	232 52.7 +02.6	S 18	54.4 +00.0	14			
15	30 45.3 +01.0	N 06	02.3 -00.7	229 57.0 +02.8	S 13	48.2 +00.2	247 55.3 +02.7	S 18	54.4 +00.1	15			
16	45 46.3 +01.0	N 06	01.6 -00.6	244 59.8 +02.8	S 13	48.4 +00.1	262 58.0 +02.6	S 18	54.5 +00.0	16			
17	60 47.3 +01.0	N 06	01.0 -00.6	260 02.6 +02.7	S 13	48.5 +00.1	278 00.6 +02.6	S 18	54.5 +00.0	17			
18	75 48.3 +01.0	N 06	00.4 -00.7	275 05.3 +02.8	S 13	48.6 +00.1	293 03.2 +02.6	S 18	54.5 +00.1	18			
19	90 49.3 +01.0	N 05	59.7 -00.6	290 08.1 +02.8	S 13	48.7 +00.1	308 05.8 +02.7	S 18	54.6 +00.0	19			
20	105 50.3 +00.9	N 05	59.1 -00.6	305 10.9 +02.8	S 13	48.8 +00.1	323 08.5 +02.6	S 18	54.6 +00.1	20			
21	120 51.2 +01.0	N 05	58.5 -00.7	320 13.7 +02.8	S 13	48.9 +00.1	338 11.1 +02.6	S 18	54.7 +00.0	21			
22	135 52.2 +01.0	N 05	57.8 -00.6	335 16.5 +02.7	S 13	49.0 +00.1	353 13.7 +02.6	S 18	54.7 +00.1	22			
23	150 53.2 +01.0	N 05	57.2 -00.7	350 19.2 +02.8	S 13	49.1 +00.2	8 16.3 +02.7	S 18	54.8 +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 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'2 00'2 00'2 00'2 00'2 00'2						
	HP 00'1 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						
	SHA 192° 192° 192° 192° 192° 191°			SHA 031° 031° 031° 031° 031° 031°			SHA 049° 049° 049° 049° 049° 049°						
	Greenwich Culmination Time: 12:57			Greenwich Culmination Time: 23:38			Greenwich Culmination Time: 22:27						



UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 31.8 +00.2	N 10 24.4 -00.8	143 45.8 -00.1	S 04 23.8 +01.2	318 47.6 -25.7	N 02 26.8 +13.5	00						
01	194 32.0 +00.1	N 10 23.6 -00.9	158 45.7 -00.2	S 04 25.0 +01.3	333 21.9 -25.7	N 02 40.3 +13.6	01						
02	209 32.1 +00.2	N 10 22.7 -00.9	173 45.5 -00.2	S 04 26.3 +01.3	347 56.2 -25.7	N 02 53.9 +13.5	02						
03	224 32.3 +00.2	N 10 21.8 -00.8	188 45.3 -00.2	S 04 27.6 +01.3	2 30.5 -25.6	N 03 07.4 +13.5	03						
04	239 32.5 +00.2	N 10 21.0 -00.9	203 45.1 -00.2	S 04 28.9 +01.2	17 04.9 -25.6	N 03 20.9 +13.4	04						
05	254 32.7 +00.1	N 10 20.1 -00.9	218 44.9 -00.2	S 04 30.1 +01.3	31 39.3 -25.7	N 03 34.3 +13.4	05						
06	269 32.8 +00.2	N 10 19.2 -00.9	233 44.7 -00.2	S 04 31.4 +01.3	46 13.6 -25.6	N 03 47.7 +13.5	06						
07	284 33.0 +00.2	N 10 18.3 -00.8	248 44.5 -00.1	S 04 32.7 +01.3	60 48.0 -25.6	N 04 01.2 +13.3	07						
08	299 33.2 +00.2	N 10 17.5 -00.9	263 44.4 -00.2	S 04 34.0 +01.3	75 22.4 -25.6	N 04 14.5 +13.4	08						
09	314 33.4 +00.2	N 10 16.6 -00.9	278 44.2 -00.2	S 04 35.3 +01.2	89 56.8 -25.6	N 04 27.9 +13.3	09						
10	329 33.6 +00.1	N 10 15.7 -00.8	293 44.0 -00.2	S 04 36.5 +01.3	104 31.2 -25.6	N 04 41.2 +13.3	10						
11	344 33.7 +00.2	N 10 14.9 -00.9	308 43.8 -00.2	S 04 37.8 +01.3	119 05.6 -25.5	N 04 54.5 +13.2	11						
12	359 33.9 +00.2	N 10 14.0 -00.9	323 43.6 -00.2	S 04 39.1 +01.3	133 40.1 -25.6	N 05 07.7 +13.3	12						
13	14 34.1 +00.2	N 10 13.1 -00.9	338 43.4 -00.1	S 04 40.4 +01.2	148 14.5 -25.6	N 05 21.0 +13.2	13						
14	29 34.3 +00.2	N 10 12.2 -00.8	353 43.3 -00.2	S 04 41.6 +01.3	162 48.9 -25.5	N 05 34.2 +13.1	14						
15	44 34.5 +00.1	N 10 11.4 -00.9	8 43.1 -00.2	S 04 42.9 +01.3	177 23.4 -25.6	N 05 47.3 +13.1	15						
16	59 34.6 +00.2	N 10 10.5 -00.9	23 42.9 -00.2	S 04 44.2 +01.3	191 57.8 -25.5	N 06 00.4 +13.1	16						
17	74 34.8 +00.2	N 10 09.6 -00.9	38 42.7 -00.2	S 04 45.5 +01.2	206 32.3 -25.6	N 06 13.5 +13.1	17						
18	89 35.0 +00.2	N 10 08.7 -00.8	53 42.5 -00.2	S 04 46.7 +01.3	221 06.7 -25.6	N 06 26.6 +13.0	18						
19	104 35.2 +00.2	N 10 07.9 -00.9	68 42.3 -00.2	S 04 48.0 +01.3	235 41.1 -25.5	N 06 39.6 +13.0	19						
20	119 35.4 +00.1	N 10 07.0 -00.9	83 42.1 -00.1	S 04 49.3 +01.3	250 15.6 -25.6	N 06 52.6 +12.9	20						
21	134 35.5 +00.2	N 10 06.1 -00.8	98 42.0 -00.2	S 04 50.6 +01.3	264 50.0 -25.5	N 07 05.5 +12.9	21						
22	149 35.7 +00.2	N 10 05.3 -00.9	113 41.8 -00.2	S 04 51.9 +01.2	279 24.5 -25.6	N 07 18.4 +12.9	22						
23	164 35.9 +00.2	N 10 04.4 -00.9	128 41.6 -00.2	S 04 53.1 +01.3	293 58.9 -25.6	N 07 31.3 +12.8	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 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 15'1 15'0 15'0 15'0								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 55'5 55'4 55'3 55'2 55'1 55'1								
	SHA 205° 205° 205° 205° 204° 204°		SHA 169° 169° 169° 169° 169° 168°		SHA 343° 342° 340° 338° 336° 334°								
	Greenwich Culmination Time: 12:01		Greenwich Culmination Time: 14:25		Greenwich Culmination Time: 02:49								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	165 54.2 +01.0	N 05 56.5 -00.6	5 22.0 +02.8	S 13 49.3 +00.1	23 19.0 +02.6	S 18 54.8 +00.1	00						
01	180 55.2 +01.0	N 05 55.9 -00.6	20 24.8 +02.8	S 13 49.4 +00.1	38 21.6 +02.6	S 18 54.9 +00.0	01						
02	195 56.2 +01.0	N 05 55.3 -00.7	35 27.6 +02.7	S 13 49.5 +00.1	53 24.2 +02.6	S 18 54.9 +00.0	02						
03	210 57.2 +01.0	N 05 54.6 -00.6	50 30.3 +02.8	S 13 49.6 +00.1	68 26.8 +02.7	S 18 54.9 +00.1	03						
04	225 58.2 +01.0	N 05 54.0 -00.6	65 33.1 +02.8	S 13 49.7 +00.1	83 29.5 +02.6	S 18 55.0 +00.0	04						
05	240 59.2 +01.0	N 05 53.4 -00.7	80 35.9 +02.8	S 13 49.8 +00.1	98 32.1 +02.6	S 18 55.0 +00.1	05						
06	256 00.2 +01.0	N 05 52.7 -00.6	95 38.7 +02.7	S 13 49.9 +00.1	113 34.7 +02.7	S 18 55.1 +00.0	06						
07	271 01.2 +01.0	N 05 52.1 -00.6	110 41.4 +02.8	S 13 50.0 +00.2	128 37.4 +02.6	S 18 55.1 +00.1	07						
08	286 02.2 +01.0	N 05 51.5 -00.7	125 44.2 +02.8	S 13 50.2 +00.1	143 40.0 +02.6	S 18 55.2 +00.0	08						
09	301 03.2 +01.0	N 05 50.8 -00.6	140 47.0 +02.8	S 13 50.3 +00.1	158 42.6 +02.6	S 18 55.2 +00.0	09						
10	316 04.2 +01.0	N 05 50.2 -00.6	155 49.8 +02.7	S 13 50.4 +00.1	173 45.2 +02.7	S 18 55.2 +00.1	10						
11	331 05.2 +01.0	N 05 49.6 -00.7	170 52.5 +02.8	S 13 50.5 +00.1	188 47.9 +02.6	S 18 55.3 +00.0	11						
12	346 06.2 +01.0	N 05 48.9 -00.6	185 55.3 +02.8	S 13 50.6 +00.1	203 50.5 +02.6	S 18 55.3 +00.1	12						
13	1 07.2 +01.0	N 05 48.3 -00.7	200 58.1 +02.8	S 13 50.7 +00.1	218 53.1 +02.6	S 18 55.4 +00.0	13						
14	16 08.2 +01.0	N 05 47.6 -00.6	216 00.9 +02.7	S 13 50.8 +00.2	233 55.7 +02.7	S 18 55.4 +00.1	14						
15	31 09.2 +01.0	N 05 47.0 -00.6	231 03.6 +02.8	S 13 51.0 +00.1	248 58.4 +02.6	S 18 55.5 +00.0	15						
16	46 10.2 +01.0	N 05 46.4 -00.7	246 06.4 +02.8	S 13 51.1 +00.1	264 01.0 +02.6	S 18 55.5 +00.1	16						
17	61 11.2 +01.0	N 05 45.7 -00.6	261 09.2 +02.8	S 13 51.2 +00.1	279 03.6 +02.6	S 18 55.6 +00.0	17						
18	76 12.2 +01.0	N 05 45.1 -00.6	276 12.0 +02.7	S 13 51.3 +00.1	294 06.2 +02.7	S 18 55.6 +00.0	18						
19	91 13.2 +00.9	N 05 44.5 -00.7	291 14.7 +02.8	S 13 51.4 +00.1	309 08.9 +02.6	S 18 55.6 +00.1	19						
20	106 14.1 +01.0	N 05 43.8 -00.6	306 17.5 +02.8	S 13 51.5 +00.1	324 11.5 +02.6	S 18 55.7 +00.0	20						
21	121 15.1 +01.0	N 05 43.2 -00.6	321 20.3 +02.8	S 13 51.6 +00.1	339 14.1 +02.6	S 18 55.7 +00.1	21						
22	136 16.1 +01.0	N 05 42.6 -00.7	336 23.1 +02.7	S 13 51.7 +00.2	354 16.7 +02.7	S 18 55.8 +00.0	22						
23	151 17.1 +01.0	N 05 41.9 -00.6	351 25.8 +02.8	S 13 51.9 +00.1	9 19.4 +02.6	S 18 55.8 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 191° 191° 191° 191° 191° 191°		SHA 031° 031° 031° 031° 031° 031°		SHA 049° 049° 049° 049° 049° 049°								
	Greenwich Culmination Time: 12:55		Greenwich Culmination Time: 23:34		Greenwich Culmination Time: 22:22								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 36.1 +00.2	N 10 03.5 -00.9	143 41.4 -00.2	S 04 54.4 +01.3	308 33.3 -25.5	N 07 44.1 +12.8	00						
01	194 36.3 +00.1	N 10 02.6 -00.9	158 41.2 -00.2	S 04 55.7 +01.3	323 07.8 -25.6	N 07 56.9 +12.7	01						
02	209 36.4 +00.2	N 10 01.7 -00.8	173 41.0 -00.1	S 04 57.0 +01.2	337 42.2 -25.6	N 08 09.6 +12.7	02						
03	224 36.6 +00.2	N 10 00.9 -00.9	188 40.9 -00.2	S 04 58.2 +01.3	352 16.6 -25.6	N 08 22.3 +12.7	03						
04	239 36.8 +00.2	N 09 60.0 -00.9	203 40.7 -00.2	S 04 59.5 +01.3	6 51.0 -25.6	N 08 35.0 +12.6	04						
05	254 37.0 +00.2	N 09 59.1 -00.9	218 40.5 -00.2	S 05 00.8 +01.3	21 25.4 -25.6	N 08 47.6 +12.6	05						
06	269 37.2 +00.1	N 09 58.2 -00.8	233 40.3 -00.2	S 05 02.1 +01.2	35 59.8 -25.6	N 09 00.2 +12.5	06						
07	284 37.3 +00.2	N 09 57.4 -00.9	248 40.1 -00.2	S 05 03.3 +01.3	50 34.2 -25.7	N 09 12.7 +12.5	07						
08	299 37.5 +00.2	N 09 56.5 -00.9	263 39.9 -00.2	S 05 04.6 +01.3	65 08.5 -25.6	N 09 25.2 +12.4	08						
09	314 37.7 +00.2	N 09 55.6 -00.9	278 39.7 -00.1	S 05 05.9 +01.3	79 42.9 -25.7	N 09 37.6 +12.4	09						
10	329 37.9 +00.2	N 09 54.7 -00.8	293 39.6 -00.2	S 05 07.2 +01.2	94 17.2 -25.7	N 09 50.0 +12.4	10						
11	344 38.1 +00.2	N 09 53.9 -00.9	308 39.4 -00.2	S 05 08.4 +01.3	108 51.5 -25.7	N 10 02.4 +12.3	11						
12	359 38.3 +00.1	N 09 53.0 -00.9	323 39.2 -00.2	S 05 09.7 +01.3	123 25.8 -25.7	N 10 14.7 +12.2	12						
13	14 38.4 +00.2	N 09 52.1 -00.9	338 39.0 -00.2	S 05 11.0 +01.2	138 00.1 -25.7	N 10 26.9 +12.2	13						
14	29 38.6 +00.2	N 09 51.2 -00.9	353 38.8 -00.2	S 05 12.2 +01.3	152 34.4 -25.8	N 10 39.1 +12.1	14						
15	44 38.8 +00.2	N 09 50.3 -00.8	8 38.6 -00.2	S 05 13.5 +01.3	167 08.6 -25.7	N 10 51.2 +12.1	15						
16	59 39.0 +00.2	N 09 49.5 -00.9	23 38.4 -00.1	S 05 14.8 +01.3	181 42.9 -25.8	N 11 03.3 +12.1	16						
17	74 39.2 +00.2	N 09 48.6 -00.9	38 38.3 -00.2	S 05 16.1 +01.2	196 17.1 -25.8	N 11 15.4 +12.0	17						
18	89 39.4 +00.1	N 09 47.7 -00.9	53 38.1 -00.2	S 05 17.3 +01.3	210 51.3 -25.8	N 11 27.4 +11.9	18						
19	104 39.5 +00.2	N 09 46.8 -00.9	68 37.9 -00.2	S 05 18.6 +01.3	225 25.5 -25.9	N 11 39.3 +11.9	19						
20	119 39.7 +00.2	N 09 45.9 -00.8	83 37.7 -00.2	S 05 19.9 +01.3	239 59.6 -25.9	N 11 51.2 +11.8	20						
21	134 39.9 +00.2	N 09 45.1 -00.9	98 37.5 -00.2	S 05 21.2 +01.2	254 33.7 -25.9	N 12 03.0 +11.8	21						
22	149 40.1 +00.2	N 09 44.2 -00.9	113 37.3 -00.2	S 05 22.4 +01.3	269 07.8 -25.9	N 12 14.8 +11.7	22						
23	164 40.3 +00.2	N 09 43.3 -00.9	128 37.1 -00.1	S 05 23.7 +01.3	283 41.9 -25.9	N 12 26.5 +11.7	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 15'0 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 55'0 54'9 54'8 54'8 54'7 54'6								
	SHA 204° 204° 204° 204° 203° 203°		SHA 168° 168° 168° 168° 167° 167°		SHA 332° 330° 328° 327° 325° 323°								
	Greenwich Culmination Time: 12:01		Greenwich Culmination Time: 14:25		Greenwich Culmination Time: 03:31								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	166 18.1 +01.0	N 05 41.3 -00.7	6 28.6 +02.8	S 13 52.0 +00.1	24 22.0 +02.6	S 18 55.9 +00.0	00						
01	181 19.1 +01.0	N 05 40.6 -00.6	21 31.4 +02.8	S 13 52.1 +00.1	39 24.6 +02.6	S 18 55.9 +00.0	01						
02	196 20.1 +01.0	N 05 40.0 -00.6	36 34.2 +02.7	S 13 52.2 +00.1	54 27.2 +02.7	S 18 55.9 +00.1	02						
03	211 21.1 +01.0	N 05 39.4 -00.7	51 36.9 +02.8	S 13 52.3 +00.1	69 29.9 +02.6	S 18 56.0 +00.0	03						
04	226 22.1 +01.0	N 05 38.7 -00.6	66 39.7 +02.8	S 13 52.4 +00.1	84 32.5 +02.6	S 18 56.0 +00.1	04						
05	241 23.1 +01.0	N 05 38.1 -00.6	81 42.5 +02.8	S 13 52.5 +00.1	99 35.1 +02.6	S 18 56.1 +00.0	05						
06	256 24.1 +01.0	N 05 37.5 -00.7	96 45.3 +02.7	S 13 52.6 +00.1	114 37.7 +02.7	S 18 56.1 +00.1	06						
07	271 25.1 +01.0	N 05 36.8 -00.6	111 48.0 +02.8	S 13 52.7 +00.2	129 40.4 +02.6	S 18 56.2 +00.0	07						
08	286 26.1 +01.0	N 05 36.2 -00.7	126 50.8 +02.8	S 13 52.9 +00.1	144 43.0 +02.6	S 18 56.2 +00.0	08						
09	301 27.1 +01.0	N 05 35.5 -00.6	141 53.6 +02.8	S 13 53.0 +00.1	159 45.6 +02.6	S 18 56.2 +00.1	09						
10	316 28.1 +01.0	N 05 34.9 -00.6	156 56.4 +02.7	S 13 53.1 +00.1	174 48.2 +02.6	S 18 56.3 +00.0	10						
11	331 29.1 +01.0	N 05 34.3 -00.7	171 59.1 +02.8	S 13 53.2 +00.1	189 50.8 +02.7	S 18 56.3 +00.1	11						
12	346 30.1 +01.0	N 05 33.6 -00.6	187 01.9 +02.8	S 13 53.3 +00.1	204 53.5 +02.6	S 18 56.4 +00.0	12						
13	1 31.1 +01.0	N 05 33.0 -00.6	202 04.7 +02.8	S 13 53.4 +00.1	219 56.1 +02.6	S 18 56.4 +00.1	13						
14	16 32.1 +01.0	N 05 32.4 -00.7	217 07.5 +02.7	S 13 53.5 +00.1	234 58.7 +02.6	S 18 56.5 +00.0	14						
15	31 33.1 +01.0	N 05 31.7 -00.6	232 10.2 +02.8	S 13 53.6 +00.2	250 01.3 +02.7	S 18 56.5 +00.0	15						
16	46 34.1 +01.0	N 05 31.1 -00.7	247 13.0 +02.8	S 13 53.8 +00.1	265 04.0 +02.6	S 18 56.5 +00.1	16						
17	61 35.1 +01.0	N 05 30.4 -00.6	262 15.8 +02.8	S 13 53.9 +00.1	280 06.6 +02.6	S 18 56.6 +00.0	17						
18	76 36.1 +01.0	N 05 29.8 -00.6	277 18.6 +02.7	S 13 54.0 +00.1	295 09.2 +02.6	S 18 56.6 +00.1	18						
19	91 37.1 +00.9	N 05 29.2 -00.7	292 21.3 +02.8	S 13 54.1 +00.1	310 11.8 +02.7	S 18 56.7 +00.0	19						
20	106 38.0 +01.0	N 05 28.5 -00.6	307 24.1 +02.8	S 13 54.2 +00.1	325 14.5 +02.6	S 18 56.7 +00.1	20						
21	121 39.0 +01.0	N 05 27.9 -00.6	322 26.9 +02.8	S 13 54.3 +00.1	340 17.1 +02.6	S 18 56.8 +00.0	21						
22	136 40.0 +01.0	N 05 27.3 -00.7	337 29.7 +02.7	S 13 54.4 +00.1	355 19.7 +02.6	S 18 56.8 +00.0	22						
23	151 41.0 +01.0	N 05 26.6 -00.6	352 32.4 +02.8	S 13 54.5 +00.1	10 22.3 +02.6	S 18 56.8 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 191° 191° 191° 191° 190° 190°		SHA 031° 031° 031° 031° 031° 031°		SHA 049° 049° 049° 049° 049° 049°								
	Greenwich Culmination Time: 12:53		Greenwich Culmination Time: 23:29		Greenwich Culmination Time: 22:18								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 40.5 +00.1	N 09	42.4 -00.9	143 37.0 -00.2	S 05	25.0 +01.2	298 16.0 -26.0	N 12	38.2 +11.6	00			
01	194 40.6 +00.2	N 09	41.5 -00.9	158 36.8 -00.2	S 05	26.2 +01.3	312 50.0 -26.0	N 12	49.8 +11.5	01			
02	209 40.8 +00.2	N 09	40.6 -00.8	173 36.6 -00.2	S 05	27.5 +01.3	327 24.0 -26.0	N 13	01.3 +11.5	02			
03	224 41.0 +00.2	N 09	39.8 -00.9	188 36.4 -00.2	S 05	28.8 +01.3	341 58.0 -26.1	N 13	12.8 +11.4	03			
04	239 41.2 +00.2	N 09	38.9 -00.9	203 36.2 -00.2	S 05	30.1 +01.2	356 31.9 -26.1	N 13	24.2 +11.4	04			
05	254 41.4 +00.2	N 09	38.0 -00.9	218 36.0 -00.2	S 05	31.3 +01.3	11 05.8 -26.1	N 13	35.6 +11.3	05			
06	269 41.6 +00.2	N 09	37.1 -00.9	233 35.8 -00.1	S 05	32.6 +01.3	25 39.7 -26.1	N 13	46.9 +11.3	06			
07	284 41.8 +00.1	N 09	36.2 -00.9	248 35.7 -00.2	S 05	33.9 +01.2	40 13.6 -26.2	N 13	58.2 +11.2	07			
08	299 41.9 +00.2	N 09	35.3 -00.8	263 35.5 -00.2	S 05	35.1 +01.3	54 47.4 -26.2	N 14	09.4 +11.1	08			
09	314 42.1 +00.2	N 09	34.5 -00.9	278 35.3 -00.2	S 05	36.4 +01.3	69 21.2 -26.3	N 14	20.5 +11.0	09			
10	329 42.3 +00.2	N 09	33.6 -00.9	293 35.1 -00.2	S 05	37.7 +01.3	83 54.9 -26.3	N 14	31.5 +11.0	10			
11	344 42.5 +00.2	N 09	32.7 -00.9	308 34.9 -00.2	S 05	39.0 +01.2	98 28.6 -26.3	N 14	42.5 +11.0	11			
12	359 42.7 +00.2	N 09	31.8 -00.9	323 34.7 -00.2	S 05	40.2 +01.3	113 02.3 -26.3	N 14	53.5 +10.9	12			
13	14 42.9 +00.2	N 09	30.9 -00.9	338 34.5 -00.1	S 05	41.5 +01.3	127 36.0 -26.4	N 15	04.4 +10.8	13			
14	29 43.1 +00.1	N 09	30.0 -00.9	353 34.4 -00.2	S 05	42.8 +01.2	142 09.6 -26.4	N 15	15.2 +10.7	14			
15	44 43.2 +00.2	N 09	29.1 -00.8	8 34.2 -00.2	S 05	44.0 +01.3	156 43.2 -26.5	N 15	25.9 +10.7	15			
16	59 43.4 +00.2	N 09	28.3 -00.9	23 34.0 -00.2	S 05	45.3 +01.3	171 16.7 -26.5	N 15	36.6 +10.6	16			
17	74 43.6 +00.2	N 09	27.4 -00.9	38 33.8 -00.2	S 05	46.6 +01.2	185 50.2 -26.5	N 15	47.2 +10.5	17			
18	89 43.8 +00.2	N 09	26.5 -00.9	53 33.6 -00.2	S 05	47.8 +01.3	200 23.7 -26.6	N 15	57.7 +10.5	18			
19	104 44.0 +00.2	N 09	25.6 -00.9	68 33.4 -00.2	S 05	49.1 +01.3	214 57.1 -26.6	N 16	08.2 +10.4	19			
20	119 44.2 +00.2	N 09	24.7 -00.9	83 33.2 -00.2	S 05	50.4 +01.2	229 30.5 -26.6	N 16	18.6 +10.3	20			
21	134 44.4 +00.2	N 09	23.8 -00.9	98 33.0 -00.1	S 05	51.6 +01.3	244 03.9 -26.7	N 16	28.9 +10.3	21			
22	149 44.6 +00.1	N 09	22.9 -00.9	113 32.9 -00.2	S 05	52.9 +01.3	258 37.2 -26.8	N 16	39.2 +10.2	22			
23	164 44.7 +00.2	N 09	22.0 -00.8	128 32.7 -00.2	S 05	54.2 +01.3	273 10.4 -26.7	N 16	49.4 +10.1	23			
	<b>UT 02 06 10 14 18 22</b>			<b>UT 02 06 10 14 18 22</b>			<b>UT 02 06 10 14 18 22</b>						
	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 14'9 14'9 14'8 14'8 14'8 14'8						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'6 54'5 54'5 54'4 54'4 54'4						
	SHA 203° 203° 203° 203° 203° 202°			SHA 167° 167° 167° 167° 166° 166°			SHA 321° 319° 317° 315° 313° 311°						
	Greenwich Culmination Time: 12:01			Greenwich Culmination Time: 14:25			Greenwich Culmination Time: 04:14						

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	166 42.0 +01.0	N 05	26.0 -00.7	7 35.2 +02.8	S 13	54.6 +00.2	25 24.9 +02.7	S 18	56.9 +00.0	00			
01	181 43.0 +01.0	N 05	25.3 -00.6	22 38.0 +02.8	S 13	54.8 +00.1	40 27.6 +02.6	S 18	56.9 +00.1	01			
02	196 44.0 +01.0	N 05	24.7 -00.6	37 40.8 +02.7	S 13	54.9 +00.1	55 30.2 +02.6	S 18	57.0 +00.0	02			
03	211 45.0 +01.0	N 05	24.1 -00.7	52 43.5 +02.8	S 13	55.0 +00.1	70 32.8 +02.6	S 18	57.0 +00.0	03			
04	226 46.0 +01.0	N 05	23.4 -00.6	67 46.3 +02.8	S 13	55.1 +00.1	85 35.4 +02.7	S 18	57.0 +00.1	04			
05	241 47.0 +01.0	N 05	22.8 -00.7	82 49.1 +02.7	S 13	55.2 +00.1	100 38.1 +02.6	S 18	57.1 +00.0	05			
06	256 48.0 +01.0	N 05	22.1 -00.6	97 51.8 +02.8	S 13	55.3 +00.1	115 40.7 +02.6	S 18	57.1 +00.1	06			
07	271 49.0 +01.0	N 05	21.5 -00.6	112 54.6 +02.8	S 13	55.4 +00.1	130 43.3 +02.6	S 18	57.2 +00.0	07			
08	286 50.0 +01.0	N 05	20.9 -00.7	127 57.4 +02.8	S 13	55.5 +00.1	145 45.9 +02.6	S 18	57.2 +00.1	08			
09	301 51.0 +01.0	N 05	20.2 -00.6	143 00.2 +02.7	S 13	55.6 +00.2	160 48.5 +02.7	S 18	57.3 +00.0	09			
10	316 52.0 +01.0	N 05	19.6 -00.6	158 02.9 +02.8	S 13	55.8 +00.1	175 51.2 +02.6	S 18	57.3 +00.0	10			
11	331 53.0 +01.0	N 05	19.0 -00.7	173 05.7 +02.8	S 13	55.9 +00.1	190 53.8 +02.6	S 18	57.3 +00.1	11			
12	346 54.0 +01.0	N 05	18.3 -00.6	188 08.5 +02.8	S 13	56.0 +00.1	205 56.4 +02.6	S 18	57.4 +00.0	12			
13	1 55.0 +01.0	N 05	17.7 -00.7	203 11.3 +02.7	S 13	56.1 +00.1	220 59.0 +02.6	S 18	57.4 +00.1	13			
14	16 56.0 +01.0	N 05	17.0 -00.6	218 14.0 +02.8	S 13	56.2 +00.1	236 01.6 +02.7	S 18	57.5 +00.0	14			
15	31 57.0 +01.0	N 05	16.4 -00.6	233 16.8 +02.8	S 13	56.3 +00.1	251 04.3 +02.6	S 18	57.5 +00.1	15			
16	46 58.0 +01.0	N 05	15.8 -00.7	248 19.6 +02.8	S 13	56.4 +00.1	266 06.9 +02.6	S 18	57.6 +00.0	16			
17	61 59.0 +01.0	N 05	15.1 -00.6	263 22.4 +02.7	S 13	56.5 +00.1	281 09.5 +02.6	S 18	57.6 +00.0	17			
18	76 60.0 +01.0	N 05	14.5 -00.7	278 25.1 +02.8	S 13	56.6 +00.2	296 12.1 +02.7	S 18	57.6 +00.1	18			
19	92 01.0 +01.0	N 05	13.8 -00.6	293 27.9 +02.8	S 13	56.8 +00.1	311 14.8 +02.6	S 18	57.7 +00.0	19			
20	107 02.0 +01.0	N 05	13.2 -00.6	308 30.7 +02.7	S 13	56.9 +00.1	326 17.4 +02.6	S 18	57.7 +00.1	20			
21	122 03.0 +00.9	N 05	12.6 -00.7	323 33.4 +02.8	S 13	57.0 +00.1	341 20.0 +02.6	S 18	57.8 +00.0	21			
22	137 03.9 +01.0	N 05	11.9 -00.6	338 36.2 +02.8	S 13	57.1 +00.1	356 22.6 +02.6	S 18	57.8 +00.0	22			
23	152 04.9 +01.0	N 05	11.3 -00.7	353 39.0 +02.8	S 13	57.2 +00.1	11 25.2 +02.7	S 18	57.8 +00.1	23			
	<b>UT 02 06 10 14 18 22</b>			<b>UT 02 06 10 14 18 22</b>			<b>UT 02 06 10 14 18 22</b>						
	SD 00'0 00'0 00'0 00'0 00'0 00'0			SD 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'2 00'2 00'2 00'2 00'2 00'2						
	HP 00'1 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						
	SHA 190° 190° 190° 190° 190° 190°			SHA 031° 031° 031° 031° 031° 031°			SHA 049° 049° 049° 049° 049° 049°						
	Greenwich Culmination Time: 12:52			Greenwich Culmination Time: 23:25			Greenwich Culmination Time: 22:14						

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 44.9 +00.2	N 09 21.2 -00.9	143 32.5 -00.2	S 05 55.5 +01.2	287 43.7 -26.9	N 16 59.5 +10.0	00						
01	194 45.1 +00.2	N 09 20.3 -00.9	158 32.3 -00.2	S 05 56.7 +01.3	302 16.8 -26.8	N 17 09.5 +10.0	01						
02	209 45.3 +00.2	N 09 19.4 -00.9	173 32.1 -00.2	S 05 58.0 +01.3	316 50.0 -26.9	N 17 19.5 +09.9	02						
03	224 45.5 +00.2	N 09 18.5 -00.9	188 31.9 -00.2	S 05 59.3 +01.2	331 23.1 -27.0	N 17 29.4 +09.8	03						
04	239 45.7 +00.2	N 09 17.6 -00.9	203 31.7 -00.1	S 06 00.5 +01.3	345 56.1 -27.0	N 17 39.2 +09.7	04						
05	254 45.9 +00.2	N 09 16.7 -00.9	218 31.6 -00.2	S 06 01.8 +01.3	0 29.1 -27.0	N 17 48.9 +09.7	05						
06	269 46.1 +00.1	N 09 15.8 -00.9	233 31.4 -00.2	S 06 03.1 +01.2	15 02.1 -27.1	N 17 58.6 +09.6	06						
07	284 46.2 +00.2	N 09 14.9 -00.9	248 31.2 -00.2	S 06 04.3 +01.3	29 35.0 -27.1	N 18 08.2 +09.5	07						
08	299 46.4 +00.2	N 09 14.0 -00.8	263 31.0 -00.2	S 06 05.6 +01.3	44 07.9 -27.2	N 18 17.7 +09.4	08						
09	314 46.6 +00.2	N 09 13.2 -00.9	278 30.8 -00.2	S 06 06.9 +01.2	58 40.7 -27.2	N 18 27.1 +09.4	09						
10	329 46.8 +00.2	N 09 12.3 -00.9	293 30.6 -00.2	S 06 08.1 +01.3	73 13.5 -27.3	N 18 36.5 +09.3	10						
11	344 47.0 +00.2	N 09 11.4 -00.9	308 30.4 -00.2	S 06 09.4 +01.2	87 46.2 -27.3	N 18 45.8 +09.2	11						
12	359 47.2 +00.2	N 09 10.5 -00.9	323 30.2 -00.2	S 06 10.6 +01.3	102 18.9 -27.4	N 18 55.0 +09.1	12						
13	14 47.4 +00.2	N 09 09.6 -00.9	338 30.0 -00.1	S 06 11.9 +01.3	116 51.5 -27.4	N 19 04.1 +09.0	13						
14	29 47.6 +00.2	N 09 08.7 -00.9	353 29.9 -00.2	S 06 13.2 +01.2	131 24.1 -27.5	N 19 13.1 +09.0	14						
15	44 47.8 +00.2	N 09 07.8 -00.9	8 29.7 -00.2	S 06 14.4 +01.3	145 56.6 -27.5	N 19 22.1 +08.8	15						
16	59 48.0 +00.1	N 09 06.9 -00.9	23 29.5 -00.2	S 06 15.7 +01.3	160 29.1 -27.6	N 19 30.9 +08.8	16						
17	74 48.1 +00.2	N 09 06.0 -00.9	38 29.3 -00.2	S 06 17.0 +01.2	175 01.5 -27.6	N 19 39.7 +08.7	17						
18	89 48.3 +00.2	N 09 05.1 -00.9	53 29.1 -00.2	S 06 18.2 +01.3	189 33.9 -27.7	N 19 48.4 +08.6	18						
19	104 48.5 +00.2	N 09 04.2 -00.9	68 28.9 -00.2	S 06 19.5 +01.3	204 06.2 -27.7	N 19 57.0 +08.6	19						
20	119 48.7 +00.2	N 09 03.3 -00.9	83 28.7 -00.2	S 06 20.8 +01.2	218 38.5 -27.8	N 20 05.6 +08.4	20						
21	134 48.9 +00.2	N 09 02.4 -00.9	98 28.5 -00.1	S 06 22.0 +01.3	233 10.7 -27.9	N 20 14.0 +08.4	21						
22	149 49.1 +00.2	N 09 01.5 -00.8	113 28.4 -00.2	S 06 23.3 +01.3	247 42.8 -27.8	N 20 22.4 +08.2	22						
23	164 49.3 +00.2	N 09 00.7 -00.9	128 28.2 -00.2	S 06 24.6 +01.2	262 15.0 -28.0	N 20 30.6 +08.2	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'8 14'8 14'8 14'8 14'8 14'8								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'3 54'3 54'3 54'3 54'2 54'2								
	SHA 202° 202° 202° 202° 202° 201°		SHA 166° 166° 166° 166° 165° 165°		SHA 309° 307° 305° 303° 301° 299°								
	Greenwich Culmination Time: 12:00		Greenwich Culmination Time: 14:26		Greenwich Culmination Time: 04:57								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	167 05.9 +01.0	N 05 10.6 -00.6	8 41.8 +02.7	S 13 57.3 +00.1	26 27.9 +02.6	S 18 57.9 +00.0	00						
01	182 06.9 +01.0	N 05 10.0 -00.6	23 44.5 +02.8	S 13 57.4 +00.1	41 30.5 +02.6	S 18 57.9 +00.1	01						
02	197 07.9 +01.0	N 05 09.4 -00.7	38 47.3 +02.8	S 13 57.5 +00.1	56 33.1 +02.6	S 18 58.0 +00.0	02						
03	212 08.9 +01.0	N 05 08.7 -00.6	53 50.1 +02.7	S 13 57.6 +00.1	71 35.7 +02.6	S 18 58.0 +00.1	03						
04	227 09.9 +01.0	N 05 08.1 -00.7	68 52.8 +02.8	S 13 57.7 +00.2	86 38.3 +02.7	S 18 58.1 +00.0	04						
05	242 10.9 +01.0	N 05 07.4 -00.6	83 55.6 +02.8	S 13 57.9 +00.1	101 41.0 +02.6	S 18 58.1 +00.0	05						
06	257 11.9 +01.0	N 05 06.8 -00.6	98 58.4 +02.8	S 13 58.0 +00.1	116 43.6 +02.6	S 18 58.1 +00.1	06						
07	272 12.9 +01.0	N 05 06.2 -00.7	114 01.2 +02.7	S 13 58.1 +00.1	131 46.2 +02.6	S 18 58.2 +00.0	07						
08	287 13.9 +01.0	N 05 05.5 -00.6	129 03.9 +02.8	S 13 58.2 +00.1	146 48.8 +02.6	S 18 58.2 +00.1	08						
09	302 14.9 +01.0	N 05 04.9 -00.7	144 06.7 +02.8	S 13 58.3 +00.1	161 51.4 +02.6	S 18 58.3 +00.0	09						
10	317 15.9 +01.0	N 05 04.2 -00.6	159 09.5 +02.7	S 13 58.4 +00.1	176 54.0 +02.7	S 18 58.3 +00.0	10						
11	332 16.9 +01.0	N 05 03.6 -00.7	174 12.2 +02.8	S 13 58.5 +00.1	191 56.7 +02.6	S 18 58.3 +00.1	11						
12	347 17.9 +01.0	N 05 02.9 -00.6	189 15.0 +02.8	S 13 58.6 +00.1	206 59.3 +02.6	S 18 58.4 +00.0	12						
13	2 18.9 +01.0	N 05 02.3 -00.6	204 17.8 +02.8	S 13 58.7 +00.1	222 01.9 +02.6	S 18 58.4 +00.1	13						
14	17 19.9 +01.0	N 05 01.7 -00.7	219 20.6 +02.7	S 13 58.8 +00.2	237 04.5 +02.6	S 18 58.5 +00.0	14						
15	32 20.9 +01.0	N 05 01.0 -00.6	234 23.3 +02.8	S 13 59.0 +00.1	252 07.1 +02.7	S 18 58.5 +00.0	15						
16	47 21.9 +01.0	N 05 00.4 -00.7	249 26.1 +02.8	S 13 59.1 +00.1	267 09.8 +02.6	S 18 58.5 +00.1	16						
17	62 22.9 +01.0	N 04 59.7 -00.6	264 28.9 +02.7	S 13 59.2 +00.1	282 12.4 +02.6	S 18 58.6 +00.0	17						
18	77 23.9 +01.0	N 04 59.1 -00.6	279 31.6 +02.8	S 13 59.3 +00.1	297 15.0 +02.6	S 18 58.6 +00.1	18						
19	92 24.9 +01.0	N 04 58.5 -00.7	294 34.4 +02.8	S 13 59.4 +00.1	312 17.6 +02.6	S 18 58.7 +00.0	19						
20	107 25.9 +01.0	N 04 57.8 -00.6	309 37.2 +02.7	S 13 59.5 +00.1	327 20.2 +02.6	S 18 58.7 +00.1	20						
21	122 26.9 +01.0	N 04 57.2 -00.7	324 39.9 +02.8	S 13 59.6 +00.1	342 22.8 +02.7	S 18 58.8 +00.0	21						
22	137 27.9 +00.9	N 04 56.5 -00.6	339 42.7 +02.8	S 13 59.7 +00.1	357 25.5 +02.6	S 18 58.8 +00.0	22						
23	152 28.8 +01.0	N 04 55.9 -00.6	354 45.5 +02.8	S 13 59.8 +00.1	12 28.1 +02.6	S 18 58.8 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 190° 190° 189° 189° 189° 189°		SHA 031° 031° 031° 031° 031° 031°		SHA 049° 049° 049° 049° 049° 049°								
	Greenwich Culmination Time: 12:50		Greenwich Culmination Time: 23:20		Greenwich Culmination Time: 22:10								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 49.5 +00.2	N 08 59.8 -00.9	143 28.0 -00.2	S 06 25.8 +01.3	276 47.0 -28.0	N 20 38.8 +08.1	00						
01	194 49.7 +00.2	N 08 58.9 -00.9	158 27.8 -00.2	S 06 27.1 +01.2	291 19.0 -28.0	N 20 46.9 +08.0	01						
02	209 49.9 +00.2	N 08 58.0 -00.9	173 27.6 -00.2	S 06 28.3 +01.3	305 51.0 -28.1	N 20 54.9 +07.9	02						
03	224 50.1 +00.1	N 08 57.1 -00.9	188 27.4 -00.2	S 06 29.6 +01.3	320 22.9 -28.2	N 21 02.8 +07.8	03						
04	239 50.2 +00.2	N 08 56.2 -00.9	203 27.2 -00.2	S 06 30.9 +01.2	334 54.7 -28.2	N 21 10.6 +07.8	04						
05	254 50.4 +00.2	N 08 55.3 -00.9	218 27.0 -00.2	S 06 32.1 +01.3	349 26.5 -28.2	N 21 18.4 +07.6	05						
06	269 50.6 +00.2	N 08 54.4 -00.9	233 26.8 -00.2	S 06 33.4 +01.3	3 58.3 -28.3	N 21 26.0 +07.5	06						
07	284 50.8 +00.2	N 08 53.5 -00.9	248 26.6 -00.1	S 06 34.7 +01.2	18 30.0 -28.4	N 21 33.5 +07.5	07						
08	299 51.0 +00.2	N 08 52.6 -00.9	263 26.5 -00.2	S 06 35.9 +01.3	33 01.6 -28.4	N 21 41.0 +07.3	08						
09	314 51.2 +00.2	N 08 51.7 -00.9	278 26.3 -00.2	S 06 37.2 +01.2	47 33.2 -28.5	N 21 48.3 +07.3	09						
10	329 51.4 +00.2	N 08 50.8 -00.9	293 26.1 -00.2	S 06 38.4 +01.3	62 04.7 -28.5	N 21 55.6 +07.1	10						
11	344 51.6 +00.2	N 08 49.9 -00.9	308 25.9 -00.2	S 06 39.7 +01.3	76 36.2 -28.6	N 22 02.7 +07.1	11						
12	359 51.8 +00.2	N 08 49.0 -00.9	323 25.7 -00.2	S 06 41.0 +01.2	91 07.6 -28.7	N 22 09.8 +07.0	12						
13	14 52.0 +00.2	N 08 48.1 -00.9	338 25.5 -00.2	S 06 42.2 +01.3	105 38.9 -28.7	N 22 16.8 +06.9	13						
14	29 52.2 +00.2	N 08 47.2 -00.9	353 25.3 -00.2	S 06 43.5 +01.2	120 10.2 -28.7	N 22 23.7 +06.7	14						
15	44 52.4 +00.2	N 08 46.3 -00.9	8 25.1 -00.2	S 06 44.7 +01.3	134 41.5 -28.8	N 22 30.4 +06.7	15						
16	59 52.6 +00.2	N 08 45.4 -00.9	23 24.9 -00.1	S 06 46.0 +01.3	149 12.7 -28.9	N 22 37.1 +06.6	16						
17	74 52.8 +00.1	N 08 44.5 -00.9	38 24.8 -00.2	S 06 47.3 +01.2	163 43.8 -28.9	N 22 43.7 +06.4	17						
18	89 52.9 +00.2	N 08 43.6 -00.9	53 24.6 -00.2	S 06 48.5 +01.3	178 14.9 -29.0	N 22 50.1 +06.4	18						
19	104 53.1 +00.2	N 08 42.7 -00.9	68 24.4 -00.2	S 06 49.8 +01.2	192 45.9 -29.0	N 22 56.5 +06.3	19						
20	119 53.3 +00.2	N 08 41.8 -00.9	83 24.2 -00.2	S 06 51.0 +01.3	207 16.9 -29.1	N 23 02.8 +06.1	20						
21	134 53.5 +00.2	N 08 40.9 -00.9	98 24.0 -00.2	S 06 52.3 +01.3	221 47.8 -29.2	N 23 08.9 +06.1	21						
22	149 53.7 +00.2	N 08 40.0 -00.9	113 23.8 -00.2	S 06 53.6 +01.2	236 18.6 -29.2	N 23 15.0 +05.9	22						
23	164 53.9 +00.2	N 08 39.1 -00.9	128 23.6 -00.2	S 06 54.8 +01.3	250 49.4 -29.2	N 23 20.9 +05.9	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			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 54'2 54'2 54'2 54'3 54'3 54'3						
	SHA 201° 201° 201° 201° 201° 201°			SHA 165° 165° 165° 164° 164° 164°			SHA 297° 295° 293° 291° 289° 287°						
	Greenwich Culmination Time: 12:00			Greenwich Culmination Time: 14:26			Greenwich Culmination Time: 05:43						

