

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 31.5 +00.2 | S | 03 00.0 +01.0 | 224 33.7 +00.6 | N | 10 51.0 -00.3 | 342 26.9 -30.7 | N | 11 34.1 +15.8 | 00 | | | |
| 01 | 197 31.7 +00.3 | S | 03 01.0 +01.0 | 239 34.3 +00.5 | N | 10 50.7 -00.3 | 356 56.2 -30.7 | N | 11 49.9 +15.7 | 01 | | | |
| 02 | 212 32.0 +00.2 | S | 03 02.0 +01.0 | 254 34.8 +00.6 | N | 10 50.4 -00.2 | 11 25.5 -30.7 | N | 12 05.6 +15.7 | 02 | | | |
| 03 | 227 32.2 +00.2 | S | 03 03.0 +00.9 | 269 35.4 +00.6 | N | 10 50.2 -00.3 | 25 54.8 -30.8 | N | 12 21.3 +15.5 | 03 | | | |
| 04 | 242 32.4 +00.2 | S | 03 03.9 +01.0 | 284 36.0 +00.6 | N | 10 49.9 -00.3 | 40 24.0 -30.8 | N | 12 36.8 +15.5 | 04 | | | |
| 05 | 257 32.6 +00.2 | S | 03 04.9 +01.0 | 299 36.6 +00.5 | N | 10 49.6 -00.2 | 54 53.2 -30.8 | N | 12 52.3 +15.3 | 05 | | | |
| 06 | 272 32.8 +00.2 | S | 03 05.9 +00.9 | 314 37.1 +00.6 | N | 10 49.4 -00.3 | 69 22.4 -30.8 | N | 13 07.6 +15.3 | 06 | | | |
| 07 | 287 33.0 +00.2 | S | 03 06.8 +01.0 | 329 37.7 +00.5 | N | 10 49.1 -00.3 | 83 51.6 -30.9 | N | 13 22.9 +15.2 | 07 | | | |
| 08 | 302 33.2 +00.2 | S | 03 07.8 +01.0 | 344 38.2 +00.6 | N | 10 48.8 -00.2 | 98 20.7 -30.9 | N | 13 38.1 +15.1 | 08 | | | |
| 09 | 317 33.4 +00.2 | S | 03 08.8 +00.9 | 359 38.8 +00.6 | N | 10 48.6 -00.3 | 112 49.8 -30.9 | N | 13 53.2 +15.0 | 09 | | | |
| 10 | 332 33.6 +00.2 | S | 03 09.7 +01.0 | 14 39.4 +00.5 | N | 10 48.3 -00.3 | 127 18.9 -31.0 | N | 14 08.2 +14.9 | 10 | | | |
| 11 | 347 33.8 +00.2 | S | 03 10.7 +01.0 | 29 39.9 +00.6 | N | 10 48.0 -00.2 | 141 47.9 -31.0 | N | 14 23.1 +14.8 | 11 | | | |
| 12 | 2 34.0 +00.2 | S | 03 11.7 +00.9 | 44 40.5 +00.5 | N | 10 47.8 -00.3 | 156 16.9 -31.0 | N | 14 37.9 +14.7 | 12 | | | |
| 13 | 17 34.2 +00.2 | S | 03 12.6 +01.0 | 59 41.0 +00.6 | N | 10 47.5 -00.3 | 170 45.9 -31.1 | N | 14 52.6 +14.6 | 13 | | | |
| 14 | 32 34.4 +00.2 | S | 03 13.6 +01.0 | 74 41.6 +00.5 | N | 10 47.2 -00.3 | 185 14.8 -31.1 | N | 15 07.2 +14.5 | 14 | | | |
| 15 | 47 34.6 +00.2 | S | 03 14.6 +01.0 | 89 42.1 +00.6 | N | 10 46.9 -00.2 | 199 43.7 -31.1 | N | 15 21.7 +14.4 | 15 | | | |
| 16 | 62 34.8 +00.2 | S | 03 15.6 +00.9 | 104 42.7 +00.5 | N | 10 46.7 -00.3 | 214 12.6 -31.2 | N | 15 36.1 +14.3 | 16 | | | |
| 17 | 77 35.0 +00.2 | S | 03 16.5 +01.0 | 119 43.2 +00.6 | N | 10 46.4 -00.3 | 228 41.4 -31.2 | N | 15 50.4 +14.2 | 17 | | | |
| 18 | 92 35.2 +00.2 | S | 03 17.5 +01.0 | 134 43.8 +00.5 | N | 10 46.1 -00.3 | 243 10.2 -31.3 | N | 16 04.6 +14.1 | 18 | | | |
| 19 | 107 35.4 +00.2 | S | 03 18.5 +00.9 | 149 44.3 +00.6 | N | 10 45.8 -00.2 | 257 38.9 -31.2 | N | 16 18.7 +14.0 | 19 | | | |
| 20 | 122 35.6 +00.2 | S | 03 19.4 +01.0 | 164 44.9 +00.5 | N | 10 45.6 -00.3 | 272 07.7 -31.4 | N | 16 32.7 +13.9 | 20 | | | |
| 21 | 137 35.8 +00.2 | S | 03 20.4 +01.0 | 179 45.4 +00.6 | N | 10 45.3 -00.3 | 286 36.3 -31.3 | N | 16 46.6 +13.7 | 21 | | | |
| 22 | 152 36.0 +00.2 | S | 03 21.4 +00.9 | 194 46.0 +00.5 | N | 10 45.0 -00.3 | 301 05.0 -31.4 | N | 17 00.3 +13.7 | 22 | | | |
| 23 | 167 36.2 +00.2 | S | 03 22.3 +01.0 | 209 46.5 +00.5 | N | 10 44.7 -00.3 | 315 33.6 -31.4 | N | 17 14.0 +13.5 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'0 16'0 16'0 16'0 16'0 16'0 | | | SD 00'3 00'3 00'3 00'3 00'3 00'3 | | | SD 16'2 16'2 16'2 16'1 16'1 16'1 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'3 00'3 00'3 00'3 00'3 00'3 | | | HP 59'6 59'5 59'3 59'2 59'1 58'9 | | | | | | |
| | SHA 173° 173° 173° 173° 172° 172° | | | SHA 215° 215° 215° 215° 215° 214° | | | SHA 332° 330° 327° 325° 323° 321° | | | | | | |
| | Greenwich Culmination Time: 11:49 | | | Greenwich Culmination Time: 09:01 | | | Greenwich Culmination Time: 01:12 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|---------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 168 31.4 +00.9 | S | 08 25.5 +00.7 | 327 04.2 +02.7 | N | 14 49.9 +00.0 | 35 19.4 +02.6 | S | 12 37.0 +00.0 | 00 | | | |
| 01 | 183 32.3 +00.9 | S | 08 26.2 +00.6 | 342 06.9 +02.7 | N | 14 49.9 -00.1 | 50 22.0 +02.6 | S | 12 37.0 +00.1 | 01 | | | |
| 02 | 198 33.2 +01.0 | S | 08 26.8 +00.7 | 357 09.6 +02.6 | N | 14 49.8 -00.1 | 65 24.6 +02.6 | S | 12 37.1 +00.0 | 02 | | | |
| 03 | 213 34.2 +00.9 | S | 08 27.5 +00.6 | 12 12.2 +02.7 | N | 14 49.7 +00.0 | 80 27.2 +02.6 | S | 12 37.1 +00.1 | 03 | | | |
| 04 | 228 35.1 +00.9 | S | 08 28.1 +00.6 | 27 14.9 +02.7 | N | 14 49.7 -00.1 | 95 29.8 +02.6 | S | 12 37.2 +00.0 | 04 | | | |
| 05 | 243 36.0 +00.9 | S | 08 28.7 +00.7 | 42 17.6 +02.7 | N | 14 49.6 -00.1 | 110 32.4 +02.6 | S | 12 37.2 +00.1 | 05 | | | |
| 06 | 258 36.9 +00.9 | S | 08 29.4 +00.6 | 57 20.3 +02.6 | N | 14 49.5 +00.0 | 125 35.0 +02.6 | S | 12 37.3 +00.0 | 06 | | | |
| 07 | 273 37.8 +00.9 | S | 08 30.0 +00.7 | 72 22.9 +02.7 | N | 14 49.5 -00.1 | 140 37.6 +02.6 | S | 12 37.3 +00.1 | 07 | | | |
| 08 | 288 38.7 +00.9 | S | 08 30.7 +00.6 | 87 25.6 +02.7 | N | 14 49.4 -00.1 | 155 40.2 +02.5 | S | 12 37.4 +00.0 | 08 | | | |
| 09 | 303 39.6 +00.9 | S | 08 31.3 +00.6 | 102 28.3 +02.7 | N | 14 49.3 +00.0 | 170 42.7 +02.6 | S | 12 37.4 +00.0 | 09 | | | |
| 10 | 318 40.5 +00.9 | S | 08 31.9 +00.7 | 117 31.0 +02.6 | N | 14 49.3 -00.1 | 185 45.3 +02.6 | S | 12 37.4 +00.1 | 10 | | | |
| 11 | 333 41.4 +00.9 | S | 08 32.6 +00.6 | 132 33.6 +02.7 | N | 14 49.2 -00.1 | 200 47.9 +02.6 | S | 12 37.5 +00.0 | 11 | | | |
| 12 | 348 42.3 +00.9 | S | 08 33.2 +00.7 | 147 36.3 +02.7 | N | 14 49.1 +00.0 | 215 50.5 +02.6 | S | 12 37.5 +00.1 | 12 | | | |
| 13 | 3 43.2 +00.9 | S | 08 33.9 +00.6 | 162 39.0 +02.7 | N | 14 49.1 -00.1 | 230 53.1 +02.6 | S | 12 37.6 +00.0 | 13 | | | |
| 14 | 18 44.1 +00.9 | S | 08 34.5 +00.6 | 177 41.7 +02.6 | N | 14 49.0 -00.1 | 245 55.7 +02.6 | S | 12 37.6 +00.1 | 14 | | | |
| 15 | 33 45.0 +01.0 | S | 08 35.1 +00.7 | 192 44.3 +02.7 | N | 14 48.9 +00.0 | 260 58.3 +02.6 | S | 12 37.7 +00.0 | 15 | | | |
| 16 | 48 46.0 +00.9 | S | 08 35.8 +00.6 | 207 47.0 +02.7 | N | 14 48.9 -00.1 | 276 00.9 +02.6 | S | 12 37.7 +00.1 | 16 | | | |
| 17 | 63 46.9 +00.9 | S | 08 36.4 +00.7 | 222 49.7 +02.7 | N | 14 48.8 -00.1 | 291 03.5 +02.6 | S | 12 37.8 +00.0 | 17 | | | |
| 18 | 78 47.8 +00.9 | S | 08 37.1 +00.6 | 237 52.4 +02.6 | N | 14 48.7 +00.0 | 306 06.1 +02.5 | S | 12 37.8 +00.1 | 18 | | | |
| 19 | 93 48.7 +00.9 | S | 08 37.7 +00.6 | 252 55.0 +02.7 | N | 14 48.7 -00.1 | 321 08.6 +02.6 | S | 12 37.9 +00.0 | 19 | | | |
| 20 | 108 49.6 +00.9 | S | 08 38.3 +00.7 | 267 57.7 +02.7 | N | 14 48.6 -00.1 | 336 11.2 +02.6 | S | 12 37.9 +00.0 | 20 | | | |
| 21 | 123 50.5 +00.9 | S | 08 39.0 +00.6 | 283 00.4 +02.7 | N | 14 48.5 +00.0 | 351 13.8 +02.6 | S | 12 37.9 +00.1 | 21 | | | |
| 22 | 138 51.4 +00.9 | S | 08 39.6 +00.7 | 298 03.1 +02.6 | N | 14 48.5 -00.1 | 6 16.4 +02.6 | S | 12 38.0 +00.0 | 22 | | | |
| 23 | 153 52.3 +00.9 | S | 08 40.3 +00.6 | 313 05.7 +02.7 | N | 14 48.4 -00.1 | 21 19.0 +02.6 | S | 12 38.0 +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 159° 159° 159° 159° 159° 158° | | | SHA 318° 318° 318° 318° 318° 318° | | | SHA 026° 026° 026° 026° 026° 026° | | | | | | |
| | Greenwich Culmination Time: 12:45 | | | Greenwich Culmination Time: 02:11 | | | Greenwich Culmination Time: 21:34 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 36.4 +00.2 | S | 03 23.3 +01.0 | 224 47.0 +00.6 | N | 10 44.4 -00.2 | 330 02.2 -31.5 | N | 17 27.5 +13.5 | 00 | | | |
| 01 | 197 36.6 +00.2 | S | 03 24.3 +00.9 | 239 47.6 +00.5 | N | 10 44.2 -00.3 | 344 30.7 -31.5 | N | 17 41.0 +13.3 | 01 | | | |
| 02 | 212 36.8 +00.2 | S | 03 25.2 +01.0 | 254 48.1 +00.6 | N | 10 43.9 -00.3 | 358 59.2 -31.6 | N | 17 54.3 +13.2 | 02 | | | |
| 03 | 227 37.0 +00.2 | S | 03 26.2 +01.0 | 269 48.7 +00.5 | N | 10 43.6 -00.3 | 13 27.6 -31.6 | N | 18 07.5 +13.1 | 03 | | | |
| 04 | 242 37.2 +00.2 | S | 03 27.2 +00.9 | 284 49.2 +00.5 | N | 10 43.3 -00.3 | 27 56.0 -31.6 | N | 18 20.6 +12.9 | 04 | | | |
| 05 | 257 37.4 +00.2 | S | 03 28.1 +01.0 | 299 49.7 +00.5 | N | 10 43.0 -00.3 | 42 24.4 -31.7 | N | 18 33.5 +12.9 | 05 | | | |
| 06 | 272 37.6 +00.2 | S | 03 29.1 +01.0 | 314 50.2 +00.6 | N | 10 42.7 -00.3 | 56 52.7 -31.7 | N | 18 46.4 +12.7 | 06 | | | |
| 07 | 287 37.8 +00.2 | S | 03 30.1 +00.9 | 329 50.8 +00.5 | N | 10 42.4 -00.3 | 71 21.0 -31.7 | N | 18 59.1 +12.6 | 07 | | | |
| 08 | 302 38.0 +00.2 | S | 03 31.0 +01.0 | 344 51.3 +00.5 | N | 10 42.1 -00.2 | 85 49.3 -31.8 | N | 19 11.7 +12.5 | 08 | | | |
| 09 | 317 38.2 +00.2 | S | 03 32.0 +01.0 | 359 51.8 +00.6 | N | 10 41.9 -00.3 | 100 17.5 -31.8 | N | 19 24.2 +12.3 | 09 | | | |
| 10 | 332 38.4 +00.2 | S | 03 33.0 +00.9 | 14 52.4 +00.5 | N | 10 41.6 -00.3 | 114 45.7 -31.9 | N | 19 36.5 +12.3 | 10 | | | |
| 11 | 347 38.6 +00.2 | S | 03 33.9 +01.0 | 29 52.9 +00.5 | N | 10 41.3 -00.3 | 129 13.8 -31.9 | N | 19 48.8 +12.1 | 11 | | | |
| 12 | 2 38.8 +00.2 | S | 03 34.9 +01.0 | 44 53.4 +00.5 | N | 10 41.0 -00.3 | 143 41.9 -32.0 | N | 20 00.9 +11.9 | 12 | | | |
| 13 | 17 39.0 +00.2 | S | 03 35.9 +01.0 | 59 53.9 +00.5 | N | 10 40.7 -00.3 | 158 09.9 -32.0 | N | 20 12.8 +11.9 | 13 | | | |
| 14 | 32 39.2 +00.2 | S | 03 36.9 +00.9 | 74 54.4 +00.5 | N | 10 40.4 -00.3 | 172 37.9 -32.0 | N | 20 24.7 +11.7 | 14 | | | |
| 15 | 47 39.4 +00.2 | S | 03 37.8 +01.0 | 89 54.9 +00.6 | N | 10 40.1 -00.3 | 187 05.9 -32.0 | N | 20 36.4 +11.6 | 15 | | | |
| 16 | 62 39.6 +00.2 | S | 03 38.8 +01.0 | 104 55.5 +00.5 | N | 10 39.8 -00.3 | 201 33.9 -32.2 | N | 20 48.0 +11.5 | 16 | | | |
| 17 | 77 39.8 +00.2 | S | 03 39.8 +00.9 | 119 56.0 +00.5 | N | 10 39.5 -00.3 | 216 01.7 -32.1 | N | 20 59.5 +11.3 | 17 | | | |
| 18 | 92 40.0 +00.2 | S | 03 40.7 +01.0 | 134 56.5 +00.5 | N | 10 39.2 -00.3 | 230 29.6 -32.2 | N | 21 10.8 +11.2 | 18 | | | |
| 19 | 107 40.2 +00.2 | S | 03 41.7 +01.0 | 149 57.0 +00.5 | N | 10 38.9 -00.3 | 244 57.4 -32.2 | N | 21 22.0 +11.0 | 19 | | | |
| 20 | 122 40.4 +00.2 | S | 03 42.7 +00.9 | 164 57.5 +00.5 | N | 10 38.6 -00.3 | 259 25.2 -32.3 | N | 21 33.0 +10.9 | 20 | | | |
| 21 | 137 40.6 +00.2 | S | 03 43.6 +01.0 | 179 58.0 +00.5 | N | 10 38.3 -00.3 | 273 52.9 -32.3 | N | 21 43.9 +10.8 | 21 | | | |
| 22 | 152 40.8 +00.2 | S | 03 44.6 +01.0 | 194 58.5 +00.5 | N | 10 38.0 -00.3 | 288 20.6 -32.3 | N | 21 54.7 +10.7 | 22 | | | |
| 23 | 167 41.0 +00.2 | S | 03 45.6 +00.9 | 209 59.0 +00.5 | N | 10 37.7 -00.3 | 302 48.3 -32.4 | N | 22 05.4 +10.5 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'0 16'0 16'0 16'0 16'0 16'0 | | | SD 00'3 00'3 00'3 00'3 00'3 00'3 | | | SD 16'0 16'0 15'9 15'9 15'8 15'8 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'3 00'3 00'3 00'3 00'3 00'3 | | | HP 58'8 58'6 58'5 58'3 58'2 58'0 | | | | | | |
| | SHA 172° 172° 172° 172° 171° 171° | | | SHA 214° 214° 214° 214° 214° 214° | | | SHA 318° 316° 314° 312° 309° 307° | | | | | | |
| | Greenwich Culmination Time: 11:49 | | | Greenwich Culmination Time: 09:00 | | | Greenwich Culmination Time: 02:04 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|---------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 168 53.2 +00.9 | S | 08 40.9 +00.6 | 328 08.4 +02.7 | N | 14 48.3 -00.1 | 36 21.6 +02.6 | S | 12 38.1 +00.0 | 00 | | | |
| 01 | 183 54.1 +00.9 | S | 08 41.5 +00.7 | 343 11.1 +02.7 | N | 14 48.2 +00.0 | 51 24.2 +02.6 | S | 12 38.1 +00.1 | 01 | | | |
| 02 | 198 55.0 +00.9 | S | 08 42.2 +00.6 | 358 13.8 +02.7 | N | 14 48.2 -00.1 | 66 26.8 +02.6 | S | 12 38.2 +00.0 | 02 | | | |
| 03 | 213 55.9 +00.9 | S | 08 42.8 +00.7 | 13 16.5 +02.6 | N | 14 48.1 -00.1 | 81 29.4 +02.6 | S | 12 38.2 +00.1 | 03 | | | |
| 04 | 228 56.8 +00.9 | S | 08 43.5 +00.6 | 28 19.1 +02.7 | N | 14 48.0 +00.0 | 96 32.0 +02.5 | S | 12 38.3 +00.0 | 04 | | | |
| 05 | 243 57.7 +00.9 | S | 08 44.1 +00.6 | 43 21.8 +02.7 | N | 14 48.0 -00.1 | 111 34.5 +02.6 | S | 12 38.3 +00.0 | 05 | | | |
| 06 | 258 58.6 +00.9 | S | 08 44.7 +00.7 | 58 24.5 +02.7 | N | 14 47.9 -00.1 | 126 37.1 +02.6 | S | 12 38.3 +00.1 | 06 | | | |
| 07 | 273 59.5 +00.9 | S | 08 45.4 +00.6 | 73 27.2 +02.7 | N | 14 47.8 +00.0 | 141 39.7 +02.6 | S | 12 38.4 +00.0 | 07 | | | |
| 08 | 289 00.4 +00.9 | S | 08 46.0 +00.7 | 88 29.9 +02.6 | N | 14 47.8 -00.1 | 156 42.3 +02.6 | S | 12 38.4 +00.1 | 08 | | | |
| 09 | 304 01.3 +00.9 | S | 08 46.7 +00.6 | 103 32.5 +02.7 | N | 14 47.7 -00.1 | 171 44.9 +02.6 | S | 12 38.5 +00.0 | 09 | | | |
| 10 | 319 02.2 +00.9 | S | 08 47.3 +00.6 | 118 35.2 +02.7 | N | 14 47.6 +00.0 | 186 47.5 +02.6 | S | 12 38.5 +00.1 | 10 | | | |
| 11 | 334 03.1 +00.9 | S | 08 47.9 +00.7 | 133 37.9 +02.7 | N | 14 47.6 -00.1 | 201 50.1 +02.6 | S | 12 38.6 +00.0 | 11 | | | |
| 12 | 349 04.0 +01.0 | S | 08 48.6 +00.6 | 148 40.6 +02.7 | N | 14 47.5 -00.1 | 216 52.7 +02.5 | S | 12 38.6 +00.0 | 12 | | | |
| 13 | 4 05.0 +00.9 | S | 08 49.2 +00.6 | 163 43.3 +02.6 | N | 14 47.4 -00.1 | 231 55.2 +02.6 | S | 12 38.6 +00.1 | 13 | | | |
| 14 | 19 05.9 +00.9 | S | 08 49.8 +00.7 | 178 45.9 +02.7 | N | 14 47.3 +00.0 | 246 57.8 +02.6 | S | 12 38.7 +00.0 | 14 | | | |
| 15 | 34 06.8 +00.9 | S | 08 50.5 +00.6 | 193 48.6 +02.7 | N | 14 47.3 -00.1 | 262 00.4 +02.6 | S | 12 38.7 +00.1 | 15 | | | |
| 16 | 49 07.7 +00.9 | S | 08 51.1 +00.7 | 208 51.3 +02.7 | N | 14 47.2 -00.1 | 277 03.0 +02.6 | S | 12 38.8 +00.0 | 16 | | | |
| 17 | 64 08.6 +00.9 | S | 08 51.8 +00.6 | 223 54.0 +02.7 | N | 14 47.1 +00.0 | 292 05.6 +02.6 | S | 12 38.8 +00.1 | 17 | | | |
| 18 | 79 09.5 +00.9 | S | 08 52.4 +00.6 | 238 56.7 +02.7 | N | 14 47.1 -00.1 | 307 08.2 +02.6 | S | 12 38.9 +00.0 | 18 | | | |
| 19 | 94 10.4 +00.9 | S | 08 53.0 +00.7 | 253 59.4 +02.6 | N | 14 47.0 -00.1 | 322 10.8 +02.6 | S | 12 38.9 +00.1 | 19 | | | |
| 20 | 109 11.3 +00.9 | S | 08 53.7 +00.6 | 269 02.0 +02.7 | N | 14 46.9 +00.0 | 337 13.4 +02.5 | S | 12 39.0 +00.0 | 20 | | | |
| 21 | 124 12.2 +00.9 | S | 08 54.3 +00.6 | 284 04.7 +02.7 | N | 14 46.9 -00.1 | 352 15.9 +02.6 | S | 12 39.0 +00.0 | 21 | | | |
| 22 | 139 13.1 +00.9 | S | 08 54.9 +00.7 | 299 07.4 +02.7 | N | 14 46.8 -00.1 | 7 18.5 +02.6 | S | 12 39.0 +00.1 | 22 | | | |
| 23 | 154 14.0 +00.9 | S | 08 55.6 +00.6 | 314 10.1 +02.7 | N | 14 46.7 -00.1 | 22 21.1 +02.6 | S | 12 39.1 +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 158° 158° 158° 158° 158° 158° | | | SHA 318° 318° 318° 318° 318° 318° | | | SHA 026° 026° 026° 026° 026° 026° | | | | | | |
| | Greenwich Culmination Time: 12:43 | | | Greenwich Culmination Time: 02:07 | | | Greenwich Culmination Time: 21:30 | | | | | | |

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| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|------------|-----------|-------|-----------------------------------|------------|-----------|-------|-----------------------------------|------------|-----------|-------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 | 41.2 +00.2 | S 03 46.5 | +01.0 | 224 | 59.5 +00.5 | N 10 37.4 | -00.3 | 317 | 15.9 -32.4 | N 22 15.9 | +10.4 | 00 |
| 01 | 197 | 41.4 +00.2 | S 03 47.5 | +01.0 | 240 | 00.0 +00.5 | N 10 37.1 | -00.3 | 331 | 43.5 -32.4 | N 22 26.3 | +10.2 | 01 |
| 02 | 212 | 41.6 +00.2 | S 03 48.5 | +00.9 | 255 | 00.5 +00.5 | N 10 36.8 | -00.3 | 346 | 11.1 -32.5 | N 22 36.5 | +10.1 | 02 |
| 03 | 227 | 41.8 +00.2 | S 03 49.4 | +01.0 | 270 | 01.0 +00.5 | N 10 36.5 | -00.4 | 0 | 38.6 -32.6 | N 22 46.6 | +09.9 | 03 |
| 04 | 242 | 42.0 +00.2 | S 03 50.4 | +01.0 | 285 | 01.5 +00.5 | N 10 36.1 | -00.3 | 15 | 06.0 -32.5 | N 22 56.5 | +09.9 | 04 |
| 05 | 257 | 42.2 +00.2 | S 03 51.4 | +00.9 | 300 | 02.0 +00.5 | N 10 35.8 | -00.3 | 29 | 33.5 -32.6 | N 23 06.4 | +09.6 | 05 |
| 06 | 272 | 42.4 +00.2 | S 03 52.3 | +01.0 | 315 | 02.5 +00.5 | N 10 35.5 | -00.3 | 44 | 00.9 -32.6 | N 23 16.0 | +09.5 | 06 |
| 07 | 287 | 42.6 +00.2 | S 03 53.3 | +01.0 | 330 | 03.0 +00.5 | N 10 35.2 | -00.3 | 58 | 28.3 -32.7 | N 23 25.5 | +09.4 | 07 |
| 08 | 302 | 42.8 +00.2 | S 03 54.3 | +00.9 | 345 | 03.5 +00.5 | N 10 34.9 | -00.3 | 72 | 55.6 -32.7 | N 23 34.9 | +09.3 | 08 |
| 09 | 317 | 43.0 +00.2 | S 03 55.2 | +01.0 | 0 | 04.0 +00.5 | N 10 34.6 | -00.3 | 87 | 22.9 -32.7 | N 23 44.2 | +09.0 | 09 |
| 10 | 332 | 43.2 +00.2 | S 03 56.2 | +00.9 | 15 | 04.5 +00.5 | N 10 34.3 | -00.3 | 101 | 50.2 -32.8 | N 23 53.2 | +09.0 | 10 |
| 11 | 347 | 43.4 +00.2 | S 03 57.1 | +01.0 | 30 | 05.0 +00.5 | N 10 34.0 | -00.4 | 116 | 17.4 -32.8 | N 24 02.2 | +08.8 | 11 |
| 12 | 2 | 43.6 +00.2 | S 03 58.1 | +01.0 | 45 | 05.5 +00.5 | N 10 33.6 | -00.3 | 130 | 44.6 -32.8 | N 24 11.0 | +08.6 | 12 |
| 13 | 17 | 43.8 +00.2 | S 03 59.1 | +00.9 | 60 | 06.0 +00.4 | N 10 33.3 | -00.3 | 145 | 11.8 -32.8 | N 24 19.6 | +08.5 | 13 |
| 14 | 32 | 44.0 +00.2 | S 04 00.0 | +01.0 | 75 | 06.4 +00.5 | N 10 33.0 | -00.3 | 159 | 39.0 -32.9 | N 24 28.1 | +08.4 | 14 |
| 15 | 47 | 44.2 +00.2 | S 04 01.0 | +01.0 | 90 | 06.9 +00.5 | N 10 32.7 | -00.3 | 174 | 06.1 -32.9 | N 24 36.5 | +08.2 | 15 |
| 16 | 62 | 44.4 +00.2 | S 04 02.0 | +00.9 | 105 | 07.4 +00.5 | N 10 32.4 | -00.4 | 188 | 33.2 -33.0 | N 24 44.7 | +08.0 | 16 |
| 17 | 77 | 44.6 +00.2 | S 04 02.9 | +01.0 | 120 | 07.9 +00.5 | N 10 32.0 | -00.3 | 203 | 00.2 -32.9 | N 24 52.7 | +07.9 | 17 |
| 18 | 92 | 44.8 +00.2 | S 04 03.9 | +01.0 | 135 | 08.4 +00.4 | N 10 31.7 | -00.3 | 217 | 27.3 -33.0 | N 25 00.6 | +07.8 | 18 |
| 19 | 107 | 45.0 +00.2 | S 04 04.9 | +00.9 | 150 | 08.8 +00.5 | N 10 31.4 | -00.3 | 231 | 54.3 -33.0 | N 25 08.4 | +07.6 | 19 |
| 20 | 122 | 45.2 +00.1 | S 04 05.8 | +01.0 | 165 | 09.3 +00.5 | N 10 31.1 | -00.3 | 246 | 21.3 -33.1 | N 25 16.0 | +07.4 | 20 |
| 21 | 137 | 45.3 +00.2 | S 04 06.8 | +01.0 | 180 | 09.8 +00.5 | N 10 30.8 | -00.4 | 260 | 48.2 -33.0 | N 25 23.4 | +07.3 | 21 |
| 22 | 152 | 45.5 +00.2 | S 04 07.8 | +00.9 | 195 | 10.3 +00.4 | N 10 30.4 | -00.3 | 275 | 15.2 -33.1 | N 25 30.7 | +07.2 | 22 |
| 23 | 167 | 45.7 +00.2 | S 04 08.7 | +01.0 | 210 | 10.7 +00.5 | N 10 30.1 | -00.3 | 289 | 42.1 -33.1 | N 25 37.9 | +07.0 | 23 |
| | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | |
| | SD 16'0 16'0 16'0 16'0 16'0 16'0 | | | | SD 00'3 00'3 00'3 00'3 00'3 00'3 | | | | SD 15'8 15'7 15'7 15'6 15'6 15'6 | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | | HP 00'3 00'3 00'3 00'3 00'3 00'3 | | | | HP 57'8 57'7 57'5 57'4 57'2 57'1 | | | | |
| | SHA 171° 171° 171° 171° 171° 170° | | | | SHA 213° 213° 213° 213° 213° 213° | | | | SHA 305° 302° 300° 298° 295° 293° | | | | |
| | Greenwich Culmination Time: 11:49 | | | | Greenwich Culmination Time: 08:59 | | | | Greenwich Culmination Time: 02:57 | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|------------|-----------|-------|-----------------------------------|------------|-----------|-------|-----------------------------------|------------|-----------|-------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 169 | 14.9 +00.9 | S 08 56.2 | +00.7 | 329 | 12.8 +02.7 | N 14 46.6 | +00.0 | 37 | 23.7 +02.6 | S 12 39.1 | +00.1 | 00 |
| 01 | 184 | 15.8 +00.9 | S 08 56.9 | +00.6 | 344 | 15.5 +02.6 | N 14 46.6 | -00.1 | 52 | 26.3 +02.6 | S 12 39.2 | +00.0 | 01 |
| 02 | 199 | 16.7 +00.9 | S 08 57.5 | +00.6 | 359 | 18.1 +02.7 | N 14 46.5 | -00.1 | 67 | 28.9 +02.6 | S 12 39.2 | +00.1 | 02 |
| 03 | 214 | 17.6 +00.9 | S 08 58.1 | +00.7 | 14 | 20.8 +02.7 | N 14 46.4 | +00.0 | 82 | 31.5 +02.5 | S 12 39.3 | +00.0 | 03 |
| 04 | 229 | 18.5 +00.9 | S 08 58.8 | +00.6 | 29 | 23.5 +02.7 | N 14 46.4 | -00.1 | 97 | 34.0 +02.6 | S 12 39.3 | +00.0 | 04 |
| 05 | 244 | 19.4 +00.9 | S 08 59.4 | +00.6 | 44 | 26.2 +02.7 | N 14 46.3 | -00.1 | 112 | 36.6 +02.6 | S 12 39.3 | +00.1 | 05 |
| 06 | 259 | 20.3 +00.9 | S 09 00.0 | +00.7 | 59 | 28.9 +02.7 | N 14 46.2 | +00.0 | 127 | 39.2 +02.6 | S 12 39.4 | +00.0 | 06 |
| 07 | 274 | 21.2 +00.9 | S 09 00.7 | +00.6 | 74 | 31.6 +02.7 | N 14 46.2 | -00.1 | 142 | 41.8 +02.6 | S 12 39.4 | +00.1 | 07 |
| 08 | 289 | 22.1 +00.9 | S 09 01.3 | +00.7 | 89 | 34.3 +02.7 | N 14 46.1 | -00.1 | 157 | 44.4 +02.6 | S 12 39.5 | +00.0 | 08 |
| 09 | 304 | 23.0 +00.9 | S 09 02.0 | +00.6 | 104 | 37.0 +02.6 | N 14 46.0 | -00.1 | 172 | 47.0 +02.6 | S 12 39.5 | +00.1 | 09 |
| 10 | 319 | 23.9 +00.9 | S 09 02.6 | +00.6 | 119 | 39.6 +02.7 | N 14 45.9 | +00.0 | 187 | 49.6 +02.5 | S 12 39.6 | +00.0 | 10 |
| 11 | 334 | 24.8 +00.9 | S 09 03.2 | +00.7 | 134 | 42.3 +02.7 | N 14 45.9 | -00.1 | 202 | 52.1 +02.6 | S 12 39.6 | +00.0 | 11 |
| 12 | 349 | 25.7 +00.9 | S 09 03.9 | +00.6 | 149 | 45.0 +02.7 | N 14 45.8 | -00.1 | 217 | 54.7 +02.6 | S 12 39.6 | +00.1 | 12 |
| 13 | 4 | 26.6 +00.9 | S 09 04.5 | +00.6 | 164 | 47.7 +02.7 | N 14 45.7 | +00.0 | 232 | 57.3 +02.6 | S 12 39.7 | +00.0 | 13 |
| 14 | 19 | 27.5 +00.9 | S 09 05.1 | +00.7 | 179 | 50.4 +02.7 | N 14 45.7 | -00.1 | 247 | 59.9 +02.6 | S 12 39.7 | +00.1 | 14 |
| 15 | 34 | 28.4 +00.9 | S 09 05.8 | +00.6 | 194 | 53.1 +02.7 | N 14 45.6 | -00.1 | 263 | 02.5 +02.6 | S 12 39.8 | +00.0 | 15 |
| 16 | 49 | 29.3 +00.9 | S 09 06.4 | +00.6 | 209 | 55.8 +02.7 | N 14 45.5 | -00.1 | 278 | 05.1 +02.6 | S 12 39.8 | +00.1 | 16 |
| 17 | 64 | 30.2 +00.9 | S 09 07.0 | +00.7 | 224 | 58.5 +02.6 | N 14 45.4 | +00.0 | 293 | 07.7 +02.5 | S 12 39.9 | +00.0 | 17 |
| 18 | 79 | 31.1 +00.9 | S 09 07.7 | +00.6 | 240 | 01.1 +02.7 | N 14 45.4 | -00.1 | 308 | 10.2 +02.6 | S 12 39.9 | +00.0 | 18 |
| 19 | 94 | 32.0 +00.9 | S 09 08.3 | +00.7 | 255 | 03.8 +02.7 | N 14 45.3 | -00.1 | 323 | 12.8 +02.6 | S 12 39.9 | +00.1 | 19 |
| 20 | 109 | 32.9 +00.9 | S 09 09.0 | +00.6 | 270 | 06.5 +02.7 | N 14 45.2 | -00.1 | 338 | 15.4 +02.6 | S 12 40.0 | +00.0 | 20 |
| 21 | 124 | 33.8 +00.9 | S 09 09.6 | +00.6 | 285 | 09.2 +02.7 | N 14 45.1 | +00.0 | 353 | 18.0 +02.6 | S 12 40.0 | +00.1 | 21 |
| 22 | 139 | 34.7 +00.9 | S 09 10.2 | +00.7 | 300 | 11.9 +02.7 | N 14 45.1 | -00.1 | 8 | 20.6 +02.6 | S 12 40.1 | +00.0 | 22 |
| 23 | 154 | 35.6 +00.9 | S 09 10.9 | +00.6 | 315 | 14.6 +02.7 | N 14 45.0 | -00.1 | 23 | 23.2 +02.5 | S 12 40.1 | +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 158° 158° 158° 157° 157° 157° | | | | SHA 318° 318° 318° 318° 318° 318° | | | | SHA 026° 026° 026° 026° 026° 026° | | | | |
| | Greenwich Culmination Time: 12:42 | | | | Greenwich Culmination Time: 02:02 | | | | Greenwich Culmination Time: 21:26 | | | | |

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| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|---|----------------|-------|---------------|---|---------|---------------|----------------|---|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 45.9 +00.2 | S | 04 09.7 +01.0 | 225 11.2 +00.5 | N | 10 29.8 -00.4 | 304 09.0 -33.1 | N | 25 44.9 +06.8 | 00 | | | |
| 01 | 197 46.1 +00.2 | S | 04 10.7 +00.9 | 240 11.7 +00.4 | N | 10 29.4 -00.3 | 318 35.9 -33.2 | N | 25 51.7 +06.7 | 01 | | | |
| 02 | 212 46.3 +00.2 | S | 04 11.6 +01.0 | 255 12.1 +00.5 | N | 10 29.1 -00.3 | 333 02.7 -33.1 | N | 25 58.4 +06.5 | 02 | | | |
| 03 | 227 46.5 +00.2 | S | 04 12.6 +01.0 | 270 12.6 +00.5 | N | 10 28.8 -00.4 | 347 29.6 -33.2 | N | 26 04.9 +06.4 | 03 | | | |
| 04 | 242 46.7 +00.2 | S | 04 13.6 +00.9 | 285 13.1 +00.4 | N | 10 28.4 -00.3 | 1 56.4 -33.2 | N | 26 11.3 +06.2 | 04 | | | |
| 05 | 257 46.9 +00.2 | S | 04 14.5 +01.0 | 300 13.5 +00.5 | N | 10 28.1 -00.3 | 16 23.2 -33.2 | N | 26 17.5 +06.1 | 05 | | | |
| 06 | 272 47.1 +00.2 | S | 04 15.5 +00.9 | 315 14.0 +00.5 | N | 10 27.8 -00.4 | 30 50.0 -33.2 | N | 26 23.6 +05.9 | 06 | | | |
| 07 | 287 47.3 +00.2 | S | 04 16.4 +01.0 | 330 14.5 +00.4 | N | 10 27.4 -00.3 | 45 16.8 -33.3 | N | 26 29.5 +05.7 | 07 | | | |
| 08 | 302 47.5 +00.2 | S | 04 17.4 +01.0 | 345 14.9 +00.5 | N | 10 27.1 -00.3 | 59 43.5 -33.2 | N | 26 35.2 +05.6 | 08 | | | |
| 09 | 317 47.7 +00.2 | S | 04 18.4 +00.9 | 0 15.4 +00.4 | N | 10 26.8 -00.4 | 74 10.3 -33.3 | N | 26 40.8 +05.5 | 09 | | | |
| 10 | 332 47.9 +00.2 | S | 04 19.3 +01.0 | 15 15.8 +00.5 | N | 10 26.4 -00.3 | 88 37.0 -33.2 | N | 26 46.3 +05.3 | 10 | | | |
| 11 | 347 48.1 +00.2 | S | 04 20.3 +01.0 | 30 16.3 +00.4 | N | 10 26.1 -00.3 | 103 03.8 -33.3 | N | 26 51.6 +05.1 | 11 | | | |
| 12 | 2 48.3 +00.1 | S | 04 21.3 +00.9 | 45 16.7 +00.5 | N | 10 25.8 -00.4 | 117 30.5 -33.3 | N | 26 56.7 +05.0 | 12 | | | |
| 13 | 17 48.4 +00.2 | S | 04 22.2 +01.0 | 60 17.2 +00.4 | N | 10 25.4 -00.3 | 131 57.2 -33.2 | N | 27 01.7 +04.8 | 13 | | | |
| 14 | 32 48.6 +00.2 | S | 04 23.2 +01.0 | 75 17.6 +00.5 | N | 10 25.1 -00.4 | 146 24.0 -33.3 | N | 27 06.5 +04.6 | 14 | | | |
| 15 | 47 48.8 +00.2 | S | 04 24.2 +00.9 | 90 18.1 +00.4 | N | 10 24.7 -00.3 | 160 50.7 -33.3 | N | 27 11.1 +04.5 | 15 | | | |
| 16 | 62 49.0 +00.2 | S | 04 25.1 +01.0 | 105 18.5 +00.5 | N | 10 24.4 -00.3 | 175 17.4 -33.3 | N | 27 15.6 +04.4 | 16 | | | |
| 17 | 77 49.2 +00.2 | S | 04 26.1 +00.9 | 120 19.0 +00.4 | N | 10 24.1 -00.4 | 189 44.1 -33.3 | N | 27 20.0 +04.2 | 17 | | | |
| 18 | 92 49.4 +00.2 | S | 04 27.0 +01.0 | 135 19.4 +00.5 | N | 10 23.7 -00.3 | 204 10.8 -33.3 | N | 27 24.2 +04.0 | 18 | | | |
| 19 | 107 49.6 +00.2 | S | 04 28.0 +01.0 | 150 19.9 +00.4 | N | 10 23.4 -00.4 | 218 37.5 -33.3 | N | 27 28.2 +03.9 | 19 | | | |
| 20 | 122 49.8 +00.2 | S | 04 29.0 +00.9 | 165 20.3 +00.5 | N | 10 23.0 -00.3 | 233 04.2 -33.2 | N | 27 32.1 +03.7 | 20 | | | |
| 21 | 137 50.0 +00.2 | S | 04 29.9 +01.0 | 180 20.8 +00.4 | N | 10 22.7 -00.4 | 247 31.0 -33.3 | N | 27 35.8 +03.5 | 21 | | | |
| 22 | 152 50.2 +00.2 | S | 04 30.9 +01.0 | 195 21.2 +00.5 | N | 10 22.3 -00.3 | 261 57.7 -33.3 | N | 27 39.3 +03.4 | 22 | | | |
| 23 | 167 50.4 +00.2 | S | 04 31.9 +00.9 | 210 21.7 +00.4 | N | 10 22.0 -00.4 | 276 24.4 -33.2 | N | 27 42.7 +03.3 | 23 | | | |
| UT 02 06 10 14 18 22 SD 16'0 16'0 16'0 16'0 16'0 16'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 170° 170° 170° 170° 170° 170° Greenwich Culmination Time: 11:48 | | | | UT 02 06 10 14 18 22 SD 00'3 00'3 00'3 00'3 00'3 00'3 HP 00'3 00'3 00'3 00'3 00'3 00'3 SHA 213° 213° 212° 212° 212° 212° Greenwich Culmination Time: 08:58 | | | | UT 02 06 10 14 18 22 SD 15'5 15'5 15'4 15'4 15'4 15'3 HP 56'9 56'8 56'6 56'5 56'4 56'2 SHA 291° 288° 286° 283° 281° 279° Greenwich Culmination Time: 03:51 | | | | | |
| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 169 36.5 +00.9 | S | 09 11.5 +00.6 | 330 17.3 +02.7 | N | 14 44.9 +00.0 | 38 25.7 +02.6 | S | 12 40.1 +00.1 | 00 | | | |
| 01 | 184 37.4 +00.8 | S | 09 12.1 +00.7 | 345 20.0 +02.7 | N | 14 44.9 -00.1 | 53 28.3 +02.6 | S | 12 40.2 +00.0 | 01 | | | |
| 02 | 199 38.2 +00.9 | S | 09 12.8 +00.6 | 0 22.7 +02.7 | N | 14 44.8 -00.1 | 68 30.9 +02.6 | S | 12 40.2 +00.1 | 02 | | | |
| 03 | 214 39.1 +00.9 | S | 09 13.4 +00.6 | 15 25.4 +02.7 | N | 14 44.7 -00.1 | 83 33.5 +02.6 | S | 12 40.3 +00.0 | 03 | | | |
| 04 | 229 40.0 +00.9 | S | 09 14.0 +00.7 | 30 28.1 +02.7 | N | 14 44.6 +00.0 | 98 36.1 +02.6 | S | 12 40.3 +00.1 | 04 | | | |
| 05 | 244 40.9 +00.9 | S | 09 14.7 +00.6 | 45 30.8 +02.6 | N | 14 44.6 -00.1 | 113 38.7 +02.5 | S | 12 40.4 +00.0 | 05 | | | |
| 06 | 259 41.8 +00.9 | S | 09 15.3 +00.6 | 60 33.4 +02.7 | N | 14 44.5 -00.1 | 128 41.2 +02.6 | S | 12 40.4 +00.0 | 06 | | | |
| 07 | 274 42.7 +00.9 | S | 09 15.9 +00.7 | 75 36.1 +02.7 | N | 14 44.4 +00.0 | 143 43.8 +02.6 | S | 12 40.4 +00.1 | 07 | | | |
| 08 | 289 43.6 +00.9 | S | 09 16.6 +00.6 | 90 38.8 +02.7 | N | 14 44.4 -00.1 | 158 46.4 +02.6 | S | 12 40.5 +00.0 | 08 | | | |
| 09 | 304 44.5 +00.9 | S | 09 17.2 +00.6 | 105 41.5 +02.7 | N | 14 44.3 -00.1 | 173 49.0 +02.6 | S | 12 40.5 +00.1 | 09 | | | |
| 10 | 319 45.4 +00.9 | S | 09 17.8 +00.7 | 120 44.2 +02.7 | N | 14 44.2 -00.1 | 188 51.6 +02.5 | S | 12 40.6 +00.0 | 10 | | | |
| 11 | 334 46.3 +00.9 | S | 09 18.5 +00.6 | 135 46.9 +02.7 | N | 14 44.1 +00.0 | 203 54.1 +02.6 | S | 12 40.6 +00.0 | 11 | | | |
| 12 | 349 47.2 +00.9 | S | 09 19.1 +00.6 | 150 49.6 +02.7 | N | 14 44.1 -00.1 | 218 56.7 +02.6 | S | 12 40.6 +00.1 | 12 | | | |
| 13 | 4 48.1 +00.9 | S | 09 19.7 +00.7 | 165 52.3 +02.7 | N | 14 44.0 -00.1 | 233 59.3 +02.6 | S | 12 40.7 +00.0 | 13 | | | |
| 14 | 19 49.0 +00.9 | S | 09 20.4 +00.6 | 180 55.0 +02.7 | N | 14 43.9 -00.1 | 249 01.9 +02.6 | S | 12 40.7 +00.1 | 14 | | | |
| 15 | 34 49.9 +00.9 | S | 09 21.0 +00.6 | 195 57.7 +02.7 | N | 14 43.8 +00.0 | 264 04.5 +02.6 | S | 12 40.8 +00.0 | 15 | | | |
| 16 | 49 50.8 +00.9 | S | 09 21.6 +00.7 | 211 00.4 +02.7 | N | 14 43.8 -00.1 | 279 07.1 +02.5 | S | 12 40.8 +00.0 | 16 | | | |
| 17 | 64 51.7 +00.9 | S | 09 22.3 +00.6 | 226 03.1 +02.7 | N | 14 43.7 -00.1 | 294 09.6 +02.6 | S | 12 40.8 +00.1 | 17 | | | |
| 18 | 79 52.6 +00.9 | S | 09 22.9 +00.6 | 241 05.8 +02.7 | N | 14 43.6 -00.1 | 309 12.2 +02.6 | S | 12 40.9 +00.0 | 18 | | | |
| 19 | 94 53.5 +00.9 | S | 09 23.5 +00.7 | 256 08.5 +02.7 | N | 14 43.5 +00.0 | 324 14.8 +02.6 | S | 12 40.9 +00.1 | 19 | | | |
| 20 | 109 54.4 +00.9 | S | 09 24.2 +00.6 | 271 11.2 +02.7 | N | 14 43.5 -00.1 | 339 17.4 +02.6 | S | 12 41.0 +00.0 | 20 | | | |
| 21 | 124 55.3 +00.8 | S | 09 24.8 +00.6 | 286 13.9 +02.7 | N | 14 43.4 -00.1 | 354 20.0 +02.5 | S | 12 41.0 +00.1 | 21 | | | |
| 22 | 139 56.1 +00.9 | S | 09 25.4 +00.7 | 301 16.6 +02.7 | N | 14 43.3 -00.1 | 9 22.5 +02.6 | S | 12 41.1 +00.0 | 22 | | | |
| 23 | 154 57.0 +00.9 | S | 09 26.1 +00.6 | 316 19.3 +02.7 | N | 14 43.2 +00.0 | 24 25.1 +02.6 | S | 12 41.1 +00.0 | 23 | | | |
| UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 157° 157° 157° 157° 157° 157° Greenwich Culmination Time: 12:40 | | | | 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 318° 318° 318° 318° 318° 318° Greenwich Culmination Time: 01:58 | | | | 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 026° 026° 026° 026° 026° 026° Greenwich Culmination Time: 21:22 | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 50.6 +00.1 | S 04 32.8 +01.0 | 225 22.1 +00.4 | N 10 21.6 -00.3 | 290 51.2 -33.3 | N 27 46.0 +03.1 | 00 | | | | | | |
| 01 | 197 50.7 +00.2 | S 04 33.8 +01.0 | 240 22.5 +00.5 | N 10 21.3 -00.4 | 305 17.9 -33.2 | N 27 49.1 +02.9 | 01 | | | | | | |
| 02 | 212 50.9 +00.2 | S 04 34.8 +00.9 | 255 23.0 +00.4 | N 10 20.9 -00.3 | 319 44.7 -33.2 | N 27 52.0 +02.8 | 02 | | | | | | |
| 03 | 227 51.1 +00.2 | S 04 35.7 +01.0 | 270 23.4 +00.4 | N 10 20.6 -00.4 | 334 11.5 -33.3 | N 27 54.8 +02.6 | 03 | | | | | | |
| 04 | 242 51.3 +00.2 | S 04 36.7 +00.9 | 285 23.8 +00.5 | N 10 20.2 -00.3 | 348 38.2 -33.2 | N 27 57.4 +02.5 | 04 | | | | | | |
| 05 | 257 51.5 +00.2 | S 04 37.6 +01.0 | 300 24.3 +00.4 | N 10 19.9 -00.4 | 3 05.0 -33.1 | N 27 59.9 +02.3 | 05 | | | | | | |
| 06 | 272 51.7 +00.2 | S 04 38.6 +01.0 | 315 24.7 +00.4 | N 10 19.5 -00.4 | 17 31.9 -33.2 | N 28 02.2 +02.1 | 06 | | | | | | |
| 07 | 287 51.9 +00.2 | S 04 39.6 +00.9 | 330 25.1 +00.5 | N 10 19.1 -00.3 | 31 58.7 -33.1 | N 28 04.3 +02.0 | 07 | | | | | | |
| 08 | 302 52.1 +00.2 | S 04 40.5 +01.0 | 345 25.6 +00.4 | N 10 18.8 -00.4 | 46 25.6 -33.2 | N 28 06.3 +01.8 | 08 | | | | | | |
| 09 | 317 52.3 +00.2 | S 04 41.5 +00.9 | 0 26.0 +00.4 | N 10 18.4 -00.3 | 60 52.4 -33.1 | N 28 08.1 +01.7 | 09 | | | | | | |
| 10 | 332 52.5 +00.1 | S 04 42.4 +01.0 | 15 26.4 +00.4 | N 10 18.1 -00.4 | 75 19.3 -33.0 | N 28 09.8 +01.5 | 10 | | | | | | |
| 11 | 347 52.6 +00.2 | S 04 43.4 +01.0 | 30 26.8 +00.5 | N 10 17.7 -00.4 | 89 46.3 -33.1 | N 28 11.3 +01.4 | 11 | | | | | | |
| 12 | 2 52.8 +00.2 | S 04 44.4 +00.9 | 45 27.3 +00.4 | N 10 17.3 -00.3 | 104 13.2 -33.0 | N 28 12.7 +01.2 | 12 | | | | | | |
| 13 | 17 53.0 +00.2 | S 04 45.3 +01.0 | 60 27.7 +00.4 | N 10 17.0 -00.4 | 118 40.2 -33.0 | N 28 13.9 +01.1 | 13 | | | | | | |
| 14 | 32 53.2 +00.2 | S 04 46.3 +01.0 | 75 28.1 +00.4 | N 10 16.6 -00.3 | 133 07.2 -33.0 | N 28 15.0 +00.9 | 14 | | | | | | |
| 15 | 47 53.4 +00.2 | S 04 47.3 +00.9 | 90 28.5 +00.4 | N 10 16.3 -00.4 | 147 34.2 -32.9 | N 28 15.9 +00.8 | 15 | | | | | | |
| 16 | 62 53.6 +00.2 | S 04 48.2 +01.0 | 105 28.9 +00.5 | N 10 15.9 -00.4 | 162 01.3 -33.0 | N 28 16.7 +00.6 | 16 | | | | | | |
| 17 | 77 53.8 +00.2 | S 04 49.2 +00.9 | 120 29.4 +00.4 | N 10 15.5 -00.3 | 176 28.3 -32.8 | N 28 17.3 +00.4 | 17 | | | | | | |
| 18 | 92 54.0 +00.2 | S 04 50.1 +01.0 | 135 29.8 +00.4 | N 10 15.2 -00.4 | 190 55.5 -32.9 | N 28 17.7 +00.3 | 18 | | | | | | |
| 19 | 107 54.2 +00.1 | S 04 51.1 +01.0 | 150 30.2 +00.4 | N 10 14.8 -00.4 | 205 22.6 -32.8 | N 28 18.0 +00.2 | 19 | | | | | | |
| 20 | 122 54.3 +00.2 | S 04 52.1 +00.9 | 165 30.6 +00.4 | N 10 14.4 -00.4 | 219 49.8 -32.8 | N 28 18.2 +00.0 | 20 | | | | | | |
| 21 | 137 54.5 +00.2 | S 04 53.0 +01.0 | 180 31.0 +00.4 | N 10 14.0 -00.3 | 234 17.0 -32.7 | N 28 18.2 -00.2 | 21 | | | | | | |
| 22 | 152 54.7 +00.2 | S 04 54.0 +00.9 | 195 31.4 +00.4 | N 10 13.7 -00.4 | 248 44.3 -32.7 | N 28 18.0 -00.3 | 22 | | | | | | |
| 23 | 167 54.9 +00.2 | S 04 54.9 +01.0 | 210 31.8 +00.4 | N 10 13.3 -00.4 | 263 11.6 -32.6 | N 28 17.7 -00.4 | 23 | | | | | | |
| | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | | | | | | | |
| | SD 16'0 16'0 16'0 16'0 16'0 16'0 | | SD 00'3 00'3 00'3 00'2 00'2 00'2 | | SD 15'3 15'2 15'2 15'2 15'1 15'1 | | | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | HP 00'3 00'3 00'3 00'3 00'3 00'3 | | HP 56'1 56'0 55'8 55'7 55'6 55'5 | | | | | | | | |
| | SHA 169° 169° 169° 169° 169° 169° | | SHA 212° 212° 212° 211° 211° 211° | | SHA 276° 274° 271° 269° 267° 264° | | | | | | | | |
| | Greenwich Culmination Time: 11:48 | | Greenwich Culmination Time: 08:58 | | Greenwich Culmination Time: 04:47 | | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 169 57.9 +00.9 | S 09 26.7 +00.6 | 331 22.0 +02.7 | N 14 43.2 -00.1 | 39 27.7 +02.6 | S 12 41.1 +00.1 | 00 | | | | | | |
| 01 | 184 58.8 +00.9 | S 09 27.3 +00.7 | 346 24.7 +02.7 | N 14 43.1 -00.1 | 54 30.3 +02.6 | S 12 41.2 +00.0 | 01 | | | | | | |
| 02 | 199 59.7 +00.9 | S 09 28.0 +00.6 | 1 27.4 +02.7 | N 14 43.0 -00.1 | 69 32.9 +02.5 | S 12 41.2 +00.1 | 02 | | | | | | |
| 03 | 215 00.6 +00.9 | S 09 28.6 +00.6 | 16 30.1 +02.7 | N 14 42.9 +00.0 | 84 35.4 +02.6 | S 12 41.3 +00.0 | 03 | | | | | | |
| 04 | 230 01.5 +00.9 | S 09 29.2 +00.7 | 31 32.8 +02.7 | N 14 42.9 -00.1 | 99 38.0 +02.6 | S 12 41.3 +00.0 | 04 | | | | | | |
| 05 | 245 02.4 +00.9 | S 09 29.9 +00.6 | 46 35.5 +02.7 | N 14 42.8 -00.1 | 114 40.6 +02.6 | S 12 41.3 +00.1 | 05 | | | | | | |
| 06 | 260 03.3 +00.9 | S 09 30.5 +00.6 | 61 38.2 +02.7 | N 14 42.7 +00.0 | 129 43.2 +02.6 | S 12 41.4 +00.0 | 06 | | | | | | |
| 07 | 275 04.2 +00.9 | S 09 31.1 +00.7 | 76 40.9 +02.7 | N 14 42.7 -00.1 | 144 45.8 +02.5 | S 12 41.4 +00.1 | 07 | | | | | | |
| 08 | 290 05.1 +00.9 | S 09 31.8 +00.6 | 91 43.6 +02.7 | N 14 42.6 -00.1 | 159 48.3 +02.6 | S 12 41.5 +00.0 | 08 | | | | | | |
| 09 | 305 06.0 +00.9 | S 09 32.4 +00.6 | 106 46.3 +02.7 | N 14 42.5 -00.1 | 174 50.9 +02.6 | S 12 41.5 +00.0 | 09 | | | | | | |
| 10 | 320 06.9 +00.8 | S 09 33.0 +00.7 | 121 49.0 +02.7 | N 14 42.4 +00.0 | 189 53.5 +02.6 | S 12 41.5 +00.1 | 10 | | | | | | |
| 11 | 335 07.7 +00.9 | S 09 33.7 +00.6 | 136 51.7 +02.7 | N 14 42.4 -00.1 | 204 56.1 +02.6 | S 12 41.6 +00.0 | 11 | | | | | | |
| 12 | 350 08.6 +00.9 | S 09 34.3 +00.6 | 151 54.4 +02.7 | N 14 42.3 -00.1 | 219 58.7 +02.5 | S 12 41.6 +00.1 | 12 | | | | | | |
| 13 | 5 09.5 +00.9 | S 09 34.9 +00.7 | 166 57.1 +02.7 | N 14 42.2 -00.1 | 235 01.2 +02.6 | S 12 41.7 +00.0 | 13 | | | | | | |
| 14 | 20 10.4 +00.9 | S 09 35.6 +00.6 | 181 59.8 +02.7 | N 14 42.1 +00.0 | 250 03.8 +02.6 | S 12 41.7 +00.0 | 14 | | | | | | |
| 15 | 35 11.3 +00.9 | S 09 36.2 +00.6 | 197 02.5 +02.7 | N 14 42.1 -00.1 | 265 06.4 +02.6 | S 12 41.7 +00.1 | 15 | | | | | | |
| 16 | 50 12.2 +00.9 | S 09 36.8 +00.7 | 212 05.2 +02.7 | N 14 42.0 -00.1 | 280 09.0 +02.5 | S 12 41.8 +00.0 | 16 | | | | | | |
| 17 | 65 13.1 +00.9 | S 09 37.5 +00.6 | 227 07.9 +02.7 | N 14 41.9 -00.1 | 295 11.5 +02.6 | S 12 41.8 +00.1 | 17 | | | | | | |
| 18 | 80 14.0 +00.9 | S 09 38.1 +00.6 | 242 10.6 +02.7 | N 14 41.8 -00.1 | 310 14.1 +02.6 | S 12 41.9 +00.0 | 18 | | | | | | |
| 19 | 95 14.9 +00.9 | S 09 38.7 +00.7 | 257 13.3 +02.7 | N 14 41.7 +00.0 | 325 16.7 +02.6 | S 12 41.9 +00.0 | 19 | | | | | | |
| 20 | 110 15.8 +00.8 | S 09 39.4 +00.6 | 272 16.0 +02.7 | N 14 41.7 -00.1 | 340 19.3 +02.6 | S 12 41.9 +00.1 | 20 | | | | | | |
| 21 | 125 16.6 +00.9 | S 09 40.0 +00.6 | 287 18.7 +02.7 | N 14 41.6 -00.1 | 355 21.9 +02.5 | S 12 42.0 +00.0 | 21 | | | | | | |
| 22 | 140 17.5 +00.9 | S 09 40.6 +00.7 | 302 21.4 +02.7 | N 14 41.5 -00.1 | 10 24.4 +02.6 | S 12 42.0 +00.1 | 22 | | | | | | |
| 23 | 155 18.4 +00.9 | S 09 41.3 +00.6 | 317 24.1 +02.7 | N 14 41.4 +00.0 | 25 27.0 +02.6 | S 12 42.1 +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 156° 156° 156° 156° 156° 156° | | SHA 318° 318° 318° 318° 318° 318° | | SHA 026° 026° 026° 026° 026° 026° | | | | | | | | |
| | Greenwich Culmination Time: 12:39 | | Greenwich Culmination Time: 01:54 | | Greenwich Culmination Time: 21:18 | | | | | | | | |