  

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	167 29.8 +01.0	N 04 55.3 -00.7	9 48.3 +02.7	S 13 59.9 +00.2	27 30.7 +02.6	S 18 58.9 +00.0	00						
01	182 30.8 +01.0	N 04 54.6 -00.6	24 51.0 +02.8	S 14 00.1 +00.1	42 33.3 +02.6	S 18 58.9 +00.1	01						
02	197 31.8 +01.0	N 04 54.0 -00.7	39 53.8 +02.8	S 14 00.2 +00.1	57 35.9 +02.7	S 18 59.0 +00.0	02						
03	212 32.8 +01.0	N 04 53.3 -00.6	54 56.6 +02.7	S 14 00.3 +00.1	72 38.6 +02.6	S 18 59.0 +00.0	03						
04	227 33.8 +01.0	N 04 52.7 -00.7	69 59.3 +02.8	S 14 00.4 +00.1	87 41.2 +02.6	S 18 59.0 +00.1	04						
05	242 34.8 +01.0	N 04 52.0 -00.6	85 02.1 +02.8	S 14 00.5 +00.1	102 43.8 +02.6	S 18 59.1 +00.0	05						
06	257 35.8 +01.0	N 04 51.4 -00.6	100 04.9 +02.7	S 14 00.6 +00.1	117 46.4 +02.6	S 18 59.1 +00.1	06						
07	272 36.8 +01.0	N 04 50.8 -00.7	115 07.6 +02.8	S 14 00.7 +00.1	132 49.0 +02.6	S 18 59.2 +00.0	07						
08	287 37.8 +01.0	N 04 50.1 -00.6	130 10.4 +02.8	S 14 00.8 +00.1	147 51.6 +02.7	S 18 59.2 +00.0	08						
09	302 38.8 +01.0	N 04 49.5 -00.7	145 13.2 +02.8	S 14 00.9 +00.1	162 54.3 +02.6	S 18 59.2 +00.1	09						
10	317 39.8 +01.0	N 04 48.8 -00.6	160 16.0 +02.7	S 14 01.0 +00.1	177 56.9 +02.6	S 18 59.3 +00.0	10						
11	332 40.8 +01.0	N 04 48.2 -00.7	175 18.7 +02.8	S 14 01.1 +00.2	192 59.5 +02.6	S 18 59.3 +00.1	11						
12	347 41.8 +01.0	N 04 47.5 -00.6	190 21.5 +02.8	S 14 01.3 +00.1	208 02.1 +02.6	S 18 59.4 +00.0	12						
13	2 42.8 +01.0	N 04 46.9 -00.6	205 24.3 +02.7	S 14 01.4 +00.1	223 04.7 +02.6	S 18 59.4 +00.0	13						
14	17 43.8 +01.0	N 04 46.3 -00.7	220 27.0 +02.8	S 14 01.5 +00.1	238 07.3 +02.7	S 18 59.4 +00.1	14						
15	32 44.8 +01.0	N 04 45.6 -00.6	235 29.8 +02.8	S 14 01.6 +00.1	253 10.0 +02.6	S 18 59.5 +00.0	15						
16	47 45.8 +01.0	N 04 45.0 -00.7	250 32.6 +02.7	S 14 01.7 +00.1	268 12.6 +02.6	S 18 59.5 +00.1	16						
17	62 46.8 +01.0	N 04 44.3 -00.6	265 35.3 +02.8	S 14 01.8 +00.1	283 15.2 +02.6	S 18 59.6 +00.0	17						
18	77 47.8 +01.0	N 04 43.7 -00.7	280 38.1 +02.8	S 14 01.9 +00.1	298 17.8 +02.6	S 18 59.6 +00.0	18						
19	92 48.8 +01.0	N 04 43.0 -00.6	295 40.9 +02.7	S 14 02.0 +00.1	313 20.4 +02.6	S 18 59.6 +00.1	19						
20	107 49.8 +01.0	N 04 42.4 -00.6	310 43.6 +02.8	S 14 02.1 +00.1	328 23.0 +02.6	S 18 59.7 +00.0	20						
21	122 50.8 +01.0	N 04 41.8 -00.7	325 46.4 +02.8	S 14 02.2 +00.1	343 25.6 +02.7	S 18 59.7 +00.1	21						
22	137 51.8 +01.0	N 04 41.1 -00.6	340 49.2 +02.7	S 14 02.3 +00.1	358 28.3 +02.6	S 18 59.8 +00.0	22						
23	152 52.8 +01.0	N 04 40.5 -00.7	355 51.9 +02.8	S 14 02.4 +00.2	13 30.9 +02.6	S 18 59.8 +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 00'4 00'4 00'4 00'4 00'4 00'4	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			HP 00'0 00'0 00'0 00'0 00'0 00'0			HP 00'0 00'0 00'0 00'0 00'0 00'0						
	SHA 189° 189° 189° 189° 189° 189°			SHA 031° 031° 031° 031° 031° 032°			SHA 049° 049° 049° 049° 049° 049°						
	Greenwich Culmination Time: 12:49			Greenwich Culmination Time: 23:16			Greenwich Culmination Time: 22:06						

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 54.1 +00.2	N 08 38.2 -00.9	143 23.4 -00.2	S 06 56.1 +01.2	265 20.2 -29.3	N 23 26.8 +05.7	00						
01	194 54.3 +00.2	N 08 37.3 -00.9	158 23.2 -00.2	S 06 57.3 +01.3	279 50.9 -29.4	N 23 32.5 +05.7	01						
02	209 54.5 +00.2	N 08 36.4 -00.9	173 23.0 -00.2	S 06 58.6 +01.3	294 21.5 -29.4	N 23 38.2 +05.5	02						
03	224 54.7 +00.2	N 08 35.5 -00.9	188 22.8 -00.1	S 06 59.9 +01.2	308 52.1 -29.5	N 23 43.7 +05.4	03						
04	239 54.9 +00.2	N 08 34.6 -00.9	203 22.7 -00.2	S 07 01.1 +01.3	323 22.6 -29.5	N 23 49.1 +05.4	04						
05	254 55.1 +00.2	N 08 33.7 -00.9	218 22.5 -00.2	S 07 02.4 +01.2	337 53.1 -29.6	N 23 54.5 +05.2	05						
06	269 55.3 +00.2	N 08 32.8 -00.9	233 22.3 -00.2	S 07 03.6 +01.3	352 23.5 -29.6	N 23 59.7 +05.1	06						
07	284 55.5 +00.2	N 08 31.9 -00.9	248 22.1 -00.2	S 07 04.9 +01.2	6 53.9 -29.7	N 24 04.8 +05.0	07						
08	299 55.7 +00.2	N 08 31.0 -00.9	263 21.9 -00.2	S 07 06.1 +01.3	21 24.2 -29.7	N 24 09.8 +04.8	08						
09	314 55.9 +00.2	N 08 30.1 -00.9	278 21.7 -00.2	S 07 07.4 +01.2	35 54.5 -29.8	N 24 14.6 +04.8	09						
10	329 56.1 +00.2	N 08 29.2 -00.9	293 21.5 -00.2	S 07 08.6 +01.3	50 24.7 -29.8	N 24 19.4 +04.6	10						
11	344 56.3 +00.2	N 08 28.3 -00.9	308 21.3 -00.2	S 07 09.9 +01.3	64 54.9 -29.9	N 24 24.0 +04.6	11						
12	359 56.5 +00.2	N 08 27.4 -00.9	323 21.1 -00.2	S 07 11.2 +01.2	79 25.0 -30.0	N 24 28.6 +04.4	12						
13	14 56.7 +00.2	N 08 26.5 -00.9	338 20.9 -00.2	S 07 12.4 +01.3	93 55.0 -30.0	N 24 33.0 +04.3	13						
14	29 56.9 +00.1	N 08 25.6 -00.9	353 20.7 -00.2	S 07 13.7 +01.2	108 25.0 -30.0	N 24 37.3 +04.2	14						
15	44 57.0 +00.2	N 08 24.7 -00.9	8 20.5 -00.2	S 07 14.9 +01.3	122 55.0 -30.1	N 24 41.5 +04.1	15						
16	59 57.2 +00.2	N 08 23.8 -00.9	23 20.3 -00.1	S 07 16.2 +01.2	137 24.9 -30.2	N 24 45.6 +04.0	16						
17	74 57.4 +00.2	N 08 22.9 -00.9	38 20.2 -00.2	S 07 17.4 +01.3	151 54.7 -30.2	N 24 49.6 +03.8	17						
18	89 57.6 +00.2	N 08 22.0 -00.9	53 20.0 -00.2	S 07 18.7 +01.2	166 24.5 -30.2	N 24 53.4 +03.8	18						
19	104 57.8 +00.2	N 08 21.1 -00.9	68 19.8 -00.2	S 07 19.9 +01.3	180 54.3 -30.3	N 24 57.2 +03.6	19						
20	119 58.0 +00.2	N 08 20.2 -01.0	83 19.6 -00.2	S 07 21.2 +01.2	195 24.0 -30.3	N 25 00.8 +03.5	20						
21	134 58.2 +00.2	N 08 19.2 -00.9	98 19.4 -00.2	S 07 22.4 +01.3	209 53.7 -30.4	N 25 04.3 +03.4	21						
22	149 58.4 +00.2	N 08 18.3 -00.9	113 19.2 -00.2	S 07 23.7 +01.3	224 23.3 -30.5	N 25 07.7 +03.2	22						
23	164 58.6 +00.2	N 08 17.4 -00.9	128 19.0 -00.2	S 07 25.0 +01.2	238 52.8 -30.5	N 25 10.9 +03.2	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'8 15'8 15'8 15'8 15'8 15'8		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 14'8 14'8 14'8 14'8 14'8 14'9								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 54'3 54'3 54'4 54'4 54'5 54'5								
	SHA 200° 200° 200° 200° 200° 200°		SHA 164° 164° 164° 163° 163° 163°		SHA 285° 283° 281° 278° 276° 274°								
	Greenwich Culmination Time: 12:00		Greenwich Culmination Time: 14:26		Greenwich Culmination Time: 06:31								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	167 53.8 +00.9	N 04 39.8 -00.6	10 54.7 +02.8	S 14 02.6 +00.1	28 33.5 +02.6	S 18 59.8 +00.1	00						
01	182 54.7 +01.0	N 04 39.2 -00.7	25 57.5 +02.7	S 14 02.7 +00.1	43 36.1 +02.6	S 18 59.9 +00.0	01						
02	197 55.7 +01.0	N 04 38.5 -00.6	41 00.2 +02.8	S 14 02.8 +00.1	58 38.7 +02.6	S 18 59.9 +00.1	02						
03	212 56.7 +01.0	N 04 37.9 -00.6	56 03.0 +02.8	S 14 02.9 +00.1	73 41.3 +02.7	S 18 60.0 +00.0	03						
04	227 57.7 +01.0	N 04 37.3 -00.7	71 05.8 +02.7	S 14 03.0 +00.1	88 44.0 +02.6	S 19 00.0 +00.0	04						
05	242 58.7 +01.0	N 04 36.6 -00.6	86 08.5 +02.8	S 14 03.1 +00.1	103 46.6 +02.6	S 19 00.0 +00.1	05						
06	257 59.7 +01.0	N 04 36.0 -00.7	101 11.3 +02.8	S 14 03.2 +00.1	118 49.2 +02.6	S 19 00.1 +00.0	06						
07	273 00.7 +01.0	N 04 35.3 -00.6	116 14.1 +02.7	S 14 03.3 +00.1	133 51.8 +02.6	S 19 00.1 +00.1	07						
08	288 01.7 +01.0	N 04 34.7 -00.7	131 16.8 +02.8	S 14 03.4 +00.1	148 54.4 +02.6	S 19 00.2 +00.0	08						
09	303 02.7 +01.0	N 04 34.0 -00.6	146 19.6 +02.8	S 14 03.5 +00.1	163 57.0 +02.6	S 19 00.2 +00.0	09						
10	318 03.7 +01.0	N 04 33.4 -00.6	161 22.4 +02.8	S 14 03.6 +00.1	178 59.6 +02.7	S 19 00.2 +00.1	10						
11	333 04.7 +01.0	N 04 32.8 -00.7	176 25.2 +02.7	S 14 03.7 +00.1	194 02.3 +02.6	S 19 00.3 +00.0	11						
12	348 05.7 +01.0	N 04 32.1 -00.6	191 27.9 +02.8	S 14 03.8 +00.1	209 04.9 +02.6	S 19 00.3 +00.1	12						
13	3 06.7 +01.0	N 04 31.5 -00.7	206 30.7 +02.7	S 14 03.9 +00.2	224 07.5 +02.6	S 19 00.4 +00.0	13						
14	18 07.7 +01.0	N 04 30.8 -00.6	221 33.4 +02.8	S 14 04.1 +00.1	239 10.1 +02.6	S 19 00.4 +00.0	14						
15	33 08.7 +01.0	N 04 30.2 -00.7	236 36.2 +02.8	S 14 04.2 +00.1	254 12.7 +02.6	S 19 00.4 +00.1	15						
16	48 09.7 +01.0	N 04 29.5 -00.6	251 39.0 +02.7	S 14 04.3 +00.1	269 15.3 +02.6	S 19 00.5 +00.0	16						
17	63 10.7 +01.0	N 04 28.9 -00.7	266 41.7 +02.8	S 14 04.4 +00.1	284 17.9 +02.6	S 19 00.5 +00.1	17						
18	78 11.7 +01.0	N 04 28.2 -00.6	281 44.5 +02.8	S 14 04.5 +00.1	299 20.5 +02.7	S 19 00.6 +00.0	18						
19	93 12.7 +01.0	N 04 27.6 -00.6	296 47.3 +02.7	S 14 04.6 +00.1	314 23.2 +02.6	S 19 00.6 +00.0	19						
20	108 13.7 +01.0	N 04 27.0 -00.7	311 50.0 +02.8	S 14 04.7 +00.1	329 25.8 +02.6	S 19 00.6 +00.1	20						
21	123 14.7 +01.0	N 04 26.3 -00.6	326 52.8 +02.8	S 14 04.8 +00.1	344 28.4 +02.6	S 19 00.7 +00.0	21						
22	138 15.7 +01.0	N 04 25.7 -00.7	341 55.6 +02.7	S 14 04.9 +00.1	359 31.0 +02.6	S 19 00.7 +00.1	22						
23	153 16.7 +01.0	N 04 25.0 -00.6	356 58.3 +02.8	S 14 05.0 +00.1	14 33.6 +02.6	S 19 00.8 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 188° 188° 188° 188° 188° 188°		SHA 032° 032° 032° 032° 032° 032°		SHA 049° 049° 049° 049° 049° 049°								
	Greenwich Culmination Time: 12:47		Greenwich Culmination Time: 23:12		Greenwich Culmination Time: 22:01								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	179 58.8 +00.2	N 08 16.5 -00.9	143 18.8 -00.2	S 07 26.2 +01.3	253 22.3 -30.5	N 25 14.1 +03.0	00								
01	194 59.0 +00.2	N 08 15.6 -00.9	158 18.6 -00.2	S 07 27.5 +01.2	267 51.8 -30.6	N 25 17.1 +02.9	01								
02	209 59.2 +00.2	N 08 14.7 -00.9	173 18.4 -00.2	S 07 28.7 +01.3	282 21.2 -30.6	N 25 20.0 +02.8	02								
03	224 59.4 +00.2	N 08 13.8 -00.9	188 18.2 -00.2	S 07 30.0 +01.2	296 50.6 -30.6	N 25 22.8 +02.6	03								
04	239 59.6 +00.2	N 08 12.9 -00.9	203 18.0 -00.2	S 07 31.2 +01.3	311 20.0 -30.7	N 25 25.4 +02.6	04								
05	254 59.8 +00.2	N 08 12.0 -00.9	218 17.8 -00.2	S 07 32.5 +01.2	325 49.3 -30.8	N 25 28.0 +02.4	05								
06	270 00.0 +00.2	N 08 11.1 -00.9	233 17.6 -00.2	S 07 33.7 +01.3	340 18.5 -30.8	N 25 30.4 +02.3	06								
07	285 00.2 +00.2	N 08 10.2 -00.9	248 17.4 -00.1	S 07 35.0 +01.2	354 47.7 -30.8	N 25 32.7 +02.1	07								
08	300 00.4 +00.2	N 08 09.3 -00.9	263 17.3 -00.2	S 07 36.2 +01.3	9 16.9 -30.9	N 25 34.8 +02.1	08								
09	315 00.6 +00.2	N 08 08.4 -00.9	278 17.1 -00.2	S 07 37.5 +01.2	23 46.0 -30.9	N 25 36.9 +01.9	09								
10	330 00.8 +00.2	N 08 07.5 -01.0	293 16.9 -00.2	S 07 38.7 +01.3	38 15.1 -30.9	N 25 38.8 +01.8	10								
11	345 01.0 +00.2	N 08 06.5 -00.9	308 16.7 -00.2	S 07 40.0 +01.2	52 44.2 -31.0	N 25 40.6 +01.6	11								
12	0 01.2 +00.2	N 08 05.6 -00.9	323 16.5 -00.2	S 07 41.2 +01.3	67 13.2 -31.1	N 25 42.2 +01.6	12								
13	15 01.4 +00.2	N 08 04.7 -00.9	338 16.3 -00.2	S 07 42.5 +01.2	81 42.1 -31.0	N 25 43.8 +01.4	13								
14	30 01.6 +00.2	N 08 03.8 -00.9	353 16.1 -00.2	S 07 43.7 +01.3	96 11.1 -31.1	N 25 45.2 +01.2	14								
15	45 01.8 +00.2	N 08 02.9 -00.9	8 15.9 -00.2	S 07 45.0 +01.2	110 40.0 -31.2	N 25 46.4 +01.2	15								
16	60 02.0 +00.2	N 08 02.0 -00.9	23 15.7 -00.2	S 07 46.2 +01.3	125 08.8 -31.1	N 25 47.6 +01.0	16								
17	75 02.2 +00.2	N 08 01.1 -00.9	38 15.5 -00.2	S 07 47.5 +01.2	139 37.7 -31.2	N 25 48.6 +00.9	17								
18	90 02.4 +00.2	N 08 00.2 -00.9	53 15.3 -00.2	S 07 48.7 +01.3	154 06.5 -31.2	N 25 49.5 +00.8	18								
19	105 02.6 +00.2	N 07 59.3 -00.9	68 15.1 -00.2	S 07 50.0 +01.2	168 35.3 -31.3	N 25 50.3 +00.6	19								
20	120 02.8 +00.2	N 07 58.4 -01.0	83 14.9 -00.2	S 07 51.2 +01.3	183 04.0 -31.3	N 25 50.9 +00.5	20								
21	135 03.0 +00.2	N 07 57.4 -00.9	98 14.7 -00.2	S 07 52.5 +01.2	197 32.7 -31.3	N 25 51.4 +00.4	21								
22	150 03.2 +00.2	N 07 56.5 -00.9	113 14.5 -00.2	S 07 53.7 +01.3	212 01.4 -31.4	N 25 51.8 +00.3	22								
23	165 03.4 +00.2	N 07 55.6 -00.9	128 14.3 -00.2	S 07 55.0 +01.2	226 30.0 -31.4	N 25 52.1 +00.1	23								
	UT 02 06 10 14 18 22	SD 15'8 15'8 15'8 15'8 15'8 15'9	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 200° 199° 199° 199° 199° 199°	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	SHA 163° 163° 162° 162° 162° 162°	Greenwich Culmination Time: 14:26	UT 02 06 10 14 18 22	SD 14'9 14'9 14'9 14'9 14'9 15'0	HP 54'6 54'6 54'7 54'8 54'8 54'9	SHA 272° 270° 267° 265° 263° 261°	Greenwich Culmination Time: 07:21

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	168 17.7 +01.0	N 04 24.4 -00.7	12 01.1 +02.8	S 14 05.1 +00.1	29 36.2 +02.6	S 19 00.8 +00.0	00								
01	183 18.7 +01.0	N 04 23.7 -00.6	27 03.9 +02.7	S 14 05.2 +00.1	44 38.8 +02.7	S 19 00.8 +00.1	01								
02	198 19.7 +00.9	N 04 23.1 -00.7	42 06.6 +02.8	S 14 05.3 +00.1	59 41.5 +02.6	S 19 00.9 +00.0	02								
03	213 20.6 +01.0	N 04 22.4 -00.6	57 09.4 +02.8	S 14 05.4 +00.2	74 44.1 +02.6	S 19 00.9 +00.1	03								
04	228 21.6 +01.0	N 04 21.8 -00.6	72 12.2 +02.7	S 14 05.6 +00.1	89 46.7 +02.6	S 19 01.0 +00.0	04								
05	243 22.6 +01.0	N 04 21.2 -00.7	87 14.9 +02.8	S 14 05.7 +00.1	104 49.3 +02.6	S 19 01.0 +00.0	05								
06	258 23.6 +01.0	N 04 20.5 -00.6	102 17.7 +02.8	S 14 05.8 +00.1	119 51.9 +02.6	S 19 01.0 +00.1	06								
07	273 24.6 +01.0	N 04 19.9 -00.7	117 20.5 +02.7	S 14 05.9 +00.1	134 54.5 +02.6	S 19 01.1 +00.0	07								
08	288 25.6 +01.0	N 04 19.2 -00.6	132 23.2 +02.8	S 14 06.0 +00.1	149 57.1 +02.6	S 19 01.1 +00.1	08								
09	303 26.6 +01.0	N 04 18.6 -00.7	147 26.0 +02.8	S 14 06.1 +00.1	164 59.7 +02.6	S 19 01.2 +00.0	09								
10	318 27.6 +01.0	N 04 17.9 -00.6	162 28.8 +02.7	S 14 06.2 +00.1	180 02.3 +02.7	S 19 01.2 +00.0	10								
11	333 28.6 +01.0	N 04 17.3 -00.7	177 31.5 +02.8	S 14 06.3 +00.1	195 05.0 +02.6	S 19 01.2 +00.1	11								
12	348 29.6 +01.0	N 04 16.6 -00.6	192 34.3 +02.7	S 14 06.4 +00.1	210 07.6 +02.6	S 19 01.3 +00.0	12								
13	3 30.6 +01.0	N 04 16.0 -00.7	207 37.0 +02.8	S 14 06.5 +00.1	225 10.2 +02.6	S 19 01.3 +00.1	13								
14	18 31.6 +01.0	N 04 15.3 -00.6	222 39.8 +02.8	S 14 06.6 +00.1	240 12.8 +02.6	S 19 01.4 +00.0	14								
15	33 32.6 +01.0	N 04 14.7 -00.6	237 42.6 +02.7	S 14 06.7 +00.1	255 15.4 +02.6	S 19 01.4 +00.0	15								
16	48 33.6 +01.0	N 04 14.1 -00.7	252 45.3 +02.8	S 14 06.8 +00.1	270 18.0 +02.6	S 19 01.4 +00.1	16								
17	63 34.6 +01.0	N 04 13.4 -00.6	267 48.1 +02.8	S 14 06.9 +00.1	285 20.6 +02.6	S 19 01.5 +00.0	17								
18	78 35.6 +01.0	N 04 12.8 -00.7	282 50.9 +02.7	S 14 07.0 +00.1	300 23.2 +02.6	S 19 01.5 +00.0	18								
19	93 36.6 +01.0	N 04 12.1 -00.6	297 53.6 +02.8	S 14 07.1 +00.2	315 25.8 +02.7	S 19 01.5 +00.1	19								
20	108 37.6 +01.0	N 04 11.5 -00.7	312 56.4 +02.8	S 14 07.3 +00.1	330 28.5 +02.6	S 19 01.6 +00.0	20								
21	123 38.6 +01.0	N 04 10.8 -00.6	327 59.2 +02.7	S 14 07.4 +00.1	345 31.1 +02.6	S 19 01.6 +00.1	21								
22	138 39.6 +01.0	N 04 10.2 -00.7	343 01.9 +02.8	S 14 07.5 +00.1	0 33.7 +02.6	S 19 01.7 +00.0	22								
23	153 40.6 +01.0	N 04 09.5 -00.6	358 04.7 +02.7	S 14 07.6 +00.1	15 36.3 +02.6	S 19 01.7 +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	SHA 188° 188° 188° 188° 187° 187°	Greenwich Culmination Time: 12:45	UT 02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 032° 032° 032° 032° 032° 032°	Greenwich Culmination Time: 23:07	UT 02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 049° 049° 049° 049° 049° 049°	Greenwich Culmination Time: 21:57

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180	03.6+00.2	N 07 54.7	-00.9	143	14.1-00.2	S 07 56.2	+01.2	240	58.6-31.4	N 25 52.2	+00.0	00
01	195	03.8+00.2	N 07 53.8	-00.9	158	13.9-00.2	S 07 57.4	+01.3	255	27.2-31.4	N 25 52.2	-00.2	01
02	210	04.0+00.2	N 07 52.9	-00.9	173	13.7-00.2	S 07 58.7	+01.2	269	55.8-31.5	N 25 52.0	-00.3	02
03	225	04.2+00.2	N 07 52.0	-00.9	188	13.5-00.2	S 07 59.9	+01.3	284	24.3-31.4	N 25 51.7	-00.4	03
04	240	04.4+00.2	N 07 51.1	-01.0	203	13.3-00.2	S 08 01.2	+01.2	298	52.9-31.5	N 25 51.3	-00.5	04
05	255	04.6+00.2	N 07 50.1	-00.9	218	13.1-00.2	S 08 02.4	+01.3	313	21.4-31.6	N 25 50.8	-00.7	05
06	270	04.8+00.2	N 07 49.2	-00.9	233	12.9-00.2	S 08 03.7	+01.2	327	49.8-31.5	N 25 50.1	-00.8	06
07	285	05.0+00.2	N 07 48.3	-00.9	248	12.7-00.1	S 08 04.9	+01.3	342	18.3-31.6	N 25 49.3	-00.9	07
08	300	05.2+00.2	N 07 47.4	-00.9	263	12.6-00.2	S 08 06.2	+01.2	356	46.7-31.6	N 25 48.4	-01.1	08
09	315	05.4+00.2	N 07 46.5	-00.9	278	12.4-00.2	S 08 07.4	+01.3	11	15.1-31.6	N 25 47.3	-01.2	09
10	330	05.6+00.2	N 07 45.6	-00.9	293	12.2-00.2	S 08 08.7	+01.2	25	43.5-31.6	N 25 46.1	-01.3	10
11	345	05.8+00.2	N 07 44.7	-00.9	308	12.0-00.2	S 08 09.9	+01.2	40	11.9-31.7	N 25 44.8	-01.5	11
12	0	06.0+00.2	N 07 43.8	-01.0	323	11.8-00.2	S 08 11.1	+01.3	54	40.2-31.6	N 25 43.3	-01.6	12
13	15	06.2+00.2	N 07 42.8	-00.9	338	11.6-00.2	S 08 12.4	+01.2	69	08.6-31.7	N 25 41.7	-01.8	13
14	30	06.4+00.2	N 07 41.9	-00.9	353	11.4-00.2	S 08 13.6	+01.3	83	36.9-31.7	N 25 39.9	-01.8	14
15	45	06.6+00.2	N 07 41.0	-00.9	8	11.2-00.2	S 08 14.9	+01.2	98	05.2-31.7	N 25 38.1	-02.0	15
16	60	06.8+00.2	N 07 40.1	-00.9	23	11.0-00.2	S 08 16.1	+01.3	112	33.5-31.7	N 25 36.1	-02.2	16
17	75	07.0+00.2	N 07 39.2	-00.9	38	10.8-00.2	S 08 17.4	+01.2	127	01.8-31.7	N 25 33.9	-02.3	17
18	90	07.2+00.2	N 07 38.3	-01.0	53	10.6-00.2	S 08 18.6	+01.2	141	30.1-31.7	N 25 31.6	-02.4	18
19	105	07.4+00.2	N 07 37.3	-00.9	68	10.4-00.2	S 08 19.8	+01.3	155	58.4-31.7	N 25 29.2	-02.5	19
20	120	07.6+00.2	N 07 36.4	-00.9	83	10.2-00.2	S 08 21.1	+01.2	170	26.7-31.8	N 25 26.7	-02.7	20
21	135	07.8+00.2	N 07 35.5	-00.9	98	10.0-00.2	S 08 22.3	+01.3	184	54.9-31.7	N 25 24.0	-02.8	21
22	150	08.0+00.2	N 07 34.6	-00.9	113	09.8-00.2	S 08 23.6	+01.2	199	23.2-31.8	N 25 21.2	-03.0	22
23	165	08.2+00.2	N 07 33.7	-00.9	128	09.6-00.2	S 08 24.8	+01.2	213	51.4-31.7	N 25 18.2	-03.1	23
	<b>UT 02 06 10 14 18 22</b>				<b>UT 02 06 10 14 18 22</b>				<b>UT 02 06 10 14 18 22</b>				
	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 15'0 15'0 15'0 15'0 15'1 15'1				
	HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 00'1 00'1 00'1 00'1 00'1 00'1				HP 55'0 55'1 55'1 55'2 55'3 55'4				
	SHA 199° 198° 198° 198° 198° 198°				SHA 162° 162° 161° 161° 161° 161°				SHA 258° 256° 254° 252° 249° 247°				
	Greenwich Culmination Time: 11:59				Greenwich Culmination Time: 14:27				Greenwich Culmination Time: 08:13				

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	168	41.6+01.0	N 04 08.9	-00.7	13	07.4+02.8	S 14 07.7	+00.1	30	38.9+02.6	S 19 01.7	+00.1	00
01	183	42.6+01.0	N 04 08.2	-00.6	28	10.2+02.8	S 14 07.8	+00.1	45	41.5+02.6	S 19 01.8	+00.0	01
02	198	43.6+00.9	N 04 07.6	-00.6	43	13.0+02.7	S 14 07.9	+00.1	60	44.1+02.6	S 19 01.8	+00.1	02
03	213	44.5+01.0	N 04 07.0	-00.7	58	15.7+02.8	S 14 08.0	+00.1	75	46.7+02.6	S 19 01.9	+00.0	03
04	228	45.5+01.0	N 04 06.3	-00.6	73	18.5+02.8	S 14 08.1	+00.1	90	49.3+02.6	S 19 01.9	+00.0	04
05	243	46.5+01.0	N 04 05.7	-00.7	88	21.3+02.7	S 14 08.2	+00.1	105	51.9+02.7	S 19 01.9	+00.1	05
06	258	47.5+01.0	N 04 05.0	-00.6	103	24.0+02.8	S 14 08.3	+00.1	120	54.6+02.6	S 19 02.0	+00.0	06
07	273	48.5+01.0	N 04 04.4	-00.7	118	26.8+02.7	S 14 08.4	+00.1	135	57.2+02.6	S 19 02.0	+00.0	07
08	288	49.5+01.0	N 04 03.7	-00.6	133	29.5+02.8	S 14 08.5	+00.1	150	59.8+02.6	S 19 02.0	+00.1	08
09	303	50.5+01.0	N 04 03.1	-00.7	148	32.3+02.8	S 14 08.6	+00.1	166	02.4+02.6	S 19 02.1	+00.0	09
10	318	51.5+01.0	N 04 02.4	-00.6	163	35.1+02.7	S 14 08.7	+00.1	181	05.0+02.6	S 19 02.1	+00.1	10
11	333	52.5+01.0	N 04 01.8	-00.7	178	37.8+02.8	S 14 08.8	+00.1	196	07.6+02.6	S 19 02.2	+00.0	11
12	348	53.5+01.0	N 04 01.1	-00.6	193	40.6+02.7	S 14 08.9	+00.1	211	10.2+02.6	S 19 02.2	+00.0	12
13	3	54.5+01.0	N 04 00.5	-00.7	208	43.3+02.8	S 14 09.0	+00.1	226	12.8+02.6	S 19 02.2	+00.1	13
14	18	55.5+01.0	N 03 59.8	-00.6	223	46.1+02.8	S 14 09.1	+00.1	241	15.4+02.6	S 19 02.3	+00.0	14
15	33	56.5+01.0	N 03 59.2	-00.7	238	48.9+02.7	S 14 09.2	+00.2	256	18.0+02.6	S 19 02.3	+00.1	15
16	48	57.5+01.0	N 03 58.5	-00.6	253	51.6+02.8	S 14 09.4	+00.1	271	20.6+02.6	S 19 02.4	+00.0	16
17	63	58.5+01.0	N 03 57.9	-00.6	268	54.4+02.8	S 14 09.5	+00.1	286	23.2+02.7	S 19 02.4	+00.0	17
18	78	59.5+01.0	N 03 57.3	-00.7	283	57.2+02.7	S 14 09.6	+00.1	301	25.9+02.6	S 19 02.4	+00.1	18
19	94	00.5+01.0	N 03 56.6	-00.6	298	59.9+02.8	S 14 09.7	+00.1	316	28.5+02.6	S 19 02.5	+00.0	19
20	109	01.5+01.0	N 03 56.0	-00.7	314	02.7+02.7	S 14 09.8	+00.1	331	31.1+02.6	S 19 02.5	+00.0	20
21	124	02.5+01.0	N 03 55.3	-00.6	329	05.4+02.8	S 14 09.9	+00.1	346	33.7+02.6	S 19 02.5	+00.1	21
22	139	03.5+01.0	N 03 54.7	-00.7	344	08.2+02.8	S 14 10.0	+00.1	1	36.3+02.6	S 19 02.6	+00.0	22
23	154	04.5+01.0	N 03 54.0	-00.6	359	11.0+02.7	S 14 10.1	+00.1	16	38.9+02.6	S 19 02.6	+00.1	23
	<b>UT 02 06 10 14 18 22</b>				<b>UT 02 06 10 14 18 22</b>				<b>UT 02 06 10 14 18 22</b>				
	SD 00'0 00'0 00'0 00'0 00'0 00'0				SD 00'4 00'4 00'4 00'4 00'4 00'4				SD 00'2 00'2 00'2 00'2 00'2 00'2				
	HP 00'1 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				
	SHA 187° 187° 187° 187° 187° 187°				SHA 032° 032° 032° 032° 032° 032°				SHA 049° 049° 049° 049° 049° 049°				
	Greenwich Culmination Time: 12:44				Greenwich Culmination Time: 23:03				Greenwich Culmination Time: 21:53				



UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 08.4 +00.2	N 07 32.8 -01.0	143 09.4 -00.2	S 08 26.0 +01.3	228 19.7 -31.8	N 25 15.1 -03.2	00						
01	195 08.6 +00.3	N 07 31.8 -00.9	158 09.2 -00.2	S 08 27.3 +01.2	242 47.9 -31.8	N 25 11.9 -03.4	01						
02	210 08.9 +00.2	N 07 30.9 -00.9	173 09.0 -00.2	S 08 28.5 +01.3	257 16.1 -31.7	N 25 08.5 -03.4	02						
03	225 09.1 +00.2	N 07 30.0 -00.9	188 08.8 -00.2	S 08 29.8 +01.2	271 44.4 -31.8	N 25 05.1 -03.7	03						
04	240 09.3 +00.2	N 07 29.1 -00.9	203 08.6 -00.2	S 08 31.0 +01.2	286 12.6 -31.8	N 25 01.4 -03.7	04						
05	255 09.5 +00.2	N 07 28.2 -00.9	218 08.4 -00.2	S 08 32.2 +01.3	300 40.8 -31.7	N 24 57.7 -03.9	05						
06	270 09.7 +00.2	N 07 27.3 -01.0	233 08.2 -00.2	S 08 33.5 +01.2	315 09.1 -31.8	N 24 53.8 -04.1	06						
07	285 09.9 +00.2	N 07 26.3 -00.9	248 08.0 -00.2	S 08 34.7 +01.3	329 37.3 -31.7	N 24 49.7 -04.1	07						
08	300 10.1 +00.2	N 07 25.4 -00.9	263 07.8 -00.2	S 08 36.0 +01.2	344 05.6 -31.8	N 24 45.6 -04.3	08						
09	315 10.3 +00.2	N 07 24.5 -00.9	278 07.6 -00.2	S 08 37.2 +01.2	358 33.8 -31.7	N 24 41.3 -04.5	09						
10	330 10.5 +00.2	N 07 23.6 -00.9	293 07.4 -00.2	S 08 38.4 +01.3	13 02.1 -31.8	N 24 36.8 -04.5	10						
11	345 10.7 +00.2	N 07 22.7 -01.0	308 07.2 -00.2	S 08 39.7 +01.2	27 30.3 -31.7	N 24 32.3 -04.7	11						
12	0 10.9 +00.2	N 07 21.7 -00.9	323 07.0 -00.2	S 08 40.9 +01.2	41 58.6 -31.7	N 24 27.6 -04.9	12						
13	15 11.1 +00.2	N 07 20.8 -00.9	338 06.8 -00.2	S 08 42.1 +01.3	56 26.9 -31.7	N 24 22.7 -04.9	13						
14	30 11.3 +00.2	N 07 19.9 -00.9	353 06.6 -00.2	S 08 43.4 +01.2	70 55.2 -31.7	N 24 17.8 -05.1	14						
15	45 11.5 +00.2	N 07 19.0 -00.9	8 06.4 -00.2	S 08 44.6 +01.3	85 23.5 -31.7	N 24 12.7 -05.3	15						
16	60 11.7 +00.2	N 07 18.1 -01.0	23 06.2 -00.2	S 08 45.9 +01.2	99 51.8 -31.7	N 24 07.4 -05.3	16						
17	75 11.9 +00.2	N 07 17.1 -00.9	38 06.0 -00.2	S 08 47.1 +01.2	114 20.1 -31.7	N 24 02.1 -05.5	17						
18	90 12.1 +00.2	N 07 16.2 -00.9	53 05.8 -00.2	S 08 48.3 +01.3	128 48.4 -31.6	N 23 56.6 -05.6	18						
19	105 12.3 +00.2	N 07 15.3 -00.9	68 05.6 -00.2	S 08 49.6 +01.2	143 16.8 -31.7	N 23 51.0 -05.8	19						
20	120 12.5 +00.2	N 07 14.4 -00.9	83 05.4 -00.2	S 08 50.8 +01.2	157 45.1 -31.6	N 23 45.2 -05.9	20						
21	135 12.7 +00.2	N 07 13.5 -01.0	98 05.2 -00.2	S 08 52.0 +01.3	172 13.5 -31.6	N 23 39.3 -06.0	21						
22	150 12.9 +00.2	N 07 12.5 -00.9	113 05.0 -00.2	S 08 53.3 +01.2	186 41.9 -31.6	N 23 33.3 -06.2	22						
23	165 13.1 +00.3	N 07 11.6 -00.9	128 04.8 -00.2	S 08 54.5 +01.2	201 10.3 -31.6	N 23 27.1 -06.2	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 SHA 198° 198° 197° 197° 197° 197° 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 SHA 161° 161° 160° 160° 160° 160° Greenwich Culmination Time: 14:27	UT 02 06 10 14 18 22 SD 15'1 15'2 15'2 15'2 15'2 15'3 HP 55'5 55'6 55'7 55'8 55'9 56'0 SHA 245° 243° 240° 238° 236° 233° Greenwich Culmination Time: 09:05										
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	169 05.5 +01.0	N 03 53.4 -00.7	14 13.7 +02.8	S 14 10.2 +00.1	31 41.5 +02.6	S 19 02.7 +00.0	00						
01	184 06.5 +01.0	N 03 52.7 -00.6	29 16.5 +02.7	S 14 10.3 +00.1	46 44.1 +02.6	S 19 02.7 +00.0	01						
02	199 07.5 +00.9	N 03 52.1 -00.7	44 19.2 +02.8	S 14 10.4 +00.1	61 46.7 +02.6	S 19 02.7 +00.1	02						
03	214 08.4 +01.0	N 03 51.4 -00.6	59 22.0 +02.8	S 14 10.5 +00.1	76 49.3 +02.6	S 19 02.8 +00.0	03						
04	229 09.4 +01.0	N 03 50.8 -00.7	74 24.8 +02.7	S 14 10.6 +00.1	91 51.9 +02.6	S 19 02.8 +00.0	04						
05	244 10.4 +01.0	N 03 50.1 -00.6	89 27.5 +02.8	S 14 10.7 +00.1	106 54.5 +02.6	S 19 02.8 +00.1	05						
06	259 11.4 +01.0	N 03 49.5 -00.7	104 30.3 +02.7	S 14 10.8 +00.1	121 57.1 +02.6	S 19 02.9 +00.0	06						
07	274 12.4 +01.0	N 03 48.8 -00.6	119 33.0 +02.8	S 14 10.9 +00.1	136 59.7 +02.7	S 19 02.9 +00.1	07						
08	289 13.4 +01.0	N 03 48.2 -00.7	134 35.8 +02.7	S 14 11.0 +00.1	152 02.4 +02.6	S 19 03.0 +00.0	08						
09	304 14.4 +01.0	N 03 47.5 -00.6	149 38.5 +02.8	S 14 11.1 +00.1	167 05.0 +02.6	S 19 03.0 +00.0	09						
10	319 15.4 +01.0	N 03 46.9 -00.7	164 41.3 +02.8	S 14 11.2 +00.1	182 07.6 +02.6	S 19 03.0 +00.1	10						
11	334 16.4 +01.0	N 03 46.2 -00.6	179 44.1 +02.7	S 14 11.3 +00.1	197 10.2 +02.6	S 19 03.1 +00.0	11						
12	349 17.4 +01.0	N 03 45.6 -00.7	194 46.8 +02.8	S 14 11.4 +00.1	212 12.8 +02.6	S 19 03.1 +00.0	12						
13	4 18.4 +01.0	N 03 44.9 -00.6	209 49.6 +02.7	S 14 11.5 +00.1	227 15.4 +02.6	S 19 03.1 +00.1	13						
14	19 19.4 +01.0	N 03 44.3 -00.6	224 52.3 +02.8	S 14 11.6 +00.1	242 18.0 +02.6	S 19 03.2 +00.0	14						
15	34 20.4 +01.0	N 03 43.7 -00.7	239 55.1 +02.8	S 14 11.7 +00.1	257 20.6 +02.6	S 19 03.2 +00.1	15						
16	49 21.4 +01.0	N 03 43.0 -00.6	254 57.9 +02.7	S 14 11.8 +00.1	272 23.2 +02.6	S 19 03.3 +00.0	16						
17	64 22.4 +01.0	N 03 42.4 -00.7	270 00.6 +02.8	S 14 11.9 +00.2	287 25.8 +02.6	S 19 03.3 +00.0	17						
18	79 23.4 +01.0	N 03 41.7 -00.6	285 03.4 +02.7	S 14 12.1 +00.1	302 28.4 +02.6	S 19 03.3 +00.1	18						
19	94 24.4 +01.0	N 03 41.1 -00.7	300 06.1 +02.8	S 14 12.2 +00.1	317 31.0 +02.6	S 19 03.4 +00.0	19						
20	109 25.4 +01.0	N 03 40.4 -00.6	315 08.9 +02.7	S 14 12.3 +00.1	332 33.6 +02.6	S 19 03.4 +00.0	20						
21	124 26.4 +01.0	N 03 39.8 -00.7	330 11.6 +02.8	S 14 12.4 +00.1	347 36.2 +02.6	S 19 03.4 +00.1	21						
22	139 27.4 +01.0	N 03 39.1 -00.6	345 14.4 +02.8	S 14 12.5 +00.1	2 38.8 +02.6	S 19 03.5 +00.0	22						
23	154 28.4 +01.0	N 03 38.5 -00.7	0 17.2 +02.7	S 14 12.6 +00.1	17 41.4 +02.6	S 19 03.5 +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 SHA 187° 187° 186° 186° 186° 186° Greenwich Culmination Time: 12:42	UT 02 06 10 14 18 22 SD 00'4 00'4 00'4 00'4 00'4 00'4 HP 00'0 00'0 00'0 00'0 00'0 00'0 SHA 032° 032° 032° 032° 032° 032° Greenwich Culmination Time: 22:58	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 SHA 049° 049° 049° 049° 049° 049° Greenwich Culmination Time: 21:49										