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 55.1 +00.2 | S | 04 55.9 +01.0 | 225 32.2 +00.4 | N 10 12.9 -00.3 | 277 39.0 -32.7 | N 28 17.3 -00.6 | 00 | | | | | |
| 01 | 197 55.3 +00.2 | S | 04 56.9 +00.9 | 240 32.6 +00.4 | N 10 12.6 -00.4 | 292 06.3 -32.5 | N 28 16.7 -00.8 | 01 | | | | | |
| 02 | 212 55.5 +00.2 | S | 04 57.8 +01.0 | 255 33.0 +00.5 | N 10 12.2 -00.4 | 306 33.8 -32.5 | N 28 15.9 -00.9 | 02 | | | | | |
| 03 | 227 55.7 +00.1 | S | 04 58.8 +00.9 | 270 33.5 +00.4 | N 10 11.8 -00.4 | 321 01.3 -32.5 | N 28 15.0 -01.0 | 03 | | | | | |
| 04 | 242 55.8 +00.2 | S | 04 59.7 +01.0 | 285 33.9 +00.4 | N 10 11.4 -00.3 | 335 28.8 -32.5 | N 28 14.0 -01.2 | 04 | | | | | |
| 05 | 257 56.0 +00.2 | S | 05 00.7 +01.0 | 300 34.3 +00.4 | N 10 11.1 -00.4 | 349 56.3 -32.4 | N 28 12.8 -01.3 | 05 | | | | | |
| 06 | 272 56.2 +00.2 | S | 05 01.7 +00.9 | 315 34.7 +00.4 | N 10 10.7 -00.4 | 4 23.9 -32.3 | N 28 11.5 -01.5 | 06 | | | | | |
| 07 | 287 56.4 +00.2 | S | 05 02.6 +01.0 | 330 35.1 +00.4 | N 10 10.3 -00.4 | 18 51.6 -32.3 | N 28 10.0 -01.6 | 07 | | | | | |
| 08 | 302 56.6 +00.2 | S | 05 03.6 +00.9 | 345 35.5 +00.4 | N 10 09.9 -00.4 | 33 19.3 -32.2 | N 28 08.4 -01.8 | 08 | | | | | |
| 09 | 317 56.8 +00.2 | S | 05 04.5 +01.0 | 0 35.9 +00.4 | N 10 09.5 -00.3 | 47 47.1 -32.2 | N 28 06.6 -01.9 | 09 | | | | | |
| 10 | 332 57.0 +00.1 | S | 05 05.5 +01.0 | 15 36.3 +00.3 | N 10 09.2 -00.4 | 62 14.9 -32.1 | N 28 04.7 -02.1 | 10 | | | | | |
| 11 | 347 57.1 +00.2 | S | 05 06.5 +00.9 | 30 36.6 +00.4 | N 10 08.8 -00.4 | 76 42.8 -32.1 | N 28 02.6 -02.2 | 11 | | | | | |
| 12 | 2 57.3 +00.2 | S | 05 07.4 +01.0 | 45 37.0 +00.4 | N 10 08.4 -00.4 | 91 10.7 -32.0 | N 28 00.4 -02.3 | 12 | | | | | |
| 13 | 17 57.5 +00.2 | S | 05 08.4 +00.9 | 60 37.4 +00.4 | N 10 08.0 -00.4 | 105 38.7 -32.0 | N 27 58.1 -02.5 | 13 | | | | | |
| 14 | 32 57.7 +00.2 | S | 05 09.3 +01.0 | 75 37.8 +00.4 | N 10 07.6 -00.4 | 120 06.7 -31.9 | N 27 55.6 -02.6 | 14 | | | | | |
| 15 | 47 57.9 +00.2 | S | 05 10.3 +01.0 | 90 38.2 +00.4 | N 10 07.2 -00.4 | 134 34.8 -31.9 | N 27 53.0 -02.8 | 15 | | | | | |
| 16 | 62 58.1 +00.1 | S | 05 11.3 +00.9 | 105 38.6 +00.4 | N 10 06.8 -00.3 | 149 02.9 -31.8 | N 27 50.2 -02.9 | 16 | | | | | |
| 17 | 77 58.2 +00.2 | S | 05 12.2 +01.0 | 120 39.0 +00.4 | N 10 06.5 -00.4 | 163 31.1 -31.7 | N 27 47.3 -03.0 | 17 | | | | | |
| 18 | 92 58.4 +00.2 | S | 05 13.2 +00.9 | 135 39.4 +00.4 | N 10 06.1 -00.4 | 177 59.4 -31.7 | N 27 44.3 -03.2 | 18 | | | | | |
| 19 | 107 58.6 +00.2 | S | 05 14.1 +01.0 | 150 39.8 +00.3 | N 10 05.7 -00.4 | 192 27.7 -31.6 | N 27 41.1 -03.3 | 19 | | | | | |
| 20 | 122 58.8 +00.2 | S | 05 15.1 +00.9 | 165 40.1 +00.4 | N 10 05.3 -00.4 | 206 56.1 -31.6 | N 27 37.8 -03.5 | 20 | | | | | |
| 21 | 137 59.0 +00.2 | S | 05 16.0 +01.0 | 180 40.5 +00.4 | N 10 04.9 -00.4 | 221 24.5 -31.4 | N 27 34.3 -03.6 | 21 | | | | | |
| 22 | 152 59.2 +00.1 | S | 05 17.0 +01.0 | 195 40.9 +00.4 | N 10 04.5 -00.4 | 235 53.1 -31.5 | N 27 30.7 -03.7 | 22 | | | | | |
| 23 | 167 59.3 +00.2 | S | 05 18.0 +00.9 | 210 41.3 +00.4 | N 10 04.1 -00.4 | 250 21.6 -31.3 | N 27 27.0 -03.8 | 23 | | | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | | |
| | SD 16'0 16'0 16'0 16'0 16'0 16'0 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | | SD 15'1 15'1 15'0 15'0 15'0 15'0 | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'3 00'3 00'3 00'3 00'3 00'3 | | | | HP 55'4 55'3 55'2 55'1 55'0 54'9 | | | | | |
| | SHA 168° 168° 168° 168° 168° 168° | | | SHA 211° 211° 211° 211° 211° 210° | | | | SHA 262° 260° 257° 255° 253° 251° | | | | | |
| | Greenwich Culmination Time: 11:48 | | | Greenwich Culmination Time: 08:57 | | | | Greenwich Culmination Time: 05:41 | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 170 19.3 +00.9 | S | 09 41.9 +00.6 | 332 26.8 +02.7 | N 14 41.4 -00.1 | 40 29.6 +02.6 | S 12 42.1 +00.0 | 00 | | | | | |
| 01 | 185 20.2 +00.9 | S | 09 42.5 +00.7 | 347 29.5 +02.7 | N 14 41.3 -00.1 | 55 32.2 +02.5 | S 12 42.1 +00.1 | 01 | | | | | |
| 02 | 200 21.1 +00.9 | S | 09 43.2 +00.6 | 2 32.2 +02.7 | N 14 41.2 -00.1 | 70 34.7 +02.6 | S 12 42.2 +00.0 | 02 | | | | | |
| 03 | 215 22.0 +00.9 | S | 09 43.8 +00.6 | 17 34.9 +02.7 | N 14 41.1 +00.0 | 85 37.3 +02.6 | S 12 42.2 +00.0 | 03 | | | | | |
| 04 | 230 22.9 +00.8 | S | 09 44.4 +00.6 | 32 37.6 +02.7 | N 14 41.1 -00.1 | 100 39.9 +02.6 | S 12 42.2 +00.1 | 04 | | | | | |
| 05 | 245 23.7 +00.9 | S | 09 45.0 +00.7 | 47 40.3 +02.7 | N 14 41.0 -00.1 | 115 42.5 +02.5 | S 12 42.3 +00.0 | 05 | | | | | |
| 06 | 260 24.6 +00.9 | S | 09 45.7 +00.6 | 62 43.0 +02.7 | N 14 40.9 -00.1 | 130 45.0 +02.6 | S 12 42.3 +00.1 | 06 | | | | | |
| 07 | 275 25.5 +00.9 | S | 09 46.3 +00.6 | 77 45.7 +02.7 | N 14 40.8 +00.0 | 145 47.6 +02.6 | S 12 42.4 +00.0 | 07 | | | | | |
| 08 | 290 26.4 +00.9 | S | 09 46.9 +00.7 | 92 48.4 +02.7 | N 14 40.8 -00.1 | 160 50.2 +02.6 | S 12 42.4 +00.0 | 08 | | | | | |
| 09 | 305 27.3 +00.9 | S | 09 47.6 +00.6 | 107 51.1 +02.7 | N 14 40.7 -00.1 | 175 52.8 +02.6 | S 12 42.4 +00.1 | 09 | | | | | |
| 10 | 320 28.2 +00.9 | S | 09 48.2 +00.6 | 122 53.8 +02.8 | N 14 40.6 -00.1 | 190 55.4 +02.5 | S 12 42.5 +00.0 | 10 | | | | | |
| 11 | 335 29.1 +00.9 | S | 09 48.8 +00.7 | 137 56.6 +02.7 | N 14 40.5 +00.0 | 205 57.9 +02.6 | S 12 42.5 +00.1 | 11 | | | | | |
| 12 | 350 30.0 +00.8 | S | 09 49.5 +00.6 | 152 59.3 +02.7 | N 14 40.5 -00.1 | 221 00.5 +02.6 | S 12 42.6 +00.0 | 12 | | | | | |
| 13 | 5 30.8 +00.9 | S | 09 50.1 +00.6 | 168 02.0 +02.7 | N 14 40.4 -00.1 | 236 03.1 +02.6 | S 12 42.6 +00.0 | 13 | | | | | |
| 14 | 20 31.7 +00.9 | S | 09 50.7 +00.6 | 183 04.7 +02.7 | N 14 40.3 -00.1 | 251 05.7 +02.5 | S 12 42.6 +00.1 | 14 | | | | | |
| 15 | 35 32.6 +00.9 | S | 09 51.3 +00.7 | 198 07.4 +02.7 | N 14 40.2 -00.1 | 266 08.2 +02.6 | S 12 42.7 +00.0 | 15 | | | | | |
| 16 | 50 33.5 +00.9 | S | 09 52.0 +00.6 | 213 10.1 +02.7 | N 14 40.1 +00.0 | 281 10.8 +02.6 | S 12 42.7 +00.0 | 16 | | | | | |
| 17 | 65 34.4 +00.9 | S | 09 52.6 +00.6 | 228 12.8 +02.7 | N 14 40.1 -00.1 | 296 13.4 +02.6 | S 12 42.7 +00.1 | 17 | | | | | |
| 18 | 80 35.3 +00.9 | S | 09 53.2 +00.7 | 243 15.5 +02.7 | N 14 40.0 -00.1 | 311 16.0 +02.5 | S 12 42.8 +00.0 | 18 | | | | | |
| 19 | 95 36.2 +00.8 | S | 09 53.9 +00.6 | 258 18.2 +02.7 | N 14 39.9 -00.1 | 326 18.5 +02.6 | S 12 42.8 +00.1 | 19 | | | | | |
| 20 | 110 37.0 +00.9 | S | 09 54.5 +00.6 | 273 20.9 +02.7 | N 14 39.8 +00.0 | 341 21.1 +02.6 | S 12 42.9 +00.0 | 20 | | | | | |
| 21 | 125 37.9 +00.9 | S | 09 55.1 +00.7 | 288 23.6 +02.7 | N 14 39.8 -00.1 | 356 23.7 +02.5 | S 12 42.9 +00.0 | 21 | | | | | |
| 22 | 140 38.8 +00.9 | S | 09 55.8 +00.6 | 303 26.3 +02.8 | N 14 39.7 -00.1 | 11 26.2 +02.6 | S 12 42.9 +00.1 | 22 | | | | | |
| 23 | 155 39.7 +00.9 | S | 09 56.4 +00.6 | 318 29.1 +02.7 | N 14 39.6 -00.1 | 26 28.8 +02.6 | S 12 43.0 +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 156° 156° 156° 156° 155° 155° | | | SHA 318° 318° 318° 318° 318° 318° | | | | SHA 026° 026° 026° 026° 026° 026° | | | | | |
| | Greenwich Culmination Time: 12:37 | | | Greenwich Culmination Time: 01:49 | | | | Greenwich Culmination Time: 21:14 | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|------------|-----------------------------------|-------|------------|-----------------------------------|------|------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 59.5 +00.2 | S 05 | 18.9 +01.0 | 225 41.7 +00.4 | N 10 | 03.7 -00.4 | 264 50.3 -31.3 | N 27 | 23.2 -04.0 | 00 | | | |
| 01 | 197 59.7 +00.2 | S 05 | 19.9 +00.9 | 240 42.1 +00.3 | N 10 | 03.3 -00.4 | 279 19.0 -31.2 | N 27 | 19.2 -04.1 | 01 | | | |
| 02 | 212 59.9 +00.2 | S 05 | 20.8 +01.0 | 255 42.4 +00.4 | N 10 | 02.9 -00.4 | 293 47.8 -31.2 | N 27 | 15.1 -04.3 | 02 | | | |
| 03 | 228 00.1 +00.2 | S 05 | 21.8 +01.0 | 270 42.8 +00.4 | N 10 | 02.5 -00.4 | 308 16.6 -31.1 | N 27 | 10.8 -04.4 | 03 | | | |
| 04 | 243 00.3 +00.1 | S 05 | 22.8 +00.9 | 285 43.2 +00.4 | N 10 | 02.1 -00.4 | 322 45.5 -31.0 | N 27 | 06.4 -04.5 | 04 | | | |
| 05 | 258 00.4 +00.2 | S 05 | 23.7 +01.0 | 300 43.6 +00.3 | N 10 | 01.7 -00.4 | 337 14.5 -31.0 | N 27 | 01.9 -04.6 | 05 | | | |
| 06 | 273 00.6 +00.2 | S 05 | 24.7 +00.9 | 315 43.9 +00.4 | N 10 | 01.3 -00.4 | 351 43.5 -30.9 | N 26 | 57.3 -04.8 | 06 | | | |
| 07 | 288 00.8 +00.2 | S 05 | 25.6 +01.0 | 330 44.3 +00.4 | N 10 | 00.9 -00.4 | 6 12.6 -30.8 | N 26 | 52.5 -04.9 | 07 | | | |
| 08 | 303 01.0 +00.2 | S 05 | 26.6 +00.9 | 345 44.7 +00.3 | N 10 | 00.5 -00.4 | 20 41.8 -30.7 | N 26 | 47.6 -05.0 | 08 | | | |
| 09 | 318 01.2 +00.1 | S 05 | 27.5 +01.0 | 0 45.0 +00.4 | N 10 | 00.1 -00.4 | 35 11.1 -30.7 | N 26 | 42.6 -05.1 | 09 | | | |
| 10 | 333 01.3 +00.2 | S 05 | 28.5 +01.0 | 15 45.4 +00.4 | N 09 | 59.7 -00.4 | 49 40.4 -30.6 | N 26 | 37.5 -05.3 | 10 | | | |
| 11 | 348 01.5 +00.2 | S 05 | 29.5 +00.9 | 30 45.8 +00.3 | N 09 | 59.3 -00.4 | 64 09.8 -30.6 | N 26 | 32.2 -05.4 | 11 | | | |
| 12 | 3 01.7 +00.2 | S 05 | 30.4 +01.0 | 45 46.1 +00.4 | N 09 | 58.9 -00.4 | 78 39.2 -30.4 | N 26 | 26.8 -05.5 | 12 | | | |
| 13 | 18 01.9 +00.2 | S 05 | 31.4 +00.9 | 60 46.5 +00.4 | N 09 | 58.5 -00.4 | 93 08.8 -30.4 | N 26 | 21.3 -05.6 | 13 | | | |
| 14 | 33 02.1 +00.1 | S 05 | 32.3 +01.0 | 75 46.9 +00.3 | N 09 | 58.1 -00.4 | 107 38.4 -30.3 | N 26 | 15.7 -05.8 | 14 | | | |
| 15 | 48 02.2 +00.2 | S 05 | 33.3 +00.9 | 90 47.2 +00.4 | N 09 | 57.7 -00.4 | 122 08.1 -30.3 | N 26 | 09.9 -05.9 | 15 | | | |
| 16 | 63 02.4 +00.2 | S 05 | 34.2 +01.0 | 105 47.6 +00.3 | N 09 | 57.3 -00.4 | 136 37.8 -30.1 | N 26 | 04.0 -05.9 | 16 | | | |
| 17 | 78 02.6 +00.2 | S 05 | 35.2 +00.9 | 120 47.9 +00.4 | N 09 | 56.9 -00.5 | 151 07.7 -30.1 | N 25 | 58.1 -06.2 | 17 | | | |
| 18 | 93 02.8 +00.2 | S 05 | 36.1 +01.0 | 135 48.3 +00.4 | N 09 | 56.4 -00.4 | 165 37.6 -30.0 | N 25 | 51.9 -06.2 | 18 | | | |
| 19 | 108 03.0 +00.1 | S 05 | 37.1 +01.0 | 150 48.7 +00.3 | N 09 | 56.0 -00.4 | 180 07.6 -30.0 | N 25 | 45.7 -06.3 | 19 | | | |
| 20 | 123 03.1 +00.2 | S 05 | 38.1 +00.9 | 165 49.0 +00.4 | N 09 | 55.6 -00.4 | 194 37.6 -29.9 | N 25 | 39.4 -06.5 | 20 | | | |
| 21 | 138 03.3 +00.2 | S 05 | 39.0 +01.0 | 180 49.4 +00.3 | N 09 | 55.2 -00.4 | 209 07.7 -29.8 | N 25 | 32.9 -06.6 | 21 | | | |
| 22 | 153 03.5 +00.2 | S 05 | 40.0 +00.9 | 195 49.7 +00.4 | N 09 | 54.8 -00.4 | 223 37.9 -29.7 | N 25 | 26.3 -06.7 | 22 | | | |
| 23 | 168 03.7 +00.2 | S 05 | 40.9 +01.0 | 210 50.1 +00.3 | N 09 | 54.4 -00.4 | 238 08.2 -29.6 | N 25 | 19.6 -06.8 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'0 16'0 16'0 16'0 16'0 16'0 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | SD 14'9 14'9 14'9 14'9 14'8 14'8 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'3 00'3 00'3 00'3 00'3 00'3 | | | HP 54'8 54'7 54'6 54'6 54'5 54'4 | | | | | | |
| | SHA 168° 167° 167° 167° 167° 167° | | | SHA 210° 210° 210° 210° 210° 210° | | | SHA 248° 246° 244° 242° 240° 237° | | | | | | |
| | Greenwich Culmination Time: 11:47 | | | Greenwich Culmination Time: 08:56 | | | Greenwich Culmination Time: 06:34 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|------------|-----------------------------------|---------|------------|-----------------------------------|------|------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 170 40.6 +00.9 | S 09 | 57.0 +00.6 | 333 31.8 +02.7 | N 14 | 39.5 -00.1 | 41 31.4 +02.6 | S 12 | 43.0 +00.1 | 00 | | | |
| 01 | 185 41.5 +00.8 | S 09 | 57.6 +00.7 | 348 34.5 +02.7 | N 14 | 39.4 +00.0 | 56 34.0 +02.5 | S 12 | 43.1 +00.0 | 01 | | | |
| 02 | 200 42.3 +00.9 | S 09 | 58.3 +00.6 | 3 37.2 +02.7 | N 14 | 39.4 -00.1 | 71 36.5 +02.6 | S 12 | 43.1 +00.0 | 02 | | | |
| 03 | 215 43.2 +00.9 | S 09 | 58.9 +00.6 | 18 39.9 +02.7 | N 14 | 39.3 -00.1 | 86 39.1 +02.6 | S 12 | 43.1 +00.1 | 03 | | | |
| 04 | 230 44.1 +00.9 | S 09 | 59.5 +00.7 | 33 42.6 +02.7 | N 14 | 39.2 -00.1 | 101 41.7 +02.6 | S 12 | 43.2 +00.0 | 04 | | | |
| 05 | 245 45.0 +00.9 | S 10 | 00.2 +00.6 | 48 45.3 +02.7 | N 14 | 39.1 +00.0 | 116 44.3 +02.5 | S 12 | 43.2 +00.0 | 05 | | | |
| 06 | 260 45.9 +00.9 | S 10 | 00.8 +00.6 | 63 48.0 +02.7 | N 14 | 39.1 -00.1 | 131 46.8 +02.6 | S 12 | 43.2 +00.1 | 06 | | | |
| 07 | 275 46.8 +00.8 | S 10 | 01.4 +00.6 | 78 50.7 +02.8 | N 14 | 39.0 -00.1 | 146 49.4 +02.6 | S 12 | 43.3 +00.0 | 07 | | | |
| 08 | 290 47.6 +00.9 | S 10 | 02.0 +00.7 | 93 53.5 +02.7 | N 14 | 38.9 -00.1 | 161 52.0 +02.6 | S 12 | 43.3 +00.1 | 08 | | | |
| 09 | 305 48.5 +00.9 | S 10 | 02.7 +00.6 | 108 56.2 +02.7 | N 14 | 38.8 -00.1 | 176 54.6 +02.5 | S 12 | 43.4 +00.0 | 09 | | | |
| 10 | 320 49.4 +00.9 | S 10 | 03.3 +00.6 | 123 58.9 +02.7 | N 14 | 38.7 +00.0 | 191 57.1 +02.6 | S 12 | 43.4 +00.0 | 10 | | | |
| 11 | 335 50.3 +00.9 | S 10 | 03.9 +00.7 | 139 01.6 +02.7 | N 14 | 38.7 -00.1 | 206 59.7 +02.6 | S 12 | 43.4 +00.1 | 11 | | | |
| 12 | 350 51.2 +00.9 | S 10 | 04.6 +00.6 | 154 04.3 +02.7 | N 14 | 38.6 -00.1 | 222 02.3 +02.5 | S 12 | 43.5 +00.0 | 12 | | | |
| 13 | 5 52.1 +00.8 | S 10 | 05.2 +00.6 | 169 07.0 +02.7 | N 14 | 38.5 -00.1 | 237 04.8 +02.6 | S 12 | 43.5 +00.0 | 13 | | | |
| 14 | 20 52.9 +00.9 | S 10 | 05.8 +00.6 | 184 09.7 +02.7 | N 14 | 38.4 -00.1 | 252 07.4 +02.6 | S 12 | 43.5 +00.1 | 14 | | | |
| 15 | 35 53.8 +00.9 | S 10 | 06.4 +00.7 | 199 12.4 +02.8 | N 14 | 38.3 +00.0 | 267 10.0 +02.6 | S 12 | 43.6 +00.0 | 15 | | | |
| 16 | 50 54.7 +00.9 | S 10 | 07.1 +00.6 | 214 15.2 +02.7 | N 14 | 38.3 -00.1 | 282 12.6 +02.5 | S 12 | 43.6 +00.1 | 16 | | | |
| 17 | 65 55.6 +00.9 | S 10 | 07.7 +00.6 | 229 17.9 +02.7 | N 14 | 38.2 -00.1 | 297 15.1 +02.6 | S 12 | 43.7 +00.0 | 17 | | | |
| 18 | 80 56.5 +00.8 | S 10 | 08.3 +00.6 | 244 20.6 +02.7 | N 14 | 38.1 -00.1 | 312 17.7 +02.6 | S 12 | 43.7 +00.0 | 18 | | | |
| 19 | 95 57.3 +00.9 | S 10 | 08.9 +00.7 | 259 23.3 +02.7 | N 14 | 38.0 +00.0 | 327 20.3 +02.5 | S 12 | 43.7 +00.1 | 19 | | | |
| 20 | 110 58.2 +00.9 | S 10 | 09.6 +00.6 | 274 26.0 +02.7 | N 14 | 38.0 -00.1 | 342 22.8 +02.6 | S 12 | 43.8 +00.0 | 20 | | | |
| 21 | 125 59.1 +00.9 | S 10 | 10.2 +00.6 | 289 28.7 +02.8 | N 14 | 37.9 -00.1 | 357 25.4 +02.6 | S 12 | 43.8 +00.0 | 21 | | | |
| 22 | 140 60.0 +00.9 | S 10 | 10.8 +00.7 | 304 31.5 +02.7 | N 14 | 37.8 -00.1 | 12 28.0 +02.6 | S 12 | 43.8 +00.1 | 22 | | | |
| 23 | 156 00.9 +00.8 | S 10 | 11.5 +00.6 | 319 34.2 +02.7 | N 14 | 37.7 -00.1 | 27 30.6 +02.5 | S 12 | 43.9 +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 155° 155° 155° 155° 155° 155° | | | SHA 318° 318° 318° 318° 318° 318° | | | SHA 026° 026° 026° 026° 026° 026° | | | | | | |
| | Greenwich Culmination Time: 12:36 | | | Greenwich Culmination Time: 01:45 | | | Greenwich Culmination Time: 21:10 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|--------------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 03.9 +00.1 | S | 05 41.9 +00.9 | 225 50.4 +00.4 | N | 09 54.0 -00.5 | 252 38.6 -29.6 | N | 25 12.8 -06.9 | 00 | | | |
| 01 | 198 04.0 +00.2 | S | 05 42.8 +01.0 | 240 50.8 +00.3 | N | 09 53.5 -00.4 | 267 09.0 -29.5 | N | 25 05.9 -07.0 | 01 | | | |
| 02 | 213 04.2 +00.2 | S | 05 43.8 +00.9 | 255 51.1 +00.4 | N | 09 53.1 -00.4 | 281 39.5 -29.4 | N | 24 58.9 -07.2 | 02 | | | |
| 03 | 228 04.4 +00.2 | S | 05 44.7 +01.0 | 270 51.5 +00.3 | N | 09 52.7 -00.4 | 296 10.1 -29.4 | N | 24 51.7 -07.2 | 03 | | | |
| 04 | 243 04.6 +00.1 | S | 05 45.7 +00.9 | 285 51.8 +00.4 | N | 09 52.3 -00.4 | 310 40.7 -29.2 | N | 24 44.5 -07.4 | 04 | | | |
| 05 | 258 04.7 +00.2 | S | 05 46.6 +01.0 | 300 52.2 +00.3 | N | 09 51.9 -00.5 | 325 11.5 -29.2 | N | 24 37.1 -07.4 | 05 | | | |
| 06 | 273 04.9 +00.2 | S | 05 47.6 +01.0 | 315 52.5 +00.4 | N | 09 51.4 -00.4 | 339 42.3 -29.1 | N | 24 29.7 -07.6 | 06 | | | |
| 07 | 288 05.1 +00.2 | S | 05 48.6 +00.9 | 330 52.9 +00.3 | N | 09 51.0 -00.4 | 354 13.2 -29.1 | N | 24 22.1 -07.7 | 07 | | | |
| 08 | 303 05.3 +00.2 | S | 05 49.5 +01.0 | 345 53.2 +00.4 | N | 09 50.6 -00.4 | 8 44.1 -28.9 | N | 24 14.4 -07.8 | 08 | | | |
| 09 | 318 05.5 +00.1 | S | 05 50.5 +00.9 | 0 53.6 +00.3 | N | 09 50.2 -00.5 | 23 15.2 -28.9 | N | 24 06.6 -07.8 | 09 | | | |
| 10 | 333 05.6 +00.2 | S | 05 51.4 +01.0 | 15 53.9 +00.3 | N | 09 49.7 -00.4 | 37 46.3 -28.8 | N | 23 58.8 -08.0 | 10 | | | |
| 11 | 348 05.8 +00.2 | S | 05 52.4 +00.9 | 30 54.2 +00.4 | N | 09 49.3 -00.4 | 52 17.5 -28.8 | N | 23 50.8 -08.1 | 11 | | | |
| 12 | 3 06.0 +00.2 | S | 05 53.3 +01.0 | 45 54.6 +00.3 | N | 09 48.9 -00.4 | 66 48.7 -28.6 | N | 23 42.7 -08.2 | 12 | | | |
| 13 | 18 06.2 +00.1 | S | 05 54.3 +00.9 | 60 54.9 +00.4 | N | 09 48.5 -00.5 | 81 20.1 -28.6 | N | 23 34.5 -08.3 | 13 | | | |
| 14 | 33 06.3 +00.2 | S | 05 55.2 +01.0 | 75 55.3 +00.3 | N | 09 48.0 -00.4 | 95 51.5 -28.5 | N | 23 26.2 -08.4 | 14 | | | |
| 15 | 48 06.5 +00.2 | S | 05 56.2 +00.9 | 90 55.6 +00.3 | N | 09 47.6 -00.4 | 110 23.0 -28.5 | N | 23 17.8 -08.5 | 15 | | | |
| 16 | 63 06.7 +00.2 | S | 05 57.1 +01.0 | 105 55.9 +00.4 | N | 09 47.2 -00.5 | 124 54.5 -28.3 | N | 23 09.3 -08.6 | 16 | | | |
| 17 | 78 06.9 +00.1 | S | 05 58.1 +00.9 | 120 56.3 +00.3 | N | 09 46.7 -00.4 | 139 26.2 -28.3 | N | 23 00.7 -08.7 | 17 | | | |
| 18 | 93 07.0 +00.2 | S | 05 59.0 +01.0 | 135 56.6 +00.3 | N | 09 46.3 -00.4 | 153 57.9 -28.3 | N | 22 52.0 -08.8 | 18 | | | |
| 19 | 108 07.2 +00.2 | S | 05 60.0 +00.9 | 150 56.9 +00.3 | N | 09 45.9 -00.5 | 168 29.6 -28.1 | N | 22 43.2 -08.8 | 19 | | | |
| 20 | 123 07.4 +00.2 | S | 06 00.9 +01.0 | 165 57.2 +00.4 | N | 09 45.4 -00.4 | 183 01.5 -28.1 | N | 22 34.4 -09.0 | 20 | | | |
| 21 | 138 07.6 +00.1 | S | 06 01.9 +01.0 | 180 57.6 +00.3 | N | 09 45.0 -00.4 | 197 33.4 -28.0 | N | 22 25.4 -09.1 | 21 | | | |
| 22 | 153 07.7 +00.2 | S | 06 02.9 +00.9 | 195 57.9 +00.3 | N | 09 44.6 -00.5 | 212 05.4 -27.9 | N | 22 16.3 -09.1 | 22 | | | |
| 23 | 168 07.9 +00.2 | S | 06 03.8 +01.0 | 210 58.2 +00.4 | N | 09 44.1 -00.4 | 226 37.5 -27.8 | N | 22 07.2 -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 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 00'3 00'3 00'3 00'3 00'3 00'3 | | | HP 54'4 54'3 54'3 54'2 54'2 54'2 | | | | | | |
| | SHA 167° 166° 166° 166° 166° 166° | | | SHA 209° 209° 209° 209° 209° 209° | | | SHA 235° 233° 231° 229° 227° 225° | | | | | | |
| | Greenwich Culmination Time: 11:47 | | | Greenwich Culmination Time: 08:56 | | | Greenwich Culmination Time: 07:23 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|----------------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 171 01.7 +00.9 | S | 10 12.1 +00.6 | 334 36.9 +02.7 | N | 14 37.6 +00.0 | 42 33.1 +02.6 | S | 12 43.9 +00.0 | 00 | | | |
| 01 | 186 02.6 +00.9 | S | 10 12.7 +00.6 | 349 39.6 +02.7 | N | 14 37.6 -00.1 | 57 35.7 +02.6 | S | 12 43.9 +00.1 | 01 | | | |
| 02 | 201 03.5 +00.9 | S | 10 13.3 +00.7 | 4 42.3 +02.7 | N | 14 37.5 -00.1 | 72 38.3 +02.5 | S | 12 44.0 +00.0 | 02 | | | |
| 03 | 216 04.4 +00.9 | S | 10 14.0 +00.6 | 19 45.0 +02.8 | N | 14 37.4 -00.1 | 87 40.8 +02.6 | S | 12 44.0 +00.1 | 03 | | | |
| 04 | 231 05.3 +00.8 | S | 10 14.6 +00.6 | 34 47.8 +02.7 | N | 14 37.3 -00.1 | 102 43.4 +02.6 | S | 12 44.1 +00.0 | 04 | | | |
| 05 | 246 06.1 +00.9 | S | 10 15.2 +00.6 | 49 50.5 +02.7 | N | 14 37.2 +00.0 | 117 46.0 +02.6 | S | 12 44.1 +00.0 | 05 | | | |
| 06 | 261 07.0 +00.9 | S | 10 15.8 +00.7 | 64 53.2 +02.7 | N | 14 37.2 -00.1 | 132 48.6 +02.5 | S | 12 44.1 +00.1 | 06 | | | |
| 07 | 276 07.9 +00.9 | S | 10 16.5 +00.6 | 79 55.9 +02.7 | N | 14 37.1 -00.1 | 147 51.1 +02.6 | S | 12 44.2 +00.0 | 07 | | | |
| 08 | 291 08.8 +00.8 | S | 10 17.1 +00.6 | 94 58.6 +02.7 | N | 14 37.0 -00.1 | 162 53.7 +02.6 | S | 12 44.2 +00.0 | 08 | | | |
| 09 | 306 09.6 +00.9 | S | 10 17.7 +00.6 | 110 01.3 +02.8 | N | 14 36.9 -00.1 | 177 56.3 +02.5 | S | 12 44.2 +00.1 | 09 | | | |
| 10 | 321 10.5 +00.9 | S | 10 18.3 +00.7 | 125 04.1 +02.7 | N | 14 36.8 +00.0 | 192 58.8 +02.6 | S | 12 44.3 +00.0 | 10 | | | |
| 11 | 336 11.4 +00.9 | S | 10 19.0 +00.6 | 140 06.8 +02.7 | N | 14 36.8 -00.1 | 208 01.4 +02.6 | S | 12 44.3 +00.0 | 11 | | | |
| 12 | 351 12.3 +00.9 | S | 10 19.6 +00.6 | 155 09.5 +02.7 | N | 14 36.7 -00.1 | 223 04.0 +02.5 | S | 12 44.3 +00.1 | 12 | | | |
| 13 | 6 13.2 +00.8 | S | 10 20.2 +00.6 | 170 12.2 +02.7 | N | 14 36.6 -00.1 | 238 06.5 +02.6 | S | 12 44.4 +00.0 | 13 | | | |
| 14 | 21 14.0 +00.9 | S | 10 20.8 +00.7 | 185 14.9 +02.8 | N | 14 36.5 -00.1 | 253 09.1 +02.6 | S | 12 44.4 +00.1 | 14 | | | |
| 15 | 36 14.9 +00.9 | S | 10 21.5 +00.6 | 200 17.7 +02.7 | N | 14 36.4 +00.0 | 268 11.7 +02.5 | S | 12 44.5 +00.0 | 15 | | | |
| 16 | 51 15.8 +00.9 | S | 10 22.1 +00.6 | 215 20.4 +02.7 | N | 14 36.4 -00.1 | 283 14.2 +02.6 | S | 12 44.5 +00.0 | 16 | | | |
| 17 | 66 16.7 +00.8 | S | 10 22.7 +00.6 | 230 23.1 +02.7 | N | 14 36.3 -00.1 | 298 16.8 +02.6 | S | 12 44.5 +00.1 | 17 | | | |
| 18 | 81 17.5 +00.9 | S | 10 23.3 +00.7 | 245 25.8 +02.7 | N | 14 36.2 -00.1 | 313 19.4 +02.5 | S | 12 44.6 +00.0 | 18 | | | |
| 19 | 96 18.4 +00.9 | S | 10 24.0 +00.6 | 260 28.5 +02.8 | N | 14 36.1 -00.1 | 328 21.9 +02.6 | S | 12 44.6 +00.0 | 19 | | | |
| 20 | 111 19.3 +00.9 | S | 10 24.6 +00.6 | 275 31.3 +02.7 | N | 14 36.0 +00.0 | 343 24.5 +02.6 | S | 12 44.6 +00.1 | 20 | | | |
| 21 | 126 20.2 +00.8 | S | 10 25.2 +00.6 | 290 34.0 +02.7 | N | 14 36.0 -00.1 | 358 27.1 +02.5 | S | 12 44.7 +00.0 | 21 | | | |
| 22 | 141 21.0 +00.9 | S | 10 25.8 +00.7 | 305 36.7 +02.7 | N | 14 35.9 -00.1 | 13 29.6 +02.6 | S | 12 44.7 +00.0 | 22 | | | |
| 23 | 156 21.9 +00.9 | S | 10 26.5 +00.6 | 320 39.4 +02.8 | N | 14 35.8 -00.1 | 28 32.2 +02.6 | S | 12 44.7 +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 155° 154° 154° 154° 154° 154° | | | SHA 318° 318° 318° 318° 318° 318° | | | SHA 026° 026° 026° 026° 026° 026° | | | | | | |
| | Greenwich Culmination Time: 12:35 | | | Greenwich Culmination Time: 01:41 | | | Greenwich Culmination Time: 21:06 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT | |
|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | |
| 00 | 183 08.1 +00.2 | S 06 04.8 +00.9 | 225 58.6 +00.3 | N 09 43.7 -00.5 | 241 09.7 -27.8 | N 21 57.9 -09.3 | 00 | | | | | | | |
| 01 | 198 08.3 +00.1 | S 06 05.7 +01.0 | 240 58.9 +00.3 | N 09 43.2 -00.4 | 255 41.9 -27.7 | N 21 48.6 -09.4 | 01 | | | | | | | |
| 02 | 213 08.4 +00.2 | S 06 06.7 +00.9 | 255 59.2 +00.3 | N 09 42.8 -00.4 | 270 14.2 -27.7 | N 21 39.2 -09.6 | 02 | | | | | | | |
| 03 | 228 08.6 +00.2 | S 06 07.6 +01.0 | 270 59.5 +00.4 | N 09 42.4 -00.5 | 284 46.5 -27.5 | N 21 29.6 -09.6 | 03 | | | | | | | |
| 04 | 243 08.8 +00.1 | S 06 08.6 +00.9 | 285 59.9 +00.3 | N 09 41.9 -00.4 | 299 19.0 -27.5 | N 21 20.0 -09.7 | 04 | | | | | | | |
| 05 | 258 08.9 +00.2 | S 06 09.5 +01.0 | 301 00.2 +00.3 | N 09 41.5 -00.5 | 313 51.5 -27.4 | N 21 10.3 -09.7 | 05 | | | | | | | |
| 06 | 273 09.1 +00.2 | S 06 10.5 +00.9 | 316 00.5 +00.3 | N 09 41.0 -00.4 | 328 24.1 -27.4 | N 21 00.6 -09.9 | 06 | | | | | | | |
| 07 | 288 09.3 +00.2 | S 06 11.4 +01.0 | 331 00.8 +00.3 | N 09 40.6 -00.4 | 342 56.7 -27.3 | N 20 50.7 -10.0 | 07 | | | | | | | |
| 08 | 303 09.5 +00.1 | S 06 12.4 +00.9 | 346 01.1 +00.3 | N 09 40.2 -00.5 | 357 29.4 -27.2 | N 20 40.7 -10.0 | 08 | | | | | | | |
| 09 | 318 09.6 +00.2 | S 06 13.3 +01.0 | 1 01.4 +00.4 | N 09 39.7 -00.4 | 12 02.2 -27.2 | N 20 30.7 -10.1 | 09 | | | | | | | |
| 10 | 333 09.8 +00.2 | S 06 14.3 +00.9 | 16 01.8 +00.3 | N 09 39.3 -00.5 | 26 35.0 -27.0 | N 20 20.6 -10.2 | 10 | | | | | | | |
| 11 | 348 10.0 +00.1 | S 06 15.2 +01.0 | 31 02.1 +00.3 | N 09 38.8 -00.4 | 41 08.0 -27.1 | N 20 10.4 -10.3 | 11 | | | | | | | |
| 12 | 3 10.1 +00.2 | S 06 16.2 +00.9 | 46 02.4 +00.3 | N 09 38.4 -00.5 | 55 40.9 -26.9 | N 20 00.1 -10.3 | 12 | | | | | | | |
| 13 | 18 10.3 +00.2 | S 06 17.1 +01.0 | 61 02.7 +00.3 | N 09 37.9 -00.4 | 70 14.0 -26.9 | N 19 49.8 -10.5 | 13 | | | | | | | |
| 14 | 33 10.5 +00.2 | S 06 18.1 +00.9 | 76 03.0 +00.3 | N 09 37.5 -00.5 | 84 47.1 -26.8 | N 19 39.3 -10.5 | 14 | | | | | | | |
| 15 | 48 10.7 +00.1 | S 06 19.0 +01.0 | 91 03.3 +00.3 | N 09 37.0 -00.4 | 99 20.3 -26.8 | N 19 28.8 -10.6 | 15 | | | | | | | |
| 16 | 63 10.8 +00.2 | S 06 20.0 +00.9 | 106 03.6 +00.3 | N 09 36.6 -00.5 | 113 53.5 -26.7 | N 19 18.2 -10.7 | 16 | | | | | | | |
| 17 | 78 11.0 +00.2 | S 06 20.9 +01.0 | 121 03.9 +00.4 | N 09 36.1 -00.5 | 128 26.8 -26.6 | N 19 07.5 -10.7 | 17 | | | | | | | |
| 18 | 93 11.2 +00.1 | S 06 21.9 +00.9 | 136 04.3 +00.3 | N 09 35.6 -00.4 | 143 00.2 -26.5 | N 18 56.8 -10.8 | 18 | | | | | | | |
| 19 | 108 11.3 +00.2 | S 06 22.8 +01.0 | 151 04.6 +00.3 | N 09 35.2 -00.5 | 157 33.7 -26.5 | N 18 46.0 -10.9 | 19 | | | | | | | |
| 20 | 123 11.5 +00.2 | S 06 23.8 +00.9 | 166 04.9 +00.3 | N 09 34.7 -00.4 | 172 07.2 -26.5 | N 18 35.1 -11.0 | 20 | | | | | | | |
| 21 | 138 11.7 +00.1 | S 06 24.7 +01.0 | 181 05.2 +00.3 | N 09 34.3 -00.5 | 186 40.7 -26.4 | N 18 24.1 -11.1 | 21 | | | | | | | |
| 22 | 153 11.8 +00.2 | S 06 25.7 +00.9 | 196 05.5 +00.3 | N 09 33.8 -00.4 | 201 14.3 -26.3 | N 18 13.0 -11.1 | 22 | | | | | | | |
| 23 | 168 12.0 +00.2 | S 06 26.6 +01.0 | 211 05.8 +00.3 | N 09 33.4 -00.5 | 215 48.0 -26.2 | N 18 01.9 -11.2 | 23 | | | | | | | |
| UT 02 06 10 14 18 22 | SD 16'0 16'0 16'0 16'0 16'0 16'0 | HP 00'1 00'1 00'1 00'1 00'1 00'1 | SHA 166° 166° 165° 165° 165° 165° | Greenwich Culmination Time: 11:47 | UT 02 06 10 14 18 22 | SD 00'2 00'2 00'2 00'2 00'2 00'2 | HP 00'3 00'3 00'3 00'2 00'2 00'2 | SHA 209° 208° 208° 208° 208° 208° | Greenwich Culmination Time: 08:55 | UT 02 06 10 14 18 22 | SD 14'8 14'7 14'7 14'7 14'7 14'7 | HP 54'1 54'1 54'1 54'1 54'1 54'1 | SHA 223° 221° 219° 217° 215° 213° | Greenwich Culmination Time: 08:10 |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | |
|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | |
| 00 | 171 22.8 +00.9 | S 10 27.1 +00.6 | 335 42.2 +02.7 | N 14 35.7 -00.1 | 43 34.8 +02.6 | S 12 44.8 +00.0 | 00 | | | | | | | |
| 01 | 186 23.7 +00.8 | S 10 27.7 +00.6 | 350 44.9 +02.7 | N 14 35.6 -00.1 | 58 37.4 +02.5 | S 12 44.8 +00.0 | 01 | | | | | | | |
| 02 | 201 24.5 +00.9 | S 10 28.3 +00.7 | 5 47.6 +02.7 | N 14 35.5 +00.0 | 73 39.9 +02.6 | S 12 44.8 +00.1 | 02 | | | | | | | |
| 03 | 216 25.4 +00.9 | S 10 29.0 +00.6 | 20 50.3 +02.7 | N 14 35.5 -00.1 | 88 42.5 +02.6 | S 12 44.9 +00.0 | 03 | | | | | | | |
| 04 | 231 26.3 +00.9 | S 10 29.6 +00.6 | 35 53.0 +02.8 | N 14 35.4 -00.1 | 103 45.1 +02.5 | S 12 44.9 +00.0 | 04 | | | | | | | |
| 05 | 246 27.2 +00.8 | S 10 30.2 +00.6 | 50 55.8 +02.7 | N 14 35.3 -00.1 | 118 47.6 +02.6 | S 12 44.9 +00.1 | 05 | | | | | | | |
| 06 | 261 28.0 +00.9 | S 10 30.8 +00.7 | 65 58.5 +02.7 | N 14 35.2 -00.1 | 133 50.2 +02.6 | S 12 45.0 +00.0 | 06 | | | | | | | |
| 07 | 276 28.9 +00.9 | S 10 31.5 +00.6 | 81 01.2 +02.7 | N 14 35.1 +00.0 | 148 52.8 +02.5 | S 12 45.0 +00.1 | 07 | | | | | | | |
| 08 | 291 29.8 +00.9 | S 10 32.1 +00.6 | 96 03.9 +02.8 | N 14 35.1 -00.1 | 163 55.3 +02.6 | S 12 45.1 +00.0 | 08 | | | | | | | |
| 09 | 306 30.7 +00.8 | S 10 32.7 +00.6 | 111 06.7 +02.7 | N 14 35.0 -00.1 | 178 57.9 +02.5 | S 12 45.1 +00.0 | 09 | | | | | | | |
| 10 | 321 31.5 +00.9 | S 10 33.3 +00.6 | 126 09.4 +02.7 | N 14 34.9 -00.1 | 194 00.4 +02.6 | S 12 45.1 +00.1 | 10 | | | | | | | |
| 11 | 336 32.4 +00.9 | S 10 33.9 +00.7 | 141 12.1 +02.7 | N 14 34.8 -00.1 | 209 03.0 +02.6 | S 12 45.2 +00.0 | 11 | | | | | | | |
| 12 | 351 33.3 +00.9 | S 10 34.6 +00.6 | 156 14.8 +02.8 | N 14 34.7 -00.1 | 224 05.6 +02.5 | S 12 45.2 +00.0 | 12 | | | | | | | |
| 13 | 6 34.2 +00.8 | S 10 35.2 +00.6 | 171 17.6 +02.7 | N 14 34.6 +00.0 | 239 08.1 +02.6 | S 12 45.2 +00.1 | 13 | | | | | | | |
| 14 | 21 35.0 +00.9 | S 10 35.8 +00.6 | 186 20.3 +02.7 | N 14 34.6 -00.1 | 254 10.7 +02.6 | S 12 45.3 +00.0 | 14 | | | | | | | |
| 15 | 36 35.9 +00.9 | S 10 36.4 +00.7 | 201 23.0 +02.7 | N 14 34.5 -00.1 | 269 13.3 +02.5 | S 12 45.3 +00.0 | 15 | | | | | | | |
| 16 | 51 36.8 +00.8 | S 10 37.1 +00.6 | 216 25.7 +02.8 | N 14 34.4 -00.1 | 284 15.8 +02.6 | S 12 45.3 +00.1 | 16 | | | | | | | |
| 17 | 66 37.6 +00.9 | S 10 37.7 +00.6 | 231 28.5 +02.7 | N 14 34.3 -00.1 | 299 18.4 +02.6 | S 12 45.4 +00.0 | 17 | | | | | | | |
| 18 | 81 38.5 +00.9 | S 10 38.3 +00.6 | 246 31.2 +02.7 | N 14 34.2 +00.0 | 314 21.0 +02.5 | S 12 45.4 +00.0 | 18 | | | | | | | |
| 19 | 96 39.4 +00.9 | S 10 38.9 +00.7 | 261 33.9 +02.7 | N 14 34.2 -00.1 | 329 23.5 +02.6 | S 12 45.4 +00.1 | 19 | | | | | | | |
| 20 | 111 40.3 +00.8 | S 10 39.6 +00.6 | 276 36.6 +02.8 | N 14 34.1 -00.1 | 344 26.1 +02.6 | S 12 45.5 +00.0 | 20 | | | | | | | |
| 21 | 126 41.1 +00.9 | S 10 40.2 +00.6 | 291 39.4 +02.7 | N 14 34.0 -00.1 | 359 28.7 +02.5 | S 12 45.5 +00.0 | 21 | | | | | | | |
| 22 | 141 42.0 +00.9 | S 10 40.8 +00.6 | 306 42.1 +02.7 | N 14 33.9 -00.1 | 14 31.2 +02.6 | S 12 45.5 +00.1 | 22 | | | | | | | |
| 23 | 156 42.9 +00.8 | S 10 41.4 +00.6 | 321 44.8 +02.8 | N 14 33.8 -00.1 | 29 33.8 +02.6 | S 12 45.6 +00.0 | 23 | | | | | | | |
| UT 02 06 10 14 18 22 | SD 00'0 00'0 00'0 00'0 00'0 00'0 | HP 00'1 00'1 00'1 00'1 00'1 00'1 | SHA 154° 154° 154° 154° 154° 153° | Greenwich Culmination Time: 12:33 | 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 318° 318° 318° 318° 318° 318° | Greenwich Culmination Time: 01:36 | 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 026° 026° 026° 026° 026° 026° | Greenwich Culmination Time: 21:02 |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|------------|-----------------|------|-----------------------------------|------------|-----------------|------|-----------------------------------|------------|-----------------|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 | 12.2 +00.2 | S 06 27.6 +00.9 | | 226 | 06.1 +00.3 | N 09 32.9 -00.5 | | 230 | 21.8 -26.2 | N 17 50.7 -11.2 | | 00 |
| 01 | 198 | 12.4 +00.1 | S 06 28.5 +01.0 | | 241 | 06.4 +00.3 | N 09 32.4 -00.4 | | 244 | 55.6 -26.2 | N 17 39.5 -11.4 | | 01 |
| 02 | 213 | 12.5 +00.2 | S 06 29.5 +00.9 | | 256 | 06.7 +00.3 | N 09 32.0 -00.5 | | 259 | 29.4 -26.1 | N 17 28.1 -11.4 | | 02 |
| 03 | 228 | 12.7 +00.2 | S 06 30.4 +01.0 | | 271 | 07.0 +00.3 | N 09 31.5 -00.4 | | 274 | 03.3 -26.0 | N 17 16.7 -11.4 | | 03 |
| 04 | 243 | 12.9 +00.1 | S 06 31.4 +00.9 | | 286 | 07.3 +00.3 | N 09 31.1 -00.5 | | 288 | 37.3 -26.0 | N 17 05.3 -11.6 | | 04 |
| 05 | 258 | 13.0 +00.2 | S 06 32.3 +00.9 | | 301 | 07.6 +00.3 | N 09 30.6 -00.5 | | 303 | 11.3 -25.9 | N 16 53.7 -11.6 | | 05 |
| 06 | 273 | 13.2 +00.2 | S 06 33.2 +01.0 | | 316 | 07.9 +00.3 | N 09 30.1 -00.4 | | 317 | 45.4 -25.9 | N 16 42.1 -11.6 | | 06 |
| 07 | 288 | 13.4 +00.1 | S 06 34.2 +00.9 | | 331 | 08.2 +00.2 | N 09 29.7 -00.5 | | 332 | 19.5 -25.8 | N 16 30.5 -11.8 | | 07 |
| 08 | 303 | 13.5 +00.2 | S 06 35.1 +01.0 | | 346 | 08.4 +00.3 | N 09 29.2 -00.5 | | 346 | 53.7 -25.7 | N 16 18.7 -11.8 | | 08 |
| 09 | 318 | 13.7 +00.2 | S 06 36.1 +00.9 | | 1 | 08.7 +00.3 | N 09 28.7 -00.4 | | 1 | 28.0 -25.7 | N 16 06.9 -11.8 | | 09 |
| 10 | 333 | 13.9 +00.1 | S 06 37.0 +01.0 | | 16 | 09.0 +00.3 | N 09 28.3 -00.5 | | 16 | 02.3 -25.7 | N 15 55.1 -11.9 | | 10 |
| 11 | 348 | 14.0 +00.2 | S 06 38.0 +00.9 | | 31 | 09.3 +00.3 | N 09 27.8 -00.5 | | 30 | 36.6 -25.6 | N 15 43.2 -12.0 | | 11 |
| 12 | 3 | 14.2 +00.2 | S 06 38.9 +01.0 | | 46 | 09.6 +00.3 | N 09 27.3 -00.5 | | 45 | 11.0 -25.5 | N 15 31.2 -12.1 | | 12 |
| 13 | 18 | 14.4 +00.1 | S 06 39.9 +00.9 | | 61 | 09.9 +00.3 | N 09 26.8 -00.4 | | 59 | 45.5 -25.5 | N 15 19.1 -12.1 | | 13 |
| 14 | 33 | 14.5 +00.2 | S 06 40.8 +01.0 | | 76 | 10.2 +00.3 | N 09 26.4 -00.5 | | 74 | 20.0 -25.5 | N 15 07.0 -12.1 | | 14 |
| 15 | 48 | 14.7 +00.2 | S 06 41.8 +00.9 | | 91 | 10.5 +00.3 | N 09 25.9 -00.5 | | 88 | 54.5 -25.4 | N 14 54.9 -12.3 | | 15 |
| 16 | 63 | 14.9 +00.1 | S 06 42.7 +01.0 | | 106 | 10.8 +00.2 | N 09 25.4 -00.4 | | 103 | 29.1 -25.4 | N 14 42.6 -12.2 | | 16 |
| 17 | 78 | 15.0 +00.2 | S 06 43.7 +00.9 | | 121 | 11.0 +00.3 | N 09 25.0 -00.5 | | 118 | 03.7 -25.3 | N 14 30.4 -12.4 | | 17 |
| 18 | 93 | 15.2 +00.2 | S 06 44.6 +01.0 | | 136 | 11.3 +00.3 | N 09 24.5 -00.5 | | 132 | 38.4 -25.2 | N 14 18.0 -12.4 | | 18 |
| 19 | 108 | 15.4 +00.1 | S 06 45.6 +00.9 | | 151 | 11.6 +00.3 | N 09 24.0 -00.5 | | 147 | 13.2 -25.3 | N 14 05.6 -12.4 | | 19 |
| 20 | 123 | 15.5 +00.2 | S 06 46.5 +00.9 | | 166 | 11.9 +00.3 | N 09 23.5 -00.5 | | 161 | 47.9 -25.2 | N 13 53.2 -12.5 | | 20 |
| 21 | 138 | 15.7 +00.2 | S 06 47.4 +01.0 | | 181 | 12.2 +00.2 | N 09 23.0 -00.4 | | 176 | 22.7 -25.1 | N 13 40.7 -12.6 | | 21 |
| 22 | 153 | 15.9 +00.1 | S 06 48.4 +00.9 | | 196 | 12.4 +00.3 | N 09 22.6 -00.5 | | 190 | 57.6 -25.1 | N 13 28.1 -12.6 | | 22 |
| 23 | 168 | 16.0 +00.2 | S 06 49.3 +01.0 | | 211 | 12.7 +00.3 | N 09 22.1 -00.5 | | 205 | 32.5 -25.1 | N 13 15.5 -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 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 14'7 14'7 14'7 14'7 14'7 14'7 | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | | | HP 54'1 54'1 54'1 54'1 54'1 54'1 | | | | |
| | SHA 165° 165° 164° 164° 164° 164° | | | | SHA 208° 208° 207° 207° 207° 207° | | | | SHA 211° 209° 207° 205° 204° 202° | | | | |
| | Greenwich Culmination Time: 11:47 | | | | Greenwich Culmination Time: 08:55 | | | | Greenwich Culmination Time: 08:53 | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|------------|-----------------|------|-----------------------------------|------------|-----------------|------|-----------------------------------|------------|-----------------|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 171 | 43.7 +00.9 | S 10 42.0 +00.7 | | 336 | 47.6 +02.7 | N 14 33.7 +00.0 | | 44 | 36.4 +02.5 | S 12 45.6 +00.0 | | 00 |
| 01 | 186 | 44.6 +00.9 | S 10 42.7 +00.6 | | 351 | 50.3 +02.7 | N 14 33.7 -00.1 | | 59 | 38.9 +02.6 | S 12 45.6 +00.1 | | 01 |
| 02 | 201 | 45.5 +00.8 | S 10 43.3 +00.6 | | 6 | 53.0 +02.7 | N 14 33.6 -00.1 | | 74 | 41.5 +02.5 | S 12 45.7 +00.0 | | 02 |
| 03 | 216 | 46.3 +00.9 | S 10 43.9 +00.6 | | 21 | 55.7 +02.8 | N 14 33.5 -00.1 | | 89 | 44.0 +02.6 | S 12 45.7 +00.0 | | 03 |
| 04 | 231 | 47.2 +00.9 | S 10 44.5 +00.6 | | 36 | 58.5 +02.7 | N 14 33.4 -00.1 | | 104 | 46.6 +02.6 | S 12 45.7 +00.1 | | 04 |
| 05 | 246 | 48.1 +00.9 | S 10 45.1 +00.7 | | 52 | 01.2 +02.7 | N 14 33.3 -00.1 | | 119 | 49.2 +02.5 | S 12 45.8 +00.0 | | 05 |
| 06 | 261 | 49.0 +00.8 | S 10 45.8 +00.6 | | 67 | 03.9 +02.8 | N 14 33.2 +00.0 | | 134 | 51.7 +02.6 | S 12 45.8 +00.0 | | 06 |
| 07 | 276 | 49.8 +00.9 | S 10 46.4 +00.6 | | 82 | 06.7 +02.7 | N 14 33.2 -00.1 | | 149 | 54.3 +02.6 | S 12 45.8 +00.1 | | 07 |
| 08 | 291 | 50.7 +00.9 | S 10 47.0 +00.6 | | 97 | 09.4 +02.7 | N 14 33.1 -00.1 | | 164 | 56.9 +02.5 | S 12 45.9 +00.0 | | 08 |
| 09 | 306 | 51.6 +00.8 | S 10 47.6 +00.7 | | 112 | 12.1 +02.7 | N 14 33.0 -00.1 | | 179 | 59.4 +02.6 | S 12 45.9 +00.0 | | 09 |
| 10 | 321 | 52.4 +00.9 | S 10 48.3 +00.6 | | 127 | 14.8 +02.8 | N 14 32.9 -00.1 | | 195 | 02.0 +02.6 | S 12 45.9 +00.1 | | 10 |
| 11 | 336 | 53.3 +00.9 | S 10 48.9 +00.6 | | 142 | 17.6 +02.7 | N 14 32.8 -00.1 | | 210 | 04.6 +02.5 | S 12 46.0 +00.0 | | 11 |
| 12 | 351 | 54.2 +00.8 | S 10 49.5 +00.6 | | 157 | 20.3 +02.7 | N 14 32.7 +00.0 | | 225 | 07.1 +02.6 | S 12 46.0 +00.0 | | 12 |
| 13 | 6 | 55.0 +00.9 | S 10 50.1 +00.6 | | 172 | 23.0 +02.8 | N 14 32.7 -00.1 | | 240 | 09.7 +02.5 | S 12 46.0 +00.1 | | 13 |
| 14 | 21 | 55.9 +00.9 | S 10 50.7 +00.7 | | 187 | 25.8 +02.7 | N 14 32.6 -00.1 | | 255 | 12.2 +02.6 | S 12 46.1 +00.0 | | 14 |
| 15 | 36 | 56.8 +00.8 | S 10 51.4 +00.6 | | 202 | 28.5 +02.7 | N 14 32.5 -00.1 | | 270 | 14.8 +02.6 | S 12 46.1 +00.0 | | 15 |
| 16 | 51 | 57.6 +00.9 | S 10 52.0 +00.6 | | 217 | 31.2 +02.8 | N 14 32.4 -00.1 | | 285 | 17.4 +02.5 | S 12 46.1 +00.1 | | 16 |
| 17 | 66 | 58.5 +00.9 | S 10 52.6 +00.6 | | 232 | 34.0 +02.7 | N 14 32.3 -00.1 | | 300 | 19.9 +02.6 | S 12 46.2 +00.0 | | 17 |
| 18 | 81 | 59.4 +00.8 | S 10 53.2 +00.6 | | 247 | 36.7 +02.7 | N 14 32.2 +00.0 | | 315 | 22.5 +02.5 | S 12 46.2 +00.0 | | 18 |
| 19 | 97 | 00.2 +00.9 | S 10 53.8 +00.7 | | 262 | 39.4 +02.8 | N 14 32.2 -00.1 | | 330 | 25.0 +02.6 | S 12 46.2 +00.1 | | 19 |
| 20 | 112 | 01.1 +00.9 | S 10 54.5 +00.6 | | 277 | 42.2 +02.7 | N 14 32.1 -00.1 | | 345 | 27.6 +02.6 | S 12 46.3 +00.0 | | 20 |
| 21 | 127 | 02.0 +00.8 | S 10 55.1 +00.6 | | 292 | 44.9 +02.7 | N 14 32.0 -00.1 | | 0 | 30.2 +02.5 | S 12 46.3 +00.0 | | 21 |
| 22 | 142 | 02.8 +00.9 | S 10 55.7 +00.6 | | 307 | 47.6 +02.8 | N 14 31.9 -00.1 | | 15 | 32.7 +02.6 | S 12 46.3 +00.1 | | 22 |
| 23 | 157 | 03.7 +00.9 | S 10 56.3 +00.6 | | 322 | 50.4 +02.7 | N 14 31.8 -00.1 | | 30 | 35.3 +02.5 | S 12 46.4 +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 153° 153° 153° 153° 153° 153° | | | | SHA 318° 318° 318° 319° 319° 319° | | | | SHA 026° 026° 026° 026° 026° 026° | | | | |
| | Greenwich Culmination Time: 12:32 | | | | Greenwich Culmination Time: 01:32 | | | | Greenwich Culmination Time: 20:57 | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|--------------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 16.2 +00.1 | S | 06 50.3 +00.9 | 226 13.0 +00.3 | N | 09 21.6 -00.5 | 220 07.4 -25.0 | N | 13 02.8 -12.7 | 00 | | | |
| 01 | 198 16.3 +00.2 | S | 06 51.2 +01.0 | 241 13.3 +00.3 | N | 09 21.1 -00.5 | 234 42.4 -25.0 | N | 12 50.1 -12.8 | 01 | | | |
| 02 | 213 16.5 +00.2 | S | 06 52.2 +00.9 | 256 13.6 +00.2 | N | 09 20.6 -00.4 | 249 17.4 -24.9 | N | 12 37.3 -12.8 | 02 | | | |
| 03 | 228 16.7 +00.1 | S | 06 53.1 +01.0 | 271 13.8 +00.3 | N | 09 20.2 -00.5 | 263 52.5 -24.9 | N | 12 24.5 -12.8 | 03 | | | |
| 04 | 243 16.8 +00.2 | S | 06 54.1 +00.9 | 286 14.1 +00.3 | N | 09 19.7 -00.5 | 278 27.6 -24.9 | N | 12 11.7 -13.0 | 04 | | | |
| 05 | 258 17.0 +00.2 | S | 06 55.0 +00.9 | 301 14.4 +00.3 | N | 09 19.2 -00.5 | 293 02.7 -24.8 | N | 11 58.7 -12.9 | 05 | | | |
| 06 | 273 17.2 +00.1 | S | 06 55.9 +01.0 | 316 14.7 +00.2 | N | 09 18.7 -00.5 | 307 37.9 -24.8 | N | 11 45.8 -13.0 | 06 | | | |
| 07 | 288 17.3 +00.2 | S | 06 56.9 +00.9 | 331 14.9 +00.3 | N | 09 18.2 -00.5 | 322 13.1 -24.8 | N | 11 32.8 -13.1 | 07 | | | |
| 08 | 303 17.5 +00.1 | S | 06 57.8 +01.0 | 346 15.2 +00.3 | N | 09 17.7 -00.5 | 336 48.3 -24.7 | N | 11 19.7 -13.1 | 08 | | | |
| 09 | 318 17.6 +00.2 | S | 06 58.8 +00.9 | 1 15.5 +00.2 | N | 09 17.2 -00.4 | 351 23.6 -24.7 | N | 11 06.6 -13.1 | 09 | | | |
| 10 | 333 17.8 +00.2 | S | 06 59.7 +01.0 | 16 15.7 +00.3 | N | 09 16.8 -00.5 | 5 58.9 -24.7 | N | 10 53.5 -13.2 | 10 | | | |
| 11 | 348 18.0 +00.1 | S | 07 00.7 +00.9 | 31 16.0 +00.3 | N | 09 16.3 -00.5 | 20 34.2 -24.6 | N | 10 40.3 -13.3 | 11 | | | |
| 12 | 3 18.1 +00.2 | S | 07 01.6 +00.9 | 46 16.3 +00.2 | N | 09 15.8 -00.5 | 35 09.6 -24.6 | N | 10 27.0 -13.2 | 12 | | | |
| 13 | 18 18.3 +00.2 | S | 07 02.5 +01.0 | 61 16.5 +00.3 | N | 09 15.3 -00.5 | 49 45.0 -24.6 | N | 10 13.8 -13.4 | 13 | | | |
| 14 | 33 18.5 +00.1 | S | 07 03.5 +00.9 | 76 16.8 +00.3 | N | 09 14.8 -00.5 | 64 20.4 -24.5 | N | 10 00.4 -13.3 | 14 | | | |
| 15 | 48 18.6 +00.2 | S | 07 04.4 +01.0 | 91 17.1 +00.2 | N | 09 14.3 -00.5 | 78 55.9 -24.6 | N | 09 47.1 -13.4 | 15 | | | |
| 16 | 63 18.8 +00.1 | S | 07 05.4 +00.9 | 106 17.3 +00.3 | N | 09 13.8 -00.5 | 93 31.3 -24.5 | N | 09 33.7 -13.5 | 16 | | | |
| 17 | 78 18.9 +00.2 | S | 07 06.3 +01.0 | 121 17.6 +00.2 | N | 09 13.3 -00.5 | 108 06.8 -24.4 | N | 09 20.2 -13.4 | 17 | | | |
| 18 | 93 19.1 +00.2 | S | 07 07.3 +00.9 | 136 17.8 +00.3 | N | 09 12.8 -00.5 | 122 42.4 -24.5 | N | 09 06.8 -13.6 | 18 | | | |
| 19 | 108 19.3 +00.1 | S | 07 08.2 +00.9 | 151 18.1 +00.3 | N | 09 12.3 -00.5 | 137 17.9 -24.4 | N | 08 53.2 -13.5 | 19 | | | |
| 20 | 123 19.4 +00.2 | S | 07 09.1 +01.0 | 166 18.4 +00.2 | N | 09 11.8 -00.5 | 151 53.5 -24.4 | N | 08 39.7 -13.6 | 20 | | | |
| 21 | 138 19.6 +00.1 | S | 07 10.1 +00.9 | 181 18.6 +00.3 | N | 09 11.3 -00.5 | 166 29.1 -24.4 | N | 08 26.1 -13.6 | 21 | | | |
| 22 | 153 19.7 +00.2 | S | 07 11.0 +01.0 | 196 18.9 +00.2 | N | 09 10.8 -00.5 | 181 04.7 -24.4 | N | 08 12.5 -13.7 | 22 | | | |
| 23 | 168 19.9 +00.2 | S | 07 12.0 +00.9 | 211 19.1 +00.3 | N | 09 10.3 -00.5 | 195 40.3 -24.4 | N | 07 58.8 -13.7 | 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 14'7 14'8 14'8 14'8 14'8 14'8 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | | HP 54'1 54'1 54'2 54'2 54'2 54'3 | | | | | | |
| | SHA 164° 164° 164° 163° 163° 163° | | | SHA 207° 207° 207° 206° 206° 206° | | | SHA 200° 198° 196° 194° 193° 191° | | | | | | |
| | Greenwich Culmination Time: 11:46 | | | Greenwich Culmination Time: 08:54 | | | Greenwich Culmination Time: 09:35 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|----------------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 172 04.6 +00.8 | S | 10 56.9 +00.6 | 337 53.1 +02.7 | N | 14 31.7 -00.1 | 45 37.8 +02.6 | S | 12 46.4 +00.0 | 00 | | | |
| 01 | 187 05.4 +00.9 | S | 10 57.5 +00.7 | 352 55.8 +02.8 | N | 14 31.6 +00.0 | 60 40.4 +02.6 | S | 12 46.4 +00.1 | 01 | | | |
| 02 | 202 06.3 +00.9 | S | 10 58.2 +00.6 | 7 58.6 +02.7 | N | 14 31.6 -00.1 | 75 43.0 +02.5 | S | 12 46.5 +00.0 | 02 | | | |
| 03 | 217 07.2 +00.8 | S | 10 58.8 +00.6 | 23 01.3 +02.7 | N | 14 31.5 -00.1 | 90 45.5 +02.6 | S | 12 46.5 +00.0 | 03 | | | |
| 04 | 232 08.0 +00.9 | S | 10 59.4 +00.6 | 38 04.0 +02.8 | N | 14 31.4 -00.1 | 105 48.1 +02.5 | S | 12 46.5 +00.1 | 04 | | | |
| 05 | 247 08.9 +00.9 | S | 11 00.0 +00.6 | 53 06.8 +02.7 | N | 14 31.3 -00.1 | 120 50.6 +02.6 | S | 12 46.6 +00.0 | 05 | | | |
| 06 | 262 09.8 +00.8 | S | 11 00.6 +00.7 | 68 09.5 +02.7 | N | 14 31.2 -00.1 | 135 53.2 +02.6 | S | 12 46.6 +00.0 | 06 | | | |
| 07 | 277 10.6 +00.9 | S | 11 01.3 +00.6 | 83 12.2 +02.8 | N | 14 31.1 +00.0 | 150 55.8 +02.5 | S | 12 46.6 +00.1 | 07 | | | |
| 08 | 292 11.5 +00.9 | S | 11 01.9 +00.6 | 98 15.0 +02.7 | N | 14 31.1 -00.1 | 165 58.3 +02.6 | S | 12 46.7 +00.0 | 08 | | | |
| 09 | 307 12.4 +00.8 | S | 11 02.5 +00.6 | 113 17.7 +02.7 | N | 14 31.0 -00.1 | 181 00.9 +02.5 | S | 12 46.7 +00.0 | 09 | | | |
| 10 | 322 13.2 +00.9 | S | 11 03.1 +00.6 | 128 20.4 +02.8 | N | 14 30.9 -00.1 | 196 03.4 +02.6 | S | 12 46.7 +00.1 | 10 | | | |
| 11 | 337 14.1 +00.8 | S | 11 03.7 +00.7 | 143 23.2 +02.7 | N | 14 30.8 -00.1 | 211 06.0 +02.6 | S | 12 46.8 +00.0 | 11 | | | |
| 12 | 352 14.9 +00.9 | S | 11 04.4 +00.6 | 158 25.9 +02.7 | N | 14 30.7 -00.1 | 226 08.6 +02.5 | S | 12 46.8 +00.0 | 12 | | | |
| 13 | 7 15.8 +00.9 | S | 11 05.0 +00.6 | 173 28.6 +02.8 | N | 14 30.6 -00.1 | 241 11.1 +02.6 | S | 12 46.8 +00.0 | 13 | | | |
| 14 | 22 16.7 +00.8 | S | 11 05.6 +00.6 | 188 31.4 +02.7 | N | 14 30.5 +00.0 | 256 13.7 +02.5 | S | 12 46.8 +00.1 | 14 | | | |
| 15 | 37 17.5 +00.9 | S | 11 06.2 +00.6 | 203 34.1 +02.8 | N | 14 30.5 -00.1 | 271 16.2 +02.6 | S | 12 46.9 +00.0 | 15 | | | |
| 16 | 52 18.4 +00.9 | S | 11 06.8 +00.6 | 218 36.9 +02.7 | N | 14 30.4 -00.1 | 286 18.8 +02.6 | S | 12 46.9 +00.0 | 16 | | | |
| 17 | 67 19.3 +00.8 | S | 11 07.4 +00.7 | 233 39.6 +02.7 | N | 14 30.3 -00.1 | 301 21.4 +02.5 | S | 12 46.9 +00.1 | 17 | | | |
| 18 | 82 20.1 +00.9 | S | 11 08.1 +00.6 | 248 42.3 +02.8 | N | 14 30.2 -00.1 | 316 23.9 +02.6 | S | 12 47.0 +00.0 | 18 | | | |
| 19 | 97 21.0 +00.9 | S | 11 08.7 +00.6 | 263 45.1 +02.7 | N | 14 30.1 -00.1 | 331 26.5 +02.5 | S | 12 47.0 +00.0 | 19 | | | |
| 20 | 112 21.9 +00.8 | S | 11 09.3 +00.6 | 278 47.8 +02.7 | N | 14 30.0 -00.1 | 346 29.0 +02.6 | S | 12 47.0 +00.1 | 20 | | | |
| 21 | 127 22.7 +00.9 | S | 11 09.9 +00.6 | 293 50.5 +02.8 | N | 14 29.9 +00.0 | 1 31.6 +02.5 | S | 12 47.1 +00.0 | 21 | | | |
| 22 | 142 23.6 +00.8 | S | 11 10.5 +00.6 | 308 53.3 +02.7 | N | 14 29.9 -00.1 | 16 34.1 +02.6 | S | 12 47.1 +00.0 | 22 | | | |
| 23 | 157 24.4 +00.9 | S | 11 11.1 +00.7 | 323 56.0 +02.8 | N | 14 29.8 -00.1 | 31 36.7 +02.6 | S | 12 47.1 +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 153° 153° 152° 152° 152° 152° | | | SHA 319° 319° 319° 319° 319° 319° | | | SHA 026° 026° 026° 026° 026° 026° | | | | | | |
| | Greenwich Culmination Time: 12:30 | | | Greenwich Culmination Time: 01:28 | | | Greenwich Culmination Time: 20:53 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 20.1 +00.1 | S | 07 12.9 +01.0 | 226 19.4 +00.2 | N 09 09.8 -00.5 | 210 15.9 -24.3 | N 07 45.1 -13.7 | 00 | | | | | |
| 01 | 198 20.2 +00.2 | S | 07 13.9 +00.9 | 241 19.6 +00.3 | N 09 09.3 -00.5 | 224 51.6 -24.3 | N 07 31.4 -13.8 | 01 | | | | | |
| 02 | 213 20.4 +00.1 | S | 07 14.8 +00.9 | 256 19.9 +00.2 | N 09 08.8 -00.5 | 239 27.3 -24.3 | N 07 17.6 -13.8 | 02 | | | | | |
| 03 | 228 20.5 +00.2 | S | 07 15.7 +01.0 | 271 20.1 +00.3 | N 09 08.3 -00.5 | 254 03.0 -24.3 | N 07 03.8 -13.8 | 03 | | | | | |
| 04 | 243 20.7 +00.1 | S | 07 16.7 +00.9 | 286 20.4 +00.2 | N 09 07.8 -00.5 | 268 38.7 -24.3 | N 06 50.0 -13.9 | 04 | | | | | |
| 05 | 258 20.8 +00.2 | S | 07 17.6 +01.0 | 301 20.6 +00.3 | N 09 07.3 -00.5 | 283 14.4 -24.2 | N 06 36.1 -13.9 | 05 | | | | | |
| 06 | 273 21.0 +00.2 | S | 07 18.6 +00.9 | 316 20.9 +00.2 | N 09 06.8 -00.5 | 297 50.2 -24.3 | N 06 22.2 -13.9 | 06 | | | | | |
| 07 | 288 21.2 +00.1 | S | 07 19.5 +00.9 | 331 21.1 +00.3 | N 09 06.3 -00.5 | 312 25.9 -24.2 | N 06 08.3 -14.0 | 07 | | | | | |
| 08 | 303 21.3 +00.2 | S | 07 20.4 +01.0 | 346 21.4 +00.2 | N 09 05.8 -00.5 | 327 01.7 -24.2 | N 05 54.3 -13.9 | 08 | | | | | |
| 09 | 318 21.5 +00.1 | S | 07 21.4 +00.9 | 1 21.6 +00.3 | N 09 05.3 -00.5 | 341 37.5 -24.3 | N 05 40.4 -14.0 | 09 | | | | | |
| 10 | 333 21.6 +00.2 | S | 07 22.3 +00.9 | 16 21.9 +00.2 | N 09 04.8 -00.6 | 356 13.2 -24.2 | N 05 26.4 -14.1 | 10 | | | | | |
| 11 | 348 21.8 +00.1 | S | 07 23.2 +01.0 | 31 22.1 +00.3 | N 09 04.2 -00.5 | 10 49.0 -24.2 | N 05 12.3 -14.0 | 11 | | | | | |
| 12 | 3 21.9 +00.2 | S | 07 24.2 +00.9 | 46 22.4 +00.2 | N 09 03.7 -00.5 | 25 24.8 -24.2 | N 04 58.3 -14.1 | 12 | | | | | |
| 13 | 18 22.1 +00.2 | S | 07 25.1 +01.0 | 61 22.6 +00.3 | N 09 03.2 -00.5 | 40 00.6 -24.2 | N 04 44.2 -14.1 | 13 | | | | | |
| 14 | 33 22.3 +00.1 | S | 07 26.1 +00.9 | 76 22.9 +00.2 | N 09 02.7 -00.5 | 54 36.4 -24.1 | N 04 30.1 -14.1 | 14 | | | | | |
| 15 | 48 22.4 +00.2 | S | 07 27.0 +00.9 | 91 23.1 +00.2 | N 09 02.2 -00.5 | 69 12.3 -24.2 | N 04 16.0 -14.2 | 15 | | | | | |
| 16 | 63 22.6 +00.1 | S | 07 27.9 +01.0 | 106 23.3 +00.3 | N 09 01.7 -00.5 | 83 48.1 -24.2 | N 04 01.8 -14.2 | 16 | | | | | |
| 17 | 78 22.7 +00.2 | S | 07 28.9 +00.9 | 121 23.6 +00.2 | N 09 01.2 -00.6 | 98 23.9 -24.2 | N 03 47.6 -14.2 | 17 | | | | | |
| 18 | 93 22.9 +00.1 | S | 07 29.8 +01.0 | 136 23.8 +00.3 | N 09 00.6 -00.5 | 112 59.7 -24.2 | N 03 33.4 -14.2 | 18 | | | | | |
| 19 | 108 23.0 +00.2 | S | 07 30.8 +00.9 | 151 24.1 +00.2 | N 09 00.1 -00.5 | 127 35.5 -24.2 | N 03 19.2 -14.2 | 19 | | | | | |
| 20 | 123 23.2 +00.1 | S | 07 31.7 +00.9 | 166 24.3 +00.2 | N 08 59.6 -00.5 | 142 11.3 -24.1 | N 03 05.0 -14.3 | 20 | | | | | |
| 21 | 138 23.3 +00.2 | S | 07 32.6 +01.0 | 181 24.5 +00.3 | N 08 59.1 -00.5 | 156 47.2 -24.2 | N 02 50.7 -14.2 | 21 | | | | | |
| 22 | 153 23.5 +00.1 | S | 07 33.6 +00.9 | 196 24.8 +00.2 | N 08 58.6 -00.6 | 171 23.0 -24.2 | N 02 36.5 -14.3 | 22 | | | | | |
| 23 | 168 23.6 +00.2 | S | 07 34.5 +00.9 | 211 25.0 +00.2 | N 08 58.0 -00.5 | 185 58.8 -24.2 | N 02 22.2 -14.3 | 23 | | | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | | |
| | SD 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 14'9 | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | | | HP 54'3 54'3 54'4 54'4 54'5 54'5 | | | | | |
| | SHA 163° 163° 163° 162° 162° 162° | | | SHA 206° 206° 206° 205° 205° 205° | | | | SHA 189° 187° 185° 184° 182° 180° | | | | | |
| | Greenwich Culmination Time: 11:46 | | | Greenwich Culmination Time: 08:54 | | | | Greenwich Culmination Time: 10:15 | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 172 25.3 +00.9 | S | 11 11.8 +00.6 | 338 58.8 +02.7 | N 14 29.7 -00.1 | 46 39.3 +02.5 | S 12 47.2 +00.0 | 00 | | | | | |
| 01 | 187 26.2 +00.8 | S | 11 12.4 +00.6 | 354 01.5 +02.7 | N 14 29.6 -00.1 | 61 41.8 +02.6 | S 12 47.2 +00.0 | 01 | | | | | |
| 02 | 202 27.0 +00.9 | S | 11 13.0 +00.6 | 9 04.2 +02.8 | N 14 29.5 -00.1 | 76 44.4 +02.5 | S 12 47.2 +00.1 | 02 | | | | | |
| 03 | 217 27.9 +00.8 | S | 11 13.6 +00.6 | 24 07.0 +02.7 | N 14 29.4 -00.1 | 91 46.9 +02.6 | S 12 47.3 +00.0 | 03 | | | | | |
| 04 | 232 28.7 +00.9 | S | 11 14.2 +00.6 | 39 09.7 +02.8 | N 14 29.3 +00.0 | 106 49.5 +02.5 | S 12 47.3 +00.0 | 04 | | | | | |
| 05 | 247 29.6 +00.9 | S | 11 14.8 +00.7 | 54 12.5 +02.7 | N 14 29.3 -00.1 | 121 52.0 +02.6 | S 12 47.3 +00.0 | 05 | | | | | |
| 06 | 262 30.5 +00.8 | S | 11 15.5 +00.6 | 69 15.2 +02.7 | N 14 29.2 -00.1 | 136 54.6 +02.6 | S 12 47.3 +00.1 | 06 | | | | | |
| 07 | 277 31.3 +00.9 | S | 11 16.1 +00.6 | 84 17.9 +02.8 | N 14 29.1 -00.1 | 151 57.2 +02.5 | S 12 47.4 +00.0 | 07 | | | | | |
| 08 | 292 32.2 +00.8 | S | 11 16.7 +00.6 | 99 20.7 +02.7 | N 14 29.0 -00.1 | 166 59.7 +02.6 | S 12 47.4 +00.0 | 08 | | | | | |
| 09 | 307 33.0 +00.9 | S | 11 17.3 +00.6 | 114 23.4 +02.8 | N 14 28.9 -00.1 | 182 02.3 +02.5 | S 12 47.4 +00.1 | 09 | | | | | |
| 10 | 322 33.9 +00.9 | S | 11 17.9 +00.6 | 129 26.2 +02.7 | N 14 28.8 -00.1 | 197 04.8 +02.6 | S 12 47.5 +00.0 | 10 | | | | | |
| 11 | 337 34.8 +00.8 | S | 11 18.5 +00.6 | 144 28.9 +02.7 | N 14 28.7 -00.1 | 212 07.4 +02.5 | S 12 47.5 +00.0 | 11 | | | | | |
| 12 | 352 35.6 +00.9 | S | 11 19.1 +00.7 | 159 31.6 +02.8 | N 14 28.6 +00.0 | 227 09.9 +02.6 | S 12 47.5 +00.1 | 12 | | | | | |
| 13 | 7 36.5 +00.8 | S | 11 19.8 +00.6 | 174 34.4 +02.7 | N 14 28.6 -00.1 | 242 12.5 +02.5 | S 12 47.6 +00.0 | 13 | | | | | |
| 14 | 22 37.3 +00.9 | S | 11 20.4 +00.6 | 189 37.1 +02.8 | N 14 28.5 -00.1 | 257 15.0 +02.6 | S 12 47.6 +00.0 | 14 | | | | | |
| 15 | 37 38.2 +00.8 | S | 11 21.0 +00.6 | 204 39.9 +02.7 | N 14 28.4 -00.1 | 272 17.6 +02.6 | S 12 47.6 +00.1 | 15 | | | | | |
| 16 | 52 39.0 +00.9 | S | 11 21.6 +00.6 | 219 42.6 +02.8 | N 14 28.3 -00.1 | 287 20.2 +02.5 | S 12 47.7 +00.0 | 16 | | | | | |
| 17 | 67 39.9 +00.9 | S | 11 22.2 +00.6 | 234 45.4 +02.7 | N 14 28.2 -00.1 | 302 22.7 +02.6 | S 12 47.7 +00.0 | 17 | | | | | |
| 18 | 82 40.8 +00.8 | S | 11 22.8 +00.6 | 249 48.1 +02.7 | N 14 28.1 -00.1 | 317 25.3 +02.5 | S 12 47.7 +00.0 | 18 | | | | | |
| 19 | 97 41.6 +00.9 | S | 11 23.4 +00.7 | 264 50.8 +02.8 | N 14 28.0 +00.0 | 332 27.8 +02.6 | S 12 47.7 +00.1 | 19 | | | | | |
| 20 | 112 42.5 +00.8 | S | 11 24.1 +00.6 | 279 53.6 +02.7 | N 14 28.0 -00.1 | 347 30.4 +02.5 | S 12 47.8 +00.0 | 20 | | | | | |
| 21 | 127 43.3 +00.9 | S | 11 24.7 +00.6 | 294 56.3 +02.8 | N 14 27.9 -00.1 | 2 32.9 +02.6 | S 12 47.8 +00.0 | 21 | | | | | |
| 22 | 142 44.2 +00.8 | S | 11 25.3 +00.6 | 309 59.1 +02.7 | N 14 27.8 -00.1 | 17 35.5 +02.5 | S 12 47.8 +00.1 | 22 | | | | | |
| 23 | 157 45.0 +00.9 | S | 11 25.9 +00.6 | 325 01.8 +02.8 | N 14 27.7 -00.1 | 32 38.0 +02.6 | S 12 47.9 +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 152° 152° 152° 152° 152° 152° | | | SHA 319° 319° 319° 319° 319° 319° | | | | SHA 026° 026° 026° 026° 026° 026° | | | | | |
| | Greenwich Culmination Time: 12:29 | | | Greenwich Culmination Time: 01:23 | | | | Greenwich Culmination Time: 20:49 | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|--------------|---------------|-----------------------------------|------|---------------|-------|------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 183 23.8 +00.1 | S | 07 35.4 +01.0 | 226 25.2 +00.3 | N | 08 57.5 -00.5 | 200 34.6 -24.2 | N | 02 07.9 -14.3 | 00 | | | | | | | | | | |
| 01 | 198 23.9 +00.2 | S | 07 36.4 +00.9 | 241 25.5 +00.2 | N | 08 57.0 -00.5 | 215 10.4 -24.2 | N | 01 53.6 -14.4 | 01 | | | | | | | | | | |
| 02 | 213 24.1 +00.2 | S | 07 37.3 +01.0 | 256 25.7 +00.2 | N | 08 56.5 -00.5 | 229 46.2 -24.2 | N | 01 39.2 -14.3 | 02 | | | | | | | | | | |
| 03 | 228 24.3 +00.1 | S | 07 38.3 +00.9 | 271 25.9 +00.3 | N | 08 56.0 -00.6 | 244 22.0 -24.3 | N | 01 24.9 -14.4 | 03 | | | | | | | | | | |
| 04 | 243 24.4 +00.2 | S | 07 39.2 +00.9 | 286 26.2 +00.2 | N | 08 55.4 -00.5 | 258 57.7 -24.2 | N | 01 10.5 -14.3 | 04 | | | | | | | | | | |
| 05 | 258 24.6 +00.1 | S | 07 40.1 +01.0 | 301 26.4 +00.2 | N | 08 54.9 -00.5 | 273 33.5 -24.3 | N | 00 56.2 -14.4 | 05 | | | | | | | | | | |
| 06 | 273 24.7 +00.2 | S | 07 41.1 +00.9 | 316 26.6 +00.3 | N | 08 54.4 -00.6 | 288 09.2 -24.2 | N | 00 41.8 -14.4 | 06 | | | | | | | | | | |
| 07 | 288 24.9 +00.1 | S | 07 42.0 +00.9 | 331 26.9 +00.2 | N | 08 53.8 -00.5 | 302 45.0 -24.3 | N | 00 27.4 -14.4 | 07 | | | | | | | | | | |
| 08 | 303 25.0 +00.2 | S | 07 42.9 +01.0 | 346 27.1 +00.2 | N | 08 53.3 -00.5 | 317 20.7 -24.3 | N | 00 13.0 -14.4 | 08 | | | | | | | | | | |
| 09 | 318 25.2 +00.1 | S | 07 43.9 +00.9 | 1 27.3 +00.2 | N | 08 52.8 -00.5 | 331 56.4 -24.3 | S | 00 01.4 +14.4 | 09 | | | | | | | | | | |
| 10 | 333 25.3 +00.2 | S | 07 44.8 +00.9 | 16 27.5 +00.3 | N | 08 52.3 -00.6 | 346 32.1 -24.3 | S | 00 15.8 +14.5 | 10 | | | | | | | | | | |
| 11 | 348 25.5 +00.1 | S | 07 45.7 +01.0 | 31 27.8 +00.2 | N | 08 51.7 -00.5 | 1 07.8 -24.3 | S | 00 30.3 +14.4 | 11 | | | | | | | | | | |
| 12 | 3 25.6 +00.2 | S | 07 46.7 +00.9 | 46 28.0 +00.2 | N | 08 51.2 -00.5 | 15 43.5 -24.4 | S | 00 44.7 +14.5 | 12 | | | | | | | | | | |
| 13 | 18 25.8 +00.1 | S | 07 47.6 +00.9 | 61 28.2 +00.2 | N | 08 50.7 -00.6 | 30 19.1 -24.4 | S | 00 59.2 +14.4 | 13 | | | | | | | | | | |
| 14 | 33 25.9 +00.2 | S | 07 48.5 +01.0 | 76 28.4 +00.2 | N | 08 50.1 -00.5 | 44 54.7 -24.4 | S | 01 13.6 +14.4 | 14 | | | | | | | | | | |
| 15 | 48 26.1 +00.1 | S | 07 49.5 +00.9 | 91 28.6 +00.3 | N | 08 49.6 -00.5 | 59 30.3 -24.4 | S | 01 28.0 +14.5 | 15 | | | | | | | | | | |
| 16 | 63 26.2 +00.2 | S | 07 50.4 +00.9 | 106 28.9 +00.2 | N | 08 49.1 -00.6 | 74 05.9 -24.4 | S | 01 42.5 +14.4 | 16 | | | | | | | | | | |
| 17 | 78 26.4 +00.1 | S | 07 51.3 +01.0 | 121 29.1 +00.2 | N | 08 48.5 -00.5 | 88 41.5 -24.5 | S | 01 56.9 +14.5 | 17 | | | | | | | | | | |
| 18 | 93 26.5 +00.2 | S | 07 52.3 +00.9 | 136 29.3 +00.2 | N | 08 48.0 -00.6 | 103 17.0 -24.5 | S | 02 11.4 +14.5 | 18 | | | | | | | | | | |
| 19 | 108 26.7 +00.1 | S | 07 53.2 +00.9 | 151 29.5 +00.2 | N | 08 47.4 -00.5 | 117 52.5 -24.5 | S | 02 25.9 +14.4 | 19 | | | | | | | | | | |
| 20 | 123 26.8 +00.2 | S | 07 54.1 +01.0 | 166 29.7 +00.3 | N | 08 46.9 -00.5 | 132 28.0 -24.5 | S | 02 40.3 +14.5 | 20 | | | | | | | | | | |
| 21 | 138 27.0 +00.1 | S | 07 55.1 +00.9 | 181 30.0 +00.2 | N | 08 46.4 -00.6 | 147 03.5 -24.6 | S | 02 54.8 +14.4 | 21 | | | | | | | | | | |
| 22 | 153 27.1 +00.2 | S | 07 56.0 +00.9 | 196 30.2 +00.2 | N | 08 45.8 -00.5 | 161 38.9 -24.6 | S | 03 09.2 +14.5 | 22 | | | | | | | | | | |
| 23 | 168 27.3 +00.1 | S | 07 56.9 +01.0 | 211 30.4 +00.2 | N | 08 45.3 -00.6 | 176 14.3 -24.6 | S | 03 23.7 +14.4 | 23 | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 16°0 | 16°0 | 16°0 | 16°0 | 16°0 | 16°0 | SD | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | SD | 14°9 | 14°9 | 14°9 | 14°9 | 14°9 | 14°9 |
| HP | 00°1 | 00°1 | 00°1 | 00°1 | 00°1 | 00°1 | HP | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | HP | 54°6 | 54°6 | 54°7 | 54°7 | 54°8 | 54°9 |
| SHA | 162° | 162° | 162° | 162° | 161° | 161° | SHA | 205° | 205° | 205° | 205° | 204° | 204° | SHA | 178° | 177° | 175° | 173° | 171° | 169° |
| Greenwich Culmination Time: 11:46 | | | | | | | Greenwich Culmination Time: 08:54 | | | | | | | Greenwich Culmination Time: 10:55 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|----------------|---------------|-----------------------------------|------|---------------|-------|------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 172 45.9 +00.9 | S | 11 26.5 +00.6 | 340 04.6 +02.7 | N | 14 27.6 -00.1 | 47 40.6 +02.5 | S | 12 47.9 +00.0 | 00 | | | | | | | | | | |
| 01 | 187 46.8 +00.8 | S | 11 27.1 +00.6 | 355 07.3 +02.7 | N | 14 27.5 -00.1 | 62 43.1 +02.6 | S | 12 47.9 +00.1 | 01 | | | | | | | | | | |
| 02 | 202 47.6 +00.9 | S | 11 27.7 +00.7 | 10 10.0 +02.8 | N | 14 27.4 -00.1 | 77 45.7 +02.5 | S | 12 48.0 +00.0 | 02 | | | | | | | | | | |
| 03 | 217 48.5 +00.8 | S | 11 28.4 +00.6 | 25 12.8 +02.7 | N | 14 27.3 +00.0 | 92 48.2 +02.6 | S | 12 48.0 +00.0 | 03 | | | | | | | | | | |
| 04 | 232 49.3 +00.9 | S | 11 29.0 +00.6 | 40 15.5 +02.8 | N | 14 27.3 -00.1 | 107 50.8 +02.5 | S | 12 48.0 +00.0 | 04 | | | | | | | | | | |
| 05 | 247 50.2 +00.8 | S | 11 29.6 +00.6 | 55 18.3 +02.7 | N | 14 27.2 -00.1 | 122 53.3 +02.6 | S | 12 48.0 +00.1 | 05 | | | | | | | | | | |
| 06 | 262 51.0 +00.9 | S | 11 30.2 +00.6 | 70 21.0 +02.8 | N | 14 27.1 -00.1 | 137 55.9 +02.6 | S | 12 48.1 +00.0 | 06 | | | | | | | | | | |
| 07 | 277 51.9 +00.8 | S | 11 30.8 +00.6 | 85 23.8 +02.7 | N | 14 27.0 -00.1 | 152 58.5 +02.5 | S | 12 48.1 +00.0 | 07 | | | | | | | | | | |
| 08 | 292 52.7 +00.9 | S | 11 31.4 +00.6 | 100 26.5 +02.8 | N | 14 26.9 -00.1 | 168 01.0 +02.6 | S | 12 48.1 +00.1 | 08 | | | | | | | | | | |
| 09 | 307 53.6 +00.9 | S | 11 32.0 +00.6 | 115 29.3 +02.7 | N | 14 26.8 -00.1 | 183 03.6 +02.5 | S | 12 48.2 +00.0 | 09 | | | | | | | | | | |
| 10 | 322 54.5 +00.8 | S | 11 32.6 +00.7 | 130 32.0 +02.7 | N | 14 26.7 -00.1 | 198 06.1 +02.6 | S | 12 48.2 +00.0 | 10 | | | | | | | | | | |
| 11 | 337 55.3 +00.9 | S | 11 33.3 +00.6 | 145 34.7 +02.8 | N | 14 26.6 +00.0 | 213 08.7 +02.5 | S | 12 48.2 +00.0 | 11 | | | | | | | | | | |
| 12 | 352 56.2 +00.8 | S | 11 33.9 +00.6 | 160 37.5 +02.7 | N | 14 26.6 -00.1 | 228 11.2 +02.6 | S | 12 48.2 +00.1 | 12 | | | | | | | | | | |
| 13 | 7 57.0 +00.9 | S | 11 34.5 +00.6 | 175 40.2 +02.8 | N | 14 26.5 -00.1 | 243 13.8 +02.5 | S | 12 48.3 +00.0 | 13 | | | | | | | | | | |
| 14 | 22 57.9 +00.8 | S | 11 35.1 +00.6 | 190 43.0 +02.7 | N | 14 26.4 -00.1 | 258 16.3 +02.6 | S | 12 48.3 +00.0 | 14 | | | | | | | | | | |
| 15 | 37 58.7 +00.9 | S | 11 35.7 +00.6 | 205 45.7 +02.8 | N | 14 26.3 -00.1 | 273 18.9 +02.5 | S | 12 48.3 +00.1 | 15 | | | | | | | | | | |
| 16 | 52 59.6 +00.8 | S | 11 36.3 +00.6 | 220 48.5 +02.7 | N | 14 26.2 -00.1 | 288 21.4 +02.6 | S | 12 48.4 +00.0 | 16 | | | | | | | | | | |
| 17 | 68 00.4 +00.9 | S | 11 36.9 +00.6 | 235 51.2 +02.8 | N | 14 26.1 -00.1 | 303 24.0 +02.5 | S | 12 48.4 +00.0 | 17 | | | | | | | | | | |
| 18 | 83 01.3 +00.8 | S | 11 37.5 +00.7 | 250 54.0 +02.7 | N | 14 26.0 -00.1 | 318 26.5 +02.6 | S | 12 48.4 +00.0 | 18 | | | | | | | | | | |
| 19 | 98 02.1 +00.9 | S | 11 38.2 +00.6 | 265 56.7 +02.8 | N | 14 25.9 -00.1 | 333 29.1 +02.5 | S | 12 48.4 +00.1 | 19 | | | | | | | | | | |
| 20 | 113 03.0 +00.8 | S | 11 38.8 +00.6 | 280 59.5 +02.7 | N | 14 25.8 +00.0 | 348 31.6 +02.6 | S | 12 48.5 +00.0 | 20 | | | | | | | | | | |
| 21 | 128 03.8 +00.9 | S | 11 39.4 +00.6 | 296 02.2 +02.8 | N | 14 25.8 -00.1 | 3 34.2 +02.5 | S | 12 48.5 +00.0 | 21 | | | | | | | | | | |
| 22 | 143 04.7 +00.8 | S | 11 40.0 +00.6 | 311 05.0 +02.7 | N | 14 25.7 -00.1 | 18 36.7 +02.6 | S | 12 48.5 +00.1 | 22 | | | | | | | | | | |
| 23 | 158 05.5 +00.9 | S | 11 40.6 +00.6 | 326 07.7 +02.8 | N | 14 25.6 -00.1 | 33 39.3 +02.5 | S | 12 48.6 +00.0 | 23 | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| 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 | 151° | 151° | 151° | 151° | 151° | 151° | SHA | 319° | 319° | 319° | 319° | 319° | 319° | SHA | 026° | 026° | 026° | 026° | 026° | 026° |
| Greenwich Culmination Time: 12:28 | | | | | | | Greenwich Culmination Time: 01:19 | | | | | | | Greenwich Culmination Time: 20:45 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|-------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 27.4 +00.2 | S | 07 57.9 +00.9 | 226 30.6 +00.2 | N 08 44.7 -00.5 | 190 49.7 -24.7 | S 03 38.1 +14.5 | 00 | | | | | |
| 01 | 198 27.6 +00.1 | S | 07 58.8 +00.9 | 241 30.8 +00.2 | N 08 44.2 -00.5 | 205 25.0 -24.7 | S 03 52.6 +14.4 | 01 | | | | | |
| 02 | 213 27.7 +00.2 | S | 07 59.7 +01.0 | 256 31.0 +00.2 | N 08 43.7 -00.6 | 220 00.3 -24.7 | S 04 07.0 +14.4 | 02 | | | | | |
| 03 | 228 27.9 +00.1 | S | 08 00.7 +00.9 | 271 31.2 +00.2 | N 08 43.1 -00.5 | 234 35.6 -24.7 | S 04 21.4 +14.4 | 03 | | | | | |
| 04 | 243 28.0 +00.1 | S | 08 01.6 +00.9 | 286 31.4 +00.3 | N 08 42.6 -00.6 | 249 10.9 -24.8 | S 04 35.8 +14.5 | 04 | | | | | |
| 05 | 258 28.1 +00.2 | S | 08 02.5 +01.0 | 301 31.7 +00.2 | N 08 42.0 -00.5 | 263 46.1 -24.9 | S 04 50.3 +14.4 | 05 | | | | | |
| 06 | 273 28.3 +00.1 | S | 08 03.5 +00.9 | 316 31.9 +00.2 | N 08 41.5 -00.6 | 278 21.2 -24.8 | S 05 04.7 +14.3 | 06 | | | | | |
| 07 | 288 28.4 +00.2 | S | 08 04.4 +00.9 | 331 32.1 +00.2 | N 08 40.9 -00.5 | 292 56.4 -24.9 | S 05 19.0 +14.4 | 07 | | | | | |
| 08 | 303 28.6 +00.1 | S | 08 05.3 +01.0 | 346 32.3 +00.2 | N 08 40.4 -00.6 | 307 31.5 -25.0 | S 05 33.4 +14.4 | 08 | | | | | |
| 09 | 318 28.7 +00.2 | S | 08 06.3 +00.9 | 1 32.5 +00.2 | N 08 39.8 -00.5 | 322 06.5 -25.0 | S 05 47.8 +14.4 | 09 | | | | | |
| 10 | 333 28.9 +00.1 | S | 08 07.2 +00.9 | 16 32.7 +00.2 | N 08 39.3 -00.6 | 336 41.5 -25.0 | S 06 02.2 +14.3 | 10 | | | | | |
| 11 | 348 29.0 +00.2 | S | 08 08.1 +00.9 | 31 32.9 +00.2 | N 08 38.7 -00.5 | 351 16.5 -25.0 | S 06 16.5 +14.3 | 11 | | | | | |
| 12 | 3 29.2 +00.1 | S | 08 09.0 +01.0 | 46 33.1 +00.2 | N 08 38.2 -00.6 | 5 51.5 -25.2 | S 06 30.8 +14.3 | 12 | | | | | |
| 13 | 18 29.3 +00.2 | S | 08 10.0 +00.9 | 61 33.3 +00.2 | N 08 37.6 -00.5 | 20 26.3 -25.1 | S 06 45.1 +14.3 | 13 | | | | | |
| 14 | 33 29.5 +00.1 | S | 08 10.9 +00.9 | 76 33.5 +00.2 | N 08 37.1 -00.6 | 35 01.2 -25.2 | S 06 59.4 +14.3 | 14 | | | | | |
| 15 | 48 29.6 +00.1 | S | 08 11.8 +01.0 | 91 33.7 +00.2 | N 08 36.5 -00.5 | 49 36.0 -25.3 | S 07 13.7 +14.3 | 15 | | | | | |
| 16 | 63 29.7 +00.2 | S | 08 12.8 +00.9 | 106 33.9 +00.2 | N 08 36.0 -00.6 | 64 10.7 -25.2 | S 07 28.0 +14.2 | 16 | | | | | |
| 17 | 78 29.9 +00.1 | S | 08 13.7 +00.9 | 121 34.1 +00.2 | N 08 35.4 -00.5 | 78 45.5 -25.4 | S 07 42.2 +14.2 | 17 | | | | | |
| 18 | 93 30.0 +00.2 | S | 08 14.6 +00.9 | 136 34.3 +00.2 | N 08 34.9 -00.6 | 93 20.1 -25.4 | S 07 56.4 +14.2 | 18 | | | | | |
| 19 | 108 30.2 +00.1 | S | 08 15.5 +01.0 | 151 34.5 +00.2 | N 08 34.3 -00.6 | 107 54.7 -25.4 | S 08 10.6 +14.2 | 19 | | | | | |
| 20 | 123 30.3 +00.2 | S | 08 16.5 +00.9 | 166 34.7 +00.2 | N 08 33.7 -00.5 | 122 29.3 -25.5 | S 08 24.8 +14.1 | 20 | | | | | |
| 21 | 138 30.5 +00.1 | S | 08 17.4 +00.9 | 181 34.9 +00.2 | N 08 33.2 -00.6 | 137 03.8 -25.6 | S 08 38.9 +14.2 | 21 | | | | | |
| 22 | 153 30.6 +00.1 | S | 08 18.3 +01.0 | 196 35.1 +00.2 | N 08 32.6 -00.5 | 151 38.2 -25.6 | S 08 53.1 +14.1 | 22 | | | | | |
| 23 | 168 30.7 +00.2 | S | 08 19.3 +00.9 | 211 35.3 +00.2 | N 08 32.1 -00.6 | 166 12.6 -25.6 | S 09 07.2 +14.0 | 23 | | | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | | |
| | SD 16'0 16'0 16'0 16'0 16'0 16'0 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | | SD 15'0 15'0 15'0 15'0 15'0 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 54'9 55'0 55'1 55'1 55'2 55'3 | | | | | |
| | SHA 161° 161° 161° 161° 160° 160° | | | SHA 204° 204° 204° 204° 204° 203° | | | | SHA 168° 166° 164° 162° 160° 158° | | | | | |
| | Greenwich Culmination Time: 11:46 | | | Greenwich Culmination Time: 08:53 | | | | Greenwich Culmination Time: 11:35 | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 173 06.4 +00.8 | S | 11 41.2 +00.6 | 341 10.5 +02.7 | N 14 25.5 -00.1 | 48 41.8 +02.6 | S 12 48.6 +00.0 | 00 | | | | | |
| 01 | 188 07.2 +00.9 | S | 11 41.8 +00.6 | 356 13.2 +02.8 | N 14 25.4 -00.1 | 63 44.4 +02.5 | S 12 48.6 +00.0 | 01 | | | | | |
| 02 | 203 08.1 +00.9 | S | 11 42.4 +00.6 | 11 16.0 +02.7 | N 14 25.3 -00.1 | 78 46.9 +02.6 | S 12 48.6 +00.1 | 02 | | | | | |
| 03 | 218 09.0 +00.8 | S | 11 43.0 +00.6 | 26 18.7 +02.8 | N 14 25.2 -00.1 | 93 49.5 +02.5 | S 12 48.7 +00.0 | 03 | | | | | |
| 04 | 233 09.8 +00.9 | S | 11 43.6 +00.7 | 41 21.5 +02.7 | N 14 25.1 -00.1 | 108 52.0 +02.6 | S 12 48.7 +00.0 | 04 | | | | | |
| 05 | 248 10.7 +00.8 | S | 11 44.3 +00.6 | 56 24.2 +02.8 | N 14 25.0 +00.0 | 123 54.6 +02.5 | S 12 48.7 +00.1 | 05 | | | | | |
| 06 | 263 11.5 +00.9 | S | 11 44.9 +00.6 | 71 27.0 +02.7 | N 14 25.0 -00.1 | 138 57.1 +02.6 | S 12 48.8 +00.0 | 06 | | | | | |
| 07 | 278 12.4 +00.8 | S | 11 45.5 +00.6 | 86 29.7 +02.8 | N 14 24.9 -00.1 | 153 59.7 +02.5 | S 12 48.8 +00.0 | 07 | | | | | |
| 08 | 293 13.2 +00.9 | S | 11 46.1 +00.6 | 101 32.5 +02.7 | N 14 24.8 -00.1 | 169 02.2 +02.6 | S 12 48.8 +00.0 | 08 | | | | | |
| 09 | 308 14.1 +00.8 | S | 11 46.7 +00.6 | 116 35.2 +02.8 | N 14 24.7 -00.1 | 184 04.8 +02.5 | S 12 48.8 +00.1 | 09 | | | | | |
| 10 | 323 14.9 +00.9 | S | 11 47.3 +00.6 | 131 38.0 +02.7 | N 14 24.6 -00.1 | 199 07.3 +02.6 | S 12 48.9 +00.0 | 10 | | | | | |
| 11 | 338 15.8 +00.8 | S | 11 47.9 +00.6 | 146 40.7 +02.8 | N 14 24.5 -00.1 | 214 09.9 +02.5 | S 12 48.9 +00.0 | 11 | | | | | |
| 12 | 353 16.6 +00.8 | S | 11 48.5 +00.6 | 161 43.5 +02.7 | N 14 24.4 -00.1 | 229 12.4 +02.6 | S 12 48.9 +00.0 | 12 | | | | | |
| 13 | 8 17.4 +00.9 | S | 11 49.1 +00.6 | 176 46.2 +02.8 | N 14 24.3 -00.1 | 244 15.0 +02.5 | S 12 48.9 +00.1 | 13 | | | | | |
| 14 | 23 18.3 +00.8 | S | 11 49.7 +00.7 | 191 49.0 +02.7 | N 14 24.2 -00.1 | 259 17.5 +02.6 | S 12 49.0 +00.0 | 14 | | | | | |
| 15 | 38 19.1 +00.9 | S | 11 50.4 +00.6 | 206 51.7 +02.8 | N 14 24.1 +00.0 | 274 20.1 +02.5 | S 12 49.0 +00.0 | 15 | | | | | |
| 16 | 53 20.0 +00.8 | S | 11 51.0 +00.6 | 221 54.5 +02.7 | N 14 24.1 -00.1 | 289 22.6 +02.5 | S 12 49.0 +00.1 | 16 | | | | | |
| 17 | 68 20.8 +00.9 | S | 11 51.6 +00.6 | 236 57.2 +02.8 | N 14 24.0 -00.1 | 304 25.1 +02.6 | S 12 49.1 +00.0 | 17 | | | | | |
| 18 | 83 21.7 +00.8 | S | 11 52.2 +00.6 | 251 60.0 +02.7 | N 14 23.9 -00.1 | 319 27.7 +02.5 | S 12 49.1 +00.0 | 18 | | | | | |
| 19 | 98 22.5 +00.9 | S | 11 52.8 +00.6 | 267 02.7 +02.8 | N 14 23.8 -00.1 | 334 30.2 +02.6 | S 12 49.1 +00.0 | 19 | | | | | |
| 20 | 113 23.4 +00.8 | S | 11 53.4 +00.6 | 282 05.5 +02.7 | N 14 23.7 -00.1 | 349 32.8 +02.5 | S 12 49.1 +00.1 | 20 | | | | | |
| 21 | 128 24.2 +00.9 | S | 11 54.0 +00.6 | 297 08.2 +02.8 | N 14 23.6 -00.1 | 4 35.3 +02.6 | S 12 49.2 +00.0 | 21 | | | | | |
| 22 | 143 25.1 +00.8 | S | 11 54.6 +00.6 | 312 11.0 +02.7 | N 14 23.5 -00.1 | 19 37.9 +02.5 | S 12 49.2 +00.0 | 22 | | | | | |
| 23 | 158 25.9 +00.9 | S | 11 55.2 +00.6 | 327 13.7 +02.8 | N 14 23.4 -00.1 | 34 40.4 +02.6 | S 12 49.2 +00.0 | 23 | | | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | | |
| | SD 00'0 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 151° 151° 151° 150° 150° 150° | | | SHA 319° 319° 319° 319° 319° 319° | | | | SHA 026° 026° 026° 026° 026° 026° | | | | | |
| | Greenwich Culmination Time: 12:26 | | | Greenwich Culmination Time: 01:15 | | | | Greenwich Culmination Time: 20:41 | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|-------|---------------|-----------------------------------|------|---------------|-------|------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 183 30.9 +00.1 | S | 08 20.2 +00.9 | 226 35.5 +00.2 | N | 08 31.5 -00.6 | 180 47.0 -25.7 | S | 09 21.2 +14.1 | 00 | | | | | | | | | | |
| 01 | 198 31.0 +00.2 | S | 08 21.1 +00.9 | 241 35.7 +00.2 | N | 08 30.9 -00.5 | 195 21.3 -25.8 | S | 09 35.3 +14.0 | 01 | | | | | | | | | | |
| 02 | 213 31.2 +00.1 | S | 08 22.0 +01.0 | 256 35.9 +00.2 | N | 08 30.4 -00.6 | 209 55.5 -25.8 | S | 09 49.3 +14.0 | 02 | | | | | | | | | | |
| 03 | 228 31.3 +00.2 | S | 08 23.0 +00.9 | 271 36.1 +00.2 | N | 08 29.8 -00.6 | 224 29.7 -25.9 | S | 10 03.3 +13.9 | 03 | | | | | | | | | | |
| 04 | 243 31.5 +00.1 | S | 08 23.9 +00.9 | 286 36.3 +00.1 | N | 08 29.2 -00.5 | 239 03.8 -26.0 | S | 10 17.2 +14.0 | 04 | | | | | | | | | | |
| 05 | 258 31.6 +00.1 | S | 08 24.8 +00.9 | 301 36.4 +00.2 | N | 08 28.7 -00.6 | 253 37.8 -26.0 | S | 10 31.2 +13.9 | 05 | | | | | | | | | | |
| 06 | 273 31.7 +00.2 | S | 08 25.7 +01.0 | 316 36.6 +00.2 | N | 08 28.1 -00.6 | 268 11.8 -26.0 | S | 10 45.1 +13.8 | 06 | | | | | | | | | | |
| 07 | 288 31.9 +00.1 | S | 08 26.7 +00.9 | 331 36.8 +00.2 | N | 08 27.5 -00.5 | 282 45.8 -26.2 | S | 10 58.9 +13.8 | 07 | | | | | | | | | | |
| 08 | 303 32.0 +00.2 | S | 08 27.6 +00.9 | 346 37.0 +00.2 | N | 08 27.0 -00.6 | 297 19.6 -26.2 | S | 11 12.7 +13.8 | 08 | | | | | | | | | | |
| 09 | 318 32.2 +00.1 | S | 08 28.5 +01.0 | 1 37.2 +00.2 | N | 08 26.4 -00.6 | 311 53.4 -26.2 | S | 11 26.5 +13.8 | 09 | | | | | | | | | | |
| 10 | 333 32.3 +00.1 | S | 08 29.5 +00.9 | 16 37.4 +00.2 | N | 08 25.8 -00.5 | 326 27.2 -26.4 | S | 11 40.3 +13.7 | 10 | | | | | | | | | | |
| 11 | 348 32.4 +00.2 | S | 08 30.4 +00.9 | 31 37.6 +00.2 | N | 08 25.3 -00.6 | 341 00.8 -26.4 | S | 11 54.0 +13.6 | 11 | | | | | | | | | | |
| 12 | 3 32.6 +00.1 | S | 08 31.3 +00.9 | 46 37.8 +00.1 | N | 08 24.7 -00.6 | 355 34.4 -26.4 | S | 12 07.6 +13.6 | 12 | | | | | | | | | | |
| 13 | 18 32.7 +00.2 | S | 08 32.2 +01.0 | 61 37.9 +00.2 | N | 08 24.1 -00.6 | 10 08.0 -26.6 | S | 12 21.2 +13.6 | 13 | | | | | | | | | | |
| 14 | 33 32.9 +00.1 | S | 08 33.2 +00.9 | 76 38.1 +00.2 | N | 08 23.5 -00.5 | 24 41.4 -26.6 | S | 12 34.8 +13.6 | 14 | | | | | | | | | | |
| 15 | 48 33.0 +00.1 | S | 08 34.1 +00.9 | 91 38.3 +00.2 | N | 08 23.0 -00.6 | 39 14.8 -26.6 | S | 12 48.4 +13.5 | 15 | | | | | | | | | | |
| 16 | 63 33.1 +00.2 | S | 08 35.0 +00.9 | 106 38.5 +00.2 | N | 08 22.4 -00.6 | 53 48.2 -26.8 | S | 13 01.9 +13.4 | 16 | | | | | | | | | | |
| 17 | 78 33.3 +00.1 | S | 08 35.9 +01.0 | 121 38.7 +00.2 | N | 08 21.8 -00.6 | 68 21.4 -26.8 | S | 13 15.3 +13.4 | 17 | | | | | | | | | | |
| 18 | 93 33.4 +00.1 | S | 08 36.9 +00.9 | 136 38.9 +00.1 | N | 08 21.2 -00.5 | 82 54.6 -26.9 | S | 13 28.7 +13.4 | 18 | | | | | | | | | | |
| 19 | 108 33.5 +00.2 | S | 08 37.8 +00.9 | 151 39.0 +00.2 | N | 08 20.7 -00.6 | 97 27.7 -26.9 | S | 13 42.1 +13.3 | 19 | | | | | | | | | | |
| 20 | 123 33.7 +00.1 | S | 08 38.7 +00.9 | 166 39.2 +00.2 | N | 08 20.1 -00.6 | 112 00.8 -27.1 | S | 13 55.4 +13.2 | 20 | | | | | | | | | | |
| 21 | 138 33.8 +00.2 | S | 08 39.6 +00.9 | 181 39.4 +00.2 | N | 08 19.5 -00.6 | 126 33.7 -27.1 | S | 14 08.6 +13.2 | 21 | | | | | | | | | | |
| 22 | 153 34.0 +00.1 | S | 08 40.5 +01.0 | 196 39.6 +00.1 | N | 08 18.9 -00.6 | 141 06.6 -27.2 | S | 14 21.8 +13.2 | 22 | | | | | | | | | | |
| 23 | 168 34.1 +00.1 | S | 08 41.5 +00.9 | 211 39.7 +00.2 | N | 08 18.3 -00.5 | 155 39.4 -27.3 | S | 14 35.0 +13.1 | 23 | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 16°0 | 16°0 | 16°0 | 16°0 | 16°0 | 16°0 | SD | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | SD | 15°1 | 15°1 | 15°1 | 15°1 | 15°2 | 15°2 |
| HP | 00°1 | 00°1 | 00°1 | 00°1 | 00°1 | 00°1 | HP | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | HP | 55°3 | 55°4 | 55°5 | 55°6 | 55°6 | 55°7 |
| SHA | 160° | 160° | 160° | 160° | 160° | 159° | SHA | 203° | 203° | 203° | 203° | 203° | 202° | SHA | 157° | 155° | 153° | 151° | 149° | 147° |
| Greenwich Culmination Time: 11:45 | | | | | | | Greenwich Culmination Time: 08:53 | | | | | | | Greenwich Culmination Time: 12:18 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|---------|---------------|-----------------------------------|------|---------------|-------|------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 173 26.8 +00.8 | S | 11 55.8 +00.6 | 342 16.5 +02.7 | N | 14 23.3 -00.1 | 49 43.0 +02.5 | S | 12 49.2 +00.1 | 00 | | | | | | | | | | |
| 01 | 188 27.6 +00.9 | S | 11 56.4 +00.6 | 357 19.2 +02.8 | N | 14 23.2 +00.0 | 64 45.5 +02.6 | S | 12 49.3 +00.0 | 01 | | | | | | | | | | |
| 02 | 203 28.5 +00.8 | S | 11 57.0 +00.7 | 12 22.0 +02.8 | N | 14 23.2 -00.1 | 79 48.1 +02.5 | S | 12 49.3 +00.0 | 02 | | | | | | | | | | |
| 03 | 218 29.3 +00.9 | S | 11 57.7 +00.6 | 27 24.8 +02.7 | N | 14 23.1 -00.1 | 94 50.6 +02.6 | S | 12 49.3 +00.1 | 03 | | | | | | | | | | |
| 04 | 233 30.2 +00.8 | S | 11 58.3 +00.6 | 42 27.5 +02.8 | N | 14 23.0 -00.1 | 109 53.2 +02.5 | S | 12 49.4 +00.0 | 04 | | | | | | | | | | |
| 05 | 248 31.0 +00.9 | S | 11 58.9 +00.6 | 57 30.3 +02.7 | N | 14 22.9 -00.1 | 124 55.7 +02.5 | S | 12 49.4 +00.0 | 05 | | | | | | | | | | |
| 06 | 263 31.9 +00.8 | S | 11 59.5 +00.6 | 72 33.0 +02.8 | N | 14 22.8 -00.1 | 139 58.2 +02.6 | S | 12 49.4 +00.0 | 06 | | | | | | | | | | |
| 07 | 278 32.7 +00.8 | S | 12 00.1 +00.6 | 87 35.8 +02.7 | N | 14 22.7 -00.1 | 155 00.8 +02.5 | S | 12 49.4 +00.1 | 07 | | | | | | | | | | |
| 08 | 293 33.5 +00.9 | S | 12 00.7 +00.6 | 102 38.5 +02.8 | N | 14 22.6 -00.1 | 170 03.3 +02.6 | S | 12 49.5 +00.0 | 08 | | | | | | | | | | |
| 09 | 308 34.4 +00.8 | S | 12 01.3 +00.6 | 117 41.3 +02.7 | N | 14 22.5 -00.1 | 185 05.9 +02.5 | S | 12 49.5 +00.0 | 09 | | | | | | | | | | |
| 10 | 323 35.2 +00.9 | S | 12 01.9 +00.6 | 132 44.0 +02.8 | N | 14 22.4 -00.1 | 200 08.4 +02.6 | S | 12 49.5 +00.0 | 10 | | | | | | | | | | |
| 11 | 338 36.1 +00.8 | S | 12 02.5 +00.6 | 147 46.8 +02.7 | N | 14 22.3 +00.0 | 215 11.0 +02.5 | S | 12 49.5 +00.1 | 11 | | | | | | | | | | |
| 12 | 353 36.9 +00.9 | S | 12 03.1 +00.6 | 162 49.5 +02.8 | N | 14 22.3 -00.1 | 230 13.5 +02.6 | S | 12 49.6 +00.0 | 12 | | | | | | | | | | |
| 13 | 8 37.8 +00.8 | S | 12 03.7 +00.6 | 177 52.3 +02.8 | N | 14 22.2 -00.1 | 245 16.1 +02.5 | S | 12 49.6 +00.0 | 13 | | | | | | | | | | |
| 14 | 23 38.6 +00.9 | S | 12 04.3 +00.6 | 192 55.1 +02.7 | N | 14 22.1 -00.1 | 260 18.6 +02.5 | S | 12 49.6 +00.0 | 14 | | | | | | | | | | |
| 15 | 38 39.5 +00.8 | S | 12 04.9 +00.6 | 207 57.8 +02.8 | N | 14 22.0 -00.1 | 275 21.1 +02.6 | S | 12 49.6 +00.1 | 15 | | | | | | | | | | |
| 16 | 53 40.3 +00.8 | S | 12 05.5 +00.6 | 223 00.6 +02.7 | N | 14 21.9 -00.1 | 290 23.7 +02.5 | S | 12 49.7 +00.0 | 16 | | | | | | | | | | |
| 17 | 68 41.1 +00.9 | S | 12 06.1 +00.6 | 238 03.3 +02.8 | N | 14 21.8 -00.1 | 305 26.2 +02.6 | S | 12 49.7 +00.0 | 17 | | | | | | | | | | |
| 18 | 83 42.0 +00.8 | S | 12 06.7 +00.7 | 253 06.1 +02.7 | N | 14 21.7 -00.1 | 320 28.8 +02.5 | S | 12 49.7 +00.0 | 18 | | | | | | | | | | |
| 19 | 98 42.8 +00.9 | S | 12 07.4 +00.6 | 268 08.8 +02.8 | N | 14 21.6 -00.1 | 335 31.3 +02.6 | S | 12 49.7 +00.1 | 19 | | | | | | | | | | |
| 20 | 113 43.7 +00.8 | S | 12 08.0 +00.6 | 283 11.6 +02.8 | N | 14 21.5 -00.1 | 350 33.9 +02.5 | S | 12 49.8 +00.0 | 20 | | | | | | | | | | |
| 21 | 128 44.5 +00.9 | S | 12 08.6 +00.6 | 298 14.4 +02.7 | N | 14 21.4 -00.1 | 5 36.4 +02.6 | S | 12 49.8 +00.0 | 21 | | | | | | | | | | |
| 22 | 143 45.4 +00.8 | S | 12 09.2 +00.6 | 313 17.1 +02.8 | N | 14 21.3 +00.0 | 20 39.0 +02.5 | S | 12 49.8 +00.0 | 22 | | | | | | | | | | |
| 23 | 158 46.2 +00.8 | S | 12 09.8 +00.6 | 328 19.9 +02.7 | N | 14 21.3 -00.1 | 35 41.5 +02.5 | S | 12 49.8 +00.1 | 23 | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| 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 | 150° | 150° | 150° | 150° | 150° | 150° | SHA | 319° | 319° | 319° | 319° | 319° | 319° | SHA | 026° | 026° | 026° | 026° | 026° | 026° |
| Greenwich Culmination Time: 12:25 | | | | | | | Greenwich Culmination Time: 01:10 | | | | | | | Greenwich Culmination Time: 20:37 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|-------|---------------|-----------------------------------|------|---------------|-------|------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 183 34.2 +00.2 | S | 08 42.4 +00.9 | 226 39.9 +00.2 | N | 08 17.8 -00.6 | 170 12.1 -27.3 | S | 14 48.1 +13.0 | | | | | | | | | | | |
| 01 | 198 34.4 +00.1 | S | 08 43.3 +00.9 | 241 40.1 +00.2 | N | 08 17.2 -00.6 | 184 44.8 -27.5 | S | 15 01.1 +13.0 | | | | | | | | | | | |
| 02 | 213 34.5 +00.1 | S | 08 44.2 +01.0 | 256 40.3 +00.1 | N | 08 16.6 -00.6 | 199 17.3 -27.5 | S | 15 14.1 +12.9 | | | | | | | | | | | |
| 03 | 228 34.6 +00.2 | S | 08 45.2 +00.9 | 271 40.4 +00.2 | N | 08 16.0 -00.6 | 213 49.8 -27.6 | S | 15 27.0 +12.9 | | | | | | | | | | | |
| 04 | 243 34.8 +00.1 | S | 08 46.1 +00.9 | 286 40.6 +00.2 | N | 08 15.4 -00.6 | 228 22.2 -27.6 | S | 15 39.9 +12.8 | | | | | | | | | | | |
| 05 | 258 34.9 +00.1 | S | 08 47.0 +00.9 | 301 40.8 +00.2 | N | 08 14.8 -00.5 | 242 54.6 -27.8 | S | 15 52.7 +12.8 | | | | | | | | | | | |
| 06 | 273 35.0 +00.2 | S | 08 47.9 +00.9 | 316 41.0 +00.1 | N | 08 14.3 -00.6 | 257 26.8 -27.8 | S | 16 05.5 +12.6 | | | | | | | | | | | |
| 07 | 288 35.2 +00.1 | S | 08 48.8 +01.0 | 331 41.1 +00.2 | N | 08 13.7 -00.6 | 271 59.0 -28.0 | S | 16 18.1 +12.7 | | | | | | | | | | | |
| 08 | 303 35.3 +00.2 | S | 08 49.8 +00.9 | 346 41.3 +00.2 | N | 08 13.1 -00.6 | 286 31.0 -28.0 | S | 16 30.8 +12.5 | | | | | | | | | | | |
| 09 | 318 35.5 +00.1 | S | 08 50.7 +00.9 | 1 41.5 +00.1 | N | 08 12.5 -00.6 | 301 03.0 -28.1 | S | 16 43.3 +12.5 | | | | | | | | | | | |
| 10 | 333 35.6 +00.1 | S | 08 51.6 +00.9 | 16 41.6 +00.2 | N | 08 11.9 -00.6 | 315 34.9 -28.2 | S | 16 55.8 +12.4 | | | | | | | | | | | |
| 11 | 348 35.7 +00.2 | S | 08 52.5 +00.9 | 31 41.8 +00.2 | N | 08 11.3 -00.6 | 330 06.7 -28.3 | S | 17 08.2 +12.4 | | | | | | | | | | | |
| 12 | 3 35.9 +00.1 | S | 08 53.4 +01.0 | 46 42.0 +00.1 | N | 08 10.7 -00.6 | 344 38.4 -28.3 | S | 17 20.6 +12.3 | | | | | | | | | | | |
| 13 | 18 36.0 +00.1 | S | 08 54.4 +00.9 | 61 42.1 +00.2 | N | 08 10.1 -00.6 | 359 10.1 -28.5 | S | 17 32.9 +12.2 | | | | | | | | | | | |
| 14 | 33 36.1 +00.2 | S | 08 55.3 +00.9 | 76 42.3 +00.2 | N | 08 09.5 -00.5 | 13 41.6 -28.5 | S | 17 45.1 +12.1 | | | | | | | | | | | |
| 15 | 48 36.3 +00.1 | S | 08 56.2 +00.9 | 91 42.5 +00.1 | N | 08 09.0 -00.6 | 28 13.1 -28.7 | S | 17 57.2 +12.1 | | | | | | | | | | | |
| 16 | 63 36.4 +00.1 | S | 08 57.1 +00.9 | 106 42.6 +00.2 | N | 08 08.4 -00.6 | 42 44.4 -28.7 | S | 18 09.3 +12.0 | | | | | | | | | | | |
| 17 | 78 36.5 +00.2 | S | 08 58.0 +01.0 | 121 42.8 +00.2 | N | 08 07.8 -00.6 | 57 15.7 -28.8 | S | 18 21.3 +11.9 | | | | | | | | | | | |
| 18 | 93 36.7 +00.1 | S | 08 59.0 +00.9 | 136 43.0 +00.1 | N | 08 07.2 -00.6 | 71 46.9 -28.9 | S | 18 33.2 +11.8 | | | | | | | | | | | |
| 19 | 108 36.8 +00.1 | S | 08 59.9 +00.9 | 151 43.1 +00.2 | N | 08 06.6 -00.6 | 86 18.0 -29.1 | S | 18 45.0 +11.8 | | | | | | | | | | | |
| 20 | 123 36.9 +00.1 | S | 09 00.8 +00.9 | 166 43.3 +00.1 | N | 08 06.0 -00.6 | 100 48.9 -29.1 | S | 18 56.8 +11.6 | | | | | | | | | | | |
| 21 | 138 37.0 +00.2 | S | 09 01.7 +00.9 | 181 43.4 +00.2 | N | 08 05.4 -00.6 | 115 19.8 -29.2 | S | 19 08.4 +11.6 | | | | | | | | | | | |
| 22 | 153 37.2 +00.1 | S | 09 02.6 +00.9 | 196 43.6 +00.2 | N | 08 04.8 -00.6 | 129 50.6 -29.2 | S | 19 20.0 +11.5 | | | | | | | | | | | |
| 23 | 168 37.3 +00.1 | S | 09 03.5 +01.0 | 211 43.8 +00.1 | N | 08 04.2 -00.6 | 144 21.4 -29.4 | S | 19 31.5 +11.4 | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 16'0 | 16'0 | 16'0 | 16'0 | 16'0 | 16'0 | SD | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | SD | 15'2 | 15'2 | 15'2 | 15'3 | 15'3 | 15'3 |
| HP | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | HP | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | HP | 55'8 | 55'9 | 56'0 | 56'0 | 56'1 | 56'2 |
| SHA | 159° | 159° | 159° | 159° | 159° | 158° | SHA | 202° | 202° | 202° | 202° | 202° | 202° | SHA | 145° | 143° | 141° | 139° | 137° | 135° |
| Greenwich Culmination Time: 11:45 | | | | | | | Greenwich Culmination Time: 08:53 | | | | | | | Greenwich Culmination Time: 13:03 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|---------|---------------|-----------------------------------|------|---------------|-------|------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 173 47.0 +00.9 | S | 12 10.4 +00.6 | 343 22.6 +02.8 | N | 14 21.2 -00.1 | 50 44.0 +02.6 | S | 12 49.9 +00.0 | | | | | | | | | | | |
| 01 | 188 47.9 +00.8 | S | 12 11.0 +00.6 | 358 25.4 +02.7 | N | 14 21.1 -00.1 | 65 46.6 +02.5 | S | 12 49.9 +00.0 | | | | | | | | | | | |
| 02 | 203 48.7 +00.9 | S | 12 11.6 +00.6 | 13 28.1 +02.8 | N | 14 21.0 -00.1 | 80 49.1 +02.6 | S | 12 49.9 +00.0 | | | | | | | | | | | |
| 03 | 218 49.6 +00.8 | S | 12 12.2 +00.6 | 28 30.9 +02.8 | N | 14 20.9 -00.1 | 95 51.7 +02.5 | S | 12 49.9 +00.1 | | | | | | | | | | | |
| 04 | 233 50.4 +00.8 | S | 12 12.8 +00.6 | 43 33.7 +02.7 | N | 14 20.8 -00.1 | 110 54.2 +02.5 | S | 12 50.0 +00.0 | | | | | | | | | | | |
| 05 | 248 51.2 +00.9 | S | 12 13.4 +00.6 | 58 36.4 +02.8 | N | 14 20.7 -00.1 | 125 56.7 +02.6 | S | 12 50.0 +00.0 | | | | | | | | | | | |
| 06 | 263 52.1 +00.8 | S | 12 14.0 +00.6 | 73 39.2 +02.7 | N | 14 20.6 -00.1 | 140 59.3 +02.5 | S | 12 50.0 +00.0 | | | | | | | | | | | |
| 07 | 278 52.9 +00.9 | S | 12 14.6 +00.6 | 88 41.9 +02.8 | N | 14 20.5 -00.1 | 156 01.8 +02.6 | S | 12 50.0 +00.1 | | | | | | | | | | | |
| 08 | 293 53.8 +00.8 | S | 12 15.2 +00.6 | 103 44.7 +02.8 | N | 14 20.4 -00.1 | 171 04.4 +02.5 | S | 12 50.1 +00.0 | | | | | | | | | | | |
| 09 | 308 54.6 +00.8 | S | 12 15.8 +00.6 | 118 47.5 +02.7 | N | 14 20.3 -00.1 | 186 06.9 +02.6 | S | 12 50.1 +00.0 | | | | | | | | | | | |
| 10 | 323 55.4 +00.9 | S | 12 16.4 +00.6 | 133 50.2 +02.8 | N | 14 20.2 -00.1 | 201 09.5 +02.5 | S | 12 50.1 +00.0 | | | | | | | | | | | |
| 11 | 338 56.3 +00.8 | S | 12 17.0 +00.6 | 148 53.0 +02.7 | N | 14 20.1 +00.0 | 216 12.0 +02.5 | S | 12 50.1 +00.1 | | | | | | | | | | | |
| 12 | 353 57.1 +00.9 | S | 12 17.6 +00.6 | 163 55.7 +02.8 | N | 14 20.1 -00.1 | 231 14.5 +02.6 | S | 12 50.2 +00.0 | | | | | | | | | | | |
| 13 | 8 58.0 +00.8 | S | 12 18.2 +00.6 | 178 58.5 +02.8 | N | 14 20.0 -00.1 | 246 17.1 +02.5 | S | 12 50.2 +00.0 | | | | | | | | | | | |
| 14 | 23 58.8 +00.8 | S | 12 18.8 +00.6 | 194 01.3 +02.7 | N | 14 19.9 -00.1 | 261 19.6 +02.6 | S | 12 50.2 +00.0 | | | | | | | | | | | |
| 15 | 38 59.6 +00.9 | S | 12 19.4 +00.6 | 209 04.0 +02.8 | N | 14 19.8 -00.1 | 276 22.2 +02.5 | S | 12 50.2 +00.1 | | | | | | | | | | | |
| 16 | 54 00.5 +00.8 | S | 12 20.0 +00.6 | 224 06.8 +02.7 | N | 14 19.7 -00.1 | 291 24.7 +02.5 | S | 12 50.3 +00.0 | | | | | | | | | | | |
| 17 | 69 01.3 +00.9 | S | 12 20.6 +00.6 | 239 09.5 +02.8 | N | 14 19.6 -00.1 | 306 27.2 +02.6 | S | 12 50.3 +00.0 | | | | | | | | | | | |
| 18 | 84 02.2 +00.8 | S | 12 21.2 +00.6 | 254 12.3 +02.8 | N | 14 19.5 -00.1 | 321 29.8 +02.5 | S | 12 50.3 +00.0 | | | | | | | | | | | |
| 19 | 99 03.0 +00.8 | S | 12 21.8 +00.6 | 269 15.1 +02.7 | N | 14 19.4 -00.1 | 336 32.3 +02.6 | S | 12 50.3 +00.1 | | | | | | | | | | | |
| 20 | 114 03.8 +00.9 | S | 12 22.4 +00.6 | 284 17.8 +02.8 | N | 14 19.3 -00.1 | 351 34.9 +02.5 | S | 12 50.4 +00.0 | | | | | | | | | | | |
| 21 | 129 04.7 +00.8 | S | 12 23.0 +00.6 | 299 20.6 +02.7 | N | 14 19.2 -00.1 | 6 37.4 +02.5 | S | 12 50.4 +00.0 | | | | | | | | | | | |
| 22 | 144 05.5 +00.8 | S | 12 23.6 +00.6 | 314 23.3 +02.8 | N | 14 19.1 -00.1 | 21 39.9 +02.6 | S | 12 50.4 +00.0 | | | | | | | | | | | |
| 23 | 159 06.3 +00.9 | S | 12 24.2 +00.6 | 329 26.1 +02.8 | N | 14 19.0 -00.1 | 36 42.5 +02.5 | S | 12 50.4 +00.1 | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| 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 | 149° | 149° | 149° | 149° | 149° | 149° | SHA | 319° | 319° | 319° | 319° | 319° | 319° | SHA | 026° | 026° | 026° | 026° | 027° | 027° |
| Greenwich Culmination Time: 12:24 | | | | | | | Greenwich Culmination Time: 01:06 | | | | | | | Greenwich Culmination Time: 20:33 | | | | | | |