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 13.4 +00.2	N 07 10.7 -00.9	143 04.6 -00.2	S 08 55.7 +01.3	215 38.7 -31.5	N 23 20.9 -06.5	00						
01	195 13.6 +00.2	N 07 09.8 -01.0	158 04.4 -00.3	S 08 57.0 +01.2	230 07.2 -31.6	N 23 14.4 -06.5	01						
02	210 13.8 +00.2	N 07 08.8 -00.9	173 04.1 -00.2	S 08 58.2 +01.2	244 35.6 -31.5	N 23 07.9 -06.7	02						
03	225 14.0 +00.2	N 07 07.9 -00.9	188 03.9 -00.2	S 08 59.4 +01.3	259 04.1 -31.5	N 23 01.2 -06.8	03						
04	240 14.2 +00.2	N 07 07.0 -00.9	203 03.7 -00.2	S 09 00.7 +01.2	273 32.6 -31.5	N 22 54.4 -06.9	04						
05	255 14.4 +00.2	N 07 06.1 -00.9	218 03.5 -00.2	S 09 01.9 +01.2	288 01.1 -31.4	N 22 47.5 -07.0	05						
06	270 14.6 +00.2	N 07 05.2 -01.0	233 03.3 -00.2	S 09 03.1 +01.3	302 29.7 -31.5	N 22 40.5 -07.2	06						
07	285 14.8 +00.2	N 07 04.2 -00.9	248 03.1 -00.2	S 09 04.4 +01.2	316 58.2 -31.4	N 22 33.3 -07.3	07						
08	300 15.0 +00.2	N 07 03.3 -00.9	263 02.9 -00.2	S 09 05.6 +01.2	331 26.8 -31.4	N 22 26.0 -07.5	08						
09	315 15.2 +00.2	N 07 02.4 -00.9	278 02.7 -00.2	S 09 06.8 +01.2	345 55.4 -31.3	N 22 18.5 -07.5	09						
10	330 15.4 +00.2	N 07 01.5 -01.0	293 02.5 -00.2	S 09 08.0 +01.3	0 24.1 -31.4	N 22 11.0 -07.7	10						
11	345 15.6 +00.2	N 07 00.5 -00.9	308 02.3 -00.2	S 09 09.3 +01.2	14 52.7 -31.3	N 22 03.3 -07.8	11						
12	0 15.8 +00.2	N 06 59.6 -00.9	323 02.1 -00.2	S 09 10.5 +01.2	29 21.4 -31.3	N 21 55.5 -07.9	12						
13	15 16.0 +00.2	N 06 58.7 -00.9	338 01.9 -00.2	S 09 11.7 +01.3	43 50.1 -31.2	N 21 47.6 -08.1	13						
14	30 16.2 +00.3	N 06 57.8 -01.0	353 01.7 -00.2	S 09 13.0 +01.2	58 18.9 -31.3	N 21 39.5 -08.2	14						
15	45 16.5 +00.2	N 06 56.8 -00.9	8 01.5 -00.2	S 09 14.2 +01.2	72 47.6 -31.2	N 21 31.3 -08.3	15						
16	60 16.7 +00.2	N 06 55.9 -00.9	23 01.3 -00.2	S 09 15.4 +01.3	87 16.4 -31.2	N 21 23.0 -08.4	16						
17	75 16.9 +00.2	N 06 55.0 -00.9	38 01.1 -00.2	S 09 16.7 +01.2	101 45.2 -31.1	N 21 14.6 -08.5	17						
18	90 17.1 +00.2	N 06 54.1 -01.0	53 00.9 -00.2	S 09 17.9 +01.2	116 14.1 -31.1	N 21 06.1 -08.7	18						
19	105 17.3 +00.2	N 06 53.1 -00.9	68 00.7 -00.2	S 09 19.1 +01.2	130 43.0 -31.1	N 20 57.4 -08.8	19						
20	120 17.5 +00.2	N 06 52.2 -00.9	83 00.5 -00.2	S 09 20.3 +01.3	145 11.9 -31.1	N 20 48.6 -08.9	20						
21	135 17.7 +00.2	N 06 51.3 -00.9	98 00.3 -00.2	S 09 21.6 +01.2	159 40.8 -31.0	N 20 39.7 -09.0	21						
22	150 17.9 +00.2	N 06 50.4 -01.0	113 00.1 -00.3	S 09 22.8 +01.2	174 09.8 -31.0	N 20 30.7 -09.1	22						
23	165 18.1 +00.2	N 06 49.4 -00.9	127 59.8 -00.2	S 09 24.0 +01.2	188 38.8 -31.0	N 20 21.6 -09.3	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'3 15'3 15'4 15'4 15'4 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 56'3 56'4 56'5 56'6 56'7								
	SHA 197° 197° 197° 196° 196° 196°		SHA 160° 159° 159° 159° 159° 159°		SHA 231° 229° 227° 224° 222° 220°								
	Greenwich Culmination Time: 11:58		Greenwich Culmination Time: 14:27		Greenwich Culmination Time: 09:58								

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	169 29.4 +00.9	N 03 37.8 -00.6	15 19.9 +02.8	S 14 12.7 +00.1	32 44.0 +02.6	S 19 03.6 +00.0	00						
01	184 30.3 +01.0	N 03 37.2 -00.7	30 22.7 +02.7	S 14 12.8 +00.1	47 46.6 +02.6	S 19 03.6 +00.0	01						
02	199 31.3 +01.0	N 03 36.5 -00.6	45 25.4 +02.8	S 14 12.9 +00.1	62 49.2 +02.6	S 19 03.6 +00.1	02						
03	214 32.3 +01.0	N 03 35.9 -00.7	60 28.2 +02.7	S 14 13.0 +00.1	77 51.8 +02.7	S 19 03.7 +00.0	03						
04	229 33.3 +01.0	N 03 35.2 -00.6	75 30.9 +02.8	S 14 13.1 +00.1	92 54.5 +02.6	S 19 03.7 +00.0	04						
05	244 34.3 +01.0	N 03 34.6 -00.7	90 33.7 +02.8	S 14 13.2 +00.1	107 57.1 +02.6	S 19 03.7 +00.1	05						
06	259 35.3 +01.0	N 03 33.9 -00.6	105 36.5 +02.7	S 14 13.3 +00.1	122 59.7 +02.6	S 19 03.8 +00.0	06						
07	274 36.3 +01.0	N 03 33.3 -00.7	120 39.2 +02.8	S 14 13.4 +00.1	138 02.3 +02.6	S 19 03.8 +00.0	07						
08	289 37.3 +01.0	N 03 32.6 -00.6	135 42.0 +02.7	S 14 13.5 +00.1	153 04.9 +02.6	S 19 03.8 +00.1	08						
09	304 38.3 +01.0	N 03 32.0 -00.7	150 44.7 +02.8	S 14 13.6 +00.1	168 07.5 +02.6	S 19 03.9 +00.0	09						
10	319 39.3 +01.0	N 03 31.3 -00.6	165 47.5 +02.7	S 14 13.7 +00.1	183 10.1 +02.6	S 19 03.9 +00.1	10						
11	334 40.3 +01.0	N 03 30.7 -00.7	180 50.2 +02.8	S 14 13.8 +00.1	198 12.7 +02.6	S 19 04.0 +00.0	11						
12	349 41.3 +01.0	N 03 30.0 -00.6	195 53.0 +02.7	S 14 13.9 +00.1	213 15.3 +02.6	S 19 04.0 +00.0	12						
13	4 42.3 +01.0	N 03 29.4 -00.7	210 55.7 +02.8	S 14 14.0 +00.1	228 17.9 +02.6	S 19 04.0 +00.1	13						
14	19 43.3 +01.0	N 03 28.7 -00.6	225 58.5 +02.7	S 14 14.1 +00.1	243 20.5 +02.6	S 19 04.1 +00.0	14						
15	34 44.3 +01.0	N 03 28.1 -00.7	241 01.2 +02.8	S 14 14.2 +00.1	258 23.1 +02.6	S 19 04.1 +00.0	15						
16	49 45.3 +01.0	N 03 27.4 -00.6	256 04.0 +02.8	S 14 14.3 +00.1	273 25.7 +02.6	S 19 04.1 +00.1	16						
17	64 46.3 +01.0	N 03 26.8 -00.7	271 06.8 +02.7	S 14 14.4 +00.1	288 28.3 +02.6	S 19 04.2 +00.0	17						
18	79 47.3 +01.0	N 03 26.1 -00.6	286 09.5 +02.8	S 14 14.5 +00.1	303 30.9 +02.6	S 19 04.2 +00.1	18						
19	94 48.3 +01.0	N 03 25.5 -00.7	301 12.3 +02.7	S 14 14.6 +00.1	318 33.5 +02.6	S 19 04.3 +00.0	19						
20	109 49.3 +01.0	N 03 24.8 -00.6	316 15.0 +02.8	S 14 14.7 +00.1	333 36.1 +02.6	S 19 04.3 +00.0	20						
21	124 50.3 +00.9	N 03 24.2 -00.7	331 17.8 +02.7	S 14 14.8 +00.1	348 38.7 +02.6	S 19 04.3 +00.1	21						
22	139 51.2 +01.0	N 03 23.5 -00.6	346 20.5 +02.8	S 14 14.9 +00.1	3 41.3 +02.6	S 19 04.4 +00.0	22						
23	154 52.2 +01.0	N 03 22.9 -00.7	1 23.3 +02.7	S 14 15.0 +00.1	18 43.9 +02.6	S 19 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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 186° 186° 186° 186° 186° 186°		SHA 032° 032° 032° 032° 032° 032°		SHA 049° 049° 049° 049° 049° 049°								
	Greenwich Culmination Time: 12:41		Greenwich Culmination Time: 22:54		Greenwich Culmination Time: 21:45								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 18.3 +00.2	N 06 48.5 -00.9	142 59.6 -00.2	S 09 25.2 +01.3	203 07.8 -31.0	N 20 12.3 -09.3	00						
01	195 18.5 +00.2	N 06 47.6 -01.0	157 59.4 -00.2	S 09 26.5 +01.2	217 36.8 -30.9	N 20 03.0 -09.5	01						
02	210 18.7 +00.2	N 06 46.6 -00.9	172 59.2 -00.2	S 09 27.7 +01.2	232 05.9 -30.9	N 19 53.5 -09.6	02						
03	225 18.9 +00.3	N 06 45.7 -00.9	187 59.0 -00.2	S 09 28.9 +01.2	246 35.0 -30.8	N 19 43.9 -09.7	03						
04	240 19.2 +00.2	N 06 44.8 -00.9	202 58.8 -00.2	S 09 30.1 +01.3	261 04.2 -30.8	N 19 34.2 -09.9	04						
05	255 19.4 +00.2	N 06 43.9 -01.0	217 58.6 -00.2	S 09 31.4 +01.2	275 33.4 -30.8	N 19 24.3 -09.9	05						
06	270 19.6 +00.2	N 06 42.9 -00.9	232 58.4 -00.2	S 09 32.6 +01.2	290 02.6 -30.8	N 19 14.4 -10.0	06						
07	285 19.8 +00.2	N 06 42.0 -00.9	247 58.2 -00.2	S 09 33.8 +01.2	304 31.8 -30.7	N 19 04.4 -10.2	07						
08	300 20.0 +00.2	N 06 41.1 -00.9	262 58.0 -00.2	S 09 35.0 +01.3	319 01.1 -30.7	N 18 54.2 -10.3	08						
09	315 20.2 +00.2	N 06 40.2 -01.0	277 57.8 -00.2	S 09 36.3 +01.2	333 30.4 -30.6	N 18 43.9 -10.3	09						
10	330 20.4 +00.2	N 06 39.2 -00.9	292 57.6 -00.2	S 09 37.5 +01.2	347 59.8 -30.7	N 18 33.6 -10.5	10						
11	345 20.6 +00.2	N 06 38.3 -00.9	307 57.4 -00.2	S 09 38.7 +01.2	2 29.1 -30.6	N 18 23.1 -10.6	11						
12	0 20.8 +00.2	N 06 37.4 -01.0	322 57.2 -00.3	S 09 39.9 +01.3	16 58.5 -30.5	N 18 12.5 -10.7	12						
13	15 21.0 +00.2	N 06 36.4 -00.9	337 56.9 -00.2	S 09 41.2 +01.2	31 28.0 -30.6	N 18 01.8 -10.8	13						
14	30 21.2 +00.3	N 06 35.5 -00.9	352 56.7 -00.2	S 09 42.4 +01.2	45 57.4 -30.5	N 17 51.0 -10.9	14						
15	45 21.5 +00.2	N 06 34.6 -01.0	7 56.5 -00.2	S 09 43.6 +01.2	60 26.9 -30.4	N 17 40.1 -11.0	15						
16	60 21.7 +00.2	N 06 33.6 -00.9	22 56.3 -00.2	S 09 44.8 +01.2	74 56.5 -30.5	N 17 29.1 -11.1	16						
17	75 21.9 +00.2	N 06 32.7 -00.9	37 56.1 -00.2	S 09 46.0 +01.3	89 26.0 -30.3	N 17 18.0 -11.2	17						
18	90 22.1 +00.2	N 06 31.8 -00.9	52 55.9 -00.2	S 09 47.3 +01.2	103 55.7 -30.4	N 17 06.8 -11.3	18						
19	105 22.3 +00.2	N 06 30.9 -01.0	67 55.7 -00.2	S 09 48.5 +01.2	118 25.3 -30.3	N 16 55.5 -11.4	19						
20	120 22.5 +00.2	N 06 29.9 -00.9	82 55.5 -00.2	S 09 49.7 +01.2	132 55.0 -30.4	N 16 44.1 -11.5	20						
21	135 22.7 +00.2	N 06 29.0 -00.9	97 55.3 -00.2	S 09 50.9 +01.2	147 24.6 -30.2	N 16 32.6 -11.6	21						
22	150 22.9 +00.2	N 06 28.1 -01.0	112 55.1 -00.3	S 09 52.1 +01.3	161 54.4 -30.3	N 16 21.0 -11.7	22						
23	165 23.1 +00.2	N 06 27.1 -00.9	127 54.8 -00.2	S 09 53.4 +01.2	176 24.1 -30.2	N 16 09.3 -11.8	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	15'9 15'9 15'9 15'9 15'9 15'9		SD	00'1 00'1 00'1 00'1 00'1 00'1		SD	15'5 15'5 15'5 15'6 15'6 15'6						
HP	00'1 00'1 00'1 00'1 00'1 00'1		HP	00'1 00'1 00'1 00'1 00'1 00'1		HP	56'8 57'0 57'1 57'2 57'3 57'4						
SHA	196° 196° 196° 195° 195° 195°		SHA	159° 158° 158° 158° 158° 158°		SHA	218° 215° 213° 211° 209° 207°						
Greenwich Culmination Time: 11:58			Greenwich Culmination Time: 14:28			Greenwich Culmination Time: 10:49							

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	169 53.2 +01.0	N 03 22.2 -00.6	16 26.0 +02.8	S 14 15.1 +00.1	33 46.5 +02.6	S 19 04.4 +00.1	00						
01	184 54.2 +01.0	N 03 21.6 -00.7	31 28.8 +02.7	S 14 15.2 +00.1	48 49.1 +02.6	S 19 04.5 +00.0	01						
02	199 55.2 +01.0	N 03 20.9 -00.6	46 31.5 +02.8	S 14 15.3 +00.1	63 51.7 +02.6	S 19 04.5 +00.0	02						
03	214 56.2 +01.0	N 03 20.3 -00.7	61 34.3 +02.7	S 14 15.4 +00.1	78 54.3 +02.6	S 19 04.5 +00.1	03						
04	229 57.2 +01.0	N 03 19.6 -00.6	76 37.0 +02.8	S 14 15.5 +00.1	93 56.9 +02.6	S 19 04.6 +00.0	04						
05	244 58.2 +01.0	N 03 19.0 -00.7	91 39.8 +02.8	S 14 15.6 +00.1	108 59.5 +02.6	S 19 04.6 +00.0	05						
06	259 59.2 +01.0	N 03 18.3 -00.6	106 42.6 +02.7	S 14 15.7 +00.1	124 02.1 +02.6	S 19 04.6 +00.1	06						
07	275 00.2 +01.0	N 03 17.7 -00.7	121 45.3 +02.8	S 14 15.8 +00.1	139 04.7 +02.6	S 19 04.7 +00.0	07						
08	290 01.2 +01.0	N 03 17.0 -00.6	136 48.1 +02.7	S 14 15.9 +00.1	154 07.3 +02.6	S 19 04.7 +00.1	08						
09	305 02.2 +01.0	N 03 16.4 -00.7	151 50.8 +02.8	S 14 16.0 +00.1	169 09.9 +02.6	S 19 04.8 +00.0	09						
10	320 03.2 +01.0	N 03 15.7 -00.6	166 53.6 +02.7	S 14 16.1 +00.1	184 12.5 +02.6	S 19 04.8 +00.0	10						
11	335 04.2 +01.0	N 03 15.1 -00.7	181 56.3 +02.8	S 14 16.2 +00.1	199 15.1 +02.6	S 19 04.8 +00.1	11						
12	350 05.2 +01.0	N 03 14.4 -00.6	196 59.1 +02.7	S 14 16.3 +00.1	214 17.7 +02.6	S 19 04.9 +00.0	12						
13	5 06.2 +01.0	N 03 13.8 -00.7	212 01.8 +02.8	S 14 16.4 +00.1	229 20.3 +02.6	S 19 04.9 +00.0	13						
14	20 07.2 +01.0	N 03 13.1 -00.6	227 04.6 +02.7	S 14 16.5 +00.1	244 22.9 +02.6	S 19 04.9 +00.1	14						
15	35 08.2 +01.0	N 03 12.5 -00.7	242 07.3 +02.8	S 14 16.6 +00.1	259 25.5 +02.6	S 19 05.0 +00.0	15						
16	50 09.2 +00.9	N 03 11.8 -00.6	257 10.1 +02.7	S 14 16.7 +00.1	274 28.1 +02.6	S 19 05.0 +00.0	16						
17	65 10.1 +01.0	N 03 11.2 -00.7	272 12.8 +02.8	S 14 16.8 +00.1	289 30.7 +02.6	S 19 05.0 +00.1	17						
18	80 11.1 +01.0	N 03 10.5 -00.6	287 15.6 +02.7	S 14 16.9 +00.1	304 33.3 +02.6	S 19 05.1 +00.0	18						
19	95 12.1 +01.0	N 03 09.9 -00.7	302 18.3 +02.8	S 14 17.0 +00.1	319 35.9 +02.6	S 19 05.1 +00.0	19						
20	110 13.1 +01.0	N 03 09.2 -00.6	317 21.1 +02.7	S 14 17.1 +00.1	334 38.5 +02.6	S 19 05.1 +00.1	20						
21	125 14.1 +01.0	N 03 08.6 -00.7	332 23.8 +02.8	S 14 17.2 +00.1	349 41.1 +02.6	S 19 05.2 +00.0	21						
22	140 15.1 +01.0	N 03 07.9 -00.6	347 26.6 +02.7	S 14 17.3 +00.1	4 43.7 +02.6	S 19 05.2 +00.1	22						
23	155 16.1 +01.0	N 03 07.3 -00.7	2 29.3 +02.8	S 14 17.4 +00.1	19 46.3 +02.6	S 19 05.3 +00.0	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	00'0 00'0 00'0 00'0 00'0 00'0		SD	00'4 00'4 00'4 00'4 00'4 00'4		SD	00'2 00'2 00'2 00'2 00'2 00'2						
HP	00'1 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						
SHA	186° 185° 185° 185° 185° 185°		SHA	032° 032° 032° 032° 032° 032°		SHA	049° 049° 049° 049° 049° 050°						
Greenwich Culmination Time: 12:39			Greenwich Culmination Time: 22:50			Greenwich Culmination Time: 21:41							

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 23.3 +00.3	N 06 26.2 -00.9	142 54.6 -00.2	S 09 54.6 +01.2	190 53.9 -30.1	N 15 57.5 -11.9	00						
01	195 23.6 +00.2	N 06 25.3 -01.0	157 54.4 -00.2	S 09 55.8 +01.2	205 23.8 -30.2	N 15 45.6 -12.0	01						
02	210 23.8 +00.2	N 06 24.3 -00.9	172 54.2 -00.2	S 09 57.0 +01.2	219 53.6 -30.1	N 15 33.6 -12.1	02						
03	225 24.0 +00.2	N 06 23.4 -00.9	187 54.0 -00.2	S 09 58.2 +01.2	234 23.5 -30.1	N 15 21.5 -12.2	03						
04	240 24.2 +00.2	N 06 22.5 -01.0	202 53.8 -00.2	S 09 59.4 +01.3	248 53.4 -30.0	N 15 09.3 -12.2	04						
05	255 24.4 +00.2	N 06 21.5 -00.9	217 53.6 -00.2	S 10 00.7 +01.2	263 23.4 -30.0	N 14 57.1 -12.4	05						
06	270 24.6 +00.2	N 06 20.6 -00.9	232 53.4 -00.2	S 10 01.9 +01.2	277 53.4 -30.0	N 14 44.7 -12.4	06						
07	285 24.8 +00.2	N 06 19.7 -01.0	247 53.2 -00.3	S 10 03.1 +01.2	292 23.4 -30.0	N 14 32.3 -12.5	07						
08	300 25.0 +00.2	N 06 18.7 -00.9	262 52.9 -00.2	S 10 04.3 +01.2	306 53.4 -29.9	N 14 19.8 -12.6	08						
09	315 25.2 +00.3	N 06 17.8 -00.9	277 52.7 -00.2	S 10 05.5 +01.2	321 23.5 -29.9	N 14 07.2 -12.7	09						
10	330 25.5 +00.2	N 06 16.9 -01.0	292 52.5 -00.2	S 10 06.7 +01.3	335 53.6 -29.9	N 13 54.5 -12.8	10						
11	345 25.7 +00.2	N 06 15.9 -00.9	307 52.3 -00.2	S 10 08.0 +01.2	350 23.7 -29.9	N 13 41.7 -12.9	11						
12	0 25.9 +00.2	N 06 15.0 -00.9	322 52.1 -00.2	S 10 09.2 +01.2	4 53.8 -29.8	N 13 28.8 -12.9	12						
13	15 26.1 +00.2	N 06 14.1 -01.0	337 51.9 -00.2	S 10 10.4 +01.2	19 24.0 -29.8	N 13 15.9 -13.0	13						
14	30 26.3 +00.2	N 06 13.1 -00.9	352 51.7 -00.2	S 10 11.6 +01.2	33 54.2 -29.7	N 13 02.9 -13.1	14						
15	45 26.5 +00.2	N 06 12.2 -00.9	7 51.5 -00.3	S 10 12.8 +01.2	48 24.5 -29.8	N 12 49.8 -13.2	15						
16	60 26.7 +00.2	N 06 11.3 -01.0	22 51.2 -00.2	S 10 14.0 +01.2	62 54.7 -29.7	N 12 36.6 -13.2	16						
17	75 26.9 +00.2	N 06 10.3 -00.9	37 51.0 -00.2	S 10 15.2 +01.3	77 25.0 -29.7	N 12 23.4 -13.4	17						
18	90 27.1 +00.3	N 06 09.4 -00.9	52 50.8 -00.2	S 10 16.5 +01.2	91 55.3 -29.6	N 12 10.0 -13.4	18						
19	105 27.4 +00.2	N 06 08.5 -01.0	67 50.6 -00.2	S 10 17.7 +01.2	106 25.7 -29.7	N 11 56.6 -13.5	19						
20	120 27.6 +00.2	N 06 07.5 -00.9	82 50.4 -00.2	S 10 18.9 +01.2	120 56.0 -29.6	N 11 43.1 -13.5	20						
21	135 27.8 +00.2	N 06 06.6 -00.9	97 50.2 -00.2	S 10 20.1 +01.2	135 26.4 -29.6	N 11 29.6 -13.6	21						
22	150 28.0 +00.2	N 06 05.7 -01.0	112 50.0 -00.3	S 10 21.3 +01.2	149 56.8 -29.5	N 11 16.0 -13.7	22						
23	165 28.2 +00.2	N 06 04.7 -00.9	127 49.7 -00.2	S 10 22.5 +01.2	164 27.3 -29.6	N 11 02.3 -13.8	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'7 15'7 15'7 15'8 15'8 15'8								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 57'5 57'6 57'7 57'9 58'0 58'1								
	SHA 195° 195° 195° 195° 194° 194°		SHA 158° 157° 157° 157° 157° 157°		SHA 205° 202° 200° 198° 196° 194°								
	Greenwich Culmination Time: 11:58		Greenwich Culmination Time: 14:28		Greenwich Culmination Time: 11:39								

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	170 17.1 +01.0	N 03 06.6 -00.6	17 32.1 +02.7	S 14 17.5 +00.1	34 48.9 +02.6	S 19 05.3 +00.0	00						
01	185 18.1 +01.0	N 03 06.0 -00.7	32 34.8 +02.8	S 14 17.6 +00.1	49 51.5 +02.6	S 19 05.3 +00.1	01						
02	200 19.1 +01.0	N 03 05.3 -00.6	47 37.6 +02.7	S 14 17.7 +00.1	64 54.1 +02.6	S 19 05.4 +00.0	02						
03	215 20.1 +01.0	N 03 04.7 -00.7	62 40.3 +02.8	S 14 17.8 +00.1	79 56.7 +02.6	S 19 05.4 +00.0	03						
04	230 21.1 +01.0	N 03 04.0 -00.6	77 43.1 +02.7	S 14 17.9 +00.1	94 59.3 +02.6	S 19 05.4 +00.1	04						
05	245 22.1 +01.0	N 03 03.4 -00.7	92 45.8 +02.8	S 14 18.0 +00.1	110 01.9 +02.6	S 19 05.5 +00.0	05						
06	260 23.1 +01.0	N 03 02.7 -00.6	107 48.6 +02.7	S 14 18.1 +00.1	125 04.5 +02.6	S 19 05.5 +00.0	06						
07	275 24.1 +01.0	N 03 02.1 -00.7	122 51.3 +02.8	S 14 18.2 +00.1	140 07.1 +02.6	S 19 05.5 +00.1	07						
08	290 25.1 +01.0	N 03 01.4 -00.6	137 54.1 +02.7	S 14 18.3 +00.1	155 09.7 +02.6	S 19 05.6 +00.0	08						
09	305 26.1 +01.0	N 03 00.8 -00.7	152 56.8 +02.8	S 14 18.4 +00.1	170 12.3 +02.6	S 19 05.6 +00.0	09						
10	320 27.1 +01.0	N 03 00.1 -00.6	167 59.6 +02.7	S 14 18.5 +00.1	185 14.9 +02.6	S 19 05.6 +00.1	10						
11	335 28.1 +00.9	N 02 59.5 -00.7	183 02.3 +02.8	S 14 18.6 +00.1	200 17.5 +02.6	S 19 05.7 +00.0	11						
12	350 29.0 +01.0	N 02 58.8 -00.6	198 05.1 +02.7	S 14 18.7 +00.1	215 20.1 +02.6	S 19 05.7 +00.0	12						
13	5 30.0 +01.0	N 02 58.2 -00.7	213 07.8 +02.8	S 14 18.8 +00.1	230 22.7 +02.6	S 19 05.7 +00.1	13						
14	20 31.0 +01.0	N 02 57.5 -00.6	228 10.6 +02.7	S 14 18.9 +00.1	245 25.3 +02.6	S 19 05.8 +00.0	14						
15	35 32.0 +01.0	N 02 56.9 -00.7	243 13.3 +02.7	S 14 19.0 +00.1	260 27.9 +02.6	S 19 05.8 +00.1	15						
16	50 33.0 +01.0	N 02 56.2 -00.7	258 16.0 +02.8	S 14 19.1 +00.1	275 30.5 +02.6	S 19 05.9 +00.0	16						
17	65 34.0 +01.0	N 02 55.5 -00.6	273 18.8 +02.7	S 14 19.2 +00.1	290 33.1 +02.6	S 19 05.9 +00.0	17						
18	80 35.0 +01.0	N 02 54.9 -00.7	288 21.5 +02.8	S 14 19.3 +00.1	305 35.7 +02.6	S 19 05.9 +00.1	18						
19	95 36.0 +01.0	N 02 54.2 -00.6	303 24.3 +02.7	S 14 19.4 +00.1	320 38.3 +02.6	S 19 06.0 +00.0	19						
20	110 37.0 +01.0	N 02 53.6 -00.7	318 27.0 +02.8	S 14 19.5 +00.1	335 40.9 +02.5	S 19 06.0 +00.0	20						
21	125 38.0 +01.0	N 02 52.9 -00.6	333 29.8 +02.7	S 14 19.6 +00.1	350 43.4 +02.6	S 19 06.0 +00.1	21						
22	140 39.0 +01.0	N 02 52.3 -00.7	348 32.5 +02.8	S 14 19.7 +00.1	5 46.0 +02.6	S 19 06.1 +00.0	22						
23	155 40.0 +01.0	N 02 51.6 -00.6	3 35.3 +02.7	S 14 19.8 +00.1	20 48.6 +02.6	S 19 06.1 +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 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 185° 185° 185° 185° 185° 184°		SHA 032° 032° 032° 032° 032° 032°		SHA 050° 050° 050° 050° 050° 050°								
	Greenwich Culmination Time: 12:38		Greenwich Culmination Time: 22:45		Greenwich Culmination Time: 21:36								

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 28.4 +00.2	N 06 03.8 -00.9	142 49.5 -00.2	S 10 23.7 +01.2	178 57.7 -29.5	N 10 48.5 -13.8	00						
01	195 28.6 +00.2	N 06 02.9 -01.0	157 49.3 -00.2	S 10 24.9 +01.2	193 28.2 -29.5	N 10 34.7 -13.9	01						
02	210 28.8 +00.3	N 06 01.9 -00.9	172 49.1 -00.2	S 10 26.1 +01.2	207 58.7 -29.5	N 10 20.8 -13.9	02						
03	225 29.1 +00.2	N 06 01.0 -01.0	187 48.9 -00.2	S 10 27.3 +01.3	222 29.2 -29.4	N 10 06.9 -14.1	03						
04	240 29.3 +00.2	N 06 00.0 -00.9	202 48.7 -00.2	S 10 28.6 +01.2	236 59.8 -29.5	N 09 52.8 -14.0	04						
05	255 29.5 +00.2	N 05 59.1 -00.9	217 48.5 -00.3	S 10 29.8 +01.2	251 30.3 -29.4	N 09 38.8 -14.2	05						
06	270 29.7 +00.2	N 05 58.2 -01.0	232 48.2 -00.2	S 10 31.0 +01.2	266 00.9 -29.4	N 09 24.6 -14.2	06						
07	285 29.9 +00.2	N 05 57.2 -00.9	247 48.0 -00.2	S 10 32.2 +01.2	280 31.5 -29.4	N 09 10.4 -14.3	07						
08	300 30.1 +00.2	N 05 56.3 -00.9	262 47.8 -00.2	S 10 33.4 +01.2	295 02.1 -29.4	N 08 56.1 -14.3	08						
09	315 30.3 +00.2	N 05 55.4 -01.0	277 47.6 -00.2	S 10 34.6 +01.2	309 32.7 -29.3	N 08 41.8 -14.3	09						
10	330 30.5 +00.3	N 05 54.4 -00.9	292 47.4 -00.2	S 10 35.8 +01.2	324 03.4 -29.4	N 08 27.5 -14.5	10						
11	345 30.8 +00.2	N 05 53.5 -00.9	307 47.2 -00.3	S 10 37.0 +01.2	338 34.0 -29.3	N 08 13.0 -14.5	11						
12	0 31.0 +00.2	N 05 52.6 -01.0	322 46.9 -00.2	S 10 38.2 +01.2	353 04.7 -29.3	N 07 58.5 -14.5	12						
13	15 31.2 +00.2	N 05 51.6 -00.9	337 46.7 -00.2	S 10 39.4 +01.2	7 35.4 -29.3	N 07 44.0 -14.6	13						
14	30 31.4 +00.2	N 05 50.7 -01.0	352 46.5 -00.2	S 10 40.6 +01.2	22 06.1 -29.3	N 07 29.4 -14.6	14						
15	45 31.6 +00.2	N 05 49.7 -00.9	7 46.3 -00.2	S 10 41.8 +01.2	36 36.8 -29.3	N 07 14.8 -14.7	15						
16	60 31.8 +00.2	N 05 48.8 -00.9	22 46.1 -00.3	S 10 43.0 +01.2	51 07.5 -29.3	N 07 00.1 -14.7	16						
17	75 32.0 +00.3	N 05 47.9 -01.0	37 45.8 -00.2	S 10 44.2 +01.2	65 38.2 -29.2	N 06 45.4 -14.8	17						
18	90 32.3 +00.2	N 05 46.9 -00.9	52 45.6 -00.2	S 10 45.4 +01.2	80 09.0 -29.3	N 06 30.6 -14.8	18						
19	105 32.5 +00.2	N 05 46.0 -01.0	67 45.4 -00.2	S 10 46.6 +01.2	94 39.7 -29.2	N 06 15.8 -14.9	19						
20	120 32.7 +00.2	N 05 45.0 -00.9	82 45.2 -00.2	S 10 47.8 +01.3	109 10.5 -29.3	N 06 00.9 -14.9	20						
21	135 32.9 +00.2	N 05 44.1 -00.9	97 45.0 -00.2	S 10 49.1 +01.2	123 41.2 -29.2	N 05 46.0 -14.9	21						
22	150 33.1 +00.2	N 05 43.2 -01.0	112 44.8 -00.3	S 10 50.3 +01.2	138 12.0 -29.2	N 05 31.1 -15.0	22						
23	165 33.3 +00.2	N 05 42.2 -00.9	127 44.5 -00.2	S 10 51.5 +01.2	152 42.8 -29.2	N 05 16.1 -15.0	23						
UT	02 06 10 14 18 22	SD 15'9 15'9 15'9 15'9 15'9 15'9	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 194° 194° 194° 194° 194° 193°	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	SHA 156° 156° 156° 156° 156° 156°	Greenwich Culmination Time: 14:28								
UT	02 06 10 14 18 22	SD 15'8 15'9 15'9 15'9 15'9 16'0	HP 58'2 58'3 58'4 58'4 58'5 58'6	SHA 192° 189° 187° 185° 183° 181°	Greenwich Culmination Time: 12:28								

  

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	170 41.0 +01.0	N 02 51.0 -00.7	18 38.0 +02.8	S 14 19.9 +00.1	35 51.2 +02.6	S 19 06.1 +00.1	00						
01	185 42.0 +01.0	N 02 50.3 -00.6	33 40.8 +02.7	S 14 20.0 +00.1	50 53.8 +02.6	S 19 06.2 +00.0	01						
02	200 43.0 +01.0	N 02 49.7 -00.7	48 43.5 +02.8	S 14 20.1 +00.1	65 56.4 +02.6	S 19 06.2 +00.0	02						
03	215 44.0 +01.0	N 02 49.0 -00.6	63 46.3 +02.7	S 14 20.2 +00.1	80 59.0 +02.6	S 19 06.2 +00.1	03						
04	230 45.0 +00.9	N 02 48.4 -00.7	78 49.0 +02.7	S 14 20.3 +00.1	96 01.6 +02.6	S 19 06.3 +00.0	04						
05	245 45.9 +01.0	N 02 47.7 -00.6	93 51.7 +02.8	S 14 20.4 +00.1	111 04.2 +02.6	S 19 06.3 +00.0	05						
06	260 46.9 +01.0	N 02 47.1 -00.7	108 54.5 +02.7	S 14 20.5 +00.1	126 06.8 +02.6	S 19 06.3 +00.1	06						
07	275 47.9 +01.0	N 02 46.4 -00.6	123 57.2 +02.8	S 14 20.6 +00.1	141 09.4 +02.6	S 19 06.4 +00.0	07						
08	290 48.9 +01.0	N 02 45.8 -00.7	138 60.0 +02.7	S 14 20.7 +00.1	156 12.0 +02.6	S 19 06.4 +00.0	08						
09	305 49.9 +01.0	N 02 45.1 -00.6	154 02.7 +02.8	S 14 20.8 +00.1	171 14.6 +02.6	S 19 06.4 +00.1	09						
10	320 50.9 +01.0	N 02 44.5 -00.7	169 05.5 +02.7	S 14 20.9 +00.1	186 17.2 +02.6	S 19 06.5 +00.0	10						
11	335 51.9 +01.0	N 02 43.8 -00.6	184 08.2 +02.8	S 14 21.0 +00.0	201 19.8 +02.6	S 19 06.5 +00.0	11						
12	350 52.9 +01.0	N 02 43.2 -00.7	199 11.0 +02.7	S 14 21.0 +00.1	216 22.4 +02.6	S 19 06.5 +00.1	12						
13	5 53.9 +01.0	N 02 42.5 -00.6	214 13.7 +02.7	S 14 21.1 +00.1	231 25.0 +02.6	S 19 06.6 +00.0	13						
14	20 54.9 +01.0	N 02 41.9 -00.7	229 16.4 +02.8	S 14 21.2 +00.1	246 27.6 +02.6	S 19 06.6 +00.0	14						
15	35 55.9 +01.0	N 02 41.2 -00.7	244 19.2 +02.7	S 14 21.3 +00.1	261 30.2 +02.5	S 19 06.6 +00.1	15						
16	50 56.9 +01.0	N 02 40.5 -00.6	259 21.9 +02.8	S 14 21.4 +00.1	276 32.7 +02.6	S 19 06.7 +00.0	16						
17	65 57.9 +01.0	N 02 39.9 -00.7	274 24.7 +02.7	S 14 21.5 +00.1	291 35.3 +02.6	S 19 06.7 +00.0	17						
18	80 58.9 +01.0	N 02 39.2 -00.6	289 27.4 +02.8	S 14 21.6 +00.1	306 37.9 +02.6	S 19 06.7 +00.1	18						
19	95 59.9 +01.0	N 02 38.6 -00.7	304 30.2 +02.7	S 14 21.7 +00.1	321 40.5 +02.6	S 19 06.8 +00.0	19						
20	111 00.9 +01.0	N 02 37.9 -00.6	319 32.9 +02.7	S 14 21.8 +00.1	336 43.1 +02.6	S 19 06.8 +00.0	20						
21	126 01.9 +00.9	N 02 37.3 -00.7	334 35.6 +02.8	S 14 21.9 +00.1	351 45.7 +02.6	S 19 06.8 +00.1	21						
22	141 02.8 +01.0	N 02 36.6 -00.6	349 38.4 +02.7	S 14 22.0 +00.1	6 48.3 +02.6	S 19 06.9 +00.0	22						
23	156 03.8 +01.0	N 02 36.0 -00.7	4 41.1 +02.8	S 14 22.1 +00.1	21 50.9 +02.6	S 19 06.9 +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	SHA 184° 184° 184° 184° 184° 184°	Greenwich Culmination Time: 12:36								
UT	02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 032° 032° 032° 032° 032° 032°	Greenwich Culmination Time: 22:41								
UT	02 06 10 14 18 22	SD 00'2 00'2 00'2 00'2 00'2 00'2	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 050° 050° 050° 050° 050° 050°	Greenwich Culmination Time: 21:32								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 33.5 +00.3	N 05	41.3 -01.0	142 44.3 -00.2	S 10	52.7 +01.2	167 13.6 -29.3	N 05	01.1 -15.0	00			
01	195 33.8 +00.2	N 05	40.3 -00.9	157 44.1 -00.2	S 10	53.9 +01.2	181 44.3 -29.2	N 04	46.1 -15.1	01			
02	210 34.0 +00.2	N 05	39.4 -00.9	172 43.9 -00.2	S 10	55.1 +01.2	196 15.1 -29.2	N 04	31.0 -15.2	02			
03	225 34.2 +00.2	N 05	38.5 -01.0	187 43.7 -00.3	S 10	56.3 +01.2	210 45.9 -29.2	N 04	15.8 -15.1	03			
04	240 34.4 +00.2	N 05	37.5 -00.9	202 43.4 -00.2	S 10	57.5 +01.2	225 16.7 -29.2	N 04	00.7 -15.2	04			
05	255 34.6 +00.2	N 05	36.6 -01.0	217 43.2 -00.2	S 10	58.7 +01.2	239 47.5 -29.2	N 03	45.5 -15.2	05			
06	270 34.8 +00.2	N 05	35.6 -00.9	232 43.0 -00.2	S 10	59.9 +01.2	254 18.3 -29.2	N 03	30.3 -15.2	06			
07	285 35.0 +00.3	N 05	34.7 -00.9	247 42.8 -00.2	S 11	01.1 +01.2	268 49.1 -29.3	N 03	15.1 -15.3	07			
08	300 35.3 +00.2	N 05	33.8 -01.0	262 42.6 -00.3	S 11	02.3 +01.2	283 19.8 -29.2	N 02	59.8 -15.3	08			
09	315 35.5 +00.2	N 05	32.8 -00.9	277 42.3 -00.2	S 11	03.5 +01.2	297 50.6 -29.2	N 02	44.5 -15.3	09			
10	330 35.7 +00.2	N 05	31.9 -01.0	292 42.1 -00.2	S 11	04.7 +01.1	312 21.4 -29.2	N 02	29.2 -15.3	10			
11	345 35.9 +00.2	N 05	30.9 -00.9	307 41.9 -00.2	S 11	05.8 +01.2	326 52.2 -29.3	N 02	13.9 -15.4	11			
12	0 36.1 +00.2	N 05	30.0 -00.9	322 41.7 -00.3	S 11	07.0 +01.2	341 22.9 -29.2	N 01	58.5 -15.4	12			
13	15 36.3 +00.3	N 05	29.1 -01.0	337 41.4 -00.2	S 11	08.2 +01.2	355 53.7 -29.3	N 01	43.1 -15.3	13			
14	30 36.6 +00.2	N 05	28.1 -00.9	352 41.2 -00.2	S 11	09.4 +01.2	10 24.4 -29.2	N 01	27.8 -15.5	14			
15	45 36.8 +00.2	N 05	27.2 -01.0	7 41.0 -00.2	S 11	10.6 +01.2	24 55.2 -29.3	N 01	12.3 -15.4	15			
16	60 37.0 +00.2	N 05	26.2 -00.9	22 40.8 -00.2	S 11	11.8 +01.2	39 25.9 -29.3	N 00	56.9 -15.4	16			
17	75 37.2 +00.2	N 05	25.3 -01.0	37 40.6 -00.3	S 11	13.0 +01.2	53 56.6 -29.3	N 00	41.5 -15.5	17			
18	90 37.4 +00.2	N 05	24.3 -00.9	52 40.3 -00.2	S 11	14.2 +01.2	68 27.3 -29.3	N 00	26.0 -15.4	18			
19	105 37.6 +00.2	N 05	23.4 -00.9	67 40.1 -00.2	S 11	15.4 +01.2	82 58.0 -29.3	N 00	10.6 -15.5	19			
20	120 37.8 +00.3	N 05	22.5 -01.0	82 39.9 -00.2	S 11	16.6 +01.2	97 28.7 -29.4	S 00	04.9 +15.4	20			
21	135 38.1 +00.2	N 05	21.5 -00.9	97 39.7 -00.3	S 11	17.8 +01.2	111 59.3 -29.3	S 00	20.3 +15.5	21			
22	150 38.3 +00.2	N 05	20.6 -01.0	112 39.4 -00.2	S 11	19.0 +01.2	126 30.0 -29.4	S 00	35.8 +15.5	22			
23	165 38.5 +00.2	N 05	19.6 -00.9	127 39.2 -00.2	S 11	20.2 +01.2	141 00.6 -29.4	S 00	51.3 +15.5	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'9 15'9 15'9 15'9 15'9 15'9			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'0 16'0 16'0 16'1 16'1 16'1						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 58'7 58'8 58'8 58'9 59'0 59'0						
	SHA 193° 193° 193° 193° 193° 192°			SHA 155° 155° 155° 155° 155° 154°			SHA 179° 177° 175° 173° 170° 168°						
	Greenwich Culmination Time: 11:57			Greenwich Culmination Time: 14:29			Greenwich Culmination Time: 13:16						
UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	171 04.8 +01.0	N 02	35.3 -00.6	19 43.9 +02.7	S 14	22.2 +00.1	36 53.5 +02.6	S 19	06.9 +00.1	00			
01	186 05.8 +01.0	N 02	34.7 -00.7	34 46.6 +02.8	S 14	22.3 +00.1	51 56.1 +02.6	S 19	07.0 +00.0	01			
02	201 06.8 +01.0	N 02	34.0 -00.6	49 49.4 +02.7	S 14	22.4 +00.1	66 58.7 +02.6	S 19	07.0 +00.0	02			
03	216 07.8 +01.0	N 02	33.4 -00.7	64 52.1 +02.7	S 14	22.5 +00.1	82 01.3 +02.6	S 19	07.0 +00.1	03			
04	231 08.8 +01.0	N 02	32.7 -00.6	79 54.8 +02.8	S 14	22.6 +00.1	97 03.9 +02.6	S 19	07.1 +00.0	04			
05	246 09.8 +01.0	N 02	32.1 -00.7	94 57.6 +02.7	S 14	22.7 +00.1	112 06.5 +02.5	S 19	07.1 +00.0	05			
06	261 10.8 +01.0	N 02	31.4 -00.6	110 00.3 +02.8	S 14	22.8 +00.1	127 09.0 +02.6	S 19	07.1 +00.1	06			
07	276 11.8 +01.0	N 02	30.8 -00.7	125 03.1 +02.7	S 14	22.9 +00.1	142 11.6 +02.6	S 19	07.2 +00.0	07			
08	291 12.8 +01.0	N 02	30.1 -00.7	140 05.8 +02.7	S 14	23.0 +00.1	157 14.2 +02.6	S 19	07.2 +00.0	08			
09	306 13.8 +01.0	N 02	29.4 -00.6	155 08.5 +02.8	S 14	23.1 +00.1	172 16.8 +02.6	S 19	07.2 +00.1	09			
10	321 14.8 +01.0	N 02	28.8 -00.7	170 11.3 +02.7	S 14	23.2 +00.1	187 19.4 +02.6	S 19	07.3 +00.0	10			
11	336 15.8 +01.0	N 02	28.1 -00.6	185 14.0 +02.8	S 14	23.3 +00.1	202 22.0 +02.6	S 19	07.3 +00.0	11			
12	351 16.8 +01.0	N 02	27.5 -00.7	200 16.8 +02.7	S 14	23.4 +00.0	217 24.6 +02.6	S 19	07.3 +00.1	12			
13	6 17.8 +00.9	N 02	26.8 -00.6	215 19.5 +02.7	S 14	23.4 +00.1	232 27.2 +02.6	S 19	07.4 +00.0	13			
14	21 18.7 +01.0	N 02	26.2 -00.7	230 22.2 +02.8	S 14	23.5 +00.1	247 29.8 +02.6	S 19	07.4 +00.0	14			
15	36 19.7 +01.0	N 02	25.5 -00.6	245 25.0 +02.7	S 14	23.6 +00.1	262 32.4 +02.6	S 19	07.4 +00.1	15			
16	51 20.7 +01.0	N 02	24.9 -00.7	260 27.7 +02.8	S 14	23.7 +00.1	277 35.0 +02.5	S 19	07.5 +00.0	16			
17	66 21.7 +01.0	N 02	24.2 -00.6	275 30.5 +02.7	S 14	23.8 +00.1	292 37.5 +02.6	S 19	07.5 +00.0	17			
18	81 22.7 +01.0	N 02	23.6 -00.7	290 33.2 +02.7	S 14	23.9 +00.1	307 40.1 +02.6	S 19	07.5 +00.1	18			
19	96 23.7 +01.0	N 02	22.9 -00.6	305 35.9 +02.8	S 14	24.0 +00.1	322 42.7 +02.6	S 19	07.6 +00.0	19			
20	111 24.7 +01.0	N 02	22.3 -00.7	320 38.7 +02.7	S 14	24.1 +00.1	337 45.3 +02.6	S 19	07.6 +00.0	20			
21	126 25.7 +01.0	N 02	21.6 -00.7	335 41.4 +02.8	S 14	24.2 +00.1	352 47.9 +02.6	S 19	07.6 +00.1	21			
22	141 26.7 +01.0	N 02	20.9 -00.6	350 44.2 +02.7	S 14	24.3 +00.1	7 50.5 +02.6	S 19	07.7 +00.0	22			
23	156 27.7 +01.0	N 02	20.3 -00.7	5 46.9 +02.7	S 14	24.4 +00.1	22 53.1 +02.6	S 19	07.7 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'0 00'0 00'0 00'0 00'0 00'0			SD 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'2 00'2 00'2 00'2 00'2 00'2						
	HP 00'1 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						
	SHA 184° 184° 184° 183° 183° 183°			SHA 032° 032° 033° 033° 033° 033°			SHA 050° 050° 050° 050° 050° 050°						
	Greenwich Culmination Time: 12:34			Greenwich Culmination Time: 22:36			Greenwich Culmination Time: 21:28						

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 38.7 +00.2	N 05	18.7 -01.0	142 39.0 -00.2	S 11	21.4 +01.2	155 31.2 -29.4	S 01	06.8 +15.5	00			
01	195 38.9 +00.2	N 05	17.7 -00.9	157 38.8 -00.3	S 11	22.6 +01.2	170 01.8 -29.4	S 01	22.3 +15.5	01			
02	210 39.1 +00.3	N 05	16.8 -01.0	172 38.5 -00.2	S 11	23.8 +01.2	184 32.4 -29.5	S 01	37.8 +15.4	02			
03	225 39.4 +00.2	N 05	15.8 -00.9	187 38.3 -00.2	S 11	25.0 +01.1	199 02.9 -29.4	S 01	53.2 +15.5	03			
04	240 39.6 +00.2	N 05	14.9 -00.9	202 38.1 -00.2	S 11	26.1 +01.2	213 33.5 -29.5	S 02	08.7 +15.5	04			
05	255 39.8 +00.2	N 05	14.0 -01.0	217 37.9 -00.3	S 11	27.3 +01.2	228 04.0 -29.6	S 02	24.2 +15.5	05			
06	270 40.0 +00.2	N 05	13.0 -00.9	232 37.6 -00.2	S 11	28.5 +01.2	242 34.4 -29.5	S 02	39.7 +15.4	06			
07	285 40.2 +00.2	N 05	12.1 -01.0	247 37.4 -00.2	S 11	29.7 +01.2	257 04.9 -29.6	S 02	55.1 +15.5	07			
08	300 40.4 +00.3	N 05	11.1 -00.9	262 37.2 -00.2	S 11	30.9 +01.2	271 35.3 -29.6	S 03	10.6 +15.4	08			
09	315 40.7 +00.2	N 05	10.2 -01.0	277 37.0 -00.3	S 11	32.1 +01.2	286 05.7 -29.6	S 03	26.0 +15.4	09			
10	330 40.9 +00.2	N 05	09.2 -00.9	292 36.7 -00.2	S 11	33.3 +01.2	300 36.1 -29.7	S 03	41.4 +15.5	10			
11	345 41.1 +00.2	N 05	08.3 -01.0	307 36.5 -00.2	S 11	34.5 +01.2	315 06.4 -29.6	S 03	56.9 +15.4	11			
12	0 41.3 +00.2	N 05	07.3 -00.9	322 36.3 -00.2	S 11	35.7 +01.1	329 36.8 -29.8	S 04	12.3 +15.3	12			
13	15 41.5 +00.2	N 05	06.4 -00.9	337 36.1 -00.3	S 11	36.8 +01.2	344 07.0 -29.7	S 04	27.6 +15.4	13			
14	30 41.7 +00.3	N 05	05.5 -01.0	352 35.8 -00.2	S 11	38.0 +01.2	358 37.3 -29.8	S 04	43.0 +15.4	14			
15	45 42.0 +00.2	N 05	04.5 -00.9	7 35.6 -00.2	S 11	39.2 +01.2	13 07.5 -29.8	S 04	58.4 +15.3	15			
16	60 42.2 +00.2	N 05	03.6 -01.0	22 35.4 -00.3	S 11	40.4 +01.2	27 37.7 -29.9	S 05	13.7 +15.3	16			
17	75 42.4 +00.2	N 05	02.6 -00.9	37 35.1 -00.2	S 11	41.6 +01.2	42 07.8 -29.9	S 05	29.0 +15.3	17			
18	90 42.6 +00.2	N 05	01.7 -01.0	52 34.9 -00.2	S 11	42.8 +01.2	56 37.9 -29.9	S 05	44.3 +15.2	18			
19	105 42.8 +00.2	N 05	00.7 -00.9	67 34.7 -00.2	S 11	44.0 +01.1	71 08.0 -29.9	S 05	59.5 +15.2	19			
20	120 43.0 +00.3	N 04	59.8 -01.0	82 34.5 -00.3	S 11	45.1 +01.2	85 38.1 -30.0	S 06	14.7 +15.2	20			
21	135 43.3 +00.2	N 04	58.8 -00.9	97 34.2 -00.2	S 11	46.3 +01.2	100 08.1 -30.1	S 06	29.9 +15.2	21			
22	150 43.5 +00.2	N 04	57.9 -01.0	112 34.0 -00.2	S 11	47.5 +01.2	114 38.0 -30.1	S 06	45.1 +15.1	22			
23	165 43.7 +00.2	N 04	56.9 -00.9	127 33.8 -00.3	S 11	48.7 +01.2	129 07.9 -30.1	S 07	00.2 +15.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'9 15'9 15'9 15'9 15'9 15'9			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'1 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 59'1 59'2 59'2 59'3 59'3 59'3						
	SHA 192° 192° 192° 192° 192° 192°			SHA 154° 154° 154° 154° 154° 153°			SHA 166° 164° 162° 160° 158° 155°						
	Greenwich Culmination Time: 11:57			Greenwich Culmination Time: 14:29			Greenwich Culmination Time: 14:05						

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	171 28.7 +01.0	N 02	19.6 -00.6	20 49.6 +02.8	S 14	24.5 +00.1	37 55.7 +02.6	S 19	07.7 +00.1	00			
01	186 29.7 +01.0	N 02	19.0 -00.7	35 52.4 +02.7	S 14	24.6 +00.1	52 58.3 +02.5	S 19	07.8 +00.0	01			
02	201 30.7 +01.0	N 02	18.3 -00.6	50 55.1 +02.7	S 14	24.7 +00.1	68 00.8 +02.6	S 19	07.8 +00.0	02			
03	216 31.7 +01.0	N 02	17.7 -00.7	65 57.8 +02.8	S 14	24.8 +00.1	83 03.4 +02.6	S 19	07.8 +00.1	03			
04	231 32.7 +00.9	N 02	17.0 -00.6	81 00.6 +02.7	S 14	24.9 +00.1	98 06.0 +02.6	S 19	07.9 +00.0	04			
05	246 33.6 +01.0	N 02	16.4 -00.7	96 03.3 +02.8	S 14	25.0 +00.0	113 08.6 +02.6	S 19	07.9 +00.0	05			
06	261 34.6 +01.0	N 02	15.7 -00.6	111 06.1 +02.7	S 14	25.0 +00.1	128 11.2 +02.6	S 19	07.9 +00.1	06			
07	276 35.6 +01.0	N 02	15.1 -00.7	126 08.8 +02.7	S 14	25.1 +00.1	143 13.8 +02.6	S 19	08.0 +00.0	07			
08	291 36.6 +01.0	N 02	14.4 -00.6	141 11.5 +02.8	S 14	25.2 +00.1	158 16.4 +02.6	S 19	08.0 +00.0	08			
09	306 37.6 +01.0	N 02	13.8 -00.7	156 14.3 +02.7	S 14	25.3 +00.1	173 19.0 +02.6	S 19	08.0 +00.1	09			
10	321 38.6 +01.0	N 02	13.1 -00.7	171 17.0 +02.7	S 14	25.4 +00.1	188 21.6 +02.5	S 19	08.1 +00.0	10			
11	336 39.6 +01.0	N 02	12.4 -00.6	186 19.7 +02.8	S 14	25.5 +00.1	203 24.1 +02.6	S 19	08.1 +00.0	11			
12	351 40.6 +01.0	N 02	11.8 -00.7	201 22.5 +02.7	S 14	25.6 +00.1	218 26.7 +02.6	S 19	08.1 +00.1	12			
13	6 41.6 +01.0	N 02	11.1 -00.6	216 25.2 +02.7	S 14	25.7 +00.1	233 29.3 +02.6	S 19	08.2 +00.0	13			
14	21 42.6 +01.0	N 02	10.5 -00.7	231 27.9 +02.8	S 14	25.8 +00.1	248 31.9 +02.6	S 19	08.2 +00.0	14			
15	36 43.6 +01.0	N 02	09.8 -00.6	246 30.7 +02.7	S 14	25.9 +00.1	263 34.5 +02.6	S 19	08.2 +00.1	15			
16	51 44.6 +01.0	N 02	09.2 -00.7	261 33.4 +02.7	S 14	26.0 +00.1	278 37.1 +02.6	S 19	08.3 +00.0	16			
17	66 45.6 +01.0	N 02	08.5 -00.6	276 36.1 +02.8	S 14	26.1 +00.1	293 39.7 +02.6	S 19	08.3 +00.0	17			
18	81 46.6 +00.9	N 02	07.9 -00.7	291 38.9 +02.7	S 14	26.2 +00.1	308 42.3 +02.5	S 19	08.3 +00.1	18			
19	96 47.5 +01.0	N 02	07.2 -00.6	306 41.6 +02.8	S 14	26.3 +00.1	323 44.8 +02.6	S 19	08.4 +00.0	19			
20	111 48.5 +01.0	N 02	06.6 -00.7	321 44.4 +02.7	S 14	26.4 +00.0	338 47.4 +02.6	S 19	08.4 +00.0	20			
21	126 49.5 +01.0	N 02	05.9 -00.7	336 47.1 +02.7	S 14	26.4 +00.1	353 50.0 +02.6	S 19	08.4 +00.1	21			
22	141 50.5 +01.0	N 02	05.2 -00.6	351 49.8 +02.8	S 14	26.5 +00.1	8 52.6 +02.6	S 19	08.5 +00.0	22			
23	156 51.5 +01.0	N 02	04.6 -00.7	6 52.6 +02.7	S 14	26.6 +00.1	23 55.2 +02.6	S 19	08.5 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'0 00'0 00'0 00'0 00'0 00'0			SD 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'2 00'2 00'2 00'2 00'2 00'2						
	HP 00'1 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						
	SHA 183° 183° 183° 183° 183° 183°			SHA 033° 033° 033° 033° 033° 033°			SHA 050° 050° 050° 050° 050° 050°						
	Greenwich Culmination Time: 12:33			Greenwich Culmination Time: 22:32			Greenwich Culmination Time: 21:24						

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 43.9 +00.2	N 04	56.0 -01.0	142 33.5 -00.2	S 11	49.9 +01.2	143 37.8 -30.2	S 07	15.3 +15.1				
01	195 44.1 +00.3	N 04	55.0 -00.9	157 33.3 -00.2	S 11	51.1 +01.1	158 07.6 -30.2	S 07	30.4 +15.0				
02	210 44.4 +00.2	N 04	54.1 -01.0	172 33.1 -00.2	S 11	52.2 +01.2	172 37.4 -30.2	S 07	45.4 +15.0				
03	225 44.6 +00.2	N 04	53.1 -00.9	187 32.9 -00.3	S 11	53.4 +01.2	187 07.2 -30.3	S 08	00.4 +14.9				
04	240 44.8 +00.2	N 04	52.2 -01.0	202 32.6 -00.2	S 11	54.6 +01.2	201 36.9 -30.4	S 08	15.3 +14.9				
05	255 45.0 +00.2	N 04	51.2 -00.9	217 32.4 -00.2	S 11	55.8 +01.2	216 06.5 -30.4	S 08	30.2 +14.9				
06	270 45.2 +00.2	N 04	50.3 -00.9	232 32.2 -00.3	S 11	57.0 +01.1	230 36.1 -30.4	S 08	45.1 +14.8				
07	285 45.4 +00.3	N 04	49.4 -01.0	247 31.9 -00.2	S 11	58.1 +01.2	245 05.7 -30.5	S 08	59.9 +14.8				
08	300 45.7 +00.2	N 04	48.4 -00.9	262 31.7 -00.2	S 11	59.3 +01.2	259 35.2 -30.6	S 09	14.7 +14.7				
09	315 45.9 +00.2	N 04	47.5 -01.0	277 31.5 -00.3	S 12	00.5 +01.2	274 04.6 -30.6	S 09	29.4 +14.7				
10	330 46.1 +00.2	N 04	46.5 -00.9	292 31.2 -00.2	S 12	01.7 +01.2	288 34.0 -30.6	S 09	44.1 +14.6				
11	345 46.3 +00.2	N 04	45.6 -01.0	307 31.0 -00.2	S 12	02.9 +01.1	303 03.4 -30.7	S 09	58.7 +14.6				
12	0 46.5 +00.3	N 04	44.6 -00.9	322 30.8 -00.3	S 12	04.0 +01.2	317 32.7 -30.8	S 10	13.3 +14.5				
13	15 46.8 +00.2	N 04	43.7 -01.0	337 30.5 -00.2	S 12	05.2 +01.2	332 01.9 -30.8	S 10	27.8 +14.5				
14	30 47.0 +00.2	N 04	42.7 -00.9	352 30.3 -00.2	S 12	06.4 +01.2	346 31.1 -30.9	S 10	42.3 +14.4				
15	45 47.2 +00.2	N 04	41.8 -01.0	7 30.1 -00.3	S 12	07.6 +01.1	1 00.2 -30.9	S 10	56.7 +14.3				
16	60 47.4 +00.2	N 04	40.8 -00.9	22 29.8 -00.2	S 12	08.7 +01.2	15 29.3 -31.0	S 11	11.0 +14.3				
17	75 47.6 +00.2	N 04	39.9 -01.0	37 29.6 -00.2	S 12	09.9 +01.2	29 58.3 -31.0	S 11	25.3 +14.2				
18	90 47.8 +00.3	N 04	38.9 -00.9	52 29.4 -00.3	S 12	11.1 +01.2	44 27.3 -31.1	S 11	39.5 +14.2				
19	105 48.1 +00.2	N 04	38.0 -01.0	67 29.1 -00.2	S 12	12.3 +01.1	58 56.2 -31.2	S 11	53.7 +14.1				
20	120 48.3 +00.2	N 04	37.0 -00.9	82 28.9 -00.2	S 12	13.4 +01.2	73 25.0 -31.2	S 12	07.8 +14.0				
21	135 48.5 +00.2	N 04	36.1 -01.0	97 28.7 -00.3	S 12	14.6 +01.2	87 53.8 -31.3	S 12	21.8 +13.9				
22	150 48.7 +00.2	N 04	35.1 -00.9	112 28.4 -00.2	S 12	15.8 +01.2	102 22.5 -31.3	S 12	35.7 +13.9				
23	165 48.9 +00.3	N 04	34.2 -01.0	127 28.2 -00.2	S 12	17.0 +01.1	116 51.2 -31.4	S 12	49.6 +13.8				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'9 15'9 15'9 15'9 15'9 15'9			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'2 16'2 16'2 16'2 16'2 16'2						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 59'4 59'4 59'4 59'4 59'5 59'5						
	SHA 191° 191° 191° 191° 191° 191°			SHA 153° 153° 153° 153° 153° 152°			SHA 153° 151° 149° 147° 144° 142°						
	Greenwich Culmination Time: 11:56			Greenwich Culmination Time: 14:29			Greenwich Culmination Time: 14:55						

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	171 52.5 +01.0	N 02	03.9 -00.6	21 55.3 +02.7	S 14	26.7 +00.1	38 57.8 +02.6	S 19	08.5 +00.0				
01	186 53.5 +01.0	N 02	03.3 -00.7	36 58.0 +02.8	S 14	26.8 +00.1	54 00.4 +02.5	S 19	08.5 +00.1				
02	201 54.5 +01.0	N 02	02.6 -00.6	52 00.8 +02.7	S 14	26.9 +00.1	69 02.9 +02.6	S 19	08.6 +00.0				
03	216 55.5 +01.0	N 02	02.0 -00.7	67 03.5 +02.7	S 14	27.0 +00.1	84 05.5 +02.6	S 19	08.6 +00.0				
04	231 56.5 +01.0	N 02	01.3 -00.6	82 06.2 +02.8	S 14	27.1 +00.1	99 08.1 +02.6	S 19	08.6 +00.1				
05	246 57.5 +01.0	N 02	00.7 -00.7	97 09.0 +02.7	S 14	27.2 +00.1	114 10.7 +02.6	S 19	08.7 +00.0				
06	261 58.5 +01.0	N 02	00.0 -00.6	112 11.7 +02.7	S 14	27.3 +00.1	129 13.3 +02.6	S 19	08.7 +00.0				
07	276 59.5 +00.9	N 01	59.4 -00.7	127 14.4 +02.7	S 14	27.4 +00.1	144 15.9 +02.6	S 19	08.7 +00.1				
08	292 00.4 +01.0	N 01	58.7 -00.7	142 17.1 +02.8	S 14	27.5 +00.0	159 18.5 +02.5	S 19	08.8 +00.0				
09	307 01.4 +01.0	N 01	58.0 -00.6	157 19.9 +02.7	S 14	27.5 +00.1	174 21.0 +02.6	S 19	08.8 +00.0				
10	322 02.4 +01.0	N 01	57.4 -00.7	172 22.6 +02.7	S 14	27.6 +00.1	189 23.6 +02.6	S 19	08.8 +00.1				
11	337 03.4 +01.0	N 01	56.7 -00.6	187 25.3 +02.8	S 14	27.7 +00.1	204 26.2 +02.6	S 19	08.9 +00.0				
12	352 04.4 +01.0	N 01	56.1 -00.7	202 28.1 +02.7	S 14	27.8 +00.1	219 28.8 +02.6	S 19	08.9 +00.0				
13	7 05.4 +01.0	N 01	55.4 -00.6	217 30.8 +02.7	S 14	27.9 +00.1	234 31.4 +02.6	S 19	08.9 +00.1				
14	22 06.4 +01.0	N 01	54.8 -00.7	232 33.5 +02.8	S 14	28.0 +00.1	249 34.0 +02.5	S 19	09.0 +00.0				
15	37 07.4 +01.0	N 01	54.1 -00.6	247 36.3 +02.7	S 14	28.1 +00.1	264 36.5 +02.6	S 19	09.0 +00.0				
16	52 08.4 +01.0	N 01	53.5 -00.7	262 39.0 +02.7	S 14	28.2 +00.1	279 39.1 +02.6	S 19	09.0 +00.0				
17	67 09.4 +01.0	N 01	52.8 -00.7	277 41.7 +02.8	S 14	28.3 +00.1	294 41.7 +02.6	S 19	09.0 +00.1				
18	82 10.4 +01.0	N 01	52.1 -00.6	292 44.5 +02.7	S 14	28.4 +00.1	309 44.3 +02.6	S 19	09.1 +00.0				
19	97 11.4 +01.0	N 01	51.5 -00.7	307 47.2 +02.7	S 14	28.5 +00.1	324 46.9 +02.6	S 19	09.1 +00.0				
20	112 12.4 +00.9	N 01	50.8 -00.6	322 49.9 +02.7	S 14	28.6 +00.0	339 49.5 +02.6	S 19	09.1 +00.1				
21	127 13.3 +01.0	N 01	50.2 -00.7	337 52.6 +02.8	S 14	28.6 +00.1	354 52.1 +02.5	S 19	09.2 +00.0				
22	142 14.3 +01.0	N 01	49.5 -00.6	352 55.4 +02.7	S 14	28.7 +00.1	9 54.6 +02.6	S 19	09.2 +00.0				
23	157 15.3 +01.0	N 01	48.9 -00.7	7 58.1 +02.7	S 14	28.8 +00.1	24 57.2 +02.6	S 19	09.2 +00.1				
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'0 00'0 00'0 00'0 00'0 00'0			SD 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'2 00'2 00'2 00'2 00'2 00'2						
	HP 00'1 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						
	SHA 183° 182° 182° 182° 182° 182°			SHA 033° 033° 033° 033° 033° 033°			SHA 050° 050° 050° 050° 050° 050°						
	Greenwich Culmination Time: 12:31			Greenwich Culmination Time: 22:28			Greenwich Culmination Time: 21:20						



UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 49.2 +00.2	N 04 33.2 -00.9	142 28.0 -00.3	S 12 18.1 +01.2	131 19.8 -31.5	S 13 03.4 +13.8	00						
01	195 49.4 +00.2	N 04 32.3 -01.0	157 27.7 -00.2	S 12 19.3 +01.2	145 48.3 -31.5	S 13 17.2 +13.6	01						
02	210 49.6 +00.2	N 04 31.3 -00.9	172 27.5 -00.2	S 12 20.5 +01.2	160 16.8 -31.6	S 13 30.8 +13.6	02						
03	225 49.8 +00.2	N 04 30.4 -01.0	187 27.3 -00.3	S 12 21.7 +01.1	174 45.2 -31.6	S 13 44.4 +13.5	03						
04	240 50.0 +00.3	N 04 29.4 -00.9	202 27.0 -00.2	S 12 22.8 +01.2	189 13.6 -31.8	S 13 57.9 +13.5	04						
05	255 50.3 +00.2	N 04 28.5 -01.0	217 26.8 -00.2	S 12 24.0 +01.2	203 41.8 -31.8	S 14 11.4 +13.3	05						
06	270 50.5 +00.2	N 04 27.5 -00.9	232 26.6 -00.3	S 12 25.2 +01.1	218 10.0 -31.8	S 14 24.7 +13.3	06						
07	285 50.7 +00.2	N 04 26.6 -01.0	247 26.3 -00.2	S 12 26.3 +01.2	232 38.2 -31.9	S 14 38.0 +13.2	07						
08	300 50.9 +00.2	N 04 25.6 -01.0	262 26.1 -00.2	S 12 27.5 +01.2	247 06.3 -32.0	S 14 51.2 +13.1	08						
09	315 51.1 +00.3	N 04 24.6 -00.9	277 25.9 -00.3	S 12 28.7 +01.1	261 34.3 -32.1	S 15 04.3 +13.0	09						
10	330 51.4 +00.2	N 04 23.7 -01.0	292 25.6 -00.2	S 12 29.8 +01.2	276 02.2 -32.1	S 15 17.3 +12.9	10						
11	345 51.6 +00.2	N 04 22.7 -00.9	307 25.4 -00.3	S 12 31.0 +01.2	290 30.1 -32.2	S 15 30.2 +12.8	11						
12	0 51.8 +00.2	N 04 21.8 -01.0	322 25.1 -00.2	S 12 32.2 +01.1	304 57.9 -32.3	S 15 43.0 +12.8	12						
13	15 52.0 +00.2	N 04 20.8 -00.9	337 24.9 -00.2	S 12 33.3 +01.2	319 25.6 -32.3	S 15 55.8 +12.6	13						
14	30 52.2 +00.3	N 04 19.9 -01.0	352 24.7 -00.3	S 12 34.5 +01.2	333 53.3 -32.4	S 16 08.4 +12.6	14						
15	45 52.5 +00.2	N 04 18.9 -00.9	7 24.4 -00.2	S 12 35.7 +01.1	348 20.9 -32.5	S 16 21.0 +12.4	15						
16	60 52.7 +00.2	N 04 18.0 -01.0	22 24.2 -00.2	S 12 36.8 +01.2	2 48.4 -32.6	S 16 33.4 +12.4	16						
17	75 52.9 +00.2	N 04 17.0 -00.9	37 24.0 -00.3	S 12 38.0 +01.2	17 15.8 -32.6	S 16 45.8 +12.2	17						
18	90 53.1 +00.2	N 04 16.1 -01.0	52 23.7 -00.2	S 12 39.2 +01.1	31 43.2 -32.7	S 16 58.0 +12.2	18						
19	105 53.3 +00.3	N 04 15.1 -00.9	67 23.5 -00.3	S 12 40.3 +01.2	46 10.5 -32.8	S 17 10.2 +12.0	19						
20	120 53.6 +00.2	N 04 14.2 -01.0	82 23.2 -00.2	S 12 41.5 +01.2	60 37.7 -32.8	S 17 22.2 +12.0	20						
21	135 53.8 +00.2	N 04 13.2 -00.9	97 23.0 -00.2	S 12 42.7 +01.1	75 04.9 -32.9	S 17 34.2 +11.8	21						
22	150 54.0 +00.2	N 04 12.3 -01.0	112 22.8 -00.3	S 12 43.8 +01.2	89 32.0 -33.0	S 17 46.0 +11.8	22						
23	165 54.2 +00.2	N 04 11.3 -00.9	127 22.5 -00.2	S 12 45.0 +01.1	103 59.0 -33.1	S 17 57.8 +11.6	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 16'2 16'2 16'2 16'2 16'2 16'2								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 59'5 59'5 59'5 59'5 59'5 59'5								
	SHA 191° 190° 190° 190° 190° 190°		SHA 152° 152° 152° 152° 151° 151°		SHA 140° 138° 135° 133° 131° 128°								
	Greenwich Culmination Time: 11:56		Greenwich Culmination Time: 14:30		Greenwich Culmination Time: 15:48								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	172 16.3 +01.0	N 01 48.2 -00.6	23 00.8 +02.8	S 14 28.9 +00.1	39 59.8 +02.6	S 19 09.3 +00.0	00						
01	187 17.3 +01.0	N 01 47.6 -00.7	38 03.6 +02.7	S 14 29.0 +00.1	55 02.4 +02.6	S 19 09.3 +00.0	01						
02	202 18.3 +01.0	N 01 46.9 -00.7	53 06.3 +02.7	S 14 29.1 +00.1	70 05.0 +02.5	S 19 09.3 +00.1	02						
03	217 19.3 +01.0	N 01 46.2 -00.6	68 09.0 +02.7	S 14 29.2 +00.1	85 07.5 +02.6	S 19 09.4 +00.0	03						
04	232 20.3 +01.0	N 01 45.6 -00.7	83 11.7 +02.8	S 14 29.3 +00.1	100 10.1 +02.6	S 19 09.4 +00.0	04						
05	247 21.3 +01.0	N 01 44.9 -00.6	98 14.5 +02.7	S 14 29.4 +00.1	115 12.7 +02.6	S 19 09.4 +00.0	05						
06	262 22.3 +01.0	N 01 44.3 -00.7	113 17.2 +02.7	S 14 29.5 +00.0	130 15.3 +02.6	S 19 09.4 +00.1	06						
07	277 23.3 +01.0	N 01 43.6 -00.6	128 19.9 +02.8	S 14 29.5 +00.1	145 17.9 +02.6	S 19 09.5 +00.0	07						
08	292 24.3 +00.9	N 01 43.0 -00.7	143 22.7 +02.7	S 14 29.6 +00.1	160 20.5 +02.5	S 19 09.5 +00.0	08						
09	307 25.2 +01.0	N 01 42.3 -00.6	158 25.4 +02.7	S 14 29.7 +00.1	175 23.0 +02.6	S 19 09.5 +00.1	09						
10	322 26.2 +01.0	N 01 41.7 -00.7	173 28.1 +02.7	S 14 29.8 +00.1	190 25.6 +02.6	S 19 09.6 +00.0	10						
11	337 27.2 +01.0	N 01 41.0 -00.7	188 30.8 +02.8	S 14 29.9 +00.1	205 28.2 +02.6	S 19 09.6 +00.0	11						
12	352 28.2 +01.0	N 01 40.3 -00.6	203 33.6 +02.7	S 14 30.0 +00.1	220 30.8 +02.6	S 19 09.6 +00.1	12						
13	7 29.2 +01.0	N 01 39.7 -00.7	218 36.3 +02.7	S 14 30.1 +00.1	235 33.4 +02.5	S 19 09.7 +00.0	13						
14	22 30.2 +01.0	N 01 39.0 -00.6	233 39.0 +02.7	S 14 30.2 +00.1	250 35.9 +02.6	S 19 09.7 +00.0	14						
15	37 31.2 +01.0	N 01 38.4 -00.7	248 41.7 +02.8	S 14 30.3 +00.0	265 38.5 +02.6	S 19 09.7 +00.1	15						
16	52 32.2 +01.0	N 01 37.7 -00.6	263 44.5 +02.7	S 14 30.3 +00.1	280 41.1 +02.6	S 19 09.8 +00.0	16						
17	67 33.2 +01.0	N 01 37.1 -00.7	278 47.2 +02.7	S 14 30.4 +00.1	295 43.7 +02.6	S 19 09.8 +00.0	17						
18	82 34.2 +01.0	N 01 36.4 -00.7	293 49.9 +02.7	S 14 30.5 +00.1	310 46.3 +02.5	S 19 09.8 +00.0	18						
19	97 35.2 +01.0	N 01 35.7 -00.6	308 52.6 +02.8	S 14 30.6 +00.1	325 48.8 +02.6	S 19 09.8 +00.1	19						
20	112 36.2 +00.9	N 01 35.1 -00.7	323 55.4 +02.7	S 14 30.7 +00.1	340 51.4 +02.6	S 19 09.9 +00.0	20						
21	127 37.1 +01.0	N 01 34.4 -00.6	338 58.1 +02.7	S 14 30.8 +00.1	355 54.0 +02.6	S 19 09.9 +00.0	21						
22	142 38.1 +01.0	N 01 33.8 -00.7	354 00.8 +02.7	S 14 30.9 +00.1	10 56.6 +02.6	S 19 09.9 +00.1	22						
23	157 39.1 +01.0	N 01 33.1 -00.6	9 03.5 +02.8	S 14 31.0 +00.1	25 59.2 +02.5	S 19 10.0 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 182° 182° 182° 182° 182° 181°		SHA 033° 033° 033° 033° 033° 033°		SHA 050° 050° 050° 050° 050° 050°								
	Greenwich Culmination Time: 12:30		Greenwich Culmination Time: 22:23		Greenwich Culmination Time: 21:16								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	180 54.4 +00.3	N 04 10.4 -01.0	142 22.3 -00.3	S 12 46.1 +01.2	118 25.9 -33.1	S 18 09.4 +11.5	00								
01	195 54.7 +00.2	N 04 09.4 -01.0	157 22.0 -00.2	S 12 47.3 +01.2	132 52.8 -33.2	S 18 20.9 +11.4	01								
02	210 54.9 +00.2	N 04 08.4 -00.9	172 21.8 -00.2	S 12 48.5 +01.1	147 19.6 -33.3	S 18 32.3 +11.3	02								
03	225 55.1 +00.2	N 04 07.5 -01.0	187 21.6 -00.3	S 12 49.6 +01.2	161 46.3 -33.3	S 18 43.6 +11.2	03								
04	240 55.3 +00.2	N 04 06.5 -00.9	202 21.3 -00.2	S 12 50.8 +01.1	176 13.0 -33.5	S 18 54.8 +11.0	04								
05	255 55.5 +00.3	N 04 05.6 -01.0	217 21.1 -00.3	S 12 51.9 +01.2	190 39.5 -33.5	S 19 05.8 +11.0	05								
06	270 55.8 +00.2	N 04 04.6 -00.9	232 20.8 -00.2	S 12 53.1 +01.2	205 06.0 -33.5	S 19 16.8 +10.8	06								
07	285 56.0 +00.2	N 04 03.7 -01.0	247 20.6 -00.2	S 12 54.3 +01.1	219 32.5 -33.7	S 19 27.6 +10.7	07								
08	300 56.2 +00.2	N 04 02.7 -00.9	262 20.4 -00.3	S 12 55.4 +01.2	233 58.8 -33.7	S 19 38.3 +10.6	08								
09	315 56.4 +00.2	N 04 01.8 -01.0	277 20.1 -00.2	S 12 56.6 +01.1	248 25.1 -33.8	S 19 48.9 +10.4	09								
10	330 56.6 +00.3	N 04 00.8 -00.9	292 19.9 -00.3	S 12 57.7 +01.2	262 51.3 -33.8	S 19 59.3 +10.3	10								
11	345 56.9 +00.2	N 03 59.9 -01.0	307 19.6 -00.2	S 12 58.9 +01.2	277 17.5 -34.0	S 20 09.6 +10.2	11								
12	0 57.1 +00.2	N 03 58.9 -01.0	322 19.4 -00.3	S 13 00.1 +01.1	291 43.5 -34.0	S 20 19.8 +10.1	12								
13	15 57.3 +00.2	N 03 57.9 -00.9	337 19.1 -00.2	S 13 01.2 +01.2	306 09.5 -34.1	S 20 29.9 +10.0	13								
14	30 57.5 +00.3	N 03 57.0 -01.0	352 18.9 -00.2	S 13 02.4 +01.1	320 35.4 -34.1	S 20 39.9 +09.8	14								
15	45 57.8 +00.2	N 03 56.0 -00.9	7 18.7 -00.3	S 13 03.5 +01.2	335 01.3 -34.2	S 20 49.7 +09.7	15								
16	60 58.0 +00.2	N 03 55.1 -01.0	22 18.4 -00.2	S 13 04.7 +01.1	349 27.1 -34.3	S 20 59.4 +09.5	16								
17	75 58.2 +00.2	N 03 54.1 -00.9	37 18.2 -00.3	S 13 05.8 +01.2	3 52.8 -34.4	S 21 08.9 +09.4	17								
18	90 58.4 +00.2	N 03 53.2 -01.0	52 17.9 -00.2	S 13 07.0 +01.1	18 18.4 -34.4	S 21 18.3 +09.3	18								
19	105 58.6 +00.3	N 03 52.2 -00.9	67 17.7 -00.3	S 13 08.1 +01.2	32 44.0 -34.5	S 21 27.6 +09.1	19								
20	120 58.9 +00.2	N 03 51.3 -01.0	82 17.4 -00.2	S 13 09.3 +01.1	47 09.5 -34.6	S 21 36.7 +09.0	20								
21	135 59.1 +00.2	N 03 50.3 -01.0	97 17.2 -00.3	S 13 10.4 +01.2	61 34.9 -34.6	S 21 45.7 +08.9	21								
22	150 59.3 +00.2	N 03 49.3 -00.9	112 16.9 -00.2	S 13 11.6 +01.1	76 00.3 -34.7	S 21 54.6 +08.7	22								
23	165 59.5 +00.2	N 03 48.4 -01.0	127 16.7 -00.2	S 13 12.7 +01.2	90 25.6 -34.8	S 22 03.3 +08.6	23								
	UT 02 06 10 14 18 22	SD 15'9 15'9 15'9 15'9 15'9 15'9	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 190° 189° 189° 189° 189° 189°	Greenwich Culmination Time: 11:56	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 151° 151° 151° 151° 150° 150°	Greenwich Culmination Time: 14:30	UT 02 06 10 14 18 22	SD 16'2 16'2 16'2 16'2 16'2 16'2	HP 59'5 59'4 59'4 59'4 59'4 59'4	SHA 126° 124° 121° 119° 116° 114°	Greenwich Culmination Time: 16:43