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|-------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 37.4 +00.2 | S | 09 04.5 +00.9 | 226 43.9 +00.2 | N 08 03.6 -00.6 | 158 52.0 -29.5 | S 19 42.9 +11.4 | 00 | | | | | |
| 01 | 198 37.6 +00.1 | S | 09 05.4 +00.9 | 241 44.1 +00.1 | N 08 03.0 -00.6 | 173 22.5 -29.6 | S 19 54.3 +11.2 | 01 | | | | | |
| 02 | 213 37.7 +00.1 | S | 09 06.3 +00.9 | 256 44.2 +00.2 | N 08 02.4 -00.6 | 187 52.9 -29.7 | S 20 05.5 +11.2 | 02 | | | | | |
| 03 | 228 37.8 +00.2 | S | 09 07.2 +00.9 | 271 44.4 +00.1 | N 08 01.8 -00.6 | 202 23.2 -29.8 | S 20 16.7 +11.0 | 03 | | | | | |
| 04 | 243 38.0 +00.1 | S | 09 08.1 +01.0 | 286 44.5 +00.2 | N 08 01.2 -00.6 | 216 53.4 -29.8 | S 20 27.7 +11.0 | 04 | | | | | |
| 05 | 258 38.1 +00.1 | S | 09 09.1 +00.9 | 301 44.7 +00.2 | N 08 00.6 -00.6 | 231 23.6 -30.0 | S 20 38.7 +10.9 | 05 | | | | | |
| 06 | 273 38.2 +00.1 | S | 09 10.0 +00.9 | 316 44.9 +00.1 | N 07 60.0 -00.6 | 245 53.6 -30.1 | S 20 49.6 +10.8 | 06 | | | | | |
| 07 | 288 38.3 +00.2 | S | 09 10.9 +00.9 | 331 45.0 +00.2 | N 07 59.4 -00.7 | 260 23.5 -30.2 | S 21 00.4 +10.6 | 07 | | | | | |
| 08 | 303 38.5 +00.1 | S | 09 11.8 +00.9 | 346 45.2 +00.1 | N 07 58.7 -00.6 | 274 53.3 -30.2 | S 21 11.0 +10.6 | 08 | | | | | |
| 09 | 318 38.6 +00.1 | S | 09 12.7 +00.9 | 1 45.3 +00.2 | N 07 58.1 -00.6 | 289 23.1 -30.4 | S 21 21.6 +10.5 | 09 | | | | | |
| 10 | 333 38.7 +00.2 | S | 09 13.6 +00.9 | 16 45.5 +00.1 | N 07 57.5 -00.6 | 303 52.7 -30.5 | S 21 32.1 +10.4 | 10 | | | | | |
| 11 | 348 38.9 +00.1 | S | 09 14.5 +01.0 | 31 45.6 +00.2 | N 07 56.9 -00.6 | 318 22.2 -30.6 | S 21 42.5 +10.3 | 11 | | | | | |
| 12 | 3 39.0 +00.1 | S | 09 15.5 +00.9 | 46 45.8 +00.1 | N 07 56.3 -00.6 | 332 51.6 -30.6 | S 21 52.8 +10.2 | 12 | | | | | |
| 13 | 18 39.1 +00.1 | S | 09 16.4 +00.9 | 61 45.9 +00.2 | N 07 55.7 -00.6 | 347 21.0 -30.8 | S 22 03.0 +10.1 | 13 | | | | | |
| 14 | 33 39.2 +00.2 | S | 09 17.3 +00.9 | 76 46.1 +00.1 | N 07 55.1 -00.6 | 1 50.2 -30.9 | S 22 13.1 +09.9 | 14 | | | | | |
| 15 | 48 39.4 +00.1 | S | 09 18.2 +00.9 | 91 46.2 +00.2 | N 07 54.5 -00.6 | 16 19.3 -31.0 | S 22 23.0 +09.9 | 15 | | | | | |
| 16 | 63 39.5 +00.1 | S | 09 19.1 +00.9 | 106 46.4 +00.1 | N 07 53.9 -00.7 | 30 48.3 -31.1 | S 22 32.9 +09.8 | 16 | | | | | |
| 17 | 78 39.6 +00.1 | S | 09 20.0 +00.9 | 121 46.5 +00.2 | N 07 53.2 -00.6 | 45 17.2 -31.1 | S 22 42.7 +09.6 | 17 | | | | | |
| 18 | 93 39.7 +00.2 | S | 09 20.9 +01.0 | 136 46.7 +00.1 | N 07 52.6 -00.6 | 59 46.1 -31.3 | S 22 52.3 +09.5 | 18 | | | | | |
| 19 | 108 39.9 +00.1 | S | 09 21.9 +00.9 | 151 46.8 +00.1 | N 07 52.0 -00.6 | 74 14.8 -31.4 | S 23 01.8 +09.5 | 19 | | | | | |
| 20 | 123 40.0 +00.1 | S | 09 22.8 +00.9 | 166 46.9 +00.2 | N 07 51.4 -00.6 | 88 43.4 -31.5 | S 23 11.3 +09.3 | 20 | | | | | |
| 21 | 138 40.1 +00.1 | S | 09 23.7 +00.9 | 181 47.1 +00.1 | N 07 50.8 -00.6 | 103 11.9 -31.6 | S 23 20.6 +09.2 | 21 | | | | | |
| 22 | 153 40.2 +00.2 | S | 09 24.6 +00.9 | 196 47.2 +00.2 | N 07 50.2 -00.6 | 117 40.3 -31.7 | S 23 29.8 +09.0 | 22 | | | | | |
| 23 | 168 40.4 +00.1 | S | 09 25.5 +00.9 | 211 47.4 +00.1 | N 07 49.6 -00.7 | 132 08.6 -31.8 | S 23 38.8 +09.0 | 23 | | | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | | |
| | SD 16'0 16'0 16'0 16'0 16'0 16'0 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | | SD 15'3 15'4 15'4 15'4 15'4 15'4 | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | | | HP 56'3 56'4 56'4 56'5 56'6 56'7 | | | | | |
| | SHA 158° 158° 158° 158° 158° 158° | | | SHA 201° 201° 201° 201° 201° 201° | | | | SHA 133° 130° 128° 126° 124° 122° | | | | | |
| | Greenwich Culmination Time: 11:45 | | | Greenwich Culmination Time: 08:52 | | | | Greenwich Culmination Time: 13:52 | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 174 07.2 +00.8 | S | 12 24.8 +00.7 | 344 28.9 +02.7 | N 14 18.9 +00.0 | 51 45.0 +02.5 | S 12 50.5 +00.0 | 00 | | | | | |
| 01 | 189 08.0 +00.8 | S | 12 25.5 +00.6 | 359 31.6 +02.8 | N 14 18.9 -00.1 | 66 47.5 +02.6 | S 12 50.5 +00.0 | 01 | | | | | |
| 02 | 204 08.8 +00.9 | S | 12 26.1 +00.6 | 14 34.4 +02.8 | N 14 18.8 -00.1 | 81 50.1 +02.5 | S 12 50.5 +00.0 | 02 | | | | | |
| 03 | 219 09.7 +00.8 | S | 12 26.7 +00.6 | 29 37.2 +02.7 | N 14 18.7 -00.1 | 96 52.6 +02.6 | S 12 50.5 +00.1 | 03 | | | | | |
| 04 | 234 10.5 +00.9 | S | 12 27.3 +00.6 | 44 39.9 +02.8 | N 14 18.6 -00.1 | 111 55.2 +02.5 | S 12 50.6 +00.0 | 04 | | | | | |
| 05 | 249 11.4 +00.8 | S | 12 27.9 +00.6 | 59 42.7 +02.7 | N 14 18.5 -00.1 | 126 57.7 +02.5 | S 12 50.6 +00.0 | 05 | | | | | |
| 06 | 264 12.2 +00.8 | S | 12 28.5 +00.6 | 74 45.4 +02.8 | N 14 18.4 -00.1 | 142 00.2 +02.6 | S 12 50.6 +00.0 | 06 | | | | | |
| 07 | 279 13.0 +00.9 | S | 12 29.1 +00.6 | 89 48.2 +02.8 | N 14 18.3 -00.1 | 157 02.8 +02.5 | S 12 50.6 +00.0 | 07 | | | | | |
| 08 | 294 13.9 +00.8 | S | 12 29.7 +00.6 | 104 51.0 +02.7 | N 14 18.2 -00.1 | 172 05.3 +02.6 | S 12 50.6 +00.1 | 08 | | | | | |
| 09 | 309 14.7 +00.8 | S | 12 30.3 +00.6 | 119 53.7 +02.8 | N 14 18.1 -00.1 | 187 07.9 +02.5 | S 12 50.7 +00.0 | 09 | | | | | |
| 10 | 324 15.5 +00.9 | S | 12 30.9 +00.6 | 134 56.5 +02.8 | N 14 18.0 -00.1 | 202 10.4 +02.5 | S 12 50.7 +00.0 | 10 | | | | | |
| 11 | 339 16.4 +00.8 | S | 12 31.5 +00.6 | 149 59.3 +02.7 | N 14 17.9 -00.1 | 217 12.9 +02.6 | S 12 50.7 +00.0 | 11 | | | | | |
| 12 | 354 17.2 +00.8 | S | 12 32.1 +00.6 | 165 02.0 +02.8 | N 14 17.8 -00.1 | 232 15.5 +02.5 | S 12 50.7 +00.1 | 12 | | | | | |
| 13 | 9 18.0 +00.9 | S | 12 32.7 +00.6 | 180 04.8 +02.8 | N 14 17.7 -00.1 | 247 18.0 +02.5 | S 12 50.8 +00.0 | 13 | | | | | |
| 14 | 24 18.9 +00.8 | S | 12 33.3 +00.6 | 195 07.6 +02.7 | N 14 17.6 +00.0 | 262 20.5 +02.6 | S 12 50.8 +00.0 | 14 | | | | | |
| 15 | 39 19.7 +00.8 | S | 12 33.9 +00.6 | 210 10.3 +02.8 | N 14 17.6 -00.1 | 277 23.1 +02.5 | S 12 50.8 +00.0 | 15 | | | | | |
| 16 | 54 20.5 +00.9 | S | 12 34.5 +00.6 | 225 13.1 +02.7 | N 14 17.5 -00.1 | 292 25.6 +02.5 | S 12 50.8 +00.1 | 16 | | | | | |
| 17 | 69 21.4 +00.8 | S | 12 35.1 +00.6 | 240 15.8 +02.8 | N 14 17.4 -00.1 | 307 28.1 +02.6 | S 12 50.9 +00.0 | 17 | | | | | |
| 18 | 84 22.2 +00.8 | S | 12 35.7 +00.6 | 255 18.6 +02.8 | N 14 17.3 -00.1 | 322 30.7 +02.5 | S 12 50.9 +00.0 | 18 | | | | | |
| 19 | 99 23.0 +00.9 | S | 12 36.3 +00.6 | 270 21.4 +02.7 | N 14 17.2 -00.1 | 337 33.2 +02.6 | S 12 50.9 +00.0 | 19 | | | | | |
| 20 | 114 23.9 +00.8 | S | 12 36.9 +00.6 | 285 24.1 +02.8 | N 14 17.1 -00.1 | 352 35.8 +02.5 | S 12 50.9 +00.0 | 20 | | | | | |
| 21 | 129 24.7 +00.8 | S | 12 37.5 +00.5 | 300 26.9 +02.8 | N 14 17.0 -00.1 | 7 38.3 +02.5 | S 12 50.9 +00.1 | 21 | | | | | |
| 22 | 144 25.5 +00.9 | S | 12 38.0 +00.6 | 315 29.7 +02.7 | N 14 16.9 -00.1 | 22 40.8 +02.6 | S 12 51.0 +00.0 | 22 | | | | | |
| 23 | 159 26.4 +00.8 | S | 12 38.6 +00.6 | 330 32.4 +02.8 | N 14 16.8 -00.1 | 37 43.4 +02.5 | S 12 51.0 +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 149° 149° 149° 148° 148° 148° | | | SHA 319° 319° 319° 319° 319° 319° | | | | SHA 027° 027° 027° 027° 027° 027° | | | | | |
| | Greenwich Culmination Time: 12:22 | | | Greenwich Culmination Time: 01:01 | | | | Greenwich Culmination Time: 20:29 | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|-------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 40.5 +00.1 | S | 09 26.4 +00.9 | 226 47.5 +00.2 | N 07 48.9 -00.6 | 146 36.8 -31.8 | S 23 47.8 +08.8 | 00 | | | | | |
| 01 | 198 40.6 +00.1 | S | 09 27.3 +00.9 | 241 47.7 +00.1 | N 07 48.3 -00.6 | 161 05.0 -32.0 | S 23 56.6 +08.7 | 01 | | | | | |
| 02 | 213 40.7 +00.2 | S | 09 28.2 +00.9 | 256 47.8 +00.1 | N 07 47.7 -00.6 | 175 33.0 -32.1 | S 24 05.3 +08.6 | 02 | | | | | |
| 03 | 228 40.9 +00.1 | S | 09 29.1 +01.0 | 271 47.9 +00.2 | N 07 47.1 -00.7 | 190 00.9 -32.2 | S 24 13.9 +08.5 | 03 | | | | | |
| 04 | 243 41.0 +00.1 | S | 09 30.1 +00.9 | 286 48.1 +00.1 | N 07 46.4 -00.6 | 204 28.7 -32.3 | S 24 22.4 +08.3 | 04 | | | | | |
| 05 | 258 41.1 +00.1 | S | 09 31.0 +00.9 | 301 48.2 +00.2 | N 07 45.8 -00.6 | 218 56.4 -32.4 | S 24 30.7 +08.2 | 05 | | | | | |
| 06 | 273 41.2 +00.2 | S | 09 31.9 +00.9 | 316 48.4 +00.1 | N 07 45.2 -00.6 | 233 24.0 -32.5 | S 24 38.9 +08.1 | 06 | | | | | |
| 07 | 288 41.4 +00.1 | S | 09 32.8 +00.9 | 331 48.5 +00.1 | N 07 44.6 -00.6 | 247 51.5 -32.6 | S 24 47.0 +07.9 | 07 | | | | | |
| 08 | 303 41.5 +00.1 | S | 09 33.7 +00.9 | 346 48.6 +00.2 | N 07 44.0 -00.7 | 262 18.9 -32.7 | S 24 54.9 +07.9 | 08 | | | | | |
| 09 | 318 41.6 +00.1 | S | 09 34.6 +00.9 | 1 48.8 +00.1 | N 07 43.3 -00.6 | 276 46.2 -32.7 | S 25 02.8 +07.6 | 09 | | | | | |
| 10 | 333 41.7 +00.1 | S | 09 35.5 +00.9 | 16 48.9 +00.1 | N 07 42.7 -00.6 | 291 13.5 -32.9 | S 25 10.4 +07.6 | 10 | | | | | |
| 11 | 348 41.8 +00.2 | S | 09 36.4 +00.9 | 31 49.0 +00.2 | N 07 42.1 -00.7 | 305 40.6 -33.0 | S 25 18.0 +07.4 | 11 | | | | | |
| 12 | 3 42.0 +00.1 | S | 09 37.3 +00.9 | 46 49.2 +00.1 | N 07 41.4 -00.6 | 320 07.6 -33.1 | S 25 25.4 +07.3 | 12 | | | | | |
| 13 | 18 42.1 +00.1 | S | 09 38.2 +01.0 | 61 49.3 +00.1 | N 07 40.8 -00.6 | 334 34.5 -33.1 | S 25 32.7 +07.1 | 13 | | | | | |
| 14 | 33 42.2 +00.1 | S | 09 39.2 +00.9 | 76 49.4 +00.2 | N 07 40.2 -00.6 | 349 01.4 -33.3 | S 25 39.8 +07.0 | 14 | | | | | |
| 15 | 48 42.3 +00.2 | S | 09 40.1 +00.9 | 91 49.6 +00.1 | N 07 39.6 -00.7 | 3 28.1 -33.3 | S 25 46.8 +06.9 | 15 | | | | | |
| 16 | 63 42.5 +00.1 | S | 09 41.0 +00.9 | 106 49.7 +00.1 | N 07 38.9 -00.6 | 17 54.8 -33.5 | S 25 53.7 +06.7 | 16 | | | | | |
| 17 | 78 42.6 +00.1 | S | 09 41.9 +00.9 | 121 49.8 +00.2 | N 07 38.3 -00.6 | 32 21.3 -33.5 | S 26 00.4 +06.6 | 17 | | | | | |
| 18 | 93 42.7 +00.1 | S | 09 42.8 +00.9 | 136 50.0 +00.1 | N 07 37.7 -00.7 | 46 47.8 -33.6 | S 26 07.0 +06.4 | 18 | | | | | |
| 19 | 108 42.8 +00.1 | S | 09 43.7 +00.9 | 151 50.1 +00.1 | N 07 37.0 -00.6 | 61 14.2 -33.8 | S 26 13.4 +06.3 | 19 | | | | | |
| 20 | 123 42.9 +00.2 | S | 09 44.6 +00.9 | 166 50.2 +00.1 | N 07 36.4 -00.6 | 75 40.4 -33.8 | S 26 19.7 +06.1 | 20 | | | | | |
| 21 | 138 43.1 +00.1 | S | 09 45.5 +00.9 | 181 50.3 +00.2 | N 07 35.8 -00.7 | 90 06.6 -33.9 | S 26 25.8 +06.0 | 21 | | | | | |
| 22 | 153 43.2 +00.1 | S | 09 46.4 +00.9 | 196 50.5 +00.1 | N 07 35.1 -00.6 | 104 32.7 -33.9 | S 26 31.8 +05.8 | 22 | | | | | |
| 23 | 168 43.3 +00.1 | S | 09 47.3 +00.9 | 211 50.6 +00.1 | N 07 34.5 -00.7 | 118 58.8 -34.1 | S 26 37.6 +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 16'0 16'1 16'1 16'1 16'1 16'1 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | | SD 15'5 15'5 15'5 15'5 15'6 15'6 | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | | | HP 56'8 56'9 56'9 57'0 57'1 57'2 | | | | | |
| | SHA 157° 157° 157° 157° 157° 157° | | | SHA 200° 200° 200° 200° 200° 200° | | | | SHA 119° 117° 115° 112° 110° 107° | | | | | |
| | Greenwich Culmination Time: 11:45 | | | Greenwich Culmination Time: 08:52 | | | | Greenwich Culmination Time: 14:45 | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 174 27.2 +00.8 | S | 12 39.2 +00.6 | 345 35.2 +02.8 | N 14 16.7 -00.1 | 52 45.9 +02.5 | S 12 51.0 +00.0 | 00 | | | | | |
| 01 | 189 28.0 +00.9 | S | 12 39.8 +00.6 | 0 38.0 +02.7 | N 14 16.6 -00.1 | 67 48.4 +02.6 | S 12 51.0 +00.1 | 01 | | | | | |
| 02 | 204 28.9 +00.8 | S | 12 40.4 +00.6 | 15 40.7 +02.8 | N 14 16.5 -00.1 | 82 51.0 +02.5 | S 12 51.1 +00.0 | 02 | | | | | |
| 03 | 219 29.7 +00.8 | S | 12 41.0 +00.6 | 30 43.5 +02.8 | N 14 16.4 -00.1 | 97 53.5 +02.5 | S 12 51.1 +00.0 | 03 | | | | | |
| 04 | 234 30.5 +00.9 | S | 12 41.6 +00.6 | 45 46.3 +02.7 | N 14 16.3 -00.1 | 112 56.0 +02.6 | S 12 51.1 +00.0 | 04 | | | | | |
| 05 | 249 31.4 +00.8 | S | 12 42.2 +00.6 | 60 49.0 +02.8 | N 14 16.2 -00.1 | 127 58.6 +02.5 | S 12 51.1 +00.0 | 05 | | | | | |
| 06 | 264 32.2 +00.8 | S | 12 42.8 +00.6 | 75 51.8 +02.8 | N 14 16.1 +00.0 | 143 01.1 +02.5 | S 12 51.1 +00.1 | 06 | | | | | |
| 07 | 279 33.0 +00.8 | S | 12 43.4 +00.6 | 90 54.6 +02.7 | N 14 16.1 -00.1 | 158 03.6 +02.6 | S 12 51.2 +00.0 | 07 | | | | | |
| 08 | 294 33.8 +00.9 | S | 12 44.0 +00.6 | 105 57.3 +02.8 | N 14 16.0 -00.1 | 173 06.2 +02.5 | S 12 51.2 +00.0 | 08 | | | | | |
| 09 | 309 34.7 +00.8 | S | 12 44.6 +00.6 | 121 00.1 +02.8 | N 14 15.9 -00.1 | 188 08.7 +02.5 | S 12 51.2 +00.0 | 09 | | | | | |
| 10 | 324 35.5 +00.8 | S | 12 45.2 +00.6 | 136 02.9 +02.7 | N 14 15.8 -00.1 | 203 11.2 +02.6 | S 12 51.2 +00.0 | 10 | | | | | |
| 11 | 339 36.3 +00.9 | S | 12 45.8 +00.6 | 151 05.6 +02.8 | N 14 15.7 -00.1 | 218 13.8 +02.5 | S 12 51.2 +00.1 | 11 | | | | | |
| 12 | 354 37.2 +00.8 | S | 12 46.4 +00.6 | 166 08.4 +02.8 | N 14 15.6 -00.1 | 233 16.3 +02.5 | S 12 51.3 +00.0 | 12 | | | | | |
| 13 | 9 38.0 +00.8 | S | 12 47.0 +00.6 | 181 11.2 +02.8 | N 14 15.5 -00.1 | 248 18.8 +02.6 | S 12 51.3 +00.0 | 13 | | | | | |
| 14 | 24 38.8 +00.8 | S | 12 47.6 +00.6 | 196 14.0 +02.7 | N 14 15.4 -00.1 | 263 21.4 +02.5 | S 12 51.3 +00.0 | 14 | | | | | |
| 15 | 39 39.6 +00.9 | S | 12 48.2 +00.6 | 211 16.7 +02.8 | N 14 15.3 -00.1 | 278 23.9 +02.5 | S 12 51.3 +00.1 | 15 | | | | | |
| 16 | 54 40.5 +00.8 | S | 12 48.8 +00.6 | 226 19.5 +02.8 | N 14 15.2 -00.1 | 293 26.4 +02.6 | S 12 51.4 +00.0 | 16 | | | | | |
| 17 | 69 41.3 +00.8 | S | 12 49.4 +00.6 | 241 22.3 +02.7 | N 14 15.1 -00.1 | 308 29.0 +02.5 | S 12 51.4 +00.0 | 17 | | | | | |
| 18 | 84 42.1 +00.9 | S | 12 50.0 +00.6 | 256 25.0 +02.8 | N 14 15.0 -00.1 | 323 31.5 +02.5 | S 12 51.4 +00.0 | 18 | | | | | |
| 19 | 99 43.0 +00.8 | S | 12 50.6 +00.6 | 271 27.8 +02.8 | N 14 14.9 -00.1 | 338 34.0 +02.6 | S 12 51.4 +00.0 | 19 | | | | | |
| 20 | 114 43.8 +00.8 | S | 12 51.2 +00.6 | 286 30.6 +02.7 | N 14 14.8 -00.1 | 353 36.6 +02.5 | S 12 51.4 +00.1 | 20 | | | | | |
| 21 | 129 44.6 +00.8 | S | 12 51.8 +00.6 | 301 33.3 +02.8 | N 14 14.7 -00.1 | 8 39.1 +02.5 | S 12 51.5 +00.0 | 21 | | | | | |
| 22 | 144 45.4 +00.9 | S | 12 52.4 +00.6 | 316 36.1 +02.8 | N 14 14.6 -00.1 | 23 41.6 +02.6 | S 12 51.5 +00.0 | 22 | | | | | |
| 23 | 159 46.3 +00.8 | S | 12 53.0 +00.6 | 331 38.9 +02.7 | N 14 14.5 -00.1 | 38 44.2 +02.5 | S 12 51.5 +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 148° 148° 148° 148° 148° 148° | | | SHA 319° 319° 319° 319° 319° 319° | | | | SHA 027° 027° 027° 027° 027° 027° | | | | | |
| | Greenwich Culmination Time: 12:21 | | | Greenwich Culmination Time: 00:57 | | | | Greenwich Culmination Time: 20:25 | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|----------------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 43.4 +00.1 | S | 09 48.2 +00.9 | 226 50.7 +00.1 | N | 07 33.8 -00.6 | 133 24.7 -34.2 | S | 26 43.3 +05.5 | | | | |
| 01 | 198 43.5 +00.1 | S | 09 49.1 +00.9 | 241 50.8 +00.2 | N | 07 33.2 -00.6 | 147 50.5 -34.2 | S | 26 48.8 +05.4 | | | | |
| 02 | 213 43.6 +00.2 | S | 09 50.0 +00.9 | 256 51.0 +00.1 | N | 07 32.6 -00.7 | 162 16.3 -34.3 | S | 26 54.2 +05.2 | | | | |
| 03 | 228 43.8 +00.1 | S | 09 50.9 +00.9 | 271 51.1 +00.1 | N | 07 31.9 -00.6 | 176 42.0 -34.4 | S | 26 59.4 +05.1 | | | | |
| 04 | 243 43.9 +00.1 | S | 09 51.8 +01.0 | 286 51.2 +00.1 | N | 07 31.3 -00.7 | 191 07.6 -34.5 | S | 27 04.5 +04.9 | | | | |
| 05 | 258 44.0 +00.1 | S | 09 52.8 +00.9 | 301 51.3 +00.2 | N | 07 30.6 -00.6 | 205 33.1 -34.5 | S | 27 09.4 +04.7 | | | | |
| 06 | 273 44.1 +00.1 | S | 09 53.7 +00.9 | 316 51.5 +00.1 | N | 07 30.0 -00.6 | 219 58.6 -34.7 | S | 27 14.1 +04.6 | | | | |
| 07 | 288 44.2 +00.1 | S | 09 54.6 +00.9 | 331 51.6 +00.1 | N | 07 29.4 -00.7 | 234 23.9 -34.7 | S | 27 18.7 +04.4 | | | | |
| 08 | 303 44.3 +00.2 | S | 09 55.5 +00.9 | 346 51.7 +00.1 | N | 07 28.7 -00.6 | 248 49.2 -34.8 | S | 27 23.1 +04.3 | | | | |
| 09 | 318 44.5 +00.1 | S | 09 56.4 +00.9 | 1 51.8 +00.1 | N | 07 28.1 -00.7 | 263 14.4 -34.8 | S | 27 27.4 +04.1 | | | | |
| 10 | 333 44.6 +00.1 | S | 09 57.3 +00.9 | 16 51.9 +00.2 | N | 07 27.4 -00.6 | 277 39.6 -34.9 | S | 27 31.5 +04.0 | | | | |
| 11 | 348 44.7 +00.1 | S | 09 58.2 +00.9 | 31 52.1 +00.1 | N | 07 26.8 -00.7 | 292 04.7 -35.0 | S | 27 35.5 +03.7 | | | | |
| 12 | 3 44.8 +00.1 | S | 09 59.1 +00.9 | 46 52.2 +00.1 | N | 07 26.1 -00.6 | 306 29.7 -35.1 | S | 27 39.2 +03.6 | | | | |
| 13 | 18 44.9 +00.1 | S | 09 60.0 +00.9 | 61 52.3 +00.1 | N | 07 25.5 -00.7 | 320 54.6 -35.1 | S | 27 42.8 +03.5 | | | | |
| 14 | 33 45.0 +00.1 | S | 10 00.9 +00.9 | 76 52.4 +00.1 | N | 07 24.8 -00.6 | 335 19.5 -35.2 | S | 27 46.3 +03.3 | | | | |
| 15 | 48 45.1 +00.2 | S | 10 01.8 +00.9 | 91 52.5 +00.1 | N | 07 24.2 -00.7 | 349 44.3 -35.3 | S | 27 49.6 +03.1 | | | | |
| 16 | 63 45.3 +00.1 | S | 10 02.7 +00.9 | 106 52.6 +00.2 | N | 07 23.5 -00.6 | 4 09.0 -35.3 | S | 27 52.7 +02.9 | | | | |
| 17 | 78 45.4 +00.1 | S | 10 03.6 +00.9 | 121 52.8 +00.1 | N | 07 22.9 -00.7 | 18 33.7 -35.3 | S | 27 55.6 +02.8 | | | | |
| 18 | 93 45.5 +00.1 | S | 10 04.5 +00.9 | 136 52.9 +00.1 | N | 07 22.2 -00.6 | 32 58.4 -35.5 | S | 27 58.4 +02.6 | | | | |
| 19 | 108 45.6 +00.1 | S | 10 05.4 +00.9 | 151 53.0 +00.1 | N | 07 21.6 -00.7 | 47 22.9 -35.5 | S | 28 01.0 +02.4 | | | | |
| 20 | 123 45.7 +00.1 | S | 10 06.3 +00.9 | 166 53.1 +00.1 | N | 07 20.9 -00.6 | 61 47.4 -35.5 | S | 28 03.4 +02.3 | | | | |
| 21 | 138 45.8 +00.1 | S | 10 07.2 +00.9 | 181 53.2 +00.1 | N | 07 20.3 -00.7 | 76 11.9 -35.6 | S | 28 05.7 +02.0 | | | | |
| 22 | 153 45.9 +00.2 | S | 10 08.1 +00.9 | 196 53.3 +00.1 | N | 07 19.6 -00.6 | 90 36.3 -35.6 | S | 28 07.7 +01.9 | | | | |
| 23 | 168 46.1 +00.1 | S | 10 09.0 +00.9 | 211 53.4 +00.1 | N | 07 19.0 -00.7 | 105 00.7 -35.7 | S | 28 09.6 +01.8 | | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'1 16'1 16'1 16'1 16'1 16'1 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | 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 00'2 00'2 00'2 00'2 00'2 00'2 | | | HP 57'3 57'4 57'4 57'5 57'6 57'7 | | | | | | |
| | SHA 156° 156° 156° 156° 156° 156° | | | SHA 200° 199° 199° 199° 199° 199° | | | SHA 105° 103° 100° 098° 095° 092° | | | | | | |
| | Greenwich Culmination Time: 11:45 | | | Greenwich Culmination Time: 08:52 | | | Greenwich Culmination Time: 15:42 | | | | | | |
| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 174 47.1 +00.8 | S | 12 53.6 +00.6 | 346 41.6 +02.8 | N | 14 14.4 -00.1 | 53 46.7 +02.5 | S | 12 51.5 +00.0 | | | | |
| 01 | 189 47.9 +00.9 | S | 12 54.2 +00.6 | 1 44.4 +02.8 | N | 14 14.3 +00.0 | 68 49.2 +02.6 | S | 12 51.5 +00.1 | | | | |
| 02 | 204 48.8 +00.8 | S | 12 54.8 +00.5 | 16 47.2 +02.8 | N | 14 14.3 -00.1 | 83 51.8 +02.5 | S | 12 51.6 +00.0 | | | | |
| 03 | 219 49.6 +00.8 | S | 12 55.3 +00.6 | 31 50.0 +02.7 | N | 14 14.2 -00.1 | 98 54.3 +02.5 | S | 12 51.6 +00.0 | | | | |
| 04 | 234 50.4 +00.8 | S | 12 55.9 +00.6 | 46 52.7 +02.8 | N | 14 14.1 -00.1 | 113 56.8 +02.5 | S | 12 51.6 +00.0 | | | | |
| 05 | 249 51.2 +00.9 | S | 12 56.5 +00.6 | 61 55.5 +02.8 | N | 14 14.0 -00.1 | 128 59.3 +02.6 | S | 12 51.6 +00.0 | | | | |
| 06 | 264 52.1 +00.8 | S | 12 57.1 +00.6 | 76 58.3 +02.7 | N | 14 13.9 -00.1 | 144 01.9 +02.5 | S | 12 51.6 +00.1 | | | | |
| 07 | 279 52.9 +00.8 | S | 12 57.7 +00.6 | 92 01.0 +02.8 | N | 14 13.8 -00.1 | 159 04.4 +02.5 | S | 12 51.7 +00.0 | | | | |
| 08 | 294 53.7 +00.8 | S | 12 58.3 +00.6 | 107 03.8 +02.8 | N | 14 13.7 -00.1 | 174 06.9 +02.6 | S | 12 51.7 +00.0 | | | | |
| 09 | 309 54.5 +00.9 | S | 12 58.9 +00.6 | 122 06.6 +02.7 | N | 14 13.6 -00.1 | 189 09.5 +02.5 | S | 12 51.7 +00.0 | | | | |
| 10 | 324 55.4 +00.8 | S | 12 59.5 +00.6 | 137 09.3 +02.8 | N | 14 13.5 -00.1 | 204 12.0 +02.5 | S | 12 51.7 +00.0 | | | | |
| 11 | 339 56.2 +00.8 | S | 13 00.1 +00.6 | 152 12.1 +02.8 | N | 14 13.4 -00.1 | 219 14.5 +02.6 | S | 12 51.7 +00.1 | | | | |
| 12 | 354 57.0 +00.8 | S | 13 00.7 +00.6 | 167 14.9 +02.8 | N | 14 13.3 -00.1 | 234 17.1 +02.5 | S | 12 51.8 +00.0 | | | | |
| 13 | 9 57.8 +00.9 | S | 13 01.3 +00.6 | 182 17.7 +02.7 | N | 14 13.2 -00.1 | 249 19.6 +02.5 | S | 12 51.8 +00.0 | | | | |
| 14 | 24 58.7 +00.8 | S | 13 01.9 +00.6 | 197 20.4 +02.8 | N | 14 13.1 -00.1 | 264 22.1 +02.5 | S | 12 51.8 +00.0 | | | | |
| 15 | 39 59.5 +00.8 | S | 13 02.5 +00.6 | 212 23.2 +02.8 | N | 14 13.0 -00.1 | 279 24.6 +02.6 | S | 12 51.8 +00.0 | | | | |
| 16 | 55 00.3 +00.8 | S | 13 03.1 +00.6 | 227 26.0 +02.8 | N | 14 12.9 -00.1 | 294 27.2 +02.5 | S | 12 51.8 +00.1 | | | | |
| 17 | 70 01.1 +00.8 | S | 13 03.7 +00.5 | 242 28.8 +02.7 | N | 14 12.8 -00.1 | 309 29.7 +02.5 | S | 12 51.9 +00.0 | | | | |
| 18 | 85 01.9 +00.9 | S | 13 04.2 +00.6 | 257 31.5 +02.8 | N | 14 12.7 -00.1 | 324 32.2 +02.6 | S | 12 51.9 +00.0 | | | | |
| 19 | 100 02.8 +00.8 | S | 13 04.8 +00.6 | 272 34.3 +02.8 | N | 14 12.6 -00.1 | 339 34.8 +02.5 | S | 12 51.9 +00.0 | | | | |
| 20 | 115 03.6 +00.8 | S | 13 05.4 +00.6 | 287 37.1 +02.7 | N | 14 12.5 -00.1 | 354 37.3 +02.5 | S | 12 51.9 +00.0 | | | | |
| 21 | 130 04.4 +00.8 | S | 13 06.0 +00.6 | 302 39.8 +02.8 | N | 14 12.4 -00.1 | 9 39.8 +02.5 | S | 12 51.9 +00.1 | | | | |
| 22 | 145 05.2 +00.9 | S | 13 06.6 +00.6 | 317 42.6 +02.8 | N | 14 12.3 +00.0 | 24 42.3 +02.6 | S | 12 52.0 +00.0 | | | | |
| 23 | 160 06.1 +00.8 | S | 13 07.2 +00.6 | 332 45.4 +02.8 | N | 14 12.3 -00.1 | 39 44.9 +02.5 | S | 12 52.0 +00.0 | | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 00'0 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 148° 147° 147° 147° 147° 147° | | | SHA 319° 320° 320° 320° 320° 320° | | | SHA 027° 027° 027° 027° 027° 027° | | | | | | |
| | Greenwich Culmination Time: 12:20 | | | Greenwich Culmination Time: 00:53 | | | Greenwich Culmination Time: 20:21 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 46.2 +00.1 | S 10 09.9 +00.9 | 226 53.5 +00.2 | N 07 18.3 -00.6 | 119 25.0 -35.8 | S 28 11.4 +01.5 | 00 | | | | | | |
| 01 | 198 46.3 +00.1 | S 10 10.8 +00.9 | 241 53.7 +00.1 | N 07 17.7 -00.7 | 133 49.2 -35.7 | S 28 12.9 +01.4 | 01 | | | | | | |
| 02 | 213 46.4 +00.1 | S 10 11.7 +00.9 | 256 53.8 +00.1 | N 07 17.0 -00.7 | 148 13.5 -35.9 | S 28 14.3 +01.2 | 02 | | | | | | |
| 03 | 228 46.5 +00.1 | S 10 12.6 +00.9 | 271 53.9 +00.1 | N 07 16.3 -00.6 | 162 37.6 -35.8 | S 28 15.5 +01.0 | 03 | | | | | | |
| 04 | 243 46.6 +00.1 | S 10 13.5 +00.9 | 286 54.0 +00.1 | N 07 15.7 -00.7 | 177 01.8 -35.9 | S 28 16.5 +00.9 | 04 | | | | | | |
| 05 | 258 46.7 +00.1 | S 10 14.4 +00.9 | 301 54.1 +00.1 | N 07 15.0 -00.6 | 191 25.9 -36.0 | S 28 17.4 +00.7 | 05 | | | | | | |
| 06 | 273 46.8 +00.1 | S 10 15.3 +00.9 | 316 54.2 +00.1 | N 07 14.4 -00.7 | 205 49.9 -35.9 | S 28 18.1 +00.5 | 06 | | | | | | |
| 07 | 288 46.9 +00.1 | S 10 16.2 +00.9 | 331 54.3 +00.1 | N 07 13.7 -00.7 | 220 14.0 -36.0 | S 28 18.6 +00.3 | 07 | | | | | | |
| 08 | 303 47.0 +00.2 | S 10 17.1 +00.9 | 346 54.4 +00.1 | N 07 13.0 -00.6 | 234 38.0 -36.1 | S 28 18.9 +00.1 | 08 | | | | | | |
| 09 | 318 47.2 +00.1 | S 10 18.0 +00.9 | 1 54.5 +00.1 | N 07 12.4 -00.7 | 249 01.9 -36.0 | S 28 19.0 -00.1 | 09 | | | | | | |
| 10 | 333 47.3 +00.1 | S 10 18.9 +00.9 | 16 54.6 +00.1 | N 07 11.7 -00.6 | 263 25.9 -36.1 | S 28 18.9 -00.2 | 10 | | | | | | |
| 11 | 348 47.4 +00.1 | S 10 19.8 +00.9 | 31 54.7 +00.1 | N 07 11.1 -00.7 | 277 49.8 -36.1 | S 28 18.7 -00.4 | 11 | | | | | | |
| 12 | 3 47.5 +00.1 | S 10 20.7 +00.9 | 46 54.8 +00.1 | N 07 10.4 -00.7 | 292 13.7 -36.1 | S 28 18.3 -00.6 | 12 | | | | | | |
| 13 | 18 47.6 +00.1 | S 10 21.6 +00.9 | 61 54.9 +00.1 | N 07 09.7 -00.6 | 306 37.6 -36.2 | S 28 17.7 -00.7 | 13 | | | | | | |
| 14 | 33 47.7 +00.1 | S 10 22.5 +00.9 | 76 55.0 +00.1 | N 07 09.1 -00.7 | 321 01.4 -36.1 | S 28 17.0 -01.0 | 14 | | | | | | |
| 15 | 48 47.8 +00.1 | S 10 23.4 +00.9 | 91 55.1 +00.1 | N 07 08.4 -00.7 | 335 25.3 -36.2 | S 28 16.0 -01.1 | 15 | | | | | | |
| 16 | 63 47.9 +00.1 | S 10 24.3 +00.8 | 106 55.2 +00.1 | N 07 07.7 -00.6 | 349 49.1 -36.2 | S 28 14.9 -01.4 | 16 | | | | | | |
| 17 | 78 48.0 +00.1 | S 10 25.1 +00.9 | 121 55.3 +00.1 | N 07 07.1 -00.7 | 4 12.9 -36.2 | S 28 13.5 -01.5 | 17 | | | | | | |
| 18 | 93 48.1 +00.1 | S 10 26.0 +00.9 | 136 55.4 +00.1 | N 07 06.4 -00.7 | 18 36.7 -36.2 | S 28 12.0 -01.6 | 18 | | | | | | |
| 19 | 108 48.2 +00.1 | S 10 26.9 +00.9 | 151 55.5 +00.1 | N 07 05.7 -00.7 | 33 00.5 -36.2 | S 28 10.4 -01.9 | 19 | | | | | | |
| 20 | 123 48.3 +00.2 | S 10 27.8 +00.9 | 166 55.6 +00.1 | N 07 05.0 -00.6 | 47 24.3 -36.2 | S 28 08.5 -02.0 | 20 | | | | | | |
| 21 | 138 48.5 +00.1 | S 10 28.7 +00.9 | 181 55.7 +00.1 | N 07 04.4 -00.7 | 61 48.1 -36.2 | S 28 06.5 -02.3 | 21 | | | | | | |
| 22 | 153 48.6 +00.1 | S 10 29.6 +00.9 | 196 55.8 +00.1 | N 07 03.7 -00.7 | 76 11.9 -36.2 | S 28 04.2 -02.4 | 22 | | | | | | |
| 23 | 168 48.7 +00.1 | S 10 30.5 +00.9 | 211 55.9 +00.1 | N 07 03.0 -00.6 | 90 35.7 -36.3 | S 28 01.8 -02.6 | 23 | | | | | | |
| | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | | | | | | | |
| | SD 16'1 16'1 16'1 16'1 16'1 16'1 | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | SD 15'7 15'8 15'8 15'8 15'8 15'9 | | | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | HP 57'8 57'9 58'0 58'1 58'1 58'2 | | | | | | | | |
| | SHA 155° 155° 155° 155° 155° 155° | | SHA 199° 198° 198° 198° 198° 198° | | SHA 090° 087° 085° 082° 080° 077° | | | | | | | | |
| | Greenwich Culmination Time: 11:44 | | Greenwich Culmination Time: 08:52 | | Greenwich Culmination Time: 16:42 | | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 175 06.9 +00.8 | S 13 07.8 +00.6 | 347 48.2 +02.7 | N 14 12.2 -00.1 | 54 47.4 +02.5 | S 12 52.0 +00.0 | 00 | | | | | | |
| 01 | 190 07.7 +00.8 | S 13 08.4 +00.6 | 2 50.9 +02.8 | N 14 12.1 -00.1 | 69 49.9 +02.5 | S 12 52.0 +00.0 | 01 | | | | | | |
| 02 | 205 08.5 +00.8 | S 13 09.0 +00.6 | 17 53.7 +02.8 | N 14 12.0 -00.1 | 84 52.4 +02.6 | S 12 52.0 +00.1 | 02 | | | | | | |
| 03 | 220 09.3 +00.9 | S 13 09.6 +00.6 | 32 56.5 +02.8 | N 14 11.9 -00.1 | 99 55.0 +02.5 | S 12 52.1 +00.0 | 03 | | | | | | |
| 04 | 235 10.2 +00.8 | S 13 10.2 +00.6 | 47 59.3 +02.7 | N 14 11.8 -00.1 | 114 57.5 +02.5 | S 12 52.1 +00.0 | 04 | | | | | | |
| 05 | 250 11.0 +00.8 | S 13 10.8 +00.5 | 63 02.0 +02.8 | N 14 11.7 -00.1 | 130 00.0 +02.6 | S 12 52.1 +00.0 | 05 | | | | | | |
| 06 | 265 11.8 +00.8 | S 13 11.3 +00.6 | 78 04.8 +02.8 | N 14 11.6 -00.1 | 145 02.6 +02.5 | S 12 52.1 +00.0 | 06 | | | | | | |
| 07 | 280 12.6 +00.8 | S 13 11.9 +00.6 | 93 07.6 +02.8 | N 14 11.5 -00.1 | 160 05.1 +02.5 | S 12 52.1 +00.1 | 07 | | | | | | |
| 08 | 295 13.4 +00.9 | S 13 12.5 +00.6 | 108 10.4 +02.7 | N 14 11.4 -00.1 | 175 07.6 +02.5 | S 12 52.2 +00.0 | 08 | | | | | | |
| 09 | 310 14.3 +00.8 | S 13 13.1 +00.6 | 123 13.1 +02.8 | N 14 11.3 -00.1 | 190 10.1 +02.6 | S 12 52.2 +00.0 | 09 | | | | | | |
| 10 | 325 15.1 +00.8 | S 13 13.7 +00.6 | 138 15.9 +02.8 | N 14 11.2 -00.1 | 205 12.7 +02.5 | S 12 52.2 +00.0 | 10 | | | | | | |
| 11 | 340 15.9 +00.8 | S 13 14.3 +00.6 | 153 18.7 +02.8 | N 14 11.1 -00.1 | 220 15.2 +02.5 | S 12 52.2 +00.0 | 11 | | | | | | |
| 12 | 355 16.7 +00.8 | S 13 14.9 +00.6 | 168 21.5 +02.7 | N 14 11.0 -00.1 | 235 17.7 +02.5 | S 12 52.2 +00.0 | 12 | | | | | | |
| 13 | 10 17.5 +00.9 | S 13 15.5 +00.6 | 183 24.2 +02.8 | N 14 10.9 -00.1 | 250 20.2 +02.6 | S 12 52.2 +00.1 | 13 | | | | | | |
| 14 | 25 18.4 +00.8 | S 13 16.1 +00.5 | 198 27.0 +02.8 | N 14 10.8 -00.1 | 265 22.8 +02.5 | S 12 52.3 +00.0 | 14 | | | | | | |
| 15 | 40 19.2 +00.8 | S 13 16.6 +00.6 | 213 29.8 +02.8 | N 14 10.7 -00.1 | 280 25.3 +02.5 | S 12 52.3 +00.0 | 15 | | | | | | |
| 16 | 55 20.0 +00.8 | S 13 17.2 +00.6 | 228 32.6 +02.7 | N 14 10.6 -00.1 | 295 27.8 +02.5 | S 12 52.3 +00.0 | 16 | | | | | | |
| 17 | 70 20.8 +00.8 | S 13 17.8 +00.6 | 243 35.3 +02.8 | N 14 10.5 -00.1 | 310 30.3 +02.6 | S 12 52.3 +00.0 | 17 | | | | | | |
| 18 | 85 21.6 +00.8 | S 13 18.4 +00.6 | 258 38.1 +02.8 | N 14 10.4 -00.1 | 325 32.9 +02.5 | S 12 52.3 +00.1 | 18 | | | | | | |
| 19 | 100 22.4 +00.9 | S 13 19.0 +00.6 | 273 40.9 +02.8 | N 14 10.3 -00.1 | 340 35.4 +02.5 | S 12 52.4 +00.0 | 19 | | | | | | |
| 20 | 115 23.3 +00.8 | S 13 19.6 +00.6 | 288 43.7 +02.7 | N 14 10.2 -00.1 | 355 37.9 +02.5 | S 12 52.4 +00.0 | 20 | | | | | | |
| 21 | 130 24.1 +00.8 | S 13 20.2 +00.6 | 303 46.4 +02.8 | N 14 10.1 -00.1 | 10 40.4 +02.6 | S 12 52.4 +00.0 | 21 | | | | | | |
| 22 | 145 24.9 +00.8 | S 13 20.8 +00.6 | 318 49.2 +02.8 | N 14 10.0 -00.1 | 25 43.0 +02.5 | S 12 52.4 +00.0 | 22 | | | | | | |
| 23 | 160 25.7 +00.8 | S 13 21.4 +00.5 | 333 52.0 +02.8 | N 14 09.9 -00.1 | 40 45.5 +02.5 | S 12 52.4 +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 147° 147° 147° 147° 146° 146° | | SHA 320° 320° 320° 320° 320° 320° | | SHA 027° 027° 027° 027° 027° 027° | | | | | | | | |
| | Greenwich Culmination Time: 12:18 | | Greenwich Culmination Time: 00:48 | | Greenwich Culmination Time: 20:17 | | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 48.8 +00.1 | S 10 31.4 +00.9 | 226 56.0 +00.1 | N 07 02.4 -00.7 | 104 59.4 -36.2 | S 27 59.2 -02.8 | 00 | | | | | | |
| 01 | 198 48.9 +00.1 | S 10 32.3 +00.9 | 241 56.1 +00.1 | N 07 01.7 -00.7 | 119 23.2 -36.2 | S 27 56.4 -02.9 | 01 | | | | | | |
| 02 | 213 49.0 +00.1 | S 10 33.2 +00.9 | 256 56.2 +00.1 | N 07 01.0 -00.7 | 133 47.0 -36.2 | S 27 53.5 -03.1 | 02 | | | | | | |
| 03 | 228 49.1 +00.1 | S 10 34.1 +00.9 | 271 56.3 +00.1 | N 07 00.3 -00.6 | 148 10.8 -36.1 | S 27 50.4 -03.4 | 03 | | | | | | |
| 04 | 243 49.2 +00.1 | S 10 35.0 +00.9 | 286 56.4 +00.1 | N 06 59.7 -00.7 | 162 34.7 -36.2 | S 27 47.0 -03.5 | 04 | | | | | | |
| 05 | 258 49.3 +00.1 | S 10 35.9 +00.9 | 301 56.5 +00.1 | N 06 59.0 -00.7 | 176 58.5 -36.2 | S 27 43.5 -03.7 | 05 | | | | | | |
| 06 | 273 49.4 +00.1 | S 10 36.8 +00.9 | 316 56.6 +00.1 | N 06 58.3 -00.7 | 191 22.3 -36.1 | S 27 39.8 -03.8 | 06 | | | | | | |
| 07 | 288 49.5 +00.1 | S 10 37.7 +00.8 | 331 56.7 +00.1 | N 06 57.6 -00.7 | 205 46.2 -36.1 | S 27 36.0 -04.1 | 07 | | | | | | |
| 08 | 303 49.6 +00.1 | S 10 38.5 +00.9 | 346 56.8 +00.1 | N 06 56.9 -00.6 | 220 10.1 -36.1 | S 27 31.9 -04.2 | 08 | | | | | | |
| 09 | 318 49.7 +00.1 | S 10 39.4 +00.9 | 1 56.9 +00.1 | N 06 56.3 -00.7 | 234 34.0 -36.1 | S 27 27.7 -04.4 | 09 | | | | | | |
| 10 | 333 49.8 +00.1 | S 10 40.3 +00.9 | 16 57.0 +00.0 | N 06 55.6 -00.7 | 248 57.9 -36.0 | S 27 23.3 -04.6 | 10 | | | | | | |
| 11 | 348 49.9 +00.1 | S 10 41.2 +00.9 | 31 57.0 +00.1 | N 06 54.9 -00.7 | 263 21.9 -36.1 | S 27 18.7 -04.7 | 11 | | | | | | |
| 12 | 3 50.0 +00.1 | S 10 42.1 +00.9 | 46 57.1 +00.1 | N 06 54.2 -00.7 | 277 45.8 -35.9 | S 27 14.0 -05.0 | 12 | | | | | | |
| 13 | 18 50.1 +00.1 | S 10 43.0 +00.9 | 61 57.2 +00.1 | N 06 53.5 -00.6 | 292 09.9 -36.0 | S 27 09.0 -05.1 | 13 | | | | | | |
| 14 | 33 50.2 +00.1 | S 10 43.9 +00.9 | 76 57.3 +00.1 | N 06 52.9 -00.7 | 306 33.9 -35.9 | S 27 03.9 -05.3 | 14 | | | | | | |
| 15 | 48 50.3 +00.1 | S 10 44.8 +00.9 | 91 57.4 +00.1 | N 06 52.2 -00.7 | 320 58.0 -35.9 | S 26 58.6 -05.5 | 15 | | | | | | |
| 16 | 63 50.4 +00.1 | S 10 45.7 +00.9 | 106 57.5 +00.1 | N 06 51.5 -00.7 | 335 22.1 -35.9 | S 26 53.1 -05.6 | 16 | | | | | | |
| 17 | 78 50.5 +00.1 | S 10 46.6 +00.8 | 121 57.6 +00.1 | N 06 50.8 -00.7 | 349 46.2 -35.8 | S 26 47.5 -05.9 | 17 | | | | | | |
| 18 | 93 50.6 +00.1 | S 10 47.4 +00.9 | 136 57.7 +00.0 | N 06 50.1 -00.7 | 4 10.4 -35.8 | S 26 41.6 -06.0 | 18 | | | | | | |
| 19 | 108 50.7 +00.1 | S 10 48.3 +00.9 | 151 57.7 +00.1 | N 06 49.4 -00.7 | 18 34.6 -35.7 | S 26 35.6 -06.1 | 19 | | | | | | |
| 20 | 123 50.8 +00.1 | S 10 49.2 +00.9 | 166 57.8 +00.1 | N 06 48.7 -00.6 | 32 58.9 -35.7 | S 26 29.5 -06.4 | 20 | | | | | | |
| 21 | 138 50.9 +00.1 | S 10 50.1 +00.9 | 181 57.9 +00.1 | N 06 48.1 -00.7 | 47 23.2 -35.7 | S 26 23.1 -06.5 | 21 | | | | | | |
| 22 | 153 51.0 +00.1 | S 10 51.0 +00.9 | 196 58.0 +00.1 | N 06 47.4 -00.7 | 61 47.5 -35.6 | S 26 16.6 -06.7 | 22 | | | | | | |
| 23 | 168 51.1 +00.1 | S 10 51.9 +00.9 | 211 58.1 +00.1 | N 06 46.7 -00.7 | 76 11.9 -35.6 | S 26 09.9 -06.9 | 23 | | | | | | |
| | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | | | | | | | |
| | SD 16'1 16'1 16'1 16'1 16'1 16'1 | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | SD 15'9 15'9 15'9 16'0 16'0 16'0 | | | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | HP 58'3 58'4 58'5 58'6 58'7 58'7 | | | | | | | | |
| | SHA 155° 154° 154° 154° 154° 154° | | SHA 198° 198° 197° 197° 197° 197° | | SHA 075° 072° 069° 067° 064° 062° | | | | | | | | |
| | Greenwich Culmination Time: 11:44 | | Greenwich Culmination Time: 08:52 | | Greenwich Culmination Time: 17:42 | | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 175 26.5 +00.9 | S 13 21.9 +00.6 | 348 54.8 +02.7 | N 14 09.8 -00.1 | 55 48.0 +02.5 | S 12 52.4 +00.1 | 00 | | | | | | |
| 01 | 190 27.4 +00.8 | S 13 22.5 +00.6 | 3 57.5 +02.8 | N 14 09.7 -00.1 | 70 50.5 +02.5 | S 12 52.5 +00.0 | 01 | | | | | | |
| 02 | 205 28.2 +00.8 | S 13 23.1 +00.6 | 19 00.3 +02.8 | N 14 09.6 +00.0 | 85 53.0 +02.6 | S 12 52.5 +00.0 | 02 | | | | | | |
| 03 | 220 29.0 +00.8 | S 13 23.7 +00.6 | 34 03.1 +02.8 | N 14 09.6 -00.1 | 100 55.6 +02.5 | S 12 52.5 +00.0 | 03 | | | | | | |
| 04 | 235 29.8 +00.8 | S 13 24.3 +00.6 | 49 05.9 +02.8 | N 14 09.5 -00.1 | 115 58.1 +02.5 | S 12 52.5 +00.0 | 04 | | | | | | |
| 05 | 250 30.6 +00.8 | S 13 24.9 +00.6 | 64 08.7 +02.7 | N 14 09.4 -00.1 | 131 00.6 +02.5 | S 12 52.5 +00.1 | 05 | | | | | | |
| 06 | 265 31.4 +00.8 | S 13 25.5 +00.6 | 79 11.4 +02.8 | N 14 09.3 -00.1 | 146 03.1 +02.6 | S 12 52.6 +00.0 | 06 | | | | | | |
| 07 | 280 32.2 +00.9 | S 13 26.1 +00.5 | 94 14.2 +02.8 | N 14 09.2 -00.1 | 161 05.7 +02.5 | S 12 52.6 +00.0 | 07 | | | | | | |
| 08 | 295 33.1 +00.8 | S 13 26.6 +00.6 | 109 17.0 +02.8 | N 14 09.1 -00.1 | 176 08.2 +02.5 | S 12 52.6 +00.0 | 08 | | | | | | |
| 09 | 310 33.9 +00.8 | S 13 27.2 +00.6 | 124 19.8 +02.7 | N 14 09.0 -00.1 | 191 10.7 +02.5 | S 12 52.6 +00.0 | 09 | | | | | | |
| 10 | 325 34.7 +00.8 | S 13 27.8 +00.6 | 139 22.5 +02.8 | N 14 08.9 -00.1 | 206 13.2 +02.5 | S 12 52.6 +00.0 | 10 | | | | | | |
| 11 | 340 35.5 +00.8 | S 13 28.4 +00.6 | 154 25.3 +02.8 | N 14 08.8 -00.1 | 221 15.7 +02.6 | S 12 52.6 +00.1 | 11 | | | | | | |
| 12 | 355 36.3 +00.8 | S 13 29.0 +00.6 | 169 28.1 +02.8 | N 14 08.7 -00.1 | 236 18.3 +02.5 | S 12 52.7 +00.0 | 12 | | | | | | |
| 13 | 10 37.1 +00.8 | S 13 29.6 +00.6 | 184 30.9 +02.8 | N 14 08.6 -00.1 | 251 20.8 +02.5 | S 12 52.7 +00.0 | 13 | | | | | | |
| 14 | 25 37.9 +00.9 | S 13 30.2 +00.5 | 199 33.7 +02.7 | N 14 08.5 -00.1 | 266 23.3 +02.5 | S 12 52.7 +00.0 | 14 | | | | | | |
| 15 | 40 38.8 +00.8 | S 13 30.7 +00.6 | 214 36.4 +02.8 | N 14 08.4 -00.1 | 281 25.8 +02.6 | S 12 52.7 +00.0 | 15 | | | | | | |
| 16 | 55 39.6 +00.8 | S 13 31.3 +00.6 | 229 39.2 +02.8 | N 14 08.3 -00.1 | 296 28.4 +02.5 | S 12 52.7 +00.0 | 16 | | | | | | |
| 17 | 70 40.4 +00.8 | S 13 31.9 +00.6 | 244 42.0 +02.8 | N 14 08.2 -00.1 | 311 30.9 +02.5 | S 12 52.7 +00.1 | 17 | | | | | | |
| 18 | 85 41.2 +00.8 | S 13 32.5 +00.6 | 259 44.8 +02.7 | N 14 08.1 -00.1 | 326 33.4 +02.5 | S 12 52.8 +00.0 | 18 | | | | | | |
| 19 | 100 42.0 +00.8 | S 13 33.1 +00.6 | 274 47.5 +02.8 | N 14 08.0 -00.1 | 341 35.9 +02.5 | S 12 52.8 +00.0 | 19 | | | | | | |
| 20 | 115 42.8 +00.8 | S 13 33.7 +00.6 | 289 50.3 +02.8 | N 14 07.9 -00.1 | 356 38.4 +02.6 | S 12 52.8 +00.0 | 20 | | | | | | |
| 21 | 130 43.6 +00.8 | S 13 34.3 +00.5 | 304 53.1 +02.8 | N 14 07.8 -00.1 | 11 41.0 +02.5 | S 12 52.8 +00.0 | 21 | | | | | | |
| 22 | 145 44.4 +00.9 | S 13 34.8 +00.6 | 319 55.9 +02.8 | N 14 07.7 -00.1 | 26 43.5 +02.5 | S 12 52.8 +00.0 | 22 | | | | | | |
| 23 | 160 45.3 +00.8 | S 13 35.4 +00.6 | 334 58.7 +02.7 | N 14 07.6 -00.1 | 41 46.0 +02.5 | S 12 52.8 +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 146° 146° 146° 146° 146° 146° | | SHA 320° 320° 320° 320° 320° 320° | | SHA 027° 027° 027° 027° 027° 027° | | | | | | | | |
| | Greenwich Culmination Time: 12:17 | | Greenwich Culmination Time: 00:44 | | Greenwich Culmination Time: 20:13 | | | | | | | | |