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT		
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec			
00	172 40.1 +01.0	N 01 32.5 -00.7	24 06.3 +02.7	S 14 31.1 +00.0	41 01.7 +02.6	S 19 10.0 +00.0	00								
01	187 41.1 +01.0	N 01 31.8 -00.6	39 09.0 +02.7	S 14 31.1 +00.1	56 04.3 +02.6	S 19 10.0 +00.1	01								
02	202 42.1 +01.0	N 01 31.2 -00.7	54 11.7 +02.7	S 14 31.2 +00.1	71 06.9 +02.6	S 19 10.1 +00.0	02								
03	217 43.1 +01.0	N 01 30.5 -00.7	69 14.4 +02.8	S 14 31.3 +00.1	86 09.5 +02.6	S 19 10.1 +00.0	03								
04	232 44.1 +01.0	N 01 29.8 -00.6	84 17.2 +02.7	S 14 31.4 +00.1	101 12.1 +02.5	S 19 10.1 +00.0	04								
05	247 45.1 +01.0	N 01 29.2 -00.7	99 19.9 +02.7	S 14 31.5 +00.1	116 14.6 +02.6	S 19 10.1 +00.1	05								
06	262 46.1 +01.0	N 01 28.5 -00.6	114 22.6 +02.7	S 14 31.6 +00.1	131 17.2 +02.6	S 19 10.2 +00.0	06								
07	277 47.1 +01.0	N 01 27.9 -00.7	129 25.3 +02.7	S 14 31.7 +00.1	146 19.8 +02.6	S 19 10.2 +00.0	07								
08	292 48.1 +00.9	N 01 27.2 -00.6	144 28.0 +02.8	S 14 31.8 +00.0	161 22.4 +02.6	S 19 10.2 +00.1	08								
09	307 49.0 +01.0	N 01 26.6 -00.7	159 30.8 +02.7	S 14 31.8 +00.1	176 25.0 +02.5	S 19 10.3 +00.0	09								
10	322 50.0 +01.0	N 01 25.9 -00.7	174 33.5 +02.7	S 14 31.9 +00.1	191 27.5 +02.6	S 19 10.3 +00.0	10								
11	337 51.0 +01.0	N 01 25.2 -00.6	189 36.2 +02.7	S 14 32.0 +00.1	206 30.1 +02.6	S 19 10.3 +00.0	11								
12	352 52.0 +01.0	N 01 24.6 -00.7	204 38.9 +02.8	S 14 32.1 +00.1	221 32.7 +02.6	S 19 10.3 +00.1	12								
13	7 53.0 +01.0	N 01 23.9 -00.6	219 41.7 +02.7	S 14 32.2 +00.1	236 35.3 +02.5	S 19 10.4 +00.0	13								
14	22 54.0 +01.0	N 01 23.3 -00.7	234 44.4 +02.7	S 14 32.3 +00.1	251 37.8 +02.6	S 19 10.4 +00.0	14								
15	37 55.0 +01.0	N 01 22.6 -00.6	249 47.1 +02.7	S 14 32.4 +00.1	266 40.4 +02.6	S 19 10.4 +00.1	15								
16	52 56.0 +01.0	N 01 22.0 -00.7	264 49.8 +02.7	S 14 32.5 +00.0	281 43.0 +02.6	S 19 10.5 +00.0	16								
17	67 57.0 +01.0	N 01 21.3 -00.7	279 52.5 +02.8	S 14 32.5 +00.1	296 45.6 +02.6	S 19 10.5 +00.0	17								
18	82 58.0 +01.0	N 01 20.6 -00.6	294 55.3 +02.7	S 14 32.6 +00.1	311 48.2 +02.5	S 19 10.5 +00.1	18								
19	97 59.0 +00.9	N 01 20.0 -00.7	309 58.0 +02.7	S 14 32.7 +00.1	326 50.7 +02.6	S 19 10.6 +00.0	19								
20	112 59.9 +01.0	N 01 19.3 -00.6	325 00.7 +02.7	S 14 32.8 +00.1	341 53.3 +02.6	S 19 10.6 +00.0	20								
21	128 00.9 +01.0	N 01 18.7 -00.7	340 03.4 +02.7	S 14 32.9 +00.1	356 55.9 +02.6	S 19 10.6 +00.0	21								
22	143 01.9 +01.0	N 01 18.0 -00.6	355 06.1 +02.8	S 14 33.0 +00.1	11 58.5 +02.5	S 19 10.6 +00.1	22								
23	158 02.9 +01.0	N 01 17.4 -00.7	10 08.9 +02.7	S 14 33.1 +00.0	27 01.0 +02.6	S 19 10.7 +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	SHA 181° 181° 181° 181° 181° 181°	Greenwich Culmination Time: 12:28	UT 02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 033° 033° 033° 033° 033° 033°	Greenwich Culmination Time: 22:19	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	SHA 050° 050° 050° 050° 050° 050°	Greenwich Culmination Time: 21:12

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	180 59.7 +00.3	N 03	47.4 -00.9	142 16.5 -00.3	S 13	13.9 +01.1	104 50.8 -34.8	S 22	11.9 +08.5	00			
01	195 60.0 +00.2	N 03	46.5 -01.0	157 16.2 -00.2	S 13	15.0 +01.2	119 16.0 -34.9	S 22	20.4 +08.2	01			
02	211 00.2 +00.2	N 03	45.5 -00.9	172 16.0 -00.3	S 13	16.2 +01.1	133 41.1 -35.0	S 22	28.6 +08.2	02			
03	226 00.4 +00.2	N 03	44.6 -01.0	187 15.7 -00.2	S 13	17.3 +01.2	148 06.1 -35.0	S 22	36.8 +08.0	03			
04	241 00.6 +00.3	N 03	43.6 -01.0	202 15.5 -00.3	S 13	18.5 +01.1	162 31.1 -35.1	S 22	44.8 +07.8	04			
05	256 00.9 +00.2	N 03	42.6 -00.9	217 15.2 -00.2	S 13	19.6 +01.2	176 56.0 -35.1	S 22	52.6 +07.7	05			
06	271 01.1 +00.2	N 03	41.7 -01.0	232 15.0 -00.3	S 13	20.8 +01.1	191 20.9 -35.2	S 23	00.3 +07.6	06			
07	286 01.3 +00.2	N 03	40.7 -00.9	247 14.7 -00.2	S 13	21.9 +01.2	205 45.7 -35.3	S 23	07.9 +07.4	07			
08	301 01.5 +00.2	N 03	39.8 -01.0	262 14.5 -00.3	S 13	23.1 +01.1	220 10.4 -35.3	S 23	15.3 +07.2	08			
09	316 01.7 +00.3	N 03	38.8 -00.9	277 14.2 -00.2	S 13	24.2 +01.2	234 35.1 -35.4	S 23	22.5 +07.1	09			
10	331 02.0 +00.2	N 03	37.9 -01.0	292 14.0 -00.3	S 13	25.4 +01.1	248 59.7 -35.4	S 23	29.6 +07.0	10			
11	346 02.2 +00.2	N 03	36.9 -01.0	307 13.7 -00.2	S 13	26.5 +01.2	263 24.3 -35.5	S 23	36.6 +06.8	11			
12	1 02.4 +00.2	N 03	35.9 -00.9	322 13.5 -00.3	S 13	27.7 +01.1	277 48.8 -35.6	S 23	43.4 +06.6	12			
13	16 02.6 +00.3	N 03	35.0 -01.0	337 13.2 -00.2	S 13	28.8 +01.2	292 13.2 -35.6	S 23	50.0 +06.5	13			
14	31 02.9 +00.2	N 03	34.0 -00.9	352 13.0 -00.3	S 13	30.0 +01.1	306 37.6 -35.6	S 23	56.5 +06.3	14			
15	46 03.1 +00.2	N 03	33.1 -01.0	7 12.7 -00.2	S 13	31.1 +01.1	321 02.0 -35.7	S 24	02.8 +06.1	15			
16	61 03.3 +00.2	N 03	32.1 -00.9	22 12.5 -00.3	S 13	32.2 +01.2	335 26.3 -35.7	S 24	08.9 +06.0	16			
17	76 03.5 +00.2	N 03	31.2 -01.0	37 12.2 -00.2	S 13	33.4 +01.1	349 50.6 -35.8	S 24	14.9 +05.8	17			
18	91 03.7 +00.3	N 03	30.2 -01.0	52 12.0 -00.3	S 13	34.5 +01.2	4 14.8 -35.9	S 24	20.7 +05.7	18			
19	106 04.0 +00.2	N 03	29.2 -00.9	67 11.7 -00.2	S 13	35.7 +01.1	18 38.9 -35.9	S 24	26.4 +05.5	19			
20	121 04.2 +00.2	N 03	28.3 -01.0	82 11.5 -00.3	S 13	36.8 +01.2	33 03.0 -35.9	S 24	31.9 +05.3	20			
21	136 04.4 +00.2	N 03	27.3 -00.9	97 11.2 -00.2	S 13	38.0 +01.1	47 27.1 -35.9	S 24	37.2 +05.2	21			
22	151 04.6 +00.3	N 03	26.4 -01.0	112 11.0 -00.3	S 13	39.1 +01.1	61 51.2 -36.0	S 24	42.4 +05.0	22			
23	166 04.9 +00.2	N 03	25.4 -01.0	127 10.7 -00.2	S 13	40.2 +01.2	76 15.2 -36.1	S 24	47.4 +04.9	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'9 15'9 15'9 15'9 15'9 15'9			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 16'2 16'2 16'1 16'1 16'1 16'1						
	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 59'3 59'3 59'3 59'2 59'2 59'2						
	SHA 189° 189° 188° 188° 188° 188°			SHA 150° 150° 150° 149° 149° 149°			SHA 111° 109° 106° 104° 101° 099°						
	Greenwich Culmination Time: 11:55			Greenwich Culmination Time: 14:31			Greenwich Culmination Time: 17:42						

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	173 03.9 +01.0	N 01	16.7 -00.6	25 11.6 +02.7	S 14	33.1 +00.1	42 03.6 +02.6	S 19	10.7 +00.0	00			
01	188 04.9 +01.0	N 01	16.1 -00.7	40 14.3 +02.7	S 14	33.2 +00.1	57 06.2 +02.6	S 19	10.7 +00.1	01			
02	203 05.9 +01.0	N 01	15.4 -00.7	55 17.0 +02.7	S 14	33.3 +00.1	72 08.8 +02.5	S 19	10.8 +00.0	02			
03	218 06.9 +01.0	N 01	14.7 -00.6	70 19.7 +02.7	S 14	33.4 +00.1	87 11.3 +02.6	S 19	10.8 +00.0	03			
04	233 07.9 +01.0	N 01	14.1 -00.7	85 22.4 +02.8	S 14	33.5 +00.1	102 13.9 +02.6	S 19	10.8 +00.0	04			
05	248 08.9 +00.9	N 01	13.4 -00.6	100 25.2 +02.7	S 14	33.6 +00.1	117 16.5 +02.6	S 19	10.8 +00.1	05			
06	263 09.8 +01.0	N 01	12.8 -00.7	115 27.9 +02.7	S 14	33.7 +00.0	132 19.1 +02.5	S 19	10.9 +00.0	06			
07	278 10.8 +01.0	N 01	12.1 -00.6	130 30.6 +02.7	S 14	33.7 +00.1	147 21.6 +02.6	S 19	10.9 +00.0	07			
08	293 11.8 +01.0	N 01	11.5 -00.7	145 33.3 +02.7	S 14	33.8 +00.1	162 24.2 +02.6	S 19	10.9 +00.1	08			
09	308 12.8 +01.0	N 01	10.8 -00.7	160 36.0 +02.8	S 14	33.9 +00.1	177 26.8 +02.6	S 19	11.0 +00.0	09			
10	323 13.8 +01.0	N 01	10.1 -00.6	175 38.8 +02.7	S 14	34.0 +00.1	192 29.4 +02.5	S 19	11.0 +00.0	10			
11	338 14.8 +01.0	N 01	09.5 -00.7	190 41.5 +02.7	S 14	34.1 +00.1	207 31.9 +02.6	S 19	11.0 +00.0	11			
12	353 15.8 +01.0	N 01	08.8 -00.6	205 44.2 +02.7	S 14	34.2 +00.1	222 34.5 +02.6	S 19	11.0 +00.1	12			
13	8 16.8 +01.0	N 01	08.2 -00.7	220 46.9 +02.7	S 14	34.3 +00.0	237 37.1 +02.6	S 19	11.1 +00.0	13			
14	23 17.8 +01.0	N 01	07.5 -00.7	235 49.6 +02.7	S 14	34.3 +00.1	252 39.7 +02.5	S 19	11.1 +00.0	14			
15	38 18.8 +00.9	N 01	06.8 -00.6	250 52.3 +02.7	S 14	34.4 +00.1	267 42.2 +02.6	S 19	11.1 +00.1	15			
16	53 19.7 +01.0	N 01	06.2 -00.7	265 55.0 +02.8	S 14	34.5 +00.1	282 44.8 +02.6	S 19	11.2 +00.0	16			
17	68 20.7 +01.0	N 01	05.5 -00.6	280 57.8 +02.7	S 14	34.6 +00.1	297 47.4 +02.6	S 19	11.2 +00.0	17			
18	83 21.7 +01.0	N 01	04.9 -00.7	296 00.5 +02.7	S 14	34.7 +00.1	312 50.0 +02.5	S 19	11.2 +00.0	18			
19	98 22.7 +01.0	N 01	04.2 -00.6	311 03.2 +02.7	S 14	34.8 +00.1	327 52.5 +02.6	S 19	11.2 +00.1	19			
20	113 23.7 +01.0	N 01	03.6 -00.7	326 05.9 +02.7	S 14	34.9 +00.0	342 55.1 +02.6	S 19	11.3 +00.0	20			
21	128 24.7 +01.0	N 01	02.9 -00.7	341 08.6 +02.7	S 14	34.9 +00.1	357 57.7 +02.5	S 19	11.3 +00.0	21			
22	143 25.7 +01.0	N 01	02.2 -00.6	356 11.3 +02.8	S 14	35.0 +00.1	13 00.2 +02.6	S 19	11.3 +00.1	22			
23	158 26.7 +01.0	N 01	01.6 -00.7	11 14.1 +02.7	S 14	35.1 +00.1	28 02.8 +02.6	S 19	11.4 +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 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'2 00'2 00'2 00'2 00'2 00'2						
	HP 00'1 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						
	SHA 181° 181° 181° 181° 180° 180°			SHA 033° 033° 033° 033° 033° 033°			SHA 050° 050° 050° 050° 050° 050°						
	Greenwich Culmination Time: 12:26			Greenwich Culmination Time: 22:15			Greenwich Culmination Time: 21:08						

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 05.1 +00.2	N 03 24.4 -00.9	142 10.5 -00.3	S 13 41.4 +01.1	90 39.1 -36.1	S 24 52.3 +04.7	00						
01	196 05.3 +00.2	N 03 23.5 -01.0	157 10.2 -00.2	S 13 42.5 +01.2	105 03.0 -36.1	S 24 57.0 +04.5	01						
02	211 05.5 +00.2	N 03 22.5 -00.9	172 10.0 -00.3	S 13 43.7 +01.1	119 26.9 -36.1	S 25 01.5 +04.3	02						
03	226 05.7 +00.3	N 03 21.6 -01.0	187 09.7 -00.2	S 13 44.8 +01.1	133 50.8 -36.2	S 25 05.8 +04.2	03						
04	241 06.0 +00.2	N 03 20.6 -01.0	202 09.5 -00.3	S 13 45.9 +01.2	148 14.6 -36.2	S 25 10.0 +04.0	04						
05	256 06.2 +00.2	N 03 19.6 -00.9	217 09.2 -00.2	S 13 47.1 +01.1	162 38.4 -36.2	S 25 14.0 +03.9	05						
06	271 06.4 +00.2	N 03 18.7 -01.0	232 09.0 -00.3	S 13 48.2 +01.1	177 02.2 -36.3	S 25 17.9 +03.6	06						
07	286 06.6 +00.3	N 03 17.7 -00.9	247 08.7 -00.2	S 13 49.3 +01.2	191 25.9 -36.3	S 25 21.5 +03.5	07						
08	301 06.9 +00.2	N 03 16.8 -01.0	262 08.5 -00.3	S 13 50.5 +01.1	205 49.6 -36.3	S 25 25.0 +03.4	08						
09	316 07.1 +00.2	N 03 15.8 -01.0	277 08.2 -00.2	S 13 51.6 +01.1	220 13.3 -36.3	S 25 28.4 +03.1	09						
10	331 07.3 +00.2	N 03 14.8 -00.9	292 08.0 -00.3	S 13 52.7 +01.2	234 37.0 -36.4	S 25 31.5 +03.0	10						
11	346 07.5 +00.2	N 03 13.9 -01.0	307 07.7 -00.2	S 13 53.9 +01.1	249 00.6 -36.3	S 25 34.5 +02.8	11						
12	1 07.7 +00.3	N 03 12.9 -00.9	322 07.5 -00.3	S 13 55.0 +01.1	263 24.3 -36.4	S 25 37.3 +02.7	12						
13	16 08.0 +00.2	N 03 12.0 -01.0	337 07.2 -00.2	S 13 56.1 +01.2	277 47.9 -36.4	S 25 40.0 +02.4	13						
14	31 08.2 +00.2	N 03 11.0 -01.0	352 07.0 -00.3	S 13 57.3 +01.1	292 11.5 -36.4	S 25 42.4 +02.3	14						
15	46 08.4 +00.2	N 03 10.0 -00.9	7 06.7 -00.3	S 13 58.4 +01.1	306 35.1 -36.4	S 25 44.7 +02.1	15						
16	61 08.6 +00.3	N 03 09.1 -01.0	22 06.4 -00.2	S 13 59.5 +01.2	320 58.7 -36.5	S 25 46.8 +02.0	16						
17	76 08.9 +00.2	N 03 08.1 -00.9	37 06.2 -00.3	S 14 00.7 +01.1	335 22.2 -36.4	S 25 48.8 +01.8	17						
18	91 09.1 +00.2	N 03 07.2 -01.0	52 05.9 -00.2	S 14 01.8 +01.1	349 45.8 -36.4	S 25 50.6 +01.6	18						
19	106 09.3 +00.2	N 03 06.2 -01.0	67 05.7 -00.3	S 14 02.9 +01.2	4 09.4 -36.5	S 25 52.2 +01.4	19						
20	121 09.5 +00.3	N 03 05.2 -00.9	82 05.4 -00.2	S 14 04.1 +01.1	18 32.9 -36.4	S 25 53.6 +01.3	20						
21	136 09.8 +00.2	N 03 04.3 -01.0	97 05.2 -00.3	S 14 05.2 +01.1	32 56.5 -36.4	S 25 54.9 +01.0	21						
22	151 10.0 +00.2	N 03 03.3 -01.0	112 04.9 -00.3	S 14 06.3 +01.1	47 20.1 -36.4	S 25 55.9 +01.0	22						
23	166 10.2 +00.2	N 03 02.3 -00.9	127 04.6 -00.2	S 14 07.4 +01.2	61 43.7 -36.5	S 25 56.9 +00.7	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 16'1 16'1 16'1 16'1 16'1 16'0								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 59'1 59'1 59'0 59'0 58'9 58'9								
	SHA 188° 188° 188° 187° 187° 187°		SHA 149° 149° 149° 148° 148° 148°		SHA 096° 094° 091° 088° 086° 083°								
	Greenwich Culmination Time: 11:55		Greenwich Culmination Time: 14:31		Greenwich Culmination Time: 18:42								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	173 27.7 +01.0	N 01 00.9 -00.6	26 16.8 +02.7	S 14 35.2 +00.1	43 05.4 +02.6	S 19 11.4 +00.0	00						
01	188 28.7 +00.9	N 01 00.3 -00.7	41 19.5 +02.7	S 14 35.3 +00.1	58 08.0 +02.5	S 19 11.4 +00.0	01						
02	203 29.6 +01.0	N 00 59.6 -00.6	56 22.2 +02.7	S 14 35.4 +00.0	73 10.5 +02.6	S 19 11.4 +00.1	02						
03	218 30.6 +01.0	N 00 59.0 -00.7	71 24.9 +02.7	S 14 35.4 +00.1	88 13.1 +02.6	S 19 11.5 +00.0	03						
04	233 31.6 +01.0	N 00 58.3 -00.7	86 27.6 +02.7	S 14 35.5 +00.1	103 15.7 +02.5	S 19 11.5 +00.0	04						
05	248 32.6 +01.0	N 00 57.6 -00.6	101 30.3 +02.7	S 14 35.6 +00.1	118 18.2 +02.6	S 19 11.5 +00.1	05						
06	263 33.6 +01.0	N 00 57.0 -00.7	116 33.0 +02.8	S 14 35.7 +00.1	133 20.8 +02.6	S 19 11.6 +00.0	06						
07	278 34.6 +01.0	N 00 56.3 -00.6	131 35.8 +02.7	S 14 35.8 +00.1	148 23.4 +02.6	S 19 11.6 +00.0	07						
08	293 35.6 +01.0	N 00 55.7 -00.7	146 38.5 +02.7	S 14 35.9 +00.0	163 26.0 +02.5	S 19 11.6 +00.0	08						
09	308 36.6 +01.0	N 00 55.0 -00.6	161 41.2 +02.7	S 14 35.9 +00.1	178 28.5 +02.6	S 19 11.6 +00.1	09						
10	323 37.6 +01.0	N 00 54.4 -00.7	176 43.9 +02.7	S 14 36.0 +00.1	193 31.1 +02.6	S 19 11.7 +00.0	10						
11	338 38.6 +00.9	N 00 53.7 -00.7	191 46.6 +02.7	S 14 36.1 +00.1	208 33.7 +02.5	S 19 11.7 +00.0	11						
12	353 39.5 +01.0	N 00 53.0 -00.6	206 49.3 +02.7	S 14 36.2 +00.1	223 36.2 +02.6	S 19 11.7 +00.0	12						
13	8 40.5 +01.0	N 00 52.4 -00.7	221 52.0 +02.7	S 14 36.3 +00.1	238 38.8 +02.6	S 19 11.7 +00.1	13						
14	23 41.5 +01.0	N 00 51.7 -00.6	236 54.7 +02.7	S 14 36.4 +00.0	253 41.4 +02.6	S 19 11.8 +00.0	14						
15	38 42.5 +01.0	N 00 51.1 -00.7	251 57.4 +02.8	S 14 36.4 +00.1	268 44.0 +02.5	S 19 11.8 +00.0	15						
16	53 43.5 +01.0	N 00 50.4 -00.6	267 00.2 +02.7	S 14 36.5 +00.1	283 46.5 +02.6	S 19 11.8 +00.1	16						
17	68 44.5 +01.0	N 00 49.8 -00.7	282 02.9 +02.7	S 14 36.6 +00.1	298 49.1 +02.6	S 19 11.9 +00.0	17						
18	83 45.5 +01.0	N 00 49.1 -00.7	297 05.6 +02.7	S 14 36.7 +00.1	313 51.7 +02.5	S 19 11.9 +00.0	18						
19	98 46.5 +01.0	N 00 48.4 -00.6	312 08.3 +02.7	S 14 36.8 +00.1	328 54.2 +02.6	S 19 11.9 +00.0	19						
20	113 47.5 +00.9	N 00 47.8 -00.7	327 11.0 +02.7	S 14 36.9 +00.0	343 56.8 +02.6	S 19 11.9 +00.1	20						
21	128 48.4 +01.0	N 00 47.1 -00.6	342 13.7 +02.7	S 14 36.9 +00.1	358 59.4 +02.5	S 19 12.0 +00.0	21						
22	143 49.4 +01.0	N 00 46.5 -00.7	357 16.4 +02.7	S 14 37.0 +00.1	14 01.9 +02.6	S 19 12.0 +00.0	22						
23	158 50.4 +01.0	N 00 45.8 -00.7	12 19.1 +02.7	S 14 37.1 +00.1	29 04.5 +02.6	S 19 12.0 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 180° 180° 180° 180° 180° 180°		SHA 033° 033° 033° 033° 033° 033°		SHA 050° 050° 050° 050° 050° 050°								
	Greenwich Culmination Time: 12:25		Greenwich Culmination Time: 22:10		Greenwich Culmination Time: 21:04								

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 10.4 +00.3	N 03 01.4 -01.0	142 04.4 -00.3	S 14 08.6 +01.1	76 07.2 -36.4	S 25 57.6 +00.6	00						
01	196 10.7 +00.2	N 03 00.4 -00.9	157 04.1 -00.2	S 14 09.7 +01.1	90 30.8 -36.4	S 25 58.2 +00.3	01						
02	211 10.9 +00.2	N 02 59.5 -01.0	172 03.9 -00.3	S 14 10.8 +01.1	104 54.4 -36.4	S 25 58.5 +00.3	02						
03	226 11.1 +00.2	N 02 58.5 -01.0	187 03.6 -00.2	S 14 11.9 +01.2	119 18.0 -36.3	S 25 58.8 +00.0	03						
04	241 11.3 +00.2	N 02 57.5 -00.9	202 03.4 -00.3	S 14 13.1 +01.1	133 41.7 -36.4	S 25 58.8 -00.1	04						
05	256 11.5 +00.3	N 02 56.6 -01.0	217 03.1 -00.3	S 14 14.2 +01.1	148 05.3 -36.3	S 25 58.7 -00.3	05						
06	271 11.8 +00.2	N 02 55.6 -00.9	232 02.8 -00.2	S 14 15.3 +01.1	162 29.0 -36.3	S 25 58.4 -00.5	06						
07	286 12.0 +00.2	N 02 54.7 -01.0	247 02.6 -00.3	S 14 16.4 +01.2	176 52.7 -36.3	S 25 57.9 -00.6	07						
08	301 12.2 +00.2	N 02 53.7 -01.0	262 02.3 -00.2	S 14 17.6 +01.1	191 16.4 -36.3	S 25 57.3 -00.9	08						
09	316 12.4 +00.3	N 02 52.7 -00.9	277 02.1 -00.3	S 14 18.7 +01.1	205 40.1 -36.3	S 25 56.4 -00.9	09						
10	331 12.7 +00.2	N 02 51.8 -01.0	292 01.8 -00.3	S 14 19.8 +01.1	220 03.8 -36.2	S 25 55.5 -01.2	10						
11	346 12.9 +00.2	N 02 50.8 -01.0	307 01.5 -00.2	S 14 20.9 +01.2	234 27.6 -36.2	S 25 54.3 -01.3	11						
12	1 13.1 +00.2	N 02 49.8 -00.9	322 01.3 -00.3	S 14 22.1 +01.1	248 51.4 -36.1	S 25 53.0 -01.5	12						
13	16 13.3 +00.3	N 02 48.9 -01.0	337 01.0 -00.2	S 14 23.2 +01.1	263 15.3 -36.1	S 25 51.5 -01.7	13						
14	31 13.6 +00.2	N 02 47.9 -00.9	352 00.8 -00.3	S 14 24.3 +01.1	277 39.2 -36.1	S 25 49.8 -01.8	14						
15	46 13.8 +00.2	N 02 47.0 -01.0	7 00.5 -00.3	S 14 25.4 +01.1	292 03.1 -36.1	S 25 48.0 -02.1	15						
16	61 14.0 +00.2	N 02 46.0 -01.0	22 00.2 -00.2	S 14 26.5 +01.2	306 27.0 -36.0	S 25 45.9 -02.1	16						
17	76 14.2 +00.2	N 02 45.0 -00.9	36 60.0 -00.3	S 14 27.7 +01.1	320 51.0 -35.9	S 25 43.8 -02.4	17						
18	91 14.4 +00.3	N 02 44.1 -01.0	51 59.7 -00.2	S 14 28.8 +01.1	335 15.1 -36.0	S 25 41.4 -02.5	18						
19	106 14.7 +00.2	N 02 43.1 -01.0	66 59.5 -00.3	S 14 29.9 +01.1	349 39.1 -35.9	S 25 38.9 -02.7	19						
20	121 14.9 +00.2	N 02 42.1 -00.9	81 59.2 -00.3	S 14 31.0 +01.1	4 03.2 -35.8	S 25 36.2 -02.8	20						
21	136 15.1 +00.2	N 02 41.2 -01.0	96 58.9 -00.2	S 14 32.1 +01.1	18 27.4 -35.8	S 25 33.4 -03.0	21						
22	151 15.3 +00.3	N 02 40.2 -01.0	111 58.7 -00.3	S 14 33.2 +01.2	32 51.6 -35.7	S 25 30.4 -03.2	22						
23	166 15.6 +00.2	N 02 39.2 -00.9	126 58.4 -00.3	S 14 34.4 +01.1	47 15.9 -35.7	S 25 27.2 -03.3	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 16'0 16'0 16'0 16'0 16'0 16'0								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 58'8 58'8 58'7 58'7 58'6 58'5								
	SHA 187° 187° 187° 186° 186° 186°		SHA 148° 148° 147° 147° 147° 147°		SHA 081° 078° 075° 073° 070° 068°								
	Greenwich Culmination Time: 11:55		Greenwich Culmination Time: 14:31		Greenwich Culmination Time: 19:43								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	173 51.4 +01.0	N 00 45.1 -00.6	27 21.8 +02.7	S 14 37.2 +00.1	44 07.1 +02.6	S 19 12.0 +00.1	00						
01	188 52.4 +01.0	N 00 44.5 -00.7	42 24.5 +02.7	S 14 37.3 +00.0	59 09.7 +02.5	S 19 12.1 +00.0	01						
02	203 53.4 +01.0	N 00 43.8 -00.6	57 27.2 +02.8	S 14 37.3 +00.1	74 12.2 +02.6	S 19 12.1 +00.0	02						
03	218 54.4 +01.0	N 00 43.2 -00.7	72 30.0 +02.7	S 14 37.4 +00.1	89 14.8 +02.6	S 19 12.1 +00.1	03						
04	233 55.4 +01.0	N 00 42.5 -00.6	87 32.7 +02.7	S 14 37.5 +00.1	104 17.4 +02.5	S 19 12.2 +00.0	04						
05	248 56.4 +00.9	N 00 41.9 -00.7	102 35.4 +02.7	S 14 37.6 +00.1	119 19.9 +02.6	S 19 12.2 +00.0	05						
06	263 57.3 +01.0	N 00 41.2 -00.7	117 38.1 +02.7	S 14 37.7 +00.1	134 22.5 +02.6	S 19 12.2 +00.0	06						
07	278 58.3 +01.0	N 00 40.5 -00.6	132 40.8 +02.7	S 14 37.8 +00.0	149 25.1 +02.5	S 19 12.2 +00.1	07						
08	293 59.3 +01.0	N 00 39.9 -00.7	147 43.5 +02.7	S 14 37.8 +00.1	164 27.6 +02.6	S 19 12.3 +00.0	08						
09	309 00.3 +01.0	N 00 39.2 -00.6	162 46.2 +02.7	S 14 37.9 +00.1	179 30.2 +02.6	S 19 12.3 +00.0	09						
10	324 01.3 +01.0	N 00 38.6 -00.7	177 48.9 +02.7	S 14 38.0 +00.1	194 32.8 +02.5	S 19 12.3 +00.0	10						
11	339 02.3 +01.0	N 00 37.9 -00.7	192 51.6 +02.7	S 14 38.1 +00.1	209 35.3 +02.6	S 19 12.3 +00.1	11						
12	354 03.3 +01.0	N 00 37.2 -00.6	207 54.3 +02.7	S 14 38.2 +00.0	224 37.9 +02.6	S 19 12.4 +00.0	12						
13	9 04.3 +01.0	N 00 36.6 -00.7	222 57.0 +02.7	S 14 38.2 +00.1	239 40.5 +02.5	S 19 12.4 +00.0	13						
14	24 05.3 +00.9	N 00 35.9 -00.6	237 59.7 +02.7	S 14 38.3 +00.1	254 43.0 +02.6	S 19 12.4 +00.0	14						
15	39 06.2 +01.0	N 00 35.3 -00.7	253 02.4 +02.7	S 14 38.4 +00.1	269 45.6 +02.6	S 19 12.4 +00.1	15						
16	54 07.2 +01.0	N 00 34.6 -00.6	268 05.1 +02.7	S 14 38.5 +00.1	284 48.2 +02.5	S 19 12.5 +00.0	16						
17	69 08.2 +01.0	N 00 34.0 -00.7	283 07.8 +02.7	S 14 38.6 +00.0	299 50.7 +02.6	S 19 12.5 +00.0	17						
18	84 09.2 +01.0	N 00 33.3 -00.7	298 10.5 +02.7	S 14 38.6 +00.1	314 53.3 +02.6	S 19 12.5 +00.1	18						
19	99 10.2 +01.0	N 00 32.6 -00.6	313 13.2 +02.7	S 14 38.7 +00.1	329 55.9 +02.5	S 19 12.6 +00.0	19						
20	114 11.2 +01.0	N 00 32.0 -00.7	328 15.9 +02.8	S 14 38.8 +00.1	344 58.4 +02.6	S 19 12.6 +00.0	20						
21	129 12.2 +01.0	N 00 31.3 -00.6	343 18.7 +02.7	S 14 38.9 +00.1	0 01.0 +02.6	S 19 12.6 +00.0	21						
22	144 13.2 +00.9	N 00 30.7 -00.7	358 21.4 +02.7	S 14 39.0 +00.0	15 03.6 +02.5	S 19 12.6 +00.1	22						
23	159 14.1 +01.0	N 00 30.0 -00.7	13 24.1 +02.7	S 14 39.0 +00.1	30 06.1 +02.6	S 19 12.7 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 180° 180° 179° 179° 179° 179°		SHA 033° 033° 033° 033° 033° 033°		SHA 050° 050° 050° 050° 050° 050°								
	Greenwich Culmination Time: 12:23		Greenwich Culmination Time: 22:06		Greenwich Culmination Time: 20:59								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 15.8 +00.2	N 02 38.3 -01.0	141 58.1 -00.2	S 14 35.5 +01.1	61 40.2 -35.6	S 25 23.9 -03.5	00						
01	196 16.0 +00.2	N 02 37.3 -00.9	156 57.9 -00.3	S 14 36.6 +01.1	76 04.6 -35.6	S 25 20.4 -03.7	01						
02	211 16.2 +00.3	N 02 36.4 -01.0	171 57.6 -00.2	S 14 37.7 +01.1	90 29.0 -35.5	S 25 16.7 -03.8	02						
03	226 16.5 +00.2	N 02 35.4 -01.0	186 57.4 -00.3	S 14 38.8 +01.1	104 53.5 -35.5	S 25 12.9 -04.0	03						
04	241 16.7 +00.2	N 02 34.4 -00.9	201 57.1 -00.3	S 14 39.9 +01.1	119 18.0 -35.4	S 25 08.9 -04.1	04						
05	256 16.9 +00.2	N 02 33.5 -01.0	216 56.8 -00.2	S 14 41.0 +01.1	133 42.6 -35.3	S 25 04.8 -04.3	05						
06	271 17.1 +00.3	N 02 32.5 -01.0	231 56.6 -00.3	S 14 42.1 +01.2	148 07.3 -35.3	S 25 00.5 -04.4	06						
07	286 17.4 +00.2	N 02 31.5 -00.9	246 56.3 -00.3	S 14 43.3 +01.1	162 32.0 -35.2	S 24 56.1 -04.7	07						
08	301 17.6 +00.2	N 02 30.6 -01.0	261 56.0 -00.2	S 14 44.4 +01.1	176 56.8 -35.2	S 24 51.4 -04.7	08						
09	316 17.8 +00.2	N 02 29.6 -01.0	276 55.8 -00.3	S 14 45.5 +01.1	191 21.6 -35.1	S 24 46.7 -04.9	09						
10	331 18.0 +00.3	N 02 28.6 -00.9	291 55.5 -00.3	S 14 46.6 +01.1	205 46.5 -35.0	S 24 41.8 -05.1	10						
11	346 18.3 +00.2	N 02 27.7 -01.0	306 55.2 -00.2	S 14 47.7 +01.1	220 11.5 -34.9	S 24 36.7 -05.2	11						
12	1 18.5 +00.2	N 02 26.7 -01.0	321 55.0 -00.3	S 14 48.8 +01.1	234 36.6 -34.9	S 24 31.5 -05.4	12						
13	16 18.7 +00.2	N 02 25.7 -00.9	336 54.7 -00.3	S 14 49.9 +01.1	249 01.7 -34.8	S 24 26.1 -05.5	13						
14	31 18.9 +00.2	N 02 24.8 -01.0	351 54.4 -00.2	S 14 51.0 +01.1	263 26.9 -34.7	S 24 20.6 -05.7	14						
15	46 19.1 +00.3	N 02 23.8 -01.0	6 54.2 -00.3	S 14 52.1 +01.1	277 52.2 -34.7	S 24 14.9 -05.8	15						
16	61 19.4 +00.2	N 02 22.8 -00.9	21 53.9 -00.3	S 14 53.2 +01.1	292 17.5 -34.6	S 24 09.1 -06.0	16						
17	76 19.6 +00.2	N 02 21.9 -01.0	36 53.6 -00.2	S 14 54.3 +01.1	306 42.9 -34.5	S 24 03.1 -06.1	17						
18	91 19.8 +00.2	N 02 20.9 -00.9	51 53.4 -00.3	S 14 55.4 +01.1	321 08.4 -34.4	S 23 57.0 -06.3	18						
19	106 20.0 +00.3	N 02 20.0 -01.0	66 53.1 -00.3	S 14 56.5 +01.2	335 34.0 -34.3	S 23 50.7 -06.4	19						
20	121 20.3 +00.2	N 02 19.0 -01.0	81 52.8 -00.2	S 14 57.7 +01.1	349 59.7 -34.3	S 23 44.3 -06.5	20						
21	136 20.5 +00.2	N 02 18.0 -00.9	96 52.6 -00.3	S 14 58.8 +01.1	4 25.4 -34.2	S 23 37.8 -06.7	21						
22	151 20.7 +00.2	N 02 17.1 -01.0	111 52.3 -00.3	S 14 59.9 +01.1	18 51.2 -34.1	S 23 31.1 -06.8	22						
23	166 20.9 +00.3	N 02 16.1 -01.0	126 52.0 -00.2	S 15 01.0 +01.1	33 17.1 -34.0	S 23 24.3 -07.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 15'9 15'9 15'9 15'9 15'9 15'9		SD 00'1 00'1 00'1 00'1 00'1 00'1		SD 15'9 15'9 15'9 15'9 15'9 15'8								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 58'5 58'4 58'4 58'3 58'2 58'2								
	SHA 186° 186° 186° 186° 185° 185°		SHA 147° 147° 146° 146° 146° 146°		SHA 065° 063° 060° 058° 055° 053°								
	Greenwich Culmination Time: 11:54		Greenwich Culmination Time: 14:32		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	174 15.1 +01.0	N 00 29.3 -00.6	28 26.8 +02.7	S 14 39.1 +00.1	45 08.7 +02.6	S 19 12.7 +00.0	00						
01	189 16.1 +01.0	N 00 28.7 -00.7	43 29.5 +02.7	S 14 39.2 +00.1	60 11.3 +02.5	S 19 12.7 +00.0	01						
02	204 17.1 +01.0	N 00 28.0 -00.6	58 32.2 +02.7	S 14 39.3 +00.1	75 13.8 +02.6	S 19 12.7 +00.1	02						
03	219 18.1 +01.0	N 00 27.4 -00.7	73 34.9 +02.7	S 14 39.4 +00.0	90 16.4 +02.6	S 19 12.8 +00.0	03						
04	234 19.1 +01.0	N 00 26.7 -00.6	88 37.6 +02.7	S 14 39.4 +00.1	105 19.0 +02.5	S 19 12.8 +00.0	04						
05	249 20.1 +01.0	N 00 26.1 -00.7	103 40.3 +02.7	S 14 39.5 +00.1	120 21.5 +02.6	S 19 12.8 +00.0	05						
06	264 21.1 +00.9	N 00 25.4 -00.7	118 43.0 +02.7	S 14 39.6 +00.1	135 24.1 +02.6	S 19 12.8 +00.1	06						
07	279 22.0 +01.0	N 00 24.7 -00.6	133 45.7 +02.7	S 14 39.7 +00.1	150 26.7 +02.5	S 19 12.9 +00.0	07						
08	294 23.0 +01.0	N 00 24.1 -00.7	148 48.4 +02.7	S 14 39.8 +00.0	165 29.2 +02.6	S 19 12.9 +00.0	08						
09	309 24.0 +01.0	N 00 23.4 -00.6	163 51.1 +02.7	S 14 39.8 +00.1	180 31.8 +02.5	S 19 12.9 +00.0	09						
10	324 25.0 +01.0	N 00 22.8 -00.7	178 53.8 +02.7	S 14 39.9 +00.1	195 34.3 +02.6	S 19 12.9 +00.1	10						
11	339 26.0 +01.0	N 00 22.1 -00.7	193 56.5 +02.7	S 14 40.0 +00.1	210 36.9 +02.6	S 19 13.0 +00.0	11						
12	354 27.0 +01.0	N 00 21.4 -00.6	208 59.2 +02.7	S 14 40.1 +00.0	225 39.5 +02.5	S 19 13.0 +00.0	12						
13	9 28.0 +01.0	N 00 20.8 -00.7	224 01.9 +02.7	S 14 40.1 +00.1	240 42.0 +02.6	S 19 13.0 +00.0	13						
14	24 29.0 +00.9	N 00 20.1 -00.6	239 04.6 +02.7	S 14 40.2 +00.1	255 44.6 +02.6	S 19 13.0 +00.1	14						
15	39 29.9 +01.0	N 00 19.5 -00.7	254 07.3 +02.7	S 14 40.3 +00.1	270 47.2 +02.5	S 19 13.1 +00.0	15						
16	54 30.9 +01.0	N 00 18.8 -00.7	269 10.0 +02.7	S 14 40.4 +00.1	285 49.7 +02.6	S 19 13.1 +00.0	16						
17	69 31.9 +01.0	N 00 18.1 -00.6	284 12.7 +02.7	S 14 40.5 +00.0	300 52.3 +02.6	S 19 13.1 +00.0	17						
18	84 32.9 +01.0	N 00 17.5 -00.7	299 15.4 +02.7	S 14 40.5 +00.1	315 54.9 +02.5	S 19 13.1 +00.1	18						
19	99 33.9 +01.0	N 00 16.8 -00.6	314 18.1 +02.7	S 14 40.6 +00.1	330 57.4 +02.6	S 19 13.2 +00.0	19						
20	114 34.9 +01.0	N 00 16.2 -00.7	329 20.8 +02.7	S 14 40.7 +00.1	345 60.0 +02.5	S 19 13.2 +00.0	20						
21	129 35.9 +01.0	N 00 15.5 -00.6	344 23.5 +02.7	S 14 40.8 +00.1	1 02.5 +02.6	S 19 13.2 +00.0	21						
22	144 36.9 +00.9	N 00 14.9 -00.7	359 26.2 +02.7	S 14 40.9 +00.0	16 05.1 +02.6	S 19 13.2 +00.1	22						
23	159 37.8 +01.0	N 00 14.2 -00.7	14 28.9 +02.7	S 14 40.9 +00.1	31 07.7 +02.5	S 19 13.3 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'2 00'2 00'2 00'2 00'2 00'2								
	HP 00'1 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								
	SHA 179° 179° 179° 179° 179° 179°		SHA 033° 033° 033° 033° 033° 033°		SHA 050° 050° 050° 050° 050° 050°								
	Greenwich Culmination Time: 12:22		Greenwich Culmination Time: 22:02		Greenwich Culmination Time: 20:55								