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|------------|-----------------------------------|-------|------------|-----------------------------------|------|------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 51.2 +00.1 | S 10 | 52.8 +00.9 | 226 58.2 +00.0 | N 06 | 46.0 -00.7 | 90 36.3 -35.5 | S 26 | 03.0 -07.0 | 00 | | | |
| 01 | 198 51.3 +00.1 | S 10 | 53.7 +00.8 | 241 58.2 +00.1 | N 06 | 45.3 -00.7 | 105 00.8 -35.4 | S 25 | 56.0 -07.2 | 01 | | | |
| 02 | 213 51.4 +00.1 | S 10 | 54.5 +00.9 | 256 58.3 +00.1 | N 06 | 44.6 -00.7 | 119 25.4 -35.5 | S 25 | 48.8 -07.4 | 02 | | | |
| 03 | 228 51.5 +00.1 | S 10 | 55.4 +00.9 | 271 58.4 +00.1 | N 06 | 43.9 -00.7 | 133 49.9 -35.3 | S 25 | 41.4 -07.5 | 03 | | | |
| 04 | 243 51.6 +00.1 | S 10 | 56.3 +00.9 | 286 58.5 +00.1 | N 06 | 43.2 -00.7 | 148 14.6 -35.3 | S 25 | 33.9 -07.8 | 04 | | | |
| 05 | 258 51.7 +00.1 | S 10 | 57.2 +00.9 | 301 58.6 +00.0 | N 06 | 42.5 -00.7 | 162 39.3 -35.3 | S 25 | 26.1 -07.8 | 05 | | | |
| 06 | 273 51.8 +00.1 | S 10 | 58.1 +00.9 | 316 58.6 +00.1 | N 06 | 41.8 -00.7 | 177 04.0 -35.2 | S 25 | 18.3 -08.1 | 06 | | | |
| 07 | 288 51.9 +00.1 | S 10 | 59.0 +00.8 | 331 58.7 +00.1 | N 06 | 41.1 -00.7 | 191 28.8 -35.1 | S 25 | 10.2 -08.2 | 07 | | | |
| 08 | 303 52.0 +00.1 | S 10 | 59.8 +00.9 | 346 58.8 +00.1 | N 06 | 40.4 -00.7 | 205 53.7 -35.1 | S 25 | 02.0 -08.4 | 08 | | | |
| 09 | 318 52.1 +00.1 | S 11 | 00.7 +00.9 | 1 58.9 +00.1 | N 06 | 39.7 -00.7 | 220 18.6 -35.0 | S 24 | 53.6 -08.5 | 09 | | | |
| 10 | 333 52.2 +00.1 | S 11 | 01.6 +00.9 | 16 59.0 +00.0 | N 06 | 39.0 -00.7 | 234 43.6 -35.0 | S 24 | 45.1 -08.7 | 10 | | | |
| 11 | 348 52.3 +00.1 | S 11 | 02.5 +00.9 | 31 59.0 +00.1 | N 06 | 38.3 -00.7 | 249 08.6 -34.9 | S 24 | 36.4 -08.8 | 11 | | | |
| 12 | 3 52.4 +00.1 | S 11 | 03.4 +00.9 | 46 59.1 +00.1 | N 06 | 37.6 -00.7 | 263 33.7 -34.8 | S 24 | 27.6 -09.0 | 12 | | | |
| 13 | 18 52.5 +00.1 | S 11 | 04.3 +00.9 | 61 59.2 +00.1 | N 06 | 36.9 -00.7 | 277 58.9 -34.8 | S 24 | 18.6 -09.2 | 13 | | | |
| 14 | 33 52.6 +00.1 | S 11 | 05.2 +00.8 | 76 59.3 +00.0 | N 06 | 36.2 -00.7 | 292 24.1 -34.7 | S 24 | 09.4 -09.3 | 14 | | | |
| 15 | 48 52.7 +00.1 | S 11 | 06.0 +00.9 | 91 59.3 +00.1 | N 06 | 35.5 -00.7 | 306 49.4 -34.6 | S 24 | 00.1 -09.5 | 15 | | | |
| 16 | 63 52.8 +00.0 | S 11 | 06.9 +00.9 | 106 59.4 +00.1 | N 06 | 34.8 -00.7 | 321 14.8 -34.6 | S 23 | 50.6 -09.7 | 16 | | | |
| 17 | 78 52.8 +00.1 | S 11 | 07.8 +00.9 | 121 59.5 +00.0 | N 06 | 34.1 -00.7 | 335 40.2 -34.5 | S 23 | 40.9 -09.7 | 17 | | | |
| 18 | 93 52.9 +00.1 | S 11 | 08.7 +00.9 | 136 59.5 +00.1 | N 06 | 33.4 -00.7 | 350 05.7 -34.4 | S 23 | 31.2 -10.0 | 18 | | | |
| 19 | 108 53.0 +00.1 | S 11 | 09.6 +00.8 | 151 59.6 +00.1 | N 06 | 32.7 -00.7 | 4 31.3 -34.4 | S 23 | 21.2 -10.1 | 19 | | | |
| 20 | 123 53.1 +00.1 | S 11 | 10.4 +00.9 | 166 59.7 +00.1 | N 06 | 32.0 -00.7 | 18 56.9 -34.3 | S 23 | 11.1 -10.2 | 20 | | | |
| 21 | 138 53.2 +00.1 | S 11 | 11.3 +00.9 | 181 59.8 +00.0 | N 06 | 31.3 -00.7 | 33 22.6 -34.2 | S 23 | 00.9 -10.4 | 21 | | | |
| 22 | 153 53.3 +00.1 | S 11 | 12.2 +00.9 | 196 59.8 +00.1 | N 06 | 30.6 -00.7 | 47 48.4 -34.2 | S 22 | 50.5 -10.6 | 22 | | | |
| 23 | 168 53.4 +00.1 | S 11 | 13.1 +00.9 | 211 59.9 +00.1 | N 06 | 29.9 -00.7 | 62 14.2 -34.1 | S 22 | 39.9 -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 16°1 16°1 16°1 16°1 16°1 16°1 | | | SD 00°2 00°2 00°2 00°2 00°2 00°2 | | | SD 16°0 16°0 16°1 16°1 16°1 16°1 | | | | | | |
| | HP 00°1 00°1 00°1 00°1 00°1 00°1 | | | HP 00°2 00°2 00°2 00°2 00°2 00°2 | | | HP 58°8 58°9 59°0 59°1 59°1 59°2 | | | | | | |
| | SHA 154° 153° 153° 153° 153° 153° | | | SHA 197° 197° 196° 196° 196° 196° | | | SHA 059° 057° 054° 052° 049° 047° | | | | | | |
| | Greenwich Culmination Time: 11:44 | | | Greenwich Culmination Time: 08:52 | | | Greenwich Culmination Time: 18:41 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|------------|-----------------------------------|---------|------------|-----------------------------------|------|------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 175 46.1 +00.8 | S 13 | 36.0 +00.6 | 350 01.4 +02.8 | N 14 | 07.5 -00.1 | 56 48.5 +02.5 | S 12 | 52.9 +00.0 | 00 | | | |
| 01 | 190 46.9 +00.8 | S 13 | 36.6 +00.6 | 5 04.2 +02.8 | N 14 | 07.4 -00.1 | 71 51.0 +02.6 | S 12 | 52.9 +00.0 | 01 | | | |
| 02 | 205 47.7 +00.8 | S 13 | 37.2 +00.6 | 20 07.0 +02.8 | N 14 | 07.3 -00.1 | 86 53.6 +02.5 | S 12 | 52.9 +00.0 | 02 | | | |
| 03 | 220 48.5 +00.8 | S 13 | 37.8 +00.5 | 35 09.8 +02.8 | N 14 | 07.2 -00.1 | 101 56.1 +02.5 | S 12 | 52.9 +00.0 | 03 | | | |
| 04 | 235 49.3 +00.8 | S 13 | 38.3 +00.6 | 50 12.6 +02.7 | N 14 | 07.1 -00.1 | 116 58.6 +02.5 | S 12 | 52.9 +00.0 | 04 | | | |
| 05 | 250 50.1 +00.8 | S 13 | 38.9 +00.6 | 65 15.3 +02.8 | N 14 | 07.0 -00.1 | 132 01.1 +02.5 | S 12 | 52.9 +00.0 | 05 | | | |
| 06 | 265 50.9 +00.8 | S 13 | 39.5 +00.6 | 80 18.1 +02.8 | N 14 | 06.9 -00.1 | 147 03.6 +02.5 | S 12 | 52.9 +00.1 | 06 | | | |
| 07 | 280 51.7 +00.9 | S 13 | 40.1 +00.6 | 95 20.9 +02.8 | N 14 | 06.8 -00.1 | 162 06.1 +02.6 | S 12 | 53.0 +00.0 | 07 | | | |
| 08 | 295 52.6 +00.8 | S 13 | 40.7 +00.6 | 110 23.7 +02.8 | N 14 | 06.7 -00.1 | 177 08.7 +02.5 | S 12 | 53.0 +00.0 | 08 | | | |
| 09 | 310 53.4 +00.8 | S 13 | 41.3 +00.5 | 125 26.5 +02.7 | N 14 | 06.6 -00.1 | 192 11.2 +02.5 | S 12 | 53.0 +00.0 | 09 | | | |
| 10 | 325 54.2 +00.8 | S 13 | 41.8 +00.6 | 140 29.2 +02.8 | N 14 | 06.5 -00.1 | 207 13.7 +02.5 | S 12 | 53.0 +00.0 | 10 | | | |
| 11 | 340 55.0 +00.8 | S 13 | 42.4 +00.6 | 155 32.0 +02.8 | N 14 | 06.4 -00.1 | 222 16.2 +02.5 | S 12 | 53.0 +00.0 | 11 | | | |
| 12 | 355 55.8 +00.8 | S 13 | 43.0 +00.6 | 170 34.8 +02.8 | N 14 | 06.3 -00.1 | 237 18.7 +02.6 | S 12 | 53.0 +00.1 | 12 | | | |
| 13 | 10 56.6 +00.8 | S 13 | 43.6 +00.6 | 185 37.6 +02.8 | N 14 | 06.2 -00.1 | 252 21.3 +02.5 | S 12 | 53.1 +00.0 | 13 | | | |
| 14 | 25 57.4 +00.8 | S 13 | 44.2 +00.6 | 200 40.4 +02.8 | N 14 | 06.1 -00.1 | 267 23.8 +02.5 | S 12 | 53.1 +00.0 | 14 | | | |
| 15 | 40 58.2 +00.8 | S 13 | 44.8 +00.5 | 215 43.2 +02.7 | N 14 | 06.0 -00.1 | 282 26.3 +02.5 | S 12 | 53.1 +00.0 | 15 | | | |
| 16 | 55 59.0 +00.8 | S 13 | 45.3 +00.6 | 230 45.9 +02.8 | N 14 | 05.9 -00.1 | 297 28.8 +02.5 | S 12 | 53.1 +00.0 | 16 | | | |
| 17 | 70 59.8 +00.8 | S 13 | 45.9 +00.6 | 245 48.7 +02.8 | N 14 | 05.8 -00.1 | 312 31.3 +02.5 | S 12 | 53.1 +00.0 | 17 | | | |
| 18 | 86 00.6 +00.8 | S 13 | 46.5 +00.6 | 260 51.5 +02.8 | N 14 | 05.7 -00.1 | 327 33.8 +02.6 | S 12 | 53.1 +00.0 | 18 | | | |
| 19 | 101 01.4 +00.9 | S 13 | 47.1 +00.6 | 275 54.3 +02.8 | N 14 | 05.6 -00.1 | 342 36.4 +02.5 | S 12 | 53.1 +00.1 | 19 | | | |
| 20 | 116 02.3 +00.8 | S 13 | 47.7 +00.5 | 290 57.1 +02.7 | N 14 | 05.5 -00.1 | 357 38.9 +02.5 | S 12 | 53.2 +00.0 | 20 | | | |
| 21 | 131 03.1 +00.8 | S 13 | 48.2 +00.6 | 305 59.8 +02.8 | N 14 | 05.4 -00.1 | 12 41.4 +02.5 | S 12 | 53.2 +00.0 | 21 | | | |
| 22 | 146 03.9 +00.8 | S 13 | 48.8 +00.6 | 321 02.6 +02.8 | N 14 | 05.3 +00.0 | 27 43.9 +02.5 | S 12 | 53.2 +00.0 | 22 | | | |
| 23 | 161 04.7 +00.8 | S 13 | 49.4 +00.6 | 336 05.4 +02.8 | N 14 | 05.3 -00.1 | 42 46.4 +02.5 | S 12 | 53.2 +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 146° 145° 145° 145° 145° 145° | | | SHA 320° 320° 320° 320° 320° 320° | | | SHA 027° 027° 027° 027° 027° 027° | | | | | | |
| | Greenwich Culmination Time: 12:16 | | | Greenwich Culmination Time: 00:39 | | | Greenwich Culmination Time: 20:09 | | | | | | |

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| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> | | | | UT |
|----|-----------------------------------|-----------|----------------|------|-----------------------------------|-----------|----------------|------|-----------------------------------|-----------|----------------|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 | 53.5+00.1 | S 11 14.0+00.8 | | 226 | 60.0+00.0 | N 06 29.2-00.7 | | 76 | 40.1-34.0 | S 22 29.3-10.9 | | 00 |
| 01 | 198 | 53.6+00.1 | S 11 14.8+00.9 | | 242 | 00.0+00.1 | N 06 28.5-00.7 | | 91 | 06.1-34.0 | S 22 18.4-10.9 | | 01 |
| 02 | 213 | 53.7+00.1 | S 11 15.7+00.9 | | 257 | 00.1+00.1 | N 06 27.8-00.7 | | 105 | 32.1-33.8 | S 22 07.5-11.1 | | 02 |
| 03 | 228 | 53.8+00.1 | S 11 16.6+00.9 | | 272 | 00.2+00.0 | N 06 27.1-00.7 | | 119 | 58.3-33.9 | S 21 56.4-11.3 | | 03 |
| 04 | 243 | 53.9+00.1 | S 11 17.5+00.9 | | 287 | 00.2+00.1 | N 06 26.4-00.7 | | 134 | 24.4-33.7 | S 21 45.1-11.4 | | 04 |
| 05 | 258 | 54.0+00.0 | S 11 18.4+00.8 | | 302 | 00.3+00.1 | N 06 25.7-00.8 | | 148 | 50.7-33.7 | S 21 33.7-11.5 | | 05 |
| 06 | 273 | 54.0+00.1 | S 11 19.2+00.9 | | 317 | 00.4+00.0 | N 06 24.9-00.7 | | 163 | 17.0-33.5 | S 21 22.2-11.7 | | 06 |
| 07 | 288 | 54.1+00.1 | S 11 20.1+00.9 | | 332 | 00.4+00.1 | N 06 24.2-00.7 | | 177 | 43.5-33.6 | S 21 10.5-11.8 | | 07 |
| 08 | 303 | 54.2+00.1 | S 11 21.0+00.9 | | 347 | 00.5+00.1 | N 06 23.5-00.7 | | 192 | 09.9-33.4 | S 20 58.7-11.9 | | 08 |
| 09 | 318 | 54.3+00.1 | S 11 21.9+00.8 | | 2 | 00.6+00.0 | N 06 22.8-00.7 | | 206 | 36.5-33.4 | S 20 46.8-12.1 | | 09 |
| 10 | 333 | 54.4+00.1 | S 11 22.7+00.9 | | 17 | 00.6+00.1 | N 06 22.1-00.7 | | 221 | 03.1-33.3 | S 20 34.7-12.1 | | 10 |
| 11 | 348 | 54.5+00.1 | S 11 23.6+00.9 | | 32 | 00.7+00.0 | N 06 21.4-00.7 | | 235 | 29.8-33.2 | S 20 22.6-12.4 | | 11 |
| 12 | 3 | 54.6+00.1 | S 11 24.5+00.9 | | 47 | 00.7+00.1 | N 06 20.7-00.8 | | 249 | 56.6-33.2 | S 20 10.2-12.4 | | 12 |
| 13 | 18 | 54.7+00.1 | S 11 25.4+00.8 | | 62 | 00.8+00.1 | N 06 19.9-00.7 | | 264 | 23.4-33.1 | S 19 57.8-12.6 | | 13 |
| 14 | 33 | 54.8+00.0 | S 11 26.2+00.9 | | 77 | 00.9+00.0 | N 06 19.2-00.7 | | 278 | 50.3-33.0 | S 19 45.2-12.7 | | 14 |
| 15 | 48 | 54.8+00.1 | S 11 27.1+00.9 | | 92 | 00.9+00.1 | N 06 18.5-00.7 | | 293 | 17.3-32.9 | S 19 32.5-12.8 | | 15 |
| 16 | 63 | 54.9+00.1 | S 11 28.0+00.9 | | 107 | 01.0+00.1 | N 06 17.8-00.7 | | 307 | 44.4-32.9 | S 19 19.7-12.9 | | 16 |
| 17 | 78 | 55.0+00.1 | S 11 28.9+00.8 | | 122 | 01.1+00.0 | N 06 17.1-00.8 | | 322 | 11.5-32.8 | S 19 06.8-13.1 | | 17 |
| 18 | 93 | 55.1+00.1 | S 11 29.7+00.9 | | 137 | 01.1+00.1 | N 06 16.3-00.7 | | 336 | 38.7-32.7 | S 18 53.7-13.2 | | 18 |
| 19 | 108 | 55.2+00.1 | S 11 30.6+00.9 | | 152 | 01.2+00.0 | N 06 15.6-00.7 | | 351 | 06.0-32.6 | S 18 40.5-13.3 | | 19 |
| 20 | 123 | 55.3+00.1 | S 11 31.5+00.9 | | 167 | 01.2+00.1 | N 06 14.9-00.7 | | 5 | 33.4-32.6 | S 18 27.2-13.4 | | 20 |
| 21 | 138 | 55.4+00.0 | S 11 32.4+00.8 | | 182 | 01.3+00.0 | N 06 14.2-00.7 | | 20 | 00.8-32.5 | S 18 13.8-13.5 | | 21 |
| 22 | 153 | 55.4+00.1 | S 11 33.2+00.9 | | 197 | 01.3+00.1 | N 06 13.5-00.8 | | 34 | 28.3-32.5 | S 18 00.3-13.7 | | 22 |
| 23 | 168 | 55.5+00.1 | S 11 34.1+00.9 | | 212 | 01.4+00.1 | N 06 12.7-00.7 | | 48 | 55.8-32.4 | S 17 46.6-13.7 | | 23 |
| | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | |
| | SD 16'1 16'1 16'1 16'1 16'1 16'1 | | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | | SD 16'2 16'2 16'2 16'2 16'2 16'2 | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | | | HP 59'3 59'4 59'4 59'5 59'6 59'6 | | | | |
| | SHA 153° 152° 152° 152° 152° 152° | | | | SHA 196° 196° 195° 195° 195° 195° | | | | SHA 044° 042° 039° 037° 035° 032° | | | | |
| | Greenwich Culmination Time: 11:44 | | | | Greenwich Culmination Time: 08:51 | | | | Greenwich Culmination Time: 19:36 | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
|----|-----------------------------------|-----------|----------------|------|-----------------------------------|-----------|----------------|------|-----------------------------------|-----------|----------------|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 176 | 05.5+00.8 | S 13 50.0+00.6 | | 351 | 08.2+02.8 | N 14 05.2-00.1 | | 57 | 48.9+02.6 | S 12 53.2+00.0 | | 00 |
| 01 | 191 | 06.3+00.8 | S 13 50.6+00.5 | | 6 | 11.0+02.8 | N 14 05.1-00.1 | | 72 | 51.5+02.5 | S 12 53.2+00.1 | | 01 |
| 02 | 206 | 07.1+00.8 | S 13 51.1+00.6 | | 21 | 13.8+02.7 | N 14 05.0-00.1 | | 87 | 54.0+02.5 | S 12 53.3+00.0 | | 02 |
| 03 | 221 | 07.9+00.8 | S 13 51.7+00.6 | | 36 | 16.5+02.8 | N 14 04.9-00.1 | | 102 | 56.5+02.5 | S 12 53.3+00.0 | | 03 |
| 04 | 236 | 08.7+00.8 | S 13 52.3+00.6 | | 51 | 19.3+02.8 | N 14 04.8-00.1 | | 117 | 59.0+02.5 | S 12 53.3+00.0 | | 04 |
| 05 | 251 | 09.5+00.8 | S 13 52.9+00.6 | | 66 | 22.1+02.8 | N 14 04.7-00.1 | | 133 | 01.5+02.5 | S 12 53.3+00.0 | | 05 |
| 06 | 266 | 10.3+00.8 | S 13 53.5+00.5 | | 81 | 24.9+02.8 | N 14 04.6-00.1 | | 148 | 04.0+02.5 | S 12 53.3+00.0 | | 06 |
| 07 | 281 | 11.1+00.8 | S 13 54.0+00.6 | | 96 | 27.7+02.8 | N 14 04.5-00.1 | | 163 | 06.5+02.6 | S 12 53.3+00.0 | | 07 |
| 08 | 296 | 11.9+00.8 | S 13 54.6+00.6 | | 111 | 30.5+02.7 | N 14 04.4-00.1 | | 178 | 09.1+02.5 | S 12 53.3+00.1 | | 08 |
| 09 | 311 | 12.7+00.8 | S 13 55.2+00.6 | | 126 | 33.2+02.8 | N 14 04.3-00.1 | | 193 | 11.6+02.5 | S 12 53.4+00.0 | | 09 |
| 10 | 326 | 13.5+00.8 | S 13 55.8+00.6 | | 141 | 36.0+02.8 | N 14 04.2-00.1 | | 208 | 14.1+02.5 | S 12 53.4+00.0 | | 10 |
| 11 | 341 | 14.3+00.8 | S 13 56.4+00.5 | | 156 | 38.8+02.8 | N 14 04.1-00.1 | | 223 | 16.6+02.5 | S 12 53.4+00.0 | | 11 |
| 12 | 356 | 15.1+00.8 | S 13 56.9+00.6 | | 171 | 41.6+02.8 | N 14 04.0-00.1 | | 238 | 19.1+02.5 | S 12 53.4+00.0 | | 12 |
| 13 | 11 | 15.9+00.8 | S 13 57.5+00.6 | | 186 | 44.4+02.8 | N 14 03.9-00.1 | | 253 | 21.6+02.5 | S 12 53.4+00.0 | | 13 |
| 14 | 26 | 16.7+00.8 | S 13 58.1+00.6 | | 201 | 47.2+02.7 | N 14 03.8-00.1 | | 268 | 24.1+02.6 | S 12 53.4+00.0 | | 14 |
| 15 | 41 | 17.5+00.8 | S 13 58.7+00.5 | | 216 | 49.9+02.8 | N 14 03.7-00.1 | | 283 | 26.7+02.5 | S 12 53.4+00.1 | | 15 |
| 16 | 56 | 18.3+00.8 | S 13 59.2+00.6 | | 231 | 52.7+02.8 | N 14 03.6-00.1 | | 298 | 29.2+02.5 | S 12 53.5+00.0 | | 16 |
| 17 | 71 | 19.1+00.9 | S 13 59.8+00.6 | | 246 | 55.5+02.8 | N 14 03.5-00.1 | | 313 | 31.7+02.5 | S 12 53.5+00.0 | | 17 |
| 18 | 86 | 20.0+00.8 | S 14 00.4+00.6 | | 261 | 58.3+02.8 | N 14 03.4-00.1 | | 328 | 34.2+02.5 | S 12 53.5+00.0 | | 18 |
| 19 | 101 | 20.8+00.8 | S 14 01.0+00.6 | | 277 | 01.1+02.8 | N 14 03.3-00.1 | | 343 | 36.7+02.5 | S 12 53.5+00.0 | | 19 |
| 20 | 116 | 21.6+00.8 | S 14 01.6+00.5 | | 292 | 03.9+02.8 | N 14 03.2-00.1 | | 358 | 39.2+02.5 | S 12 53.5+00.0 | | 20 |
| 21 | 131 | 22.4+00.8 | S 14 02.1+00.6 | | 307 | 06.7+02.7 | N 14 03.1-00.1 | | 13 | 41.7+02.5 | S 12 53.5+00.0 | | 21 |
| 22 | 146 | 23.2+00.8 | S 14 02.7+00.6 | | 322 | 09.4+02.8 | N 14 03.0-00.1 | | 28 | 44.2+02.6 | S 12 53.5+00.0 | | 22 |
| 23 | 161 | 24.0+00.8 | S 14 03.3+00.6 | | 337 | 12.2+02.8 | N 14 02.9-00.1 | | 43 | 46.8+02.5 | S 12 53.5+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 145° 145° 145° 145° 144° 144° | | | | SHA 320° 320° 320° 320° 320° 320° | | | | SHA 027° 027° 027° 027° 027° 027° | | | | |
| | Greenwich Culmination Time: 12:14 | | | | Greenwich Culmination Time: 00:35 | | | | Greenwich Culmination Time: 20:05 | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|--|----------------|-------|---------------|--|---------|---------------|----------------|--|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 55.6 +00.1 | S | 11 35.0 +00.9 | 227 01.5 +00.0 | N | 06 12.0 -00.7 | 63 23.4 -32.3 | S | 17 32.9 -13.9 | 00 | | | |
| 01 | 198 55.7 +00.1 | S | 11 35.9 +00.8 | 242 01.5 +00.1 | N | 06 11.3 -00.7 | 77 51.1 -32.2 | S | 17 19.0 -13.9 | 01 | | | |
| 02 | 213 55.8 +00.1 | S | 11 36.7 +00.9 | 257 01.6 +00.0 | N | 06 10.6 -00.8 | 92 18.9 -32.2 | S | 17 05.1 -14.1 | 02 | | | |
| 03 | 228 55.9 +00.1 | S | 11 37.6 +00.9 | 272 01.6 +00.1 | N | 06 09.8 -00.7 | 106 46.7 -32.0 | S | 16 51.0 -14.2 | 03 | | | |
| 04 | 243 56.0 +00.0 | S | 11 38.5 +00.8 | 287 01.7 +00.0 | N | 06 09.1 -00.7 | 121 14.7 -32.1 | S | 16 36.8 -14.2 | 04 | | | |
| 05 | 258 56.0 +00.1 | S | 11 39.3 +00.9 | 302 01.7 +00.1 | N | 06 08.4 -00.7 | 135 42.6 -31.9 | S | 16 22.6 -14.4 | 05 | | | |
| 06 | 273 56.1 +00.1 | S | 11 40.2 +00.9 | 317 01.8 +00.0 | N | 06 07.7 -00.8 | 150 10.7 -31.9 | S | 16 08.2 -14.5 | 06 | | | |
| 07 | 288 56.2 +00.1 | S | 11 41.1 +00.9 | 332 01.8 +00.1 | N | 06 06.9 -00.7 | 164 38.8 -31.9 | S | 15 53.7 -14.6 | 07 | | | |
| 08 | 303 56.3 +00.1 | S | 11 42.0 +00.8 | 347 01.9 +00.0 | N | 06 06.2 -00.7 | 179 06.9 -31.7 | S | 15 39.1 -14.6 | 08 | | | |
| 09 | 318 56.4 +00.0 | S | 11 42.8 +00.9 | 2 01.9 +00.1 | N | 06 05.5 -00.8 | 193 35.2 -31.7 | S | 15 24.5 -14.8 | 09 | | | |
| 10 | 333 56.4 +00.1 | S | 11 43.7 +00.9 | 17 02.0 +00.0 | N | 06 04.7 -00.7 | 208 03.5 -31.7 | S | 15 09.7 -14.8 | 10 | | | |
| 11 | 348 56.5 +00.1 | S | 11 44.6 +00.8 | 32 02.0 +00.1 | N | 06 04.0 -00.7 | 222 31.8 -31.6 | S | 14 54.9 -15.0 | 11 | | | |
| 12 | 3 56.6 +00.1 | S | 11 45.4 +00.9 | 47 02.1 +00.0 | N | 06 03.3 -00.8 | 237 00.2 -31.5 | S | 14 39.9 -15.0 | 12 | | | |
| 13 | 18 56.7 +00.1 | S | 11 46.3 +00.9 | 62 02.1 +00.1 | N | 06 02.5 -00.7 | 251 28.7 -31.4 | S | 14 24.9 -15.2 | 13 | | | |
| 14 | 33 56.8 +00.1 | S | 11 47.2 +00.8 | 77 02.2 +00.0 | N | 06 01.8 -00.7 | 265 57.3 -31.4 | S | 14 09.7 -15.2 | 14 | | | |
| 15 | 48 56.9 +00.0 | S | 11 48.0 +00.9 | 92 02.2 +00.1 | N | 06 01.1 -00.8 | 280 25.9 -31.3 | S | 13 54.5 -15.3 | 15 | | | |
| 16 | 63 56.9 +00.1 | S | 11 48.9 +00.9 | 107 02.3 +00.0 | N | 06 00.3 -00.7 | 294 54.6 -31.3 | S | 13 39.2 -15.3 | 16 | | | |
| 17 | 78 57.0 +00.1 | S | 11 49.8 +00.8 | 122 02.3 +00.1 | N | 05 59.6 -00.7 | 309 23.3 -31.2 | S | 13 23.9 -15.5 | 17 | | | |
| 18 | 93 57.1 +00.1 | S | 11 50.6 +00.9 | 137 02.4 +00.0 | N | 05 58.9 -00.8 | 323 52.1 -31.2 | S | 13 08.4 -15.5 | 18 | | | |
| 19 | 108 57.2 +00.1 | S | 11 51.5 +00.9 | 152 02.4 +00.1 | N | 05 58.1 -00.7 | 338 20.9 -31.1 | S | 12 52.9 -15.6 | 19 | | | |
| 20 | 123 57.3 +00.0 | S | 11 52.4 +00.8 | 167 02.5 +00.0 | N | 05 57.4 -00.7 | 352 49.8 -31.1 | S | 12 37.3 -15.7 | 20 | | | |
| 21 | 138 57.3 +00.1 | S | 11 53.2 +00.9 | 182 02.5 +00.1 | N | 05 56.7 -00.8 | 7 18.7 -31.0 | S | 12 21.6 -15.8 | 21 | | | |
| 22 | 153 57.4 +00.1 | S | 11 54.1 +00.9 | 197 02.6 +00.0 | N | 05 55.9 -00.7 | 21 47.7 -30.9 | S | 12 05.8 -15.8 | 22 | | | |
| 23 | 168 57.5 +00.1 | S | 11 55.0 +00.8 | 212 02.6 +00.0 | N | 05 55.2 -00.8 | 36 16.8 -30.9 | S | 11 50.0 -15.9 | 23 | | | |
| UT 02 06 10 14 18 22 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 SHA 152° 152° 151° 151° 151° 151° Greenwich Culmination Time: 11:44 | | | | UT 02 06 10 14 18 22 SD 00'2 00'2 00'2 00'2 00'2 00'2 HP 00'2 00'2 00'2 00'2 00'2 00'2 SHA 195° 195° 194° 194° 194° 194° Greenwich Culmination Time: 08:51 | | | | UT 02 06 10 14 18 22 SD 16'3 16'3 16'3 16'3 16'3 16'3 HP 59'7 59'7 59'8 59'8 59'9 59'9 SHA 030° 028° 026° 023° 021° 019° Greenwich Culmination Time: 20:29 | | | | | |
| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 176 24.8 +00.8 | S | 14 03.9 +00.5 | 352 15.0 +02.8 | N | 14 02.8 -00.1 | 58 49.3 +02.5 | S | 12 53.6 +00.0 | 00 | | | |
| 01 | 191 25.6 +00.8 | S | 14 04.4 +00.6 | 7 17.8 +02.8 | N | 14 02.7 -00.1 | 73 51.8 +02.5 | S | 12 53.6 +00.0 | 01 | | | |
| 02 | 206 26.4 +00.8 | S | 14 05.0 +00.6 | 22 20.6 +02.8 | N | 14 02.6 -00.1 | 88 54.3 +02.5 | S | 12 53.6 +00.0 | 02 | | | |
| 03 | 221 27.2 +00.8 | S | 14 05.6 +00.6 | 37 23.4 +02.8 | N | 14 02.5 -00.1 | 103 56.8 +02.5 | S | 12 53.6 +00.0 | 03 | | | |
| 04 | 236 28.0 +00.8 | S | 14 06.2 +00.5 | 52 26.2 +02.7 | N | 14 02.4 -00.1 | 118 59.3 +02.5 | S | 12 53.6 +00.0 | 04 | | | |
| 05 | 251 28.8 +00.8 | S | 14 06.7 +00.6 | 67 28.9 +02.8 | N | 14 02.3 -00.1 | 134 01.8 +02.5 | S | 12 53.6 +00.0 | 05 | | | |
| 06 | 266 29.6 +00.8 | S | 14 07.3 +00.6 | 82 31.7 +02.8 | N | 14 02.2 -00.1 | 149 04.3 +02.5 | S | 12 53.6 +00.0 | 06 | | | |
| 07 | 281 30.4 +00.8 | S | 14 07.9 +00.6 | 97 34.5 +02.8 | N | 14 02.1 -00.1 | 164 06.8 +02.6 | S | 12 53.6 +00.1 | 07 | | | |
| 08 | 296 31.2 +00.8 | S | 14 08.5 +00.5 | 112 37.3 +02.8 | N | 14 02.0 -00.1 | 179 09.4 +02.5 | S | 12 53.7 +00.0 | 08 | | | |
| 09 | 311 32.0 +00.8 | S | 14 09.0 +00.6 | 127 40.1 +02.8 | N | 14 01.9 -00.1 | 194 11.9 +02.5 | S | 12 53.7 +00.0 | 09 | | | |
| 10 | 326 32.8 +00.8 | S | 14 09.6 +00.6 | 142 42.9 +02.8 | N | 14 01.8 -00.1 | 209 14.4 +02.5 | S | 12 53.7 +00.0 | 10 | | | |
| 11 | 341 33.6 +00.8 | S | 14 10.2 +00.6 | 157 45.7 +02.7 | N | 14 01.7 -00.1 | 224 16.9 +02.5 | S | 12 53.7 +00.0 | 11 | | | |
| 12 | 356 34.4 +00.8 | S | 14 10.8 +00.5 | 172 48.4 +02.8 | N | 14 01.6 -00.1 | 239 19.4 +02.5 | S | 12 53.7 +00.0 | 12 | | | |
| 13 | 11 35.2 +00.7 | S | 14 11.3 +00.6 | 187 51.2 +02.8 | N | 14 01.5 -00.1 | 254 21.9 +02.5 | S | 12 53.7 +00.0 | 13 | | | |
| 14 | 26 35.9 +00.8 | S | 14 11.9 +00.6 | 202 54.0 +02.8 | N | 14 01.4 -00.1 | 269 24.4 +02.5 | S | 12 53.7 +00.0 | 14 | | | |
| 15 | 41 36.7 +00.8 | S | 14 12.5 +00.6 | 217 56.8 +02.8 | N | 14 01.3 -00.1 | 284 26.9 +02.5 | S | 12 53.7 +00.1 | 15 | | | |
| 16 | 56 37.5 +00.8 | S | 14 13.1 +00.5 | 232 59.6 +02.8 | N | 14 01.2 -00.1 | 299 29.4 +02.5 | S | 12 53.8 +00.0 | 16 | | | |
| 17 | 71 38.3 +00.8 | S | 14 13.6 +00.6 | 248 02.4 +02.8 | N | 14 01.1 -00.1 | 314 31.9 +02.5 | S | 12 53.8 +00.0 | 17 | | | |
| 18 | 86 39.1 +00.8 | S | 14 14.2 +00.6 | 263 05.2 +02.7 | N | 14 01.0 -00.1 | 329 34.4 +02.6 | S | 12 53.8 +00.0 | 18 | | | |
| 19 | 101 39.9 +00.8 | S | 14 14.8 +00.6 | 278 07.9 +02.8 | N | 14 00.9 -00.1 | 344 37.0 +02.5 | S | 12 53.8 +00.0 | 19 | | | |
| 20 | 116 40.7 +00.8 | S | 14 15.4 +00.5 | 293 10.7 +02.8 | N | 14 00.8 -00.1 | 359 39.5 +02.5 | S | 12 53.8 +00.0 | 20 | | | |
| 21 | 131 41.5 +00.8 | S | 14 15.9 +00.6 | 308 13.5 +02.8 | N | 14 00.7 -00.1 | 14 42.0 +02.5 | S | 12 53.8 +00.0 | 21 | | | |
| 22 | 146 42.3 +00.8 | S | 14 16.5 +00.6 | 323 16.3 +02.8 | N | 14 00.6 -00.1 | 29 44.5 +02.5 | S | 12 53.8 +00.0 | 22 | | | |
| 23 | 161 43.1 +00.8 | S | 14 17.1 +00.5 | 338 19.1 +02.8 | N | 14 00.5 -00.1 | 44 47.0 +02.5 | S | 12 53.8 +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 144° 144° 144° 144° 144° 144° Greenwich Culmination Time: 12:13 | | | | 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 320° 320° 320° 320° 320° 320° Greenwich Culmination Time: 00:30 | | | | 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 027° 027° 027° 027° 027° 027° Greenwich Culmination Time: 20:01 | | | | | |

| UT | Sun | | | | Venus | | | | Moon A: 38% | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|--|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 57.6 +00.0 | S | 11 55.8 +00.9 | 227 02.6 +00.1 | N 05 54.4 -00.7 | 50 45.9 -30.8 | S 11 34.1 -16.0 | 00 | | | | | |
| 01 | 198 57.6 +00.1 | S | 11 56.7 +00.9 | 242 02.7 +00.0 | N 05 53.7 -00.7 | 65 15.1 -30.8 | S 11 18.1 -16.1 | 01 | | | | | |
| 02 | 213 57.7 +00.1 | S | 11 57.6 +00.8 | 257 02.7 +00.1 | N 05 53.0 -00.8 | 79 44.3 -30.8 | S 11 02.0 -16.1 | 02 | | | | | |
| 03 | 228 57.8 +00.1 | S | 11 58.4 +00.9 | 272 02.8 +00.0 | N 05 52.2 -00.7 | 94 13.5 -30.6 | S 10 45.9 -16.1 | 03 | | | | | |
| 04 | 243 57.9 +00.0 | S | 11 59.3 +00.8 | 287 02.8 +00.1 | N 05 51.5 -00.8 | 108 42.9 -30.7 | S 10 29.8 -16.3 | 04 | | | | | |
| 05 | 258 57.9 +00.1 | S | 12 00.1 +00.9 | 302 02.9 +00.0 | N 05 50.7 -00.7 | 123 12.2 -30.6 | S 10 13.5 -16.3 | 05 | | | | | |
| 06 | 273 58.0 +00.1 | S | 12 01.0 +00.9 | 317 02.9 +00.0 | N 05 50.0 -00.8 | 137 41.6 -30.5 | S 09 57.2 -16.3 | 06 | | | | | |
| 07 | 288 58.1 +00.1 | S | 12 01.9 +00.8 | 332 02.9 +00.1 | N 05 49.2 -00.7 | 152 11.1 -30.6 | S 09 40.9 -16.5 | 07 | | | | | |
| 08 | 303 58.2 +00.0 | S | 12 02.7 +00.9 | 347 03.0 +00.0 | N 05 48.5 -00.8 | 166 40.5 -30.4 | S 09 24.4 -16.4 | 08 | | | | | |
| 09 | 318 58.2 +00.1 | S | 12 03.6 +00.9 | 2 03.0 +00.1 | N 05 47.7 -00.7 | 181 10.1 -30.4 | S 09 08.0 -16.6 | 09 | | | | | |
| 10 | 333 58.3 +00.1 | S | 12 04.5 +00.8 | 17 03.1 +00.0 | N 05 47.0 -00.7 | 195 39.7 -30.4 | S 08 51.4 -16.5 | 10 | | | | | |
| 11 | 348 58.4 +00.1 | S | 12 05.3 +00.9 | 32 03.1 +00.0 | N 05 46.3 -00.8 | 210 09.3 -30.4 | S 08 34.9 -16.7 | 11 | | | | | |
| 12 | 3 58.5 +00.0 | S | 12 06.2 +00.8 | 47 03.1 +00.1 | N 05 45.5 -00.7 | 224 38.9 -30.3 | S 08 18.2 -16.6 | 12 | | | | | |
| 13 | 18 58.5 +00.1 | S | 12 07.0 +00.9 | 62 03.2 +00.0 | N 05 44.8 -00.8 | 239 08.6 -30.3 | S 08 01.6 -16.8 | 13 | | | | | |
| 14 | 33 58.6 +00.1 | S | 12 07.9 +00.9 | 77 03.2 +00.0 | N 05 44.0 -00.7 | 253 38.3 -30.2 | S 07 44.8 -16.7 | 14 | | | | | |
| 15 | 48 58.7 +00.1 | S | 12 08.8 +00.8 | 92 03.2 +00.1 | N 05 43.3 -00.8 | 268 08.1 -30.2 | S 07 28.1 -16.8 | 15 | | | | | |
| 16 | 63 58.8 +00.0 | S | 12 09.6 +00.9 | 107 03.3 +00.0 | N 05 42.5 -00.7 | 282 37.9 -30.1 | S 07 11.3 -16.9 | 16 | | | | | |
| 17 | 78 58.8 +00.1 | S | 12 10.5 +00.8 | 122 03.3 +00.0 | N 05 41.8 -00.8 | 297 07.8 -30.2 | S 06 54.4 -16.9 | 17 | | | | | |
| 18 | 93 58.9 +00.1 | S | 12 11.3 +00.9 | 137 03.3 +00.1 | N 05 41.0 -00.8 | 311 37.6 -30.1 | S 06 37.5 -16.9 | 18 | | | | | |
| 19 | 108 59.0 +00.1 | S | 12 12.2 +00.9 | 152 03.4 +00.0 | N 05 40.2 -00.7 | 326 07.5 -30.1 | S 06 20.6 -17.0 | 19 | | | | | |
| 20 | 123 59.1 +00.0 | S | 12 13.1 +00.8 | 167 03.4 +00.0 | N 05 39.5 -00.8 | 340 37.4 -30.0 | S 06 03.6 -17.0 | 20 | | | | | |
| 21 | 138 59.1 +00.1 | S | 12 13.9 +00.9 | 182 03.4 +00.1 | N 05 38.7 -00.7 | 355 07.4 -30.0 | S 05 46.6 -17.0 | 21 | | | | | |
| 22 | 153 59.2 +00.1 | S | 12 14.8 +00.8 | 197 03.5 +00.0 | N 05 38.0 -00.8 | 9 37.4 -30.0 | S 05 29.6 -17.1 | 22 | | | | | |
| 23 | 168 59.3 +00.0 | S | 12 15.6 +00.9 | 212 03.5 +00.0 | N 05 37.2 -00.7 | 24 07.4 -30.0 | S 05 12.5 -17.1 | 23 | | | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | | |
| | SD 16'1 16'1 16'1 16'1 16'1 16'1 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | | 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 00'2 00'2 00'2 00'2 00'2 00'2 | | | | HP 60'0 60'0 60'0 60'0 60'1 60'1 | | | | | |
| | SHA 151° 151° 150° 150° 150° 150° | | | SHA 194° 194° 194° 193° 193° 193° | | | | SHA 017° 014° 012° 010° 008° 006° | | | | | |
| | Greenwich Culmination Time: 11:44 | | | Greenwich Culmination Time: 08:51 | | | | Greenwich Culmination Time: 21:20 | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 176 43.9 +00.8 | S | 14 17.6 +00.6 | 353 21.9 +02.8 | N 14 00.4 -00.1 | 59 49.5 +02.5 | S 12 53.9 +00.0 | 00 | | | | | |
| 01 | 191 44.7 +00.8 | S | 14 18.2 +00.6 | 8 24.7 +02.8 | N 14 00.3 -00.1 | 74 52.0 +02.5 | S 12 53.9 +00.0 | 01 | | | | | |
| 02 | 206 45.5 +00.8 | S | 14 18.8 +00.6 | 23 27.5 +02.7 | N 14 00.2 -00.1 | 89 54.5 +02.5 | S 12 53.9 +00.0 | 02 | | | | | |
| 03 | 221 46.3 +00.8 | S | 14 19.4 +00.5 | 38 30.2 +02.8 | N 14 00.1 -00.1 | 104 57.0 +02.5 | S 12 53.9 +00.0 | 03 | | | | | |
| 04 | 236 47.1 +00.8 | S | 14 19.9 +00.6 | 53 33.0 +02.8 | N 13 60.0 -00.1 | 119 59.5 +02.5 | S 12 53.9 +00.0 | 04 | | | | | |
| 05 | 251 47.9 +00.8 | S | 14 20.5 +00.6 | 68 35.8 +02.8 | N 13 59.9 -00.1 | 135 02.0 +02.5 | S 12 53.9 +00.0 | 05 | | | | | |
| 06 | 266 48.7 +00.8 | S | 14 21.1 +00.5 | 83 38.6 +02.8 | N 13 59.8 -00.1 | 150 04.5 +02.5 | S 12 53.9 +00.0 | 06 | | | | | |
| 07 | 281 49.5 +00.8 | S | 14 21.6 +00.6 | 98 41.4 +02.8 | N 13 59.7 -00.1 | 165 07.0 +02.6 | S 12 53.9 +00.0 | 07 | | | | | |
| 08 | 296 50.3 +00.8 | S | 14 22.2 +00.6 | 113 44.2 +02.8 | N 13 59.6 -00.1 | 180 09.6 +02.5 | S 12 53.9 +00.1 | 08 | | | | | |
| 09 | 311 51.1 +00.8 | S | 14 22.8 +00.6 | 128 47.0 +02.8 | N 13 59.5 -00.1 | 195 12.1 +02.5 | S 12 54.0 +00.0 | 09 | | | | | |
| 10 | 326 51.9 +00.8 | S | 14 23.4 +00.5 | 143 49.8 +02.8 | N 13 59.4 -00.1 | 210 14.6 +02.5 | S 12 54.0 +00.0 | 10 | | | | | |
| 11 | 341 52.7 +00.7 | S | 14 23.9 +00.6 | 158 52.6 +02.7 | N 13 59.3 -00.1 | 225 17.1 +02.5 | S 12 54.0 +00.0 | 11 | | | | | |
| 12 | 356 53.4 +00.8 | S | 14 24.5 +00.6 | 173 55.3 +02.8 | N 13 59.2 -00.1 | 240 19.6 +02.5 | S 12 54.0 +00.0 | 12 | | | | | |
| 13 | 11 54.2 +00.8 | S | 14 25.1 +00.5 | 188 58.1 +02.8 | N 13 59.1 -00.1 | 255 22.1 +02.5 | S 12 54.0 +00.0 | 13 | | | | | |
| 14 | 26 55.0 +00.8 | S | 14 25.6 +00.6 | 204 00.9 +02.8 | N 13 59.0 -00.1 | 270 24.6 +02.5 | S 12 54.0 +00.0 | 14 | | | | | |
| 15 | 41 55.8 +00.8 | S | 14 26.2 +00.6 | 219 03.7 +02.8 | N 13 58.9 -00.1 | 285 27.1 +02.5 | S 12 54.0 +00.0 | 15 | | | | | |
| 16 | 56 56.6 +00.8 | S | 14 26.8 +00.5 | 234 06.5 +02.8 | N 13 58.8 -00.1 | 300 29.6 +02.5 | S 12 54.0 +00.0 | 16 | | | | | |
| 17 | 71 57.4 +00.8 | S | 14 27.3 +00.6 | 249 09.3 +02.8 | N 13 58.7 -00.1 | 315 32.1 +02.5 | S 12 54.0 +00.1 | 17 | | | | | |
| 18 | 86 58.2 +00.8 | S | 14 27.9 +00.6 | 264 12.1 +02.8 | N 13 58.6 -00.1 | 330 34.6 +02.5 | S 12 54.1 +00.0 | 18 | | | | | |
| 19 | 101 59.0 +00.8 | S | 14 28.5 +00.6 | 279 14.9 +02.8 | N 13 58.5 -00.1 | 345 37.1 +02.5 | S 12 54.1 +00.0 | 19 | | | | | |
| 20 | 116 59.8 +00.8 | S | 14 29.1 +00.5 | 294 17.7 +02.7 | N 13 58.4 -00.1 | 0 39.6 +02.5 | S 12 54.1 +00.0 | 20 | | | | | |
| 21 | 132 00.6 +00.8 | S | 14 29.6 +00.6 | 309 20.4 +02.8 | N 13 58.3 -00.1 | 15 42.1 +02.5 | S 12 54.1 +00.0 | 21 | | | | | |
| 22 | 147 01.4 +00.8 | S | 14 30.2 +00.6 | 324 23.2 +02.8 | N 13 58.2 -00.1 | 30 44.6 +02.5 | S 12 54.1 +00.0 | 22 | | | | | |
| 23 | 162 02.2 +00.7 | S | 14 30.8 +00.5 | 339 26.0 +02.8 | N 13 58.1 -00.1 | 45 47.1 +02.5 | S 12 54.1 +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 144° 143° 143° 143° 143° 143° | | | SHA 320° 320° 320° 320° 320° 320° | | | | SHA 027° 027° 027° 027° 027° 027° | | | | | |
| | Greenwich Culmination Time: 12:12 | | | Greenwich Culmination Time: 00:26 | | | | Greenwich Culmination Time: 19:57 | | | | | |

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 59.3 +00.1 | S | 12 16.5 +00.8 | 227 03.5 +00.1 | N | 05 36.5 -00.8 | 38 37.4 -29.9 | S | 04 55.4 -17.1 | 00 | | | |
| 01 | 198 59.4 +00.1 | S | 12 17.3 +00.9 | 242 03.6 +00.0 | N | 05 35.7 -00.7 | 53 07.5 -29.9 | S | 04 38.3 -17.2 | 01 | | | |
| 02 | 213 59.5 +00.0 | S | 12 18.2 +00.9 | 257 03.6 +00.0 | N | 05 35.0 -00.8 | 67 37.6 -29.9 | S | 04 21.1 -17.1 | 02 | | | |
| 03 | 228 59.5 +00.1 | S | 12 19.1 +00.8 | 272 03.6 +00.1 | N | 05 34.2 -00.8 | 82 07.7 -29.9 | S | 04 04.0 -17.2 | 03 | | | |
| 04 | 243 59.6 +00.1 | S | 12 19.9 +00.9 | 287 03.7 +00.0 | N | 05 33.4 -00.7 | 96 37.8 -29.8 | S | 03 46.8 -17.2 | 04 | | | |
| 05 | 258 59.7 +00.1 | S | 12 20.8 +00.8 | 302 03.7 +00.0 | N | 05 32.7 -00.8 | 111 08.0 -29.9 | S | 03 29.6 -17.3 | 05 | | | |
| 06 | 273 59.8 +00.0 | S | 12 21.6 +00.9 | 317 03.7 +00.0 | N | 05 31.9 -00.7 | 125 38.1 -29.8 | S | 03 12.3 -17.2 | 06 | | | |
| 07 | 288 59.8 +00.1 | S | 12 22.5 +00.8 | 332 03.7 +00.1 | N | 05 31.2 -00.8 | 140 08.3 -29.8 | S | 02 55.1 -17.3 | 07 | | | |
| 08 | 303 59.9 +00.1 | S | 12 23.3 +00.9 | 347 03.8 +00.0 | N | 05 30.4 -00.8 | 154 38.5 -29.8 | S | 02 37.8 -17.3 | 08 | | | |
| 09 | 318 60.0 +00.0 | S | 12 24.2 +00.8 | 2 03.8 +00.0 | N | 05 29.6 -00.7 | 169 08.7 -29.7 | S | 02 20.5 -17.3 | 09 | | | |
| 10 | 334 00.0 +00.1 | S | 12 25.0 +00.9 | 17 03.8 +00.1 | N | 05 28.9 -00.8 | 183 39.0 -29.8 | S | 02 03.2 -17.3 | 10 | | | |
| 11 | 349 00.1 +00.1 | S | 12 25.9 +00.9 | 32 03.9 +00.0 | N | 05 28.1 -00.7 | 198 09.2 -29.7 | S | 01 45.9 -17.3 | 11 | | | |
| 12 | 4 00.2 +00.0 | S | 12 26.8 +00.8 | 47 03.9 +00.0 | N | 05 27.4 -00.8 | 212 39.5 -29.8 | S | 01 28.6 -17.3 | 12 | | | |
| 13 | 19 00.2 +00.1 | S | 12 27.6 +00.9 | 62 03.9 +00.0 | N | 05 26.6 -00.8 | 227 09.7 -29.7 | S | 01 11.3 -17.4 | 13 | | | |
| 14 | 34 00.3 +00.1 | S | 12 28.5 +00.8 | 77 03.9 +00.1 | N | 05 25.8 -00.7 | 241 40.0 -29.7 | S | 00 53.9 -17.3 | 14 | | | |
| 15 | 49 00.4 +00.0 | S | 12 29.3 +00.9 | 92 04.0 +00.0 | N | 05 25.1 -00.8 | 256 10.3 -29.8 | S | 00 36.6 -17.3 | 15 | | | |
| 16 | 64 00.4 +00.1 | S | 12 30.2 +00.8 | 107 04.0 +00.0 | N | 05 24.3 -00.8 | 270 40.5 -29.7 | S | 00 19.3 -17.4 | 16 | | | |
| 17 | 79 00.5 +00.1 | S | 12 31.0 +00.9 | 122 04.0 +00.0 | N | 05 23.5 -00.7 | 285 10.8 -29.7 | S | 00 01.9 -17.3 | 17 | | | |
| 18 | 94 00.6 +00.0 | S | 12 31.9 +00.8 | 137 04.0 +00.0 | N | 05 22.8 -00.8 | 299 41.1 -29.7 | N | 00 15.4 +17.3 | 18 | | | |
| 19 | 109 00.6 +00.1 | S | 12 32.7 +00.9 | 152 04.0 +00.1 | N | 05 22.0 -00.8 | 314 11.4 -29.7 | N | 00 32.7 +17.4 | 19 | | | |
| 20 | 124 00.7 +00.0 | S | 12 33.6 +00.8 | 167 04.1 +00.0 | N | 05 21.2 -00.8 | 328 41.7 -29.7 | N | 00 50.1 +17.3 | 20 | | | |
| 21 | 139 00.7 +00.1 | S | 12 34.4 +00.9 | 182 04.1 +00.0 | N | 05 20.4 -00.7 | 343 12.0 -29.7 | N | 01 07.4 +17.3 | 21 | | | |
| 22 | 154 00.8 +00.1 | S | 12 35.3 +00.8 | 197 04.1 +00.0 | N | 05 19.7 -00.8 | 357 42.3 -29.7 | N | 01 24.7 +17.3 | 22 | | | |
| 23 | 169 00.9 +00.0 | S | 12 36.1 +00.9 | 212 04.1 +00.1 | N | 05 18.9 -00.8 | 12 12.6 -29.7 | N | 01 42.0 +17.3 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'1 16'1 16'1 16'1 16'1 16'1 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | SD 16'4 16'4 16'4 16'4 16'4 16'3 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | | HP 60'1 60'1 60'1 60'0 60'0 60'0 | | | | | | |
| | SHA 150° 150° 149° 149° 149° 149° | | | SHA 193° 193° 193° 192° 192° 192° | | | SHA 003° 001° 359° 357° 355° 353° | | | | | | |
| | Greenwich Culmination Time: 11:43 | | | Greenwich Culmination Time: 08:51 | | | Greenwich Culmination Time: 22:09 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|---------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 177 02.9 +00.8 | S | 14 31.3 +00.6 | 354 28.8 +02.8 | N | 13 58.0 -00.1 | 60 49.6 +02.5 | S | 12 54.1 +00.0 | 00 | | | |
| 01 | 192 03.7 +00.8 | S | 14 31.9 +00.6 | 9 31.6 +02.8 | N | 13 57.9 -00.1 | 75 52.1 +02.5 | S | 12 54.1 +00.0 | 01 | | | |
| 02 | 207 04.5 +00.8 | S | 14 32.5 +00.5 | 24 34.4 +02.8 | N | 13 57.8 -00.1 | 90 54.6 +02.5 | S | 12 54.1 +00.0 | 02 | | | |
| 03 | 222 05.3 +00.8 | S | 14 33.0 +00.6 | 39 37.2 +02.8 | N | 13 57.7 -00.1 | 105 57.1 +02.5 | S | 12 54.1 +00.1 | 03 | | | |
| 04 | 237 06.1 +00.8 | S | 14 33.6 +00.6 | 54 40.0 +02.8 | N | 13 57.6 -00.1 | 120 59.6 +02.5 | S | 12 54.2 +00.0 | 04 | | | |
| 05 | 252 06.9 +00.8 | S | 14 34.2 +00.5 | 69 42.8 +02.7 | N | 13 57.5 -00.1 | 136 02.1 +02.6 | S | 12 54.2 +00.0 | 05 | | | |
| 06 | 267 07.7 +00.8 | S | 14 34.7 +00.6 | 84 45.5 +02.8 | N | 13 57.4 -00.1 | 151 04.7 +02.5 | S | 12 54.2 +00.0 | 06 | | | |
| 07 | 282 08.5 +00.8 | S | 14 35.3 +00.6 | 99 48.3 +02.8 | N | 13 57.3 -00.1 | 166 07.2 +02.5 | S | 12 54.2 +00.0 | 07 | | | |
| 08 | 297 09.3 +00.7 | S | 14 35.9 +00.5 | 114 51.1 +02.8 | N | 13 57.2 -00.1 | 181 09.7 +02.5 | S | 12 54.2 +00.0 | 08 | | | |
| 09 | 312 10.0 +00.8 | S | 14 36.4 +00.6 | 129 53.9 +02.8 | N | 13 57.1 -00.1 | 196 12.2 +02.5 | S | 12 54.2 +00.0 | 09 | | | |
| 10 | 327 10.8 +00.8 | S | 14 37.0 +00.6 | 144 56.7 +02.8 | N | 13 57.0 -00.1 | 211 14.7 +02.5 | S | 12 54.2 +00.0 | 10 | | | |
| 11 | 342 11.6 +00.8 | S | 14 37.6 +00.5 | 159 59.5 +02.8 | N | 13 56.9 -00.1 | 226 17.2 +02.5 | S | 12 54.2 +00.0 | 11 | | | |
| 12 | 357 12.4 +00.8 | S | 14 38.1 +00.6 | 175 02.3 +02.8 | N | 13 56.8 -00.1 | 241 19.7 +02.5 | S | 12 54.2 +00.0 | 12 | | | |
| 13 | 12 13.2 +00.8 | S | 14 38.7 +00.6 | 190 05.1 +02.8 | N | 13 56.7 -00.1 | 256 22.2 +02.5 | S | 12 54.2 +00.1 | 13 | | | |
| 14 | 27 14.0 +00.8 | S | 14 39.3 +00.5 | 205 07.9 +02.8 | N | 13 56.6 -00.1 | 271 24.7 +02.5 | S | 12 54.3 +00.0 | 14 | | | |
| 15 | 42 14.8 +00.8 | S | 14 39.8 +00.6 | 220 10.7 +02.8 | N | 13 56.5 -00.1 | 286 27.2 +02.5 | S | 12 54.3 +00.0 | 15 | | | |
| 16 | 57 15.6 +00.7 | S | 14 40.4 +00.6 | 235 13.5 +02.7 | N | 13 56.4 -00.1 | 301 29.7 +02.5 | S | 12 54.3 +00.0 | 16 | | | |
| 17 | 72 16.3 +00.8 | S | 14 41.0 +00.5 | 250 16.2 +02.8 | N | 13 56.3 -00.1 | 316 32.2 +02.5 | S | 12 54.3 +00.0 | 17 | | | |
| 18 | 87 17.1 +00.8 | S | 14 41.5 +00.6 | 265 19.0 +02.8 | N | 13 56.2 -00.1 | 331 34.7 +02.5 | S | 12 54.3 +00.0 | 18 | | | |
| 19 | 102 17.9 +00.8 | S | 14 42.1 +00.6 | 280 21.8 +02.8 | N | 13 56.1 -00.1 | 346 37.2 +02.5 | S | 12 54.3 +00.0 | 19 | | | |
| 20 | 117 18.7 +00.8 | S | 14 42.7 +00.5 | 295 24.6 +02.8 | N | 13 56.0 -00.1 | 1 39.7 +02.5 | S | 12 54.3 +00.0 | 20 | | | |
| 21 | 132 19.5 +00.8 | S | 14 43.2 +00.6 | 310 27.4 +02.8 | N | 13 55.9 -00.1 | 16 42.2 +02.5 | S | 12 54.3 +00.0 | 21 | | | |
| 22 | 147 20.3 +00.8 | S | 14 43.8 +00.6 | 325 30.2 +02.8 | N | 13 55.8 -00.1 | 31 44.7 +02.5 | S | 12 54.3 +00.0 | 22 | | | |
| 23 | 162 21.1 +00.7 | S | 14 44.4 +00.5 | 340 33.0 +02.8 | N | 13 55.7 -00.1 | 46 47.2 +02.5 | S | 12 54.3 +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 00'1 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 143° 143° 143° 143° 142° 142° | | | SHA 320° 320° 320° 320° 320° 320° | | | SHA 027° 027° 027° 027° 027° 027° | | | | | | |
| | Greenwich Culmination Time: 12:11 | | | Greenwich Culmination Time: 00:22 | | | Greenwich Culmination Time: 19:53 | | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|-------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 184 00.9 +00.1 | S | 12 37.0 +00.8 | 227 04.2 +00.0 | N 05 18.1 -00.7 | 26 42.9 -29.8 | N 01 59.3 +17.2 | 00 | | | | | |
| 01 | 199 01.0 +00.1 | S | 12 37.8 +00.9 | 242 04.2 +00.0 | N 05 17.4 -00.8 | 41 13.1 -29.7 | N 02 16.5 +17.3 | 01 | | | | | |
| 02 | 214 01.1 +00.0 | S | 12 38.7 +00.8 | 257 04.2 +00.0 | N 05 16.6 -00.8 | 55 43.4 -29.7 | N 02 33.8 +17.2 | 02 | | | | | |
| 03 | 229 01.1 +00.1 | S | 12 39.5 +00.9 | 272 04.2 +00.0 | N 05 15.8 -00.8 | 70 13.7 -29.7 | N 02 51.0 +17.3 | 03 | | | | | |
| 04 | 244 01.2 +00.0 | S | 12 40.4 +00.8 | 287 04.2 +00.0 | N 05 15.0 -00.7 | 84 44.0 -29.8 | N 03 08.3 +17.2 | 04 | | | | | |
| 05 | 259 01.2 +00.1 | S | 12 41.2 +00.8 | 302 04.2 +00.1 | N 05 14.3 -00.8 | 99 14.2 -29.8 | N 03 25.5 +17.1 | 05 | | | | | |
| 06 | 274 01.3 +00.1 | S | 12 42.0 +00.9 | 317 04.3 +00.0 | N 05 13.5 -00.8 | 113 44.4 -29.7 | N 03 42.6 +17.2 | 06 | | | | | |
| 07 | 289 01.4 +00.0 | S | 12 42.9 +00.8 | 332 04.3 +00.0 | N 05 12.7 -00.8 | 128 14.7 -29.8 | N 03 59.8 +17.1 | 07 | | | | | |
| 08 | 304 01.4 +00.1 | S | 12 43.7 +00.9 | 347 04.3 +00.0 | N 05 11.9 -00.7 | 142 44.9 -29.8 | N 04 16.9 +17.1 | 08 | | | | | |
| 09 | 319 01.5 +00.0 | S | 12 44.6 +00.8 | 2 04.3 +00.0 | N 05 11.2 -00.8 | 157 15.1 -29.8 | N 04 34.0 +17.1 | 09 | | | | | |
| 10 | 334 01.5 +00.1 | S | 12 45.4 +00.9 | 17 04.3 +00.0 | N 05 10.4 -00.8 | 171 45.3 -29.9 | N 04 51.1 +17.0 | 10 | | | | | |
| 11 | 349 01.6 +00.1 | S | 12 46.3 +00.8 | 32 04.3 +00.1 | N 05 09.6 -00.8 | 186 15.4 -29.8 | N 05 08.1 +17.0 | 11 | | | | | |
| 12 | 4 01.7 +00.0 | S | 12 47.1 +00.9 | 47 04.4 +00.0 | N 05 08.8 -00.8 | 200 45.6 -29.9 | N 05 25.1 +17.0 | 12 | | | | | |
| 13 | 19 01.7 +00.1 | S | 12 48.0 +00.8 | 62 04.4 +00.0 | N 05 08.0 -00.7 | 215 15.7 -29.8 | N 05 42.1 +16.9 | 13 | | | | | |
| 14 | 34 01.8 +00.0 | S | 12 48.8 +00.9 | 77 04.4 +00.0 | N 05 07.3 -00.8 | 229 45.9 -30.0 | N 05 59.0 +16.9 | 14 | | | | | |
| 15 | 49 01.8 +00.1 | S | 12 49.7 +00.8 | 92 04.4 +00.0 | N 05 06.5 -00.8 | 244 15.9 -29.9 | N 06 15.9 +16.8 | 15 | | | | | |
| 16 | 64 01.9 +00.1 | S | 12 50.5 +00.8 | 107 04.4 +00.0 | N 05 05.7 -00.8 | 258 46.0 -29.9 | N 06 32.7 +16.9 | 16 | | | | | |
| 17 | 79 02.0 +00.0 | S | 12 51.3 +00.9 | 122 04.4 +00.0 | N 05 04.9 -00.8 | 273 16.1 -30.0 | N 06 49.6 +16.7 | 17 | | | | | |
| 18 | 94 02.0 +00.1 | S | 12 52.2 +00.8 | 137 04.4 +00.0 | N 05 04.1 -00.7 | 287 46.1 -30.0 | N 07 06.3 +16.7 | 18 | | | | | |
| 19 | 109 02.1 +00.0 | S | 12 53.0 +00.9 | 152 04.4 +00.1 | N 05 03.4 -00.8 | 302 16.1 -30.0 | N 07 23.0 +16.7 | 19 | | | | | |
| 20 | 124 02.1 +00.1 | S | 12 53.9 +00.8 | 167 04.5 +00.0 | N 05 02.6 -00.8 | 316 46.1 -30.1 | N 07 39.7 +16.7 | 20 | | | | | |
| 21 | 139 02.2 +00.0 | S | 12 54.7 +00.9 | 182 04.5 +00.0 | N 05 01.8 -00.8 | 331 16.0 -30.1 | N 07 56.4 +16.5 | 21 | | | | | |
| 22 | 154 02.2 +00.1 | S | 12 55.6 +00.8 | 197 04.5 +00.0 | N 05 01.0 -00.8 | 345 45.9 -30.1 | N 08 12.9 +16.6 | 22 | | | | | |
| 23 | 169 02.3 +00.0 | S | 12 56.4 +00.8 | 212 04.5 +00.0 | N 05 00.2 -00.8 | 0 15.8 -30.1 | N 08 29.5 +16.4 | 23 | | | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | | |
| | SD 16'1 16'1 16'1 16'1 16'1 16'1 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | | SD 16'3 16'3 16'3 16'3 16'3 16'3 | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | | | HP 60'0 59'9 59'9 59'8 59'8 59'7 | | | | | |
| | SHA 149° 149° 149° 148° 148° 148° | | | SHA 192° 192° 192° 191° 191° 191° | | | | SHA 351° 348° 346° 344° 342° 340° | | | | | |
| | Greenwich Culmination Time: 11:43 | | | Greenwich Culmination Time: 08:51 | | | | Greenwich Culmination Time: 22:58 | | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 177 21.8 +00.8 | S | 14 44.9 +00.6 | 355 35.8 +02.8 | N 13 55.6 -00.1 | 61 49.7 +02.5 | S 12 54.3 +00.0 | 00 | | | | | |
| 01 | 192 22.6 +00.8 | S | 14 45.5 +00.5 | 10 38.6 +02.8 | N 13 55.5 -00.1 | 76 52.2 +02.5 | S 12 54.3 +00.1 | 01 | | | | | |
| 02 | 207 23.4 +00.8 | S | 14 46.0 +00.6 | 25 41.4 +02.8 | N 13 55.4 -00.1 | 91 54.7 +02.5 | S 12 54.4 +00.0 | 02 | | | | | |
| 03 | 222 24.2 +00.8 | S | 14 46.6 +00.6 | 40 44.2 +02.7 | N 13 55.3 -00.1 | 106 57.2 +02.5 | S 12 54.4 +00.0 | 03 | | | | | |
| 04 | 237 25.0 +00.8 | S | 14 47.2 +00.5 | 55 46.9 +02.8 | N 13 55.2 -00.1 | 121 59.7 +02.5 | S 12 54.4 +00.0 | 04 | | | | | |
| 05 | 252 25.8 +00.7 | S | 14 47.7 +00.6 | 70 49.7 +02.8 | N 13 55.1 -00.1 | 137 02.2 +02.5 | S 12 54.4 +00.0 | 05 | | | | | |
| 06 | 267 26.5 +00.8 | S | 14 48.3 +00.6 | 85 52.5 +02.8 | N 13 55.0 -00.1 | 152 04.7 +02.5 | S 12 54.4 +00.0 | 06 | | | | | |
| 07 | 282 27.3 +00.8 | S | 14 48.9 +00.5 | 100 55.3 +02.8 | N 13 54.9 -00.1 | 167 07.2 +02.5 | S 12 54.4 +00.0 | 07 | | | | | |
| 08 | 297 28.1 +00.8 | S | 14 49.4 +00.6 | 115 58.1 +02.8 | N 13 54.8 -00.1 | 182 09.7 +02.5 | S 12 54.4 +00.0 | 08 | | | | | |
| 09 | 312 28.9 +00.8 | S | 14 50.0 +00.5 | 131 00.9 +02.8 | N 13 54.7 -00.1 | 197 12.2 +02.5 | S 12 54.4 +00.0 | 09 | | | | | |
| 10 | 327 29.7 +00.8 | S | 14 50.5 +00.6 | 146 03.7 +02.8 | N 13 54.6 -00.1 | 212 14.7 +02.5 | S 12 54.4 +00.0 | 10 | | | | | |
| 11 | 342 30.5 +00.7 | S | 14 51.1 +00.6 | 161 06.5 +02.8 | N 13 54.5 -00.1 | 227 17.2 +02.5 | S 12 54.4 +00.0 | 11 | | | | | |
| 12 | 357 31.2 +00.8 | S | 14 51.7 +00.5 | 176 09.3 +02.8 | N 13 54.4 -00.1 | 242 19.7 +02.5 | S 12 54.4 +00.0 | 12 | | | | | |
| 13 | 12 32.0 +00.8 | S | 14 52.2 +00.6 | 191 12.1 +02.8 | N 13 54.3 -00.1 | 257 22.2 +02.5 | S 12 54.4 +00.1 | 13 | | | | | |
| 14 | 27 32.8 +00.8 | S | 14 52.8 +00.6 | 206 14.9 +02.8 | N 13 54.2 -00.1 | 272 24.7 +02.4 | S 12 54.5 +00.0 | 14 | | | | | |
| 15 | 42 33.6 +00.8 | S | 14 53.4 +00.5 | 221 17.7 +02.8 | N 13 54.1 -00.2 | 287 27.1 +02.5 | S 12 54.5 +00.0 | 15 | | | | | |
| 16 | 57 34.4 +00.7 | S | 14 53.9 +00.6 | 236 20.5 +02.7 | N 13 53.9 -00.1 | 302 29.6 +02.5 | S 12 54.5 +00.0 | 16 | | | | | |
| 17 | 72 35.1 +00.8 | S | 14 54.5 +00.5 | 251 23.2 +02.8 | N 13 53.8 -00.1 | 317 32.1 +02.5 | S 12 54.5 +00.0 | 17 | | | | | |
| 18 | 87 35.9 +00.8 | S | 14 55.0 +00.6 | 266 26.0 +02.8 | N 13 53.7 -00.1 | 332 34.6 +02.5 | S 12 54.5 +00.0 | 18 | | | | | |
| 19 | 102 36.7 +00.8 | S | 14 55.6 +00.6 | 281 28.8 +02.8 | N 13 53.6 -00.1 | 347 37.1 +02.5 | S 12 54.5 +00.0 | 19 | | | | | |
| 20 | 117 37.5 +00.8 | S | 14 56.2 +00.5 | 296 31.6 +02.8 | N 13 53.5 -00.1 | 2 39.6 +02.5 | S 12 54.5 +00.0 | 20 | | | | | |
| 21 | 132 38.3 +00.7 | S | 14 56.7 +00.6 | 311 34.4 +02.8 | N 13 53.4 -00.1 | 17 42.1 +02.5 | S 12 54.5 +00.0 | 21 | | | | | |
| 22 | 147 39.0 +00.8 | S | 14 57.3 +00.5 | 326 37.2 +02.8 | N 13 53.3 -00.1 | 32 44.6 +02.5 | S 12 54.5 +00.0 | 22 | | | | | |
| 23 | 162 39.8 +00.8 | S | 14 57.8 +00.6 | 341 40.0 +02.8 | N 13 53.2 -00.1 | 47 47.1 +02.5 | S 12 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 00'1 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 142° 142° 142° 142° 142° 142° | | | SHA 321° 321° 321° 321° 321° 321° | | | | SHA 027° 027° 027° 027° 027° 027° | | | | | |
| | Greenwich Culmination Time: 12:09 | | | Greenwich Culmination Time: 00:17 | | | | Greenwich Culmination Time: 19:49 | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 184 02.3 +00.1 | S 12 57.2 +00.9 | 227 04.5 +00.0 | N 04 59.4 -00.8 | 14 45.7 -30.2 | N 08 45.9 +16.4 | 00 | | | | | | |
| 01 | 199 02.4 +00.1 | S 12 58.1 +00.8 | 242 04.5 +00.0 | N 04 58.6 -00.7 | 29 15.5 -30.2 | N 09 02.3 +16.4 | 01 | | | | | | |
| 02 | 214 02.5 +00.0 | S 12 58.9 +00.9 | 257 04.5 +00.0 | N 04 57.9 -00.8 | 43 45.3 -30.2 | N 09 18.7 +16.3 | 02 | | | | | | |
| 03 | 229 02.5 +00.1 | S 12 59.8 +00.8 | 272 04.5 +00.0 | N 04 57.1 -00.8 | 58 15.1 -30.3 | N 09 35.0 +16.2 | 03 | | | | | | |
| 04 | 244 02.6 +00.0 | S 13 00.6 +00.8 | 287 04.5 +00.0 | N 04 56.3 -00.8 | 72 44.8 -30.3 | N 09 51.2 +16.2 | 04 | | | | | | |
| 05 | 259 02.6 +00.1 | S 13 01.4 +00.9 | 302 04.5 +00.0 | N 04 55.5 -00.8 | 87 14.5 -30.3 | N 10 07.4 +16.1 | 05 | | | | | | |
| 06 | 274 02.7 +00.0 | S 13 02.3 +00.8 | 317 04.5 +00.0 | N 04 54.7 -00.8 | 101 44.2 -30.4 | N 10 23.5 +16.1 | 06 | | | | | | |
| 07 | 289 02.7 +00.1 | S 13 03.1 +00.9 | 332 04.5 +00.0 | N 04 53.9 -00.8 | 116 13.8 -30.4 | N 10 39.6 +16.0 | 07 | | | | | | |
| 08 | 304 02.8 +00.0 | S 13 04.0 +00.8 | 347 04.5 +00.1 | N 04 53.1 -00.8 | 130 43.4 -30.5 | N 10 55.6 +15.9 | 08 | | | | | | |
| 09 | 319 02.8 +00.1 | S 13 04.8 +00.8 | 2 04.6 +00.0 | N 04 52.3 -00.8 | 145 12.9 -30.5 | N 11 11.5 +15.8 | 09 | | | | | | |
| 10 | 334 02.9 +00.0 | S 13 05.6 +00.9 | 17 04.6 +00.0 | N 04 51.5 -00.8 | 159 42.4 -30.5 | N 11 27.3 +15.8 | 10 | | | | | | |
| 11 | 349 02.9 +00.1 | S 13 06.5 +00.8 | 32 04.6 +00.0 | N 04 50.7 -00.8 | 174 11.9 -30.5 | N 11 43.1 +15.7 | 11 | | | | | | |
| 12 | 4 03.0 +00.0 | S 13 07.3 +00.8 | 47 04.6 +00.0 | N 04 49.9 -00.7 | 188 41.4 -30.7 | N 11 58.8 +15.6 | 12 | | | | | | |
| 13 | 19 03.0 +00.1 | S 13 08.1 +00.9 | 62 04.6 +00.0 | N 04 49.2 -00.8 | 203 10.7 -30.6 | N 12 14.4 +15.5 | 13 | | | | | | |
| 14 | 34 03.1 +00.0 | S 13 09.0 +00.8 | 77 04.6 +00.0 | N 04 48.4 -00.8 | 217 40.1 -30.7 | N 12 29.9 +15.5 | 14 | | | | | | |
| 15 | 49 03.1 +00.1 | S 13 09.8 +00.8 | 92 04.6 +00.0 | N 04 47.6 -00.8 | 232 09.4 -30.7 | N 12 45.4 +15.4 | 15 | | | | | | |
| 16 | 64 03.2 +00.0 | S 13 10.6 +00.9 | 107 04.6 +00.0 | N 04 46.8 -00.8 | 246 38.7 -30.8 | N 13 00.8 +15.3 | 16 | | | | | | |
| 17 | 79 03.2 +00.1 | S 13 11.5 +00.8 | 122 04.6 +00.0 | N 04 46.0 -00.8 | 261 07.9 -30.9 | N 13 16.1 +15.2 | 17 | | | | | | |
| 18 | 94 03.3 +00.0 | S 13 12.3 +00.8 | 137 04.6 +00.0 | N 04 45.2 -00.8 | 275 37.0 -30.8 | N 13 31.3 +15.1 | 18 | | | | | | |
| 19 | 109 03.3 +00.1 | S 13 13.1 +00.9 | 152 04.6 +00.0 | N 04 44.4 -00.8 | 290 06.2 -30.9 | N 13 46.4 +15.1 | 19 | | | | | | |
| 20 | 124 03.4 +00.0 | S 13 14.0 +00.8 | 167 04.6 +00.0 | N 04 43.6 -00.8 | 304 35.3 -31.0 | N 14 01.5 +15.0 | 20 | | | | | | |
| 21 | 139 03.4 +00.1 | S 13 14.8 +00.8 | 182 04.6 +00.0 | N 04 42.8 -00.8 | 319 04.3 -31.0 | N 14 16.5 +14.8 | 21 | | | | | | |
| 22 | 154 03.5 +00.0 | S 13 15.6 +00.9 | 197 04.6 +00.0 | N 04 42.0 -00.8 | 333 33.3 -31.1 | N 14 31.3 +14.8 | 22 | | | | | | |
| 23 | 169 03.5 +00.1 | S 13 16.5 +00.8 | 212 04.6 +00.0 | N 04 41.2 -00.8 | 348 02.2 -31.1 | N 14 46.1 +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 16'1 16'1 16'1 16'1 16'1 16'1 | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | SD 16'3 16'2 16'2 16'2 16'2 16'1 | | | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | HP 59'7 59'6 59'5 59'4 59'3 59'2 | | | | | | | | |
| | SHA 148° 148° 148° 147° 147° 147° | | SHA 191° 191° 191° 190° 190° 190° | | SHA 338° 335° 333° 331° 329° 327° | | | | | | | | |
| | Greenwich Culmination Time: 11:43 | | Greenwich Culmination Time: 08:51 | | Greenwich Culmination Time: 23:49 | | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 177 40.6 +00.8 | S 14 58.4 +00.6 | 356 42.8 +02.8 | N 13 53.1 -00.1 | 62 49.6 +02.5 | S 12 54.5 +00.0 | 00 | | | | | | |
| 01 | 192 41.4 +00.8 | S 14 59.0 +00.5 | 11 45.6 +02.8 | N 13 53.0 -00.1 | 77 52.1 +02.5 | S 12 54.5 +00.0 | 01 | | | | | | |
| 02 | 207 42.2 +00.7 | S 14 59.5 +00.6 | 26 48.4 +02.8 | N 13 52.9 -00.1 | 92 54.6 +02.5 | S 12 54.5 +00.0 | 02 | | | | | | |
| 03 | 222 42.9 +00.8 | S 15 00.1 +00.5 | 41 51.2 +02.8 | N 13 52.8 -00.1 | 107 57.1 +02.5 | S 12 54.5 +00.1 | 03 | | | | | | |
| 04 | 237 43.7 +00.8 | S 15 00.6 +00.6 | 56 54.0 +02.8 | N 13 52.7 -00.1 | 122 59.6 +02.5 | S 12 54.6 +00.0 | 04 | | | | | | |
| 05 | 252 44.5 +00.8 | S 15 01.2 +00.6 | 71 56.8 +02.8 | N 13 52.6 -00.1 | 138 02.1 +02.5 | S 12 54.6 +00.0 | 05 | | | | | | |
| 06 | 267 45.3 +00.8 | S 15 01.8 +00.5 | 86 59.6 +02.7 | N 13 52.5 -00.1 | 153 04.6 +02.5 | S 12 54.6 +00.0 | 06 | | | | | | |
| 07 | 282 46.1 +00.7 | S 15 02.3 +00.6 | 102 02.3 +02.8 | N 13 52.4 -00.1 | 168 07.1 +02.5 | S 12 54.6 +00.0 | 07 | | | | | | |
| 08 | 297 46.8 +00.8 | S 15 02.9 +00.5 | 117 05.1 +02.8 | N 13 52.3 -00.1 | 183 09.6 +02.5 | S 12 54.6 +00.0 | 08 | | | | | | |
| 09 | 312 47.6 +00.8 | S 15 03.4 +00.6 | 132 07.9 +02.8 | N 13 52.2 -00.1 | 198 12.1 +02.5 | S 12 54.6 +00.0 | 09 | | | | | | |
| 10 | 327 48.4 +00.8 | S 15 04.0 +00.5 | 147 10.7 +02.8 | N 13 52.1 -00.1 | 213 14.6 +02.5 | S 12 54.6 +00.0 | 10 | | | | | | |
| 11 | 342 49.2 +00.7 | S 15 04.5 +00.6 | 162 13.5 +02.8 | N 13 52.0 -00.1 | 228 17.1 +02.5 | S 12 54.6 +00.0 | 11 | | | | | | |
| 12 | 357 49.9 +00.8 | S 15 05.1 +00.6 | 177 16.3 +02.8 | N 13 51.9 -00.1 | 243 19.6 +02.4 | S 12 54.6 +00.0 | 12 | | | | | | |
| 13 | 12 50.7 +00.8 | S 15 05.7 +00.5 | 192 19.1 +02.8 | N 13 51.8 -00.1 | 258 22.0 +02.5 | S 12 54.6 +00.0 | 13 | | | | | | |
| 14 | 27 51.5 +00.8 | S 15 06.2 +00.6 | 207 21.9 +02.8 | N 13 51.7 -00.1 | 273 24.5 +02.5 | S 12 54.6 +00.0 | 14 | | | | | | |
| 15 | 42 52.3 +00.7 | S 15 06.8 +00.5 | 222 24.7 +02.8 | N 13 51.6 -00.1 | 288 27.0 +02.5 | S 12 54.6 +00.0 | 15 | | | | | | |
| 16 | 57 53.0 +00.8 | S 15 07.3 +00.6 | 237 27.5 +02.8 | N 13 51.5 -00.1 | 303 29.5 +02.5 | S 12 54.6 +00.0 | 16 | | | | | | |
| 17 | 72 53.8 +00.8 | S 15 07.9 +00.5 | 252 30.3 +02.8 | N 13 51.4 -00.1 | 318 32.0 +02.5 | S 12 54.6 +00.0 | 17 | | | | | | |
| 18 | 87 54.6 +00.8 | S 15 08.4 +00.6 | 267 33.1 +02.8 | N 13 51.3 -00.1 | 333 34.5 +02.5 | S 12 54.6 +00.0 | 18 | | | | | | |
| 19 | 102 55.4 +00.7 | S 15 09.0 +00.6 | 282 35.9 +02.8 | N 13 51.2 -00.1 | 348 37.0 +02.5 | S 12 54.6 +00.1 | 19 | | | | | | |
| 20 | 117 56.1 +00.8 | S 15 09.6 +00.5 | 297 38.7 +02.8 | N 13 51.1 -00.1 | 3 39.5 +02.5 | S 12 54.7 +00.0 | 20 | | | | | | |
| 21 | 132 56.9 +00.8 | S 15 10.1 +00.6 | 312 41.5 +02.8 | N 13 51.0 -00.1 | 18 42.0 +02.5 | S 12 54.7 +00.0 | 21 | | | | | | |
| 22 | 147 57.7 +00.8 | S 15 10.7 +00.5 | 327 44.3 +02.7 | N 13 50.9 -00.1 | 33 44.5 +02.5 | S 12 54.7 +00.0 | 22 | | | | | | |
| 23 | 162 58.5 +00.7 | S 15 11.2 +00.6 | 342 47.0 +02.8 | N 13 50.8 -00.1 | 48 47.0 +02.5 | S 12 54.7 +00.0 | 23 | | | | | | |
| | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | | | | | | | |
| | SD 00'0 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 142° 141° 141° 141° 141° 141° | | SHA 321° 321° 321° 321° 321° 321° | | SHA 027° 027° 027° 027° 027° 027° | | | | | | | | |
| | Greenwich Culmination Time: 12:08 | | Greenwich Culmination Time: 00:13 | | Greenwich Culmination Time: 19:45 | | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|-----------------------------------|-------------------------------|-----------------|-----------------------------------|-------------------------------|----------------|-----------------------------------|-------------------------------|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 184 03.6 +00.0 | S 13 17.3 +00.8 | 227 04.6 +00.0 | N 04 40.4 -00.8 | 2 31.1 -31.1 | N 15 00.8 +14.6 | 00 | | | | | | |
| 01 | 199 03.6 +00.1 | S 13 18.1 +00.9 | 242 04.6 +00.0 | N 04 39.6 -00.8 | 16 60.0 -31.3 | N 15 15.4 +14.5 | 01 | | | | | | |
| 02 | 214 03.7 +00.0 | S 13 19.0 +00.8 | 257 04.6 +00.0 | N 04 38.8 -00.8 | 31 28.7 -31.2 | N 15 29.9 +14.4 | 02 | | | | | | |
| 03 | 229 03.7 +00.1 | S 13 19.8 +00.8 | 272 04.6 +00.0 | N 04 38.0 -00.8 | 45 57.5 -31.3 | N 15 44.3 +14.3 | 03 | | | | | | |
| 04 | 244 03.8 +00.0 | S 13 20.6 +00.9 | 287 04.6 +00.0 | N 04 37.2 -00.8 | 60 26.2 -31.4 | N 15 58.6 +14.2 | 04 | | | | | | |
| 05 | 259 03.8 +00.1 | S 13 21.5 +00.8 | 302 04.6 -00.1 | N 04 36.4 -00.8 | 74 54.8 -31.4 | N 16 12.8 +14.1 | 05 | | | | | | |
| 06 | 274 03.9 +00.0 | S 13 22.3 +00.8 | 317 04.5 +00.0 | N 04 35.6 -00.9 | 89 23.4 -31.4 | N 16 26.9 +14.0 | 06 | | | | | | |
| 07 | 289 03.9 +00.0 | S 13 23.1 +00.9 | 332 04.5 +00.0 | N 04 34.7 -00.8 | 103 52.0 -31.5 | N 16 40.9 +13.8 | 07 | | | | | | |
| 08 | 304 03.9 +00.1 | S 13 24.0 +00.8 | 347 04.5 +00.0 | N 04 33.9 -00.8 | 118 20.5 -31.6 | N 16 54.7 +13.8 | 08 | | | | | | |
| 09 | 319 04.0 +00.0 | S 13 24.8 +00.8 | 2 04.5 +00.0 | N 04 33.1 -00.8 | 132 48.9 -31.6 | N 17 08.5 +13.7 | 09 | | | | | | |
| 10 | 334 04.0 +00.1 | S 13 25.6 +00.8 | 17 04.5 +00.0 | N 04 32.3 -00.8 | 147 17.3 -31.7 | N 17 22.2 +13.6 | 10 | | | | | | |
| 11 | 349 04.1 +00.0 | S 13 26.4 +00.9 | 32 04.5 +00.0 | N 04 31.5 -00.8 | 161 45.6 -31.7 | N 17 35.8 +13.4 | 11 | | | | | | |
| 12 | 4 04.1 +00.1 | S 13 27.3 +00.8 | 47 04.5 +00.0 | N 04 30.7 -00.8 | 176 13.9 -31.8 | N 17 49.2 +13.4 | 12 | | | | | | |
| 13 | 19 04.2 +00.0 | S 13 28.1 +00.8 | 62 04.5 +00.0 | N 04 29.9 -00.8 | 190 42.1 -31.8 | N 18 02.6 +13.2 | 13 | | | | | | |
| 14 | 34 04.2 +00.0 | S 13 28.9 +00.9 | 77 04.5 +00.0 | N 04 29.1 -00.8 | 205 10.3 -31.9 | N 18 15.8 +13.1 | 14 | | | | | | |
| 15 | 49 04.2 +00.1 | S 13 29.8 +00.8 | 92 04.5 +00.0 | N 04 28.3 -00.8 | 219 38.4 -31.9 | N 18 28.9 +13.0 | 15 | | | | | | |
| 16 | 64 04.3 +00.0 | S 13 30.6 +00.8 | 107 04.5 +00.0 | N 04 27.5 -00.8 | 234 06.5 -32.0 | N 18 41.9 +12.9 | 16 | | | | | | |
| 17 | 79 04.3 +00.1 | S 13 31.4 +00.8 | 122 04.5 +00.0 | N 04 26.7 -00.9 | 248 34.5 -32.0 | N 18 54.8 +12.7 | 17 | | | | | | |
| 18 | 94 04.4 +00.0 | S 13 32.2 +00.9 | 137 04.5 -00.1 | N 04 25.8 -00.8 | 263 02.5 -32.1 | N 19 07.5 +12.7 | 18 | | | | | | |
| 19 | 109 04.4 +00.1 | S 13 33.1 +00.8 | 152 04.4 +00.0 | N 04 25.0 -00.8 | 277 30.4 -32.2 | N 19 20.2 +12.5 | 19 | | | | | | |
| 20 | 124 04.5 +00.0 | S 13 33.9 +00.8 | 167 04.4 +00.0 | N 04 24.2 -00.8 | 291 58.2 -32.2 | N 19 32.7 +12.4 | 20 | | | | | | |
| 21 | 139 04.5 +00.0 | S 13 34.7 +00.8 | 182 04.4 +00.0 | N 04 23.4 -00.8 | 306 26.0 -32.2 | N 19 45.1 +12.3 | 21 | | | | | | |
| 22 | 154 04.5 +00.1 | S 13 35.5 +00.9 | 197 04.4 +00.0 | N 04 22.6 -00.8 | 320 53.8 -32.3 | N 19 57.4 +12.1 | 22 | | | | | | |
| 23 | 169 04.6 +00.0 | S 13 36.4 +00.8 | 212 04.4 +00.0 | N 04 21.8 -00.8 | 335 21.5 -32.4 | N 20 09.5 +12.0 | 23 | | | | | | |
| UT | 02 06 10 14 18 22 | | UT | 02 06 10 14 18 22 | | UT | 02 06 10 14 18 22 | | | | | | |
| SD | 16'1 16'1 16'1 16'1 16'1 16'1 | | SD | 00'2 00'2 00'2 00'2 00'2 00'2 | | SD | 16'1 16'1 16'1 16'0 16'0 16'0 | | | | | | |
| HP | 00'1 00'1 00'1 00'1 00'1 00'1 | | HP | 00'2 00'2 00'2 00'2 00'2 00'2 | | HP | 59'1 59'0 58'9 58'8 58'7 58'6 | | | | | | |
| SHA | 147° 147° 147° 146° 146° 146° | | SHA | 190° 190° 190° 189° 189° 189° | | SHA | 324° 322° 320° 318° 315° 313° | | | | | | |
| Greenwich Culmination Time: 11:43 | | | Greenwich Culmination Time: 08:51 | | | Greenwich Culmination Time: -1:00 | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|-----------------------------------|-------------------------------|-----------------|-----------------------------------|-------------------------------|----------------|-----------------------------------|-------------------------------|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 177 59.2 +00.8 | S 15 11.8 +00.5 | 357 49.8 +02.8 | N 13 50.7 -00.1 | 63 49.5 +02.5 | S 12 54.7 +00.0 | 00 | | | | | | |
| 01 | 193 00.0 +00.8 | S 15 12.3 +00.6 | 12 52.6 +02.8 | N 13 50.6 -00.1 | 78 52.0 +02.4 | S 12 54.7 +00.0 | 01 | | | | | | |
| 02 | 208 00.8 +00.8 | S 15 12.9 +00.6 | 27 55.4 +02.8 | N 13 50.5 -00.1 | 93 54.4 +02.5 | S 12 54.7 +00.0 | 02 | | | | | | |
| 03 | 223 01.6 +00.7 | S 15 13.5 +00.5 | 42 58.2 +02.8 | N 13 50.4 -00.1 | 108 56.9 +02.5 | S 12 54.7 +00.0 | 03 | | | | | | |
| 04 | 238 02.3 +00.8 | S 15 14.0 +00.6 | 58 01.0 +02.8 | N 13 50.3 -00.1 | 123 59.4 +02.5 | S 12 54.7 +00.0 | 04 | | | | | | |
| 05 | 253 03.1 +00.8 | S 15 14.6 +00.5 | 73 03.8 +02.8 | N 13 50.2 -00.1 | 139 01.9 +02.5 | S 12 54.7 +00.0 | 05 | | | | | | |
| 06 | 268 03.9 +00.7 | S 15 15.1 +00.6 | 88 06.6 +02.8 | N 13 50.1 -00.1 | 154 04.4 +02.5 | S 12 54.7 +00.0 | 06 | | | | | | |
| 07 | 283 04.6 +00.8 | S 15 15.7 +00.5 | 103 09.4 +02.8 | N 13 50.0 -00.1 | 169 06.9 +02.5 | S 12 54.7 +00.0 | 07 | | | | | | |
| 08 | 298 05.4 +00.8 | S 15 16.2 +00.6 | 118 12.2 +02.8 | N 13 49.9 -00.1 | 184 09.4 +02.5 | S 12 54.7 +00.0 | 08 | | | | | | |
| 09 | 313 06.2 +00.8 | S 15 16.8 +00.5 | 133 15.0 +02.8 | N 13 49.8 -00.1 | 199 11.9 +02.5 | S 12 54.7 +00.0 | 09 | | | | | | |
| 10 | 328 07.0 +00.7 | S 15 17.3 +00.6 | 148 17.8 +02.8 | N 13 49.7 -00.1 | 214 14.4 +02.5 | S 12 54.7 +00.0 | 10 | | | | | | |
| 11 | 343 07.7 +00.8 | S 15 17.9 +00.5 | 163 20.6 +02.8 | N 13 49.6 -00.1 | 229 16.9 +02.5 | S 12 54.7 +00.0 | 11 | | | | | | |
| 12 | 358 08.5 +00.8 | S 15 18.4 +00.6 | 178 23.4 +02.8 | N 13 49.5 -00.1 | 244 19.4 +02.4 | S 12 54.7 +00.0 | 12 | | | | | | |
| 13 | 13 09.3 +00.7 | S 15 19.0 +00.5 | 193 26.2 +02.8 | N 13 49.4 -00.1 | 259 21.8 +02.5 | S 12 54.7 +00.0 | 13 | | | | | | |
| 14 | 28 10.0 +00.8 | S 15 19.5 +00.6 | 208 29.0 +02.8 | N 13 49.3 -00.1 | 274 24.3 +02.5 | S 12 54.7 +00.0 | 14 | | | | | | |
| 15 | 43 10.8 +00.8 | S 15 20.1 +00.5 | 223 31.8 +02.8 | N 13 49.2 -00.1 | 289 26.8 +02.5 | S 12 54.7 +00.1 | 15 | | | | | | |
| 16 | 58 11.6 +00.8 | S 15 20.6 +00.6 | 238 34.6 +02.8 | N 13 49.1 -00.1 | 304 29.3 +02.5 | S 12 54.8 +00.0 | 16 | | | | | | |
| 17 | 73 12.4 +00.7 | S 15 21.2 +00.6 | 253 37.4 +02.8 | N 13 49.0 -00.1 | 319 31.8 +02.5 | S 12 54.8 +00.0 | 17 | | | | | | |
| 18 | 88 13.1 +00.8 | S 15 21.8 +00.5 | 268 40.2 +02.7 | N 13 48.9 -00.1 | 334 34.3 +02.5 | S 12 54.8 +00.0 | 18 | | | | | | |
| 19 | 103 13.9 +00.8 | S 15 22.3 +00.6 | 283 42.9 +02.8 | N 13 48.8 -00.1 | 349 36.8 +02.5 | S 12 54.8 +00.0 | 19 | | | | | | |
| 20 | 118 14.7 +00.7 | S 15 22.9 +00.5 | 298 45.7 +02.8 | N 13 48.7 -00.1 | 4 39.3 +02.5 | S 12 54.8 +00.0 | 20 | | | | | | |
| 21 | 133 15.4 +00.8 | S 15 23.4 +00.6 | 313 48.5 +02.8 | N 13 48.6 -00.1 | 19 41.8 +02.4 | S 12 54.8 +00.0 | 21 | | | | | | |
| 22 | 148 16.2 +00.8 | S 15 24.0 +00.5 | 328 51.3 +02.8 | N 13 48.5 -00.1 | 34 44.2 +02.5 | S 12 54.8 +00.0 | 22 | | | | | | |
| 23 | 163 17.0 +00.7 | S 15 24.5 +00.6 | 343 54.1 +02.8 | N 13 48.4 -00.1 | 49 46.7 +02.5 | S 12 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 | 00'1 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 | 141° 141° 141° 141° 140° 140° | | SHA | 321° 321° 321° 321° 321° 321° | | SHA | 027° 027° 027° 027° 027° 027° | | | | | | |
| Greenwich Culmination Time: 12:07 | | | Greenwich Culmination Time: 00:08 | | | Greenwich Culmination Time: 19:41 | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|-------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 184 04.6 +00.1 | S | 13 37.2 +00.8 | 227 04.4 +00.0 | N 04 21.0 -00.9 | 349 49.1 -32.4 | N 20 21.5 +11.9 | 00 | | | | | |
| 01 | 199 04.7 +00.0 | S | 13 38.0 +00.8 | 242 04.4 +00.0 | N 04 20.1 -00.8 | 4 16.7 -32.5 | N 20 33.4 +11.8 | 01 | | | | | |
| 02 | 214 04.7 +00.0 | S | 13 38.8 +00.8 | 257 04.4 -00.1 | N 04 19.3 -00.8 | 18 44.2 -32.5 | N 20 45.2 +11.6 | 02 | | | | | |
| 03 | 229 04.7 +00.1 | S | 13 39.6 +00.9 | 272 04.3 +00.0 | N 04 18.5 -00.8 | 33 11.7 -32.5 | N 20 56.8 +11.5 | 03 | | | | | |
| 04 | 244 04.8 +00.0 | S | 13 40.5 +00.8 | 287 04.3 +00.0 | N 04 17.7 -00.8 | 47 39.2 -32.6 | N 21 08.3 +11.4 | 04 | | | | | |
| 05 | 259 04.8 +00.0 | S | 13 41.3 +00.8 | 302 04.3 +00.0 | N 04 16.9 -00.8 | 62 06.6 -32.7 | N 21 19.7 +11.2 | 05 | | | | | |
| 06 | 274 04.8 +00.1 | S | 13 42.1 +00.8 | 317 04.3 +00.0 | N 04 16.1 -00.9 | 76 33.9 -32.7 | N 21 30.9 +11.1 | 06 | | | | | |
| 07 | 289 04.9 +00.0 | S | 13 42.9 +00.9 | 332 04.3 +00.0 | N 04 15.2 -00.8 | 91 01.2 -32.8 | N 21 42.0 +10.9 | 07 | | | | | |
| 08 | 304 04.9 +00.1 | S | 13 43.8 +00.8 | 347 04.3 +00.0 | N 04 14.4 -00.8 | 105 28.4 -32.8 | N 21 52.9 +10.9 | 08 | | | | | |
| 09 | 319 05.0 +00.0 | S | 13 44.6 +00.8 | 2 04.3 -00.1 | N 04 13.6 -00.8 | 119 55.6 -32.9 | N 22 03.8 +10.6 | 09 | | | | | |
| 10 | 334 05.0 +00.0 | S | 13 45.4 +00.8 | 17 04.2 +00.0 | N 04 12.8 -00.8 | 134 22.7 -32.9 | N 22 14.4 +10.6 | 10 | | | | | |
| 11 | 349 05.0 +00.1 | S | 13 46.2 +00.8 | 32 04.2 +00.0 | N 04 12.0 -00.9 | 148 49.8 -33.0 | N 22 25.0 +10.4 | 11 | | | | | |
| 12 | 4 05.1 +00.0 | S | 13 47.0 +00.8 | 47 04.2 +00.0 | N 04 11.1 -00.8 | 163 16.8 -33.0 | N 22 35.4 +10.3 | 12 | | | | | |
| 13 | 19 05.1 +00.0 | S | 13 47.8 +00.9 | 62 04.2 +00.0 | N 04 10.3 -00.8 | 177 43.8 -33.0 | N 22 45.7 +10.1 | 13 | | | | | |
| 14 | 34 05.1 +00.1 | S | 13 48.7 +00.8 | 77 04.2 -00.1 | N 04 09.5 -00.8 | 192 10.8 -33.1 | N 22 55.8 +09.9 | 14 | | | | | |
| 15 | 49 05.2 +00.0 | S | 13 49.5 +00.8 | 92 04.1 +00.0 | N 04 08.7 -00.9 | 206 37.7 -33.2 | N 23 05.7 +09.9 | 15 | | | | | |
| 16 | 64 05.2 +00.0 | S | 13 50.3 +00.8 | 107 04.1 +00.0 | N 04 07.8 -00.8 | 221 04.5 -33.2 | N 23 15.6 +09.7 | 16 | | | | | |
| 17 | 79 05.2 +00.1 | S | 13 51.1 +00.8 | 122 04.1 +00.0 | N 04 07.0 -00.8 | 235 31.3 -33.2 | N 23 25.3 +09.5 | 17 | | | | | |
| 18 | 94 05.3 +00.0 | S | 13 51.9 +00.9 | 137 04.1 +00.0 | N 04 06.2 -00.8 | 249 58.1 -33.3 | N 23 34.8 +09.4 | 18 | | | | | |
| 19 | 109 05.3 +00.0 | S | 13 52.8 +00.8 | 152 04.1 -00.1 | N 04 05.4 -00.9 | 264 24.8 -33.3 | N 23 44.2 +09.2 | 19 | | | | | |
| 20 | 124 05.3 +00.1 | S | 13 53.6 +00.8 | 167 04.0 +00.0 | N 04 04.5 -00.8 | 278 51.5 -33.4 | N 23 53.4 +09.1 | 20 | | | | | |
| 21 | 139 05.4 +00.0 | S | 13 54.4 +00.8 | 182 04.0 +00.0 | N 04 03.7 -00.8 | 293 18.1 -33.4 | N 24 02.5 +09.0 | 21 | | | | | |
| 22 | 154 05.4 +00.0 | S | 13 55.2 +00.8 | 197 04.0 +00.0 | N 04 02.9 -00.8 | 307 44.7 -33.5 | N 24 11.5 +08.8 | 22 | | | | | |
| 23 | 169 05.4 +00.1 | S | 13 56.0 +00.8 | 212 04.0 +00.0 | N 04 02.1 -00.9 | 322 11.2 -33.4 | N 24 20.3 +08.6 | 23 | | | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | | |
| | SD 16'1 16'1 16'1 16'1 16'1 16'1 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | | SD 15'9 15'9 15'9 15'8 15'8 15'8 | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | | | HP 58'5 58'3 58'2 58'1 58'0 57'8 | | | | | |
| | SHA 146° 146° 146° 145° 145° 145° | | | SHA 189° 189° 189° 188° 188° 188° | | | | SHA 311° 308° 306° 304° 301° 299° | | | | | |
| | Greenwich Culmination Time: 11:43 | | | Greenwich Culmination Time: 08:51 | | | | Greenwich Culmination Time: 00:42 | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----|-----------------------------------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 178 17.7 +00.8 | S | 15 25.1 +00.5 | 358 56.9 +02.8 | N 13 48.3 -00.2 | 64 49.2 +02.5 | S | 12 54.8 +00.0 | 00 | | | | |
| 01 | 193 18.5 +00.8 | S | 15 25.6 +00.6 | 13 59.7 +02.8 | N 13 48.1 -00.1 | 79 51.7 +02.5 | S | 12 54.8 +00.0 | 01 | | | | |
| 02 | 208 19.3 +00.7 | S | 15 26.2 +00.5 | 29 02.5 +02.8 | N 13 48.0 -00.1 | 94 54.2 +02.5 | S | 12 54.8 +00.0 | 02 | | | | |
| 03 | 223 20.0 +00.8 | S | 15 26.7 +00.6 | 44 05.3 +02.8 | N 13 47.9 -00.1 | 109 56.7 +02.5 | S | 12 54.8 +00.0 | 03 | | | | |
| 04 | 238 20.8 +00.8 | S | 15 27.3 +00.5 | 59 08.1 +02.8 | N 13 47.8 -00.1 | 124 59.2 +02.5 | S | 12 54.8 +00.0 | 04 | | | | |
| 05 | 253 21.6 +00.7 | S | 15 27.8 +00.6 | 74 10.9 +02.8 | N 13 47.7 -00.1 | 140 01.7 +02.4 | S | 12 54.8 +00.0 | 05 | | | | |
| 06 | 268 22.3 +00.8 | S | 15 28.4 +00.5 | 89 13.7 +02.8 | N 13 47.6 -00.1 | 155 04.1 +02.5 | S | 12 54.8 +00.0 | 06 | | | | |
| 07 | 283 23.1 +00.8 | S | 15 28.9 +00.6 | 104 16.5 +02.8 | N 13 47.5 -00.1 | 170 06.6 +02.5 | S | 12 54.8 +00.0 | 07 | | | | |
| 08 | 298 23.9 +00.7 | S | 15 29.5 +00.5 | 119 19.3 +02.8 | N 13 47.4 -00.1 | 185 09.1 +02.5 | S | 12 54.8 +00.0 | 08 | | | | |
| 09 | 313 24.6 +00.8 | S | 15 30.0 +00.6 | 134 22.1 +02.8 | N 13 47.3 -00.1 | 200 11.6 +02.5 | S | 12 54.8 +00.0 | 09 | | | | |
| 10 | 328 25.4 +00.8 | S | 15 30.6 +00.5 | 149 24.9 +02.8 | N 13 47.2 -00.1 | 215 14.1 +02.5 | S | 12 54.8 +00.0 | 10 | | | | |
| 11 | 343 26.2 +00.7 | S | 15 31.1 +00.6 | 164 27.7 +02.8 | N 13 47.1 -00.1 | 230 16.6 +02.5 | S | 12 54.8 +00.0 | 11 | | | | |
| 12 | 358 26.9 +00.8 | S | 15 31.7 +00.5 | 179 30.5 +02.8 | N 13 47.0 -00.1 | 245 19.1 +02.4 | S | 12 54.8 +00.0 | 12 | | | | |
| 13 | 13 27.7 +00.8 | S | 15 32.2 +00.6 | 194 33.3 +02.8 | N 13 46.9 -00.1 | 260 21.5 +02.5 | S | 12 54.8 +00.0 | 13 | | | | |
| 14 | 28 28.5 +00.7 | S | 15 32.8 +00.5 | 209 36.1 +02.8 | N 13 46.8 -00.1 | 275 24.0 +02.5 | S | 12 54.8 +00.0 | 14 | | | | |
| 15 | 43 29.2 +00.8 | S | 15 33.3 +00.6 | 224 38.9 +02.8 | N 13 46.7 -00.1 | 290 26.5 +02.5 | S | 12 54.8 +00.0 | 15 | | | | |
| 16 | 58 30.0 +00.8 | S | 15 33.9 +00.5 | 239 41.7 +02.8 | N 13 46.6 -00.1 | 305 29.0 +02.5 | S | 12 54.8 +00.0 | 16 | | | | |
| 17 | 73 30.8 +00.7 | S | 15 34.4 +00.5 | 254 44.5 +02.7 | N 13 46.5 -00.1 | 320 31.5 +02.5 | S | 12 54.8 +00.0 | 17 | | | | |
| 18 | 88 31.5 +00.8 | S | 15 34.9 +00.6 | 269 47.2 +02.8 | N 13 46.4 -00.1 | 335 34.0 +02.4 | S | 12 54.8 +00.0 | 18 | | | | |
| 19 | 103 32.3 +00.7 | S | 15 35.5 +00.5 | 284 50.0 +02.8 | N 13 46.3 -00.1 | 350 36.4 +02.5 | S | 12 54.8 +00.0 | 19 | | | | |
| 20 | 118 33.0 +00.8 | S | 15 36.0 +00.6 | 299 52.8 +02.8 | N 13 46.2 -00.1 | 5 38.9 +02.5 | S | 12 54.8 +00.1 | 20 | | | | |
| 21 | 133 33.8 +00.8 | S | 15 36.6 +00.5 | 314 55.6 +02.8 | N 13 46.1 -00.1 | 20 41.4 +02.5 | S | 12 54.9 +00.0 | 21 | | | | |
| 22 | 148 34.6 +00.7 | S | 15 37.1 +00.6 | 329 58.4 +02.8 | N 13 46.0 -00.1 | 35 43.9 +02.5 | S | 12 54.9 +00.0 | 22 | | | | |
| 23 | 163 35.3 +00.8 | S | 15 37.7 +00.5 | 345 01.2 +02.8 | N 13 45.9 -00.1 | 50 46.4 +02.5 | S | 12 54.9 +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 140° 140° 140° 140° 140° 140° | | | SHA 321° 321° 321° 321° 321° 321° | | | | SHA 027° 027° 027° 027° 027° 027° | | | | | |
| | Greenwich Culmination Time: 12:06 | | | Greenwich Culmination Time: 00:04 | | | | Greenwich Culmination Time: 19:37 | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> | | | | UT |
|-----------------------------------|-------------------------------|-----------------|-----------------------------------|-----------------|-------------------------------|-----------------------------------|-----|------|-------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 184 05.5 +00.0 | S 13 56.8 +00.8 | 227 04.0 -00.1 | N 04 01.2 -00.8 | 336 37.8 -33.6 | N 24 28.9 +08.5 | 00 | | | | | | |
| 01 | 199 05.5 +00.0 | S 13 57.6 +00.9 | 242 03.9 +00.0 | N 04 00.4 -00.8 | 351 04.2 -33.5 | N 24 37.4 +08.3 | 01 | | | | | | |
| 02 | 214 05.5 +00.0 | S 13 58.5 +00.8 | 257 03.9 +00.0 | N 03 59.6 -00.9 | 5 30.7 -33.6 | N 24 45.7 +08.2 | 02 | | | | | | |
| 03 | 229 05.5 +00.1 | S 13 59.3 +00.8 | 272 03.9 +00.0 | N 03 58.7 -00.8 | 19 57.1 -33.7 | N 24 53.9 +08.0 | 03 | | | | | | |
| 04 | 244 05.6 +00.0 | S 14 00.1 +00.8 | 287 03.9 -00.1 | N 03 57.9 -00.8 | 34 23.4 -33.6 | N 25 01.9 +07.9 | 04 | | | | | | |
| 05 | 259 05.6 +00.0 | S 14 00.9 +00.8 | 302 03.8 +00.0 | N 03 57.1 -00.9 | 48 49.8 -33.7 | N 25 09.8 +07.7 | 05 | | | | | | |
| 06 | 274 05.6 +00.1 | S 14 01.7 +00.8 | 317 03.8 +00.0 | N 03 56.2 -00.8 | 63 16.1 -33.7 | N 25 17.5 +07.6 | 06 | | | | | | |
| 07 | 289 05.7 +00.0 | S 14 02.5 +00.8 | 332 03.8 +00.0 | N 03 55.4 -00.8 | 77 42.4 -33.8 | N 25 25.1 +07.4 | 07 | | | | | | |
| 08 | 304 05.7 +00.0 | S 14 03.3 +00.8 | 347 03.8 -00.1 | N 03 54.6 -00.9 | 92 08.6 -33.8 | N 25 32.5 +07.2 | 08 | | | | | | |
| 09 | 319 05.7 +00.1 | S 14 04.1 +00.9 | 2 03.7 +00.0 | N 03 53.7 -00.8 | 106 34.8 -33.8 | N 25 39.7 +07.1 | 09 | | | | | | |
| 10 | 334 05.8 +00.0 | S 14 05.0 +00.8 | 17 03.7 +00.0 | N 03 52.9 -00.8 | 121 01.0 -33.8 | N 25 46.8 +06.9 | 10 | | | | | | |
| 11 | 349 05.8 +00.0 | S 14 05.8 +00.8 | 32 03.7 -00.1 | N 03 52.1 -00.9 | 135 27.2 -33.9 | N 25 53.7 +06.8 | 11 | | | | | | |
| 12 | 4 05.8 +00.0 | S 14 06.6 +00.8 | 47 03.6 +00.0 | N 03 51.2 -00.8 | 149 53.3 -33.9 | N 26 00.5 +06.6 | 12 | | | | | | |
| 13 | 19 05.8 +00.1 | S 14 07.4 +00.8 | 62 03.6 +00.0 | N 03 50.4 -00.8 | 164 19.4 -33.9 | N 26 07.1 +06.4 | 13 | | | | | | |
| 14 | 34 05.9 +00.0 | S 14 08.2 +00.8 | 77 03.6 +00.0 | N 03 49.6 -00.9 | 178 45.5 -33.9 | N 26 13.5 +06.3 | 14 | | | | | | |
| 15 | 49 05.9 +00.0 | S 14 09.0 +00.8 | 92 03.6 -00.1 | N 03 48.7 -00.8 | 193 11.6 -34.0 | N 26 19.8 +06.1 | 15 | | | | | | |
| 16 | 64 05.9 +00.0 | S 14 09.8 +00.8 | 107 03.5 +00.0 | N 03 47.9 -00.9 | 207 37.6 -33.9 | N 26 25.9 +06.0 | 16 | | | | | | |
| 17 | 79 05.9 +00.1 | S 14 10.6 +00.8 | 122 03.5 +00.0 | N 03 47.0 -00.8 | 222 03.7 -34.0 | N 26 31.9 +05.8 | 17 | | | | | | |
| 18 | 94 06.0 +00.0 | S 14 11.4 +00.8 | 137 03.5 -00.1 | N 03 46.2 -00.8 | 236 29.7 -34.0 | N 26 37.7 +05.6 | 18 | | | | | | |
| 19 | 109 06.0 +00.0 | S 14 12.2 +00.8 | 152 03.4 +00.0 | N 03 45.4 -00.9 | 250 55.7 -34.0 | N 26 43.3 +05.5 | 19 | | | | | | |
| 20 | 124 06.0 +00.0 | S 14 13.0 +00.8 | 167 03.4 +00.0 | N 03 44.5 -00.8 | 265 21.7 -34.1 | N 26 48.8 +05.3 | 20 | | | | | | |
| 21 | 139 06.0 +00.1 | S 14 13.8 +00.8 | 182 03.4 -00.1 | N 03 43.7 -00.9 | 279 47.6 -34.0 | N 26 54.1 +05.2 | 21 | | | | | | |
| 22 | 154 06.1 +00.0 | S 14 14.6 +00.9 | 197 03.3 +00.0 | N 03 42.8 -00.8 | 294 13.6 -34.0 | N 26 59.3 +05.0 | 22 | | | | | | |
| 23 | 169 06.1 +00.0 | S 14 15.5 +00.8 | 212 03.3 +00.0 | N 03 42.0 -00.8 | 308 39.6 -34.1 | N 27 04.3 +04.8 | 23 | | | | | | |
| UT | 02 06 10 14 18 22 | UT | 02 06 10 14 18 22 | UT | 02 06 10 14 18 22 | | | | | | | | |
| SD | 16'1 16'1 16'1 16'1 16'1 16'1 | SD | 00'2 00'2 00'2 00'2 00'2 00'2 | SD | 15'7 15'7 15'6 15'6 15'6 15'5 | | | | | | | | |
| HP | 00'1 00'1 00'1 00'1 00'1 00'1 | HP | 00'2 00'2 00'2 00'2 00'2 00'2 | HP | 57'7 57'6 57'4 57'3 57'2 57'0 | | | | | | | | |
| SHA | 145° 145° 145° 144° 144° 144° | SHA | 188° 188° 188° 187° 187° 187° | SHA | 296° 294° 292° 289° 287° 284° | | | | | | | | |
| Greenwich Culmination Time: 11:43 | | | Greenwich Culmination Time: 08:51 | | | Greenwich Culmination Time: 01:37 | | | | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
|-----------------------------------|-------------------------------|-----------------|-----------------------------------|-----------------|-------------------------------|-----------------------------------|-----|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 178 36.1 +00.8 | S 15 38.2 +00.6 | 0 04.0 +02.8 | N 13 45.8 -00.1 | 65 48.9 +02.5 | S 12 54.9 +00.0 | 00 | | | | | | |
| 01 | 193 36.9 +00.7 | S 15 38.8 +00.5 | 15 06.8 +02.8 | N 13 45.7 -00.1 | 80 51.4 +02.4 | S 12 54.9 +00.0 | 01 | | | | | | |
| 02 | 208 37.6 +00.8 | S 15 39.3 +00.6 | 30 09.6 +02.8 | N 13 45.6 -00.1 | 95 53.8 +02.5 | S 12 54.9 +00.0 | 02 | | | | | | |
| 03 | 223 38.4 +00.7 | S 15 39.9 +00.5 | 45 12.4 +02.8 | N 13 45.5 -00.1 | 110 56.3 +02.5 | S 12 54.9 +00.0 | 03 | | | | | | |
| 04 | 238 39.1 +00.8 | S 15 40.4 +00.6 | 60 15.2 +02.8 | N 13 45.4 -00.1 | 125 58.8 +02.5 | S 12 54.9 +00.0 | 04 | | | | | | |
| 05 | 253 39.9 +00.8 | S 15 41.0 +00.5 | 75 18.0 +02.8 | N 13 45.3 -00.1 | 141 01.3 +02.5 | S 12 54.9 +00.0 | 05 | | | | | | |
| 06 | 268 40.7 +00.7 | S 15 41.5 +00.6 | 90 20.8 +02.8 | N 13 45.2 -00.1 | 156 03.8 +02.4 | S 12 54.9 +00.0 | 06 | | | | | | |
| 07 | 283 41.4 +00.8 | S 15 42.1 +00.5 | 105 23.6 +02.8 | N 13 45.1 -00.1 | 171 06.2 +02.5 | S 12 54.9 +00.0 | 07 | | | | | | |
| 08 | 298 42.2 +00.7 | S 15 42.6 +00.5 | 120 26.4 +02.8 | N 13 45.0 -00.1 | 186 08.7 +02.5 | S 12 54.9 +00.0 | 08 | | | | | | |
| 09 | 313 42.9 +00.8 | S 15 43.1 +00.6 | 135 29.2 +02.8 | N 13 44.9 -00.1 | 201 11.2 +02.5 | S 12 54.9 +00.0 | 09 | | | | | | |
| 10 | 328 43.7 +00.8 | S 15 43.7 +00.5 | 150 32.0 +02.8 | N 13 44.8 -00.1 | 216 13.7 +02.5 | S 12 54.9 +00.0 | 10 | | | | | | |
| 11 | 343 44.5 +00.7 | S 15 44.2 +00.6 | 165 34.8 +02.8 | N 13 44.7 -00.1 | 231 16.2 +02.5 | S 12 54.9 +00.0 | 11 | | | | | | |
| 12 | 358 45.2 +00.8 | S 15 44.8 +00.5 | 180 37.6 +02.8 | N 13 44.6 -00.1 | 246 18.7 +02.4 | S 12 54.9 +00.0 | 12 | | | | | | |
| 13 | 13 46.0 +00.7 | S 15 45.3 +00.6 | 195 40.4 +02.8 | N 13 44.5 -00.1 | 261 21.1 +02.5 | S 12 54.9 +00.0 | 13 | | | | | | |
| 14 | 28 46.7 +00.8 | S 15 45.9 +00.5 | 210 43.2 +02.8 | N 13 44.4 -00.1 | 276 23.6 +02.5 | S 12 54.9 +00.0 | 14 | | | | | | |
| 15 | 43 47.5 +00.8 | S 15 46.4 +00.5 | 225 46.0 +02.8 | N 13 44.3 -00.1 | 291 26.1 +02.5 | S 12 54.9 +00.0 | 15 | | | | | | |
| 16 | 58 48.3 +00.7 | S 15 46.9 +00.6 | 240 48.8 +02.8 | N 13 44.2 -00.1 | 306 28.6 +02.5 | S 12 54.9 +00.0 | 16 | | | | | | |
| 17 | 73 49.0 +00.8 | S 15 47.5 +00.5 | 255 51.6 +02.8 | N 13 44.1 -00.1 | 321 31.1 +02.4 | S 12 54.9 +00.0 | 17 | | | | | | |
| 18 | 88 49.8 +00.7 | S 15 48.0 +00.6 | 270 54.4 +02.8 | N 13 44.0 -00.1 | 336 33.5 +02.5 | S 12 54.9 +00.0 | 18 | | | | | | |
| 19 | 103 50.5 +00.8 | S 15 48.6 +00.5 | 285 57.2 +02.8 | N 13 43.9 -00.1 | 351 36.0 +02.5 | S 12 54.9 +00.0 | 19 | | | | | | |
| 20 | 118 51.3 +00.7 | S 15 49.1 +00.6 | 300 60.0 +02.8 | N 13 43.8 -00.2 | 6 38.5 +02.5 | S 12 54.9 +00.0 | 20 | | | | | | |
| 21 | 133 52.0 +00.8 | S 15 49.7 +00.5 | 316 02.8 +02.8 | N 13 43.6 -00.1 | 21 41.0 +02.5 | S 12 54.9 +00.0 | 21 | | | | | | |
| 22 | 148 52.8 +00.8 | S 15 50.2 +00.5 | 331 05.6 +02.8 | N 13 43.5 -00.1 | 36 43.5 +02.4 | S 12 54.9 +00.0 | 22 | | | | | | |
| 23 | 163 53.6 +00.7 | S 15 50.7 +00.6 | 346 08.4 +02.7 | N 13 43.4 -00.1 | 51 45.9 +02.5 | S 12 54.9 +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 | 140° 139° 139° 139° 139° 139° | SHA | 321° 321° 321° 321° 321° 321° | SHA | 027° 027° 027° 027° 027° 027° | | | | | | | | |
| Greenwich Culmination Time: 12:04 | | | Greenwich Culmination Time: 23:55 | | | Greenwich Culmination Time: 19:33 | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT | | | | | | | |
|-----------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------------------------|------|------|-------|------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 184 06.1 +00.0 | S 14 16.3 +00.8 | 227 03.3 -00.1 | N 03 41.2 -00.9 | 323 05.5 -34.1 | N 27 09.1 +04.6 | 00 | | | | | | | | | | | | | |
| 01 | 199 06.1 +00.0 | S 14 17.1 +00.8 | 242 03.2 +00.0 | N 03 40.3 -00.8 | 337 31.4 -34.0 | N 27 13.7 +04.5 | 01 | | | | | | | | | | | | | |
| 02 | 214 06.1 +00.1 | S 14 17.9 +00.8 | 257 03.2 +00.0 | N 03 39.5 -00.9 | 351 57.4 -34.1 | N 27 18.2 +04.4 | 02 | | | | | | | | | | | | | |
| 03 | 229 06.2 +00.0 | S 14 18.7 +00.8 | 272 03.2 -00.1 | N 03 38.6 -00.8 | 6 23.3 -34.0 | N 27 22.6 +04.1 | 03 | | | | | | | | | | | | | |
| 04 | 244 06.2 +00.0 | S 14 19.5 +00.8 | 287 03.1 +00.0 | N 03 37.8 -00.9 | 20 49.3 -34.1 | N 27 26.7 +04.0 | 04 | | | | | | | | | | | | | |
| 05 | 259 06.2 +00.0 | S 14 20.3 +00.8 | 302 03.1 +00.0 | N 03 36.9 -00.8 | 35 15.2 -34.1 | N 27 30.7 +03.9 | 05 | | | | | | | | | | | | | |
| 06 | 274 06.2 +00.1 | S 14 21.1 +00.8 | 317 03.1 -00.1 | N 03 36.1 -00.9 | 49 41.1 -34.0 | N 27 34.6 +03.7 | 06 | | | | | | | | | | | | | |
| 07 | 289 06.3 +00.0 | S 14 21.9 +00.8 | 332 03.0 +00.0 | N 03 35.2 -00.8 | 64 07.1 -34.1 | N 27 38.3 +03.5 | 07 | | | | | | | | | | | | | |
| 08 | 304 06.3 +00.0 | S 14 22.7 +00.8 | 347 03.0 +00.0 | N 03 34.4 -00.9 | 78 33.0 -34.0 | N 27 41.8 +03.3 | 08 | | | | | | | | | | | | | |
| 09 | 319 06.3 +00.0 | S 14 23.5 +00.8 | 2 03.0 -00.1 | N 03 33.5 -00.8 | 92 59.0 -34.1 | N 27 45.1 +03.2 | 09 | | | | | | | | | | | | | |
| 10 | 334 06.3 +00.0 | S 14 24.3 +00.8 | 17 02.9 +00.0 | N 03 32.7 -00.9 | 107 24.9 -34.0 | N 27 48.3 +03.0 | 10 | | | | | | | | | | | | | |
| 11 | 349 06.3 +00.0 | S 14 25.1 +00.8 | 32 02.9 -00.1 | N 03 31.8 -00.8 | 121 50.9 -34.0 | N 27 51.3 +02.9 | 11 | | | | | | | | | | | | | |
| 12 | 4 06.3 +00.1 | S 14 25.9 +00.8 | 47 02.8 +00.0 | N 03 31.0 -00.8 | 136 16.9 -34.0 | N 27 54.2 +02.7 | 12 | | | | | | | | | | | | | |
| 13 | 19 06.4 +00.0 | S 14 26.7 +00.8 | 62 02.8 +00.0 | N 03 30.2 -00.9 | 150 42.9 -34.0 | N 27 56.9 +02.5 | 13 | | | | | | | | | | | | | |
| 14 | 34 06.4 +00.0 | S 14 27.5 +00.8 | 77 02.8 -00.1 | N 03 29.3 -00.9 | 165 08.9 -33.9 | N 27 59.4 +02.4 | 14 | | | | | | | | | | | | | |
| 15 | 49 06.4 +00.0 | S 14 28.3 +00.8 | 92 02.7 +00.0 | N 03 28.4 -00.8 | 179 35.0 -34.0 | N 28 01.8 +02.2 | 15 | | | | | | | | | | | | | |
| 16 | 64 06.4 +00.0 | S 14 29.1 +00.8 | 107 02.7 +00.0 | N 03 27.6 -00.9 | 194 01.0 -33.9 | N 28 04.0 +02.0 | 16 | | | | | | | | | | | | | |
| 17 | 79 06.4 +00.1 | S 14 29.9 +00.8 | 122 02.7 -00.1 | N 03 26.7 -00.8 | 208 27.1 -33.9 | N 28 06.0 +01.9 | 17 | | | | | | | | | | | | | |
| 18 | 94 06.5 +00.0 | S 14 30.7 +00.8 | 137 02.6 +00.0 | N 03 25.9 -00.9 | 222 53.2 -33.9 | N 28 07.9 +01.7 | 18 | | | | | | | | | | | | | |
| 19 | 109 06.5 +00.0 | S 14 31.5 +00.8 | 152 02.6 -00.1 | N 03 25.0 -00.8 | 237 19.3 -33.8 | N 28 09.6 +01.6 | 19 | | | | | | | | | | | | | |
| 20 | 124 06.5 +00.0 | S 14 32.3 +00.8 | 167 02.5 +00.0 | N 03 24.2 -00.9 | 251 45.5 -33.9 | N 28 11.2 +01.4 | 20 | | | | | | | | | | | | | |
| 21 | 139 06.5 +00.0 | S 14 33.1 +00.8 | 182 02.5 -00.1 | N 03 23.3 -00.8 | 266 11.6 -33.8 | N 28 12.6 +01.2 | 21 | | | | | | | | | | | | | |
| 22 | 154 06.5 +00.0 | S 14 33.9 +00.8 | 197 02.4 +00.0 | N 03 22.5 -00.9 | 280 37.8 -33.7 | N 28 13.8 +01.1 | 22 | | | | | | | | | | | | | |
| 23 | 169 06.5 +00.0 | S 14 34.7 +00.8 | 212 02.4 +00.0 | N 03 21.6 -00.8 | 295 04.1 -33.8 | N 28 14.9 +00.9 | 23 | | | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 16°1 | 16°1 | 16°1 | 16°1 | 16°1 | 16°1 | SD | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | SD | 15°5 | 15°5 | 15°4 | 15°4 | 15°4 | 15°3 |
| HP | 00°1 | 00°1 | 00°1 | 00°1 | 00°1 | 00°1 | HP | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | HP | 56°9 | 56°8 | 56°6 | 56°5 | 56°4 | 56°2 |
| SHA | 144° | 144° | 144° | 144° | 143° | 143° | SHA | 187° | 187° | 187° | 186° | 186° | 186° | SHA | 282° | 279° | 277° | 275° | 272° | 270° |
| Greenwich Culmination Time: 11:43 | | | | | | | Greenwich Culmination Time: 08:51 | | | | | | | Greenwich Culmination Time: 02:33 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | | | | | | | |
|-----------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------------------------|------|--------|-------|------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 178 54.3 +00.8 | S 15 51.3 +00.5 | 1 11.1 +02.8 | N 13 43.3 -00.1 | 66 48.4 +02.5 | S 12 54.9 +00.0 | 00 | | | | | | | | | | | | | |
| 01 | 193 55.1 +00.7 | S 15 51.8 +00.6 | 16 13.9 +02.8 | N 13 43.2 -00.1 | 81 50.9 +02.5 | S 12 54.9 +00.0 | 01 | | | | | | | | | | | | | |
| 02 | 208 55.8 +00.8 | S 15 52.4 +00.5 | 31 16.7 +02.8 | N 13 43.1 -00.1 | 96 53.4 +02.5 | S 12 54.9 +00.0 | 02 | | | | | | | | | | | | | |
| 03 | 223 56.6 +00.7 | S 15 52.9 +00.6 | 46 19.5 +02.8 | N 13 43.0 -00.1 | 111 55.9 +02.4 | S 12 54.9 +00.0 | 03 | | | | | | | | | | | | | |
| 04 | 238 57.3 +00.8 | S 15 53.5 +00.5 | 61 22.3 +02.8 | N 13 42.9 -00.1 | 126 58.3 +02.5 | S 12 54.9 +00.0 | 04 | | | | | | | | | | | | | |
| 05 | 253 58.1 +00.8 | S 15 54.0 +00.5 | 76 25.1 +02.8 | N 13 42.8 -00.1 | 142 00.8 +02.5 | S 12 54.9 +00.0 | 05 | | | | | | | | | | | | | |
| 06 | 268 58.9 +00.7 | S 15 54.5 +00.6 | 91 27.9 +02.8 | N 13 42.7 -00.1 | 157 03.3 +02.5 | S 12 54.9 +00.0 | 06 | | | | | | | | | | | | | |
| 07 | 283 59.6 +00.8 | S 15 55.1 +00.5 | 106 30.7 +02.8 | N 13 42.6 -00.1 | 172 05.8 +02.5 | S 12 54.9 +00.0 | 07 | | | | | | | | | | | | | |
| 08 | 299 00.4 +00.7 | S 15 55.6 +00.6 | 121 33.5 +02.8 | N 13 42.5 -00.1 | 187 08.3 +02.4 | S 12 54.9 +00.0 | 08 | | | | | | | | | | | | | |
| 09 | 314 01.1 +00.8 | S 15 56.2 +00.5 | 136 36.3 +02.8 | N 13 42.4 -00.1 | 202 10.7 +02.5 | S 12 54.9 +00.0 | 09 | | | | | | | | | | | | | |
| 10 | 329 01.9 +00.7 | S 15 56.7 +00.5 | 151 39.1 +02.8 | N 13 42.3 -00.1 | 217 13.2 +02.5 | S 12 54.9 +00.0 | 10 | | | | | | | | | | | | | |
| 11 | 344 02.6 +00.8 | S 15 57.2 +00.6 | 166 41.9 +02.8 | N 13 42.2 -00.1 | 232 15.7 +02.5 | S 12 54.9 +00.0 | 11 | | | | | | | | | | | | | |
| 12 | 359 03.4 +00.7 | S 15 57.8 +00.5 | 181 44.7 +02.8 | N 13 42.1 -00.1 | 247 18.2 +02.4 | S 12 54.9 +00.0 | 12 | | | | | | | | | | | | | |
| 13 | 14 04.1 +00.8 | S 15 58.3 +00.6 | 196 47.5 +02.8 | N 13 42.0 -00.1 | 262 20.6 +02.5 | S 12 54.9 +00.0 | 13 | | | | | | | | | | | | | |
| 14 | 29 04.9 +00.7 | S 15 58.9 +00.5 | 211 50.3 +02.8 | N 13 41.9 -00.1 | 277 23.1 +02.5 | S 12 54.9 +00.0 | 14 | | | | | | | | | | | | | |
| 15 | 44 05.6 +00.8 | S 15 59.4 +00.5 | 226 53.1 +02.8 | N 13 41.8 -00.1 | 292 25.6 +02.5 | S 12 54.9 +00.0 | 15 | | | | | | | | | | | | | |
| 16 | 59 06.4 +00.7 | S 15 59.9 +00.6 | 241 55.9 +02.8 | N 13 41.7 -00.1 | 307 28.1 +02.4 | S 12 54.9 +00.0 | 16 | | | | | | | | | | | | | |
| 17 | 74 07.1 +00.8 | S 16 00.5 +00.5 | 256 58.7 +02.8 | N 13 41.6 -00.1 | 322 30.5 +02.5 | S 12 54.9 +00.0 | 17 | | | | | | | | | | | | | |
| 18 | 89 07.9 +00.7 | S 16 01.0 +00.5 | 272 01.5 +02.8 | N 13 41.5 -00.1 | 337 33.0 +02.5 | S 12 54.9 +00.0 | 18 | | | | | | | | | | | | | |
| 19 | 104 08.6 +00.8 | S 16 01.5 +00.6 | 287 04.3 +02.8 | N 13 41.4 -00.1 | 352 35.5 +02.5 | S 12 54.9 +00.0 | 19 | | | | | | | | | | | | | |
| 20 | 119 09.4 +00.8 | S 16 02.1 +00.5 | 302 07.1 +02.8 | N 13 41.3 -00.1 | 7 38.0 +02.5 | S 12 54.9 +00.0 | 20 | | | | | | | | | | | | | |
| 21 | 134 10.2 +00.7 | S 16 02.6 +00.6 | 317 09.9 +02.8 | N 13 41.2 -00.1 | 22 40.5 +02.4 | S 12 54.9 +00.0 | 21 | | | | | | | | | | | | | |
| 22 | 149 10.9 +00.8 | S 16 03.2 +00.5 | 332 12.7 +02.8 | N 13 41.1 -00.1 | 37 42.9 +02.5 | S 12 54.9 +00.0 | 22 | | | | | | | | | | | | | |
| 23 | 164 11.7 +00.7 | S 16 03.7 +00.5 | 347 15.5 +02.8 | N 13 41.0 -00.1 | 52 45.4 +02.5 | S 12 54.9 +00.0 | 23 | | | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| 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 | 139° | 139° | 139° | 138° | 138° | 138° | SHA | 321° | 321° | 321° | 321° | 321° | 321° | SHA | 027° | 027° | 027° | 027° | 027° | 027° |
| Greenwich Culmination Time: 12:03 | | | | | | | Greenwich Culmination Time: 23:50 | | | | | | | Greenwich Culmination Time: 19:29 | | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> A: 67% | | | | UT |
|----|-----------------------------------|-------|------------------|-----------------------------------|------------------|---------------|-----------------------------------|------|---|-------|------------------|------|----|
| | GHA ° / ' / " | ddGHA | Dec ° / ' / " | dDec | GHA ° / ' / " | ddGHA | Dec ° / ' / " | dDec | GHA ° / ' / " | ddGHA | Dec ° / ' / " | dDec | |
| 00 | 184 06.5 +00.1 | S | 14 35.5 +00.8 | 227 02.4 -00.1 | N | 03 20.8 -00.9 | 309 30.3 -33.7 | N | 28 15.8 +00.7 | 00 | | | |
| 01 | 199 06.6 +00.0 | S | 14 36.3 +00.8 | 242 02.3 +00.0 | N | 03 19.9 -00.8 | 323 56.6 -33.6 | N | 28 16.5 +00.6 | 01 | | | |
| 02 | 214 06.6 +00.0 | S | 14 37.1 +00.7 | 257 02.3 -00.1 | N | 03 19.1 -00.9 | 338 23.0 -33.7 | N | 28 17.1 +00.5 | 02 | | | |
| 03 | 229 06.6 +00.0 | S | 14 37.8 +00.8 | 272 02.2 +00.0 | N | 03 18.2 -00.9 | 352 49.3 -33.6 | N | 28 17.6 +00.2 | 03 | | | |
| 04 | 244 06.6 +00.0 | S | 14 38.6 +00.8 | 287 02.2 -00.1 | N | 03 17.3 -00.8 | 7 15.7 -33.5 | N | 28 17.8 +00.1 | 04 | | | |
| 05 | 259 06.6 +00.0 | S | 14 39.4 +00.8 | 302 02.1 +00.0 | N | 03 16.5 -00.9 | 21 42.2 -33.5 | N | 28 17.9 +00.0 | 05 | | | |
| 06 | 274 06.6 +00.0 | S | 14 40.2 +00.8 | 317 02.1 +00.0 | N | 03 15.6 -00.8 | 36 08.7 -33.5 | N | 28 17.9 -00.2 | 06 | | | |
| 07 | 289 06.6 +00.0 | S | 14 41.0 +00.8 | 332 02.1 -00.1 | N | 03 14.8 -00.9 | 50 35.2 -33.4 | N | 28 17.7 -00.3 | 07 | | | |
| 08 | 304 06.6 +00.1 | S | 14 41.8 +00.8 | 347 02.0 +00.0 | N | 03 13.9 -00.9 | 65 01.8 -33.4 | N | 28 17.4 -00.6 | 08 | | | |
| 09 | 319 06.7 +00.0 | S | 14 42.6 +00.8 | 2 02.0 -00.1 | N | 03 13.0 -00.8 | 79 28.4 -33.3 | N | 28 16.8 -00.6 | 09 | | | |
| 10 | 334 06.7 +00.0 | S | 14 43.4 +00.8 | 17 01.9 +00.0 | N | 03 12.2 -00.9 | 93 55.1 -33.3 | N | 28 16.2 -00.8 | 10 | | | |
| 11 | 349 06.7 +00.0 | S | 14 44.2 +00.8 | 32 01.9 -00.1 | N | 03 11.3 -00.8 | 108 21.8 -33.2 | N | 28 15.4 -01.0 | 11 | | | |
| 12 | 4 06.7 +00.0 | S | 14 45.0 +00.8 | 47 01.8 +00.0 | N | 03 10.5 -00.9 | 122 48.6 -33.2 | N | 28 14.4 -01.1 | 12 | | | |
| 13 | 19 06.7 +00.0 | S | 14 45.8 +00.8 | 62 01.8 -00.1 | N | 03 09.6 -00.9 | 137 15.4 -33.1 | N | 28 13.3 -01.3 | 13 | | | |
| 14 | 34 06.7 +00.0 | S | 14 46.6 +00.7 | 77 01.7 +00.0 | N | 03 08.7 -00.8 | 151 42.3 -33.1 | N | 28 12.0 -01.5 | 14 | | | |
| 15 | 49 06.7 +00.0 | S | 14 47.3 +00.8 | 92 01.7 -00.1 | N | 03 07.9 -00.9 | 166 09.2 -33.0 | N | 28 10.5 -01.5 | 15 | | | |
| 16 | 64 06.7 +00.0 | S | 14 48.1 +00.8 | 107 01.6 +00.0 | N | 03 07.0 -00.9 | 180 36.2 -33.0 | N | 28 09.0 -01.8 | 16 | | | |
| 17 | 79 06.7 +00.0 | S | 14 48.9 +00.8 | 122 01.6 -00.1 | N | 03 06.1 -00.8 | 195 03.2 -32.9 | N | 28 07.2 -01.8 | 17 | | | |
| 18 | 94 06.7 +00.1 | S | 14 49.7 +00.8 | 137 01.5 +00.0 | N | 03 05.3 -00.9 | 209 30.3 -32.8 | N | 28 05.4 -02.1 | 18 | | | |
| 19 | 109 06.8 +00.0 | S | 14 50.5 +00.8 | 152 01.5 -00.1 | N | 03 04.4 -00.8 | 223 57.5 -32.8 | N | 28 03.3 -02.2 | 19 | | | |
| 20 | 124 06.8 +00.0 | S | 14 51.3 +00.8 | 167 01.4 +00.0 | N | 03 03.6 -00.9 | 238 24.7 -32.7 | N | 28 01.1 -02.3 | 20 | | | |
| 21 | 139 06.8 +00.0 | S | 14 52.1 +00.8 | 182 01.4 -00.1 | N | 03 02.7 -00.9 | 252 52.0 -32.6 | N | 27 58.8 -02.5 | 21 | | | |
| 22 | 154 06.8 +00.0 | S | 14 52.9 +00.8 | 197 01.3 +00.0 | N | 03 01.8 -00.8 | 267 19.4 -32.6 | N | 27 56.3 -02.6 | 22 | | | |
| 23 | 169 06.8 +00.0 | S | 14 53.7 +00.7 | 212 01.3 -00.1 | N | 03 01.0 -00.9 | 281 46.8 -32.6 | N | 27 53.7 -02.7 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16°1 16°1 16°1 16°1 16°1 16°1 | | | SD 00°2 00°2 00°2 00°2 00°2 00°2 | | | SD 15°3 15°3 15°2 15°2 15°2 15°1 | | | | | | |
| | HP 00°1 00°1 00°1 00°1 00°1 00°1 | | | HP 00°2 00°2 00°2 00°2 00°2 00°2 | | | HP 56°1 56°0 55°9 55°8 55°6 55°5 | | | | | | |
| | SHA 143° 143° 143° 143° 142° 142° | | | SHA 186° 186° 186° 185° 185° 185° | | | SHA 267° 265° 262° 260° 258° 255° | | | | | | |
| | Greenwich Culmination Time: 11:43 | | | Greenwich Culmination Time: 08:51 | | | Greenwich Culmination Time: 03:29 | | | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
|----|-----------------------------------|-------|------------------|-----------------------------------|------------------|---------------|-----------------------------------|------|------------------|-------|------------------|------|----|
| | GHA ° / ' / " | ddGHA | Dec ° / ' / " | dDec | GHA ° / ' / " | ddGHA | Dec ° / ' / " | dDec | GHA ° / ' / " | ddGHA | Dec ° / ' / " | dDec | |
| 00 | 179 12.4 +00.8 | S | 16 04.2 +00.6 | 2 18.3 +02.8 | N | 13 40.9 -00.1 | 67 47.9 +02.5 | S | 12 54.9 +00.0 | 00 | | | |
| 01 | 194 13.2 +00.7 | S | 16 04.8 +00.5 | 17 21.1 +02.8 | N | 13 40.8 -00.1 | 82 50.4 +02.4 | S | 12 54.9 +00.0 | 01 | | | |
| 02 | 209 13.9 +00.8 | S | 16 05.3 +00.5 | 32 23.9 +02.8 | N | 13 40.7 -00.1 | 97 52.8 +02.5 | S | 12 54.9 +00.0 | 02 | | | |
| 03 | 224 14.7 +00.7 | S | 16 05.8 +00.6 | 47 26.7 +02.8 | N | 13 40.6 -00.1 | 112 55.3 +02.5 | S | 12 54.9 +00.0 | 03 | | | |
| 04 | 239 15.4 +00.8 | S | 16 06.4 +00.5 | 62 29.5 +02.8 | N | 13 40.5 -00.1 | 127 57.8 +02.5 | S | 12 54.9 +00.0 | 04 | | | |
| 05 | 254 16.2 +00.7 | S | 16 06.9 +00.6 | 77 32.3 +02.8 | N | 13 40.4 -00.1 | 143 00.3 +02.4 | S | 12 54.9 +00.0 | 05 | | | |
| 06 | 269 16.9 +00.8 | S | 16 07.5 +00.5 | 92 35.1 +02.8 | N | 13 40.3 -00.1 | 158 02.7 +02.5 | S | 12 54.9 +00.0 | 06 | | | |
| 07 | 284 17.7 +00.7 | S | 16 08.0 +00.5 | 107 37.9 +02.8 | N | 13 40.2 -00.1 | 173 05.2 +02.5 | S | 12 54.9 +00.0 | 07 | | | |
| 08 | 299 18.4 +00.8 | S | 16 08.5 +00.6 | 122 40.7 +02.8 | N | 13 40.1 -00.1 | 188 07.7 +02.5 | S | 12 54.9 +00.0 | 08 | | | |
| 09 | 314 19.2 +00.7 | S | 16 09.1 +00.5 | 137 43.5 +02.8 | N | 13 40.0 -00.1 | 203 10.2 +02.4 | S | 12 54.9 +00.0 | 09 | | | |
| 10 | 329 19.9 +00.7 | S | 16 09.6 +00.5 | 152 46.3 +02.8 | N | 13 39.9 -00.1 | 218 12.6 +02.5 | S | 12 54.9 +00.0 | 10 | | | |
| 11 | 344 20.6 +00.8 | S | 16 10.1 +00.6 | 167 49.1 +02.8 | N | 13 39.8 -00.1 | 233 15.1 +02.5 | S | 12 54.9 +00.0 | 11 | | | |
| 12 | 359 21.4 +00.7 | S | 16 10.7 +00.5 | 182 51.9 +02.7 | N | 13 39.7 -00.1 | 248 17.6 +02.4 | S | 12 54.9 +00.0 | 12 | | | |
| 13 | 14 22.1 +00.8 | S | 16 11.2 +00.5 | 197 54.6 +02.8 | N | 13 39.6 -00.2 | 263 20.0 +02.5 | S | 12 54.9 +00.0 | 13 | | | |
| 14 | 29 22.9 +00.7 | S | 16 11.7 +00.6 | 212 57.4 +02.8 | N | 13 39.4 -00.1 | 278 22.5 +02.5 | S | 12 54.9 +00.0 | 14 | | | |
| 15 | 44 23.6 +00.8 | S | 16 12.3 +00.5 | 228 00.2 +02.8 | N | 13 39.3 -00.1 | 293 25.0 +02.5 | S | 12 54.9 +00.0 | 15 | | | |
| 16 | 59 24.4 +00.7 | S | 16 12.8 +00.5 | 243 03.0 +02.8 | N | 13 39.2 -00.1 | 308 27.5 +02.4 | S | 12 54.9 +00.0 | 16 | | | |
| 17 | 74 25.1 +00.8 | S | 16 13.3 +00.6 | 258 05.8 +02.8 | N | 13 39.1 -00.1 | 323 29.9 +02.5 | S | 12 54.9 +00.0 | 17 | | | |
| 18 | 89 25.9 +00.7 | S | 16 13.9 +00.5 | 273 08.6 +02.8 | N | 13 39.0 -00.1 | 338 32.4 +02.5 | S | 12 54.9 +00.0 | 18 | | | |
| 19 | 104 26.6 +00.8 | S | 16 14.4 +00.5 | 288 11.4 +02.8 | N | 13 38.9 -00.1 | 353 34.9 +02.5 | S | 12 54.9 +00.0 | 19 | | | |
| 20 | 119 27.4 +00.7 | S | 16 14.9 +00.6 | 303 14.2 +02.8 | N | 13 38.8 -00.1 | 8 37.4 +02.4 | S | 12 54.9 +00.0 | 20 | | | |
| 21 | 134 28.1 +00.8 | S | 16 15.5 +00.5 | 318 17.0 +02.8 | N | 13 38.7 -00.1 | 23 39.8 +02.5 | S | 12 54.9 +00.0 | 21 | | | |
| 22 | 149 28.9 +00.7 | S | 16 16.0 +00.5 | 333 19.8 +02.8 | N | 13 38.6 -00.1 | 38 42.3 +02.5 | S | 12 54.9 +00.0 | 22 | | | |
| 23 | 164 29.6 +00.7 | S | 16 16.5 +00.6 | 348 22.6 +02.8 | N | 13 38.5 -00.1 | 53 44.8 +02.4 | S | 12 54.9 +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 138° 138° 138° 138° 138° 138° | | | SHA 321° 321° 321° 321° 321° 321° | | | SHA 027° 027° 027° 027° 027° 027° | | | | | | |
| | Greenwich Culmination Time: 12:02 | | | Greenwich Culmination Time: 23:46 | | | Greenwich Culmination Time: 19:25 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|-----------------|-----|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 184 06.8 +00.0 | S 14 54.4 +00.8 | 227 01.2 +00.0 | N 03 00.1 -00.9 | 296 14.2 -32.4 | N 27 51.0 -02.9 | 00 | | | | | | |
| 01 | 199 06.8 +00.0 | S 14 55.2 +00.8 | 242 01.2 -00.1 | N 02 59.2 -00.9 | 310 41.8 -32.4 | N 27 48.1 -03.1 | 01 | | | | | | |
| 02 | 214 06.8 +00.0 | S 14 56.0 +00.8 | 257 01.1 +00.0 | N 02 58.3 -00.8 | 325 09.4 -32.3 | N 27 45.0 -03.2 | 02 | | | | | | |
| 03 | 229 06.8 +00.0 | S 14 56.8 +00.8 | 272 01.1 -00.1 | N 02 57.5 -00.9 | 339 37.1 -32.3 | N 27 41.8 -03.3 | 03 | | | | | | |
| 04 | 244 06.8 +00.0 | S 14 57.6 +00.8 | 287 01.0 +00.0 | N 02 56.6 -00.9 | 354 04.8 -32.1 | N 27 38.5 -03.5 | 04 | | | | | | |
| 05 | 259 06.8 +00.0 | S 14 58.4 +00.7 | 302 01.0 -00.1 | N 02 55.7 -00.8 | 8 32.7 -32.2 | N 27 35.0 -03.6 | 05 | | | | | | |
| 06 | 274 06.8 +00.0 | S 14 59.1 +00.8 | 317 00.9 -00.1 | N 02 54.9 -00.9 | 23 00.5 -32.0 | N 27 31.4 -03.7 | 06 | | | | | | |
| 07 | 289 06.8 +00.0 | S 14 59.9 +00.8 | 332 00.8 +00.0 | N 02 54.0 -00.9 | 37 28.5 -32.0 | N 27 27.7 -03.9 | 07 | | | | | | |
| 08 | 304 06.8 +00.0 | S 15 00.7 +00.8 | 347 00.8 -00.1 | N 02 53.1 -00.9 | 51 56.5 -31.8 | N 27 23.8 -04.1 | 08 | | | | | | |
| 09 | 319 06.8 +00.0 | S 15 01.5 +00.8 | 2 00.7 +00.0 | N 02 52.2 -00.8 | 66 24.7 -31.9 | N 27 19.7 -04.1 | 09 | | | | | | |
| 10 | 334 06.8 +00.0 | S 15 02.3 +00.8 | 17 00.7 -00.1 | N 02 51.4 -00.9 | 80 52.8 -31.7 | N 27 15.6 -04.3 | 10 | | | | | | |
| 11 | 349 06.8 +00.0 | S 15 03.1 +00.7 | 32 00.6 +00.0 | N 02 50.5 -00.9 | 95 21.1 -31.7 | N 27 11.3 -04.5 | 11 | | | | | | |
| 12 | 4 06.8 +00.0 | S 15 03.8 +00.8 | 47 00.6 -00.1 | N 02 49.6 -00.8 | 109 49.4 -31.5 | N 27 06.8 -04.5 | 12 | | | | | | |
| 13 | 19 06.8 +00.0 | S 15 04.6 +00.8 | 62 00.5 +00.0 | N 02 48.8 -00.9 | 124 17.9 -31.5 | N 27 02.3 -04.7 | 13 | | | | | | |
| 14 | 34 06.8 +00.0 | S 15 05.4 +00.8 | 77 00.5 -00.1 | N 02 47.9 -00.9 | 138 46.4 -31.5 | N 26 57.6 -04.8 | 14 | | | | | | |
| 15 | 49 06.8 +00.0 | S 15 06.2 +00.8 | 92 00.4 -00.1 | N 02 47.0 -00.9 | 153 14.9 -31.3 | N 26 52.8 -05.0 | 15 | | | | | | |
| 16 | 64 06.8 +00.0 | S 15 07.0 +00.7 | 107 00.3 +00.0 | N 02 46.1 -00.8 | 167 43.6 -31.3 | N 26 47.8 -05.1 | 16 | | | | | | |
| 17 | 79 06.8 +00.0 | S 15 07.7 +00.8 | 122 00.3 -00.1 | N 02 45.3 -00.9 | 182 12.3 -31.2 | N 26 42.7 -05.2 | 17 | | | | | | |
| 18 | 94 06.8 +00.0 | S 15 08.5 +00.8 | 137 00.2 +00.0 | N 02 44.4 -00.9 | 196 41.1 -31.1 | N 26 37.5 -05.3 | 18 | | | | | | |
| 19 | 109 06.8 +00.0 | S 15 09.3 +00.8 | 152 00.2 -00.1 | N 02 43.5 -00.9 | 211 10.0 -31.0 | N 26 32.2 -05.5 | 19 | | | | | | |
| 20 | 124 06.8 +00.0 | S 15 10.1 +00.7 | 167 00.1 -00.1 | N 02 42.6 -00.9 | 225 39.0 -31.0 | N 26 26.7 -05.6 | 20 | | | | | | |
| 21 | 139 06.8 +00.0 | S 15 10.8 +00.8 | 182 00.0 +00.0 | N 02 41.7 -00.8 | 240 08.0 -30.8 | N 26 21.1 -05.7 | 21 | | | | | | |
| 22 | 154 06.8 +00.0 | S 15 11.6 +00.8 | 196 60.0 -00.1 | N 02 40.9 -00.9 | 254 37.2 -30.8 | N 26 15.4 -05.9 | 22 | | | | | | |
| 23 | 169 06.8 +00.0 | S 15 12.4 +00.8 | 211 59.9 +00.0 | N 02 40.0 -00.9 | 269 06.4 -30.7 | N 26 09.5 -05.9 | 23 | | | | | | |
| UT | 02 06 10 14 18 22 | 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 | SHA 142° 142° 142° 142° 141° 141° | Greenwich Culmination Time: 11:43 | | | | | | | | |
| UT | 02 06 10 14 18 22 | SD 00'2 00'2 00'2 00'2 00'2 00'2 | HP 00'2 00'2 00'2 00'2 00'2 00'2 | SHA 185° 185° 185° 184° 184° 184° | Greenwich Culmination Time: 08:51 | | | | | | | | |
| UT | 02 06 10 14 18 22 | SD 15'1 15'1 15'0 15'0 15'0 15'0 | HP 55'4 55'3 55'2 55'1 55'0 54'9 | SHA 253° 251° 248° 246° 244° 242° | Greenwich Culmination Time: 04:24 | | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|-----------------|-----|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 179 30.3 +00.8 | S 16 17.1 +00.5 | 3 25.4 +02.8 | N 13 38.4 -00.1 | 68 47.2 +02.5 | S 12 54.9 +00.0 | 00 | | | | | | |
| 01 | 194 31.1 +00.7 | S 16 17.6 +00.5 | 18 28.2 +02.8 | N 13 38.3 -00.1 | 83 49.7 +02.5 | S 12 54.9 -00.1 | 01 | | | | | | |
| 02 | 209 31.8 +00.8 | S 16 18.1 +00.6 | 33 31.0 +02.8 | N 13 38.2 -00.1 | 98 52.2 +02.5 | S 12 54.8 +00.0 | 02 | | | | | | |
| 03 | 224 32.6 +00.7 | S 16 18.7 +00.5 | 48 33.8 +02.8 | N 13 38.1 -00.1 | 113 54.7 +02.4 | S 12 54.8 +00.0 | 03 | | | | | | |
| 04 | 239 33.3 +00.8 | S 16 19.2 +00.5 | 63 36.6 +02.8 | N 13 38.0 -00.1 | 128 57.1 +02.5 | S 12 54.8 +00.0 | 04 | | | | | | |
| 05 | 254 34.1 +00.7 | S 16 19.7 +00.6 | 78 39.4 +02.8 | N 13 37.9 -00.1 | 143 59.6 +02.5 | S 12 54.8 +00.0 | 05 | | | | | | |
| 06 | 269 34.8 +00.8 | S 16 20.3 +00.5 | 93 42.2 +02.8 | N 13 37.8 -00.1 | 159 02.1 +02.4 | S 12 54.8 +00.0 | 06 | | | | | | |
| 07 | 284 35.6 +00.7 | S 16 20.8 +00.5 | 108 45.0 +02.8 | N 13 37.7 -00.1 | 174 04.5 +02.5 | S 12 54.8 +00.0 | 07 | | | | | | |
| 08 | 299 36.3 +00.7 | S 16 21.3 +00.5 | 123 47.8 +02.8 | N 13 37.6 -00.1 | 189 07.0 +02.5 | S 12 54.8 +00.0 | 08 | | | | | | |
| 09 | 314 37.0 +00.8 | S 16 21.8 +00.6 | 138 50.6 +02.8 | N 13 37.5 -00.1 | 204 09.5 +02.4 | S 12 54.8 +00.0 | 09 | | | | | | |
| 10 | 329 37.8 +00.7 | S 16 22.4 +00.5 | 153 53.4 +02.8 | N 13 37.4 -00.1 | 219 11.9 +02.5 | S 12 54.8 +00.0 | 10 | | | | | | |
| 11 | 344 38.5 +00.8 | S 16 22.9 +00.5 | 168 56.2 +02.8 | N 13 37.3 -00.1 | 234 14.4 +02.5 | S 12 54.8 +00.0 | 11 | | | | | | |
| 12 | 359 39.3 +00.7 | S 16 23.4 +00.6 | 183 59.0 +02.8 | N 13 37.2 -00.1 | 249 16.9 +02.5 | S 12 54.8 +00.0 | 12 | | | | | | |
| 13 | 14 40.0 +00.8 | S 16 24.0 +00.5 | 199 01.8 +02.8 | N 13 37.1 -00.1 | 264 19.4 +02.4 | S 12 54.8 +00.0 | 13 | | | | | | |
| 14 | 29 40.8 +00.7 | S 16 24.5 +00.5 | 214 04.6 +02.8 | N 13 37.0 -00.1 | 279 21.8 +02.5 | S 12 54.8 +00.0 | 14 | | | | | | |
| 15 | 44 41.5 +00.7 | S 16 25.0 +00.6 | 229 07.4 +02.8 | N 13 36.9 -00.1 | 294 24.3 +02.5 | S 12 54.8 +00.0 | 15 | | | | | | |
| 16 | 59 42.2 +00.8 | S 16 25.6 +00.5 | 244 10.2 +02.8 | N 13 36.8 -00.1 | 309 26.8 +02.4 | S 12 54.8 +00.0 | 16 | | | | | | |
| 17 | 74 43.0 +00.7 | S 16 26.1 +00.5 | 259 13.0 +02.8 | N 13 36.7 -00.1 | 324 29.2 +02.5 | S 12 54.8 +00.0 | 17 | | | | | | |
| 18 | 89 43.7 +00.8 | S 16 26.6 +00.5 | 274 15.8 +02.8 | N 13 36.6 -00.1 | 339 31.7 +02.5 | S 12 54.8 +00.0 | 18 | | | | | | |
| 19 | 104 44.5 +00.7 | S 16 27.1 +00.6 | 289 18.6 +02.8 | N 13 36.5 -00.1 | 354 34.2 +02.4 | S 12 54.8 +00.0 | 19 | | | | | | |
| 20 | 119 45.2 +00.7 | S 16 27.7 +00.5 | 304 21.4 +02.8 | N 13 36.4 -00.1 | 9 36.6 +02.5 | S 12 54.8 +00.0 | 20 | | | | | | |
| 21 | 134 45.9 +00.8 | S 16 28.2 +00.5 | 319 24.2 +02.8 | N 13 36.3 -00.1 | 24 39.1 +02.5 | S 12 54.8 +00.0 | 21 | | | | | | |
| 22 | 149 46.7 +00.7 | S 16 28.7 +00.6 | 334 27.0 +02.8 | N 13 36.2 -00.1 | 39 41.6 +02.4 | S 12 54.8 +00.0 | 22 | | | | | | |
| 23 | 164 47.4 +00.8 | S 16 29.3 +00.5 | 349 29.8 +02.8 | N 13 36.1 -00.1 | 54 44.0 +02.5 | S 12 54.8 +00.0 | 23 | | | | | | |
| UT | 02 06 10 14 18 22 | SD 00'0 00'0 00'0 00'0 00'0 00'0 | HP 00'1 00'1 00'1 00'1 00'1 00'1 | SHA 137° 137° 137° 137° 137° 137° | Greenwich Culmination Time: 12:01 | | | | | | | | |
| 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 321° 321° 321° 322° 322° 322° | Greenwich Culmination Time: 23:41 | | | | | | | | |
| 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 027° 027° 027° 027° 027° 027° | Greenwich Culmination Time: 19:21 | | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 184 06.8 +00.0 | S | 15 13.2 +00.7 | 226 59.9 -00.1 | N | 02 39.1 -00.9 | 283 35.7 -30.6 | N | 26 03.6 -06.1 | 00 | | | |
| 01 | 199 06.8 +00.0 | S | 15 13.9 +00.8 | 241 59.8 -00.1 | N | 02 38.2 -00.9 | 298 05.1 -30.6 | N | 25 57.5 -06.2 | 01 | | | |
| 02 | 214 06.8 +00.0 | S | 15 14.7 +00.8 | 256 59.7 +00.0 | N | 02 37.3 -00.8 | 312 34.5 -30.4 | N | 25 51.3 -06.3 | 02 | | | |
| 03 | 229 06.8 +00.0 | S | 15 15.5 +00.8 | 271 59.7 -00.1 | N | 02 36.5 -00.9 | 327 04.1 -30.4 | N | 25 45.0 -06.5 | 03 | | | |
| 04 | 244 06.8 +00.0 | S | 15 16.3 +00.7 | 286 59.6 -00.1 | N | 02 35.6 -00.9 | 341 33.7 -30.2 | N | 25 38.5 -06.5 | 04 | | | |
| 05 | 259 06.8 +00.0 | S | 15 17.0 +00.8 | 301 59.5 +00.0 | N | 02 34.7 -00.9 | 356 03.5 -30.2 | N | 25 32.0 -06.7 | 05 | | | |
| 06 | 274 06.8 +00.0 | S | 15 17.8 +00.8 | 316 59.5 -00.1 | N | 02 33.8 -00.9 | 10 33.3 -30.1 | N | 25 25.3 -06.8 | 06 | | | |
| 07 | 289 06.8 +00.0 | S | 15 18.6 +00.8 | 331 59.4 +00.0 | N | 02 32.9 -00.9 | 25 03.2 -30.1 | N | 25 18.5 -06.9 | 07 | | | |
| 08 | 304 06.8 +00.0 | S | 15 19.4 +00.7 | 346 59.4 -00.1 | N | 02 32.0 -00.8 | 39 33.1 -29.9 | N | 25 11.6 -07.0 | 08 | | | |
| 09 | 319 06.8 +00.0 | S | 15 20.1 +00.8 | 1 59.3 -00.1 | N | 02 31.2 -00.9 | 54 03.2 -29.9 | N | 25 04.6 -07.1 | 09 | | | |
| 10 | 334 06.8 +00.0 | S | 15 20.9 +00.8 | 16 59.2 +00.0 | N | 02 30.3 -00.9 | 68 33.3 -29.7 | N | 24 57.5 -07.3 | 10 | | | |
| 11 | 349 06.8 +00.0 | S | 15 21.7 +00.7 | 31 59.2 -00.1 | N | 02 29.4 -00.9 | 83 03.6 -29.7 | N | 24 50.2 -07.3 | 11 | | | |
| 12 | 4 06.8 +00.0 | S | 15 22.4 +00.8 | 46 59.1 -00.1 | N | 02 28.5 -00.9 | 97 33.9 -29.6 | N | 24 42.9 -07.5 | 12 | | | |
| 13 | 19 06.8 -00.1 | S | 15 23.2 +00.8 | 61 59.0 +00.0 | N | 02 27.6 -00.9 | 112 04.3 -29.5 | N | 24 35.4 -07.5 | 13 | | | |
| 14 | 34 06.7 +00.0 | S | 15 24.0 +00.7 | 76 59.0 -00.1 | N | 02 26.7 -00.9 | 126 34.8 -29.5 | N | 24 27.9 -07.7 | 14 | | | |
| 15 | 49 06.7 +00.0 | S | 15 24.7 +00.8 | 91 58.9 -00.1 | N | 02 25.8 -00.8 | 141 05.3 -29.3 | N | 24 20.2 -07.8 | 15 | | | |
| 16 | 64 06.7 +00.0 | S | 15 25.5 +00.8 | 106 58.8 +00.0 | N | 02 25.0 -00.9 | 155 36.0 -29.3 | N | 24 12.4 -07.9 | 16 | | | |
| 17 | 79 06.7 +00.0 | S | 15 26.3 +00.8 | 121 58.8 -00.1 | N | 02 24.1 -00.9 | 170 06.7 -29.2 | N | 24 04.5 -08.0 | 17 | | | |
| 18 | 94 06.7 +00.0 | S | 15 27.1 +00.7 | 136 58.7 -00.1 | N | 02 23.2 -00.9 | 184 37.5 -29.0 | N | 23 56.5 -08.1 | 18 | | | |
| 19 | 109 06.7 +00.0 | S | 15 27.8 +00.8 | 151 58.6 +00.0 | N | 02 22.3 -00.9 | 199 08.5 -29.1 | N | 23 48.4 -08.2 | 19 | | | |
| 20 | 124 06.7 +00.0 | S | 15 28.6 +00.8 | 166 58.6 -00.1 | N | 02 21.4 -00.9 | 213 39.4 -28.9 | N | 23 40.2 -08.2 | 20 | | | |
| 21 | 139 06.7 +00.0 | S | 15 29.4 +00.7 | 181 58.5 -00.1 | N | 02 20.5 -00.9 | 228 10.5 -28.8 | N | 23 32.0 -08.4 | 21 | | | |
| 22 | 154 06.7 +00.0 | S | 15 30.1 +00.8 | 196 58.4 -00.1 | N | 02 19.6 -00.9 | 242 41.7 -28.8 | N | 23 23.6 -08.5 | 22 | | | |
| 23 | 169 06.7 -00.1 | S | 15 30.9 +00.8 | 211 58.3 +00.0 | N | 02 18.7 -00.9 | 257 12.9 -28.6 | N | 23 15.1 -08.6 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'1 16'1 16'1 16'1 16'1 16'1 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | SD 14'9 14'9 14'9 14'9 14'9 14'9 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | | HP 54'9 54'8 54'7 54'6 54'6 54'5 | | | | | | |
| | SHA 141° 141° 141° 141° 140° 140° | | | SHA 184° 184° 184° 183° 183° 183° | | | SHA 240° 237° 235° 233° 231° 229° | | | | | | |
| | Greenwich Culmination Time: 11:43 | | | Greenwich Culmination Time: 08:52 | | | Greenwich Culmination Time: 05:16 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|---------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 179 48.2 +00.7 | S | 16 29.8 +00.5 | 4 32.6 +02.8 | N | 13 36.0 -00.1 | 69 46.5 +02.5 | S | 12 54.8 +00.0 | 00 | | | |
| 01 | 194 48.9 +00.7 | S | 16 30.3 +00.5 | 19 35.4 +02.8 | N | 13 35.9 -00.1 | 84 49.0 +02.4 | S | 12 54.8 +00.0 | 01 | | | |
| 02 | 209 49.6 +00.8 | S | 16 30.8 +00.6 | 34 38.2 +02.8 | N | 13 35.8 -00.1 | 99 51.4 +02.5 | S | 12 54.8 +00.0 | 02 | | | |
| 03 | 224 50.4 +00.7 | S | 16 31.4 +00.5 | 49 41.0 +02.8 | N | 13 35.7 -00.1 | 114 53.9 +02.5 | S | 12 54.8 +00.0 | 03 | | | |
| 04 | 239 51.1 +00.7 | S | 16 31.9 +00.5 | 64 43.8 +02.7 | N | 13 35.6 -00.1 | 129 56.4 +02.4 | S | 12 54.8 +00.0 | 04 | | | |
| 05 | 254 51.8 +00.8 | S | 16 32.4 +00.5 | 79 46.5 +02.8 | N | 13 35.5 -00.1 | 144 58.8 +02.5 | S | 12 54.8 +00.0 | 05 | | | |
| 06 | 269 52.6 +00.7 | S | 16 32.9 +00.6 | 94 49.3 +02.8 | N | 13 35.4 -00.2 | 160 01.3 +02.5 | S | 12 54.8 -00.1 | 06 | | | |
| 07 | 284 53.3 +00.8 | S | 16 33.5 +00.5 | 109 52.1 +02.8 | N | 13 35.2 -00.1 | 175 03.8 +02.4 | S | 12 54.7 +00.0 | 07 | | | |
| 08 | 299 54.1 +00.7 | S | 16 34.0 +00.5 | 124 54.9 +02.8 | N | 13 35.1 -00.1 | 190 06.2 +02.5 | S | 12 54.7 +00.0 | 08 | | | |
| 09 | 314 54.8 +00.7 | S | 16 34.5 +00.5 | 139 57.7 +02.8 | N | 13 35.0 -00.1 | 205 08.7 +02.5 | S | 12 54.7 +00.0 | 09 | | | |
| 10 | 329 55.5 +00.8 | S | 16 35.0 +00.6 | 155 00.5 +02.8 | N | 13 34.9 -00.1 | 220 11.2 +02.4 | S | 12 54.7 +00.0 | 10 | | | |
| 11 | 344 56.3 +00.7 | S | 16 35.6 +00.5 | 170 03.3 +02.8 | N | 13 34.8 -00.1 | 235 13.6 +02.5 | S | 12 54.7 +00.0 | 11 | | | |
| 12 | 359 57.0 +00.7 | S | 16 36.1 +00.5 | 185 06.1 +02.8 | N | 13 34.7 -00.1 | 250 16.1 +02.5 | S | 12 54.7 +00.0 | 12 | | | |
| 13 | 14 57.7 +00.8 | S | 16 36.6 +00.5 | 200 08.9 +02.8 | N | 13 34.6 -00.1 | 265 18.6 +02.4 | S | 12 54.7 +00.0 | 13 | | | |
| 14 | 29 58.5 +00.7 | S | 16 37.1 +00.6 | 215 11.7 +02.8 | N | 13 34.5 -00.1 | 280 21.0 +02.5 | S | 12 54.7 +00.0 | 14 | | | |
| 15 | 44 59.2 +00.7 | S | 16 37.7 +00.5 | 230 14.5 +02.8 | N | 13 34.4 -00.1 | 295 23.5 +02.4 | S | 12 54.7 +00.0 | 15 | | | |
| 16 | 59 59.9 +00.8 | S | 16 38.2 +00.5 | 245 17.3 +02.8 | N | 13 34.3 -00.1 | 310 25.9 +02.5 | S | 12 54.7 +00.0 | 16 | | | |
| 17 | 75 00.7 +00.7 | S | 16 38.7 +00.5 | 260 20.1 +02.8 | N | 13 34.2 -00.1 | 325 28.4 +02.5 | S | 12 54.7 +00.0 | 17 | | | |
| 18 | 90 01.4 +00.7 | S | 16 39.2 +00.6 | 275 22.9 +02.8 | N | 13 34.1 -00.1 | 340 30.9 +02.4 | S | 12 54.7 +00.0 | 18 | | | |
| 19 | 105 02.1 +00.8 | S | 16 39.8 +00.5 | 290 25.7 +02.8 | N | 13 34.0 -00.1 | 355 33.3 +02.5 | S | 12 54.7 +00.0 | 19 | | | |
| 20 | 120 02.9 +00.7 | S | 16 40.3 +00.5 | 305 28.5 +02.8 | N | 13 33.9 -00.1 | 10 35.8 +02.5 | S | 12 54.7 +00.0 | 20 | | | |
| 21 | 135 03.6 +00.7 | S | 16 40.8 +00.5 | 320 31.3 +02.8 | N | 13 33.8 -00.1 | 25 38.3 +02.4 | S | 12 54.7 +00.0 | 21 | | | |
| 22 | 150 04.3 +00.8 | S | 16 41.3 +00.6 | 335 34.1 +02.8 | N | 13 33.7 -00.1 | 40 40.7 +02.5 | S | 12 54.7 +00.0 | 22 | | | |
| 23 | 165 05.1 +00.7 | S | 16 41.9 +00.5 | 350 36.9 +02.8 | N | 13 33.6 -00.1 | 55 43.2 +02.5 | S | 12 54.7 +00.0 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 00'0 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 137° 137° 137° 136° 136° 136° | | | SHA 322° 322° 322° 322° 322° 322° | | | SHA 027° 027° 027° 027° 027° 027° | | | | | | |
| | Greenwich Culmination Time: 12:00 | | | Greenwich Culmination Time: 23:37 | | | Greenwich Culmination Time: 19:17 | | | | | | |