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 21.2 +00.2	N 02 15.1 -00.9	141 51.8 -00.3	S 15 02.1 +01.1	47 43.1 -34.0	S 23 17.3 -07.1	00						
01	196 21.4 +00.2	N 02 14.2 -01.0	156 51.5 -00.3	S 15 03.2 +01.1	62 09.1 -33.8	S 23 10.2 -07.2	01						
02	211 21.6 +00.2	N 02 13.2 -01.0	171 51.2 -00.3	S 15 04.3 +01.1	76 35.3 -33.8	S 23 03.0 -07.4	02						
03	226 21.8 +00.3	N 02 12.2 -00.9	186 50.9 -00.2	S 15 05.4 +01.1	91 01.5 -33.7	S 22 55.6 -07.5	03						
04	241 22.1 +00.2	N 02 11.3 -01.0	201 50.7 -00.3	S 15 06.5 +01.1	105 27.8 -33.6	S 22 48.1 -07.6	04						
05	256 22.3 +00.2	N 02 10.3 -01.0	216 50.4 -00.3	S 15 07.6 +01.1	119 54.2 -33.5	S 22 40.5 -07.8	05						
06	271 22.5 +00.2	N 02 09.3 -00.9	231 50.1 -00.2	S 15 08.7 +01.1	134 20.7 -33.5	S 22 32.7 -07.9	06						
07	286 22.7 +00.3	N 02 08.4 -01.0	246 49.9 -00.3	S 15 09.8 +01.1	148 47.2 -33.3	S 22 24.8 -08.0	07						
08	301 23.0 +00.2	N 02 07.4 -01.0	261 49.6 -00.3	S 15 10.9 +01.1	163 13.9 -33.3	S 22 16.8 -08.2	08						
09	316 23.2 +00.2	N 02 06.4 -00.9	276 49.3 -00.3	S 15 12.0 +01.1	177 40.6 -33.1	S 22 08.6 -08.2	09						
10	331 23.4 +00.2	N 02 05.5 -01.0	291 49.0 -00.2	S 15 13.1 +01.0	192 07.5 -33.1	S 22 00.4 -08.4	10						
11	346 23.6 +00.3	N 02 04.5 -01.0	306 48.8 -00.3	S 15 14.1 +01.1	206 34.4 -33.0	S 21 52.0 -08.5	11						
12	1 23.9 +00.2	N 02 03.5 -00.9	321 48.5 -00.3	S 15 15.2 +01.1	221 01.4 -32.9	S 21 43.5 -08.7	12						
13	16 24.1 +00.2	N 02 02.6 -01.0	336 48.2 -00.2	S 15 16.3 +01.1	235 28.5 -32.8	S 21 34.8 -08.7	13						
14	31 24.3 +00.2	N 02 01.6 -01.0	351 48.0 -00.3	S 15 17.4 +01.1	249 55.7 -32.7	S 21 26.1 -08.9	14						
15	46 24.5 +00.2	N 02 00.6 -00.9	6 47.7 -00.3	S 15 18.5 +01.1	264 23.0 -32.6	S 21 17.2 -09.0	15						
16	61 24.7 +00.3	N 01 59.7 -01.0	21 47.4 -00.3	S 15 19.6 +01.1	278 50.4 -32.6	S 21 08.2 -09.1	16						
17	76 25.0 +00.2	N 01 58.7 -01.0	36 47.1 -00.2	S 15 20.7 +01.1	293 17.8 -32.4	S 20 59.1 -09.3	17						
18	91 25.2 +00.2	N 01 57.7 -00.9	51 46.9 -00.3	S 15 21.8 +01.1	307 45.4 -32.4	S 20 49.8 -09.3	18						
19	106 25.4 +00.2	N 01 56.8 -01.0	66 46.6 -00.3	S 15 22.9 +01.1	322 13.0 -32.2	S 20 40.5 -09.4	19						
20	121 25.6 +00.3	N 01 55.8 -01.0	81 46.3 -00.3	S 15 24.0 +01.1	336 40.8 -32.2	S 20 31.1 -09.6	20						
21	136 25.9 +00.2	N 01 54.8 -00.9	96 46.0 -00.2	S 15 25.1 +01.1	351 08.6 -32.1	S 20 21.5 -09.7	21						
22	151 26.1 +00.2	N 01 53.9 -01.0	111 45.8 -00.3	S 15 26.2 +01.1	5 36.5 -32.0	S 20 11.8 -09.7	22						
23	166 26.3 +00.2	N 01 52.9 -01.0	126 45.5 -00.3	S 15 27.3 +01.0	20 04.5 -31.9	S 20 02.1 -09.9	23						
	UT 02 06 10 14 18 22 SD 15'9 15'9 15'9 15'9 15'9 15'9 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 185° 185° 185° 185° 185° 184° Greenwich Culmination Time: 11:54	UT 02 06 10 14 18 22 SD 00'1 00'1 00'1 00'1 00'1 00'1 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 146° 145° 145° 145° 145° 145° Greenwich Culmination Time: 14:32	UT 02 06 10 14 18 22 SD 15'8 15'8 15'8 15'8 15'8 15'7 HP 58'1 58'0 58'0 57'9 57'8 57'7 SHA 050° 048° 046° 043° 041° 039° Greenwich Culmination Time: 21:36										
UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	174 38.8 +01.0	N 00 13.5 -00.6	29 31.6 +02.7	S 14 41.0 +00.1	46 10.2 +02.6	S 19 13.3 +00.0	00						
01	189 39.8 +01.0	N 00 12.9 -00.7	44 34.3 +02.7	S 14 41.1 +00.1	61 12.8 +02.5	S 19 13.3 +00.0	01						
02	204 40.8 +01.0	N 00 12.2 -00.6	59 37.0 +02.6	S 14 41.2 +00.0	76 15.3 +02.6	S 19 13.3 +00.1	02						
03	219 41.8 +01.0	N 00 11.6 -00.7	74 39.6 +02.7	S 14 41.2 +00.1	91 17.9 +02.6	S 19 13.4 +00.0	03						
04	234 42.8 +01.0	N 00 10.9 -00.7	89 42.3 +02.7	S 14 41.3 +00.1	106 20.5 +02.5	S 19 13.4 +00.0	04						
05	249 43.8 +00.9	N 00 10.2 -00.6	104 45.0 +02.7	S 14 41.4 +00.1	121 23.0 +02.6	S 19 13.4 +00.0	05						
06	264 44.7 +01.0	N 00 09.6 -00.7	119 47.7 +02.7	S 14 41.5 +00.0	136 25.6 +02.6	S 19 13.4 +00.1	06						
07	279 45.7 +01.0	N 00 08.9 -00.6	134 50.4 +02.7	S 14 41.5 +00.1	151 28.2 +02.5	S 19 13.5 +00.0	07						
08	294 46.7 +01.0	N 00 08.3 -00.7	149 53.1 +02.7	S 14 41.6 +00.1	166 30.7 +02.6	S 19 13.5 +00.0	08						
09	309 47.7 +01.0	N 00 07.6 -00.7	164 55.8 +02.7	S 14 41.7 +00.1	181 33.3 +02.5	S 19 13.5 +00.0	09						
10	324 48.7 +01.0	N 00 06.9 -00.6	179 58.5 +02.7	S 14 41.8 +00.1	196 35.8 +02.6	S 19 13.5 +00.1	10						
11	339 49.7 +01.0	N 00 06.3 -00.7	195 01.2 +02.7	S 14 41.9 +00.0	211 38.4 +02.6	S 19 13.6 +00.0	11						
12	354 50.7 +01.0	N 00 05.6 -00.6	210 03.9 +02.7	S 14 41.9 +00.1	226 41.0 +02.5	S 19 13.6 +00.0	12						
13	9 51.7 +00.9	N 00 05.0 -00.7	225 06.6 +02.7	S 14 42.0 +00.1	241 43.5 +02.6	S 19 13.6 +00.0	13						
14	24 52.6 +01.0	N 00 04.3 -00.6	240 09.3 +02.7	S 14 42.1 +00.1	256 46.1 +02.5	S 19 13.6 +00.1	14						
15	39 53.6 +01.0	N 00 03.7 -00.7	255 12.0 +02.7	S 14 42.2 +00.0	271 48.6 +02.6	S 19 13.7 +00.0	15						
16	54 54.6 +01.0	N 00 03.0 -00.7	270 14.7 +02.7	S 14 42.2 +00.1	286 51.2 +02.6	S 19 13.7 +00.0	16						
17	69 55.6 +01.0	N 00 02.3 -00.6	285 17.4 +02.7	S 14 42.3 +00.1	301 53.8 +02.5	S 19 13.7 +00.0	17						
18	84 56.6 +01.0	N 00 01.7 -00.7	300 20.1 +02.7	S 14 42.4 +00.1	316 56.3 +02.6	S 19 13.7 +00.1	18						
19	99 57.6 +01.0	N 00 01.0 -00.6	315 22.8 +02.6	S 14 42.5 +00.0	331 58.9 +02.5	S 19 13.8 +00.0	19						
20	114 58.6 +00.9	N 00 00.4 -00.7	330 25.4 +02.7	S 14 42.5 +00.1	347 01.4 +02.6	S 19 13.8 +00.0	20						
21	129 59.5 +01.0	S 00 00.3 +00.7	345 28.1 +02.7	S 14 42.6 +00.1	2 04.0 +02.5	S 19 13.8 +00.0	21						
22	145 00.5 +01.0	S 00 01.0 +00.6	0 30.8 +02.7	S 14 42.7 +00.1	17 06.5 +02.6	S 19 13.8 +00.1	22						
23	160 01.5 +01.0	S 00 01.6 +00.7	15 33.5 +02.7	S 14 42.8 +00.0	32 09.1 +02.6	S 19 13.9 +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 SHA 178° 178° 178° 178° 178° 178° Greenwich Culmination Time: 12:20	UT 02 06 10 14 18 22 SD 00'4 00'4 00'4 00'4 00'4 00'4 HP 00'0 00'0 00'0 00'0 00'0 00'0 SHA 033° 033° 033° 033° 033° 033° Greenwich Culmination Time: 21:57	UT 02 06 10 14 18 22 SD 00'2 00'2 00'1 00'1 00'1 00'1 HP 00'0 00'0 00'0 00'0 00'0 00'0 SHA 050° 050° 050° 050° 050° 050° Greenwich Culmination Time: 20:51										

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 26.5 +00.3	N 01 51.9 -00.9	141 45.2 -00.3	S 15 28.3 +01.1	34 32.6 -31.8	S 19 52.2 -10.0	00						
01	196 26.8 +00.2	N 01 51.0 -01.0	156 44.9 -00.2	S 15 29.4 +01.1	49 00.8 -31.7	S 19 42.2 -10.1	01						
02	211 27.0 +00.2	N 01 50.0 -01.0	171 44.7 -00.3	S 15 30.5 +01.1	63 29.1 -31.6	S 19 32.1 -10.2	02						
03	226 27.2 +00.2	N 01 49.0 -00.9	186 44.4 -00.3	S 15 31.6 +01.1	77 57.5 -31.5	S 19 21.9 -10.3	03						
04	241 27.4 +00.3	N 01 48.1 -01.0	201 44.1 -00.3	S 15 32.7 +01.1	92 26.0 -31.5	S 19 11.6 -10.3	04						
05	256 27.7 +00.2	N 01 47.1 -01.0	216 43.8 -00.2	S 15 33.8 +01.1	106 54.5 -31.3	S 19 01.3 -10.5	05						
06	271 27.9 +00.2	N 01 46.1 -00.9	231 43.6 -00.3	S 15 34.9 +01.0	121 23.2 -31.3	S 18 50.8 -10.6	06						
07	286 28.1 +00.2	N 01 45.2 -01.0	246 43.3 -00.3	S 15 35.9 +01.1	135 51.9 -31.1	S 18 40.2 -10.7	07						
08	301 28.3 +00.3	N 01 44.2 -01.0	261 43.0 -00.3	S 15 37.0 +01.1	150 20.8 -31.1	S 18 29.5 -10.7	08						
09	316 28.6 +00.2	N 01 43.2 -00.9	276 42.7 -00.3	S 15 38.1 +01.1	164 49.7 -31.0	S 18 18.8 -10.9	09						
10	331 28.8 +00.2	N 01 42.3 -01.0	291 42.4 -00.2	S 15 39.2 +01.1	179 18.7 -30.9	S 18 07.9 -10.9	10						
11	346 29.0 +00.2	N 01 41.3 -01.0	306 42.2 -00.3	S 15 40.3 +01.1	193 47.8 -30.8	S 17 57.0 -11.1	11						
12	1 29.2 +00.2	N 01 40.3 -01.0	321 41.9 -00.3	S 15 41.4 +01.0	208 17.0 -30.7	S 17 45.9 -11.1	12						
13	16 29.4 +00.3	N 01 39.3 -00.9	336 41.6 -00.3	S 15 42.4 +01.1	222 46.3 -30.6	S 17 34.8 -11.2	13						
14	31 29.7 +00.2	N 01 38.4 -01.0	351 41.3 -00.3	S 15 43.5 +01.1	237 15.7 -30.5	S 17 23.6 -11.3	14						
15	46 29.9 +00.2	N 01 37.4 -01.0	6 41.0 -00.2	S 15 44.6 +01.1	251 45.2 -30.5	S 17 12.3 -11.4	15						
16	61 30.1 +00.2	N 01 36.4 -00.9	21 40.8 -00.3	S 15 45.7 +01.1	266 14.7 -30.4	S 17 00.9 -11.4	16						
17	76 30.3 +00.3	N 01 35.5 -01.0	36 40.5 -00.3	S 15 46.8 +01.0	280 44.3 -30.2	S 16 49.5 -11.5	17						
18	91 30.6 +00.2	N 01 34.5 -01.0	51 40.2 -00.3	S 15 47.8 +01.1	295 14.1 -30.2	S 16 38.0 -11.6	18						
19	106 30.8 +00.2	N 01 33.5 -00.9	66 39.9 -00.3	S 15 48.9 +01.1	309 43.9 -30.1	S 16 26.4 -11.7	19						
20	121 31.0 +00.2	N 01 32.6 -01.0	81 39.6 -00.2	S 15 50.0 +01.1	324 13.8 -30.0	S 16 14.7 -11.8	20						
21	136 31.2 +00.3	N 01 31.6 -01.0	96 39.4 -00.3	S 15 51.1 +01.0	338 43.8 -30.0	S 16 02.9 -11.8	21						
22	151 31.5 +00.2	N 01 30.6 -00.9	111 39.1 -00.3	S 15 52.1 +01.1	353 13.8 -29.8	S 15 51.1 -11.9	22						
23	166 31.7 +00.2	N 01 29.7 -01.0	126 38.8 -00.3	S 15 53.2 +01.1	7 44.0 -29.8	S 15 39.2 -12.0	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 15'7 15'7 15'6 15'6 15'6							
	HP 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'1 00'1 00'1 00'1 00'1 00'1	HP 57'7 57'6 57'5 57'4 57'3 57'3									
	SHA 184° 184° 184° 184° 184° 183°	SHA 145° 144° 144° 144° 144° 144°	SHA 145° 144° 144° 144° 144° 144°	SHA 036° 034° 032° 030° 027° 025°									
	Greenwich Culmination Time: 11:54	Greenwich Culmination Time: 14:33	Greenwich Culmination Time: 22:28										

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	175 02.5 +01.0	S 00 02.3 +00.6	30 36.2 +02.7	S 14 42.8 +00.1	47 11.7 +02.5	S 19 13.9 +00.0	00						
01	190 03.5 +01.0	S 00 02.9 +00.7	45 38.9 +02.7	S 14 42.9 +00.1	62 14.2 +02.6	S 19 13.9 +00.0	01						
02	205 04.5 +01.0	S 00 03.6 +00.7	60 41.6 +02.7	S 14 43.0 +00.1	77 16.8 +02.5	S 19 13.9 +00.1	02						
03	220 05.5 +00.9	S 00 04.3 +00.6	75 44.3 +02.7	S 14 43.1 +00.0	92 19.3 +02.6	S 19 14.0 +00.0	03						
04	235 06.4 +01.0	S 00 04.9 +00.7	90 47.0 +02.7	S 14 43.1 +00.1	107 21.9 +02.6	S 19 14.0 +00.0	04						
05	250 07.4 +01.0	S 00 05.6 +00.6	105 49.7 +02.7	S 14 43.2 +00.1	122 24.5 +02.5	S 19 14.0 +00.0	05						
06	265 08.4 +01.0	S 00 06.2 +00.7	120 52.4 +02.6	S 14 43.3 +00.1	137 27.0 +02.6	S 19 14.0 +00.1	06						
07	280 09.4 +01.0	S 00 06.9 +00.7	135 55.0 +02.7	S 14 43.4 +00.0	152 29.6 +02.5	S 19 14.1 +00.0	07						
08	295 10.4 +01.0	S 00 07.6 +00.6	150 57.7 +02.7	S 14 43.4 +00.1	167 32.1 +02.6	S 19 14.1 +00.0	08						
09	310 11.4 +01.0	S 00 08.2 +00.7	166 00.4 +02.7	S 14 43.5 +00.1	182 34.7 +02.5	S 19 14.1 +00.0	09						
10	325 12.4 +00.9	S 00 08.9 +00.6	181 03.1 +02.7	S 14 43.6 +00.1	197 37.2 +02.6	S 19 14.1 +00.1	10						
11	340 13.3 +01.0	S 00 09.5 +00.7	196 05.8 +02.7	S 14 43.7 +00.0	212 39.8 +02.5	S 19 14.2 +00.0	11						
12	355 14.3 +01.0	S 00 10.2 +00.7	211 08.5 +02.7	S 14 43.7 +00.1	227 42.3 +02.6	S 19 14.2 +00.0	12						
13	10 15.3 +01.0	S 00 10.9 +00.6	226 11.2 +02.7	S 14 43.8 +00.1	242 44.9 +02.6	S 19 14.2 +00.0	13						
14	25 16.3 +01.0	S 00 11.5 +00.7	241 13.9 +02.7	S 14 43.9 +00.1	257 47.5 +02.5	S 19 14.2 +00.0	14						
15	40 17.3 +01.0	S 00 12.2 +00.6	256 16.6 +02.6	S 14 44.0 +00.0	272 50.0 +02.6	S 19 14.2 +00.1	15						
16	55 18.3 +01.0	S 00 12.8 +00.7	271 19.2 +02.7	S 14 44.0 +00.1	287 52.6 +02.5	S 19 14.3 +00.0	16						
17	70 19.3 +00.9	S 00 13.5 +00.6	286 21.9 +02.7	S 14 44.1 +00.1	302 55.1 +02.6	S 19 14.3 +00.0	17						
18	85 20.2 +01.0	S 00 14.1 +00.7	301 24.6 +02.7	S 14 44.2 +00.1	317 57.7 +02.5	S 19 14.3 +00.0	18						
19	100 21.2 +01.0	S 00 14.8 +00.7	316 27.3 +02.7	S 14 44.3 +00.0	333 00.2 +02.6	S 19 14.3 +00.1	19						
20	115 22.2 +01.0	S 00 15.5 +00.6	331 30.0 +02.7	S 14 44.3 +00.1	348 02.8 +02.5	S 19 14.4 +00.0	20						
21	130 23.2 +01.0	S 00 16.1 +00.7	346 32.7 +02.7	S 14 44.4 +00.1	3 05.3 +02.6	S 19 14.4 +00.0	21						
22	145 24.2 +01.0	S 00 16.8 +00.6	1 35.4 +02.6	S 14 44.5 +00.0	18 07.9 +02.6	S 19 14.4 +00.0	22						
23	160 25.2 +00.9	S 00 17.4 +00.7	16 38.0 +02.7	S 14 44.5 +00.1	33 10.5 +02.5	S 19 14.4 +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 00'4 00'4 00'4 00'4 00'4 00'4	UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1							
	HP 00'1 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	HP 00'0 00'0 00'0 00'0 00'0 00'0									
	SHA 178° 178° 178° 178° 177° 177°	SHA 033° 033° 034° 034° 034° 034°	SHA 033° 033° 034° 034° 034° 034°	SHA 050° 050° 050° 050° 050° 050°									
	Greenwich Culmination Time: 12:19	Greenwich Culmination Time: 21:53	Greenwich Culmination Time: 20:47										





UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT				
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec					
00	181 37.3 +00.2	N 01 05.4 -00.9	141 31.7 -00.3	S 16 19.9 +01.1	10 43.5 -27.9	S 10 21.8 -13.3	00										
01	196 37.5 +00.2	N 01 04.5 -01.0	156 31.4 -00.3	S 16 21.0 +01.0	25 15.6 -27.8	S 10 08.5 -13.3	01										
02	211 37.7 +00.2	N 01 03.5 -01.0	171 31.1 -00.3	S 16 22.0 +01.1	39 47.8 -27.8	S 09 55.2 -13.4	02										
03	226 37.9 +00.3	N 01 02.5 -01.0	186 30.8 -00.3	S 16 23.1 +01.0	54 20.0 -27.7	S 09 41.8 -13.5	03										
04	241 38.2 +00.2	N 01 01.5 -00.9	201 30.5 -00.3	S 16 24.1 +01.1	68 52.3 -27.6	S 09 28.3 -13.4	04										
05	256 38.4 +00.2	N 01 00.6 -01.0	216 30.2 -00.3	S 16 25.2 +01.0	83 24.7 -27.6	S 09 14.9 -13.5	05										
06	271 38.6 +00.2	N 00 59.6 -01.0	231 29.9 -00.3	S 16 26.2 +01.1	97 57.1 -27.5	S 09 01.4 -13.5	06										
07	286 38.8 +00.3	N 00 58.6 -00.9	246 29.6 -00.3	S 16 27.3 +01.1	112 29.6 -27.5	S 08 47.9 -13.6	07										
08	301 39.1 +00.2	N 00 57.7 -01.0	261 29.3 -00.2	S 16 28.4 +01.0	127 02.1 -27.4	S 08 34.3 -13.6	08										
09	316 39.3 +00.2	N 00 56.7 -01.0	276 29.1 -00.3	S 16 29.4 +01.1	141 34.7 -27.3	S 08 20.7 -13.6	09										
10	331 39.5 +00.2	N 00 55.7 -01.0	291 28.8 -00.3	S 16 30.5 +01.0	156 07.4 -27.3	S 08 07.1 -13.6	10										
11	346 39.7 +00.3	N 00 54.7 -00.9	306 28.5 -00.3	S 16 31.5 +01.1	170 40.1 -27.2	S 07 53.5 -13.7	11										
12	1 40.0 +00.2	N 00 53.8 -01.0	321 28.2 -00.3	S 16 32.6 +01.0	185 12.9 -27.2	S 07 39.8 -13.7	12										
13	16 40.2 +00.2	N 00 52.8 -01.0	336 27.9 -00.3	S 16 33.6 +01.1	199 45.7 -27.1	S 07 26.1 -13.7	13										
14	31 40.4 +00.2	N 00 51.8 -00.9	351 27.6 -00.3	S 16 34.7 +01.0	214 18.6 -27.1	S 07 12.4 -13.7	14										
15	46 40.6 +00.2	N 00 50.9 -01.0	6 27.3 -00.3	S 16 35.7 +01.1	228 51.5 -27.0	S 06 58.7 -13.8	15										
16	61 40.8 +00.3	N 00 49.9 -01.0	21 27.0 -00.3	S 16 36.8 +01.0	243 24.5 -26.9	S 06 44.9 -13.7	16										
17	76 41.1 +00.2	N 00 48.9 -00.9	36 26.7 -00.3	S 16 37.8 +01.1	257 57.6 -27.0	S 06 31.2 -13.8	17										
18	91 41.3 +00.2	N 00 48.0 -01.0	51 26.4 -00.3	S 16 38.9 +01.0	272 30.6 -26.8	S 06 17.4 -13.8	18										
19	106 41.5 +00.2	N 00 47.0 -01.0	66 26.1 -00.3	S 16 39.9 +01.1	287 03.8 -26.8	S 06 03.6 -13.9	19										
20	121 41.7 +00.3	N 00 46.0 -01.0	81 25.8 -00.3	S 16 41.0 +01.0	301 37.0 -26.8	S 05 49.7 -13.8	20										
21	136 42.0 +00.2	N 00 45.0 -00.9	96 25.5 -00.3	S 16 42.0 +01.1	316 10.2 -26.7	S 05 35.9 -13.8	21										
22	151 42.2 +00.2	N 00 44.1 -01.0	111 25.2 -00.3	S 16 43.1 +01.0	330 43.5 -26.7	S 05 22.1 -13.9	22										
23	166 42.4 +00.2	N 00 43.1 -01.0	126 24.9 -00.2	S 16 44.1 +01.1	345 16.8 -26.7	S 05 08.2 -13.9	23										
	UT 02 06 10 14 18 22	SD 15'9 15'9 15'9 15'9 15'9 15'9	HP 00'1 00'1 00'1 00'1 00'1 00'1	SHA 182° 182° 182° 182° 182° 182°	Greenwich Culmination Time: 11:53		UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'2 00'2 00'2 00'2 00'2 00'2	SHA 142° 142° 142° 142° 142° 141°	Greenwich Culmination Time: 14:34		UT 02 06 10 14 18 22	SD 15'4 15'4 15'4 15'4 15'3 15'3	HP 56'7 56'6 56'5 56'4 56'3 56'2	SHA 011° 009° 007° 005° 003° 001°	Greenwich Culmination Time: -1:00

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT				
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec					
00	175 49.8 +00.9	S 00 33.9 +00.7	32 45.1 +02.7	S 14 46.3 +00.1	49 14.3 +02.5	S 19 15.0 +00.0	00										
01	190 50.7 +01.0	S 00 34.6 +00.7	47 47.8 +02.7	S 14 46.4 +00.1	64 16.8 +02.6	S 19 15.0 +00.0	01										
02	205 51.7 +01.0	S 00 35.3 +00.6	62 50.5 +02.6	S 14 46.5 +00.1	79 19.4 +02.5	S 19 15.0 +00.1	02										
03	220 52.7 +01.0	S 00 35.9 +00.7	77 53.1 +02.7	S 14 46.6 +00.0	94 21.9 +02.6	S 19 15.1 +00.0	03										
04	235 53.7 +01.0	S 00 36.6 +00.6	92 55.8 +02.7	S 14 46.6 +00.1	109 24.5 +02.5	S 19 15.1 +00.0	04										
05	250 54.7 +01.0	S 00 37.2 +00.7	107 58.5 +02.7	S 14 46.7 +00.1	124 27.0 +02.6	S 19 15.1 +00.0	05										
06	265 55.7 +00.9	S 00 37.9 +00.7	123 01.2 +02.7	S 14 46.8 +00.0	139 29.6 +02.5	S 19 15.1 +00.1	06										
07	280 56.6 +01.0	S 00 38.6 +00.6	138 03.9 +02.6	S 14 46.8 +00.1	154 32.1 +02.6	S 19 15.2 +00.0	07										
08	295 57.6 +01.0	S 00 39.2 +00.7	153 06.5 +02.7	S 14 46.9 +00.1	169 34.7 +02.5	S 19 15.2 +00.0	08										
09	310 58.6 +01.0	S 00 39.9 +00.6	168 09.2 +02.7	S 14 47.0 +00.0	184 37.2 +02.6	S 19 15.2 +00.0	09										
10	325 59.6 +01.0	S 00 40.5 +00.7	183 11.9 +02.7	S 14 47.0 +00.1	199 39.8 +02.5	S 19 15.2 +00.0	10										
11	341 00.6 +01.0	S 00 41.2 +00.6	198 14.6 +02.6	S 14 47.1 +00.1	214 42.3 +02.6	S 19 15.2 +00.1	11										
12	356 01.6 +00.9	S 00 41.8 +00.7	213 17.2 +02.7	S 14 47.2 +00.0	229 44.9 +02.5	S 19 15.3 +00.0	12										
13	11 02.5 +01.0	S 00 42.5 +00.7	228 19.9 +02.7	S 14 47.2 +00.1	244 47.4 +02.6	S 19 15.3 +00.0	13										
14	26 03.5 +01.0	S 00 43.2 +00.6	243 22.6 +02.7	S 14 47.3 +00.1	259 50.0 +02.5	S 19 15.3 +00.0	14										
15	41 04.5 +01.0	S 00 43.8 +00.7	258 25.3 +02.6	S 14 47.4 +00.1	274 52.5 +02.6	S 19 15.3 +00.1	15										
16	56 05.5 +01.0	S 00 44.5 +00.6	273 27.9 +02.7	S 14 47.5 +00.0	289 55.1 +02.5	S 19 15.4 +00.0	16										
17	71 06.5 +01.0	S 00 45.1 +00.7	288 30.6 +02.7	S 14 47.5 +00.1	304 57.6 +02.6	S 19 15.4 +00.0	17										
18	86 07.5 +00.9	S 00 45.8 +00.7	303 33.3 +02.7	S 14 47.6 +00.1	320 00.2 +02.5	S 19 15.4 +00.0	18										
19	101 08.4 +01.0	S 00 46.5 +00.6	318 36.0 +02.6	S 14 47.7 +00.0	335 02.7 +02.6	S 19 15.4 +00.0	19										
20	116 09.4 +01.0	S 00 47.1 +00.7	333 38.6 +02.7	S 14 47.7 +00.1	350 05.3 +02.5	S 19 15.4 +00.1	20										
21	131 10.4 +01.0	S 00 47.8 +00.6	348 41.3 +02.7	S 14 47.8 +00.1	5 07.8 +02.6	S 19 15.5 +00.0	21										
22	146 11.4 +01.0	S 00 48.4 +00.7	3 44.0 +02.7	S 14 47.9 +00.0	20 10.4 +02.5	S 19 15.5 +00.0	22										
23	161 12.4 +00.9	S 00 49.1 +00.7	18 46.7 +02.6	S 14 47.9 +00.1	35 12.9 +02.5	S 19 15.5 +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	SHA 177° 177° 176° 176° 176° 176°	Greenwich Culmination Time: 12:15		UT 02 06 10 14 18 22	SD 00'4 00'4 00'4 00'4 00'4 00'4	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 034° 034° 034° 034° 034° 034°	Greenwich Culmination Time: 21:45		UT 02 06 10 14 18 22	SD 00'1 00'1 00'1 00'1 00'1 00'1	HP 00'0 00'0 00'0 00'0 00'0 00'0	SHA 050° 050° 050° 050° 050° 050°	Greenwich Culmination Time: 20:39

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 42.6 +00.2	N 00	42.1 -00.9	141 24.7 -00.3	S 16	45.2 +01.0	359 50.1 -26.5	S 04	54.3 -13.9	00			
01	196 42.8 +00.3	N 00	41.2 -01.0	156 24.4 -00.3	S 16	46.2 +01.0	14 23.6 -26.6	S 04	40.4 -13.9	01			
02	211 43.1 +00.2	N 00	40.2 -01.0	171 24.1 -00.3	S 16	47.2 +01.1	28 57.0 -26.5	S 04	26.5 -13.9	02			
03	226 43.3 +00.2	N 00	39.2 -01.0	186 23.8 -00.3	S 16	48.3 +01.0	43 30.5 -26.5	S 04	12.6 -13.9	03			
04	241 43.5 +00.2	N 00	38.2 -00.9	201 23.5 -00.3	S 16	49.3 +01.1	58 04.0 -26.4	S 03	58.7 -13.9	04			
05	256 43.7 +00.3	N 00	37.3 -01.0	216 23.2 -00.3	S 16	50.4 +01.0	72 37.6 -26.4	S 03	44.8 -13.9	05			
06	271 44.0 +00.2	N 00	36.3 -01.0	231 22.9 -00.3	S 16	51.4 +01.1	87 11.2 -26.4	S 03	30.9 -13.9	06			
07	286 44.2 +00.2	N 00	35.3 -00.9	246 22.6 -00.3	S 16	52.5 +01.0	101 44.8 -26.3	S 03	17.0 -14.0	07			
08	301 44.4 +00.2	N 00	34.4 -01.0	261 22.3 -00.3	S 16	53.5 +01.0	116 18.5 -26.3	S 03	03.0 -13.9	08			
09	316 44.6 +00.2	N 00	33.4 -01.0	276 22.0 -00.3	S 16	54.5 +01.1	130 52.2 -26.2	S 02	49.1 -13.9	09			
10	331 44.8 +00.3	N 00	32.4 -01.0	291 21.7 -00.3	S 16	55.6 +01.0	145 26.0 -26.2	S 02	35.2 -14.0	10			
11	346 45.1 +00.2	N 00	31.4 -00.9	306 21.4 -00.3	S 16	56.6 +01.0	159 59.8 -26.2	S 02	21.2 -13.9	11			
12	1 45.3 +00.2	N 00	30.5 -01.0	321 21.1 -00.3	S 16	57.6 +01.1	174 33.6 -26.2	S 02	07.3 -13.9	12			
13	16 45.5 +00.2	N 00	29.5 -01.0	336 20.8 -00.3	S 16	58.7 +01.0	189 07.4 -26.1	S 01	53.4 -14.0	13			
14	31 45.7 +00.3	N 00	28.5 -00.9	351 20.5 -00.3	S 16	59.7 +01.1	203 41.3 -26.1	S 01	39.4 -13.9	14			
15	46 46.0 +00.2	N 00	27.6 -01.0	6 20.2 -00.3	S 17	00.8 +01.0	218 15.2 -26.0	S 01	25.5 -13.9	15			
16	61 46.2 +00.2	N 00	26.6 -01.0	21 19.9 -00.3	S 17	01.8 +01.0	232 49.2 -26.1	S 01	11.6 -13.9	16			
17	76 46.4 +00.2	N 00	25.6 -01.0	36 19.6 -00.3	S 17	02.8 +01.1	247 23.1 -26.0	S 00	57.7 -13.9	17			
18	91 46.6 +00.2	N 00	24.6 -00.9	51 19.3 -00.3	S 17	03.9 +01.0	261 57.1 -26.0	S 00	43.8 -13.9	18			
19	106 46.8 +00.3	N 00	23.7 -01.0	66 19.0 -00.3	S 17	04.9 +01.0	276 31.1 -25.9	S 00	29.9 -13.9	19			
20	121 47.1 +00.2	N 00	22.7 -01.0	81 18.7 -00.3	S 17	05.9 +01.1	291 05.2 -25.9	S 00	16.0 -13.9	20			
21	136 47.3 +00.2	N 00	21.7 -00.9	96 18.4 -00.3	S 17	07.0 +01.0	305 39.3 -26.0	S 00	02.1 -13.8	21			
22	151 47.5 +00.2	N 00	20.8 -01.0	111 18.1 -00.3	S 17	08.0 +01.0	320 13.3 -25.9	N 00	11.7 +13.9	22			
23	166 47.7 +00.3	N 00	19.8 -01.0	126 17.8 -00.3	S 17	09.0 +01.1	334 47.4 -25.8	N 00	25.6 +13.9	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'9 15'9 15'9 15'9 15'9 15'9			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'3 15'3 15'3 15'2 15'2 15'2						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 56'2 56'1 56'0 55'9 55'8 55'7						
	SHA 182° 181° 181° 181° 181° 181°			SHA 141° 141° 141° 141° 140° 140°			SHA 359° 357° 355° 353° 351° 349°						
	Greenwich Culmination Time: 11:52			Greenwich Culmination Time: 14:34			Greenwich Culmination Time: 00:00						

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	176 13.3 +01.0	S 00	49.8 +00.6	33 49.3 +02.7	S 14	48.0 +00.1	50 15.4 +02.6	S 19	15.5 +00.0	00			
01	191 14.3 +01.0	S 00	50.4 +00.7	48 52.0 +02.7	S 14	48.1 +00.0	65 18.0 +02.5	S 19	15.5 +00.1	01			
02	206 15.3 +01.0	S 00	51.1 +00.6	63 54.7 +02.6	S 14	48.1 +00.1	80 20.5 +02.6	S 19	15.6 +00.0	02			
03	221 16.3 +01.0	S 00	51.7 +00.7	78 57.3 +02.7	S 14	48.2 +00.1	95 23.1 +02.5	S 19	15.6 +00.0	03			
04	236 17.3 +01.0	S 00	52.4 +00.7	94 00.0 +02.7	S 14	48.3 +00.0	110 25.6 +02.6	S 19	15.6 +00.0	04			
05	251 18.3 +00.9	S 00	53.1 +00.6	109 02.7 +02.7	S 14	48.3 +00.1	125 28.2 +02.5	S 19	15.6 +00.0	05			
06	266 19.2 +01.0	S 00	53.7 +00.7	124 05.4 +02.6	S 14	48.4 +00.1	140 30.7 +02.6	S 19	15.6 +00.1	06			
07	281 20.2 +01.0	S 00	54.4 +00.6	139 08.0 +02.7	S 14	48.5 +00.0	155 33.3 +02.5	S 19	15.7 +00.0	07			
08	296 21.2 +01.0	S 00	55.0 +00.7	154 10.7 +02.7	S 14	48.5 +00.1	170 35.8 +02.6	S 19	15.7 +00.0	08			
09	311 22.2 +01.0	S 00	55.7 +00.7	169 13.4 +02.6	S 14	48.6 +00.1	185 38.4 +02.5	S 19	15.7 +00.0	09			
10	326 23.2 +00.9	S 00	56.4 +00.6	184 16.0 +02.7	S 14	48.7 +00.0	200 40.9 +02.6	S 19	15.7 +00.1	10			
11	341 24.1 +01.0	S 00	57.0 +00.7	199 18.7 +02.7	S 14	48.7 +00.1	215 43.5 +02.5	S 19	15.8 +00.0	11			
12	356 25.1 +01.0	S 00	57.7 +00.6	214 21.4 +02.7	S 14	48.8 +00.1	230 46.0 +02.5	S 19	15.8 +00.0	12			
13	11 26.1 +01.0	S 00	58.3 +00.7	229 24.1 +02.6	S 14	48.9 +00.0	245 48.5 +02.6	S 19	15.8 +00.0	13			
14	26 27.1 +01.0	S 00	59.0 +00.7	244 26.7 +02.7	S 14	48.9 +00.1	260 51.1 +02.5	S 19	15.8 +00.0	14			
15	41 28.1 +00.9	S 00	59.7 +00.6	259 29.4 +02.7	S 14	49.0 +00.1	275 53.6 +02.6	S 19	15.8 +00.1	15			
16	56 29.0 +01.0	S 01	00.3 +00.7	274 32.1 +02.6	S 14	49.1 +00.0	290 56.2 +02.5	S 19	15.9 +00.0	16			
17	71 30.0 +01.0	S 01	01.0 +00.6	289 34.7 +02.7	S 14	49.1 +00.1	305 58.7 +02.6	S 19	15.9 +00.0	17			
18	86 31.0 +01.0	S 01	01.6 +00.7	304 37.4 +02.7	S 14	49.2 +00.1	321 01.3 +02.5	S 19	15.9 +00.0	18			
19	101 32.0 +01.0	S 01	02.3 +00.7	319 40.1 +02.6	S 14	49.3 +00.0	336 03.8 +02.6	S 19	15.9 +00.0	19			
20	116 33.0 +01.0	S 01	03.0 +00.6	334 42.7 +02.7	S 14	49.3 +00.1	351 06.4 +02.5	S 19	15.9 +00.1	20			
21	131 34.0 +00.9	S 01	03.6 +00.7	349 45.4 +02.7	S 14	49.4 +00.1	6 08.9 +02.5	S 19	16.0 +00.0	21			
22	146 34.9 +01.0	S 01	04.3 +00.6	4 48.1 +02.6	S 14	49.5 +00.0	21 11.4 +02.6	S 19	16.0 +00.0	22			
23	161 35.9 +01.0	S 01	04.9 +00.7	19 50.7 +02.7	S 14	49.5 +00.1	36 14.0 +02.5	S 19	16.0 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'0 00'0 00'0 00'0 00'0 00'0			SD 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'1 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						
	SHA 176° 176° 176° 176° 176° 176°			SHA 034° 034° 034° 034° 034° 034°			SHA 050° 050° 050° 050° 050° 050°						
	Greenwich Culmination Time: 12:14			Greenwich Culmination Time: 21:40			Greenwich Culmination Time: 20:35						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 48.0 +00.2	N 00	18.8 -01.0	141 17.5 -00.3	S 17	10.1 +01.0	349 21.6 -25.9	N 00	39.5 +13.8	00			00
01	196 48.2 +00.2	N 00	17.8 -00.9	156 17.2 -00.3	S 17	11.1 +01.0	3 55.7 -25.8	N 00	53.3 +13.8	01			01
02	211 48.4 +00.2	N 00	16.9 -01.0	171 16.9 -00.3	S 17	12.1 +01.0	18 29.9 -25.8	N 01	07.1 +13.8	02			02
03	226 48.6 +00.2	N 00	15.9 -01.0	186 16.6 -00.3	S 17	13.1 +01.1	33 04.1 -25.8	N 01	20.9 +13.8	03			03
04	241 48.8 +00.3	N 00	14.9 -01.0	201 16.3 -00.3	S 17	14.2 +01.0	47 38.3 -25.8	N 01	34.7 +13.8	04			04
05	256 49.1 +00.2	N 00	13.9 -00.9	216 16.0 -00.3	S 17	15.2 +01.0	62 12.5 -25.7	N 01	48.5 +13.7	05			05
06	271 49.3 +00.2	N 00	13.0 -01.0	231 15.7 -00.3	S 17	16.2 +01.0	76 46.8 -25.8	N 02	02.2 +13.7	06			06
07	286 49.5 +00.2	N 00	12.0 -01.0	246 15.4 -00.3	S 17	17.2 +01.1	91 21.0 -25.7	N 02	15.9 +13.8	07			07
08	301 49.7 +00.2	N 00	11.0 -00.9	261 15.1 -00.3	S 17	18.3 +01.0	105 55.3 -25.8	N 02	29.7 +13.7	08			08
09	316 49.9 +00.3	N 00	10.1 -01.0	276 14.8 -00.4	S 17	19.3 +01.0	120 29.5 -25.7	N 02	43.4 +13.6	09			09
10	331 50.2 +00.2	N 00	09.1 -01.0	291 14.4 -00.3	S 17	20.3 +01.0	135 03.8 -25.7	N 02	57.0 +13.7	10			10
11	346 50.4 +00.2	N 00	08.1 -01.0	306 14.1 -00.3	S 17	21.3 +01.1	149 38.1 -25.7	N 03	10.7 +13.6	11			11
12	1 50.6 +00.2	N 00	07.1 -00.9	321 13.8 -00.3	S 17	22.4 +01.0	164 12.4 -25.6	N 03	24.3 +13.6	12			12
13	16 50.8 +00.2	N 00	06.2 -01.0	336 13.5 -00.3	S 17	23.4 +01.0	178 46.8 -25.7	N 03	37.9 +13.6	13			13
14	31 51.0 +00.3	N 00	05.2 -01.0	351 13.2 -00.3	S 17	24.4 +01.0	193 21.1 -25.7	N 03	51.5 +13.5	14			14
15	46 51.3 +00.2	N 00	04.2 -00.9	6 12.9 -00.3	S 17	25.4 +01.0	207 55.4 -25.6	N 04	05.0 +13.6	15			15
16	61 51.5 +00.2	N 00	03.3 -01.0	21 12.6 -00.3	S 17	26.4 +01.1	222 29.8 -25.7	N 04	18.6 +13.5	16			16
17	76 51.7 +00.2	N 00	02.3 -01.0	36 12.3 -00.3	S 17	27.5 +01.0	237 04.1 -25.6	N 04	32.1 +13.4	17			17
18	91 51.9 +00.2	N 00	01.3 -01.0	51 12.0 -00.3	S 17	28.5 +01.0	251 38.5 -25.7	N 04	45.5 +13.5	18			18
19	106 52.1 +00.3	N 00	00.3 -00.9	66 11.7 -00.3	S 17	29.5 +01.0	266 12.8 -25.6	N 04	59.0 +13.4	19			19
20	121 52.4 +00.2	S 00	00.6 +01.0	81 11.4 -00.3	S 17	30.5 +01.0	280 47.2 -25.7	N 05	12.4 +13.4	20			20
21	136 52.6 +00.2	S 00	01.6 +01.0	96 11.1 -00.3	S 17	31.5 +01.0	295 21.5 -25.6	N 05	25.8 +13.3	21			21
22	151 52.8 +00.2	S 00	02.6 +01.0	111 10.8 -00.3	S 17	32.5 +01.1	309 55.9 -25.7	N 05	39.1 +13.3	22			22
23	166 53.0 +00.3	S 00	03.6 +00.9	126 10.5 -00.3	S 17	33.6 +01.0	324 30.2 -25.6	N 05	52.4 +13.3	23			23
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'9 15'9 15'9 15'9 15'9 15'9			SD 00'1 00'1 00'1 00'1 00'1 00'1			SD 15'2 15'1 15'1 15'1 15'1 15'0						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 55'6 55'6 55'5 55'4 55'3 55'2						
	SHA 181° 180° 180° 180° 180° 180°			SHA 140° 140° 140° 140° 139° 139°			SHA 347° 345° 344° 342° 340° 338°						
	Greenwich Culmination Time: 11:52			Greenwich Culmination Time: 14:35			Greenwich Culmination Time: 00:43						