| Sun | | | | | Venus | | | | | Moon A: 77% | | | | | UT | | | | | | | | |
|-----------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|------------|-----------------------------------|------------|---|------------|-------------|-----------|-----------|-----------|-----------------------------------|--|--|--|--|--|--|--|
| UT | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | UT | | | | | | | | | | |
| | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | | | | | | | | | | | |
| 00 | 184 06.6 +00.0 | S 15 31.7 +00.7 | 226 58.3 -00.1 | N 02 17.8 -00.8 | 271 44.3 -28.6 | N 23 06.5 -08.7 | 00 | | | | | | | | | | | | | | | | |
| 01 | 199 06.6 +00.0 | S 15 32.4 +00.8 | 241 58.2 -00.1 | N 02 17.0 -00.9 | 286 15.7 -28.5 | N 22 57.8 -08.8 | 01 | | | | | | | | | | | | | | | | |
| 02 | 214 06.6 +00.0 | S 15 33.2 +00.7 | 256 58.1 +00.0 | N 02 16.1 -00.9 | 300 47.2 -28.5 | N 22 49.0 -08.9 | 02 | | | | | | | | | | | | | | | | |
| 03 | 229 06.6 +00.0 | S 15 33.9 +00.8 | 271 58.1 -00.1 | N 02 15.2 -00.9 | 315 18.7 -28.3 | N 22 40.1 -08.9 | 03 | | | | | | | | | | | | | | | | |
| 04 | 244 06.6 +00.0 | S 15 34.7 +00.8 | 286 58.0 -00.1 | N 02 14.3 -00.9 | 329 50.4 -28.3 | N 22 31.2 -09.1 | 04 | | | | | | | | | | | | | | | | |
| 05 | 259 06.6 +00.0 | S 15 35.5 +00.7 | 301 57.9 -00.1 | N 02 13.4 -00.9 | 344 22.1 -28.2 | N 22 22.1 -09.2 | 05 | | | | | | | | | | | | | | | | |
| 06 | 274 06.6 +00.0 | S 15 36.2 +00.8 | 316 57.8 +00.0 | N 02 12.5 -00.9 | 358 53.9 -28.1 | N 22 12.9 -09.2 | 06 | | | | | | | | | | | | | | | | |
| 07 | 289 06.6 -00.1 | S 15 37.0 +00.8 | 331 57.8 -00.1 | N 02 11.6 -00.9 | 13 25.8 -28.0 | N 22 03.7 -09.4 | 07 | | | | | | | | | | | | | | | | |
| 08 | 304 06.5 +00.0 | S 15 37.8 +00.7 | 346 57.7 -00.1 | N 02 10.7 -00.9 | 27 57.8 -27.9 | N 21 54.3 -09.4 | 08 | | | | | | | | | | | | | | | | |
| 09 | 319 06.5 +00.0 | S 15 38.5 +00.8 | 1 57.6 +00.0 | N 02 09.8 -00.9 | 42 29.9 -27.9 | N 21 44.9 -09.5 | 09 | | | | | | | | | | | | | | | | |
| 10 | 334 06.5 +00.0 | S 15 39.3 +00.7 | 16 57.6 -00.1 | N 02 08.9 -00.9 | 57 02.0 -27.8 | N 21 35.4 -09.6 | 10 | | | | | | | | | | | | | | | | |
| 11 | 349 06.5 +00.0 | S 15 40.0 +00.8 | 31 57.5 -00.1 | N 02 08.0 -00.9 | 71 34.2 -27.7 | N 21 25.8 -09.7 | 11 | | | | | | | | | | | | | | | | |
| 12 | 4 06.5 +00.0 | S 15 40.8 +00.8 | 46 57.4 -00.1 | N 02 07.1 -00.9 | 86 06.5 -27.6 | N 21 16.1 -09.8 | 12 | | | | | | | | | | | | | | | | |
| 13 | 19 06.5 -00.1 | S 15 41.6 +00.7 | 61 57.3 +00.0 | N 02 06.2 -00.9 | 100 38.9 -27.5 | N 21 06.3 -09.8 | 13 | | | | | | | | | | | | | | | | |
| 14 | 34 06.4 +00.0 | S 15 42.3 +00.8 | 76 57.3 -00.1 | N 02 05.3 -00.9 | 115 11.4 -27.5 | N 20 56.5 -10.0 | 14 | | | | | | | | | | | | | | | | |
| 15 | 49 06.4 +00.0 | S 15 43.1 +00.7 | 91 57.2 -00.1 | N 02 04.4 -00.9 | 129 43.9 -27.4 | N 20 46.5 -10.0 | 15 | | | | | | | | | | | | | | | | |
| 16 | 64 06.4 +00.0 | S 15 43.8 +00.8 | 106 57.1 -00.1 | N 02 03.5 -00.9 | 144 16.5 -27.3 | N 20 36.5 -10.1 | 16 | | | | | | | | | | | | | | | | |
| 17 | 79 06.4 +00.0 | S 15 44.6 +00.7 | 121 57.0 -00.1 | N 02 02.6 -00.9 | 158 49.2 -27.3 | N 20 26.4 -10.2 | 17 | | | | | | | | | | | | | | | | |
| 18 | 94 06.4 +00.0 | S 15 45.3 +00.8 | 136 56.9 +00.0 | N 02 01.7 -00.9 | 173 21.9 -27.2 | N 20 16.2 -10.3 | 18 | | | | | | | | | | | | | | | | |
| 19 | 109 06.4 -00.1 | S 15 46.1 +00.8 | 151 56.9 -00.1 | N 02 00.8 -00.9 | 187 54.7 -27.1 | N 20 05.9 -10.3 | 19 | | | | | | | | | | | | | | | | |
| 20 | 124 06.3 +00.0 | S 15 46.9 +00.7 | 166 56.8 -00.1 | N 01 59.9 -00.9 | 202 27.6 -27.0 | N 19 55.6 -10.5 | 20 | | | | | | | | | | | | | | | | |
| 21 | 139 06.3 +00.0 | S 15 47.6 +00.8 | 181 56.7 -00.1 | N 01 59.0 -00.9 | 217 00.6 -26.9 | N 19 45.1 -10.5 | 21 | | | | | | | | | | | | | | | | |
| 22 | 154 06.3 +00.0 | S 15 48.4 +00.7 | 196 56.6 +00.0 | N 01 58.1 -00.9 | 231 33.7 -26.9 | N 19 34.6 -10.6 | 22 | | | | | | | | | | | | | | | | |
| 23 | 169 06.3 +00.0 | S 15 49.1 +00.8 | 211 56.6 -00.1 | N 01 57.2 -00.9 | 246 06.8 -26.8 | N 19 24.0 -10.6 | 23 | | | | | | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | | | UT | 02 | 06 | 10 | 14 | 18 | 22 | | | | | | | | |
| SD | 16°1 | 16°1 | 16°1 | 16°1 | 16°1 | 16°1 | | | SD | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | | | | | | | | |
| HP | 00°1 | 00°1 | 00°1 | 00°1 | 00°1 | 00°1 | | | HP | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | | | | | | | | |
| SHA | 140° | 140° | 140° | 140° | 139° | 139° | | | SHA | 183° | 183° | 183° | 182° | 182° | 182° | | | | | | | | |
| Greenwich Culmination Time: 11:43 | | | | | | | | Greenwich Culmination Time: 08:52 | | | | | | | | Greenwich Culmination Time: 06:04 | | | | | | | |

| Mars | | | | | Jupiter | | | | | Saturn | | | | | UT | | | | | | | | |
|-----------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|------------|-----------------------------------|------------|---------------|------------|-------------|-----------|-----------|-----------|-----------------------------------|--|--|--|--|--|--|--|
| UT | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | UT | | | | | | | | | | |
| | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | ° ' " | | | | | | | | | | | |
| 00 | 180 05.8 +00.7 | S 16 42.4 +00.5 | 5 39.7 +02.8 | N 13 33.5 -00.1 | 70 45.7 +02.4 | S 12 54.7 +00.0 | 00 | | | | | | | | | | | | | | | | |
| 01 | 195 06.5 +00.8 | S 16 42.9 +00.5 | 20 42.5 +02.8 | N 13 33.4 -00.1 | 85 48.1 +02.5 | S 12 54.7 +00.0 | 01 | | | | | | | | | | | | | | | | |
| 02 | 210 07.3 +00.7 | S 16 43.4 +00.5 | 35 45.3 +02.8 | N 13 33.3 -00.1 | 100 50.6 +02.4 | S 12 54.7 -00.1 | 02 | | | | | | | | | | | | | | | | |
| 03 | 225 08.0 +00.7 | S 16 43.9 +00.6 | 50 48.1 +02.8 | N 13 33.2 -00.1 | 115 53.0 +02.5 | S 12 54.6 +00.0 | 03 | | | | | | | | | | | | | | | | |
| 04 | 240 08.7 +00.8 | S 16 44.5 +00.5 | 65 50.9 +02.8 | N 13 33.1 -00.1 | 130 55.5 +02.5 | S 12 54.6 +00.0 | 04 | | | | | | | | | | | | | | | | |
| 05 | 255 09.5 +00.7 | S 16 45.0 +00.5 | 80 53.7 +02.8 | N 13 33.0 -00.1 | 145 58.0 +02.4 | S 12 54.6 +00.0 | 05 | | | | | | | | | | | | | | | | |
| 06 | 270 10.2 +00.7 | S 16 45.5 +00.5 | 95 56.5 +02.8 | N 13 32.9 -00.1 | 161 00.4 +02.5 | S 12 54.6 +00.0 | 06 | | | | | | | | | | | | | | | | |
| 07 | 285 10.9 +00.8 | S 16 46.0 +00.5 | 110 59.3 +02.8 | N 13 32.8 -00.1 | 176 02.9 +02.5 | S 12 54.6 +00.0 | 07 | | | | | | | | | | | | | | | | |
| 08 | 300 11.7 +00.7 | S 16 46.5 +00.6 | 126 02.1 +02.8 | N 13 32.7 -00.1 | 191 05.4 +02.4 | S 12 54.6 +00.0 | 08 | | | | | | | | | | | | | | | | |
| 09 | 315 12.4 +00.7 | S 16 47.1 +00.5 | 141 04.9 +02.8 | N 13 32.6 -00.1 | 206 07.8 +02.5 | S 12 54.6 +00.0 | 09 | | | | | | | | | | | | | | | | |
| 10 | 330 13.1 +00.8 | S 16 47.6 +00.5 | 156 07.7 +02.8 | N 13 32.5 -00.1 | 221 10.3 +02.4 | S 12 54.6 +00.0 | 10 | | | | | | | | | | | | | | | | |
| 11 | 345 13.9 +00.7 | S 16 48.1 +00.5 | 171 10.5 +02.8 | N 13 32.4 -00.1 | 236 12.7 +02.5 | S 12 54.6 +00.0 | 11 | | | | | | | | | | | | | | | | |
| 12 | 0 14.6 +00.7 | S 16 48.6 +00.5 | 186 13.3 +02.8 | N 13 32.3 -00.1 | 251 15.2 +02.5 | S 12 54.6 +00.0 | 12 | | | | | | | | | | | | | | | | |
| 13 | 15 15.3 +00.8 | S 16 49.1 +00.6 | 201 16.1 +02.8 | N 13 32.2 -00.1 | 266 17.7 +02.4 | S 12 54.6 +00.0 | 13 | | | | | | | | | | | | | | | | |
| 14 | 30 16.1 +00.7 | S 16 49.7 +00.5 | 216 18.9 +02.7 | N 13 32.1 -00.1 | 281 20.1 +02.5 | S 12 54.6 +00.0 | 14 | | | | | | | | | | | | | | | | |
| 15 | 45 16.8 +00.7 | S 16 50.2 +00.5 | 231 21.6 +02.8 | N 13 32.0 -00.1 | 296 22.6 +02.4 | S 12 54.6 +00.0 | 15 | | | | | | | | | | | | | | | | |
| 16 | 60 17.5 +00.7 | S 16 50.7 +00.5 | 246 24.4 +02.8 | N 13 31.9 -00.1 | 311 25.0 +02.5 | S 12 54.6 +00.0 | 16 | | | | | | | | | | | | | | | | |
| 17 | 75 18.2 +00.8 | S 16 51.2 +00.5 | 261 27.2 +02.8 | N 13 31.8 -00.1 | 326 27.5 +02.5 | S 12 54.6 +00.0 | 17 | | | | | | | | | | | | | | | | |
| 18 | 90 19.0 +00.7 | S 16 51.7 +00.6 | 276 30.0 +02.8 | N 13 31.7 -00.1 | 341 30.0 +02.4 | S 12 54.6 +00.0 | 18 | | | | | | | | | | | | | | | | |
| 19 | 105 19.7 +00.7 | S 16 52.3 +00.5 | 291 32.8 +02.8 | N 13 31.6 -00.1 | 356 32.4 +02.5 | S 12 54.6 -00.1 | 19 | | | | | | | | | | | | | | | | |
| 20 | 120 20.4 +00.8 | S 16 52.8 +00.5 | 306 35.6 +02.8 | N 13 31.5 -00.1 | 11 34.9 +02.4 | S 12 54.5 +00.0 | 20 | | | | | | | | | | | | | | | | |
| 21 | 135 21.2 +00.7 | S 16 53.3 +00.5 | 321 38.4 +02.8 | N 13 31.4 -00.1 | 26 37.3 +02.5 | S 12 54.5 +00.0 | 21 | | | | | | | | | | | | | | | | |
| 22 | 150 21.9 +00.7 | S 16 53.8 +00.5 | 336 41.2 +02.8 | N 13 31.3 -00.1 | 41 39.8 +02.5 | S 12 54.5 +00.0 | 22 | | | | | | | | | | | | | | | | |
| 23 | 165 22.6 +00.7 | S 16 54.3 +00.5 | 351 44.0 +02.8 | N 13 31.2 -00.1 | 56 42.3 +02.4 | S 12 54.5 +00.0 | 23 | | | | | | | | | | | | | | | | |
| 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°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 | | | | | | | | |
| SHA | 136° | 136° | 136° | 136° | 136° | 135° | | | SHA | 322° | 322° | 322° | 322° | 322° | 322° | | | | | | | | |
| Greenwich Culmination Time: 11:59 | | | | | | | | Greenwich Culmination Time: 23:32 | | | | | | | | Greenwich Culmination Time: 19:13 | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 184 06.3 -00.1 | S | 15 49.9 +00.7 | 226 56.5 -00.1 | N | 01 56.3 -00.9 | 260 40.0 -26.8 | N | 19 13.4 -10.8 | 00 | | | |
| 01 | 199 06.2 +00.0 | S | 15 50.6 +00.8 | 241 56.4 -00.1 | N | 01 55.4 -00.9 | 275 13.2 -26.7 | N | 19 02.6 -10.8 | 01 | | | |
| 02 | 214 06.2 +00.0 | S | 15 51.4 +00.7 | 256 56.3 -00.1 | N | 01 54.5 -00.9 | 289 46.5 -26.6 | N | 18 51.8 -10.9 | 02 | | | |
| 03 | 229 06.2 +00.0 | S | 15 52.1 +00.8 | 271 56.2 +00.0 | N | 01 53.6 -00.9 | 304 19.9 -26.5 | N | 18 40.9 -10.9 | 03 | | | |
| 04 | 244 06.2 +00.0 | S | 15 52.9 +00.7 | 286 56.2 -00.1 | N | 01 52.7 -00.9 | 318 53.4 -26.5 | N | 18 30.0 -11.0 | 04 | | | |
| 05 | 259 06.2 -00.1 | S | 15 53.6 +00.8 | 301 56.1 -00.1 | N | 01 51.8 -00.9 | 333 26.9 -26.4 | N | 18 19.0 -11.1 | 05 | | | |
| 06 | 274 06.1 +00.0 | S | 15 54.4 +00.8 | 316 56.0 -00.1 | N | 01 50.9 -00.9 | 348 00.5 -26.3 | N | 18 07.9 -11.2 | 06 | | | |
| 07 | 289 06.1 +00.0 | S | 15 55.2 +00.7 | 331 55.9 -00.1 | N | 01 50.0 -00.9 | 2 34.2 -26.3 | N | 17 56.7 -11.2 | 07 | | | |
| 08 | 304 06.1 +00.0 | S | 15 55.9 +00.8 | 346 55.8 +00.0 | N | 01 49.1 -00.9 | 17 07.9 -26.2 | N | 17 45.5 -11.3 | 08 | | | |
| 09 | 319 06.1 -00.1 | S | 15 56.7 +00.7 | 1 55.8 -00.1 | N | 01 48.2 -00.9 | 31 41.7 -26.2 | N | 17 34.2 -11.4 | 09 | | | |
| 10 | 334 06.0 +00.0 | S | 15 57.4 +00.8 | 16 55.7 -00.1 | N | 01 47.3 -00.9 | 46 15.5 -26.0 | N | 17 22.8 -11.5 | 10 | | | |
| 11 | 349 06.0 +00.0 | S | 15 58.2 +00.7 | 31 55.6 -00.1 | N | 01 46.4 -00.9 | 60 49.5 -26.1 | N | 17 11.3 -11.5 | 11 | | | |
| 12 | 4 06.0 +00.0 | S | 15 58.9 +00.7 | 46 55.5 -00.1 | N | 01 45.5 -00.9 | 75 23.4 -25.9 | N | 16 59.8 -11.5 | 12 | | | |
| 13 | 19 06.0 -00.1 | S | 15 59.6 +00.8 | 61 55.4 -00.1 | N | 01 44.6 -01.0 | 89 57.5 -25.9 | N | 16 48.3 -11.7 | 13 | | | |
| 14 | 34 05.9 +00.0 | S | 16 00.4 +00.7 | 76 55.3 +00.0 | N | 01 43.6 -00.9 | 104 31.6 -25.9 | N | 16 36.6 -11.7 | 14 | | | |
| 15 | 49 05.9 +00.0 | S | 16 01.1 +00.8 | 91 55.3 -00.1 | N | 01 42.7 -00.9 | 119 05.7 -25.8 | N | 16 24.9 -11.7 | 15 | | | |
| 16 | 64 05.9 +00.0 | S | 16 01.9 +00.7 | 106 55.2 -00.1 | N | 01 41.8 -00.9 | 133 39.9 -25.7 | N | 16 13.2 -11.8 | 16 | | | |
| 17 | 79 05.9 -00.1 | S | 16 02.6 +00.8 | 121 55.1 -00.1 | N | 01 40.9 -00.9 | 148 14.2 -25.7 | N | 16 01.4 -11.9 | 17 | | | |
| 18 | 94 05.8 +00.0 | S | 16 03.4 +00.7 | 136 55.0 -00.1 | N | 01 40.0 -00.9 | 162 48.5 -25.6 | N | 15 49.5 -12.0 | 18 | | | |
| 19 | 109 05.8 +00.0 | S | 16 04.1 +00.8 | 151 54.9 -00.1 | N | 01 39.1 -00.9 | 177 22.9 -25.6 | N | 15 37.5 -12.0 | 19 | | | |
| 20 | 124 05.8 -00.1 | S | 16 04.9 +00.7 | 166 54.8 -00.1 | N | 01 38.2 -00.9 | 191 57.3 -25.5 | N | 15 25.5 -12.0 | 20 | | | |
| 21 | 139 05.7 +00.0 | S | 16 05.6 +00.8 | 181 54.7 +00.0 | N | 01 37.3 -00.9 | 206 31.8 -25.5 | N | 15 13.5 -12.1 | 21 | | | |
| 22 | 154 05.7 +00.0 | S | 16 06.4 +00.7 | 196 54.7 -00.1 | N | 01 36.4 -01.0 | 221 06.3 -25.4 | N | 15 01.4 -12.2 | 22 | | | |
| 23 | 169 05.7 +00.0 | S | 16 07.1 +00.8 | 211 54.6 -00.1 | N | 01 35.4 -00.9 | 235 40.9 -25.3 | N | 14 49.2 -12.3 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'1 16'1 16'1 16'1 16'1 16'1 | | | SD 00'2 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 139° 139° 139° 139° 138° 138° | | | SHA 182° 182° 182° 181° 181° 181° | | | SHA 215° 213° 211° 209° 207° 205° | | | | | | |
| | Greenwich Culmination Time: 11:43 | | | Greenwich Culmination Time: 08:52 | | | Greenwich Culmination Time: 06:49 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|---------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 180 23.3 +00.8 | S | 16 54.8 +00.6 | 6 46.8 +02.8 | N | 13 31.1 -00.1 | 71 44.7 +02.5 | S | 12 54.5 +00.0 | 00 | | | |
| 01 | 195 24.1 +00.7 | S | 16 55.4 +00.5 | 21 49.6 +02.8 | N | 13 31.0 -00.1 | 86 47.2 +02.4 | S | 12 54.5 +00.0 | 01 | | | |
| 02 | 210 24.8 +00.7 | S | 16 55.9 +00.5 | 36 52.4 +02.8 | N | 13 30.9 -00.1 | 101 49.6 +02.5 | S | 12 54.5 +00.0 | 02 | | | |
| 03 | 225 25.5 +00.7 | S | 16 56.4 +00.5 | 51 55.2 +02.8 | N | 13 30.8 -00.1 | 116 52.1 +02.5 | S | 12 54.5 +00.0 | 03 | | | |
| 04 | 240 26.2 +00.8 | S | 16 56.9 +00.5 | 66 58.0 +02.8 | N | 13 30.7 -00.1 | 131 54.6 +02.4 | S | 12 54.5 +00.0 | 04 | | | |
| 05 | 255 27.0 +00.7 | S | 16 57.4 +00.5 | 82 00.8 +02.8 | N | 13 30.6 -00.2 | 146 57.0 +02.5 | S | 12 54.5 +00.0 | 05 | | | |
| 06 | 270 27.7 +00.7 | S | 16 57.9 +00.6 | 97 03.6 +02.8 | N | 13 30.4 -00.1 | 161 59.5 +02.4 | S | 12 54.5 +00.0 | 06 | | | |
| 07 | 285 28.4 +00.7 | S | 16 58.5 +00.5 | 112 06.4 +02.8 | N | 13 30.3 -00.1 | 177 01.9 +02.5 | S | 12 54.5 +00.0 | 07 | | | |
| 08 | 300 29.1 +00.8 | S | 16 59.0 +00.5 | 127 09.2 +02.8 | N | 13 30.2 -00.1 | 192 04.4 +02.4 | S | 12 54.5 +00.0 | 08 | | | |
| 09 | 315 29.9 +00.7 | S | 16 59.5 +00.5 | 142 12.0 +02.8 | N | 13 30.1 -00.1 | 207 06.8 +02.5 | S | 12 54.5 -00.1 | 09 | | | |
| 10 | 330 30.6 +00.7 | S | 17 00.0 +00.5 | 157 14.8 +02.8 | N | 13 30.0 -00.1 | 222 09.3 +02.5 | S | 12 54.4 +00.0 | 10 | | | |
| 11 | 345 31.3 +00.7 | S | 17 00.5 +00.5 | 172 17.6 +02.8 | N | 13 29.9 -00.1 | 237 11.8 +02.4 | S | 12 54.4 +00.0 | 11 | | | |
| 12 | 0 32.0 +00.8 | S | 17 01.0 +00.5 | 187 20.4 +02.8 | N | 13 29.8 -00.1 | 252 14.2 +02.5 | S | 12 54.4 +00.0 | 12 | | | |
| 13 | 15 32.8 +00.7 | S | 17 01.5 +00.6 | 202 23.2 +02.8 | N | 13 29.7 -00.1 | 267 16.7 +02.4 | S | 12 54.4 +00.0 | 13 | | | |
| 14 | 30 33.5 +00.7 | S | 17 02.1 +00.5 | 217 26.0 +02.8 | N | 13 29.6 -00.1 | 282 19.1 +02.5 | S | 12 54.4 +00.0 | 14 | | | |
| 15 | 45 34.2 +00.7 | S | 17 02.6 +00.5 | 232 28.8 +02.8 | N | 13 29.5 -00.1 | 297 21.6 +02.4 | S | 12 54.4 +00.0 | 15 | | | |
| 16 | 60 34.9 +00.8 | S | 17 03.1 +00.5 | 247 31.6 +02.8 | N | 13 29.4 -00.1 | 312 24.0 +02.5 | S | 12 54.4 +00.0 | 16 | | | |
| 17 | 75 35.7 +00.7 | S | 17 03.6 +00.5 | 262 34.4 +02.7 | N | 13 29.3 -00.1 | 327 26.5 +02.4 | S | 12 54.4 +00.0 | 17 | | | |
| 18 | 90 36.4 +00.7 | S | 17 04.1 +00.5 | 277 37.1 +02.8 | N | 13 29.2 -00.1 | 342 28.9 +02.5 | S | 12 54.4 +00.0 | 18 | | | |
| 19 | 105 37.1 +00.7 | S | 17 04.6 +00.5 | 292 39.9 +02.8 | N | 13 29.1 -00.1 | 357 31.4 +02.5 | S | 12 54.4 +00.0 | 19 | | | |
| 20 | 120 37.8 +00.7 | S | 17 05.1 +00.6 | 307 42.7 +02.8 | N | 13 29.0 -00.1 | 12 33.9 +02.4 | S | 12 54.4 +00.0 | 20 | | | |
| 21 | 135 38.5 +00.8 | S | 17 05.7 +00.5 | 322 45.5 +02.8 | N | 13 28.9 -00.1 | 27 36.3 +02.5 | S | 12 54.4 -00.1 | 21 | | | |
| 22 | 150 39.3 +00.7 | S | 17 06.2 +00.5 | 337 48.3 +02.8 | N | 13 28.8 -00.1 | 42 38.8 +02.4 | S | 12 54.3 +00.0 | 22 | | | |
| 23 | 165 40.0 +00.7 | S | 17 06.7 +00.5 | 352 51.1 +02.8 | N | 13 28.7 -00.1 | 57 41.2 +02.5 | S | 12 54.3 +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 00'1 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 135° 135° 135° 135° 135° 135° | | | SHA 322° 322° 322° 322° 322° 322° | | | SHA 027° 027° 027° 027° 027° 027° | | | | | | |
| | Greenwich Culmination Time: 11:57 | | | Greenwich Culmination Time: 23:28 | | | Greenwich Culmination Time: 19:09 | | | | | | |

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

| UT | Sun | | | | Venus | | | | Moon | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|-----------------|----------------|-----------------------------------|------|------|-------|------|------|------|-----------------------------------|--|--|--|--|--|--|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 184 05.7 -00.1 | S | 16 07.9 +00.7 | 226 54.5 -00.1 | N 01 34.5 -00.9 | 250 15.6 -25.3 | N 14 36.9 -12.2 | 00 | | | | | | | | | | | | |
| 01 | 199 05.6 +00.0 | S | 16 08.6 +00.7 | 241 54.4 -00.1 | N 01 33.6 -00.9 | 264 50.3 -25.3 | N 14 24.7 -12.4 | 01 | | | | | | | | | | | | |
| 02 | 214 05.6 +00.0 | S | 16 09.3 +00.8 | 256 54.3 -00.1 | N 01 32.7 -00.9 | 279 25.0 -25.2 | N 14 12.3 -12.4 | 02 | | | | | | | | | | | | |
| 03 | 229 05.6 -00.1 | S | 16 10.1 +00.7 | 271 54.2 -00.1 | N 01 31.8 -00.9 | 293 59.8 -25.2 | N 13 59.9 -12.4 | 03 | | | | | | | | | | | | |
| 04 | 244 05.5 +00.0 | S | 16 10.8 +00.8 | 286 54.1 -00.1 | N 01 30.9 -00.9 | 308 34.6 -25.1 | N 13 47.5 -12.5 | 04 | | | | | | | | | | | | |
| 05 | 259 05.5 +00.0 | S | 16 11.6 +00.7 | 301 54.0 -00.1 | N 01 30.0 -00.9 | 323 09.5 -25.1 | N 13 35.0 -12.6 | 05 | | | | | | | | | | | | |
| 06 | 274 05.5 -00.1 | S | 16 12.3 +00.7 | 316 53.9 +00.0 | N 01 29.1 -01.0 | 337 44.4 -25.0 | N 13 22.4 -12.6 | 06 | | | | | | | | | | | | |
| 07 | 289 05.4 +00.0 | S | 16 13.0 +00.8 | 331 53.9 -00.1 | N 01 28.1 -00.9 | 352 19.4 -25.0 | N 13 09.8 -12.7 | 07 | | | | | | | | | | | | |
| 08 | 304 05.4 +00.0 | S | 16 13.8 +00.7 | 346 53.8 -00.1 | N 01 27.2 -00.9 | 6 54.4 -25.0 | N 12 57.1 -12.7 | 08 | | | | | | | | | | | | |
| 09 | 319 05.4 -00.1 | S | 16 14.5 +00.8 | 1 53.7 -00.1 | N 01 26.3 -00.9 | 21 29.4 -24.9 | N 12 44.4 -12.7 | 09 | | | | | | | | | | | | |
| 10 | 334 05.3 +00.0 | S | 16 15.3 +00.7 | 16 53.6 -00.1 | N 01 25.4 -00.9 | 36 04.5 -24.8 | N 12 31.7 -12.8 | 10 | | | | | | | | | | | | |
| 11 | 349 05.3 +00.0 | S | 16 16.0 +00.7 | 31 53.5 -00.1 | N 01 24.5 -00.9 | 50 39.7 -24.9 | N 12 18.9 -12.9 | 11 | | | | | | | | | | | | |
| 12 | 4 05.3 -00.1 | S | 16 16.7 +00.8 | 46 53.4 -00.1 | N 01 23.6 -01.0 | 65 14.8 -24.8 | N 12 06.0 -12.9 | 12 | | | | | | | | | | | | |
| 13 | 19 05.2 +00.0 | S | 16 17.5 +00.7 | 61 53.3 -00.1 | N 01 22.6 -00.9 | 79 50.0 -24.7 | N 11 53.1 -12.9 | 13 | | | | | | | | | | | | |
| 14 | 34 05.2 +00.0 | S | 16 18.2 +00.7 | 76 53.2 -00.1 | N 01 21.7 -00.9 | 94 25.3 -24.7 | N 11 40.2 -13.0 | 14 | | | | | | | | | | | | |
| 15 | 49 05.2 -00.1 | S | 16 18.9 +00.8 | 91 53.1 -00.1 | N 01 20.8 -00.9 | 109 00.6 -24.7 | N 11 27.2 -13.1 | 15 | | | | | | | | | | | | |
| 16 | 64 05.1 +00.0 | S | 16 19.7 +00.7 | 106 53.0 -00.1 | N 01 19.9 -00.9 | 123 35.9 -24.7 | N 11 14.1 -13.1 | 16 | | | | | | | | | | | | |
| 17 | 79 05.1 +00.0 | S | 16 20.4 +00.8 | 121 52.9 -00.1 | N 01 19.0 -01.0 | 138 11.2 -24.6 | N 11 01.0 -13.1 | 17 | | | | | | | | | | | | |
| 18 | 94 05.1 -00.1 | S | 16 21.2 +00.7 | 136 52.8 -00.1 | N 01 18.0 -00.9 | 152 46.6 -24.6 | N 10 47.9 -13.2 | 18 | | | | | | | | | | | | |
| 19 | 109 05.0 +00.0 | S | 16 21.9 +00.7 | 151 52.7 +00.0 | N 01 17.1 -00.9 | 167 22.0 -24.5 | N 10 34.7 -13.2 | 19 | | | | | | | | | | | | |
| 20 | 124 05.0 +00.0 | S | 16 22.6 +00.8 | 166 52.7 -00.1 | N 01 16.2 -00.9 | 181 57.5 -24.5 | N 10 21.5 -13.2 | 20 | | | | | | | | | | | | |
| 21 | 139 05.0 -00.1 | S | 16 23.4 +00.7 | 181 52.6 -00.1 | N 01 15.3 -00.9 | 196 33.0 -24.5 | N 10 08.3 -13.3 | 21 | | | | | | | | | | | | |
| 22 | 154 04.9 +00.0 | S | 16 24.1 +00.7 | 196 52.5 -00.1 | N 01 14.4 -01.0 | 211 08.5 -24.5 | N 09 55.0 -13.4 | 22 | | | | | | | | | | | | |
| 23 | 169 04.9 -00.1 | S | 16 24.8 +00.8 | 211 52.4 -00.1 | N 01 13.4 -00.9 | 225 44.0 -24.4 | N 09 41.6 -13.3 | 23 | | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 16'1 | 16'1 | 16'1 | 16'1 | 16'1 | 16'1 | SD | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | SD | | | | | | |
| HP | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | HP | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | HP | | | | | | |
| SHA | 138° | 138° | 138° | 138° | 137° | 137° | SHA | 181° | 181° | 181° | 180° | 180° | 180° | SHA | | | | | | |
| Greenwich Culmination Time: 11:43 | | | | | | | Greenwich Culmination Time: 08:52 | | | | | | | Greenwich Culmination Time: 07:31 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|-----------------|----------------|-----------------------------------|------|--------|-------|------|------|------|-----------------------------------|--|--|--|--|--|--|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 180 40.7 +00.7 | S | 17 07.2 +00.5 | 7 53.9 +02.8 | N 13 28.6 -00.1 | 72 43.7 +02.4 | S 12 54.3 +00.0 | 00 | | | | | | | | | | | | |
| 01 | 195 41.4 +00.8 | S | 17 07.7 +00.5 | 22 56.7 +02.8 | N 13 28.5 -00.1 | 87 46.1 +02.5 | S 12 54.3 +00.0 | 01 | | | | | | | | | | | | |
| 02 | 210 42.2 +00.7 | S | 17 08.2 +00.5 | 37 59.5 +02.8 | N 13 28.4 -00.1 | 102 48.6 +02.4 | S 12 54.3 +00.0 | 02 | | | | | | | | | | | | |
| 03 | 225 42.9 +00.7 | S | 17 08.7 +00.5 | 53 02.3 +02.8 | N 13 28.3 -00.1 | 117 51.0 +02.5 | S 12 54.3 +00.0 | 03 | | | | | | | | | | | | |
| 04 | 240 43.6 +00.7 | S | 17 09.2 +00.5 | 68 05.1 +02.8 | N 13 28.2 -00.1 | 132 53.5 +02.5 | S 12 54.3 +00.0 | 04 | | | | | | | | | | | | |
| 05 | 255 44.3 +00.7 | S | 17 09.7 +00.6 | 83 07.9 +02.8 | N 13 28.1 -00.1 | 147 56.0 +02.4 | S 12 54.3 +00.0 | 05 | | | | | | | | | | | | |
| 06 | 270 45.0 +00.8 | S | 17 10.3 +00.5 | 98 10.7 +02.8 | N 13 28.0 -00.1 | 162 58.4 +02.5 | S 12 54.3 +00.0 | 06 | | | | | | | | | | | | |
| 07 | 285 45.8 +00.7 | S | 17 10.8 +00.5 | 113 13.5 +02.8 | N 13 27.9 -00.1 | 178 00.9 +02.4 | S 12 54.3 +00.0 | 07 | | | | | | | | | | | | |
| 08 | 300 46.5 +00.7 | S | 17 11.3 +00.5 | 128 16.3 +02.8 | N 13 27.8 -00.1 | 193 03.3 +02.5 | S 12 54.3 -00.1 | 08 | | | | | | | | | | | | |
| 09 | 315 47.2 +00.7 | S | 17 11.8 +00.5 | 143 19.1 +02.8 | N 13 27.7 -00.1 | 208 05.8 +02.4 | S 12 54.2 +00.0 | 09 | | | | | | | | | | | | |
| 10 | 330 47.9 +00.7 | S | 17 12.3 +00.5 | 158 21.9 +02.8 | N 13 27.6 -00.1 | 223 08.2 +02.5 | S 12 54.2 +00.0 | 10 | | | | | | | | | | | | |
| 11 | 345 48.6 +00.7 | S | 17 12.8 +00.5 | 173 24.7 +02.8 | N 13 27.5 -00.1 | 238 10.7 +02.4 | S 12 54.2 +00.0 | 11 | | | | | | | | | | | | |
| 12 | 0 49.3 +00.8 | S | 17 13.3 +00.5 | 188 27.5 +02.8 | N 13 27.4 -00.1 | 253 13.1 +02.5 | S 12 54.2 +00.0 | 12 | | | | | | | | | | | | |
| 13 | 15 50.1 +00.7 | S | 17 13.8 +00.5 | 203 30.3 +02.8 | N 13 27.3 -00.1 | 268 15.6 +02.4 | S 12 54.2 +00.0 | 13 | | | | | | | | | | | | |
| 14 | 30 50.8 +00.7 | S | 17 14.3 +00.5 | 218 33.1 +02.7 | N 13 27.2 -00.1 | 283 18.0 +02.5 | S 12 54.2 +00.0 | 14 | | | | | | | | | | | | |
| 15 | 45 51.5 +00.7 | S | 17 14.8 +00.5 | 233 35.8 +02.8 | N 13 27.1 -00.1 | 298 20.5 +02.4 | S 12 54.2 +00.0 | 15 | | | | | | | | | | | | |
| 16 | 60 52.2 +00.7 | S | 17 15.3 +00.6 | 248 38.6 +02.8 | N 13 27.0 -00.1 | 313 22.9 +02.5 | S 12 54.2 +00.0 | 16 | | | | | | | | | | | | |
| 17 | 75 52.9 +00.7 | S | 17 15.9 +00.5 | 263 41.4 +02.8 | N 13 26.9 -00.1 | 328 25.4 +02.4 | S 12 54.2 +00.0 | 17 | | | | | | | | | | | | |
| 18 | 90 53.6 +00.8 | S | 17 16.4 +00.5 | 278 44.2 +02.8 | N 13 26.8 -00.1 | 343 27.8 +02.5 | S 12 54.2 +00.0 | 18 | | | | | | | | | | | | |
| 19 | 105 54.4 +00.7 | S | 17 16.9 +00.5 | 293 47.0 +02.8 | N 13 26.7 -00.1 | 358 30.3 +02.4 | S 12 54.2 -00.1 | 19 | | | | | | | | | | | | |
| 20 | 120 55.1 +00.7 | S | 17 17.4 +00.5 | 308 49.8 +02.8 | N 13 26.6 -00.1 | 13 32.7 +02.5 | S 12 54.1 +00.0 | 20 | | | | | | | | | | | | |
| 21 | 135 55.8 +00.7 | S | 17 17.9 +00.5 | 323 52.6 +02.8 | N 13 26.5 -00.1 | 28 35.2 +02.4 | S 12 54.1 +00.0 | 21 | | | | | | | | | | | | |
| 22 | 150 56.5 +00.7 | S | 17 18.4 +00.5 | 338 55.4 +02.8 | N 13 26.4 -00.1 | 43 37.6 +02.5 | S 12 54.1 +00.0 | 22 | | | | | | | | | | | | |
| 23 | 165 57.2 +00.7 | S | 17 18.9 +00.5 | 353 58.2 +02.8 | N 13 26.3 -00.1 | 58 40.1 +02.4 | S 12 54.1 +00.0 | 23 | | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| 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 | | | | | | |
| 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 | | | | | | |
| SHA | 135° | 135° | 134° | 134° | 134° | 134° | SHA | 322° | 322° | 322° | 322° | 322° | 322° | SHA | | | | | | |
| Greenwich Culmination Time: 11:56 | | | | | | | Greenwich Culmination Time: 23:24 | | | | | | | Greenwich Culmination Time: 19:05 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|-----------------------------------|-------------------------------|-----------------|-----------------------------------|-------------------------------|----------------|-----------------------------------|-------------------------------|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 184 04.8 +00.0 | S 16 25.6 +00.7 | 226 52.3 -00.1 | N 01 12.5 -00.9 | 240 19.6 -24.5 | N 09 28.3 -13.4 | 00 | | | | | | |
| 01 | 199 04.8 +00.0 | S 16 26.3 +00.7 | 241 52.2 -00.1 | N 01 11.6 -00.9 | 254 55.1 -24.4 | N 09 14.9 -13.5 | 01 | | | | | | |
| 02 | 214 04.8 -00.1 | S 16 27.0 +00.7 | 256 52.1 -00.1 | N 01 10.7 -01.0 | 269 30.7 -24.3 | N 09 01.4 -13.5 | 02 | | | | | | |
| 03 | 229 04.7 +00.0 | S 16 27.7 +00.8 | 271 52.0 -00.1 | N 01 09.7 -00.9 | 284 06.4 -24.4 | N 08 47.9 -13.5 | 03 | | | | | | |
| 04 | 244 04.7 +00.0 | S 16 28.5 +00.7 | 286 51.9 -00.1 | N 01 08.8 -00.9 | 298 42.0 -24.3 | N 08 34.4 -13.6 | 04 | | | | | | |
| 05 | 259 04.7 -00.1 | S 16 29.2 +00.7 | 301 51.8 -00.1 | N 01 07.9 -00.9 | 313 17.7 -24.3 | N 08 20.8 -13.6 | 05 | | | | | | |
| 06 | 274 04.6 +00.0 | S 16 29.9 +00.8 | 316 51.7 -00.1 | N 01 07.0 -01.0 | 327 53.4 -24.3 | N 08 07.2 -13.6 | 06 | | | | | | |
| 07 | 289 04.6 -00.1 | S 16 30.7 +00.7 | 331 51.6 -00.1 | N 01 06.0 -00.9 | 342 29.1 -24.3 | N 07 53.6 -13.6 | 07 | | | | | | |
| 08 | 304 04.5 +00.0 | S 16 31.4 +00.7 | 346 51.5 -00.1 | N 01 05.1 -00.9 | 357 04.8 -24.2 | N 07 40.0 -13.7 | 08 | | | | | | |
| 09 | 319 04.5 -00.1 | S 16 32.1 +00.7 | 1 51.4 -00.1 | N 01 04.2 -00.9 | 11 40.6 -24.2 | N 07 26.3 -13.8 | 09 | | | | | | |
| 10 | 334 04.4 +00.0 | S 16 32.8 +00.8 | 16 51.3 -00.1 | N 01 03.3 -01.0 | 26 16.4 -24.3 | N 07 12.5 -13.7 | 10 | | | | | | |
| 11 | 349 04.4 +00.0 | S 16 33.6 +00.7 | 31 51.2 -00.1 | N 01 02.3 -00.9 | 40 52.1 -24.2 | N 06 58.8 -13.8 | 11 | | | | | | |
| 12 | 4 04.4 -00.1 | S 16 34.3 +00.7 | 46 51.1 -00.1 | N 01 01.4 -00.9 | 55 27.9 -24.2 | N 06 45.0 -13.9 | 12 | | | | | | |
| 13 | 19 04.3 +00.0 | S 16 35.0 +00.8 | 61 51.0 -00.1 | N 01 00.5 -00.9 | 70 03.7 -24.1 | N 06 31.1 -13.8 | 13 | | | | | | |
| 14 | 34 04.3 -00.1 | S 16 35.8 +00.7 | 76 50.9 -00.1 | N 00 59.6 -01.0 | 84 39.6 -24.2 | N 06 17.3 -13.9 | 14 | | | | | | |
| 15 | 49 04.2 +00.0 | S 16 36.5 +00.7 | 91 50.8 -00.1 | N 00 58.6 -00.9 | 99 15.4 -24.2 | N 06 03.4 -13.9 | 15 | | | | | | |
| 16 | 64 04.2 -00.1 | S 16 37.2 +00.7 | 106 50.7 -00.1 | N 00 57.7 -00.9 | 113 51.2 -24.1 | N 05 49.5 -13.9 | 16 | | | | | | |
| 17 | 79 04.1 +00.0 | S 16 37.9 +00.7 | 121 50.6 -00.1 | N 00 56.8 -01.0 | 128 27.1 -24.2 | N 05 35.6 -14.0 | 17 | | | | | | |
| 18 | 94 04.1 +00.0 | S 16 38.6 +00.8 | 136 50.5 -00.1 | N 00 55.8 -00.9 | 143 02.9 -24.1 | N 05 21.6 -14.0 | 18 | | | | | | |
| 19 | 109 04.1 -00.1 | S 16 39.4 +00.7 | 151 50.4 -00.1 | N 00 54.9 -00.9 | 157 38.8 -24.1 | N 05 07.6 -14.0 | 19 | | | | | | |
| 20 | 124 04.0 +00.0 | S 16 40.1 +00.7 | 166 50.3 -00.1 | N 00 54.0 -01.0 | 172 14.7 -24.2 | N 04 53.6 -14.1 | 20 | | | | | | |
| 21 | 139 04.0 -00.1 | S 16 40.8 +00.7 | 181 50.2 -00.1 | N 00 53.0 -00.9 | 186 50.5 -24.1 | N 04 39.5 -14.0 | 21 | | | | | | |
| 22 | 154 03.9 +00.0 | S 16 41.5 +00.8 | 196 50.1 -00.1 | N 00 52.1 -00.9 | 201 26.4 -24.1 | N 04 25.5 -14.1 | 22 | | | | | | |
| 23 | 169 03.9 -00.1 | S 16 42.3 +00.7 | 211 50.0 -00.1 | N 00 51.2 -01.0 | 216 02.3 -24.1 | N 04 11.4 -14.1 | 23 | | | | | | |
| UT | 02 06 10 14 18 22 | | UT | 02 06 10 14 18 22 | | UT | 02 06 10 14 18 22 | | | | | | |
| SD | 16'1 16'1 16'1 16'1 16'1 16'1 | | SD | 00'2 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 | 137° 137° 137° 137° 136° 136° | | SHA | 180° 180° 180° 179° 179° 179° | | SHA | 193° 191° 189° 187° 185° 184° | | | | | | |
| Greenwich Culmination Time: 11:43 | | | Greenwich Culmination Time: 08:52 | | | Greenwich Culmination Time: 08:12 | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|-----------------------------------|-------------------------------|-----------------|-----------------------------------|-------------------------------|----------------|-----------------------------------|-------------------------------|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 180 57.9 +00.8 | S 17 19.4 +00.5 | 9 01.0 +02.8 | N 13 26.2 -00.1 | 73 42.5 +02.5 | S 12 54.1 +00.0 | 00 | | | | | | |
| 01 | 195 58.7 +00.7 | S 17 19.9 +00.5 | 24 03.8 +02.8 | N 13 26.1 -00.1 | 88 45.0 +02.4 | S 12 54.1 +00.0 | 01 | | | | | | |
| 02 | 210 59.4 +00.7 | S 17 20.4 +00.5 | 39 06.6 +02.8 | N 13 26.0 -00.1 | 103 47.4 +02.5 | S 12 54.1 +00.0 | 02 | | | | | | |
| 03 | 226 00.1 +00.7 | S 17 20.9 +00.5 | 54 09.4 +02.8 | N 13 25.9 -00.1 | 118 49.9 +02.4 | S 12 54.1 +00.0 | 03 | | | | | | |
| 04 | 241 00.8 +00.7 | S 17 21.4 +00.5 | 69 12.2 +02.8 | N 13 25.8 -00.1 | 133 52.3 +02.5 | S 12 54.1 +00.0 | 04 | | | | | | |
| 05 | 256 01.5 +00.7 | S 17 21.9 +00.5 | 84 15.0 +02.8 | N 13 25.7 -00.1 | 148 54.8 +02.4 | S 12 54.1 -00.1 | 05 | | | | | | |
| 06 | 271 02.2 +00.7 | S 17 22.4 +00.5 | 99 17.8 +02.8 | N 13 25.6 -00.1 | 163 57.2 +02.5 | S 12 54.0 +00.0 | 06 | | | | | | |
| 07 | 286 02.9 +00.8 | S 17 22.9 +00.5 | 114 20.6 +02.8 | N 13 25.5 -00.1 | 178 59.7 +02.4 | S 12 54.0 +00.0 | 07 | | | | | | |
| 08 | 301 03.7 +00.7 | S 17 23.4 +00.6 | 129 23.4 +02.7 | N 13 25.4 -00.1 | 194 02.1 +02.5 | S 12 54.0 +00.0 | 08 | | | | | | |
| 09 | 316 04.4 +00.7 | S 17 24.0 +00.5 | 144 26.1 +02.8 | N 13 25.3 -00.1 | 209 04.6 +02.4 | S 12 54.0 +00.0 | 09 | | | | | | |
| 10 | 331 05.1 +00.7 | S 17 24.5 +00.5 | 159 28.9 +02.8 | N 13 25.2 -00.1 | 224 07.0 +02.5 | S 12 54.0 +00.0 | 10 | | | | | | |
| 11 | 346 05.8 +00.7 | S 17 25.0 +00.5 | 174 31.7 +02.8 | N 13 25.1 -00.1 | 239 09.5 +02.4 | S 12 54.0 +00.0 | 11 | | | | | | |
| 12 | 1 06.5 +00.7 | S 17 25.5 +00.5 | 189 34.5 +02.8 | N 13 25.0 -00.1 | 254 11.9 +02.5 | S 12 54.0 +00.0 | 12 | | | | | | |
| 13 | 16 07.2 +00.7 | S 17 26.0 +00.5 | 204 37.3 +02.8 | N 13 24.9 -00.1 | 269 14.4 +02.4 | S 12 54.0 +00.0 | 13 | | | | | | |
| 14 | 31 07.9 +00.7 | S 17 26.5 +00.5 | 219 40.1 +02.8 | N 13 24.8 -00.1 | 284 16.8 +02.5 | S 12 54.0 -00.1 | 14 | | | | | | |
| 15 | 46 08.6 +00.8 | S 17 27.0 +00.5 | 234 42.9 +02.8 | N 13 24.7 -00.1 | 299 19.3 +02.4 | S 12 53.9 +00.0 | 15 | | | | | | |
| 16 | 61 09.4 +00.7 | S 17 27.5 +00.5 | 249 45.7 +02.8 | N 13 24.6 -00.1 | 314 21.7 +02.5 | S 12 53.9 +00.0 | 16 | | | | | | |
| 17 | 76 10.1 +00.7 | S 17 28.0 +00.5 | 264 48.5 +02.8 | N 13 24.5 -00.1 | 329 24.2 +02.4 | S 12 53.9 +00.0 | 17 | | | | | | |
| 18 | 91 10.8 +00.7 | S 17 28.5 +00.5 | 279 51.3 +02.8 | N 13 24.4 -00.1 | 344 26.6 +02.5 | S 12 53.9 +00.0 | 18 | | | | | | |
| 19 | 106 11.5 +00.7 | S 17 29.0 +00.5 | 294 54.1 +02.8 | N 13 24.3 -00.1 | 359 29.1 +02.4 | S 12 53.9 +00.0 | 19 | | | | | | |
| 20 | 121 12.2 +00.7 | S 17 29.5 +00.5 | 309 56.9 +02.8 | N 13 24.2 -00.1 | 14 31.5 +02.5 | S 12 53.9 +00.0 | 20 | | | | | | |
| 21 | 136 12.9 +00.7 | S 17 30.0 +00.5 | 324 59.7 +02.8 | N 13 24.1 -00.1 | 29 34.0 +02.4 | S 12 53.9 +00.0 | 21 | | | | | | |
| 22 | 151 13.6 +00.7 | S 17 30.5 +00.5 | 340 02.5 +02.8 | N 13 24.0 -00.1 | 44 36.4 +02.5 | S 12 53.9 +00.0 | 22 | | | | | | |
| 23 | 166 14.3 +00.7 | S 17 31.0 +00.5 | 355 05.3 +02.7 | N 13 23.9 -00.1 | 59 38.9 +02.4 | S 12 53.9 -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 | 00'1 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 | 134° 134° 134° 134° 134° 133° | | SHA | 322° 322° 322° 322° 322° 322° | | SHA | 027° 027° 027° 027° 027° 027° | | | | | | |
| Greenwich Culmination Time: 11:55 | | | Greenwich Culmination Time: 23:19 | | | Greenwich Culmination Time: 19:02 | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon A: 88% | | | | UT | | | | | | | |
|-----------------------------------|------|------------|-----------------|------|-------|------------|-----------------------------------|------|--|------------|-----------------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 184 | 03.8 +00.0 | S 16 43.0 +00.7 | | 226 | 49.9 -00.1 | N 00 50.2 -00.9 | | 230 | 38.2 -24.2 | N 03 57.3 -14.2 | | 00 | | | | | | | |
| 01 | 199 | 03.8 -00.1 | S 16 43.7 +00.7 | | 241 | 49.8 -00.2 | N 00 49.3 -00.9 | | 245 | 14.0 -24.1 | N 03 43.1 -14.1 | | 01 | | | | | | | |
| 02 | 214 | 03.7 +00.0 | S 16 44.4 +00.7 | | 256 | 49.6 -00.1 | N 00 48.4 -00.9 | | 259 | 49.9 -24.1 | N 03 29.0 -14.2 | | 02 | | | | | | | |
| 03 | 229 | 03.7 -00.1 | S 16 45.1 +00.8 | | 271 | 49.5 -00.1 | N 00 47.5 -01.0 | | 274 | 25.8 -24.1 | N 03 14.8 -14.2 | | 03 | | | | | | | |
| 04 | 244 | 03.6 +00.0 | S 16 45.9 +00.7 | | 286 | 49.4 -00.1 | N 00 46.5 -00.9 | | 289 | 01.7 -24.2 | N 03 00.6 -14.2 | | 04 | | | | | | | |
| 05 | 259 | 03.6 -00.1 | S 16 46.6 +00.7 | | 301 | 49.3 -00.1 | N 00 45.6 -01.0 | | 303 | 37.5 -24.1 | N 02 46.4 -14.3 | | 05 | | | | | | | |
| 06 | 274 | 03.5 +00.0 | S 16 47.3 +00.7 | | 316 | 49.2 -00.1 | N 00 44.6 -00.9 | | 318 | 13.4 -24.2 | N 02 32.1 -14.2 | | 06 | | | | | | | |
| 07 | 289 | 03.5 -00.1 | S 16 48.0 +00.7 | | 331 | 49.1 -00.1 | N 00 43.7 -00.9 | | 332 | 49.2 -24.1 | N 02 17.9 -14.3 | | 07 | | | | | | | |
| 08 | 304 | 03.4 +00.0 | S 16 48.7 +00.7 | | 346 | 49.0 -00.1 | N 00 42.8 -01.0 | | 347 | 25.1 -24.2 | N 02 03.6 -14.3 | | 08 | | | | | | | |
| 09 | 319 | 03.4 -00.1 | S 16 49.4 +00.8 | | 1 | 48.9 -00.1 | N 00 41.8 -00.9 | | 2 | 00.9 -24.2 | N 01 49.3 -14.3 | | 09 | | | | | | | |
| 10 | 334 | 03.3 +00.0 | S 16 50.2 +00.7 | | 16 | 48.8 -00.1 | N 00 40.9 -00.9 | | 16 | 36.7 -24.2 | N 01 35.0 -14.3 | | 10 | | | | | | | |
| 11 | 349 | 03.3 -00.1 | S 16 50.9 +00.7 | | 31 | 48.7 -00.1 | N 00 40.0 -01.0 | | 31 | 12.5 -24.2 | N 01 20.7 -14.3 | | 11 | | | | | | | |
| 12 | 4 | 03.2 +00.0 | S 16 51.6 +00.7 | | 46 | 48.6 -00.1 | N 00 39.0 -00.9 | | 45 | 48.3 -24.2 | N 01 06.4 -14.4 | | 12 | | | | | | | |
| 13 | 19 | 03.2 -00.1 | S 16 52.3 +00.7 | | 61 | 48.5 -00.1 | N 00 38.1 -00.9 | | 60 | 24.1 -24.2 | N 00 52.0 -14.3 | | 13 | | | | | | | |
| 14 | 34 | 03.1 +00.0 | S 16 53.0 +00.7 | | 76 | 48.4 -00.1 | N 00 37.2 -01.0 | | 74 | 59.9 -24.2 | N 00 37.7 -14.4 | | 14 | | | | | | | |
| 15 | 49 | 03.1 -00.1 | S 16 53.7 +00.7 | | 91 | 48.3 -00.2 | N 00 36.2 -00.9 | | 89 | 35.7 -24.3 | N 00 23.3 -14.4 | | 15 | | | | | | | |
| 16 | 64 | 03.0 +00.0 | S 16 54.4 +00.8 | | 106 | 48.1 -00.1 | N 00 35.3 -01.0 | | 104 | 11.4 -24.3 | N 00 08.9 -14.4 | | 16 | | | | | | | |
| 17 | 79 | 03.0 -00.1 | S 16 55.2 +00.7 | | 121 | 48.0 -00.1 | N 00 34.3 -00.9 | | 118 | 47.1 -24.3 | S 00 05.5 +14.4 | | 17 | | | | | | | |
| 18 | 94 | 02.9 +00.0 | S 16 55.9 +00.7 | | 136 | 47.9 -00.1 | N 00 33.4 -00.9 | | 133 | 22.8 -24.3 | S 00 19.9 +14.4 | | 18 | | | | | | | |
| 19 | 109 | 02.9 -00.1 | S 16 56.6 +00.7 | | 151 | 47.8 -00.1 | N 00 32.5 -01.0 | | 147 | 58.5 -24.3 | S 00 34.3 +14.4 | | 19 | | | | | | | |
| 20 | 124 | 02.8 -00.1 | S 16 57.3 +00.7 | | 166 | 47.7 -00.1 | N 00 31.5 -00.9 | | 162 | 34.2 -24.4 | S 00 48.7 +14.4 | | 20 | | | | | | | |
| 21 | 139 | 02.7 +00.0 | S 16 58.0 +00.7 | | 181 | 47.6 -00.1 | N 00 30.6 -00.9 | | 177 | 09.8 -24.4 | S 01 03.1 +14.5 | | 21 | | | | | | | |
| 22 | 154 | 02.7 -00.1 | S 16 58.7 +00.7 | | 196 | 47.5 -00.1 | N 00 29.7 -01.0 | | 191 | 45.4 -24.4 | S 01 17.6 +14.4 | | 22 | | | | | | | |
| 23 | 169 | 02.6 +00.0 | S 16 59.4 +00.7 | | 211 | 47.4 -00.1 | N 00 28.7 -00.9 | | 206 | 21.0 -24.4 | S 01 32.0 +14.4 | | 23 | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 16°1 | 16°1 | 16°1 | 16°1 | 16°1 | 16°1 | SD | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | SD | 14°9 | 14°9 | 14°9 | 14°9 | 14°9 | 14°9 |
| HP | 00°1 | 00°1 | 00°1 | 00°1 | 00°1 | 00°1 | HP | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | 00°2 | HP | 54°5 | 54°6 | 54°7 | 54°7 | 54°8 | 54°9 |
| SHA | 136° | 136° | 136° | 136° | 135° | 135° | SHA | 179° | 179° | 178° | 178° | 178° | 178° | SHA | 182° | 180° | 178° | 177° | 175° | 173° |
| Greenwich Culmination Time: 11:43 | | | | | | | Greenwich Culmination Time: 08:52 | | | | | | | Greenwich Culmination Time: 08:51 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | | | | | | | |
|-----------------------------------|------|------------|-----------------|------|---------|------------|-----------------------------------|------|--------|------------|-----------------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 181 | 15.0 +00.7 | S 17 31.5 +00.5 | | 10 | 08.0 +02.8 | N 13 23.8 -00.1 | | 74 | 41.3 +02.4 | S 12 53.8 +00.0 | | 00 | | | | | | | |
| 01 | 196 | 15.7 +00.7 | S 17 32.0 +00.5 | | 25 | 10.8 +02.8 | N 13 23.7 -00.1 | | 89 | 43.7 +02.5 | S 12 53.8 +00.0 | | 01 | | | | | | | |
| 02 | 211 | 16.4 +00.8 | S 17 32.5 +00.5 | | 40 | 13.6 +02.8 | N 13 23.6 -00.1 | | 104 | 46.2 +02.4 | S 12 53.8 +00.0 | | 02 | | | | | | | |
| 03 | 226 | 17.2 +00.7 | S 17 33.0 +00.5 | | 55 | 16.4 +02.8 | N 13 23.5 -00.1 | | 119 | 48.6 +02.5 | S 12 53.8 +00.0 | | 03 | | | | | | | |
| 04 | 241 | 17.9 +00.7 | S 17 33.5 +00.5 | | 70 | 19.2 +02.8 | N 13 23.4 -00.1 | | 134 | 51.1 +02.4 | S 12 53.8 +00.0 | | 04 | | | | | | | |
| 05 | 256 | 18.6 +00.7 | S 17 34.0 +00.5 | | 85 | 22.0 +02.8 | N 13 23.3 -00.1 | | 149 | 53.5 +02.5 | S 12 53.8 +00.0 | | 05 | | | | | | | |
| 06 | 271 | 19.3 +00.7 | S 17 34.5 +00.5 | | 100 | 24.8 +02.8 | N 13 23.2 -00.1 | | 164 | 56.0 +02.4 | S 12 53.8 +00.0 | | 06 | | | | | | | |
| 07 | 286 | 20.0 +00.7 | S 17 35.0 +00.5 | | 115 | 27.6 +02.8 | N 13 23.1 -00.1 | | 179 | 58.4 +02.5 | S 12 53.8 -00.1 | | 07 | | | | | | | |
| 08 | 301 | 20.7 +00.7 | S 17 35.5 +00.5 | | 130 | 30.4 +02.8 | N 13 23.0 -00.1 | | 195 | 00.9 +02.4 | S 12 53.7 +00.0 | | 08 | | | | | | | |
| 09 | 316 | 21.4 +00.7 | S 17 36.0 +00.5 | | 145 | 33.2 +02.8 | N 13 22.9 -00.1 | | 210 | 03.3 +02.5 | S 12 53.7 +00.0 | | 09 | | | | | | | |
| 10 | 331 | 22.1 +00.7 | S 17 36.5 +00.5 | | 160 | 36.0 +02.8 | N 13 22.8 -00.1 | | 225 | 05.8 +02.4 | S 12 53.7 +00.0 | | 10 | | | | | | | |
| 11 | 346 | 22.8 +00.7 | S 17 37.0 +00.5 | | 175 | 38.8 +02.8 | N 13 22.7 -00.1 | | 240 | 08.2 +02.4 | S 12 53.7 +00.0 | | 11 | | | | | | | |
| 12 | 1 | 23.5 +00.7 | S 17 37.5 +00.5 | | 190 | 41.6 +02.7 | N 13 22.6 -00.1 | | 255 | 10.6 +02.5 | S 12 53.7 +00.0 | | 12 | | | | | | | |
| 13 | 16 | 24.2 +00.7 | S 17 38.0 +00.5 | | 205 | 44.3 +02.8 | N 13 22.5 -00.1 | | 270 | 13.1 +02.4 | S 12 53.7 +00.0 | | 13 | | | | | | | |
| 14 | 31 | 24.9 +00.7 | S 17 38.5 +00.5 | | 220 | 47.1 +02.8 | N 13 22.4 -00.1 | | 285 | 15.5 +02.5 | S 12 53.7 +00.0 | | 14 | | | | | | | |
| 15 | 46 | 25.6 +00.7 | S 17 39.0 +00.5 | | 235 | 49.9 +02.8 | N 13 22.3 -00.1 | | 300 | 18.0 +02.4 | S 12 53.7 -00.1 | | 15 | | | | | | | |
| 16 | 61 | 26.3 +00.7 | S 17 39.5 +00.5 | | 250 | 52.7 +02.8 | N 13 22.2 -00.1 | | 315 | 20.4 +02.5 | S 12 53.6 +00.0 | | 16 | | | | | | | |
| 17 | 76 | 27.0 +00.7 | S 17 40.0 +00.5 | | 265 | 55.5 +02.8 | N 13 22.1 -00.1 | | 330 | 22.9 +02.4 | S 12 53.6 +00.0 | | 17 | | | | | | | |
| 18 | 91 | 27.7 +00.8 | S 17 40.5 +00.5 | | 280 | 58.3 +02.8 | N 13 22.0 -00.1 | | 345 | 25.3 +02.5 | S 12 53.6 +00.0 | | 18 | | | | | | | |
| 19 | 106 | 28.5 +00.7 | S 17 41.0 +00.5 | | 296 | 01.1 +02.8 | N 13 21.9 -00.1 | | 0 | 27.8 +02.4 | S 12 53.6 +00.0 | | 19 | | | | | | | |
| 20 | 121 | 29.2 +00.7 | S 17 41.5 +00.5 | | 311 | 03.9 +02.8 | N 13 21.8 -00.1 | | 15 | 30.2 +02.4 | S 12 53.6 +00.0 | | 20 | | | | | | | |
| 21 | 136 | 29.9 +00.7 | S 17 42.0 +00.4 | | 326 | 06.7 +02.8 | N 13 21.7 -00.1 | | 30 | 32.6 +02.5 | S 12 53.6 +00.0 | | 21 | | | | | | | |
| 22 | 151 | 30.6 +00.7 | S 17 42.4 +00.5 | | 341 | 09.5 +02.8 | N 13 21.6 -00.1 | | 45 | 35.1 +02.4 | S 12 53.6 +00.0 | | 22 | | | | | | | |
| 23 | 166 | 31.3 +00.7 | S 17 42.9 +00.5 | | 356 | 12.3 +02.8 | N 13 21.5 -00.1 | | 60 | 37.5 +02.5 | S 12 53.6 -00.1 | | 23 | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| 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 | 133° | 133° | 133° | 133° | 133° | 133° | SHA | 322° | 322° | 322° | 322° | 322° | 322° | SHA | 027° | 027° | 027° | 027° | 027° | 027° |
| Greenwich Culmination Time: 11:54 | | | | | | | Greenwich Culmination Time: 23:15 | | | | | | | Greenwich Culmination Time: 18:58 | | | | | | |