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	176 36.9 +01.0	S 01	05.6 +00.7	34 53.4 +02.7	S 14	49.6 +00.1	51 16.5 +02.6	S 19	16.0 +00.0	00			00
01	191 37.9 +01.0	S 01	06.3 +00.6	49 56.1 +02.6	S 14	49.7 +00.0	66 19.1 +02.5	S 19	16.0 +00.1	01			01
02	206 38.9 +00.9	S 01	06.9 +00.7	64 58.7 +02.7	S 14	49.7 +00.1	81 21.6 +02.6	S 19	16.1 +00.0	02			02
03	221 39.8 +01.0	S 01	07.6 +00.6	80 01.4 +02.7	S 14	49.8 +00.1	96 24.2 +02.5	S 19	16.1 +00.0	03			03
04	236 40.8 +01.0	S 01	08.2 +00.7	95 04.1 +02.6	S 14	49.9 +00.0	111 26.7 +02.5	S 19	16.1 +00.0	04			04
05	251 41.8 +01.0	S 01	08.9 +00.7	110 06.7 +02.7	S 14	49.9 +00.1	126 29.2 +02.6	S 19	16.1 +00.0	05			05
06	266 42.8 +01.0	S 01	09.6 +00.6	125 09.4 +02.7	S 14	50.0 +00.1	141 31.8 +02.5	S 19	16.1 +00.1	06			06
07	281 43.8 +00.9	S 01	10.2 +00.7	140 12.1 +02.6	S 14	50.1 +00.0	156 34.3 +02.6	S 19	16.2 +00.0	07			07
08	296 44.7 +01.0	S 01	10.9 +00.6	155 14.7 +02.7	S 14	50.1 +00.1	171 36.9 +02.5	S 19	16.2 +00.0	08			08
09	311 45.7 +01.0	S 01	11.5 +00.7	170 17.4 +02.7	S 14	50.2 +00.1	186 39.4 +02.6	S 19	16.2 +00.0	09			09
10	326 46.7 +01.0	S 01	12.2 +00.7	185 20.1 +02.6	S 14	50.3 +00.0	201 42.0 +02.5	S 19	16.2 +00.0	10			10
11	341 47.7 +01.0	S 01	12.9 +00.6	200 22.7 +02.7	S 14	50.3 +00.1	216 44.5 +02.5	S 19	16.2 +00.1	11			11
12	356 48.7 +00.9	S 01	13.5 +00.7	215 25.4 +02.6	S 14	50.4 +00.1	231 47.0 +02.6	S 19	16.3 +00.0	12			12
13	11 49.6 +01.0	S 01	14.2 +00.6	230 28.0 +02.7	S 14	50.5 +00.0	246 49.6 +02.5	S 19	16.3 +00.0	13			13
14	26 50.6 +01.0	S 01	14.8 +00.7	245 30.7 +02.7	S 14	50.5 +00.1	261 52.1 +02.6	S 19	16.3 +00.0	14			14
15	41 51.6 +01.0	S 01	15.5 +00.7	260 33.4 +02.6	S 14	50.6 +00.0	276 54.7 +02.5	S 19	16.3 +00.0	15			15
16	56 52.6 +01.0	S 01	16.2 +00.6	275 36.0 +02.7	S 14	50.6 +00.1	291 57.2 +02.5	S 19	16.3 +00.1	16			16
17	71 53.6 +00.9	S 01	16.8 +00.7	290 38.7 +02.7	S 14	50.7 +00.1	306 59.7 +02.6	S 19	16.4 +00.0	17			17
18	86 54.5 +01.0	S 01	17.5 +00.6	305 41.4 +02.6	S 14	50.8 +00.0	322 02.3 +02.5	S 19	16.4 +00.0	18			18
19	101 55.5 +01.0	S 01	18.1 +00.7	320 44.0 +02.7	S 14	50.8 +00.1	337 04.8 +02.6	S 19	16.4 +00.0	19			19
20	116 56.5 +01.0	S 01	18.8 +00.7	335 46.7 +02.6	S 14	50.9 +00.1	352 07.4 +02.5	S 19	16.4 +00.0	20			20
21	131 57.5 +00.9	S 01	19.5 +00.6	350 49.3 +02.7	S 14	51.0 +00.0	7 09.9 +02.5	S 19	16.4 +00.1	21			21
22	146 58.4 +01.0	S 01	20.1 +00.7	5 52.0 +02.7	S 14	51.0 +00.1	22 12.4 +02.6	S 19	16.5 +00.0	22			22
23	161 59.4 +01.0	S 01	20.8 +00.6	20 54.7 +02.6	S 14	51.1 +00.1	37 15.0 +02.5	S 19	16.5 +00.0	23			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 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'1 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						
	SHA 175° 175° 175° 175° 175° 175°			SHA 034° 034° 034° 034° 034° 034°			SHA 050° 050° 050° 050° 050° 050°						
	Greenwich Culmination Time: 12:12			Greenwich Culmination Time: 21:36			Greenwich Culmination Time: 20:31						

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 53.3 +00.2	S 00	04.5 +01.0	141 10.2 -00.4	S 17	34.6 +01.0	339 04.6 -25.6	N 06	05.7 +13.3	00			
01	196 53.5 +00.2	S 00	05.5 +01.0	156 09.8 -00.3	S 17	35.6 +01.0	353 39.0 -25.7	N 06	19.0 +13.2	01			
02	211 53.7 +00.2	S 00	06.5 +00.9	171 09.5 -00.3	S 17	36.6 +01.0	8 13.3 -25.6	N 06	32.2 +13.2	02			
03	226 53.9 +00.2	S 00	07.4 +01.0	186 09.2 -00.3	S 17	37.6 +01.0	22 47.7 -25.7	N 06	45.4 +13.1	03			
04	241 54.1 +00.3	S 00	08.4 +01.0	201 08.9 -00.3	S 17	38.6 +01.0	37 22.0 -25.6	N 06	58.5 +13.1	04			
05	256 54.4 +00.2	S 00	09.4 +01.0	216 08.6 -00.3	S 17	39.6 +01.0	51 56.4 -25.7	N 07	11.6 +13.1	05			
06	271 54.6 +00.2	S 00	10.4 +00.9	231 08.3 -00.3	S 17	40.6 +01.1	66 30.7 -25.7	N 07	24.7 +13.0	06			
07	286 54.8 +00.2	S 00	11.3 +01.0	246 08.0 -00.3	S 17	41.7 +01.0	81 05.0 -25.7	N 07	37.7 +13.0	07			
08	301 55.0 +00.2	S 00	12.3 +01.0	261 07.7 -00.3	S 17	42.7 +01.0	95 39.3 -25.7	N 07	50.7 +12.9	08			
09	316 55.2 +00.3	S 00	13.3 +01.0	276 07.4 -00.4	S 17	43.7 +01.0	110 13.6 -25.7	N 08	03.6 +13.0	09			
10	331 55.5 +00.2	S 00	14.3 +00.9	291 07.0 -00.3	S 17	44.7 +01.0	124 47.9 -25.7	N 08	16.6 +12.8	10			
11	346 55.7 +00.2	S 00	15.2 +01.0	306 06.7 -00.3	S 17	45.7 +01.0	139 22.2 -25.7	N 08	29.4 +12.8	11			
12	1 55.9 +00.2	S 00	16.2 +01.0	321 06.4 -00.3	S 17	46.7 +01.0	153 56.5 -25.7	N 08	42.2 +12.8	12			
13	16 56.1 +00.2	S 00	17.2 +00.9	336 06.1 -00.3	S 17	47.7 +01.0	168 30.8 -25.8	N 08	55.0 +12.8	13			
14	31 56.3 +00.2	S 00	18.1 +01.0	351 05.8 -00.3	S 17	48.7 +01.0	183 05.0 -25.7	N 09	07.8 +12.6	14			
15	46 56.5 +00.3	S 00	19.1 +01.0	6 05.5 -00.3	S 17	49.7 +01.0	197 39.3 -25.8	N 09	20.4 +12.7	15			
16	61 56.8 +00.2	S 00	20.1 +01.0	21 05.2 -00.3	S 17	50.7 +01.0	212 13.5 -25.8	N 09	33.1 +12.6	16			
17	76 57.0 +00.2	S 00	21.1 +00.9	36 04.9 -00.4	S 17	51.7 +01.0	226 47.7 -25.8	N 09	45.7 +12.5	17			
18	91 57.2 +00.2	S 00	22.0 +01.0	51 04.5 -00.3	S 17	52.7 +01.0	241 21.9 -25.8	N 09	58.2 +12.5	18			
19	106 57.4 +00.2	S 00	23.0 +01.0	66 04.2 -00.3	S 17	53.7 +01.0	255 56.1 -25.8	N 10	10.7 +12.5	19			
20	121 57.6 +00.3	S 00	24.0 +01.0	81 03.9 -00.3	S 17	54.7 +01.0	270 30.3 -25.9	N 10	23.2 +12.4	20			
21	136 57.9 +00.2	S 00	25.0 +00.9	96 03.6 -00.3	S 17	55.7 +01.0	285 04.4 -25.9	N 10	35.6 +12.4	21			
22	151 58.1 +00.2	S 00	25.9 +01.0	111 03.3 -00.3	S 17	56.7 +01.0	299 38.5 -25.8	N 10	48.0 +12.3	22			
23	166 58.3 +00.2	S 00	26.9 +01.0	126 03.0 -00.3	S 17	57.7 +01.0	314 12.7 -26.0	N 11	00.3 +12.2	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'9 15'9 15'9 15'9 15'9 15'9			SD 00'1 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 00'2 00'2 00'2 00'2 00'2 00'2			HP 55'2 55'1 55'0 54'9 54'9 54'8						
	SHA 180° 180° 179° 179° 179° 179°			SHA 139° 139° 139° 138° 138° 138°			SHA 336° 334° 332° 330° 329° 327°						
	Greenwich Culmination Time: 11:52			Greenwich Culmination Time: 14:35			Greenwich Culmination Time: 01:26						

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	177 00.4 +01.0	S 01	21.4 +00.7	35 57.3 +02.7	S 14	51.2 +00.0	52 17.5 +02.6	S 19	16.5 +00.0	00			
01	192 01.4 +01.0	S 01	22.1 +00.7	50 60.0 +02.6	S 14	51.2 +00.1	67 20.1 +02.5	S 19	16.5 +00.0	01			
02	207 02.4 +00.9	S 01	22.8 +00.6	66 02.6 +02.7	S 14	51.3 +00.0	82 22.6 +02.5	S 19	16.5 +00.0	02			
03	222 03.3 +01.0	S 01	23.4 +00.7	81 05.3 +02.7	S 14	51.3 +00.1	97 25.1 +02.6	S 19	16.5 +00.1	03			
04	237 04.3 +01.0	S 01	24.1 +00.6	96 08.0 +02.6	S 14	51.4 +00.1	112 27.7 +02.5	S 19	16.6 +00.0	04			
05	252 05.3 +01.0	S 01	24.7 +00.7	111 10.6 +02.7	S 14	51.5 +00.0	127 30.2 +02.6	S 19	16.6 +00.0	05			
06	267 06.3 +01.0	S 01	25.4 +00.7	126 13.3 +02.6	S 14	51.5 +00.1	142 32.8 +02.5	S 19	16.6 +00.0	06			
07	282 07.3 +00.9	S 01	26.1 +00.6	141 15.9 +02.7	S 14	51.6 +00.1	157 35.3 +02.5	S 19	16.6 +00.0	07			
08	297 08.2 +01.0	S 01	26.7 +00.7	156 18.6 +02.7	S 14	51.7 +00.0	172 37.8 +02.6	S 19	16.6 +00.1	08			
09	312 09.2 +01.0	S 01	27.4 +00.6	171 21.3 +02.6	S 14	51.7 +00.1	187 40.4 +02.5	S 19	16.7 +00.0	09			
10	327 10.2 +01.0	S 01	28.0 +00.7	186 23.9 +02.7	S 14	51.8 +00.0	202 42.9 +02.5	S 19	16.7 +00.0	10			
11	342 11.2 +00.9	S 01	28.7 +00.7	201 26.6 +02.6	S 14	51.8 +00.1	217 45.4 +02.6	S 19	16.7 +00.0	11			
12	357 12.1 +01.0	S 01	29.4 +00.6	216 29.2 +02.7	S 14	51.9 +00.1	232 48.0 +02.5	S 19	16.7 +00.0	12			
13	12 13.1 +01.0	S 01	30.0 +00.7	231 31.9 +02.6	S 14	52.0 +00.0	247 50.5 +02.6	S 19	16.7 +00.1	13			
14	27 14.1 +01.0	S 01	30.7 +00.6	246 34.5 +02.7	S 14	52.0 +00.1	262 53.1 +02.5	S 19	16.8 +00.0	14			
15	42 15.1 +01.0	S 01	31.3 +00.7	261 37.2 +02.6	S 14	52.1 +00.1	277 55.6 +02.5	S 19	16.8 +00.0	15			
16	57 16.1 +00.9	S 01	32.0 +00.7	276 39.8 +02.7	S 14	52.2 +00.0	292 58.1 +02.6	S 19	16.8 +00.0	16			
17	72 17.0 +01.0	S 01	32.7 +00.6	291 42.5 +02.7	S 14	52.2 +00.1	308 00.7 +02.5	S 19	16.8 +00.0	17			
18	87 18.0 +01.0	S 01	33.3 +00.7	306 45.2 +02.6	S 14	52.3 +00.0	323 03.2 +02.5	S 19	16.8 +00.0	18			
19	102 19.0 +01.0	S 01	34.0 +00.6	321 47.8 +02.7	S 14	52.3 +00.1	338 05.7 +02.6	S 19	16.8 +00.1	19			
20	117 20.0 +00.9	S 01	34.6 +00.7	336 50.5 +02.6	S 14	52.4 +00.1	353 08.3 +02.5	S 19	16.9 +00.0	20			
21	132 20.9 +01.0	S 01	35.3 +00.7	351 53.1 +02.7	S 14	52.5 +00.0	8 10.8 +02.5	S 19	16.9 +00.0	21			
22	147 21.9 +01.0	S 01	36.0 +00.6	6 55.8 +02.6	S 14	52.5 +00.1	23 13.3 +02.6	S 19	16.9 +00.0	22			
23	162 22.9 +01.0	S 01	36.6 +00.7	21 58.4 +02.7	S 14	52.6 +00.0	38 15.9 +02.5	S 19	16.9 +00.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'0 00'0 00'0 00'0 00'0 00'0			SD 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'1 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						
	SHA 175° 175° 175° 175° 174° 174°			SHA 034° 034° 034° 034° 034° 034°			SHA 050° 050° 050° 050° 050° 050°						
	Greenwich Culmination Time: 12:11			Greenwich Culmination Time: 21:32			Greenwich Culmination Time: 20:27						

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	181 58.5 +00.2	S	00 27.9 +01.0	141 02.7 -00.4	S	17 58.7 +01.0	328 46.7 -25.9	N	11 12.5 +12.2	00			
01	196 58.7 +00.3	S	00 28.9 +00.9	156 02.3 -00.3	S	17 59.7 +01.0	343 20.8 -26.0	N	11 24.7 +12.2	01			
02	211 59.0 +00.2	S	00 29.8 +01.0	171 02.0 -00.3	S	18 00.7 +01.0	357 54.8 -25.9	N	11 36.9 +12.1	02			
03	226 59.2 +00.2	S	00 30.8 +01.0	186 01.7 -00.3	S	18 01.7 +01.0	12 28.9 -26.0	N	11 49.0 +12.0	03			
04	241 59.4 +00.2	S	00 31.8 +00.9	201 01.4 -00.3	S	18 02.7 +01.0	27 02.9 -26.1	N	12 01.0 +12.0	04			
05	256 59.6 +00.2	S	00 32.7 +01.0	216 01.1 -00.3	S	18 03.7 +01.0	41 36.8 -26.0	N	12 13.0 +11.9	05			
06	271 59.8 +00.2	S	00 33.7 +01.0	231 00.8 -00.4	S	18 04.7 +01.0	56 10.8 -26.1	N	12 24.9 +11.9	06			
07	287 00.0 +00.3	S	00 34.7 +01.0	246 00.4 -00.3	S	18 05.7 +01.0	70 44.7 -26.1	N	12 36.8 +11.8	07			
08	302 00.3 +00.2	S	00 35.7 +00.9	261 00.1 -00.3	S	18 06.7 +01.0	85 18.6 -26.1	N	12 48.6 +11.7	08			
09	317 00.5 +00.2	S	00 36.6 +01.0	275 59.8 -00.3	S	18 07.7 +01.0	99 52.5 -26.2	N	13 00.3 +11.7	09			
10	332 00.7 +00.2	S	00 37.6 +01.0	290 59.5 -00.3	S	18 08.7 +01.0	114 26.3 -26.2	N	13 12.0 +11.7	10			
11	347 00.9 +00.2	S	00 38.6 +01.0	305 59.2 -00.4	S	18 09.7 +00.9	129 00.1 -26.2	N	13 23.7 +11.5	11			
12	2 01.1 +00.3	S	00 39.6 +00.9	320 58.8 -00.3	S	18 10.6 +01.0	143 33.9 -26.2	N	13 35.2 +11.6	12			
13	17 01.4 +00.2	S	00 40.5 +01.0	335 58.5 -00.3	S	18 11.6 +01.0	158 07.7 -26.3	N	13 46.8 +11.4	13			
14	32 01.6 +00.2	S	00 41.5 +01.0	350 58.2 -00.3	S	18 12.6 +01.0	172 41.4 -26.3	N	13 58.2 +11.4	14			
15	47 01.8 +00.2	S	00 42.5 +00.9	5 57.9 -00.3	S	18 13.6 +01.0	187 15.1 -26.3	N	14 09.6 +11.3	15			
16	62 02.0 +00.2	S	00 43.4 +01.0	20 57.6 -00.4	S	18 14.6 +01.0	201 48.8 -26.4	N	14 20.9 +11.3	16			
17	77 02.2 +00.2	S	00 44.4 +01.0	35 57.2 -00.3	S	18 15.6 +01.0	216 22.4 -26.4	N	14 32.2 +11.2	17			
18	92 02.4 +00.3	S	00 45.4 +01.0	50 56.9 -00.3	S	18 16.6 +01.0	230 56.0 -26.4	N	14 43.4 +11.1	18			
19	107 02.7 +00.2	S	00 46.4 +00.9	65 56.6 -00.3	S	18 17.6 +00.9	245 29.6 -26.5	N	14 54.5 +11.1	19			
20	122 02.9 +00.2	S	00 47.3 +01.0	80 56.3 -00.3	S	18 18.5 +01.0	260 03.1 -26.5	N	15 05.6 +11.0	20			
21	137 03.1 +00.2	S	00 48.3 +01.0	95 56.0 -00.4	S	18 19.5 +01.0	274 36.6 -26.5	N	15 16.6 +10.9	21			
22	152 03.3 +00.2	S	00 49.3 +01.0	110 55.6 -00.3	S	18 20.5 +01.0	289 10.1 -26.6	N	15 27.5 +10.9	22			
23	167 03.5 +00.2	S	00 50.3 +00.9	125 55.3 -00.3	S	18 21.5 +01.0	303 43.5 -26.6	N	15 38.4 +10.8	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 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 14°8						
	HP 00°1 00°1 00°1 00°1 00°1 00°1			HP 00°2 00°2 00°2 00°2 00°2 00°2			HP 54°7 54°7 54°6 54°6 54°5 54°5						
	SHA 179° 179° 179° 178° 178° 178°			SHA 138° 138° 138° 137° 137° 137°			SHA 325° 323° 321° 319° 317° 315°						
	Greenwich Culmination Time: 11:51			Greenwich Culmination Time: 14:36			Greenwich Culmination Time: 02:08						

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	177 23.9 +01.0	S	01 37.3 +00.6	37 01.1 +02.6	S	14 52.6 +00.1	53 18.4 +02.5	S	19 16.9 +00.1	00			
01	192 24.9 +00.9	S	01 37.9 +00.7	52 03.7 +02.7	S	14 52.7 +00.1	68 20.9 +02.6	S	19 17.0 +00.0	01			
02	207 25.8 +01.0	S	01 38.6 +00.7	67 06.4 +02.6	S	14 52.8 +00.0	83 23.5 +02.5	S	19 17.0 +00.0	02			
03	222 26.8 +01.0	S	01 39.3 +00.6	82 09.0 +02.7	S	14 52.8 +00.1	98 26.0 +02.6	S	19 17.0 +00.0	03			
04	237 27.8 +01.0	S	01 39.9 +00.7	97 11.7 +02.6	S	14 52.9 +00.0	113 28.6 +02.5	S	19 17.0 +00.0	04			
05	252 28.8 +00.9	S	01 40.6 +00.6	112 14.3 +02.7	S	14 52.9 +00.1	128 31.1 +02.5	S	19 17.0 +00.0	05			
06	267 29.7 +01.0	S	01 41.2 +00.7	127 17.0 +02.7	S	14 53.0 +00.1	143 33.6 +02.6	S	19 17.0 +00.1	06			
07	282 30.7 +01.0	S	01 41.9 +00.7	142 19.7 +02.6	S	14 53.1 +00.0	158 36.2 +02.5	S	19 17.1 +00.0	07			
08	297 31.7 +01.0	S	01 42.6 +00.6	157 22.3 +02.7	S	14 53.1 +00.1	173 38.7 +02.5	S	19 17.1 +00.0	08			
09	312 32.7 +01.0	S	01 43.2 +00.7	172 25.0 +02.6	S	14 53.2 +00.0	188 41.2 +02.6	S	19 17.1 +00.0	09			
10	327 33.7 +00.9	S	01 43.9 +00.6	187 27.6 +02.7	S	14 53.2 +00.1	203 43.8 +02.5	S	19 17.1 +00.0	10			
11	342 34.6 +01.0	S	01 44.5 +00.7	202 30.3 +02.6	S	14 53.3 +00.1	218 46.3 +02.5	S	19 17.1 +00.1	11			
12	357 35.6 +01.0	S	01 45.2 +00.7	217 32.9 +02.7	S	14 53.4 +00.0	233 48.8 +02.6	S	19 17.2 +00.0	12			
13	12 36.6 +01.0	S	01 45.9 +00.6	232 35.6 +02.6	S	14 53.4 +00.1	248 51.4 +02.5	S	19 17.2 +00.0	13			
14	27 37.6 +00.9	S	01 46.5 +00.7	247 38.2 +02.7	S	14 53.5 +00.0	263 53.9 +02.5	S	19 17.2 +00.0	14			
15	42 38.5 +01.0	S	01 47.2 +00.6	262 40.9 +02.6	S	14 53.5 +00.1	278 56.4 +02.6	S	19 17.2 +00.0	15			
16	57 39.5 +01.0	S	01 47.8 +00.7	277 43.5 +02.7	S	14 53.6 +00.1	293 59.0 +02.5	S	19 17.2 +00.0	16			
17	72 40.5 +01.0	S	01 48.5 +00.7	292 46.2 +02.6	S	14 53.7 +00.0	309 01.5 +02.5	S	19 17.2 +00.1	17			
18	87 41.5 +00.9	S	01 49.2 +00.6	307 48.8 +02.6	S	14 53.7 +00.1	324 04.0 +02.6	S	19 17.3 +00.0	18			
19	102 42.4 +01.0	S	01 49.8 +00.7	322 51.4 +02.7	S	14 53.8 +00.0	339 06.6 +02.5	S	19 17.3 +00.0	19			
20	117 43.4 +01.0	S	01 50.5 +00.6	337 54.1 +02.6	S	14 53.8 +00.1	354 09.1 +02.5	S	19 17.3 +00.0	20			
21	132 44.4 +01.0	S	01 51.1 +00.7	352 56.7 +02.7	S	14 53.9 +00.1	9 11.6 +02.6	S	19 17.3 +00.0	21			
22	147 45.4 +00.9	S	01 51.8 +00.7	7 59.4 +02.6	S	14 54.0 +00.0	24 14.2 +02.5	S	19 17.3 +00.0	22			
23	162 46.3 +01.0	S	01 52.5 +00.6	23 02.0 +02.7	S	14 54.0 +00.1	39 16.7 +02.5	S	19 17.3 +00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00°0 00°0 00°0 00°0 00°0 00°0			SD 00°4 00°4 00°4 00°4 00°4 00°4			SD 00°1 00°1 00°1 00°1 00°1 00°1						
	HP 00°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						
	SHA 174° 174° 174° 174° 174° 174°			SHA 034° 034° 034° 034° 034° 034°			SHA 050° 050° 050° 050° 050° 050°						
	Greenwich Culmination Time: 12:09			Greenwich Culmination Time: 21:28			Greenwich Culmination Time: 20:23						

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 03.7 +00.3	S 00	51.2 +01.0	140 55.0 -00.3	S 18	22.5 +01.0	318 16.9 -26.7	N 15	49.2 +10.7	00			
01	197 04.0 +00.2	S 00	52.2 +01.0	155 54.7 -00.4	S 18	23.5 +00.9	332 50.2 -26.6	N 15	59.9 +10.6	01			
02	212 04.2 +00.2	S 00	53.2 +01.0	170 54.3 -00.3	S 18	24.4 +01.0	347 23.6 -26.8	N 16	10.5 +10.6	02			
03	227 04.4 +00.2	S 00	54.2 +00.9	185 54.0 -00.3	S 18	25.4 +01.0	1 56.8 -26.7	N 16	21.1 +10.5	03			
04	242 04.6 +00.2	S 00	55.1 +01.0	200 53.7 -00.3	S 18	26.4 +01.0	16 30.1 -26.8	N 16	31.6 +10.5	04			
05	257 04.8 +00.2	S 00	56.1 +01.0	215 53.4 -00.3	S 18	27.4 +00.9	31 03.3 -26.9	N 16	42.1 +10.3	05			
06	272 05.0 +00.3	S 00	57.1 +00.9	230 53.1 -00.4	S 18	28.3 +01.0	45 36.4 -26.8	N 16	52.4 +10.3	06			
07	287 05.3 +00.2	S 00	58.0 +01.0	245 52.7 -00.3	S 18	29.3 +01.0	60 09.6 -27.0	N 17	02.7 +10.2	07			
08	302 05.5 +00.2	S 00	59.0 +01.0	260 52.4 -00.3	S 18	30.3 +01.0	74 42.6 -26.9	N 17	12.9 +10.2	08			
09	317 05.7 +00.2	S 00	60.0 +01.0	275 52.1 -00.3	S 18	31.3 +01.0	89 15.7 -27.0	N 17	23.1 +10.0	09			
10	332 05.9 +00.2	S 01	01.0 +00.9	290 51.8 -00.4	S 18	32.3 +00.9	103 48.7 -27.1	N 17	33.1 +10.0	10			
11	347 06.1 +00.2	S 01	01.9 +01.0	305 51.4 -00.3	S 18	33.2 +01.0	118 21.6 -27.0	N 17	43.1 +09.9	11			
12	2 06.3 +00.3	S 01	02.9 +01.0	320 51.1 -00.3	S 18	34.2 +01.0	132 54.6 -27.2	N 17	53.0 +09.9	12			
13	17 06.6 +00.2	S 01	03.9 +01.0	335 50.8 -00.4	S 18	35.2 +00.9	147 27.4 -27.1	N 18	02.9 +09.7	13			
14	32 06.8 +00.2	S 01	04.9 +00.9	350 50.4 -00.3	S 18	36.1 +01.0	162 00.3 -27.3	N 18	12.6 +09.7	14			
15	47 07.0 +00.2	S 01	05.8 +01.0	5 50.1 -00.3	S 18	37.1 +01.0	176 33.0 -27.2	N 18	22.3 +09.6	15			
16	62 07.2 +00.2	S 01	06.8 +01.0	20 49.8 -00.3	S 18	38.1 +01.0	191 05.8 -27.3	N 18	31.9 +09.5	16			
17	77 07.4 +00.2	S 01	07.8 +01.0	35 49.5 -00.4	S 18	39.1 +00.9	205 38.5 -27.4	N 18	41.4 +09.4	17			
18	92 07.6 +00.3	S 01	08.8 +00.9	50 49.1 -00.3	S 18	40.0 +01.0	220 11.1 -27.3	N 18	50.8 +09.4	18			
19	107 07.9 +00.2	S 01	09.7 +01.0	65 48.8 -00.3	S 18	41.0 +01.0	234 43.8 -27.5	N 19	00.2 +09.3	19			
20	122 08.1 +00.2	S 01	10.7 +01.0	80 48.5 -00.3	S 18	42.0 +00.9	249 16.3 -27.5	N 19	09.5 +09.1	20			
21	137 08.3 +00.2	S 01	11.7 +00.9	95 48.2 -00.4	S 18	42.9 +01.0	263 48.8 -27.5	N 19	18.6 +09.1	21			
22	152 08.5 +00.2	S 01	12.6 +01.0	110 47.8 -00.3	S 18	43.9 +01.0	278 21.3 -27.6	N 19	27.7 +09.0	22			
23	167 08.7 +00.2	S 01	13.6 +01.0	125 47.5 -00.3	S 18	44.9 +00.9	292 53.7 -27.6	N 19	36.7 +09.0	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 15'9 15'9 15'9 15'9 16'0 16'0			SD 00'1 00'1 00'1 00'1 00'2 00'2			SD 14'8 14'8 14'8 14'8 14'8 14'8						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 54'4 54'4 54'3 54'3 54'3 54'2						
	SHA 178° 178° 178° 178° 177° 177°			SHA 137° 137° 136° 136° 136° 136°			SHA 313° 311° 309° 307° 305° 303°						
	Greenwich Culmination Time: 11:51			Greenwich Culmination Time: 14:36			Greenwich Culmination Time: 02:51						

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	177 47.3 +01.0	S 01	53.1 +00.7	38 04.7 +02.6	S 14	54.1 +00.0	54 19.2 +02.5	S 19	17.4 +00.0	00			
01	192 48.3 +01.0	S 01	53.8 +00.6	53 07.3 +02.7	S 14	54.1 +00.1	69 21.7 +02.6	S 19	17.4 +00.0	01			
02	207 49.3 +00.9	S 01	54.4 +00.7	68 10.0 +02.6	S 14	54.2 +00.0	84 24.3 +02.5	S 19	17.4 +00.0	02			
03	222 50.2 +01.0	S 01	55.1 +00.6	83 12.6 +02.7	S 14	54.2 +00.1	99 26.8 +02.5	S 19	17.4 +00.0	03			
04	237 51.2 +01.0	S 01	55.7 +00.7	98 15.3 +02.6	S 14	54.3 +00.1	114 29.3 +02.6	S 19	17.4 +00.0	04			
05	252 52.2 +01.0	S 01	56.4 +00.7	113 17.9 +02.7	S 14	54.4 +00.0	129 31.9 +02.5	S 19	17.4 +00.1	05			
06	267 53.2 +00.9	S 01	57.1 +00.6	128 20.6 +02.6	S 14	54.4 +00.1	144 34.4 +02.5	S 19	17.5 +00.0	06			
07	282 54.1 +01.0	S 01	57.7 +00.7	143 23.2 +02.6	S 14	54.5 +00.0	159 36.9 +02.6	S 19	17.5 +00.0	07			
08	297 55.1 +01.0	S 01	58.4 +00.6	158 25.8 +02.7	S 14	54.5 +00.1	174 39.5 +02.5	S 19	17.5 +00.0	08			
09	312 56.1 +01.0	S 01	59.0 +00.7	173 28.5 +02.6	S 14	54.6 +00.1	189 42.0 +02.5	S 19	17.5 +00.0	09			
10	327 57.1 +00.9	S 01	59.7 +00.7	188 31.1 +02.7	S 14	54.7 +00.0	204 44.5 +02.6	S 19	17.5 +00.0	10			
11	342 58.0 +01.0	S 02	00.4 +00.6	203 33.8 +02.6	S 14	54.7 +00.1	219 47.1 +02.5	S 19	17.5 +00.1	11			
12	357 59.0 +01.0	S 02	01.0 +00.7	218 36.4 +02.7	S 14	54.8 +00.0	234 49.6 +02.5	S 19	17.6 +00.0	12			
13	12 60.0 +01.0	S 02	01.7 +00.6	233 39.1 +02.6	S 14	54.8 +00.1	249 52.1 +02.5	S 19	17.6 +00.0	13			
14	28 01.0 +00.9	S 02	02.3 +00.7	248 41.7 +02.7	S 14	54.9 +00.0	264 54.6 +02.6	S 19	17.6 +00.0	14			
15	43 01.9 +01.0	S 02	03.0 +00.7	263 44.4 +02.6	S 14	54.9 +00.1	279 57.2 +02.5	S 19	17.6 +00.0	15			
16	58 02.9 +01.0	S 02	03.7 +00.6	278 47.0 +02.6	S 14	55.0 +00.0	294 59.7 +02.5	S 19	17.6 +00.0	16			
17	73 03.9 +01.0	S 02	04.3 +00.7	293 49.6 +02.7	S 14	55.0 +00.1	310 02.2 +02.6	S 19	17.6 +00.1	17			
18	88 04.9 +00.9	S 02	05.0 +00.6	308 52.3 +02.6	S 14	55.1 +00.1	325 04.8 +02.5	S 19	17.7 +00.0	18			
19	103 05.8 +01.0	S 02	05.6 +00.7	323 54.9 +02.7	S 14	55.2 +00.0	340 07.3 +02.5	S 19	17.7 +00.0	19			
20	118 06.8 +01.0	S 02	06.3 +00.7	338 57.6 +02.6	S 14	55.2 +00.1	355 09.8 +02.5	S 19	17.7 +00.0	20			
21	133 07.8 +01.0	S 02	07.0 +00.6	354 00.2 +02.6	S 14	55.3 +00.0	10 12.3 +02.6	S 19	17.7 +00.0	21			
22	148 08.8 +00.9	S 02	07.6 +00.7	9 02.8 +02.7	S 14	55.3 +00.1	25 14.9 +02.5	S 19	17.7 +00.0	22			
23	163 09.7 +01.0	S 02	08.3 +00.6	24 05.5 +02.6	S 14	55.4 +00.0	40 17.4 +02.5	S 19	17.7 +00.1	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 00'0 00'0 00'0 00'0 00'0 00'0			SD 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'1 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						
	SHA 174° 174° 174° 173° 173° 173°			SHA 034° 034° 034° 034° 034° 034°			SHA 050° 050° 050° 050° 050° 050°						
	Greenwich Culmination Time: 12:08			Greenwich Culmination Time: 21:23			Greenwich Culmination Time: 20:19						

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 08.9 +00.2	S 01 14.6 +01.0	140 47.2 -00.4	S 18 45.8 +01.0	307 26.1 -27.7	N 19 45.7 +08.8	00						
01	197 09.1 +00.3	S 01 15.6 +00.9	155 46.8 -00.3	S 18 46.8 +00.9	321 58.4 -27.7	N 19 54.5 +08.8	01						
02	212 09.4 +00.2	S 01 16.5 +01.0	170 46.5 -00.3	S 18 47.7 +01.0	336 30.7 -27.7	N 20 03.3 +08.6	02						
03	227 09.6 +00.2	S 01 17.5 +01.0	185 46.2 -00.4	S 18 48.7 +01.0	351 03.0 -27.9	N 20 11.9 +08.6	03						
04	242 09.8 +00.2	S 01 18.5 +01.0	200 45.8 -00.3	S 18 49.7 +00.9	5 35.1 -27.8	N 20 20.5 +08.5	04						
05	257 10.0 +00.2	S 01 19.5 +00.9	215 45.5 -00.3	S 18 50.6 +01.0	20 07.3 -27.9	N 20 29.0 +08.4	05						
06	272 10.2 +00.2	S 01 20.4 +01.0	230 45.2 -00.3	S 18 51.6 +01.0	34 39.4 -28.0	N 20 37.4 +08.3	06						
07	287 10.4 +00.3	S 01 21.4 +01.0	245 44.9 -00.4	S 18 52.6 +00.9	49 11.4 -28.0	N 20 45.7 +08.2	07						
08	302 10.7 +00.2	S 01 22.4 +01.0	260 44.5 -00.3	S 18 53.5 +01.0	63 43.4 -28.0	N 20 53.9 +08.2	08						
09	317 10.9 +00.2	S 01 23.4 +00.9	275 44.2 -00.3	S 18 54.5 +00.9	78 15.4 -28.1	N 21 02.1 +08.0	09						
10	332 11.1 +00.2	S 01 24.3 +01.0	290 43.9 -00.4	S 18 55.4 +01.0	92 47.3 -28.2	N 21 10.1 +07.9	10						
11	347 11.3 +00.2	S 01 25.3 +01.0	305 43.5 -00.3	S 18 56.4 +00.9	107 19.1 -28.2	N 21 18.0 +07.9	11						
12	2 11.5 +00.2	S 01 26.3 +00.9	320 43.2 -00.3	S 18 57.3 +01.0	121 50.9 -28.2	N 21 25.9 +07.7	12						
13	17 11.7 +00.2	S 01 27.2 +01.0	335 42.9 -00.4	S 18 58.3 +01.0	136 22.7 -28.3	N 21 33.6 +07.7	13						
14	32 11.9 +00.3	S 01 28.2 +01.0	350 42.5 -00.3	S 18 59.3 +00.9	150 54.4 -28.4	N 21 41.3 +07.5	14						
15	47 12.2 +00.2	S 01 29.2 +01.0	5 42.2 -00.3	S 19 00.2 +01.0	165 26.0 -28.4	N 21 48.8 +07.5	15						
16	62 12.4 +00.2	S 01 30.2 +00.9	20 41.9 -00.4	S 19 01.2 +00.9	179 57.6 -28.4	N 21 56.3 +07.4	16						
17	77 12.6 +00.2	S 01 31.1 +01.0	35 41.5 -00.3	S 19 02.1 +01.0	194 29.2 -28.5	N 22 03.7 +07.3	17						
18	92 12.8 +00.2	S 01 32.1 +01.0	50 41.2 -00.3	S 19 03.1 +00.9	209 00.7 -28.6	N 22 11.0 +07.1	18						
19	107 13.0 +00.2	S 01 33.1 +01.0	65 40.9 -00.4	S 19 04.0 +01.0	223 32.1 -28.6	N 22 18.1 +07.1	19						
20	122 13.2 +00.2	S 01 34.1 +00.9	80 40.5 -00.3	S 19 05.0 +00.9	238 03.5 -28.6	N 22 25.2 +07.0	20						
21	137 13.4 +00.2	S 01 35.0 +01.0	95 40.2 -00.3	S 19 05.9 +01.0	252 34.9 -28.7	N 22 32.2 +06.9	21						
22	152 13.6 +00.3	S 01 36.0 +01.0	110 39.9 -00.4	S 19 06.9 +00.9	267 06.2 -28.8	N 22 39.1 +06.7	22						
23	167 13.9 +00.2	S 01 37.0 +00.9	125 39.5 -00.3	S 19 07.8 +01.0	281 37.4 -28.8	N 22 45.8 +06.7	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 16'0 16'0 16'0 16'0 16'0 16'0		SD 00'2 00'2 00'2 00'2 00'2 00'2		SD 14'8 14'8 14'8 14'8 14'8 14'8								
	HP 00'1 00'1 00'1 00'1 00'1 00'1		HP 00'2 00'2 00'2 00'2 00'2 00'2		HP 54'2 54'2 54'2 54'2 54'2 54'2								
	SHA 177° 177° 177° 177° 176° 176°		SHA 136° 135° 135° 135° 135° 135°		SHA 301° 299° 297° 295° 293° 291°								
	Greenwich Culmination Time: 11:51		Greenwich Culmination Time: 14:37		Greenwich Culmination Time: 03:36								