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|-------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 184 02.6 -00.1 | S | 17 00.1 +00.7 | 226 47.3 -00.2 | N 00 27.8 -01.0 | 220 56.6 -24.5 | S 01 46.4 +14.5 | 00 | | | | | |
| 01 | 199 02.5 +00.0 | S | 17 00.8 +00.7 | 241 47.1 -00.1 | N 00 26.8 -00.9 | 235 32.1 -24.5 | S 02 00.9 +14.4 | 01 | | | | | |
| 02 | 214 02.5 -00.1 | S | 17 01.5 +00.7 | 256 47.0 -00.1 | N 00 25.9 -01.0 | 250 07.6 -24.5 | S 02 15.3 +14.5 | 02 | | | | | |
| 03 | 229 02.4 +00.0 | S | 17 02.2 +00.8 | 271 46.9 -00.1 | N 00 24.9 -00.9 | 264 43.1 -24.5 | S 02 29.8 +14.4 | 03 | | | | | |
| 04 | 244 02.4 -00.1 | S | 17 03.0 +00.7 | 286 46.8 -00.1 | N 00 24.0 -00.9 | 279 18.6 -24.6 | S 02 44.2 +14.5 | 04 | | | | | |
| 05 | 259 02.3 -00.1 | S | 17 03.7 +00.7 | 301 46.7 -00.1 | N 00 23.1 -01.0 | 293 54.0 -24.6 | S 02 58.7 +14.4 | 05 | | | | | |
| 06 | 274 02.2 +00.0 | S | 17 04.4 +00.7 | 316 46.6 -00.1 | N 00 22.1 -00.9 | 308 29.4 -24.7 | S 03 13.1 +14.5 | 06 | | | | | |
| 07 | 289 02.2 -00.1 | S | 17 05.1 +00.7 | 331 46.5 -00.2 | N 00 21.2 -01.0 | 323 04.7 -24.7 | S 03 27.6 +14.5 | 07 | | | | | |
| 08 | 304 02.1 +00.0 | S | 17 05.8 +00.7 | 346 46.3 -00.1 | N 00 20.2 -00.9 | 337 40.0 -24.7 | S 03 42.1 +14.4 | 08 | | | | | |
| 09 | 319 02.1 -00.1 | S | 17 06.5 +00.7 | 1 46.2 -00.1 | N 00 19.3 -01.0 | 352 15.3 -24.8 | S 03 56.5 +14.5 | 09 | | | | | |
| 10 | 334 02.0 -00.1 | S | 17 07.2 +00.7 | 16 46.1 -00.1 | N 00 18.3 -00.9 | 6 50.5 -24.8 | S 04 11.0 +14.4 | 10 | | | | | |
| 11 | 349 01.9 +00.0 | S | 17 07.9 +00.7 | 31 46.0 -00.1 | N 00 17.4 -00.9 | 21 25.7 -24.8 | S 04 25.4 +14.4 | 11 | | | | | |
| 12 | 4 01.9 -00.1 | S | 17 08.6 +00.7 | 46 45.9 -00.1 | N 00 16.5 -01.0 | 36 00.9 -24.9 | S 04 39.8 +14.5 | 12 | | | | | |
| 13 | 19 01.8 +00.0 | S | 17 09.3 +00.7 | 61 45.8 -00.2 | N 00 15.5 -00.9 | 50 36.0 -24.9 | S 04 54.3 +14.4 | 13 | | | | | |
| 14 | 34 01.8 -00.1 | S | 17 10.0 +00.7 | 76 45.6 -00.1 | N 00 14.6 -01.0 | 65 11.1 -25.0 | S 05 08.7 +14.4 | 14 | | | | | |
| 15 | 49 01.7 -00.1 | S | 17 10.7 +00.7 | 91 45.5 -00.1 | N 00 13.6 -00.9 | 79 46.1 -25.0 | S 05 23.1 +14.4 | 15 | | | | | |
| 16 | 64 01.6 +00.0 | S | 17 11.4 +00.7 | 106 45.4 -00.1 | N 00 12.7 -01.0 | 94 21.1 -25.0 | S 05 37.5 +14.4 | 16 | | | | | |
| 17 | 79 01.6 -00.1 | S | 17 12.1 +00.7 | 121 45.3 -00.1 | N 00 11.7 -00.9 | 108 56.1 -25.1 | S 05 51.9 +14.4 | 17 | | | | | |
| 18 | 94 01.5 -00.1 | S | 17 12.8 +00.7 | 136 45.2 -00.2 | N 00 10.8 -01.0 | 123 31.0 -25.2 | S 06 06.3 +14.4 | 18 | | | | | |
| 19 | 109 01.4 +00.0 | S | 17 13.5 +00.7 | 151 45.0 -00.1 | N 00 09.8 -00.9 | 138 05.8 -25.1 | S 06 20.7 +14.3 | 19 | | | | | |
| 20 | 124 01.4 -00.1 | S | 17 14.2 +00.7 | 166 44.9 -00.1 | N 00 08.9 -01.0 | 152 40.7 -25.3 | S 06 35.0 +14.4 | 20 | | | | | |
| 21 | 139 01.3 +00.0 | S | 17 14.9 +00.7 | 181 44.8 -00.1 | N 00 07.9 -00.9 | 167 15.4 -25.3 | S 06 49.4 +14.3 | 21 | | | | | |
| 22 | 154 01.3 -00.1 | S | 17 15.6 +00.7 | 196 44.7 -00.1 | N 00 07.0 -01.0 | 181 50.1 -25.3 | S 07 03.7 +14.3 | 22 | | | | | |
| 23 | 169 01.2 -00.1 | S | 17 16.3 +00.7 | 211 44.6 -00.2 | N 00 06.0 -00.9 | 196 24.8 -25.4 | S 07 18.0 +14.3 | 23 | | | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | | |
| | SD 16'1 16'1 16'1 16'1 16'2 16'2 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | | 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 00'2 00'2 00'2 00'2 00'2 00'2 | | | | HP 54'9 55'0 55'1 55'2 55'2 55'3 | | | | | |
| | SHA 135° 135° 135° 135° 134° 134° | | | SHA 178° 178° 177° 177° 177° 177° | | | | SHA 171° 169° 168° 166° 164° 162° | | | | | |
| | Greenwich Culmination Time: 11:43 | | | Greenwich Culmination Time: 08:52 | | | | Greenwich Culmination Time: 09:31 | | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-----------------|----------------|-----------------|-----------------------------------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 181 32.0 +00.7 | S | 17 43.4 +00.5 | 11 15.1 +02.7 | N 13 21.4 -00.1 | 75 40.0 +02.4 | S 12 53.5 +00.0 | 00 | | | | | |
| 01 | 196 32.7 +00.7 | S | 17 43.9 +00.5 | 26 17.8 +02.8 | N 13 21.3 -00.1 | 90 42.4 +02.4 | S 12 53.5 +00.0 | 01 | | | | | |
| 02 | 211 33.4 +00.7 | S | 17 44.4 +00.5 | 41 20.6 +02.8 | N 13 21.2 -00.1 | 105 44.8 +02.5 | S 12 53.5 +00.0 | 02 | | | | | |
| 03 | 226 34.1 +00.7 | S | 17 44.9 +00.5 | 56 23.4 +02.8 | N 13 21.1 -00.1 | 120 47.3 +02.4 | S 12 53.5 +00.0 | 03 | | | | | |
| 04 | 241 34.8 +00.7 | S | 17 45.4 +00.5 | 71 26.2 +02.8 | N 13 21.0 -00.1 | 135 49.7 +02.5 | S 12 53.5 +00.0 | 04 | | | | | |
| 05 | 256 35.5 +00.7 | S | 17 45.9 +00.5 | 86 29.0 +02.8 | N 13 20.9 -00.1 | 150 52.2 +02.4 | S 12 53.5 +00.0 | 05 | | | | | |
| 06 | 271 36.2 +00.7 | S | 17 46.4 +00.5 | 101 31.8 +02.8 | N 13 20.8 -00.1 | 165 54.6 +02.5 | S 12 53.5 -00.1 | 06 | | | | | |
| 07 | 286 36.9 +00.7 | S | 17 46.9 +00.5 | 116 34.6 +02.8 | N 13 20.7 -00.1 | 180 57.1 +02.4 | S 12 53.4 +00.0 | 07 | | | | | |
| 08 | 301 37.6 +00.7 | S | 17 47.4 +00.5 | 131 37.4 +02.8 | N 13 20.6 -00.1 | 195 59.5 +02.4 | S 12 53.4 +00.0 | 08 | | | | | |
| 09 | 316 38.3 +00.7 | S | 17 47.9 +00.5 | 146 40.2 +02.8 | N 13 20.5 -00.1 | 211 01.9 +02.5 | S 12 53.4 +00.0 | 09 | | | | | |
| 10 | 331 39.0 +00.7 | S | 17 48.4 +00.5 | 161 43.0 +02.8 | N 13 20.4 -00.1 | 226 04.4 +02.4 | S 12 53.4 +00.0 | 10 | | | | | |
| 11 | 346 39.7 +00.7 | S | 17 48.9 +00.5 | 176 45.8 +02.7 | N 13 20.3 -00.1 | 241 06.8 +02.5 | S 12 53.4 +00.0 | 11 | | | | | |
| 12 | 1 40.4 +00.7 | S | 17 49.4 +00.5 | 191 48.5 +02.8 | N 13 20.2 -00.1 | 256 09.3 +02.4 | S 12 53.4 +00.0 | 12 | | | | | |
| 13 | 16 41.1 +00.7 | S | 17 49.9 +00.4 | 206 51.3 +02.8 | N 13 20.1 -00.1 | 271 11.7 +02.4 | S 12 53.4 -00.1 | 13 | | | | | |
| 14 | 31 41.8 +00.7 | S | 17 50.3 +00.5 | 221 54.1 +02.8 | N 13 20.0 -00.1 | 286 14.1 +02.5 | S 12 53.3 +00.0 | 14 | | | | | |
| 15 | 46 42.5 +00.7 | S | 17 50.8 +00.5 | 236 56.9 +02.8 | N 13 19.9 -00.1 | 301 16.6 +02.4 | S 12 53.3 +00.0 | 15 | | | | | |
| 16 | 61 43.2 +00.7 | S | 17 51.3 +00.5 | 251 59.7 +02.8 | N 13 19.8 -00.1 | 316 19.0 +02.5 | S 12 53.3 +00.0 | 16 | | | | | |
| 17 | 76 43.9 +00.7 | S | 17 51.8 +00.5 | 267 02.5 +02.8 | N 13 19.7 -00.1 | 331 21.5 +02.4 | S 12 53.3 +00.0 | 17 | | | | | |
| 18 | 91 44.6 +00.7 | S | 17 52.3 +00.5 | 282 05.3 +02.8 | N 13 19.6 -00.1 | 346 23.9 +02.4 | S 12 53.3 +00.0 | 18 | | | | | |
| 19 | 106 45.3 +00.7 | S | 17 52.8 +00.5 | 297 08.1 +02.8 | N 13 19.5 -00.1 | 1 26.3 +02.5 | S 12 53.3 +00.0 | 19 | | | | | |
| 20 | 121 46.0 +00.7 | S | 17 53.3 +00.5 | 312 10.9 +02.8 | N 13 19.4 -00.1 | 16 28.8 +02.4 | S 12 53.3 -00.1 | 20 | | | | | |
| 21 | 136 46.7 +00.7 | S | 17 53.8 +00.5 | 327 13.7 +02.7 | N 13 19.3 -00.1 | 31 31.2 +02.4 | S 12 53.2 +00.0 | 21 | | | | | |
| 22 | 151 47.4 +00.7 | S | 17 54.3 +00.5 | 342 16.4 +02.8 | N 13 19.2 -00.1 | 46 33.6 +02.5 | S 12 53.2 +00.0 | 22 | | | | | |
| 23 | 166 48.1 +00.7 | S | 17 54.8 +00.5 | 357 19.2 +02.8 | N 13 19.1 -00.1 | 61 36.1 +02.4 | S 12 53.2 +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 00'1 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 133° 132° 132° 132° 132° 132° | | | SHA 322° 322° 322° 322° 322° 322° | | | | SHA 027° 027° 027° 027° 027° 027° | | | | | |
| | Greenwich Culmination Time: 11:53 | | | Greenwich Culmination Time: 23:10 | | | | Greenwich Culmination Time: 18:54 | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|-----------------|----------------|-----------------------------------|------|------|-------|------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 184 01.1 +00.0 | S | 17 17.0 +00.7 | 226 44.4 -00.1 | N 00 05.1 -01.0 | 210 59.4 -25.5 | S 07 32.3 +14.3 | 00 | | | | | | | | | | | | |
| 01 | 199 01.1 -00.1 | S | 17 17.7 +00.7 | 241 44.3 -00.1 | N 00 04.1 -00.9 | 225 33.9 -25.5 | S 07 46.6 +14.3 | 01 | | | | | | | | | | | | |
| 02 | 214 01.0 -00.1 | S | 17 18.4 +00.7 | 256 44.2 -00.1 | N 00 03.2 -01.0 | 240 08.4 -25.6 | S 08 00.9 +14.2 | 02 | | | | | | | | | | | | |
| 03 | 229 00.9 +00.0 | S | 17 19.1 +00.7 | 271 44.1 -00.1 | N 00 02.2 -00.9 | 254 42.8 -25.6 | S 08 15.1 +14.2 | 03 | | | | | | | | | | | | |
| 04 | 244 00.9 -00.1 | S | 17 19.8 +00.7 | 286 44.0 -00.2 | N 00 01.3 -01.0 | 269 17.2 -25.7 | S 08 29.3 +14.2 | 04 | | | | | | | | | | | | |
| 05 | 259 00.8 -00.1 | S | 17 20.5 +00.7 | 301 43.8 -00.1 | N 00 00.3 -00.9 | 283 51.5 -25.7 | S 08 43.5 +14.2 | 05 | | | | | | | | | | | | |
| 06 | 274 00.7 +00.0 | S | 17 21.2 +00.6 | 316 43.7 -00.1 | S 00 00.6 +01.0 | 298 25.8 -25.8 | S 08 57.7 +14.2 | 06 | | | | | | | | | | | | |
| 07 | 289 00.7 -00.1 | S | 17 21.8 +00.7 | 331 43.6 -00.1 | S 00 01.6 +00.9 | 312 60.0 -25.9 | S 09 11.9 +14.1 | 07 | | | | | | | | | | | | |
| 08 | 304 00.6 -00.1 | S | 17 22.5 +00.7 | 346 43.5 -00.2 | S 00 02.5 +01.0 | 327 34.1 -25.9 | S 09 26.0 +14.1 | 08 | | | | | | | | | | | | |
| 09 | 319 00.5 +00.0 | S | 17 23.2 +00.7 | 1 43.3 -00.1 | S 00 03.5 +00.9 | 342 08.2 -26.0 | S 09 40.1 +14.1 | 09 | | | | | | | | | | | | |
| 10 | 334 00.5 -00.1 | S | 17 23.9 +00.7 | 16 43.2 -00.1 | S 00 04.4 +01.0 | 356 42.2 -26.1 | S 09 54.2 +14.1 | 10 | | | | | | | | | | | | |
| 11 | 349 00.4 -00.1 | S | 17 24.6 +00.7 | 31 43.1 -00.1 | S 00 05.4 +00.9 | 11 16.1 -26.1 | S 10 08.3 +14.0 | 11 | | | | | | | | | | | | |
| 12 | 4 00.3 -00.1 | S | 17 25.3 +00.7 | 46 43.0 -00.2 | S 00 06.3 +01.0 | 25 50.0 -26.2 | S 10 22.3 +14.0 | 12 | | | | | | | | | | | | |
| 13 | 19 00.2 +00.0 | S | 17 26.0 +00.7 | 61 42.8 -00.1 | S 00 07.3 +00.9 | 40 23.8 -26.2 | S 10 36.3 +13.9 | 13 | | | | | | | | | | | | |
| 14 | 34 00.2 -00.1 | S | 17 26.7 +00.7 | 76 42.7 -00.1 | S 00 08.2 +01.0 | 54 57.6 -26.4 | S 10 50.2 +14.0 | 14 | | | | | | | | | | | | |
| 15 | 49 00.1 -00.1 | S | 17 27.4 +00.7 | 91 42.6 -00.1 | S 00 09.2 +00.9 | 69 31.2 -26.4 | S 11 04.2 +13.9 | 15 | | | | | | | | | | | | |
| 16 | 64 00.0 +00.0 | S | 17 28.1 +00.6 | 106 42.5 -00.2 | S 00 10.1 +01.0 | 84 04.8 -26.4 | S 11 18.1 +13.8 | 16 | | | | | | | | | | | | |
| 17 | 78 60.0 -00.1 | S | 17 28.7 +00.7 | 121 42.3 -00.1 | S 00 11.1 +01.0 | 98 38.4 -26.6 | S 11 31.9 +13.8 | 17 | | | | | | | | | | | | |
| 18 | 93 59.9 -00.1 | S | 17 29.4 +00.7 | 136 42.2 -00.1 | S 00 12.1 +00.9 | 113 11.8 -26.6 | S 11 45.7 +13.8 | 18 | | | | | | | | | | | | |
| 19 | 108 59.8 -00.1 | S | 17 30.1 +00.7 | 151 42.1 -00.1 | S 00 13.0 +01.0 | 127 45.2 -26.7 | S 11 59.5 +13.8 | 19 | | | | | | | | | | | | |
| 20 | 123 59.7 +00.0 | S | 17 30.8 +00.7 | 166 42.0 -00.2 | S 00 14.0 +00.9 | 142 18.5 -26.8 | S 12 13.3 +13.7 | 20 | | | | | | | | | | | | |
| 21 | 138 59.7 -00.1 | S | 17 31.5 +00.7 | 181 41.8 -00.1 | S 00 14.9 +01.0 | 156 51.7 -26.8 | S 12 27.0 +13.7 | 21 | | | | | | | | | | | | |
| 22 | 153 59.6 -00.1 | S | 17 32.2 +00.7 | 196 41.7 -00.1 | S 00 15.9 +00.9 | 171 24.9 -27.0 | S 12 40.7 +13.6 | 22 | | | | | | | | | | | | |
| 23 | 168 59.5 +00.0 | S | 17 32.9 +00.6 | 211 41.6 -00.2 | S 00 16.8 +01.0 | 185 57.9 -27.0 | S 12 54.3 +13.6 | 23 | | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 16'2 | 16'2 | 16'2 | 16'2 | 16'2 | 16'2 | SD | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | SD | 15'1 | 15'1 | 15'1 | 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 | 55'4 | 55'5 | 55'6 | 55'7 | 55'8 | 55'9 |
| SHA | 134° | 134° | 134° | 134° | 133° | 133° | SHA | 177° | 177° | 176° | 176° | 176° | 176° | SHA | 160° | 158° | 156° | 155° | 153° | 151° |
| Greenwich Culmination Time: 11:43 | | | | | | | Greenwich Culmination Time: 08:53 | | | | | | | Greenwich Culmination Time: 10:13 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|-----------------|----------------|-----------------------------------|------|--------|-------|------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 181 48.8 +00.7 | S | 17 55.3 +00.4 | 12 22.0 +02.8 | N 13 19.0 -00.1 | 76 38.5 +02.5 | S 12 53.2 +00.0 | 00 | | | | | | | | | | | | |
| 01 | 196 49.5 +00.7 | S | 17 55.7 +00.5 | 27 24.8 +02.8 | N 13 18.9 -00.1 | 91 41.0 +02.4 | S 12 53.2 +00.0 | 01 | | | | | | | | | | | | |
| 02 | 211 50.2 +00.7 | S | 17 56.2 +00.5 | 42 27.6 +02.8 | N 13 18.8 -00.1 | 106 43.4 +02.4 | S 12 53.2 +00.0 | 02 | | | | | | | | | | | | |
| 03 | 226 50.9 +00.7 | S | 17 56.7 +00.5 | 57 30.4 +02.8 | N 13 18.7 -00.1 | 121 45.8 +02.5 | S 12 53.2 -00.1 | 03 | | | | | | | | | | | | |
| 04 | 241 51.6 +00.6 | S | 17 57.2 +00.5 | 72 33.2 +02.8 | N 13 18.6 -00.1 | 136 48.3 +02.4 | S 12 53.1 +00.0 | 04 | | | | | | | | | | | | |
| 05 | 256 52.2 +00.7 | S | 17 57.7 +00.5 | 87 36.0 +02.8 | N 13 18.5 -00.1 | 151 50.7 +02.5 | S 12 53.1 +00.0 | 05 | | | | | | | | | | | | |
| 06 | 271 52.9 +00.7 | S | 17 58.2 +00.5 | 102 38.8 +02.7 | N 13 18.4 -00.1 | 166 53.2 +02.4 | S 12 53.1 +00.0 | 06 | | | | | | | | | | | | |
| 07 | 286 53.6 +00.7 | S | 17 58.7 +00.5 | 117 41.5 +02.8 | N 13 18.3 -00.1 | 181 55.6 +02.4 | S 12 53.1 +00.0 | 07 | | | | | | | | | | | | |
| 08 | 301 54.3 +00.7 | S | 17 59.2 +00.5 | 132 44.3 +02.8 | N 13 18.2 -00.1 | 196 58.0 +02.5 | S 12 53.1 +00.0 | 08 | | | | | | | | | | | | |
| 09 | 316 55.0 +00.7 | S | 17 59.7 +00.4 | 147 47.1 +02.8 | N 13 18.1 -00.1 | 212 00.5 +02.4 | S 12 53.1 +00.0 | 09 | | | | | | | | | | | | |
| 10 | 331 55.7 +00.7 | S | 18 00.1 +00.5 | 162 49.9 +02.8 | N 13 18.0 -00.1 | 227 02.9 +02.4 | S 12 53.1 -00.1 | 10 | | | | | | | | | | | | |
| 11 | 346 56.4 +00.7 | S | 18 00.6 +00.5 | 177 52.7 +02.8 | N 13 17.9 -00.1 | 242 05.3 +02.5 | S 12 53.0 +00.0 | 11 | | | | | | | | | | | | |
| 12 | 1 57.1 +00.7 | S | 18 01.1 +00.5 | 192 55.5 +02.8 | N 13 17.8 -00.1 | 257 07.8 +02.4 | S 12 53.0 +00.0 | 12 | | | | | | | | | | | | |
| 13 | 16 57.8 +00.7 | S | 18 01.6 +00.5 | 207 58.3 +02.8 | N 13 17.7 -00.1 | 272 10.2 +02.4 | S 12 53.0 +00.0 | 13 | | | | | | | | | | | | |
| 14 | 31 58.5 +00.7 | S | 18 02.1 +00.5 | 223 01.1 +02.8 | N 13 17.6 -00.1 | 287 12.6 +02.5 | S 12 53.0 +00.0 | 14 | | | | | | | | | | | | |
| 15 | 46 59.2 +00.7 | S | 18 02.6 +00.5 | 238 03.9 +02.7 | N 13 17.5 -00.1 | 302 15.1 +02.4 | S 12 53.0 +00.0 | 15 | | | | | | | | | | | | |
| 16 | 61 59.9 +00.7 | S | 18 03.1 +00.4 | 253 06.6 +02.8 | N 13 17.4 -00.1 | 317 17.5 +02.4 | S 12 53.0 -00.1 | 16 | | | | | | | | | | | | |
| 17 | 77 00.6 +00.7 | S | 18 03.5 +00.5 | 268 09.4 +02.8 | N 13 17.3 -00.1 | 332 19.9 +02.5 | S 12 52.9 +00.0 | 17 | | | | | | | | | | | | |
| 18 | 92 01.3 +00.7 | S | 18 04.0 +00.5 | 283 12.2 +02.8 | N 13 17.2 -00.1 | 347 22.4 +02.4 | S 12 52.9 +00.0 | 18 | | | | | | | | | | | | |
| 19 | 107 02.0 +00.7 | S | 18 04.5 +00.5 | 298 15.0 +02.8 | N 13 17.1 -00.1 | 2 24.8 +02.4 | S 12 52.9 +00.0 | 19 | | | | | | | | | | | | |
| 20 | 122 02.7 +00.6 | S | 18 05.0 +00.5 | 313 17.8 +02.8 | N 13 17.0 -00.1 | 17 27.2 +02.5 | S 12 52.9 +00.0 | 20 | | | | | | | | | | | | |
| 21 | 137 03.3 +00.7 | S | 18 05.5 +00.5 | 328 20.6 +02.8 | N 13 16.9 -00.1 | 32 29.7 +02.4 | S 12 52.9 +00.0 | 21 | | | | | | | | | | | | |
| 22 | 152 04.0 +00.7 | S | 18 06.0 +00.4 | 343 23.4 +02.8 | N 13 16.8 -00.1 | 47 32.1 +02.5 | S 12 52.9 -00.1 | 22 | | | | | | | | | | | | |
| 23 | 167 04.7 +00.7 | S | 18 06.4 +00.5 | 358 26.2 +02.7 | N 13 16.7 -00.1 | 62 34.6 +02.4 | S 12 52.8 +00.0 | 23 | | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| 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 | 132° | 132° | 132° | 132° | 131° | 131° | SHA | 322° | 323° | 323° | 323° | 323° | 323° | SHA | 027° | 027° | 027° | 027° | 027° | 027° |
| Greenwich Culmination Time: 11:52 | | | | | | | Greenwich Culmination Time: 23:06 | | | | | | | Greenwich Culmination Time: 18:50 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|--|----------------|-------|---------------|--|---------|---------------|----------------|--|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 59.5 -00.1 | S | 17 33.5 +00.7 | 226 41.4 -00.1 | S | 00 17.8 +01.0 | 200 30.9 -27.1 | S | 13 07.9 +13.5 | 00 | | | |
| 01 | 198 59.4 -00.1 | S | 17 34.2 +00.7 | 241 41.3 -00.1 | S | 00 18.8 +00.9 | 215 03.8 -27.1 | S | 13 21.4 +13.5 | 01 | | | |
| 02 | 213 59.3 -00.1 | S | 17 34.9 +00.7 | 256 41.2 -00.1 | S | 00 19.7 +01.0 | 229 36.7 -27.3 | S | 13 34.9 +13.4 | 02 | | | |
| 03 | 228 59.2 +00.0 | S | 17 35.6 +00.7 | 271 41.1 -00.2 | S | 00 20.7 +00.9 | 244 09.4 -27.3 | S | 13 48.3 +13.4 | 03 | | | |
| 04 | 243 59.2 -00.1 | S | 17 36.3 +00.7 | 286 40.9 -00.1 | S | 00 21.6 +01.0 | 258 42.1 -27.4 | S | 14 01.7 +13.4 | 04 | | | |
| 05 | 258 59.1 -00.1 | S | 17 37.0 +00.6 | 301 40.8 -00.1 | S | 00 22.6 +00.9 | 273 14.7 -27.5 | S | 14 15.1 +13.3 | 05 | | | |
| 06 | 273 59.0 -00.1 | S | 17 37.6 +00.7 | 316 40.7 -00.2 | S | 00 23.5 +01.0 | 287 47.2 -27.6 | S | 14 28.4 +13.2 | 06 | | | |
| 07 | 288 58.9 +00.0 | S | 17 38.3 +00.7 | 331 40.5 -00.1 | S | 00 24.5 +01.0 | 302 19.6 -27.7 | S | 14 41.6 +13.2 | 07 | | | |
| 08 | 303 58.9 -00.1 | S | 17 39.0 +00.7 | 346 40.4 -00.1 | S | 00 25.5 +00.9 | 316 51.9 -27.8 | S | 14 54.8 +13.2 | 08 | | | |
| 09 | 318 58.8 -00.1 | S | 17 39.7 +00.7 | 1 40.3 -00.2 | S | 00 26.4 +01.0 | 331 24.1 -27.8 | S | 15 08.0 +13.1 | 09 | | | |
| 10 | 333 58.7 -00.1 | S | 17 40.4 +00.6 | 16 40.1 -00.1 | S | 00 27.4 +00.9 | 345 56.3 -28.0 | S | 15 21.1 +13.0 | 10 | | | |
| 11 | 348 58.6 -00.1 | S | 17 41.0 +00.7 | 31 40.0 -00.1 | S | 00 28.3 +01.0 | 0 28.3 -28.0 | S | 15 34.1 +12.9 | 11 | | | |
| 12 | 3 58.5 +00.0 | S | 17 41.7 +00.7 | 46 39.9 -00.2 | S | 00 29.3 +01.0 | 15 00.3 -28.1 | S | 15 47.0 +13.0 | 12 | | | |
| 13 | 18 58.5 -00.1 | S | 17 42.4 +00.7 | 61 39.7 -00.1 | S | 00 30.3 +00.9 | 29 32.2 -28.2 | S | 15 60.0 +12.8 | 13 | | | |
| 14 | 33 58.4 -00.1 | S | 17 43.1 +00.6 | 76 39.6 -00.1 | S | 00 31.2 +01.0 | 44 04.0 -28.3 | S | 16 12.8 +12.8 | 14 | | | |
| 15 | 48 58.3 -00.1 | S | 17 43.7 +00.7 | 91 39.5 -00.2 | S | 00 32.2 +01.0 | 58 35.7 -28.4 | S | 16 25.6 +12.7 | 15 | | | |
| 16 | 63 58.2 -00.1 | S | 17 44.4 +00.7 | 106 39.3 -00.1 | S | 00 33.2 +00.9 | 73 07.3 -28.5 | S | 16 38.3 +12.7 | 16 | | | |
| 17 | 78 58.1 +00.0 | S | 17 45.1 +00.7 | 121 39.2 -00.1 | S | 00 34.1 +01.0 | 87 38.8 -28.6 | S | 16 51.0 +12.5 | 17 | | | |
| 18 | 93 58.1 -00.1 | S | 17 45.8 +00.6 | 136 39.1 -00.2 | S | 00 35.1 +00.9 | 102 10.2 -28.7 | S | 17 03.5 +12.6 | 18 | | | |
| 19 | 108 58.0 -00.1 | S | 17 46.4 +00.7 | 151 38.9 -00.1 | S | 00 36.0 +01.0 | 116 41.5 -28.8 | S | 17 16.1 +12.4 | 19 | | | |
| 20 | 123 57.9 -00.1 | S | 17 47.1 +00.7 | 166 38.8 -00.1 | S | 00 37.0 +01.0 | 131 12.7 -28.9 | S | 17 28.5 +12.4 | 20 | | | |
| 21 | 138 57.8 -00.1 | S | 17 47.8 +00.7 | 181 38.7 -00.2 | S | 00 38.0 +00.9 | 145 43.8 -29.0 | S | 17 40.9 +12.3 | 21 | | | |
| 22 | 153 57.7 +00.0 | S | 17 48.5 +00.6 | 196 38.5 -00.1 | S | 00 38.9 +01.0 | 160 14.8 -29.1 | S | 17 53.2 +12.2 | 22 | | | |
| 23 | 168 57.7 -00.1 | S | 17 49.1 +00.7 | 211 38.4 -00.1 | S | 00 39.9 +01.0 | 174 45.7 -29.2 | S | 18 05.4 +12.2 | 23 | | | |
| UT 02 06 10 14 18 22 SD 16'2 16'2 16'2 16'2 16'2 16'2 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 133° 133° 133° 133° 132° 132° Greenwich Culmination Time: 11:44 | | | | UT 02 06 10 14 18 22 SD 00'2 00'2 00'2 00'2 00'2 00'2 HP 00'2 00'2 00'2 00'2 00'2 00'2 SHA 176° 176° 175° 175° 175° 175° Greenwich Culmination Time: 08:53 | | | | UT 02 06 10 14 18 22 SD 15'2 15'3 15'3 15'3 15'3 15'4 HP 56'0 56'1 56'1 56'2 56'3 56'4 SHA 149° 147° 145° 143° 141° 138° Greenwich Culmination Time: 10:58 | | | | | |
| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 05.4 +00.7 | S | 18 06.9 +00.5 | 13 28.9 +02.8 | N | 13 16.6 -00.1 | 77 37.0 +02.4 | S | 12 52.8 +00.0 | 00 | | | |
| 01 | 197 06.1 +00.7 | S | 18 07.4 +00.5 | 28 31.7 +02.8 | N | 13 16.5 -00.1 | 92 39.4 +02.5 | S | 12 52.8 +00.0 | 01 | | | |
| 02 | 212 06.8 +00.7 | S | 18 07.9 +00.5 | 43 34.5 +02.8 | N | 13 16.4 -00.1 | 107 41.9 +02.4 | S | 12 52.8 +00.0 | 02 | | | |
| 03 | 227 07.5 +00.7 | S | 18 08.4 +00.5 | 58 37.3 +02.8 | N | 13 16.3 -00.1 | 122 44.3 +02.4 | S | 12 52.8 +00.0 | 03 | | | |
| 04 | 242 08.2 +00.7 | S | 18 08.9 +00.4 | 73 40.1 +02.8 | N | 13 16.2 -00.1 | 137 46.7 +02.5 | S | 12 52.8 -00.1 | 04 | | | |
| 05 | 257 08.9 +00.7 | S | 18 09.3 +00.5 | 88 42.9 +02.8 | N | 13 16.1 -00.1 | 152 49.2 +02.4 | S | 12 52.7 +00.0 | 05 | | | |
| 06 | 272 09.6 +00.6 | S | 18 09.8 +00.5 | 103 45.7 +02.7 | N | 13 16.0 -00.1 | 167 51.6 +02.4 | S | 12 52.7 +00.0 | 06 | | | |
| 07 | 287 10.2 +00.7 | S | 18 10.3 +00.5 | 118 48.4 +02.8 | N | 13 15.9 -00.1 | 182 54.0 +02.5 | S | 12 52.7 +00.0 | 07 | | | |
| 08 | 302 10.9 +00.7 | S | 18 10.8 +00.5 | 133 51.2 +02.8 | N | 13 15.8 -00.1 | 197 56.5 +02.4 | S | 12 52.7 +00.0 | 08 | | | |
| 09 | 317 11.6 +00.7 | S | 18 11.3 +00.5 | 148 54.0 +02.8 | N | 13 15.7 -00.1 | 212 58.9 +02.4 | S | 12 52.7 +00.0 | 09 | | | |
| 10 | 332 12.3 +00.7 | S | 18 11.8 +00.4 | 163 56.8 +02.8 | N | 13 15.6 -00.1 | 228 01.3 +02.4 | S | 12 52.7 -00.1 | 10 | | | |
| 11 | 347 13.0 +00.7 | S | 18 12.2 +00.5 | 178 59.6 +02.8 | N | 13 15.5 -00.1 | 243 03.7 +02.5 | S | 12 52.6 +00.0 | 11 | | | |
| 12 | 2 13.7 +00.7 | S | 18 12.7 +00.5 | 194 02.4 +02.8 | N | 13 15.4 -00.1 | 258 06.2 +02.4 | S | 12 52.6 +00.0 | 12 | | | |
| 13 | 17 14.4 +00.7 | S | 18 13.2 +00.5 | 209 05.2 +02.8 | N | 13 15.3 -00.1 | 273 08.6 +02.4 | S | 12 52.6 +00.0 | 13 | | | |
| 14 | 32 15.1 +00.7 | S | 18 13.7 +00.5 | 224 08.0 +02.7 | N | 13 15.2 -00.1 | 288 11.0 +02.5 | S | 12 52.6 +00.0 | 14 | | | |
| 15 | 47 15.8 +00.6 | S | 18 14.2 +00.4 | 239 10.7 +02.8 | N | 13 15.1 -00.1 | 303 13.5 +02.4 | S | 12 52.6 +00.0 | 15 | | | |
| 16 | 62 16.4 +00.7 | S | 18 14.6 +00.5 | 254 13.5 +02.8 | N | 13 15.0 -00.1 | 318 15.9 +02.4 | S | 12 52.6 -00.1 | 16 | | | |
| 17 | 77 17.1 +00.7 | S | 18 15.1 +00.5 | 269 16.3 +02.8 | N | 13 14.9 -00.1 | 333 18.3 +02.5 | S | 12 52.5 +00.0 | 17 | | | |
| 18 | 92 17.8 +00.7 | S | 18 15.6 +00.5 | 284 19.1 +02.8 | N | 13 14.8 -00.1 | 348 20.8 +02.4 | S | 12 52.5 +00.0 | 18 | | | |
| 19 | 107 18.5 +00.7 | S | 18 16.1 +00.5 | 299 21.9 +02.8 | N | 13 14.7 -00.1 | 3 23.2 +02.4 | S | 12 52.5 +00.0 | 19 | | | |
| 20 | 122 19.2 +00.7 | S | 18 16.6 +00.4 | 314 24.7 +02.7 | N | 13 14.6 -00.1 | 18 25.6 +02.5 | S | 12 52.5 +00.0 | 20 | | | |
| 21 | 137 19.9 +00.7 | S | 18 17.0 +00.5 | 329 27.4 +02.8 | N | 13 14.5 -00.1 | 33 28.1 +02.4 | S | 12 52.5 +00.0 | 21 | | | |
| 22 | 152 20.6 +00.6 | S | 18 17.5 +00.5 | 344 30.2 +02.8 | N | 13 14.4 -00.1 | 48 30.5 +02.4 | S | 12 52.5 -00.1 | 22 | | | |
| 23 | 167 21.2 +00.7 | S | 18 18.0 +00.5 | 359 33.0 +02.8 | N | 13 14.3 -00.1 | 63 32.9 +02.4 | S | 12 52.4 +00.0 | 23 | | | |
| UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 131° 131° 131° 131° 131° 131° Greenwich Culmination Time: 11:51 | | | | 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 323° 323° 323° 323° 323° 323° Greenwich Culmination Time: 23:01 | | | | 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 027° 027° 027° 027° 027° 027° Greenwich Culmination Time: 18:46 | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|-------|---------------|-----------------------------------|------|---------------|-------|------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 183 57.6 -00.1 | S | 17 49.8 +00.7 | 226 38.3 -00.2 | S | 00 40.9 +00.9 | 189 16.5 -29.3 | S | 18 17.6 +12.1 | 00 | | | | | | | | | | |
| 01 | 198 57.5 -00.1 | S | 17 50.5 +00.6 | 241 38.1 -00.1 | S | 00 41.8 +01.0 | 203 47.2 -29.3 | S | 18 29.7 +11.9 | 01 | | | | | | | | | | |
| 02 | 213 57.4 -00.1 | S | 17 51.1 +00.7 | 256 38.0 -00.2 | S | 00 42.8 +01.0 | 218 17.9 -29.5 | S | 18 41.6 +12.0 | 02 | | | | | | | | | | |
| 03 | 228 57.3 -00.1 | S | 17 51.8 +00.7 | 271 37.8 -00.1 | S | 00 43.8 +00.9 | 232 48.4 -29.6 | S | 18 53.6 +11.8 | 03 | | | | | | | | | | |
| 04 | 243 57.2 +00.0 | S | 17 52.5 +00.7 | 286 37.7 -00.1 | S | 00 44.7 +01.0 | 247 18.8 -29.7 | S | 19 05.4 +11.8 | 04 | | | | | | | | | | |
| 05 | 258 57.2 -00.1 | S | 17 53.2 +00.6 | 301 37.6 -00.2 | S | 00 45.7 +01.0 | 261 49.1 -29.8 | S | 19 17.2 +11.6 | 05 | | | | | | | | | | |
| 06 | 273 57.1 -00.1 | S | 17 53.8 +00.7 | 316 37.4 -00.1 | S | 00 46.7 +00.9 | 276 19.3 -29.9 | S | 19 28.8 +11.6 | 06 | | | | | | | | | | |
| 07 | 288 57.0 -00.1 | S | 17 54.5 +00.7 | 331 37.3 -00.2 | S | 00 47.6 +01.0 | 290 49.4 -30.0 | S | 19 40.4 +11.5 | 07 | | | | | | | | | | |
| 08 | 303 56.9 -00.1 | S | 17 55.2 +00.6 | 346 37.1 -00.1 | S | 00 48.6 +01.0 | 305 19.4 -30.1 | S | 19 51.9 +11.4 | 08 | | | | | | | | | | |
| 09 | 318 56.8 -00.1 | S | 17 55.8 +00.7 | 1 37.0 -00.1 | S | 00 49.6 +00.9 | 319 49.3 -30.3 | S | 20 03.3 +11.3 | 09 | | | | | | | | | | |
| 10 | 333 56.7 -00.1 | S | 17 56.5 +00.7 | 16 36.9 -00.2 | S | 00 50.5 +01.0 | 334 19.0 -30.3 | S | 20 14.6 +11.3 | 10 | | | | | | | | | | |
| 11 | 348 56.6 -00.1 | S | 17 57.2 +00.6 | 31 36.7 -00.1 | S | 00 51.5 +01.0 | 348 48.7 -30.4 | S | 20 25.9 +11.1 | 11 | | | | | | | | | | |
| 12 | 3 56.5 +00.0 | S | 17 57.8 +00.7 | 46 36.6 -00.2 | S | 00 52.5 +00.9 | 3 18.3 -30.6 | S | 20 37.0 +11.0 | 12 | | | | | | | | | | |
| 13 | 18 56.5 -00.1 | S | 17 58.5 +00.6 | 61 36.4 -00.1 | S | 00 53.4 +01.0 | 17 47.7 -30.6 | S | 20 48.0 +11.0 | 13 | | | | | | | | | | |
| 14 | 33 56.4 -00.1 | S | 17 59.1 +00.7 | 76 36.3 -00.1 | S | 00 54.4 +01.0 | 32 17.1 -30.7 | S | 20 59.0 +10.8 | 14 | | | | | | | | | | |
| 15 | 48 56.3 -00.1 | S | 17 59.8 +00.7 | 91 36.2 -00.2 | S | 00 55.4 +00.9 | 46 46.4 -30.9 | S | 21 09.8 +10.7 | 15 | | | | | | | | | | |
| 16 | 63 56.2 -00.1 | S | 18 00.5 +00.6 | 106 36.0 -00.1 | S | 00 56.3 +01.0 | 61 15.5 -31.0 | S | 21 20.5 +10.7 | 16 | | | | | | | | | | |
| 17 | 78 56.1 -00.1 | S | 18 01.1 +00.7 | 121 35.9 -00.2 | S | 00 57.3 +01.0 | 75 44.5 -31.0 | S | 21 31.2 +10.5 | 17 | | | | | | | | | | |
| 18 | 93 56.0 -00.1 | S | 18 01.8 +00.7 | 136 35.7 -00.1 | S | 00 58.3 +00.9 | 90 13.5 -31.2 | S | 21 41.7 +10.4 | 18 | | | | | | | | | | |
| 19 | 108 55.9 -00.1 | S | 18 02.5 +00.6 | 151 35.6 -00.2 | S | 00 59.2 +01.0 | 104 42.3 -31.3 | S | 21 52.1 +10.4 | 19 | | | | | | | | | | |
| 20 | 123 55.8 -00.1 | S | 18 03.1 +00.7 | 166 35.4 -00.1 | S | 01 00.2 +01.0 | 119 11.0 -31.4 | S | 22 02.5 +10.2 | 20 | | | | | | | | | | |
| 21 | 138 55.7 +00.0 | S | 18 03.8 +00.6 | 181 35.3 -00.1 | S | 01 01.2 +01.0 | 133 39.6 -31.5 | S | 22 12.7 +10.1 | 21 | | | | | | | | | | |
| 22 | 153 55.7 -00.1 | S | 18 04.4 +00.7 | 196 35.2 -00.2 | S | 01 02.2 +00.9 | 148 08.1 -31.6 | S | 22 22.8 +10.0 | 22 | | | | | | | | | | |
| 23 | 168 55.6 -00.1 | S | 18 05.1 +00.7 | 211 35.0 -00.1 | S | 01 03.1 +01.0 | 162 36.5 -31.8 | S | 22 32.8 +09.9 | 23 | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 16'2 | 16'2 | 16'2 | 16'2 | 16'2 | 16'2 | SD | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | 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 | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | HP | 56'5 | 56'6 | 56'7 | 56'8 | 56'9 | 57'0 |
| SHA | 132° | 132° | 132° | 132° | 131° | 131° | SHA | 175° | 175° | 174° | 174° | 174° | 174° | SHA | 136° | 134° | 132° | 130° | 128° | 125° |
| Greenwich Culmination Time: 11:44 | | | | | | | Greenwich Culmination Time: 08:53 | | | | | | | Greenwich Culmination Time: 11:46 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|---------|---------------|-----------------------------------|------|---------------|-------|------|------|------|-----------------------------------|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 182 21.9 +00.7 | S | 18 18.5 +00.4 | 14 35.8 +02.8 | N | 13 14.2 -00.1 | 78 35.3 +02.5 | S | 12 52.4 +00.0 | 00 | | | | | | | | | | |
| 01 | 197 22.6 +00.7 | S | 18 18.9 +00.5 | 29 38.6 +02.8 | N | 13 14.1 -00.1 | 93 37.8 +02.4 | S | 12 52.4 +00.0 | 01 | | | | | | | | | | |
| 02 | 212 23.3 +00.7 | S | 18 19.4 +00.5 | 44 41.4 +02.8 | N | 13 14.0 -00.1 | 108 40.2 +02.4 | S | 12 52.4 +00.0 | 02 | | | | | | | | | | |
| 03 | 227 24.0 +00.7 | S | 18 19.9 +00.5 | 59 44.2 +02.7 | N | 13 13.9 -00.1 | 123 42.6 +02.5 | S | 12 52.4 -00.1 | 03 | | | | | | | | | | |
| 04 | 242 24.7 +00.6 | S | 18 20.4 +00.5 | 74 46.9 +02.8 | N | 13 13.8 -00.1 | 138 45.1 +02.4 | S | 12 52.3 +00.0 | 04 | | | | | | | | | | |
| 05 | 257 25.3 +00.7 | S | 18 20.9 +00.4 | 89 49.7 +02.8 | N | 13 13.7 -00.1 | 153 47.5 +02.4 | S | 12 52.3 +00.0 | 05 | | | | | | | | | | |
| 06 | 272 26.0 +00.7 | S | 18 21.3 +00.5 | 104 52.5 +02.8 | N | 13 13.6 -00.1 | 168 49.9 +02.5 | S | 12 52.3 +00.0 | 06 | | | | | | | | | | |
| 07 | 287 26.7 +00.7 | S | 18 21.8 +00.5 | 119 55.3 +02.8 | N | 13 13.5 -00.1 | 183 52.4 +02.4 | S | 12 52.3 +00.0 | 07 | | | | | | | | | | |
| 08 | 302 27.4 +00.7 | S | 18 22.3 +00.5 | 134 58.1 +02.8 | N | 13 13.4 -00.1 | 198 54.8 +02.4 | S | 12 52.3 +00.0 | 08 | | | | | | | | | | |
| 09 | 317 28.1 +00.7 | S | 18 22.8 +00.4 | 150 00.9 +02.7 | N | 13 13.3 +00.0 | 213 57.2 +02.4 | S | 12 52.3 -00.1 | 09 | | | | | | | | | | |
| 10 | 332 28.8 +00.6 | S | 18 23.2 +00.5 | 165 03.6 +02.8 | N | 13 13.3 -00.1 | 228 59.6 +02.5 | S | 12 52.2 +00.0 | 10 | | | | | | | | | | |
| 11 | 347 29.4 +00.7 | S | 18 23.7 +00.5 | 180 06.4 +02.8 | N | 13 13.2 -00.1 | 244 02.1 +02.4 | S | 12 52.2 +00.0 | 11 | | | | | | | | | | |
| 12 | 2 30.1 +00.7 | S | 18 24.2 +00.5 | 195 09.2 +02.8 | N | 13 13.1 -00.1 | 259 04.5 +02.4 | S | 12 52.2 +00.0 | 12 | | | | | | | | | | |
| 13 | 17 30.8 +00.7 | S | 18 24.7 +00.4 | 210 12.0 +02.8 | N | 13 13.0 -00.1 | 274 06.9 +02.4 | S | 12 52.2 +00.0 | 13 | | | | | | | | | | |
| 14 | 32 31.5 +00.7 | S | 18 25.1 +00.5 | 225 14.8 +02.8 | N | 13 12.9 -00.1 | 289 09.3 +02.5 | S | 12 52.2 -00.1 | 14 | | | | | | | | | | |
| 15 | 47 32.2 +00.6 | S | 18 25.6 +00.5 | 240 17.6 +02.7 | N | 13 12.8 -00.1 | 304 11.8 +02.4 | S | 12 52.1 +00.0 | 15 | | | | | | | | | | |
| 16 | 62 32.8 +00.7 | S | 18 26.1 +00.4 | 255 20.3 +02.8 | N | 13 12.7 -00.1 | 319 14.2 +02.4 | S | 12 52.1 +00.0 | 16 | | | | | | | | | | |
| 17 | 77 33.5 +00.7 | S | 18 26.5 +00.5 | 270 23.1 +02.8 | N | 13 12.6 -00.1 | 334 16.6 +02.5 | S | 12 52.1 +00.0 | 17 | | | | | | | | | | |
| 18 | 92 34.2 +00.7 | S | 18 27.0 +00.5 | 285 25.9 +02.8 | N | 13 12.5 -00.1 | 349 19.1 +02.4 | S | 12 52.1 +00.0 | 18 | | | | | | | | | | |
| 19 | 107 34.9 +00.7 | S | 18 27.5 +00.5 | 300 28.7 +02.8 | N | 13 12.4 -00.1 | 4 21.5 +02.4 | S | 12 52.1 -00.1 | 19 | | | | | | | | | | |
| 20 | 122 35.6 +00.6 | S | 18 28.0 +00.4 | 315 31.5 +02.8 | N | 13 12.3 -00.1 | 19 23.9 +02.4 | S | 12 52.0 +00.0 | 20 | | | | | | | | | | |
| 21 | 137 36.2 +00.7 | S | 18 28.4 +00.5 | 330 34.3 +02.7 | N | 13 12.2 -00.1 | 34 26.3 +02.5 | S | 12 52.0 +00.0 | 21 | | | | | | | | | | |
| 22 | 152 36.9 +00.7 | S | 18 28.9 +00.5 | 345 37.0 +02.8 | N | 13 12.1 -00.1 | 49 28.8 +02.4 | S | 12 52.0 +00.0 | 22 | | | | | | | | | | |
| 23 | 167 37.6 +00.7 | S | 18 29.4 +00.5 | 0 39.8 +02.8 | N | 13 12.0 -00.1 | 64 31.2 +02.4 | S | 12 52.0 +00.0 | 23 | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| 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 | 130° | 130° | 130° | 130° | 130° | 130° | SHA | 323° | 323° | 323° | 323° | 323° | 323° | SHA | 027° | 027° | 027° | 027° | 027° | 027° |
| Greenwich Culmination Time: 11:49 | | | | | | | Greenwich Culmination Time: 22:57 | | | | | | | Greenwich Culmination Time: 18:42 | | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> | | | | UT |
|-----------------------------------|-------------------------------|-----------------|-----------------------------------|-------------------------------|----------------|-----------------------------------|-------------------------------|------|-------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 55.5 -00.1 | S 18 05.8 +00.6 | 226 34.9 -00.2 | S 01 04.1 +01.0 | 177 04.7 -31.8 | S 22 42.7 +09.7 | 00 | | | | | | |
| 01 | 198 55.4 -00.1 | S 18 06.4 +00.7 | 241 34.7 -00.1 | S 01 05.1 +00.9 | 191 32.9 -31.9 | S 22 52.4 +09.7 | 01 | | | | | | |
| 02 | 213 55.3 -00.1 | S 18 07.1 +00.6 | 256 34.6 -00.2 | S 01 06.0 +01.0 | 206 01.0 -32.1 | S 23 02.1 +09.5 | 02 | | | | | | |
| 03 | 228 55.2 -00.1 | S 18 07.7 +00.7 | 271 34.4 -00.1 | S 01 07.0 +01.0 | 220 28.9 -32.1 | S 23 11.6 +09.4 | 03 | | | | | | |
| 04 | 243 55.1 -00.1 | S 18 08.4 +00.6 | 286 34.3 -00.2 | S 01 08.0 +01.0 | 234 56.8 -32.3 | S 23 21.0 +09.3 | 04 | | | | | | |
| 05 | 258 55.0 -00.1 | S 18 09.0 +00.7 | 301 34.1 -00.1 | S 01 09.0 +00.9 | 249 24.5 -32.4 | S 23 30.3 +09.2 | 05 | | | | | | |
| 06 | 273 54.9 -00.1 | S 18 09.7 +00.6 | 316 34.0 -00.2 | S 01 09.9 +01.0 | 263 52.1 -32.5 | S 23 39.5 +09.1 | 06 | | | | | | |
| 07 | 288 54.8 -00.1 | S 18 10.3 +00.7 | 331 33.8 -00.1 | S 01 10.9 +01.0 | 278 19.6 -32.5 | S 23 48.6 +08.9 | 07 | | | | | | |
| 08 | 303 54.7 -00.1 | S 18 11.0 +00.7 | 346 33.7 -00.2 | S 01 11.9 +00.9 | 292 47.1 -32.7 | S 23 57.5 +08.8 | 08 | | | | | | |
| 09 | 318 54.6 -00.1 | S 18 11.7 +00.6 | 1 33.5 -00.1 | S 01 12.8 +01.0 | 307 14.4 -32.8 | S 24 06.3 +08.7 | 09 | | | | | | |
| 10 | 333 54.5 -00.1 | S 18 12.3 +00.7 | 16 33.4 -00.1 | S 01 13.8 +01.0 | 321 41.6 -32.9 | S 24 15.0 +08.5 | 10 | | | | | | |
| 11 | 348 54.4 -00.1 | S 18 13.0 +00.6 | 31 33.3 -00.2 | S 01 14.8 +01.0 | 336 08.7 -33.0 | S 24 23.5 +08.4 | 11 | | | | | | |
| 12 | 3 54.3 -00.1 | S 18 13.6 +00.7 | 46 33.1 -00.1 | S 01 15.8 +00.9 | 350 35.7 -33.1 | S 24 31.9 +08.3 | 12 | | | | | | |
| 13 | 18 54.2 +00.0 | S 18 14.3 +00.6 | 61 33.0 -00.2 | S 01 16.7 +01.0 | 5 02.6 -33.3 | S 24 40.2 +08.1 | 13 | | | | | | |
| 14 | 33 54.2 -00.1 | S 18 14.9 +00.7 | 76 32.8 -00.1 | S 01 17.7 +01.0 | 19 29.3 -33.3 | S 24 48.3 +08.0 | 14 | | | | | | |
| 15 | 48 54.1 -00.1 | S 18 15.6 +00.6 | 91 32.7 -00.2 | S 01 18.7 +01.0 | 33 56.0 -33.4 | S 24 56.3 +07.9 | 15 | | | | | | |
| 16 | 63 54.0 -00.1 | S 18 16.2 +00.7 | 106 32.5 -00.1 | S 01 19.7 +00.9 | 48 22.6 -33.5 | S 25 04.2 +07.7 | 16 | | | | | | |
| 17 | 78 53.9 -00.1 | S 18 16.9 +00.6 | 121 32.4 -00.2 | S 01 20.6 +01.0 | 62 49.1 -33.6 | S 25 11.9 +07.6 | 17 | | | | | | |
| 18 | 93 53.8 -00.1 | S 18 17.5 +00.7 | 136 32.2 -00.2 | S 01 21.6 +01.0 | 77 15.5 -33.7 | S 25 19.5 +07.5 | 18 | | | | | | |
| 19 | 108 53.7 -00.1 | S 18 18.2 +00.6 | 151 32.0 -00.1 | S 01 22.6 +01.0 | 91 41.8 -33.9 | S 25 27.0 +07.3 | 19 | | | | | | |
| 20 | 123 53.6 -00.1 | S 18 18.8 +00.6 | 166 31.9 -00.2 | S 01 23.6 +01.0 | 106 07.9 -33.9 | S 25 34.3 +07.1 | 20 | | | | | | |
| 21 | 138 53.5 -00.1 | S 18 19.4 +00.7 | 181 31.7 -00.1 | S 01 24.6 +00.9 | 120 34.0 -34.0 | S 25 41.4 +07.0 | 21 | | | | | | |
| 22 | 153 53.4 -00.1 | S 18 20.1 +00.6 | 196 31.6 -00.2 | S 01 25.5 +01.0 | 135 00.0 -34.1 | S 25 48.4 +06.9 | 22 | | | | | | |
| 23 | 168 53.3 -00.1 | S 18 20.7 +00.7 | 211 31.4 -00.1 | S 01 26.5 +01.0 | 149 25.9 -34.2 | S 25 55.3 +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 | 16'2 16'2 16'2 16'2 16'2 16'2 | | SD | 00'2 00'2 00'2 00'2 00'2 00'2 | | 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 | 00'2 00'2 00'2 00'2 00'2 00'2 | | HP | 57'1 57'2 57'2 57'3 57'4 57'5 | | | | | | |
| SHA | 131° 131° 131° 130° 130° 130° | | SHA | 174° 173° 173° 173° 173° 173° | | SHA | 123° 121° 118° 116° 114° 111° | | | | | | |
| Greenwich Culmination Time: 11:44 | | | Greenwich Culmination Time: 08:53 | | | Greenwich Culmination Time: 12:39 | | | | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
|-----------------------------------|-------------------------------|-----------------|-----------------------------------|-------------------------------|----------------|-----------------------------------|-------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 38.3 +00.7 | S 18 29.9 +00.4 | 15 42.6 +02.8 | N 13 11.9 -00.1 | 79 33.6 +02.4 | S 12 52.0 -00.1 | 00 | | | | | | |
| 01 | 197 39.0 +00.6 | S 18 30.3 +00.5 | 30 45.4 +02.8 | N 13 11.8 -00.1 | 94 36.0 +02.5 | S 12 51.9 +00.0 | 01 | | | | | | |
| 02 | 212 39.6 +00.7 | S 18 30.8 +00.5 | 45 48.2 +02.7 | N 13 11.7 -00.1 | 109 38.5 +02.4 | S 12 51.9 +00.0 | 02 | | | | | | |
| 03 | 227 40.3 +00.7 | S 18 31.3 +00.4 | 60 50.9 +02.8 | N 13 11.6 -00.1 | 124 40.9 +02.4 | S 12 51.9 +00.0 | 03 | | | | | | |
| 04 | 242 41.0 +00.7 | S 18 31.7 +00.5 | 75 53.7 +02.8 | N 13 11.5 -00.1 | 139 43.3 +02.4 | S 12 51.9 +00.0 | 04 | | | | | | |
| 05 | 257 41.7 +00.6 | S 18 32.2 +00.5 | 90 56.5 +02.8 | N 13 11.4 -00.1 | 154 45.7 +02.5 | S 12 51.9 -00.1 | 05 | | | | | | |
| 06 | 272 42.3 +00.7 | S 18 32.7 +00.5 | 105 59.3 +02.8 | N 13 11.3 -00.1 | 169 48.2 +02.4 | S 12 51.8 +00.0 | 06 | | | | | | |
| 07 | 287 43.0 +00.7 | S 18 33.2 +00.4 | 121 02.1 +02.8 | N 13 11.2 -00.1 | 184 50.6 +02.4 | S 12 51.8 +00.0 | 07 | | | | | | |
| 08 | 302 43.7 +00.7 | S 18 33.6 +00.5 | 136 04.9 +02.7 | N 13 11.1 -00.1 | 199 53.0 +02.4 | S 12 51.8 +00.0 | 08 | | | | | | |
| 09 | 317 44.4 +00.7 | S 18 34.1 +00.5 | 151 07.6 +02.8 | N 13 11.0 -00.1 | 214 55.4 +02.5 | S 12 51.8 +00.0 | 09 | | | | | | |
| 10 | 332 45.1 +00.6 | S 18 34.6 +00.4 | 166 10.4 +02.8 | N 13 10.9 -00.1 | 229 57.9 +02.4 | S 12 51.8 -00.1 | 10 | | | | | | |
| 11 | 347 45.7 +00.7 | S 18 35.0 +00.5 | 181 13.2 +02.8 | N 13 10.8 -00.1 | 245 00.3 +02.4 | S 12 51.7 +00.0 | 11 | | | | | | |
| 12 | 2 46.4 +00.7 | S 18 35.5 +00.5 | 196 16.0 +02.8 | N 13 10.7 -00.1 | 260 02.7 +02.4 | S 12 51.7 +00.0 | 12 | | | | | | |
| 13 | 17 47.1 +00.7 | S 18 36.0 +00.4 | 211 18.8 +02.7 | N 13 10.6 -00.1 | 275 05.1 +02.4 | S 12 51.7 +00.0 | 13 | | | | | | |
| 14 | 32 47.8 +00.6 | S 18 36.4 +00.5 | 226 21.5 +02.8 | N 13 10.5 -00.1 | 290 07.5 +02.5 | S 12 51.7 +00.0 | 14 | | | | | | |
| 15 | 47 48.4 +00.7 | S 18 36.9 +00.5 | 241 24.3 +02.8 | N 13 10.4 -00.1 | 305 10.0 +02.4 | S 12 51.7 -00.1 | 15 | | | | | | |
| 16 | 62 49.1 +00.7 | S 18 37.4 +00.4 | 256 27.1 +02.8 | N 13 10.3 +00.0 | 320 12.4 +02.4 | S 12 51.6 +00.0 | 16 | | | | | | |
| 17 | 77 49.8 +00.7 | S 18 37.8 +00.5 | 271 29.9 +02.8 | N 13 10.3 -00.1 | 335 14.8 +02.4 | S 12 51.6 +00.0 | 17 | | | | | | |
| 18 | 92 50.5 +00.6 | S 18 38.3 +00.5 | 286 32.7 +02.7 | N 13 10.2 -00.1 | 350 17.2 +02.5 | S 12 51.6 +00.0 | 18 | | | | | | |
| 19 | 107 51.1 +00.7 | S 18 38.8 +00.4 | 301 35.4 +02.8 | N 13 10.1 -00.1 | 5 19.7 +02.4 | S 12 51.6 +00.0 | 19 | | | | | | |
| 20 | 122 51.8 +00.7 | S 18 39.2 +00.5 | 316 38.2 +02.8 | N 13 10.0 -00.1 | 20 22.1 +02.4 | S 12 51.6 -00.1 | 20 | | | | | | |
| 21 | 137 52.5 +00.7 | S 18 39.7 +00.5 | 331 41.0 +02.8 | N 13 09.9 -00.1 | 35 24.5 +02.4 | S 12 51.5 +00.0 | 21 | | | | | | |
| 22 | 152 53.2 +00.6 | S 18 40.2 +00.4 | 346 43.8 +02.8 | N 13 09.8 -00.1 | 50 26.9 +02.4 | S 12 51.5 +00.0 | 22 | | | | | | |
| 23 | 167 53.8 +00.7 | S 18 40.6 +00.5 | 1 46.6 +02.7 | N 13 09.7 -00.1 | 65 29.3 +02.5 | S 12 51.5 +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 | 130° 130° 130° 129° 129° 129° | | SHA | 323° 323° 323° 323° 323° 323° | | SHA | 027° 027° 027° 027° 027° 027° | | | | | | |
| Greenwich Culmination Time: 11:48 | | | Greenwich Culmination Time: 22:52 | | | Greenwich Culmination Time: 18:38 | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|-----------------------------------|-------------------------------|-------|---------------|-----------------------------------|-------------------------------|---------------|----------------|-----------------------------------|-------------------------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 53.2 -00.1 | S | 18 21.4 +00.6 | 226 31.3 -00.2 | S | 01 27.5 +01.0 | 163 51.7 -34.3 | S | 26 02.0 +06.6 | 00 | | | |
| 01 | 198 53.1 -00.1 | S | 18 22.0 +00.7 | 241 31.1 -00.1 | S | 01 28.5 +00.9 | 178 17.4 -34.4 | S | 26 08.6 +06.4 | 01 | | | |
| 02 | 213 53.0 -00.1 | S | 18 22.7 +00.6 | 256 31.0 -00.2 | S | 01 29.4 +01.0 | 192 43.0 -34.5 | S | 26 15.0 +06.3 | 02 | | | |
| 03 | 228 52.9 -00.1 | S | 18 23.3 +00.7 | 271 30.8 -00.1 | S | 01 30.4 +01.0 | 207 08.5 -34.5 | S | 26 21.3 +06.1 | 03 | | | |
| 04 | 243 52.8 -00.1 | S | 18 24.0 +00.6 | 286 30.7 -00.2 | S | 01 31.4 +01.0 | 221 34.0 -34.7 | S | 26 27.4 +05.9 | 04 | | | |
| 05 | 258 52.7 -00.1 | S | 18 24.6 +00.6 | 301 30.5 -00.1 | S | 01 32.4 +01.0 | 235 59.3 -34.7 | S | 26 33.3 +05.8 | 05 | | | |
| 06 | 273 52.6 -00.2 | S | 18 25.2 +00.7 | 316 30.4 -00.2 | S | 01 33.4 +00.9 | 250 24.6 -34.8 | S | 26 39.1 +05.6 | 06 | | | |
| 07 | 288 52.4 -00.1 | S | 18 25.9 +00.6 | 331 30.2 -00.1 | S | 01 34.3 +01.0 | 264 49.8 -35.0 | S | 26 44.7 +05.5 | 07 | | | |
| 08 | 303 52.3 -00.1 | S | 18 26.5 +00.7 | 346 30.1 -00.2 | S | 01 35.3 +01.0 | 279 14.8 -34.9 | S | 26 50.2 +05.3 | 08 | | | |
| 09 | 318 52.2 -00.1 | S | 18 27.2 +00.6 | 1 29.9 -00.2 | S | 01 36.3 +01.0 | 293 39.9 -35.1 | S | 26 55.5 +05.2 | 09 | | | |
| 10 | 333 52.1 -00.1 | S | 18 27.8 +00.6 | 16 29.7 -00.1 | S | 01 37.3 +01.0 | 308 04.8 -35.2 | S | 27 00.7 +05.0 | 10 | | | |
| 11 | 348 52.0 -00.1 | S | 18 28.4 +00.7 | 31 29.6 -00.2 | S | 01 38.3 +00.9 | 322 29.6 -35.2 | S | 27 05.7 +04.8 | 11 | | | |
| 12 | 3 51.9 -00.1 | S | 18 29.1 +00.6 | 46 29.4 -00.1 | S | 01 39.2 +01.0 | 336 54.4 -35.3 | S | 27 10.5 +04.6 | 12 | | | |
| 13 | 18 51.8 -00.1 | S | 18 29.7 +00.7 | 61 29.3 -00.2 | S | 01 40.2 +01.0 | 351 19.1 -35.4 | S | 27 15.1 +04.5 | 13 | | | |
| 14 | 33 51.7 -00.1 | S | 18 30.4 +00.6 | 76 29.1 -00.1 | S | 01 41.2 +01.0 | 5 43.7 -35.5 | S | 27 19.6 +04.4 | 14 | | | |
| 15 | 48 51.6 -00.1 | S | 18 31.0 +00.6 | 91 29.0 -00.2 | S | 01 42.2 +01.0 | 20 08.2 -35.5 | S | 27 24.0 +04.1 | 15 | | | |
| 16 | 63 51.5 -00.1 | S | 18 31.6 +00.7 | 106 28.8 -00.2 | S | 01 43.2 +00.9 | 34 32.7 -35.6 | S | 27 28.1 +04.0 | 16 | | | |
| 17 | 78 51.4 -00.1 | S | 18 32.3 +00.6 | 121 28.6 -00.1 | S | 01 44.1 +01.0 | 48 57.1 -35.6 | S | 27 32.1 +03.8 | 17 | | | |
| 18 | 93 51.3 -00.1 | S | 18 32.9 +00.6 | 136 28.5 -00.2 | S | 01 45.1 +01.0 | 63 21.5 -35.8 | S | 27 35.9 +03.7 | 18 | | | |
| 19 | 108 51.2 -00.1 | S | 18 33.5 +00.7 | 151 28.3 -00.1 | S | 01 46.1 +01.0 | 77 45.7 -35.7 | S | 27 39.6 +03.4 | 19 | | | |
| 20 | 123 51.1 -00.1 | S | 18 34.2 +00.6 | 166 28.2 -00.2 | S | 01 47.1 +01.0 | 92 10.0 -35.9 | S | 27 43.0 +03.3 | 20 | | | |
| 21 | 138 51.0 -00.1 | S | 18 34.8 +00.6 | 181 28.0 -00.2 | S | 01 48.1 +01.0 | 106 34.1 -35.9 | S | 27 46.3 +03.1 | 21 | | | |
| 22 | 153 50.9 -00.1 | S | 18 35.4 +00.7 | 196 27.8 -00.1 | S | 01 49.1 +00.9 | 120 58.2 -36.0 | S | 27 49.4 +03.0 | 22 | | | |
| 23 | 168 50.8 -00.2 | S | 18 36.1 +00.6 | 211 27.7 -00.2 | S | 01 50.0 +01.0 | 135 22.2 -36.0 | S | 27 52.4 +02.7 | 23 | | | |
| UT | 02 06 10 14 18 22 | | | UT | 02 06 10 14 18 22 | | | UT | 02 06 10 14 18 22 | | | | |
| SD | 16'2 16'2 16'2 16'2 16'2 16'2 | | | SD | 00'2 00'2 00'2 00'2 00'2 00'2 | | | 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 | 00'2 00'2 00'2 00'2 00'2 00'2 | | | HP | 57'6 57'7 57'7 57'8 57'9 58'0 | | | | |
| SHA | 130° 130° 130° 129° 129° 129° | | | SHA | 173° 172° 172° 172° 172° 172° | | | SHA | 109° 106° 104° 101° 099° 096° | | | | |
| Greenwich Culmination Time: 11:44 | | | | Greenwich Culmination Time: 08:54 | | | | Greenwich Culmination Time: 13:36 | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|-----------------------------------|-------------------------------|-------|---------------|-----------------------------------|-------------------------------|---------------|----------------|-----------------------------------|-------------------------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 54.5 +00.7 | S | 18 41.1 +00.5 | 16 49.3 +02.8 | N | 13 09.6 -00.1 | 80 31.8 +02.4 | S | 12 51.5 +00.0 | 00 | | | |
| 01 | 197 55.2 +00.6 | S | 18 41.6 +00.4 | 31 52.1 +02.8 | N | 13 09.5 -00.1 | 95 34.2 +02.4 | S | 12 51.5 -00.1 | 01 | | | |
| 02 | 212 55.8 +00.7 | S | 18 42.0 +00.5 | 46 54.9 +02.8 | N | 13 09.4 -00.1 | 110 36.6 +02.4 | S | 12 51.4 +00.0 | 02 | | | |
| 03 | 227 56.5 +00.7 | S | 18 42.5 +00.5 | 61 57.7 +02.7 | N | 13 09.3 -00.1 | 125 39.0 +02.5 | S | 12 51.4 +00.0 | 03 | | | |
| 04 | 242 57.2 +00.7 | S | 18 43.0 +00.4 | 77 00.4 +02.8 | N | 13 09.2 -00.1 | 140 41.5 +02.4 | S | 12 51.4 +00.0 | 04 | | | |
| 05 | 257 57.9 +00.6 | S | 18 43.4 +00.5 | 92 03.2 +02.8 | N | 13 09.1 -00.1 | 155 43.9 +02.4 | S | 12 51.4 -00.1 | 05 | | | |
| 06 | 272 58.5 +00.7 | S | 18 43.9 +00.5 | 107 06.0 +02.8 | N | 13 09.0 -00.1 | 170 46.3 +02.4 | S | 12 51.3 +00.0 | 06 | | | |
| 07 | 287 59.2 +00.7 | S | 18 44.4 +00.4 | 122 08.8 +02.8 | N | 13 08.9 -00.1 | 185 48.7 +02.4 | S | 12 51.3 +00.0 | 07 | | | |
| 08 | 302 59.9 +00.6 | S | 18 44.8 +00.5 | 137 11.6 +02.7 | N | 13 08.8 -00.1 | 200 51.1 +02.5 | S | 12 51.3 +00.0 | 08 | | | |
| 09 | 318 00.5 +00.7 | S | 18 45.3 +00.4 | 152 14.3 +02.8 | N | 13 08.7 -00.1 | 215 53.6 +02.4 | S | 12 51.3 +00.0 | 09 | | | |
| 10 | 333 01.2 +00.7 | S | 18 45.7 +00.5 | 167 17.1 +02.8 | N | 13 08.6 -00.1 | 230 56.0 +02.4 | S | 12 51.3 -00.1 | 10 | | | |
| 11 | 348 01.9 +00.6 | S | 18 46.2 +00.5 | 182 19.9 +02.8 | N | 13 08.5 -00.1 | 245 58.4 +02.4 | S | 12 51.2 +00.0 | 11 | | | |
| 12 | 3 02.5 +00.7 | S | 18 46.7 +00.4 | 197 22.7 +02.7 | N | 13 08.4 -00.1 | 261 00.8 +02.4 | S | 12 51.2 +00.0 | 12 | | | |
| 13 | 18 03.2 +00.7 | S | 18 47.1 +00.5 | 212 25.4 +02.8 | N | 13 08.3 -00.1 | 276 03.2 +02.4 | S | 12 51.2 +00.0 | 13 | | | |
| 14 | 33 03.9 +00.7 | S | 18 47.6 +00.5 | 227 28.2 +02.8 | N | 13 08.2 +00.0 | 291 05.6 +02.5 | S | 12 51.2 +00.0 | 14 | | | |
| 15 | 48 04.6 +00.6 | S | 18 48.1 +00.4 | 242 31.0 +02.8 | N | 13 08.2 -00.1 | 306 08.1 +02.4 | S | 12 51.2 -00.1 | 15 | | | |
| 16 | 63 05.2 +00.7 | S | 18 48.5 +00.5 | 257 33.8 +02.8 | N | 13 08.1 -00.1 | 321 10.5 +02.4 | S | 12 51.1 +00.0 | 16 | | | |
| 17 | 78 05.9 +00.7 | S | 18 49.0 +00.4 | 272 36.6 +02.7 | N | 13 08.0 -00.1 | 336 12.9 +02.4 | S | 12 51.1 +00.0 | 17 | | | |
| 18 | 93 06.6 +00.6 | S | 18 49.4 +00.5 | 287 39.3 +02.8 | N | 13 07.9 -00.1 | 351 15.3 +02.4 | S | 12 51.1 +00.0 | 18 | | | |
| 19 | 108 07.2 +00.7 | S | 18 49.9 +00.5 | 302 42.1 +02.8 | N | 13 07.8 -00.1 | 6 17.7 +02.5 | S | 12 51.1 -00.1 | 19 | | | |
| 20 | 123 07.9 +00.7 | S | 18 50.4 +00.4 | 317 44.9 +02.8 | N | 13 07.7 -00.1 | 21 20.2 +02.4 | S | 12 51.0 +00.0 | 20 | | | |
| 21 | 138 08.6 +00.6 | S | 18 50.8 +00.5 | 332 47.7 +02.7 | N | 13 07.6 -00.1 | 36 22.6 +02.4 | S | 12 51.0 +00.0 | 21 | | | |
| 22 | 153 09.2 +00.7 | S | 18 51.3 +00.4 | 347 50.4 +02.8 | N | 13 07.5 -00.1 | 51 25.0 +02.4 | S | 12 51.0 +00.0 | 22 | | | |
| 23 | 168 09.9 +00.7 | S | 18 51.7 +00.5 | 2 53.2 +02.8 | N | 13 07.4 -00.1 | 66 27.4 +02.4 | S | 12 51.0 +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 | 129° 129° 129° 129° 129° 128° | | | SHA | 323° 323° 323° 323° 323° 323° | | | SHA | 027° 027° 027° 027° 027° 027° | | | | |
| Greenwich Culmination Time: 11:47 | | | | Greenwich Culmination Time: 22:48 | | | | Greenwich Culmination Time: 18:34 | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 50.6 -00.1 | S | 18 36.7 +00.6 | 226 27.5 -00.1 | S | 01 51.0 +01.0 | 149 46.2 -36.1 | S | 27 55.1 +02.6 | 00 | | | |
| 01 | 198 50.5 -00.1 | S | 18 37.3 +00.7 | 241 27.4 -00.2 | S | 01 52.0 +01.0 | 164 10.1 -36.1 | S | 27 57.7 +02.4 | 01 | | | |
| 02 | 213 50.4 -00.1 | S | 18 38.0 +00.6 | 256 27.2 -00.2 | S | 01 53.0 +01.0 | 178 34.0 -36.1 | S | 28 00.1 +02.3 | 02 | | | |
| 03 | 228 50.3 -00.1 | S | 18 38.6 +00.6 | 271 27.0 -00.1 | S | 01 54.0 +01.0 | 192 57.9 -36.3 | S | 28 02.4 +02.0 | 03 | | | |
| 04 | 243 50.2 -00.1 | S | 18 39.2 +00.6 | 286 26.9 -00.2 | S | 01 55.0 +00.9 | 207 21.6 -36.2 | S | 28 04.4 +01.9 | 04 | | | |
| 05 | 258 50.1 -00.1 | S | 18 39.8 +00.7 | 301 26.7 -00.2 | S | 01 55.9 +01.0 | 221 45.4 -36.3 | S | 28 06.3 +01.7 | 05 | | | |
| 06 | 273 50.0 -00.1 | S | 18 40.5 +00.6 | 316 26.5 -00.1 | S | 01 56.9 +01.0 | 236 09.1 -36.3 | S | 28 08.0 +01.5 | 06 | | | |
| 07 | 288 49.9 -00.1 | S | 18 41.1 +00.6 | 331 26.4 -00.2 | S | 01 57.9 +01.0 | 250 32.8 -36.4 | S | 28 09.5 +01.3 | 07 | | | |
| 08 | 303 49.8 -00.2 | S | 18 41.7 +00.7 | 346 26.2 -00.1 | S | 01 58.9 +01.0 | 264 56.4 -36.4 | S | 28 10.8 +01.2 | 08 | | | |
| 09 | 318 49.6 -00.1 | S | 18 42.4 +00.6 | 1 26.1 -00.2 | S | 01 59.9 +01.0 | 279 20.0 -36.5 | S | 28 12.0 +01.0 | 09 | | | |
| 10 | 333 49.5 -00.1 | S | 18 43.0 +00.6 | 16 25.9 -00.2 | S | 02 00.9 +01.0 | 293 43.5 -36.4 | S | 28 13.0 +00.7 | 10 | | | |
| 11 | 348 49.4 -00.1 | S | 18 43.6 +00.6 | 31 25.7 -00.1 | S | 02 01.9 +00.9 | 308 07.1 -36.5 | S | 28 13.7 +00.6 | 11 | | | |
| 12 | 3 49.3 -00.1 | S | 18 44.2 +00.7 | 46 25.6 -00.2 | S | 02 02.8 +01.0 | 322 30.6 -36.6 | S | 28 14.3 +00.5 | 12 | | | |
| 13 | 18 49.2 -00.1 | S | 18 44.9 +00.6 | 61 25.4 -00.2 | S | 02 03.8 +01.0 | 336 54.0 -36.5 | S | 28 14.8 +00.2 | 13 | | | |
| 14 | 33 49.1 -00.1 | S | 18 45.5 +00.6 | 76 25.2 -00.1 | S | 02 04.8 +01.0 | 351 17.5 -36.6 | S | 28 15.0 +00.0 | 14 | | | |
| 15 | 48 49.0 -00.2 | S | 18 46.1 +00.6 | 91 25.1 -00.2 | S | 02 05.8 +01.0 | 5 40.9 -36.6 | S | 28 15.0 -00.1 | 15 | | | |
| 16 | 63 48.8 -00.1 | S | 18 46.7 +00.6 | 106 24.9 -00.2 | S | 02 06.8 +01.0 | 20 04.3 -36.5 | S | 28 14.9 -00.3 | 16 | | | |
| 17 | 78 48.7 -00.1 | S | 18 47.3 +00.7 | 121 24.7 -00.1 | S | 02 07.8 +01.0 | 34 27.8 -36.7 | S | 28 14.6 -00.6 | 17 | | | |
| 18 | 93 48.6 -00.1 | S | 18 48.0 +00.6 | 136 24.6 -00.2 | S | 02 08.8 +00.9 | 48 51.1 -36.6 | S | 28 14.0 -00.6 | 18 | | | |
| 19 | 108 48.5 -00.1 | S | 18 48.6 +00.6 | 151 24.4 -00.2 | S | 02 09.7 +01.0 | 63 14.5 -36.6 | S | 28 13.4 -00.9 | 19 | | | |
| 20 | 123 48.4 -00.1 | S | 18 49.2 +00.6 | 166 24.2 -00.1 | S | 02 10.7 +01.0 | 77 37.9 -36.6 | S | 28 12.5 -01.1 | 20 | | | |
| 21 | 138 48.3 -00.1 | S | 18 49.8 +00.6 | 181 24.1 -00.2 | S | 02 11.7 +01.0 | 92 01.3 -36.7 | S | 28 11.4 -01.3 | 21 | | | |
| 22 | 153 48.2 -00.2 | S | 18 50.4 +00.7 | 196 23.9 -00.2 | S | 02 12.7 +01.0 | 106 24.6 -36.6 | S | 28 10.1 -01.4 | 22 | | | |
| 23 | 168 48.0 -00.1 | S | 18 51.1 +00.6 | 211 23.7 -00.1 | S | 02 13.7 +01.0 | 120 48.0 -36.6 | S | 28 08.7 -01.6 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'2 16'2 16'2 16'2 16'2 16'2 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | SD 15'8 15'8 15'8 15'9 15'9 15'9 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | | HP 58'0 58'1 58'2 58'2 58'3 58'4 | | | | | | |
| | SHA 129° 129° 129° 128° 128° 128° | | | SHA 172° 171° 171° 171° 171° 171° | | | SHA 094° 091° 089° 086° 083° 081° | | | | | | |
| | Greenwich Culmination Time: 11:44 | | | Greenwich Culmination Time: 08:54 | | | Greenwich Culmination Time: 14:36 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|---------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 10.6 +00.6 | S | 18 52.2 +00.5 | 17 56.0 +02.8 | N | 13 07.3 -00.1 | 81 29.8 +02.4 | S | 12 51.0 -00.1 | 00 | | | |
| 01 | 198 11.2 +00.7 | S | 18 52.7 +00.4 | 32 58.8 +02.7 | N | 13 07.2 -00.1 | 96 32.2 +02.5 | S | 12 50.9 +00.0 | 01 | | | |
| 02 | 213 11.9 +00.7 | S | 18 53.1 +00.5 | 48 01.5 +02.8 | N | 13 07.1 -00.1 | 111 34.7 +02.4 | S | 12 50.9 +00.0 | 02 | | | |
| 03 | 228 12.6 +00.6 | S | 18 53.6 +00.4 | 63 04.3 +02.8 | N | 13 07.0 -00.1 | 126 37.1 +02.4 | S | 12 50.9 +00.0 | 03 | | | |
| 04 | 243 13.2 +00.7 | S | 18 54.0 +00.5 | 78 07.1 +02.8 | N | 13 06.9 -00.1 | 141 39.5 +02.4 | S | 12 50.9 -00.1 | 04 | | | |
| 05 | 258 13.9 +00.7 | S | 18 54.5 +00.4 | 93 09.9 +02.7 | N | 13 06.8 -00.1 | 156 41.9 +02.4 | S | 12 50.8 +00.0 | 05 | | | |
| 06 | 273 14.6 +00.6 | S | 18 54.9 +00.5 | 108 12.6 +02.8 | N | 13 06.7 -00.1 | 171 44.3 +02.4 | S | 12 50.8 +00.0 | 06 | | | |
| 07 | 288 15.2 +00.7 | S | 18 55.4 +00.5 | 123 15.4 +02.8 | N | 13 06.6 -00.1 | 186 46.7 +02.5 | S | 12 50.8 +00.0 | 07 | | | |
| 08 | 303 15.9 +00.7 | S | 18 55.9 +00.4 | 138 18.2 +02.8 | N | 13 06.5 +00.0 | 201 49.2 +02.4 | S | 12 50.8 -00.1 | 08 | | | |
| 09 | 318 16.6 +00.6 | S | 18 56.3 +00.5 | 153 21.0 +02.7 | N | 13 06.5 -00.1 | 216 51.6 +02.4 | S | 12 50.7 +00.0 | 09 | | | |
| 10 | 333 17.2 +00.7 | S | 18 56.8 +00.4 | 168 23.7 +02.8 | N | 13 06.4 -00.1 | 231 54.0 +02.4 | S | 12 50.7 +00.0 | 10 | | | |
| 11 | 348 17.9 +00.6 | S | 18 57.2 +00.5 | 183 26.5 +02.8 | N | 13 06.3 -00.1 | 246 56.4 +02.4 | S | 12 50.7 +00.0 | 11 | | | |
| 12 | 3 18.5 +00.7 | S | 18 57.7 +00.4 | 198 29.3 +02.8 | N | 13 06.2 -00.1 | 261 58.8 +02.4 | S | 12 50.7 -00.1 | 12 | | | |
| 13 | 18 19.2 +00.7 | S | 18 58.1 +00.5 | 213 32.1 +02.7 | N | 13 06.1 -00.1 | 277 01.2 +02.5 | S | 12 50.6 +00.0 | 13 | | | |
| 14 | 33 19.9 +00.6 | S | 18 58.6 +00.5 | 228 34.8 +02.8 | N | 13 06.0 -00.1 | 292 03.7 +02.4 | S | 12 50.6 +00.0 | 14 | | | |
| 15 | 48 20.5 +00.7 | S | 18 59.1 +00.4 | 243 37.6 +02.8 | N | 13 05.9 -00.1 | 307 06.1 +02.4 | S | 12 50.6 +00.0 | 15 | | | |
| 16 | 63 21.2 +00.7 | S | 18 59.5 +00.5 | 258 40.4 +02.8 | N | 13 05.8 -00.1 | 322 08.5 +02.4 | S | 12 50.6 +00.0 | 16 | | | |
| 17 | 78 21.9 +00.6 | S | 18 60.0 +00.4 | 273 43.2 +02.7 | N | 13 05.7 -00.1 | 337 10.9 +02.4 | S | 12 50.6 -00.1 | 17 | | | |
| 18 | 93 22.5 +00.7 | S | 19 00.4 +00.5 | 288 45.9 +02.8 | N | 13 05.6 -00.1 | 352 13.3 +02.4 | S | 12 50.5 +00.0 | 18 | | | |
| 19 | 108 23.2 +00.6 | S | 19 00.9 +00.4 | 303 48.7 +02.8 | N | 13 05.5 -00.1 | 7 15.7 +02.4 | S | 12 50.5 +00.0 | 19 | | | |
| 20 | 123 23.8 +00.7 | S | 19 01.3 +00.5 | 318 51.5 +02.7 | N | 13 05.4 -00.1 | 22 18.1 +02.5 | S | 12 50.5 +00.0 | 20 | | | |
| 21 | 138 24.5 +00.7 | S | 19 01.8 +00.4 | 333 54.2 +02.8 | N | 13 05.3 -00.1 | 37 20.6 +02.4 | S | 12 50.5 -00.1 | 21 | | | |
| 22 | 153 25.2 +00.6 | S | 19 02.2 +00.5 | 348 57.0 +02.8 | N | 13 05.2 -00.1 | 52 23.0 +02.4 | S | 12 50.4 +00.0 | 22 | | | |
| 23 | 168 25.8 +00.7 | S | 19 02.7 +00.4 | 3 59.8 +02.8 | N | 13 05.1 -00.1 | 67 25.4 +02.4 | S | 12 50.4 +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 128° 128° 128° 128° 128° 128° | | | SHA 323° 323° 323° 323° 323° 323° | | | SHA 027° 027° 027° 027° 027° 027° | | | | | | |
| | Greenwich Culmination Time: 11:46 | | | Greenwich Culmination Time: 22:44 | | | Greenwich Culmination Time: 18:31 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|-----------------------------------|-------------------------------|-------|---------------|-----------------------------------|-------------------------------|---------------|----------------|-----------------------------------|-------------------------------|-------|-------|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | |
| 00 | 183 47.9 -00.1 | S | 18 51.7 +00.6 | 226 23.6 -00.2 | S | 02 14.7 +01.0 | 135 11.4 -36.7 | S | 28 07.1 -01.8 | 00 | | | |
| 01 | 198 47.8 -00.1 | S | 18 52.3 +00.6 | 241 23.4 -00.2 | S | 02 15.7 +01.0 | 149 34.7 -36.6 | S | 28 05.3 -02.0 | 01 | | | |
| 02 | 213 47.7 -00.1 | S | 18 52.9 +00.6 | 256 23.2 -00.2 | S | 02 16.7 +01.0 | 163 58.1 -36.6 | S | 28 03.3 -02.2 | 02 | | | |
| 03 | 228 47.6 -00.2 | S | 18 53.5 +00.6 | 271 23.0 -00.1 | S | 02 17.7 +00.9 | 178 21.5 -36.6 | S | 28 01.1 -02.4 | 03 | | | |
| 04 | 243 47.4 -00.1 | S | 18 54.1 +00.7 | 286 22.9 -00.2 | S | 02 18.6 +01.0 | 192 44.9 -36.6 | S | 27 58.7 -02.5 | 04 | | | |
| 05 | 258 47.3 -00.1 | S | 18 54.8 +00.6 | 301 22.7 -00.2 | S | 02 19.6 +01.0 | 207 08.3 -36.6 | S | 27 56.2 -02.8 | 05 | | | |
| 06 | 273 47.2 -00.1 | S | 18 55.4 +00.6 | 316 22.5 -00.1 | S | 02 20.6 +01.0 | 221 31.7 -36.5 | S | 27 53.4 -02.9 | 06 | | | |
| 07 | 288 47.1 -00.1 | S | 18 56.0 +00.6 | 331 22.4 -00.2 | S | 02 21.6 +01.0 | 235 55.2 -36.5 | S | 27 50.5 -03.1 | 07 | | | |
| 08 | 303 47.0 -00.2 | S | 18 56.6 +00.6 | 346 22.2 -00.2 | S | 02 22.6 +01.0 | 250 18.7 -36.5 | S | 27 47.4 -03.3 | 08 | | | |
| 09 | 318 46.8 -00.1 | S | 18 57.2 +00.6 | 1 22.0 -00.2 | S | 02 23.6 +01.0 | 264 42.2 -36.5 | S | 27 44.1 -03.5 | 09 | | | |
| 10 | 333 46.7 -00.1 | S | 18 57.8 +00.6 | 16 21.8 -00.1 | S | 02 24.6 +01.0 | 279 05.7 -36.5 | S | 27 40.6 -03.6 | 10 | | | |
| 11 | 348 46.6 -00.1 | S | 18 58.4 +00.6 | 31 21.7 -00.2 | S | 02 25.6 +01.0 | 293 29.2 -36.4 | S | 27 37.0 -03.9 | 11 | | | |
| 12 | 3 46.5 -00.1 | S | 18 59.0 +00.6 | 46 21.5 -00.2 | S | 02 26.6 +01.0 | 307 52.8 -36.4 | S | 27 33.1 -04.0 | 12 | | | |
| 13 | 18 46.4 -00.2 | S | 18 59.6 +00.7 | 61 21.3 -00.1 | S | 02 27.6 +00.9 | 322 16.4 -36.4 | S | 27 29.1 -04.2 | 13 | | | |
| 14 | 33 46.2 -00.1 | S | 19 00.3 +00.6 | 76 21.2 -00.2 | S | 02 28.5 +01.0 | 336 40.0 -36.3 | S | 27 24.9 -04.4 | 14 | | | |
| 15 | 48 46.1 -00.1 | S | 19 00.9 +00.6 | 91 21.0 -00.2 | S | 02 29.5 +01.0 | 351 03.7 -36.3 | S | 27 20.5 -04.5 | 15 | | | |
| 16 | 63 46.0 -00.1 | S | 19 01.5 +00.6 | 106 20.8 -00.2 | S | 02 30.5 +01.0 | 5 27.4 -36.2 | S | 27 16.0 -04.8 | 16 | | | |
| 17 | 78 45.9 -00.2 | S | 19 02.1 +00.6 | 121 20.6 -00.1 | S | 02 31.5 +01.0 | 19 51.2 -36.2 | S | 27 11.2 -04.9 | 17 | | | |
| 18 | 93 45.7 -00.1 | S | 19 02.7 +00.6 | 136 20.5 -00.2 | S | 02 32.5 +01.0 | 34 15.0 -36.2 | S | 27 06.3 -05.1 | 18 | | | |
| 19 | 108 45.6 -00.1 | S | 19 03.3 +00.6 | 151 20.3 -00.2 | S | 02 33.5 +01.0 | 48 38.8 -36.1 | S | 27 01.2 -05.3 | 19 | | | |
| 20 | 123 45.5 -00.1 | S | 19 03.9 +00.6 | 166 20.1 -00.2 | S | 02 34.5 +01.0 | 63 02.7 -36.1 | S | 26 55.9 -05.4 | 20 | | | |
| 21 | 138 45.4 -00.2 | S | 19 04.5 +00.6 | 181 19.9 -00.1 | S | 02 35.5 +01.0 | 77 26.6 -36.0 | S | 26 50.5 -05.6 | 21 | | | |
| 22 | 153 45.2 -00.1 | S | 19 05.1 +00.6 | 196 19.8 -00.2 | S | 02 36.5 +01.0 | 91 50.6 -35.9 | S | 26 44.9 -05.8 | 22 | | | |
| 23 | 168 45.1 -00.1 | S | 19 05.7 +00.6 | 211 19.6 -00.2 | S | 02 37.5 +01.0 | 106 14.7 -35.9 | S | 26 39.1 -06.0 | 23 | | | |
| UT | 02 06 10 14 18 22 | | | UT | 02 06 10 14 18 22 | | | UT | 02 06 10 14 18 22 | | | | |
| SD | 16'2 16'2 16'2 16'2 16'2 16'2 | | | SD | 00'2 00'2 00'2 00'2 00'2 00'2 | | | SD | 15'9 15'9 15'9 16'0 16'0 16'0 | | | | |
| HP | 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP | 00'2 00'2 00'2 00'2 00'2 00'2 | | | HP | 58'4 58'5 58'5 58'6 58'6 58'7 | | | | |
| SHA | 128° 128° 128° 127° 127° 127° | | | SHA | 171° 170° 170° 170° 170° 170° | | | SHA | 078° 075° 073° 070° 068° 065° | | | | |
| Greenwich Culmination Time: 11:44 | | | | Greenwich Culmination Time: 08:54 | | | | Greenwich Culmination Time: 15:37 | | | | | |
| <hr/> | | | | | | | | | | | | | |
| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | |
| 00 | 183 26.5 +00.6 | S | 19 03.1 +00.5 | 19 02.6 +02.7 | N | 13 05.0 +00.0 | 82 27.8 +02.4 | S | 12 50.4 +00.0 | 00 | | | |
| 01 | 198 27.1 +00.7 | S | 19 03.6 +00.4 | 34 05.3 +02.8 | N | 13 05.0 -00.1 | 97 30.2 +02.4 | S | 12 50.4 -00.1 | 01 | | | |
| 02 | 213 27.8 +00.7 | S | 19 04.0 +00.5 | 49 08.1 +02.8 | N | 13 04.9 -00.1 | 112 32.6 +02.4 | S | 12 50.3 +00.0 | 02 | | | |
| 03 | 228 28.5 +00.6 | S | 19 04.5 +00.5 | 64 10.9 +02.8 | N | 13 04.8 -00.1 | 127 35.0 +02.4 | S | 12 50.3 +00.0 | 03 | | | |
| 04 | 243 29.1 +00.7 | S | 19 05.0 +00.4 | 79 13.7 +02.7 | N | 13 04.7 -00.1 | 142 37.4 +02.5 | S | 12 50.3 +00.0 | 04 | | | |
| 05 | 258 29.8 +00.6 | S | 19 05.4 +00.5 | 94 16.4 +02.8 | N | 13 04.6 -00.1 | 157 39.9 +02.4 | S | 12 50.3 -00.1 | 05 | | | |
| 06 | 273 30.4 +00.7 | S | 19 05.9 +00.4 | 109 19.2 +02.8 | N | 13 04.5 -00.1 | 172 42.3 +02.4 | S | 12 50.2 +00.0 | 06 | | | |
| 07 | 288 31.1 +00.7 | S | 19 06.3 +00.5 | 124 22.0 +02.7 | N | 13 04.4 -00.1 | 187 44.7 +02.4 | S | 12 50.2 +00.0 | 07 | | | |
| 08 | 303 31.8 +00.6 | S | 19 06.8 +00.4 | 139 24.7 +02.8 | N | 13 04.3 -00.1 | 202 47.1 +02.4 | S | 12 50.2 +00.0 | 08 | | | |
| 09 | 318 32.4 +00.7 | S | 19 07.2 +00.5 | 154 27.5 +02.8 | N | 13 04.2 -00.1 | 217 49.5 +02.4 | S | 12 50.2 -00.1 | 09 | | | |
| 10 | 333 33.1 +00.6 | S | 19 07.7 +00.4 | 169 30.3 +02.7 | N | 13 04.1 -00.1 | 232 51.9 +02.4 | S | 12 50.1 +00.0 | 10 | | | |
| 11 | 348 33.7 +00.7 | S | 19 08.1 +00.5 | 184 33.0 +02.8 | N | 13 04.0 -00.1 | 247 54.3 +02.4 | S | 12 50.1 +00.0 | 11 | | | |
| 12 | 3 34.4 +00.6 | S | 19 08.6 +00.4 | 199 35.8 +02.8 | N | 13 03.9 -00.1 | 262 56.7 +02.4 | S | 12 50.1 +00.0 | 12 | | | |
| 13 | 18 35.0 +00.7 | S | 19 09.0 +00.5 | 214 38.6 +02.8 | N | 13 03.8 -00.1 | 277 59.1 +02.5 | S | 12 50.1 -00.1 | 13 | | | |
| 14 | 33 35.7 +00.7 | S | 19 09.5 +00.4 | 229 41.4 +02.7 | N | 13 03.7 +00.0 | 293 01.6 +02.4 | S | 12 50.0 +00.0 | 14 | | | |
| 15 | 48 36.4 +00.6 | S | 19 09.9 +00.5 | 244 44.1 +02.8 | N | 13 03.7 -00.1 | 308 04.0 +02.4 | S | 12 50.0 +00.0 | 15 | | | |
| 16 | 63 37.0 +00.7 | S | 19 10.4 +00.4 | 259 46.9 +02.8 | N | 13 03.6 -00.1 | 323 06.4 +02.4 | S | 12 50.0 +00.0 | 16 | | | |
| 17 | 78 37.7 +00.6 | S | 19 10.8 +00.5 | 274 49.7 +02.7 | N | 13 03.5 -00.1 | 338 08.8 +02.4 | S | 12 50.0 -00.1 | 17 | | | |
| 18 | 93 38.3 +00.7 | S | 19 11.3 +00.4 | 289 52.4 +02.8 | N | 13 03.4 -00.1 | 353 11.2 +02.4 | S | 12 49.9 +00.0 | 18 | | | |
| 19 | 108 39.0 +00.6 | S | 19 11.7 +00.5 | 304 55.2 +02.8 | N | 13 03.3 -00.1 | 8 13.6 +02.4 | S | 12 49.9 +00.0 | 19 | | | |
| 20 | 123 39.6 +00.7 | S | 19 12.2 +00.4 | 319 58.0 +02.7 | N | 13 03.2 -00.1 | 23 16.0 +02.4 | S | 12 49.9 +00.0 | 20 | | | |
| 21 | 138 40.3 +00.7 | S | 19 12.6 +00.5 | 335 00.7 +02.8 | N | 13 03.1 -00.1 | 38 18.4 +02.4 | S | 12 49.9 -00.1 | 21 | | | |
| 22 | 153 41.0 +00.6 | S | 19 13.1 +00.4 | 350 03.5 +02.8 | N | 13 03.0 -00.1 | 53 20.8 +02.4 | S | 12 49.8 +00.0 | 22 | | | |
| 23 | 168 41.6 +00.7 | S | 19 13.5 +00.5 | 5 06.3 +02.8 | N | 13 02.9 -00.1 | 68 23.2 +02.5 | S | 12 49.8 +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 | 128° 127° 127° 127° 127° 127° | | | SHA | 323° 323° 323° 323° 323° 323° | | | SHA | 027° 027° 027° 027° 027° 027° | | | | |
| Greenwich Culmination Time: 11:45 | | | | Greenwich Culmination Time: 22:39 | | | | Greenwich Culmination Time: 18:27 | | | | | |