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 10.7 +01.0	S 02 08.9 +00.7	39 08.1 +02.7	S 14 55.4 +00.1	55 19.9 +02.6	S 19 17.8 +00.0	00						
01	193 11.7 +01.0	S 02 09.6 +00.7	54 10.8 +02.6	S 14 55.5 +00.1	70 22.5 +02.5	S 19 17.8 +00.0	01						
02	208 12.7 +00.9	S 02 10.3 +00.6	69 13.4 +02.6	S 14 55.6 +00.0	85 25.0 +02.5	S 19 17.8 +00.0	02						
03	223 13.6 +01.0	S 02 10.9 +00.7	84 16.0 +02.7	S 14 55.6 +00.1	100 27.5 +02.5	S 19 17.8 +00.0	03						
04	238 14.6 +01.0	S 02 11.6 +00.6	99 18.7 +02.6	S 14 55.7 +00.0	115 30.0 +02.6	S 19 17.8 +00.0	04						
05	253 15.6 +01.0	S 02 12.2 +00.7	114 21.3 +02.7	S 14 55.7 +00.1	130 32.6 +02.5	S 19 17.8 +00.1	05						
06	268 16.6 +00.9	S 02 12.9 +00.7	129 24.0 +02.6	S 14 55.8 +00.0	145 35.1 +02.5	S 19 17.9 +00.0	06						
07	283 17.5 +01.0	S 02 13.6 +00.6	144 26.6 +02.6	S 14 55.8 +00.1	160 37.6 +02.5	S 19 17.9 +00.0	07						
08	298 18.5 +01.0	S 02 14.2 +00.7	159 29.2 +02.7	S 14 55.9 +00.0	175 40.1 +02.6	S 19 17.9 +00.0	08						
09	313 19.5 +00.9	S 02 14.9 +00.6	174 31.9 +02.6	S 14 55.9 +00.1	190 42.7 +02.5	S 19 17.9 +00.0	09						
10	328 20.4 +01.0	S 02 15.5 +00.7	189 34.5 +02.6	S 14 56.0 +00.0	205 45.2 +02.5	S 19 17.9 +00.0	10						
11	343 21.4 +01.0	S 02 16.2 +00.7	204 37.1 +02.7	S 14 56.0 +00.1	220 47.7 +02.5	S 19 17.9 +00.0	11						
12	358 22.4 +01.0	S 02 16.9 +00.6	219 39.8 +02.6	S 14 56.1 +00.1	235 50.2 +02.6	S 19 17.9 +00.1	12						
13	13 23.4 +00.9	S 02 17.5 +00.7	234 42.4 +02.6	S 14 56.2 +00.0	250 52.8 +02.5	S 19 18.0 +00.0	13						
14	28 24.3 +01.0	S 02 18.2 +00.6	249 45.0 +02.7	S 14 56.2 +00.1	265 55.3 +02.5	S 19 18.0 +00.0	14						
15	43 25.3 +01.0	S 02 18.8 +00.7	264 47.7 +02.6	S 14 56.3 +00.0	280 57.8 +02.5	S 19 18.0 +00.0	15						
16	58 26.3 +01.0	S 02 19.5 +00.7	279 50.3 +02.7	S 14 56.3 +00.1	296 00.3 +02.6	S 19 18.0 +00.0	16						
17	73 27.3 +00.9	S 02 20.2 +00.6	294 53.0 +02.6	S 14 56.4 +00.0	311 02.9 +02.5	S 19 18.0 +00.0	17						
18	88 28.2 +01.0	S 02 20.8 +00.7	309 55.6 +02.6	S 14 56.4 +00.1	326 05.4 +02.5	S 19 18.0 +00.1	18						
19	103 29.2 +01.0	S 02 21.5 +00.6	324 58.2 +02.7	S 14 56.5 +00.0	341 07.9 +02.5	S 19 18.1 +00.0	19						
20	118 30.2 +00.9	S 02 22.1 +00.7	340 00.9 +02.6	S 14 56.5 +00.1	356 10.4 +02.6	S 19 18.1 +00.0	20						
21	133 31.1 +01.0	S 02 22.8 +00.7	355 03.5 +02.6	S 14 56.6 +00.0	11 13.0 +02.5	S 19 18.1 +00.0	21						
22	148 32.1 +01.0	S 02 23.5 +00.6	10 06.1 +02.7	S 14 56.6 +00.1	26 15.5 +02.5	S 19 18.1 +00.0	22						
23	163 33.1 +01.0	S 02 24.1 +00.7	25 08.8 +02.6	S 14 56.7 +00.0	41 18.0 +02.5	S 19 18.1 +00.0	23						
	UT 02 06 10 14 18 22		UT 02 06 10 14 18 22		UT 02 06 10 14 18 22								
	SD 00'0 00'0 00'0 00'0 00'0 00'0		SD 00'4 00'4 00'4 00'4 00'4 00'4		SD 00'1 00'1 00'1 00'1 00'1 00'1								
	HP 00'1 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								
	SHA 173° 173° 173° 173° 173° 173°		SHA 034° 034° 034° 034° 034° 034°		SHA 050° 050° 050° 050° 050° 050°								
	Greenwich Culmination Time: 12:06		Greenwich Culmination Time: 21:19		Greenwich Culmination Time: 20:15								



UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 14.1 +00.2	S 01 37.9 +01.0	140 39.2 -00.4	S 19 08.8 +00.9	296 08.6 -28.8	N 22 52.5 +06.6	00						
01	197 14.3 +00.2	S 01 38.9 +01.0	155 38.8 -00.3	S 19 09.7 +01.0	310 39.8 -28.9	N 22 59.1 +06.4	01						
02	212 14.5 +00.2	S 01 39.9 +01.0	170 38.5 -00.3	S 19 10.7 +00.9	325 10.9 -28.9	N 23 05.5 +06.4	02						
03	227 14.7 +00.2	S 01 40.9 +00.9	185 38.2 -00.4	S 19 11.6 +00.9	339 42.0 -29.0	N 23 11.9 +06.3	03						
04	242 14.9 +00.2	S 01 41.8 +01.0	200 37.8 -00.3	S 19 12.5 +01.0	354 13.0 -29.1	N 23 18.2 +06.1	04						
05	257 15.1 +00.2	S 01 42.8 +01.0	215 37.5 -00.3	S 19 13.5 +00.9	8 43.9 -29.1	N 23 24.3 +06.1	05						
06	272 15.3 +00.3	S 01 43.8 +01.0	230 37.2 -00.4	S 19 14.4 +01.0	23 14.8 -29.1	N 23 30.4 +05.9	06						
07	287 15.6 +00.2	S 01 44.8 +00.9	245 36.8 -00.3	S 19 15.4 +00.9	37 45.7 -29.2	N 23 36.3 +05.8	07						
08	302 15.8 +00.2	S 01 45.7 +01.0	260 36.5 -00.4	S 19 16.3 +01.0	52 16.5 -29.2	N 23 42.1 +05.8	08						
09	317 16.0 +00.2	S 01 46.7 +01.0	275 36.1 -00.3	S 19 17.3 +00.9	66 47.3 -29.3	N 23 47.9 +05.6	09						
10	332 16.2 +00.2	S 01 47.7 +01.0	290 35.8 -00.3	S 19 18.2 +00.9	81 18.0 -29.3	N 23 53.5 +05.5	10						
11	347 16.4 +00.2	S 01 48.7 +00.9	305 35.5 -00.4	S 19 19.1 +01.0	95 48.7 -29.4	N 23 59.0 +05.4	11						
12	2 16.6 +00.2	S 01 49.6 +01.0	320 35.1 -00.3	S 19 20.1 +00.9	110 19.3 -29.5	N 24 04.4 +05.3	12						
13	17 16.8 +00.2	S 01 50.6 +01.0	335 34.8 -00.4	S 19 21.0 +00.9	124 49.8 -29.4	N 24 09.7 +05.2	13						
14	32 17.0 +00.3	S 01 51.6 +00.9	350 34.4 -00.3	S 19 21.9 +01.0	139 20.4 -29.6	N 24 14.9 +05.1	14						
15	47 17.3 +00.2	S 01 52.5 +01.0	5 34.1 -00.3	S 19 22.9 +00.9	153 50.8 -29.5	N 24 20.0 +05.0	15						
16	62 17.5 +00.2	S 01 53.5 +01.0	20 33.8 -00.4	S 19 23.8 +01.0	168 21.3 -29.6	N 24 25.0 +04.8	16						
17	77 17.7 +00.2	S 01 54.5 +01.0	35 33.4 -00.3	S 19 24.8 +00.9	182 51.7 -29.7	N 24 29.8 +04.7	17						
18	92 17.9 +00.2	S 01 55.5 +00.9	50 33.1 -00.4	S 19 25.7 +00.9	197 22.0 -29.7	N 24 34.5 +04.7	18						
19	107 18.1 +00.2	S 01 56.4 +01.0	65 32.7 -00.3	S 19 26.6 +01.0	211 52.3 -29.8	N 24 39.2 +04.5	19						
20	122 18.3 +00.2	S 01 57.4 +01.0	80 32.4 -00.3	S 19 27.6 +00.9	226 22.5 -29.8	N 24 43.7 +04.4	20						
21	137 18.5 +00.2	S 01 58.4 +00.9	95 32.1 -00.4	S 19 28.5 +00.9	240 52.7 -29.8	N 24 48.1 +04.3	21						
22	152 18.7 +00.2	S 01 59.3 +01.0	110 31.7 -00.3	S 19 29.4 +00.9	255 22.9 -29.9	N 24 52.4 +04.2	22						
23	167 18.9 +00.3	S 02 00.3 +01.0	125 31.4 -00.4	S 19 30.3 +01.0	269 53.0 -29.9	N 24 56.6 +04.0	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	16'0 16'0 16'0 16'0 16'0 16'0		SD	00'2 00'2 00'2 00'2 00'2 00'2		SD	14'8 14'8 14'8 14'8 14'8 14'8						
HP	00'1 00'1 00'1 00'1 00'1 00'1		HP	00'2 00'2 00'2 00'2 00'2 00'2		HP	54'2 54'2 54'2 54'2 54'2 54'2						
SHA	176° 176° 176° 176° 176° 175°		SHA	135° 134° 134° 134° 134° 134°		SHA	289° 287° 285° 283° 281° 278°						
Greenwich Culmination Time: 11:50				Greenwich Culmination Time: 14:37				Greenwich Culmination Time: 04:23					

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 34.1 +00.9	S 02 24.8 +00.6	40 11.4 +02.6	S 14 56.7 +00.1	56 20.5 +02.6	S 19 18.1 +00.0	00						
01	193 35.0 +01.0	S 02 25.4 +00.7	55 14.0 +02.7	S 14 56.8 +00.1	71 23.1 +02.5	S 19 18.1 +00.1	01						
02	208 36.0 +01.0	S 02 26.1 +00.6	70 16.7 +02.6	S 14 56.9 +00.0	86 25.6 +02.5	S 19 18.2 +00.0	02						
03	223 37.0 +01.0	S 02 26.7 +00.7	85 19.3 +02.6	S 14 56.9 +00.1	101 28.1 +02.5	S 19 18.2 +00.0	03						
04	238 38.0 +00.9	S 02 27.4 +00.7	100 21.9 +02.7	S 14 57.0 +00.0	116 30.6 +02.6	S 19 18.2 +00.0	04						
05	253 38.9 +01.0	S 02 28.1 +00.6	115 24.6 +02.6	S 14 57.0 +00.1	131 33.2 +02.5	S 19 18.2 +00.0	05						
06	268 39.9 +01.0	S 02 28.7 +00.7	130 27.2 +02.6	S 14 57.1 +00.0	146 35.7 +02.5	S 19 18.2 +00.0	06						
07	283 40.9 +00.9	S 02 29.4 +00.6	145 29.8 +02.6	S 14 57.1 +00.1	161 38.2 +02.5	S 19 18.2 +00.0	07						
08	298 41.8 +01.0	S 02 30.0 +00.7	160 32.4 +02.7	S 14 57.2 +00.0	176 40.7 +02.5	S 19 18.2 +00.1	08						
09	313 42.8 +01.0	S 02 30.7 +00.7	175 35.1 +02.6	S 14 57.2 +00.1	191 43.2 +02.6	S 19 18.3 +00.0	09						
10	328 43.8 +01.0	S 02 31.4 +00.6	190 37.7 +02.6	S 14 57.3 +00.0	206 45.8 +02.5	S 19 18.3 +00.0	10						
11	343 44.8 +00.9	S 02 32.0 +00.7	205 40.3 +02.7	S 14 57.3 +00.1	221 48.3 +02.5	S 19 18.3 +00.0	11						
12	358 45.7 +01.0	S 02 32.7 +00.6	220 43.0 +02.6	S 14 57.4 +00.0	236 50.8 +02.5	S 19 18.3 +00.0	12						
13	13 46.7 +01.0	S 02 33.3 +00.7	235 45.6 +02.6	S 14 57.4 +00.1	251 53.3 +02.5	S 19 18.3 +00.0	13						
14	28 47.7 +00.9	S 02 34.0 +00.7	250 48.2 +02.6	S 14 57.5 +00.0	266 55.8 +02.6	S 19 18.3 +00.0	14						
15	43 48.6 +01.0	S 02 34.7 +00.6	265 50.8 +02.7	S 14 57.5 +00.1	281 58.4 +02.5	S 19 18.3 +00.1	15						
16	58 49.6 +01.0	S 02 35.3 +00.7	280 53.5 +02.6	S 14 57.6 +00.0	297 00.9 +02.5	S 19 18.4 +00.0	16						
17	73 50.6 +00.9	S 02 36.0 +00.6	295 56.1 +02.6	S 14 57.6 +00.1	312 03.4 +02.5	S 19 18.4 +00.0	17						
18	88 51.5 +01.0	S 02 36.6 +00.7	310 58.7 +02.7	S 14 57.7 +00.0	327 05.9 +02.6	S 19 18.4 +00.0	18						
19	103 52.5 +01.0	S 02 37.3 +00.7	326 01.4 +02.6	S 14 57.7 +00.1	342 08.5 +02.5	S 19 18.4 +00.0	19						
20	118 53.5 +01.0	S 02 38.0 +00.6	341 04.0 +02.6	S 14 57.8 +00.0	357 11.0 +02.5	S 19 18.4 +00.0	20						
21	133 54.5 +00.9	S 02 38.6 +00.7	356 06.6 +02.6	S 14 57.8 +00.1	12 13.5 +02.5	S 19 18.4 +00.0	21						
22	148 55.4 +01.0	S 02 39.3 +00.6	11 09.2 +02.7	S 14 57.9 +00.0	27 16.0 +02.5	S 19 18.4 +00.1	22						
23	163 56.4 +01.0	S 02 39.9 +00.7	26 11.9 +02.6	S 14 57.9 +00.1	42 18.5 +02.6	S 19 18.5 +00.0	23						
UT	02 06 10 14 18 22		UT	02 06 10 14 18 22		UT	02 06 10 14 18 22						
SD	00'0 00'0 00'0 00'0 00'0 00'0		SD	00'4 00'4 00'4 00'4 00'4 00'4		SD	00'1 00'1 00'1 00'1 00'1 00'1						
HP	00'1 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						
SHA	173° 172° 172° 172° 172° 172°		SHA	034° 034° 034° 034° 034° 034°		SHA	050° 050° 050° 050° 050° 050°						
Greenwich Culmination Time: 12:04				Greenwich Culmination Time: 21:15				Greenwich Culmination Time: 20:11					

UT	<b>Sun</b>				<b>Venus</b>				<b>Moon</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 19.2 +00.2	S	02 01.3 +01.0	140 31.0 -00.3	S	19 31.3 +00.9	284 23.1 -30.0	N	25 00.6 +04.0	00			
01	197 19.4 +00.2	S	02 02.3 +00.9	155 30.7 -00.4	S	19 32.2 +00.9	298 53.1 -30.0	N	25 04.6 +03.8	01			
02	212 19.6 +00.2	S	02 03.2 +01.0	170 30.3 -00.3	S	19 33.1 +01.0	313 23.1 -30.1	N	25 08.4 +03.7	02			
03	227 19.8 +00.2	S	02 04.2 +01.0	185 30.0 -00.3	S	19 34.1 +00.9	327 53.0 -30.1	N	25 12.1 +03.6	03			
04	242 20.0 +00.2	S	02 05.2 +01.0	200 29.7 -00.4	S	19 35.0 +00.9	342 22.9 -30.1	N	25 15.7 +03.4	04			
05	257 20.2 +00.2	S	02 06.2 +00.9	215 29.3 -00.3	S	19 35.9 +00.9	356 52.8 -30.2	N	25 19.1 +03.4	05			
06	272 20.4 +00.2	S	02 07.1 +01.0	230 29.0 -00.4	S	19 36.8 +01.0	11 22.6 -30.2	N	25 22.5 +03.2	06			
07	287 20.6 +00.2	S	02 08.1 +01.0	245 28.6 -00.3	S	19 37.8 +00.9	25 52.4 -30.3	N	25 25.7 +03.1	07			
08	302 20.8 +00.2	S	02 09.1 +00.9	260 28.3 -00.4	S	19 38.7 +00.9	40 22.1 -30.3	N	25 28.8 +03.0	08			
09	317 21.0 +00.2	S	02 10.0 +01.0	275 27.9 -00.3	S	19 39.6 +00.9	54 51.8 -30.3	N	25 31.8 +02.9	09			
10	332 21.2 +00.3	S	02 11.0 +01.0	290 27.6 -00.4	S	19 40.5 +01.0	69 21.5 -30.4	N	25 34.7 +02.8	10			
11	347 21.5 +00.2	S	02 12.0 +01.0	305 27.2 -00.3	S	19 41.5 +00.9	83 51.1 -30.4	N	25 37.5 +02.6	11			
12	2 21.7 +00.2	S	02 13.0 +00.9	320 26.9 -00.4	S	19 42.4 +00.9	98 20.7 -30.5	N	25 40.1 +02.5	12			
13	17 21.9 +00.2	S	02 13.9 +01.0	335 26.5 -00.3	S	19 43.3 +00.9	112 50.2 -30.4	N	25 42.6 +02.4	13			
14	32 22.1 +00.2	S	02 14.9 +01.0	350 26.2 -00.3	S	19 44.2 +00.9	127 19.8 -30.6	N	25 45.0 +02.3	14			
15	47 22.3 +00.2	S	02 15.9 +01.0	5 25.9 -00.4	S	19 45.1 +00.9	141 49.2 -30.5	N	25 47.3 +02.1	15			
16	62 22.5 +00.2	S	02 16.9 +00.9	20 25.5 -00.3	S	19 46.0 +01.0	156 18.7 -30.6	N	25 49.4 +02.0	16			
17	77 22.7 +00.2	S	02 17.8 +01.0	35 25.2 -00.4	S	19 47.0 +00.9	170 48.1 -30.6	N	25 51.4 +01.9	17			
18	92 22.9 +00.2	S	02 18.8 +01.0	50 24.8 -00.3	S	19 47.9 +00.9	185 17.5 -30.7	N	25 53.3 +01.8	18			
19	107 23.1 +00.2	S	02 19.8 +00.9	65 24.5 -00.4	S	19 48.8 +00.9	199 46.8 -30.7	N	25 55.1 +01.6	19			
20	122 23.3 +00.2	S	02 20.7 +01.0	80 24.1 -00.3	S	19 49.7 +00.9	214 16.1 -30.7	N	25 56.7 +01.5	20			
21	137 23.5 +00.3	S	02 21.7 +01.0	95 23.8 -00.4	S	19 50.6 +00.9	228 45.4 -30.7	N	25 58.2 +01.4	21			
22	152 23.8 +00.2	S	02 22.7 +01.0	110 23.4 -00.3	S	19 51.5 +00.9	243 14.7 -30.8	N	25 59.6 +01.3	22			
23	167 24.0 +00.2	S	02 23.7 +00.9	125 23.1 -00.4	S	19 52.4 +01.0	257 43.9 -30.8	N	26 00.9 +01.1	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 00'2 00'2 00'2 00'2 00'2 00'2			SD 14'8 14'8 14'8 14'8 14'8 14'8						
	HP 00'1 00'1 00'1 00'1 00'1 00'1			HP 00'2 00'2 00'2 00'2 00'2 00'2			HP 54'3 54'3 54'4 54'4 54'4 54'5						
	SHA 175° 175° 175° 175° 175° 175°			SHA 133° 133° 133° 133° 133° 132°			SHA 276° 274° 272° 270° 268° 265°						
	Greenwich Culmination Time: 11:50			Greenwich Culmination Time: 14:38			Greenwich Culmination Time: 05:12						

  

UT	<b>Mars</b>				<b>Jupiter</b>				<b>Saturn</b>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	178 57.4 +00.9	S	02 40.6 +00.7	41 14.5 +02.6	S	14 58.0 +00.0	57 21.1 +02.5	S	19 18.5 +00.0	00			
01	193 58.3 +01.0	S	02 41.3 +00.6	56 17.1 +02.6	S	14 58.0 +00.1	72 23.6 +02.5	S	19 18.5 +00.0	01			
02	208 59.3 +01.0	S	02 41.9 +00.7	71 19.7 +02.7	S	14 58.1 +00.0	87 26.1 +02.5	S	19 18.5 +00.0	02			
03	224 00.3 +00.9	S	02 42.6 +00.6	86 22.4 +02.6	S	14 58.1 +00.1	102 28.6 +02.5	S	19 18.5 +00.0	03			
04	239 01.2 +01.0	S	02 43.2 +00.7	101 25.0 +02.6	S	14 58.2 +00.0	117 31.1 +02.5	S	19 18.5 +00.0	04			
05	254 02.2 +01.0	S	02 43.9 +00.6	116 27.6 +02.6	S	14 58.2 +00.1	132 33.6 +02.6	S	19 18.5 +00.1	05			
06	269 03.2 +01.0	S	02 44.5 +00.7	131 30.2 +02.7	S	14 58.3 +00.0	147 36.2 +02.5	S	19 18.6 +00.0	06			
07	284 04.2 +00.9	S	02 45.2 +00.7	146 32.9 +02.6	S	14 58.3 +00.1	162 38.7 +02.5	S	19 18.6 +00.0	07			
08	299 05.1 +01.0	S	02 45.9 +00.6	161 35.5 +02.6	S	14 58.4 +00.0	177 41.2 +02.5	S	19 18.6 +00.0	08			
09	314 06.1 +01.0	S	02 46.5 +00.7	176 38.1 +02.6	S	14 58.4 +00.1	192 43.7 +02.5	S	19 18.6 +00.0	09			
10	329 07.1 +00.9	S	02 47.2 +00.6	191 40.7 +02.7	S	14 58.5 +00.0	207 46.2 +02.6	S	19 18.6 +00.0	10			
11	344 08.0 +01.0	S	02 47.8 +00.7	206 43.4 +02.6	S	14 58.5 +00.1	222 48.8 +02.5	S	19 18.6 +00.0	11			
12	359 09.0 +01.0	S	02 48.5 +00.7	221 46.0 +02.6	S	14 58.6 +00.0	237 51.3 +02.5	S	19 18.6 +00.1	12			
13	14 10.0 +00.9	S	02 49.2 +00.6	236 48.6 +02.6	S	14 58.6 +00.1	252 53.8 +02.5	S	19 18.7 +00.0	13			
14	29 10.9 +01.0	S	02 49.8 +00.7	251 51.2 +02.6	S	14 58.7 +00.0	267 56.3 +02.5	S	19 18.7 +00.0	14			
15	44 11.9 +01.0	S	02 50.5 +00.6	266 53.8 +02.7	S	14 58.7 +00.1	282 58.8 +02.5	S	19 18.7 +00.0	15			
16	59 12.9 +00.9	S	02 51.1 +00.7	281 56.5 +02.6	S	14 58.8 +00.0	298 01.3 +02.6	S	19 18.7 +00.0	16			
17	74 13.8 +01.0	S	02 51.8 +00.7	296 59.1 +02.6	S	14 58.8 +00.1	313 03.9 +02.5	S	19 18.7 +00.0	17			
18	89 14.8 +01.0	S	02 52.5 +00.6	312 01.7 +02.6	S	14 58.9 +00.0	328 06.4 +02.5	S	19 18.7 +00.0	18			
19	104 15.8 +01.0	S	02 53.1 +00.7	327 04.3 +02.6	S	14 58.9 +00.1	343 08.9 +02.5	S	19 18.7 +00.0	19			
20	119 16.8 +00.9	S	02 53.8 +00.6	342 06.9 +02.7	S	14 59.0 +00.0	358 11.4 +02.5	S	19 18.7 +00.1	20			
21	134 17.7 +01.0	S	02 54.4 +00.7	357 09.6 +02.6	S	14 59.0 +00.1	13 13.9 +02.5	S	19 18.8 +00.0	21			
22	149 18.7 +01.0	S	02 55.1 +00.6	12 12.2 +02.6	S	14 59.1 +00.0	28 16.4 +02.6	S	19 18.8 +00.0	22			
23	164 19.7 +00.9	S	02 55.7 +00.7	27 14.8 +02.6	S	14 59.1 +00.1	43 19.0 +02.5	S	19 18.8 +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 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'1 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						
	SHA 172° 172° 172° 172° 172° 171°			SHA 034° 034° 034° 034° 034° 034°			SHA 050° 050° 050° 050° 050° 050°						
	Greenwich Culmination Time: 12:03			Greenwich Culmination Time: 21:11			Greenwich Culmination Time: 20:07						

UT	<i>Sun</i>				<i>Venus</i>				<i>Moon</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 24.2 +00.2	S	02 24.6 +01.0	140 22.7 -00.3	S	19 53.4 +00.9	272 13.1 -30.9	N	26 02.0 +01.1	00			
01	197 24.4 +00.2	S	02 25.6 +01.0	155 22.4 -00.4	S	19 54.3 +00.9	286 42.2 -30.8	N	26 03.1 +00.9	01			
02	212 24.6 +00.2	S	02 26.6 +00.9	170 22.0 -00.3	S	19 55.2 +00.9	301 11.4 -30.9	N	26 04.0 +00.7	02			
03	227 24.8 +00.2	S	02 27.5 +01.0	185 21.7 -00.4	S	19 56.1 +00.9	315 40.5 -30.9	N	26 04.7 +00.7	03			
04	242 25.0 +00.2	S	02 28.5 +01.0	200 21.3 -00.3	S	19 57.0 +00.9	330 09.6 -31.0	N	26 05.4 +00.5	04			
05	257 25.2 +00.2	S	02 29.5 +01.0	215 21.0 -00.4	S	19 57.9 +00.9	344 38.6 -30.9	N	26 05.9 +00.3	05			
06	272 25.4 +00.2	S	02 30.5 +00.9	230 20.6 -00.3	S	19 58.8 +00.9	359 07.7 -31.0	N	26 06.2 +00.3	06			
07	287 25.6 +00.2	S	02 31.4 +01.0	245 20.3 -00.4	S	19 59.7 +00.9	13 36.7 -31.0	N	26 06.5 +00.1	07			
08	302 25.8 +00.2	S	02 32.4 +01.0	260 19.9 -00.3	S	20 00.6 +00.9	28 05.7 -31.1	N	26 06.6 +00.0	08			
09	317 26.0 +00.2	S	02 33.4 +00.9	275 19.6 -00.4	S	20 01.5 +00.9	42 34.6 -31.0	N	26 06.6 -00.1	09			
10	332 26.2 +00.2	S	02 34.3 +01.0	290 19.2 -00.3	S	20 02.4 +00.9	57 03.6 -31.1	N	26 06.5 -00.3	10			
11	347 26.4 +00.3	S	02 35.3 +01.0	305 18.9 -00.4	S	20 03.3 +00.9	71 32.5 -31.1	N	26 06.2 -00.4	11			
12	2 26.7 +00.2	S	02 36.3 +01.0	320 18.5 -00.4	S	20 04.2 +00.9	86 01.4 -31.1	N	26 05.8 -00.5	12			
13	17 26.9 +00.2	S	02 37.3 +00.9	335 18.1 -00.3	S	20 05.1 +00.9	100 30.3 -31.1	N	26 05.3 -00.7	13			
14	32 27.1 +00.2	S	02 38.2 +01.0	350 17.8 -00.4	S	20 06.0 +00.9	114 59.2 -31.2	N	26 04.6 -00.8	14			
15	47 27.3 +00.2	S	02 39.2 +01.0	5 17.4 -00.3	S	20 06.9 +00.9	129 28.0 -31.1	N	26 03.8 -00.9	15			
16	62 27.5 +00.2	S	02 40.2 +00.9	20 17.1 -00.4	S	20 07.8 +00.9	143 56.9 -31.2	N	26 02.9 -01.0	16			
17	77 27.7 +00.2	S	02 41.1 +01.0	35 16.7 -00.3	S	20 08.7 +00.9	158 25.7 -31.2	N	26 01.9 -01.2	17			
18	92 27.9 +00.2	S	02 42.1 +01.0	50 16.4 -00.4	S	20 09.6 +00.9	172 54.5 -31.2	N	26 00.7 -01.3	18			
19	107 28.1 +00.2	S	02 43.1 +01.0	65 16.0 -00.3	S	20 10.5 +00.9	187 23.3 -31.2	N	25 59.4 -01.4	19			
20	122 28.3 +00.2	S	02 44.1 +00.9	80 15.7 -00.4	S	20 11.4 +00.9	201 52.1 -31.2	N	25 58.0 -01.6	20			
21	137 28.5 +00.2	S	02 45.0 +01.0	95 15.3 -00.3	S	20 12.3 +00.9	216 20.9 -31.3	N	25 56.4 -01.7	21			
22	152 28.7 +00.2	S	02 46.0 +01.0	110 15.0 -00.4	S	20 13.2 +00.9	230 49.6 -31.2	N	25 54.7 -01.9	22			
23	167 28.9 +00.2	S	02 47.0 +00.9	125 14.6 -00.4	S	20 14.1 +00.9	245 18.4 -31.3	N	25 52.8 -01.9	23			
	UT 02 06 10 14 18 22			UT 02 06 10 14 18 22			UT 02 06 10 14 18 22						
	SD 16'0 16'0 16'0 16'0 16'0 16'0			SD 00'2 00'2 00'2 00'2 00'2 00'2			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 00'2 00'2 00'2 00'2 00'2 00'2			HP 54'6 54'6 54'7 54'8 54'8 54'9						
	SHA 174° 174° 174° 174° 174° 174°			SHA 132° 132° 132° 132° 132° 131°			SHA 263° 261° 259° 256° 254° 252°						
	Greenwich Culmination Time: 11:50			Greenwich Culmination Time: 14:38			Greenwich Culmination Time: 06:03						

  

UT	<i>Mars</i>				<i>Jupiter</i>				<i>Saturn</i>				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 20.6 +01.0	S	02 56.4 +00.7	42 17.4 +02.6	S	14 59.2 +00.0	58 21.5 +02.5	S	19 18.8 +00.0	00			
01	194 21.6 +01.0	S	02 57.1 +00.6	57 20.0 +02.7	S	14 59.2 +00.1	73 24.0 +02.5	S	19 18.8 +00.0	01			
02	209 22.6 +00.9	S	02 57.7 +00.7	72 22.7 +02.6	S	14 59.3 +00.0	88 26.5 +02.5	S	19 18.8 +00.0	02			
03	224 23.5 +01.0	S	02 58.4 +00.6	87 25.3 +02.6	S	14 59.3 +00.1	103 29.0 +02.5	S	19 18.8 +00.0	03			
04	239 24.5 +01.0	S	02 59.0 +00.7	102 27.9 +02.6	S	14 59.4 +00.0	118 31.5 +02.5	S	19 18.8 +00.1	04			
05	254 25.5 +00.9	S	02 59.7 +00.7	117 30.5 +02.6	S	14 59.4 +00.1	133 34.0 +02.6	S	19 18.9 +00.0	05			
06	269 26.4 +01.0	S	03 00.4 +00.6	132 33.1 +02.6	S	14 59.5 +00.0	148 36.6 +02.5	S	19 18.9 +00.0	06			
07	284 27.4 +01.0	S	03 01.0 +00.7	147 35.7 +02.7	S	14 59.5 +00.1	163 39.1 +02.5	S	19 18.9 +00.0	07			
08	299 28.4 +00.9	S	03 01.7 +00.6	162 38.4 +02.6	S	14 59.6 +00.0	178 41.6 +02.5	S	19 18.9 +00.0	08			
09	314 29.3 +01.0	S	03 02.3 +00.7	177 41.0 +02.6	S	14 59.6 +00.0	193 44.1 +02.5	S	19 18.9 +00.0	09			
10	329 30.3 +01.0	S	03 03.0 +00.7	192 43.6 +02.6	S	14 59.6 +00.1	208 46.6 +02.5	S	19 18.9 +00.0	10			
11	344 31.3 +00.9	S	03 03.7 +00.6	207 46.2 +02.6	S	14 59.7 +00.0	223 49.1 +02.5	S	19 18.9 +00.1	11			
12	359 32.2 +01.0	S	03 04.3 +00.7	222 48.8 +02.6	S	14 59.7 +00.1	238 51.6 +02.6	S	19 19.0 +00.0	12			
13	14 33.2 +01.0	S	03 05.0 +00.6	237 51.4 +02.6	S	14 59.8 +00.0	253 54.2 +02.5	S	19 19.0 +00.0	13			
14	29 34.2 +00.9	S	03 05.6 +00.7	252 54.0 +02.7	S	14 59.8 +00.1	268 56.7 +02.5	S	19 19.0 +00.0	14			
15	44 35.1 +01.0	S	03 06.3 +00.6	267 56.7 +02.6	S	14 59.9 +00.0	283 59.2 +02.5	S	19 19.0 +00.0	15			
16	59 36.1 +01.0	S	03 06.9 +00.7	282 59.3 +02.6	S	14 59.9 +00.1	299 01.7 +02.5	S	19 19.0 +00.0	16			
17	74 37.1 +00.9	S	03 07.6 +00.7	298 01.9 +02.6	S	14 60.0 +00.0	314 04.2 +02.5	S	19 19.0 +00.0	17			
18	89 38.0 +01.0	S	03 08.3 +00.6	313 04.5 +02.6	S	15 00.0 +00.1	329 06.7 +02.5	S	19 19.0 +00.0	18			
19	104 39.0 +01.0	S	03 08.9 +00.7	328 07.1 +02.6	S	15 00.1 +00.0	344 09.2 +02.5	S	19 19.0 +00.0	19			
20	119 40.0 +00.9	S	03 09.6 +00.6	343 09.7 +02.6	S	15 00.1 +00.1	359 11.7 +02.6	S	19 19.0 +00.1	20			
21	134 40.9 +01.0	S	03 10.2 +00.7	358 12.3 +02.7	S	15 00.2 +00.0	14 14.3 +02.5	S	19 19.1 +00.0	21			
22	149 41.9 +01.0	S	03 10.9 +00.7	13 15.0 +02.6	S	15 00.2 +00.0	29 16.8 +02.5	S	19 19.1 +00.0	22			
23	164 42.9 +00.9	S	03 11.6 +00.6	28 17.6 +02.6	S	15 00.2 +00.1	44 19.3 +02.5	S	19 19.1 +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 00'4 00'4 00'4 00'4 00'4 00'4			SD 00'1 00'1 00'1 00'1 00'1 00'1						
	HP 00'1 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						
	SHA 171° 171° 171° 171° 171° 171°			SHA 034° 034° 034° 034° 034° 034°			SHA 050° 050° 050° 050° 050° 050°						
	Greenwich Culmination Time: 12:01			Greenwich Culmination Time: 21:07			Greenwich Culmination Time: 20:03						

UT	Sun				Venus				Moon				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	182 29.1 +00.2	S 02 47.9 +01.0	140 14.2 -00.3	S 20 15.0 +00.9	259 47.1 -31.2	N 25 50.9 -02.1	00						
01	197 29.3 +00.2	S 02 48.9 +01.0	155 13.9 -00.4	S 20 15.9 +00.9	274 15.9 -31.3	N 25 48.8 -02.2	01						
02	212 29.5 +00.2	S 02 49.9 +00.9	170 13.5 -00.3	S 20 16.8 +00.9	288 44.6 -31.3	N 25 46.6 -02.4	02						
03	227 29.7 +00.2	S 02 50.8 +01.0	185 13.2 -00.4	S 20 17.7 +00.9	303 13.3 -31.3	N 25 44.2 -02.5	03						
04	242 29.9 +00.2	S 02 51.8 +01.0	200 12.8 -00.3	S 20 18.6 +00.9	317 42.0 -31.3	N 25 41.7 -02.6	04						
05	257 30.1 +00.3	S 02 52.8 +01.0	215 12.5 -00.4	S 20 19.5 +00.8	332 10.7 -31.3	N 25 39.1 -02.8	05						
06	272 30.4 +00.2	S 02 53.8 +00.9	230 12.1 -00.4	S 20 20.3 +00.9	346 39.4 -31.3	N 25 36.3 -02.9	06						
07	287 30.6 +00.2	S 02 54.7 +01.0	245 11.7 -00.3	S 20 21.2 +00.9	1 08.1 -31.3	N 25 33.4 -03.0	07						
08	302 30.8 +00.2	S 02 55.7 +01.0	260 11.4 -00.4	S 20 22.1 +00.9	15 36.8 -31.3	N 25 30.4 -03.1	08						
09	317 31.0 +00.2	S 02 56.7 +00.9	275 11.0 -00.3	S 20 23.0 +00.9	30 05.5 -31.3	N 25 27.3 -03.3	09						
10	332 31.2 +00.2	S 02 57.6 +01.0	290 10.7 -00.4	S 20 23.9 +00.9	44 34.2 -31.3	N 25 24.0 -03.4	10						
11	347 31.4 +00.2	S 02 58.6 +01.0	305 10.3 -00.4	S 20 24.8 +00.9	59 02.9 -31.3	N 25 20.6 -03.6	11						
12	2 31.6 +00.2	S 02 59.6 +01.0	320 09.9 -00.3	S 20 25.7 +00.8	73 31.6 -31.3	N 25 17.0 -03.6	12						
13	17 31.8 +00.2	S 03 00.6 +00.9	335 09.6 -00.4	S 20 26.5 +00.9	88 00.3 -31.3	N 25 13.4 -03.8	13						
14	32 32.0 +00.2	S 03 01.5 +01.0	350 09.2 -00.3	S 20 27.4 +00.9	102 29.0 -31.3	N 25 09.6 -04.0	14						
15	47 32.2 +00.2	S 03 02.5 +01.0	5 08.9 -00.4	S 20 28.3 +00.9	116 57.7 -31.3	N 25 05.6 -04.1	15						
16	62 32.4 +00.2	S 03 03.5 +00.9	20 08.5 -00.4	S 20 29.2 +00.9	131 26.4 -31.2	N 25 01.5 -04.2	16						
17	77 32.6 +00.2	S 03 04.4 +01.0	35 08.1 -00.3	S 20 30.1 +00.8	145 55.2 -31.3	N 24 57.3 -04.3	17						
18	92 32.8 +00.2	S 03 05.4 +01.0	50 07.8 -00.4	S 20 30.9 +00.9	160 23.9 -31.3	N 24 53.0 -04.5	18						
19	107 33.0 +00.2	S 03 06.4 +00.9	65 07.4 -00.3	S 20 31.8 +00.9	174 52.6 -31.3	N 24 48.5 -04.5	19						
20	122 33.2 +00.2	S 03 07.3 +01.0	80 07.1 -00.4	S 20 32.7 +00.9	189 21.3 -31.2	N 24 44.0 -04.8	20						
21	137 33.4 +00.2	S 03 08.3 +01.0	95 06.7 -00.4	S 20 33.6 +00.8	203 50.1 -31.3	N 24 39.2 -04.8	21						
22	152 33.6 +00.2	S 03 09.3 +01.0	110 06.3 -00.3	S 20 34.4 +00.9	218 18.8 -31.2	N 24 34.4 -05.0	22						
23	167 33.8 +00.2	S 03 10.3 +00.9	125 06.0 -00.4	S 20 35.3 +00.9	232 47.6 -31.2	N 24 29.4 -05.1	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	00'2 00'2 00'2 00'2 00'2 00'2		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		HP	00'2 00'2 00'2 00'2 00'2 00'2		HP	55'0 55'1 55'2 55'3 55'4 55'5						
SHA	173° 173° 173° 173° 173° 173°		SHA	131° 131° 131° 131° 130° 130°		SHA	250° 247° 245° 243° 241° 238°						
Greenwich Culmination Time: 11:49				Greenwich Culmination Time: 14:39				Greenwich Culmination Time: 06:55					

  

UT	Mars				Jupiter				Saturn				UT
	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	GHA	ddGHA	Dec	dDec	
00	179 43.8 +01.0	S 03 12.2 +00.7	43 20.2 +02.6	S 15 00.3 +00.0	59 21.8 +02.5	S 19 19.1 +00.0	00						
01	194 44.8 +01.0	S 03 12.9 +00.6	58 22.8 +02.6	S 15 00.3 +00.1	74 24.3 +02.5	S 19 19.1 +00.0	01						
02	209 45.8 +00.9	S 03 13.5 +00.7	73 25.4 +02.6	S 15 00.4 +00.0	89 26.8 +02.5	S 19 19.1 +00.0	02						
03	224 46.7 +01.0	S 03 14.2 +00.6	88 28.0 +02.6	S 15 00.4 +00.1	104 29.3 +02.5	S 19 19.1 +00.0	03						
04	239 47.7 +01.0	S 03 14.8 +00.7	103 30.6 +02.6	S 15 00.5 +00.0	119 31.8 +02.5	S 19 19.1 +00.1	04						
05	254 48.7 +00.9	S 03 15.5 +00.7	118 33.2 +02.6	S 15 00.5 +00.1	134 34.3 +02.6	S 19 19.2 +00.0	05						
06	269 49.6 +01.0	S 03 16.2 +00.6	133 35.8 +02.6	S 15 00.6 +00.0	149 36.9 +02.5	S 19 19.2 +00.0	06						
07	284 50.6 +01.0	S 03 16.8 +00.7	148 38.4 +02.7	S 15 00.6 +00.0	164 39.4 +02.5	S 19 19.2 +00.0	07						
08	299 51.6 +00.9	S 03 17.5 +00.6	163 41.1 +02.6	S 15 00.6 +00.1	179 41.9 +02.5	S 19 19.2 +00.0	08						
09	314 52.5 +01.0	S 03 18.1 +00.7	178 43.7 +02.6	S 15 00.7 +00.0	194 44.4 +02.5	S 19 19.2 +00.0	09						
10	329 53.5 +01.0	S 03 18.8 +00.7	193 46.3 +02.6	S 15 00.7 +00.1	209 46.9 +02.5	S 19 19.2 +00.0	10						
11	344 54.5 +00.9	S 03 19.5 +00.6	208 48.9 +02.6	S 15 00.8 +00.0	224 49.4 +02.5	S 19 19.2 +00.0	11						
12	359 55.4 +01.0	S 03 20.1 +00.7	223 51.5 +02.6	S 15 00.8 +00.1	239 51.9 +02.5	S 19 19.2 +00.0	12						
13	14 56.4 +01.0	S 03 20.8 +00.6	238 54.1 +02.6	S 15 00.9 +00.0	254 54.4 +02.5	S 19 19.2 +00.1	13						
14	29 57.4 +00.9	S 03 21.4 +00.7	253 56.7 +02.6	S 15 00.9 +00.1	269 56.9 +02.5	S 19 19.3 +00.0	14						
15	44 58.3 +01.0	S 03 22.1 +00.6	268 59.3 +02.6	S 15 01.0 +00.0	284 59.4 +02.5	S 19 19.3 +00.0	15						
16	59 59.3 +00.9	S 03 22.7 +00.7	284 01.9 +02.6	S 15 01.0 +00.0	300 01.9 +02.6	S 19 19.3 +00.0	16						
17	75 00.2 +01.0	S 03 23.4 +00.7	299 04.5 +02.6	S 15 01.0 +00.1	315 04.5 +02.5	S 19 19.3 +00.0	17						
18	90 01.2 +01.0	S 03 24.1 +00.6	314 07.1 +02.6	S 15 01.1 +00.0	330 07.0 +02.5	S 19 19.3 +00.0	18						
19	105 02.2 +00.9	S 03 24.7 +00.7	329 09.7 +02.6	S 15 01.1 +00.1	345 09.5 +02.5	S 19 19.3 +00.0	19						
20	120 03.1 +01.0	S 03 25.4 +00.6	344 12.3 +02.6	S 15 01.2 +00.0	0 12.0 +02.5	S 19 19.3 +00.0	20						
21	135 04.1 +01.0	S 03 26.0 +00.7	359 14.9 +02.6	S 15 01.2 +00.1	15 14.5 +02.5	S 19 19.3 +00.0	21						
22	150 05.1 +00.9	S 03 26.7 +00.6	14 17.5 +02.6	S 15 01.3 +00.0	30 17.0 +02.5	S 19 19.3 +00.1	22						
23	165 06.0 +01.0	S 03 27.3 +00.7	29 20.1 +02.7	S 15 01.3 +00.0	45 19.5 +02.5	S 19 19.4 +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	00'4 00'4 00'4 00'4 00'4 00'4		SD	00'1 00'1 00'1 00'1 00'1 00'1						
HP	00'1 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						
SHA	171° 171° 171° 170° 170° 170°		SHA	034° 034° 034° 034° 034° 034°		SHA	050° 050° 050° 050° 050° 050°						
Greenwich Culmination Time: 12:00				Greenwich Culmination Time: 21:02				Greenwich Culmination Time: 19:59					