| Sun | | | | | Venus | | | | | Moon | | | | | |
|-----------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|-------|-----------------------------------|-----------|-------------|-----------|-----------|-----------|-----------|--|
| UT | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | UT | | |
| | ° ' " | | ° ' " | "/min | ° ' " | | ° ' " | "/min | ° ' " | | ° ' " | "/min | | | |
| 00 | 183 45.0 -00.1 | S 19 06.3 +00.6 | 226 19.4 -00.2 | S 02 38.5 +01.0 | 120 38.8 -35.9 | S 26 33.1 -06.2 | 00 | | | | | | | | |
| 01 | 198 44.9 -00.2 | S 19 06.9 +00.6 | 241 19.2 -00.2 | S 02 39.5 +01.0 | 135 02.9 -35.8 | S 26 26.9 -06.3 | 01 | | | | | | | | |
| 02 | 213 44.7 -00.1 | S 19 07.5 +00.6 | 256 19.0 -00.1 | S 02 40.5 +01.0 | 149 27.1 -35.7 | S 26 20.6 -06.5 | 02 | | | | | | | | |
| 03 | 228 44.6 -00.1 | S 19 08.1 +00.6 | 271 18.9 -00.2 | S 02 41.5 +00.9 | 163 51.4 -35.7 | S 26 14.1 -06.7 | 03 | | | | | | | | |
| 04 | 243 44.5 -00.2 | S 19 08.7 +00.6 | 286 18.7 -00.2 | S 02 42.4 +01.0 | 178 15.7 -35.6 | S 26 07.4 -06.8 | 04 | | | | | | | | |
| 05 | 258 44.3 -00.1 | S 19 09.3 +00.6 | 301 18.5 -00.2 | S 02 43.4 +01.0 | 192 40.1 -35.6 | S 26 00.6 -07.0 | 05 | | | | | | | | |
| 06 | 273 44.2 -00.1 | S 19 09.9 +00.6 | 316 18.3 -00.1 | S 02 44.4 +01.0 | 207 04.5 -35.5 | S 25 53.6 -07.2 | 06 | | | | | | | | |
| 07 | 288 44.1 -00.1 | S 19 10.5 +00.6 | 331 18.2 -00.2 | S 02 45.4 +01.0 | 221 29.0 -35.4 | S 25 46.4 -07.3 | 07 | | | | | | | | |
| 08 | 303 44.0 -00.2 | S 19 11.1 +00.6 | 346 18.0 -00.2 | S 02 46.4 +01.0 | 235 53.6 -35.3 | S 25 39.1 -07.5 | 08 | | | | | | | | |
| 09 | 318 43.8 -00.1 | S 19 11.7 +00.6 | 1 17.8 -00.2 | S 02 47.4 +01.0 | 250 18.3 -35.3 | S 25 31.6 -07.7 | 09 | | | | | | | | |
| 10 | 333 43.7 -00.1 | S 19 12.3 +00.6 | 16 17.6 -00.2 | S 02 48.4 +01.0 | 264 43.0 -35.3 | S 25 23.9 -07.8 | 10 | | | | | | | | |
| 11 | 348 43.6 -00.2 | S 19 12.9 +00.6 | 31 17.4 -00.2 | S 02 49.4 +01.0 | 279 07.7 -35.1 | S 25 16.1 -08.0 | 11 | | | | | | | | |
| 12 | 3 43.4 -00.1 | S 19 13.5 +00.6 | 46 17.2 -00.1 | S 02 50.4 +01.0 | 293 32.6 -35.1 | S 25 08.1 -08.1 | 12 | | | | | | | | |
| 13 | 18 43.3 -00.1 | S 19 14.1 +00.6 | 61 17.1 -00.2 | S 02 51.4 +01.0 | 307 57.5 -35.0 | S 24 60.0 -08.3 | 13 | | | | | | | | |
| 14 | 33 43.2 -00.2 | S 19 14.7 +00.6 | 76 16.9 -00.2 | S 02 52.4 +01.0 | 322 22.5 -34.9 | S 24 51.7 -08.5 | 14 | | | | | | | | |
| 15 | 48 43.0 -00.1 | S 19 15.3 +00.6 | 91 16.7 -00.2 | S 02 53.4 +01.0 | 336 47.6 -34.9 | S 24 43.2 -08.6 | 15 | | | | | | | | |
| 16 | 63 42.9 -00.1 | S 19 15.9 +00.6 | 106 16.5 -00.2 | S 02 54.4 +01.0 | 351 12.7 -34.7 | S 24 34.6 -08.8 | 16 | | | | | | | | |
| 17 | 78 42.8 -00.2 | S 19 16.5 +00.6 | 121 16.3 -00.1 | S 02 55.4 +01.0 | 5 38.0 -34.7 | S 24 25.8 -08.9 | 17 | | | | | | | | |
| 18 | 93 42.6 -00.1 | S 19 17.1 +00.6 | 136 16.2 -00.2 | S 02 56.4 +01.0 | 20 03.3 -34.7 | S 24 16.9 -09.1 | 18 | | | | | | | | |
| 19 | 108 42.5 -00.1 | S 19 17.7 +00.6 | 151 16.0 -00.2 | S 02 57.4 +01.0 | 34 28.6 -34.5 | S 24 07.8 -09.2 | 19 | | | | | | | | |
| 20 | 123 42.4 -00.2 | S 19 18.3 +00.6 | 166 15.8 -00.2 | S 02 58.4 +01.0 | 48 54.1 -34.5 | S 23 58.6 -09.4 | 20 | | | | | | | | |
| 21 | 138 42.2 -00.1 | S 19 18.9 +00.5 | 181 15.6 -00.2 | S 02 59.4 +01.0 | 63 19.6 -34.4 | S 23 49.2 -09.6 | 21 | | | | | | | | |
| 22 | 153 42.1 -00.1 | S 19 19.4 +00.6 | 196 15.4 -00.2 | S 03 00.4 +01.0 | 77 45.2 -34.3 | S 23 39.6 -09.6 | 22 | | | | | | | | |
| 23 | 168 42.0 -00.2 | S 19 20.0 +00.6 | 211 15.2 -00.2 | S 03 01.4 +01.0 | 92 10.9 -34.2 | S 23 30.0 -09.9 | 23 | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | | UT | 02 | 06 | 10 | 14 | 18 | 22 | |
| SD | 16'2 | 16'2 | 16'2 | 16'2 | 16'2 | 16'2 | | SD | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | |
| HP | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | | HP | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | |
| SHA | 127° | 127° | 127° | 126° | 126° | 126° | | SHA | 169° | 169° | 169° | 169° | 169° | 169° | |
| Greenwich Culmination Time: 11:45 | | | | | | | | Greenwich Culmination Time: 08:54 | | | | | | | |

| Mars | | | | | Jupiter | | | | | Saturn | | | | | |
|-----------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|-------|-----------------------------------|-----------|---------------|-----------|-----------|-----------|-----------|--|
| UT | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | UT | | |
| | ° ' " | | ° ' " | "/min | ° ' " | | ° ' " | "/min | ° ' " | | ° ' " | "/min | | | |
| 00 | 183 42.3 +00.6 | S 19 14.0 +00.4 | 20 09.1 +02.7 | N 13 02.8 -00.1 | 83 25.7 +02.4 | S 12 49.8 +00.0 | 00 | | | | | | | | |
| 01 | 198 42.9 +00.7 | S 19 14.4 +00.5 | 35 11.8 +02.8 | N 13 02.7 -00.1 | 98 28.1 +02.4 | S 12 49.8 -00.1 | 01 | | | | | | | | |
| 02 | 213 43.6 +00.6 | S 19 14.9 +00.4 | 50 14.6 +02.8 | N 13 02.6 -00.1 | 113 30.5 +02.4 | S 12 49.7 +00.0 | 02 | | | | | | | | |
| 03 | 228 44.2 +00.7 | S 19 15.3 +00.4 | 65 17.4 +02.7 | N 13 02.5 +00.0 | 128 32.9 +02.4 | S 12 49.7 +00.0 | 03 | | | | | | | | |
| 04 | 243 44.9 +00.7 | S 19 15.7 +00.5 | 80 20.1 +02.8 | N 13 02.5 -00.1 | 143 35.3 +02.4 | S 12 49.7 +00.0 | 04 | | | | | | | | |
| 05 | 258 45.6 +00.6 | S 19 16.2 +00.4 | 95 22.9 +02.8 | N 13 02.4 -00.1 | 158 37.7 +02.4 | S 12 49.7 -00.1 | 05 | | | | | | | | |
| 06 | 273 46.2 +00.7 | S 19 16.6 +00.5 | 110 25.7 +02.7 | N 13 02.3 -00.1 | 173 40.1 +02.4 | S 12 49.6 +00.0 | 06 | | | | | | | | |
| 07 | 288 46.9 +00.6 | S 19 17.1 +00.4 | 125 28.4 +02.8 | N 13 02.2 -00.1 | 188 42.5 +02.4 | S 12 49.6 +00.0 | 07 | | | | | | | | |
| 08 | 303 47.5 +00.7 | S 19 17.5 +00.5 | 140 31.2 +02.8 | N 13 02.1 -00.1 | 203 44.9 +02.4 | S 12 49.6 +00.0 | 08 | | | | | | | | |
| 09 | 318 48.2 +00.6 | S 19 18.0 +00.4 | 155 34.0 +02.7 | N 13 02.0 -00.1 | 218 47.3 +02.4 | S 12 49.6 -00.1 | 09 | | | | | | | | |
| 10 | 333 48.8 +00.7 | S 19 18.4 +00.4 | 170 36.7 +02.8 | N 13 01.9 -00.1 | 233 49.7 +02.4 | S 12 49.5 +00.0 | 10 | | | | | | | | |
| 11 | 348 49.5 +00.6 | S 19 18.8 +00.5 | 185 39.5 +02.8 | N 13 01.8 -00.1 | 248 52.1 +02.4 | S 12 49.5 +00.0 | 11 | | | | | | | | |
| 12 | 3 50.1 +00.7 | S 19 19.3 +00.4 | 200 42.3 +02.7 | N 13 01.7 -00.1 | 263 54.5 +02.5 | S 12 49.5 -00.1 | 12 | | | | | | | | |
| 13 | 18 50.8 +00.6 | S 19 19.7 +00.5 | 215 45.0 +02.8 | N 13 01.6 -00.1 | 278 57.0 +02.4 | S 12 49.4 +00.0 | 13 | | | | | | | | |
| 14 | 33 51.4 +00.7 | S 19 20.2 +00.4 | 230 47.8 +02.8 | N 13 01.5 -00.1 | 293 59.4 +02.4 | S 12 49.4 +00.0 | 14 | | | | | | | | |
| 15 | 48 52.1 +00.6 | S 19 20.6 +00.4 | 245 50.6 +02.7 | N 13 01.4 +00.0 | 309 01.8 +02.4 | S 12 49.4 +00.0 | 15 | | | | | | | | |
| 16 | 63 52.7 +00.7 | S 19 21.0 +00.5 | 260 53.3 +02.8 | N 13 01.4 -00.1 | 324 04.2 +02.4 | S 12 49.4 -00.1 | 16 | | | | | | | | |
| 17 | 78 53.4 +00.6 | S 19 21.5 +00.4 | 275 56.1 +02.8 | N 13 01.3 -00.1 | 339 06.6 +02.4 | S 12 49.3 +00.0 | 17 | | | | | | | | |
| 18 | 93 54.0 +00.7 | S 19 21.9 +00.5 | 290 58.9 +02.7 | N 13 01.2 -00.1 | 354 09.0 +02.4 | S 12 49.3 +00.0 | 18 | | | | | | | | |
| 19 | 108 54.7 +00.6 | S 19 22.4 +00.4 | 306 01.6 +02.8 | N 13 01.1 -00.1 | 9 11.4 +02.4 | S 12 49.3 +00.0 | 19 | | | | | | | | |
| 20 | 123 55.3 +00.7 | S 19 22.8 +00.4 | 321 04.4 +02.8 | N 13 01.0 -00.1 | 24 13.8 +02.4 | S 12 49.3 -00.1 | 20 | | | | | | | | |
| 21 | 138 56.0 +00.6 | S 19 23.2 +00.5 | 336 07.2 +02.7 | N 13 00.9 -00.1 | 39 16.2 +02.4 | S 12 49.2 +00.0 | 21 | | | | | | | | |
| 22 | 153 56.6 +00.7 | S 19 23.7 +00.4 | 351 09.9 +02.8 | N 13 00.8 -00.1 | 54 18.6 +02.4 | S 12 49.2 +00.0 | 22 | | | | | | | | |
| 23 | 168 57.3 +00.6 | S 19 24.1 +00.5 | 6 12.7 +02.8 | N 13 00.7 -00.1 | 69 21.0 +02.4 | S 12 49.2 +00.0 | 23 | | | | | | | | |
| 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 | 00'1 | 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 | |
| SHA | 127° | 127° | 127° | 127° | 126° | 126° | | SHA | 027° | 027° | 027° | 027° | 027° | 027° | |
| Greenwich Culmination Time: 11:44 | | | | | | | | Greenwich Culmination Time: 22:35 | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 41.8 -00.1 | S | 19 20.6 +00.6 | 226 15.0 -00.1 | S | 03 02.4 +01.0 | 106 36.7 -34.1 | S | 23 20.1 -10.0 | 00 | | | |
| 01 | 198 41.7 -00.1 | S | 19 21.2 +00.6 | 241 14.9 -00.2 | S | 03 03.4 +01.0 | 121 02.6 -34.1 | S | 23 10.1 -10.1 | 01 | | | |
| 02 | 213 41.6 -00.2 | S | 19 21.8 +00.6 | 256 14.7 -00.2 | S | 03 04.4 +01.0 | 135 28.5 -34.0 | S | 23 00.0 -10.2 | 02 | | | |
| 03 | 228 41.4 -00.1 | S | 19 22.4 +00.6 | 271 14.5 -00.2 | S | 03 05.4 +01.0 | 149 54.5 -33.9 | S | 22 49.8 -10.4 | 03 | | | |
| 04 | 243 41.3 -00.1 | S | 19 23.0 +00.6 | 286 14.3 -00.2 | S | 03 06.4 +01.0 | 164 20.6 -33.8 | S | 22 39.4 -10.6 | 04 | | | |
| 05 | 258 41.2 -00.2 | S | 19 23.6 +00.5 | 301 14.1 -00.2 | S | 03 07.4 +01.0 | 178 46.8 -33.7 | S | 22 28.8 -10.6 | 05 | | | |
| 06 | 273 41.0 -00.1 | S | 19 24.1 +00.6 | 316 13.9 -00.2 | S | 03 08.4 +00.9 | 193 13.1 -33.6 | S | 22 18.2 -10.8 | 06 | | | |
| 07 | 288 40.9 -00.1 | S | 19 24.7 +00.6 | 331 13.7 -00.1 | S | 03 09.3 +01.0 | 207 39.5 -33.6 | S | 22 07.4 -11.0 | 07 | | | |
| 08 | 303 40.8 -00.2 | S | 19 25.3 +00.6 | 346 13.6 -00.2 | S | 03 10.3 +01.0 | 222 05.9 -33.5 | S | 21 56.4 -11.1 | 08 | | | |
| 09 | 318 40.6 -00.1 | S | 19 25.9 +00.6 | 1 13.4 -00.2 | S | 03 11.3 +01.0 | 236 32.4 -33.3 | S | 21 45.3 -11.2 | 09 | | | |
| 10 | 333 40.5 -00.2 | S | 19 26.5 +00.6 | 16 13.2 -00.2 | S | 03 12.3 +01.0 | 250 59.1 -33.3 | S | 21 34.1 -11.3 | 10 | | | |
| 11 | 348 40.3 -00.1 | S | 19 27.1 +00.5 | 31 13.0 -00.2 | S | 03 13.3 +01.0 | 265 25.8 -33.3 | S | 21 22.8 -11.5 | 11 | | | |
| 12 | 3 40.2 -00.1 | S | 19 27.6 +00.6 | 46 12.8 -00.2 | S | 03 14.3 +01.0 | 279 52.5 -33.1 | S | 21 11.3 -11.6 | 12 | | | |
| 13 | 18 40.1 -00.2 | S | 19 28.2 +00.6 | 61 12.6 -00.2 | S | 03 15.3 +01.0 | 294 19.4 -33.0 | S | 20 59.7 -11.7 | 13 | | | |
| 14 | 33 39.9 -00.1 | S | 19 28.8 +00.6 | 76 12.4 -00.2 | S | 03 16.3 +01.0 | 308 46.4 -33.0 | S | 20 48.0 -11.9 | 14 | | | |
| 15 | 48 39.8 -00.2 | S | 19 29.4 +00.6 | 91 12.2 -00.2 | S | 03 17.3 +01.0 | 323 13.4 -32.9 | S | 20 36.1 -11.9 | 15 | | | |
| 16 | 63 39.6 -00.1 | S | 19 30.0 +00.5 | 106 12.0 -00.2 | S | 03 18.3 +01.0 | 337 40.5 -32.8 | S | 20 24.2 -12.1 | 16 | | | |
| 17 | 78 39.5 -00.1 | S | 19 30.5 +00.6 | 121 11.8 -00.1 | S | 03 19.3 +01.0 | 352 07.7 -32.7 | S | 20 12.1 -12.2 | 17 | | | |
| 18 | 93 39.4 -00.2 | S | 19 31.1 +00.6 | 136 11.7 -00.2 | S | 03 20.3 +01.0 | 6 35.0 -32.6 | S | 19 59.9 -12.4 | 18 | | | |
| 19 | 108 39.2 -00.1 | S | 19 31.7 +00.6 | 151 11.5 -00.2 | S | 03 21.3 +01.0 | 21 02.4 -32.5 | S | 19 47.5 -12.4 | 19 | | | |
| 20 | 123 39.1 -00.2 | S | 19 32.3 +00.5 | 166 11.3 -00.2 | S | 03 22.3 +01.0 | 35 29.9 -32.5 | S | 19 35.1 -12.6 | 20 | | | |
| 21 | 138 38.9 -00.1 | S | 19 32.8 +00.6 | 181 11.1 -00.2 | S | 03 23.3 +01.0 | 49 57.4 -32.4 | S | 19 22.5 -12.6 | 21 | | | |
| 22 | 153 38.8 -00.2 | S | 19 33.4 +00.6 | 196 10.9 -00.2 | S | 03 24.3 +01.0 | 64 25.0 -32.3 | S | 19 09.9 -12.8 | 22 | | | |
| 23 | 168 38.6 -00.1 | S | 19 34.0 +00.6 | 211 10.7 -00.2 | S | 03 25.3 +01.0 | 78 52.7 -32.2 | S | 18 57.1 -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 16'2 16'2 16'2 16'2 16'2 16'2 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | 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 00'2 00'2 00'2 00'2 00'2 00'2 | | | HP 59'0 59'0 59'0 59'1 59'1 59'1 | | | | | | |
| | SHA 126° 126° 125° 125° 125° 125° | | | SHA 168° 168° 168° 168° 168° 168° | | | SHA 048° 045° 043° 040° 038° 036° | | | | | | |
| | Greenwich Culmination Time: 11:45 | | | Greenwich Culmination Time: 08:55 | | | Greenwich Culmination Time: 17:32 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|---------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 57.9 +00.7 | S | 19 24.6 +00.4 | 21 15.5 +02.7 | N | 13 00.6 -00.1 | 84 23.4 +02.4 | S | 12 49.2 -00.1 | 00 | | | |
| 01 | 198 58.6 +00.6 | S | 19 25.0 +00.4 | 36 18.2 +02.8 | N | 13 00.5 -00.1 | 99 25.8 +02.4 | S | 12 49.1 +00.0 | 01 | | | |
| 02 | 213 59.2 +00.7 | S | 19 25.4 +00.5 | 51 21.0 +02.7 | N | 13 00.4 +00.0 | 114 28.2 +02.4 | S | 12 49.1 +00.0 | 02 | | | |
| 03 | 228 59.9 +00.6 | S | 19 25.9 +00.4 | 66 23.7 +02.8 | N | 13 00.4 -00.1 | 129 30.6 +02.4 | S | 12 49.1 -00.1 | 03 | | | |
| 04 | 244 00.5 +00.7 | S | 19 26.3 +00.4 | 81 26.5 +02.8 | N | 13 00.3 -00.1 | 144 33.0 +02.4 | S | 12 49.0 +00.0 | 04 | | | |
| 05 | 259 01.2 +00.6 | S | 19 26.7 +00.5 | 96 29.3 +02.7 | N | 13 00.2 -00.1 | 159 35.4 +02.4 | S | 12 49.0 +00.0 | 05 | | | |
| 06 | 274 01.8 +00.7 | S | 19 27.2 +00.4 | 111 32.0 +02.8 | N | 13 00.1 -00.1 | 174 37.8 +02.4 | S | 12 49.0 +00.0 | 06 | | | |
| 07 | 289 02.5 +00.6 | S | 19 27.6 +00.5 | 126 34.8 +02.8 | N | 12 60.0 -00.1 | 189 40.2 +02.4 | S | 12 49.0 -00.1 | 07 | | | |
| 08 | 304 03.1 +00.7 | S | 19 28.1 +00.4 | 141 37.6 +02.7 | N | 12 59.9 -00.1 | 204 42.6 +02.4 | S | 12 48.9 +00.0 | 08 | | | |
| 09 | 319 03.8 +00.6 | S | 19 28.5 +00.4 | 156 40.3 +02.8 | N | 12 59.8 -00.1 | 219 45.0 +02.5 | S | 12 48.9 +00.0 | 09 | | | |
| 10 | 334 04.4 +00.6 | S | 19 28.9 +00.5 | 171 43.1 +02.8 | N | 12 59.7 -00.1 | 234 47.5 +02.4 | S | 12 48.9 -00.1 | 10 | | | |
| 11 | 349 05.0 +00.7 | S | 19 29.4 +00.4 | 186 45.9 +02.7 | N | 12 59.6 -00.1 | 249 49.9 +02.4 | S | 12 48.8 +00.0 | 11 | | | |
| 12 | 4 05.7 +00.6 | S | 19 29.8 +00.4 | 201 48.6 +02.8 | N | 12 59.5 +00.0 | 264 52.3 +02.4 | S | 12 48.8 +00.0 | 12 | | | |
| 13 | 19 06.3 +00.7 | S | 19 30.2 +00.5 | 216 51.4 +02.7 | N | 12 59.5 -00.1 | 279 54.7 +02.4 | S | 12 48.8 +00.0 | 13 | | | |
| 14 | 34 07.0 +00.6 | S | 19 30.7 +00.4 | 231 54.1 +02.8 | N | 12 59.4 -00.1 | 294 57.1 +02.4 | S | 12 48.8 -00.1 | 14 | | | |
| 15 | 49 07.6 +00.7 | S | 19 31.1 +00.5 | 246 56.9 +02.8 | N | 12 59.3 -00.1 | 309 59.5 +02.4 | S | 12 48.7 +00.0 | 15 | | | |
| 16 | 64 08.3 +00.6 | S | 19 31.6 +00.4 | 261 59.7 +02.7 | N | 12 59.2 -00.1 | 325 01.9 +02.4 | S | 12 48.7 +00.0 | 16 | | | |
| 17 | 79 08.9 +00.7 | S | 19 32.0 +00.4 | 277 02.4 +02.8 | N | 12 59.1 -00.1 | 340 04.3 +02.4 | S | 12 48.7 +00.0 | 17 | | | |
| 18 | 94 09.6 +00.6 | S | 19 32.4 +00.5 | 292 05.2 +02.7 | N | 12 59.0 -00.1 | 355 06.7 +02.4 | S | 12 48.7 -00.1 | 18 | | | |
| 19 | 109 10.2 +00.6 | S | 19 32.9 +00.4 | 307 07.9 +02.8 | N | 12 58.9 -00.1 | 10 09.1 +02.4 | S | 12 48.6 +00.0 | 19 | | | |
| 20 | 124 10.8 +00.7 | S | 19 33.3 +00.4 | 322 10.7 +02.8 | N | 12 58.8 -00.1 | 25 11.5 +02.4 | S | 12 48.6 +00.0 | 20 | | | |
| 21 | 139 11.5 +00.6 | S | 19 33.7 +00.5 | 337 13.5 +02.7 | N | 12 58.7 -00.1 | 40 13.9 +02.4 | S | 12 48.6 -00.1 | 21 | | | |
| 22 | 154 12.1 +00.7 | S | 19 34.2 +00.4 | 352 16.2 +02.8 | N | 12 58.6 +00.0 | 55 16.3 +02.4 | S | 12 48.5 +00.0 | 22 | | | |
| 23 | 169 12.8 +00.6 | S | 19 34.6 +00.4 | 7 19.0 +02.8 | N | 12 58.6 -00.1 | 70 18.7 +02.4 | S | 12 48.5 +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 126° 126° 126° 126° 126° 126° | | | SHA 323° 324° 324° 324° 324° 324° | | | SHA 027° 027° 027° 027° 027° 027° | | | | | | |
| | Greenwich Culmination Time: 11:43 | | | Greenwich Culmination Time: 22:30 | | | Greenwich Culmination Time: 18:19 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 35.0 -00.2 | S | 19 48.2 +00.5 | 226 05.7 -00.2 | S | 03 50.4 +01.0 | 80 50.6 -30.3 | S | 13 05.8 -15.2 | 00 | | | |
| 01 | 198 34.8 -00.1 | S | 19 48.7 +00.6 | 241 05.5 -00.2 | S | 03 51.4 +01.0 | 95 20.3 -30.3 | S | 12 50.6 -15.2 | 01 | | | |
| 02 | 213 34.7 -00.2 | S | 19 49.3 +00.5 | 256 05.3 -00.2 | S | 03 52.4 +01.0 | 109 50.0 -30.3 | S | 12 35.4 -15.2 | 02 | | | |
| 03 | 228 34.5 -00.1 | S | 19 49.8 +00.6 | 271 05.1 -00.2 | S | 03 53.4 +01.0 | 124 19.7 -30.2 | S | 12 20.2 -15.4 | 03 | | | |
| 04 | 243 34.4 -00.2 | S | 19 50.4 +00.6 | 286 04.9 -00.2 | S | 03 54.4 +01.0 | 138 49.5 -30.1 | S | 12 04.8 -15.4 | 04 | | | |
| 05 | 258 34.2 -00.1 | S | 19 51.0 +00.5 | 301 04.7 -00.2 | S | 03 55.4 +01.0 | 153 19.4 -30.1 | S | 11 49.4 -15.5 | 05 | | | |
| 06 | 273 34.1 -00.2 | S | 19 51.5 +00.6 | 316 04.5 -00.2 | S | 03 56.4 +01.0 | 167 49.3 -30.0 | S | 11 33.9 -15.5 | 06 | | | |
| 07 | 288 33.9 -00.2 | S | 19 52.1 +00.5 | 331 04.3 -00.2 | S | 03 57.4 +01.1 | 182 19.3 -29.9 | S | 11 18.4 -15.6 | 07 | | | |
| 08 | 303 33.7 -00.1 | S | 19 52.6 +00.6 | 346 04.1 -00.2 | S | 03 58.5 +01.0 | 196 49.4 -29.9 | S | 11 02.8 -15.6 | 08 | | | |
| 09 | 318 33.6 -00.2 | S | 19 53.2 +00.5 | 1 03.9 -00.2 | S | 03 59.5 +01.0 | 211 19.5 -29.9 | S | 10 47.2 -15.7 | 09 | | | |
| 10 | 333 33.4 -00.1 | S | 19 53.7 +00.6 | 16 03.7 -00.2 | S | 04 00.5 +01.0 | 225 49.6 -29.8 | S | 10 31.5 -15.8 | 10 | | | |
| 11 | 348 33.3 -00.2 | S | 19 54.3 +00.5 | 31 03.5 -00.2 | S | 04 01.5 +01.0 | 240 19.8 -29.7 | S | 10 15.7 -15.8 | 11 | | | |
| 12 | 3 33.1 -00.1 | S | 19 54.8 +00.6 | 46 03.3 -00.2 | S | 04 02.5 +01.0 | 254 50.1 -29.7 | S | 09 59.9 -15.9 | 12 | | | |
| 13 | 18 33.0 -00.2 | S | 19 55.4 +00.5 | 61 03.1 -00.2 | S | 04 03.5 +01.0 | 269 20.4 -29.7 | S | 09 44.0 -15.9 | 13 | | | |
| 14 | 33 32.8 -00.1 | S | 19 55.9 +00.6 | 76 02.9 -00.2 | S | 04 04.5 +01.0 | 283 50.7 -29.6 | S | 09 28.1 -16.0 | 14 | | | |
| 15 | 48 32.7 -00.2 | S | 19 56.5 +00.5 | 91 02.7 -00.2 | S | 04 05.5 +01.0 | 298 21.1 -29.5 | S | 09 12.1 -16.0 | 15 | | | |
| 16 | 63 32.5 -00.2 | S | 19 57.0 +00.6 | 106 02.5 -00.2 | S | 04 06.5 +01.0 | 312 51.6 -29.5 | S | 08 56.1 -16.1 | 16 | | | |
| 17 | 78 32.3 -00.1 | S | 19 57.6 +00.5 | 121 02.3 -00.2 | S | 04 07.5 +01.0 | 327 22.1 -29.5 | S | 08 40.0 -16.1 | 17 | | | |
| 18 | 93 32.2 -00.2 | S | 19 58.1 +00.6 | 136 02.1 -00.3 | S | 04 08.5 +01.0 | 341 52.6 -29.4 | S | 08 23.9 -16.2 | 18 | | | |
| 19 | 108 32.0 -00.1 | S | 19 58.7 +00.5 | 151 01.8 -00.2 | S | 04 09.5 +01.0 | 356 23.2 -29.4 | S | 08 07.7 -16.2 | 19 | | | |
| 20 | 123 31.9 -00.2 | S | 19 59.2 +00.6 | 166 01.6 -00.2 | S | 04 10.5 +01.0 | 10 53.8 -29.3 | S | 07 51.5 -16.2 | 20 | | | |
| 21 | 138 31.7 -00.1 | S | 19 59.8 +00.5 | 181 01.4 -00.2 | S | 04 11.5 +01.0 | 25 24.5 -29.3 | S | 07 35.3 -16.3 | 21 | | | |
| 22 | 153 31.6 -00.2 | S | 20 00.3 +00.6 | 196 01.2 -00.2 | S | 04 12.5 +01.0 | 39 55.2 -29.3 | S | 07 19.0 -16.3 | 22 | | | |
| 23 | 168 31.4 -00.2 | S | 20 00.9 +00.5 | 211 01.0 -00.2 | S | 04 13.5 +01.0 | 54 25.9 -29.2 | S | 07 02.7 -16.4 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'2 16'2 16'2 16'2 16'2 16'2 | | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | | 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 00'2 00'2 00'2 00'2 00'2 00'2 | | | HP 59'2 59'2 59'3 59'3 59'3 59'3 | | | | | | |
| | SHA 124° 124° 123° 123° 123° 123° | | | SHA 166° 166° 166° 166° 166° 165° | | | SHA 020° 018° 016° 014° 011° 009° | | | | | | |
| | Greenwich Culmination Time: 11:45 | | | Greenwich Culmination Time: 08:55 | | | Greenwich Culmination Time: 19:14 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|---------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 184 28.8 +00.6 | S | 19 45.3 +00.5 | 23 27.9 +02.8 | N | 12 56.3 +00.0 | 86 18.6 +02.4 | S | 12 47.8 -00.1 | 00 | | | |
| 01 | 199 29.4 +00.6 | S | 19 45.8 +00.4 | 38 30.7 +02.8 | N | 12 56.3 -00.1 | 101 21.0 +02.4 | S | 12 47.7 +00.0 | 01 | | | |
| 02 | 214 30.0 +00.7 | S | 19 46.2 +00.4 | 53 33.5 +02.7 | N | 12 56.2 -00.1 | 116 23.4 +02.4 | S | 12 47.7 +00.0 | 02 | | | |
| 03 | 229 30.7 +00.6 | S | 19 46.6 +00.4 | 68 36.2 +02.8 | N | 12 56.1 -00.1 | 131 25.8 +02.4 | S | 12 47.7 -00.1 | 03 | | | |
| 04 | 244 31.3 +00.6 | S | 19 47.0 +00.5 | 83 39.0 +02.7 | N | 12 56.0 -00.1 | 146 28.2 +02.4 | S | 12 47.6 +00.0 | 04 | | | |
| 05 | 259 31.9 +00.7 | S | 19 47.5 +00.4 | 98 41.7 +02.8 | N | 12 55.9 -00.1 | 161 30.6 +02.4 | S | 12 47.6 +00.0 | 05 | | | |
| 06 | 274 32.6 +00.6 | S | 19 47.9 +00.4 | 113 44.5 +02.7 | N | 12 55.8 -00.1 | 176 33.0 +02.4 | S | 12 47.6 +00.0 | 06 | | | |
| 07 | 289 33.2 +00.6 | S | 19 48.3 +00.4 | 128 47.2 +02.8 | N | 12 55.7 -00.1 | 191 35.4 +02.4 | S | 12 47.6 -00.1 | 07 | | | |
| 08 | 304 33.8 +00.7 | S | 19 48.7 +00.4 | 143 50.0 +02.7 | N | 12 55.6 +00.0 | 206 37.8 +02.4 | S | 12 47.5 +00.0 | 08 | | | |
| 09 | 319 34.5 +00.6 | S | 19 49.1 +00.5 | 158 52.7 +02.8 | N | 12 55.6 -00.1 | 221 40.2 +02.4 | S | 12 47.5 +00.0 | 09 | | | |
| 10 | 334 35.1 +00.7 | S | 19 49.6 +00.4 | 173 55.5 +02.8 | N | 12 55.5 -00.1 | 236 42.6 +02.4 | S | 12 47.5 -00.1 | 10 | | | |
| 11 | 349 35.8 +00.6 | S | 19 50.0 +00.4 | 188 58.3 +02.7 | N | 12 55.4 -00.1 | 251 45.0 +02.4 | S | 12 47.4 +00.0 | 11 | | | |
| 12 | 4 36.4 +00.6 | S | 19 50.4 +00.4 | 204 01.0 +02.8 | N | 12 55.3 -00.1 | 266 47.4 +02.4 | S | 12 47.4 +00.0 | 12 | | | |
| 13 | 19 37.0 +00.7 | S | 19 50.8 +00.5 | 219 03.8 +02.7 | N | 12 55.2 -00.1 | 281 49.8 +02.4 | S | 12 47.4 -00.1 | 13 | | | |
| 14 | 34 37.7 +00.6 | S | 19 51.3 +00.4 | 234 06.5 +02.8 | N | 12 55.1 -00.1 | 296 52.2 +02.4 | S | 12 47.3 +00.0 | 14 | | | |
| 15 | 49 38.3 +00.6 | S | 19 51.7 +00.4 | 249 09.3 +02.7 | N | 12 55.0 -00.1 | 311 54.6 +02.4 | S | 12 47.3 +00.0 | 15 | | | |
| 16 | 64 38.9 +00.6 | S | 19 52.1 +00.4 | 264 12.0 +02.8 | N | 12 54.9 +00.0 | 326 57.0 +02.4 | S | 12 47.3 -00.1 | 16 | | | |
| 17 | 79 39.5 +00.7 | S | 19 52.5 +00.4 | 279 14.8 +02.7 | N | 12 54.9 -00.1 | 341 59.4 +02.4 | S | 12 47.2 +00.0 | 17 | | | |
| 18 | 94 40.2 +00.6 | S | 19 52.9 +00.5 | 294 17.5 +02.8 | N | 12 54.8 -00.1 | 357 01.8 +02.3 | S | 12 47.2 +00.0 | 18 | | | |
| 19 | 109 40.8 +00.6 | S | 19 53.4 +00.4 | 309 20.3 +02.7 | N | 12 54.7 -00.1 | 12 04.1 +02.4 | S | 12 47.2 +00.0 | 19 | | | |
| 20 | 124 41.4 +00.7 | S | 19 53.8 +00.4 | 324 23.0 +02.8 | N | 12 54.6 -00.1 | 27 06.5 +02.4 | S | 12 47.2 -00.1 | 20 | | | |
| 21 | 139 42.1 +00.6 | S | 19 54.2 +00.4 | 339 25.8 +02.7 | N | 12 54.5 -00.1 | 42 08.9 +02.4 | S | 12 47.1 +00.0 | 21 | | | |
| 22 | 154 42.7 +00.6 | S | 19 54.6 +00.4 | 354 28.5 +02.8 | N | 12 54.4 -00.1 | 57 11.3 +02.4 | S | 12 47.1 +00.0 | 22 | | | |
| 23 | 169 43.3 +00.7 | S | 19 55.0 +00.5 | 9 31.3 +02.7 | N | 12 54.3 +00.0 | 72 13.7 +02.4 | S | 12 47.1 -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 00'1 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 125° 125° 124° 124° 124° 124° | | | SHA 324° 324° 324° 324° 324° 324° | | | SHA 027° 027° 027° 027° 027° 027° | | | | | | |
| | Greenwich Culmination Time: 11:41 | | | Greenwich Culmination Time: 22:22 | | | Greenwich Culmination Time: 18:11 | | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|------|-----------------------------------|-------|-----------------------------------|------------|-----------------------------------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 27.3 -00.2 | S 20 14.3 +00.5 | 225 55.6 -00.2 | S 04 38.7 +01.1 | 57 22.5 -28.7 | S 00 06.9 -16.8 | 00 | 00 | 06.9 -16.8 | 00 | 00 | 06.9 -16.8 | 00 |
| 01 | 198 27.1 -00.1 | S 20 14.8 +00.5 | 240 55.4 -00.2 | S 04 39.8 +01.0 | 71 53.8 -28.8 | N 00 09.9 +16.7 | 01 | 00 | 09.9 +16.7 | 01 | 00 | 09.9 +16.7 | 01 |
| 02 | 213 27.0 -00.2 | S 20 15.3 +00.6 | 255 55.2 -00.2 | S 04 40.8 +01.0 | 86 25.0 -28.7 | N 00 26.6 +16.8 | 02 | 00 | 26.6 +16.8 | 02 | 00 | 26.6 +16.8 | 02 |
| 03 | 228 26.8 -00.2 | S 20 15.9 +00.5 | 270 55.0 -00.3 | S 04 41.8 +01.0 | 100 56.3 -28.8 | N 00 43.4 +16.8 | 03 | 00 | 43.4 +16.8 | 03 | 00 | 43.4 +16.8 | 03 |
| 04 | 243 26.6 -00.1 | S 20 16.4 +00.5 | 285 54.7 -00.2 | S 04 42.8 +01.0 | 115 27.5 -28.7 | N 01 00.2 +16.7 | 04 | 01 | 00.2 +16.7 | 04 | 01 | 00.2 +16.7 | 04 |
| 05 | 258 26.5 -00.2 | S 20 16.9 +00.5 | 300 54.5 -00.2 | S 04 43.8 +01.0 | 129 58.8 -28.8 | N 01 16.9 +16.8 | 05 | 01 | 16.9 +16.8 | 05 | 01 | 16.9 +16.8 | 05 |
| 06 | 273 26.3 -00.2 | S 20 17.4 +00.6 | 315 54.3 -00.2 | S 04 44.8 +01.0 | 144 30.0 -28.8 | N 01 33.7 +16.7 | 06 | 01 | 33.7 +16.7 | 06 | 01 | 33.7 +16.7 | 06 |
| 07 | 288 26.1 -00.1 | S 20 18.0 +00.5 | 330 54.1 -00.2 | S 04 45.8 +01.0 | 159 01.2 -28.7 | N 01 50.4 +16.7 | 07 | 01 | 50.4 +16.7 | 07 | 01 | 50.4 +16.7 | 07 |
| 08 | 303 26.0 -00.2 | S 20 18.5 +00.5 | 345 53.9 -00.3 | S 04 46.8 +01.0 | 173 32.5 -28.8 | N 02 07.1 +16.7 | 08 | 02 | 07.1 +16.7 | 08 | 02 | 07.1 +16.7 | 08 |
| 09 | 318 25.8 -00.2 | S 20 19.0 +00.5 | 0 53.6 -00.2 | S 04 47.8 +01.0 | 188 03.7 -28.8 | N 02 23.8 +16.7 | 09 | 02 | 23.8 +16.7 | 09 | 02 | 23.8 +16.7 | 09 |
| 10 | 333 25.6 -00.2 | S 20 19.5 +00.5 | 15 53.4 -00.2 | S 04 48.8 +01.0 | 202 34.9 -28.8 | N 02 40.5 +16.7 | 10 | 02 | 40.5 +16.7 | 10 | 02 | 40.5 +16.7 | 10 |
| 11 | 348 25.4 -00.1 | S 20 20.0 +00.6 | 30 53.2 -00.2 | S 04 49.8 +01.1 | 217 06.1 -28.8 | N 02 57.2 +16.7 | 11 | 02 | 57.2 +16.7 | 11 | 02 | 57.2 +16.7 | 11 |
| 12 | 3 25.3 -00.2 | S 20 20.6 +00.5 | 45 53.0 -00.3 | S 04 50.9 +01.0 | 231 37.3 -28.8 | N 03 13.9 +16.6 | 12 | 03 | 13.9 +16.6 | 12 | 03 | 13.9 +16.6 | 12 |
| 13 | 18 25.1 -00.2 | S 20 21.1 +00.5 | 60 52.7 -00.2 | S 04 51.9 +01.0 | 246 08.5 -28.8 | N 03 30.5 +16.7 | 13 | 03 | 30.5 +16.7 | 13 | 03 | 30.5 +16.7 | 13 |
| 14 | 33 24.9 -00.1 | S 20 21.6 +00.5 | 75 52.5 -00.2 | S 04 52.9 +01.0 | 260 39.7 -28.9 | N 03 47.2 +16.6 | 14 | 03 | 47.2 +16.6 | 14 | 03 | 47.2 +16.6 | 14 |
| 15 | 48 24.8 -00.2 | S 20 22.1 +00.5 | 90 52.3 -00.2 | S 04 53.9 +01.0 | 275 10.8 -28.8 | N 04 03.8 +16.5 | 15 | 04 | 03.8 +16.5 | 15 | 04 | 03.8 +16.5 | 15 |
| 16 | 63 24.6 -00.2 | S 20 22.6 +00.6 | 105 52.1 -00.3 | S 04 54.9 +01.0 | 289 42.0 -28.9 | N 04 20.3 +16.6 | 16 | 04 | 20.3 +16.6 | 16 | 04 | 20.3 +16.6 | 16 |
| 17 | 78 24.4 -00.2 | S 20 23.2 +00.5 | 120 51.8 -00.2 | S 04 55.9 +01.0 | 304 13.1 -28.9 | N 04 36.9 +16.5 | 17 | 04 | 36.9 +16.5 | 17 | 04 | 36.9 +16.5 | 17 |
| 18 | 93 24.2 -00.1 | S 20 23.7 +00.5 | 135 51.6 -00.2 | S 04 56.9 +01.0 | 318 44.2 -28.9 | N 04 53.4 +16.5 | 18 | 04 | 53.4 +16.5 | 18 | 04 | 53.4 +16.5 | 18 |
| 19 | 108 24.1 -00.2 | S 20 24.2 +00.5 | 150 51.4 -00.2 | S 04 57.9 +01.0 | 333 15.3 -29.0 | N 05 09.9 +16.5 | 19 | 05 | 09.9 +16.5 | 19 | 05 | 09.9 +16.5 | 19 |
| 20 | 123 23.9 -00.2 | S 20 24.7 +00.5 | 165 51.2 -00.3 | S 04 58.9 +01.0 | 347 46.3 -28.9 | N 05 26.4 +16.4 | 20 | 05 | 26.4 +16.4 | 20 | 05 | 26.4 +16.4 | 20 |
| 21 | 138 23.7 -00.2 | S 20 25.2 +00.5 | 180 50.9 -00.2 | S 04 59.9 +01.1 | 2 17.4 -29.0 | N 05 42.8 +16.5 | 21 | 05 | 42.8 +16.5 | 21 | 05 | 42.8 +16.5 | 21 |
| 22 | 153 23.5 -00.1 | S 20 25.7 +00.6 | 195 50.7 -00.2 | S 05 01.0 +01.0 | 16 48.4 -29.0 | N 05 59.3 +16.3 | 22 | 05 | 59.3 +16.3 | 22 | 05 | 59.3 +16.3 | 22 |
| 23 | 168 23.4 -00.2 | S 20 26.3 +00.5 | 210 50.5 -00.2 | S 05 02.0 +01.0 | 31 19.4 -29.1 | N 06 15.6 +16.4 | 23 | 06 | 15.6 +16.4 | 23 | 06 | 15.6 +16.4 | 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 | | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 |
| | SD 16'2 16'2 16'2 16'2 16'2 16'2 | | SD 00'2 00'2 00'2 00'2 00'2 00'2 | | SD 16'1 16'1 16'1 16'1 16'1 16'1 | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | 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 00'2 00'2 00'2 00'2 00'2 00'2 | | HP 59'2 59'2 59'1 59'1 59'1 59'1 | | 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 |
| | SHA 122° 121° 121° 121° 121° 121° | | SHA 164° 164° 164° 164° 163° 163° | | SHA 355° 353° 350° 348° 346° 344° | | SHA 123° 123° 123° 123° 123° 123° | | SHA 123° 123° 123° 123° 123° 123° | | SHA 123° 123° 123° 123° 123° 123° | | SHA 123° 123° 123° 123° 123° 123° |
| | Greenwich Culmination Time: 11:46 | | Greenwich Culmination Time: 08:56 | | Greenwich Culmination Time: 20:50 | | Greenwich Culmination Time: 11:39 | | Greenwich Culmination Time: 22:13 | | Greenwich Culmination Time: 18:04 | | Greenwich Culmination Time: 18:04 |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 183 23.2 -00.2 | S 20 26.8 +00.5 | 225 50.3 -00.3 | S 05 03.0 +01.0 | 45 50.3 -29.0 | N 06 32.0 +16.3 | 00 | | | | | | |
| 01 | 198 23.0 -00.2 | S 20 27.3 +00.5 | 240 50.0 -00.2 | S 05 04.0 +01.0 | 60 21.3 -29.1 | N 06 48.3 +16.2 | 01 | | | | | | |
| 02 | 213 22.8 -00.1 | S 20 27.8 +00.5 | 255 49.8 -00.2 | S 05 05.0 +01.0 | 74 52.2 -29.1 | N 07 04.5 +16.3 | 02 | | | | | | |
| 03 | 228 22.7 -00.2 | S 20 28.3 +00.5 | 270 49.6 -00.3 | S 05 06.0 +01.0 | 89 23.1 -29.2 | N 07 20.8 +16.1 | 03 | | | | | | |
| 04 | 243 22.5 -00.2 | S 20 28.8 +00.5 | 285 49.3 -00.2 | S 05 07.0 +01.0 | 103 53.9 -29.2 | N 07 36.9 +16.2 | 04 | | | | | | |
| 05 | 258 22.3 -00.2 | S 20 29.3 +00.5 | 300 49.1 -00.2 | S 05 08.0 +01.0 | 118 24.7 -29.2 | N 07 53.1 +16.1 | 05 | | | | | | |
| 06 | 273 22.1 -00.2 | S 20 29.8 +00.5 | 315 48.9 -00.3 | S 05 09.0 +01.1 | 132 55.5 -29.2 | N 08 09.2 +16.0 | 06 | | | | | | |
| 07 | 288 21.9 -00.1 | S 20 30.3 +00.5 | 330 48.6 -00.2 | S 05 10.1 +01.0 | 147 26.3 -29.3 | N 08 25.2 +16.0 | 07 | | | | | | |
| 08 | 303 21.8 -00.2 | S 20 30.8 +00.6 | 345 48.4 -00.2 | S 05 11.1 +01.0 | 161 57.0 -29.3 | N 08 41.2 +16.0 | 08 | | | | | | |
| 09 | 318 21.6 -00.2 | S 20 31.4 +00.5 | 0 48.2 -00.3 | S 05 12.1 +01.0 | 176 27.7 -29.4 | N 08 57.2 +15.9 | 09 | | | | | | |
| 10 | 333 21.4 -00.2 | S 20 31.9 +00.5 | 15 47.9 -00.2 | S 05 13.1 +01.0 | 190 58.3 -29.4 | N 09 13.1 +15.9 | 10 | | | | | | |
| 11 | 348 21.2 -00.1 | S 20 32.4 +00.5 | 30 47.7 -00.2 | S 05 14.1 +01.0 | 205 28.9 -29.4 | N 09 29.0 +15.8 | 11 | | | | | | |
| 12 | 3 21.1 -00.2 | S 20 32.9 +00.5 | 45 47.5 -00.2 | S 05 15.1 +01.0 | 219 59.5 -29.5 | N 09 44.8 +15.7 | 12 | | | | | | |
| 13 | 18 20.9 -00.2 | S 20 33.4 +00.5 | 60 47.3 -00.3 | S 05 16.1 +01.0 | 234 30.0 -29.5 | N 10 00.5 +15.7 | 13 | | | | | | |
| 14 | 33 20.7 -00.2 | S 20 33.9 +00.5 | 75 47.0 -00.2 | S 05 17.1 +01.0 | 249 00.5 -29.5 | N 10 16.2 +15.6 | 14 | | | | | | |
| 15 | 48 20.5 -00.2 | S 20 34.4 +00.5 | 90 46.8 -00.3 | S 05 18.1 +01.1 | 263 31.0 -29.6 | N 10 31.8 +15.6 | 15 | | | | | | |
| 16 | 63 20.3 -00.1 | S 20 34.9 +00.5 | 105 46.5 -00.2 | S 05 19.2 +01.0 | 278 01.4 -29.7 | N 10 47.4 +15.5 | 16 | | | | | | |
| 17 | 78 20.2 -00.2 | S 20 35.4 +00.5 | 120 46.3 -00.2 | S 05 20.2 +01.0 | 292 31.7 -29.7 | N 11 02.9 +15.4 | 17 | | | | | | |
| 18 | 93 20.0 -00.2 | S 20 35.9 +00.5 | 135 46.1 -00.3 | S 05 21.2 +01.0 | 307 02.0 -29.7 | N 11 18.3 +15.4 | 18 | | | | | | |
| 19 | 108 19.8 -00.2 | S 20 36.4 +00.5 | 150 45.8 -00.2 | S 05 22.2 +01.0 | 321 32.3 -29.8 | N 11 33.7 +15.3 | 19 | | | | | | |
| 20 | 123 19.6 -00.2 | S 20 36.9 +00.5 | 165 45.6 -00.2 | S 05 23.2 +01.0 | 336 02.5 -29.8 | N 11 49.0 +15.3 | 20 | | | | | | |
| 21 | 138 19.4 -00.2 | S 20 37.4 +00.5 | 180 45.4 -00.3 | S 05 24.2 +01.0 | 350 32.7 -29.9 | N 12 04.3 +15.2 | 21 | | | | | | |
| 22 | 153 19.2 -00.1 | S 20 37.9 +00.5 | 195 45.1 -00.2 | S 05 25.2 +01.0 | 5 02.8 -29.9 | N 12 19.5 +15.1 | 22 | | | | | | |
| 23 | 168 19.1 -00.2 | S 20 38.4 +00.5 | 210 44.9 -00.2 | S 05 26.2 +01.0 | 19 32.9 -29.9 | N 12 34.6 +15.0 | 23 | | | | | | |
| | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | | | | | | | |
| | SD 16'2 16'2 16'2 16'2 16'2 16'2 | | SD 00'2 00'2 00'1 00'1 00'1 00'1 | | SD 16'1 16'1 16'1 16'0 16'0 16'0 | | | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | HP 00'2 00'2 00'2 00'2 00'2 00'2 | | HP 59'0 59'0 58'9 58'9 58'8 58'8 | | | | | | | | |
| | SHA 121° 120° 120° 120° 120° 120° | | SHA 163° 163° 163° 163° 162° 162° | | SHA 342° 340° 338° 336° 334° 331° | | | | | | | | |
| | Greenwich Culmination Time: 11:46 | | Greenwich Culmination Time: 08:56 | | Greenwich Culmination Time: 21:39 | | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 185 14.0 +00.6 | S 20 15.2 +00.4 | 26 45.9 +02.7 | N 12 50.2 -00.1 | 89 10.8 +02.3 | S 12 45.4 +00.0 | 00 | | | | | | |
| 01 | 200 14.6 +00.6 | S 20 15.6 +00.4 | 41 48.6 +02.8 | N 12 50.1 -00.1 | 104 13.1 +02.4 | S 12 45.4 +00.0 | 01 | | | | | | |
| 02 | 215 15.2 +00.6 | S 20 16.0 +00.4 | 56 51.4 +02.7 | N 12 50.0 +00.0 | 119 15.5 +02.4 | S 12 45.4 -00.1 | 02 | | | | | | |
| 03 | 230 15.8 +00.6 | S 20 16.4 +00.4 | 71 54.1 +02.7 | N 12 50.0 -00.1 | 134 17.9 +02.4 | S 12 45.3 +00.0 | 03 | | | | | | |
| 04 | 245 16.4 +00.6 | S 20 16.8 +00.5 | 86 56.8 +02.8 | N 12 49.9 -00.1 | 149 20.3 +02.4 | S 12 45.3 +00.0 | 04 | | | | | | |
| 05 | 260 17.0 +00.7 | S 20 17.3 +00.4 | 101 59.6 +02.7 | N 12 49.8 -00.1 | 164 22.7 +02.4 | S 12 45.3 -00.1 | 05 | | | | | | |
| 06 | 275 17.7 +00.6 | S 20 17.7 +00.4 | 117 02.3 +02.8 | N 12 49.7 -00.1 | 179 25.1 +02.4 | S 12 45.2 +00.0 | 06 | | | | | | |
| 07 | 290 18.3 +00.6 | S 20 18.1 +00.4 | 132 05.1 +02.7 | N 12 49.6 -00.1 | 194 27.5 +02.3 | S 12 45.2 +00.0 | 07 | | | | | | |
| 08 | 305 18.9 +00.6 | S 20 18.5 +00.4 | 147 07.8 +02.7 | N 12 49.5 +00.0 | 209 29.8 +02.4 | S 12 45.2 -00.1 | 08 | | | | | | |
| 09 | 320 19.5 +00.6 | S 20 18.9 +00.4 | 162 10.5 +02.8 | N 12 49.5 -00.1 | 224 32.2 +02.4 | S 12 45.1 +00.0 | 09 | | | | | | |
| 10 | 335 20.1 +00.6 | S 20 19.3 +00.4 | 177 13.3 +02.7 | N 12 49.4 -00.1 | 239 34.6 +02.4 | S 12 45.1 -00.1 | 10 | | | | | | |
| 11 | 350 20.7 +00.7 | S 20 19.7 +00.4 | 192 16.0 +02.8 | N 12 49.3 -00.1 | 254 37.0 +02.4 | S 12 45.0 +00.0 | 11 | | | | | | |
| 12 | 5 21.4 +00.6 | S 20 20.1 +00.4 | 207 18.8 +02.7 | N 12 49.2 -00.1 | 269 39.4 +02.3 | S 12 45.0 +00.0 | 12 | | | | | | |
| 13 | 20 22.0 +00.6 | S 20 20.5 +00.4 | 222 21.5 +02.7 | N 12 49.1 -00.1 | 284 41.7 +02.4 | S 12 45.0 -00.1 | 13 | | | | | | |
| 14 | 35 22.6 +00.6 | S 20 20.9 +00.4 | 237 24.2 +02.8 | N 12 49.0 +00.0 | 299 44.1 +02.4 | S 12 44.9 +00.0 | 14 | | | | | | |
| 15 | 50 23.2 +00.6 | S 20 21.3 +00.4 | 252 27.0 +02.7 | N 12 49.0 -00.1 | 314 46.5 +02.4 | S 12 44.9 +00.0 | 15 | | | | | | |
| 16 | 65 23.8 +00.6 | S 20 21.7 +00.4 | 267 29.7 +02.8 | N 12 48.9 -00.1 | 329 48.9 +02.4 | S 12 44.9 -00.1 | 16 | | | | | | |
| 17 | 80 24.4 +00.7 | S 20 22.1 +00.4 | 282 32.5 +02.7 | N 12 48.8 -00.1 | 344 51.3 +02.4 | S 12 44.8 +00.0 | 17 | | | | | | |
| 18 | 95 25.1 +00.6 | S 20 22.5 +00.4 | 297 35.2 +02.7 | N 12 48.7 -00.1 | 359 53.7 +02.3 | S 12 44.8 +00.0 | 18 | | | | | | |
| 19 | 110 25.7 +00.6 | S 20 22.9 +00.4 | 312 37.9 +02.8 | N 12 48.6 +00.0 | 14 56.0 +02.4 | S 12 44.8 -00.1 | 19 | | | | | | |
| 20 | 125 26.3 +00.6 | S 20 23.3 +00.4 | 327 40.7 +02.7 | N 12 48.6 -00.1 | 29 58.4 +02.4 | S 12 44.7 +00.0 | 20 | | | | | | |
| 21 | 140 26.9 +00.6 | S 20 23.7 +00.4 | 342 43.4 +02.7 | N 12 48.5 -00.1 | 45 00.8 +02.4 | S 12 44.7 +00.0 | 21 | | | | | | |
| 22 | 155 27.5 +00.6 | S 20 24.1 +00.4 | 357 46.1 +02.8 | N 12 48.4 -00.1 | 60 03.2 +02.4 | S 12 44.7 -00.1 | 22 | | | | | | |
| 23 | 170 28.1 +00.6 | S 20 24.5 +00.4 | 12 48.9 +02.7 | N 12 48.3 -00.1 | 75 05.6 +02.3 | S 12 44.6 +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 00'1 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 122° 122° 122° 122° 122° 122° | | SHA 324° 324° 324° 324° 324° 324° | | SHA 026° 026° 026° 026° 026° 026° | | | | | | | | |
| | Greenwich Culmination Time: 11:38 | | Greenwich Culmination Time: 22:08 | | Greenwich Culmination Time: 18:00 | | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT | |
|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | |
| 00 | 183 18.9 -00.2 | S 20 | 38.9 +00.5 | 225 44.7 -00.3 | S 05 | 27.2 +01.1 | 34 03.0 -30.1 | N 12 | 49.6 +15.0 | 00 | | | | |
| 01 | 198 18.7 -00.2 | S 20 | 39.4 +00.5 | 240 44.4 -00.2 | S 05 | 28.3 +01.0 | 48 32.9 -30.0 | N 13 | 04.6 +14.9 | 01 | | | | |
| 02 | 213 18.5 -00.2 | S 20 | 39.9 +00.5 | 255 44.2 -00.3 | S 05 | 29.3 +01.0 | 63 02.9 -30.2 | N 13 | 19.5 +14.8 | 02 | | | | |
| 03 | 228 18.3 -00.2 | S 20 | 40.4 +00.5 | 270 43.9 -00.2 | S 05 | 30.3 +01.0 | 77 32.7 -30.1 | N 13 | 34.3 +14.8 | 03 | | | | |
| 04 | 243 18.1 -00.1 | S 20 | 40.9 +00.5 | 285 43.7 -00.2 | S 05 | 31.3 +01.0 | 92 02.6 -30.3 | N 13 | 49.1 +14.6 | 04 | | | | |
| 05 | 258 18.0 -00.2 | S 20 | 41.4 +00.4 | 300 43.5 -00.3 | S 05 | 32.3 +01.0 | 106 32.3 -30.3 | N 14 | 03.7 +14.6 | 05 | | | | |
| 06 | 273 17.8 -00.2 | S 20 | 41.8 +00.5 | 315 43.2 -00.2 | S 05 | 33.3 +01.0 | 121 02.0 -30.3 | N 14 | 18.3 +14.5 | 06 | | | | |
| 07 | 288 17.6 -00.2 | S 20 | 42.3 +00.5 | 330 43.0 -00.3 | S 05 | 34.3 +01.0 | 135 31.7 -30.4 | N 14 | 32.8 +14.4 | 07 | | | | |
| 08 | 303 17.4 -00.2 | S 20 | 42.8 +00.5 | 345 42.7 -00.2 | S 05 | 35.3 +01.1 | 150 01.3 -30.5 | N 14 | 47.2 +14.3 | 08 | | | | |
| 09 | 318 17.2 -00.2 | S 20 | 43.3 +00.5 | 0 42.5 -00.2 | S 05 | 36.4 +01.0 | 164 30.8 -30.5 | N 15 | 01.5 +14.3 | 09 | | | | |
| 10 | 333 17.0 -00.2 | S 20 | 43.8 +00.5 | 15 42.3 -00.3 | S 05 | 37.4 +01.0 | 179 00.3 -30.5 | N 15 | 15.8 +14.1 | 10 | | | | |
| 11 | 348 16.8 -00.2 | S 20 | 44.3 +00.5 | 30 42.0 -00.2 | S 05 | 38.4 +01.0 | 193 29.8 -30.7 | N 15 | 29.9 +14.1 | 11 | | | | |
| 12 | 3 16.6 -00.1 | S 20 | 44.8 +00.5 | 45 41.8 -00.3 | S 05 | 39.4 +01.0 | 207 59.1 -30.7 | N 15 | 44.0 +14.0 | 12 | | | | |
| 13 | 18 16.5 -00.2 | S 20 | 45.3 +00.5 | 60 41.5 -00.2 | S 05 | 40.4 +01.0 | 222 28.4 -30.7 | N 15 | 58.0 +13.9 | 13 | | | | |
| 14 | 33 16.3 -00.2 | S 20 | 45.8 +00.5 | 75 41.3 -00.2 | S 05 | 41.4 +01.0 | 236 57.7 -30.8 | N 16 | 11.9 +13.8 | 14 | | | | |
| 15 | 48 16.1 -00.2 | S 20 | 46.3 +00.4 | 90 41.1 -00.3 | S 05 | 42.4 +01.0 | 251 26.9 -30.9 | N 16 | 25.7 +13.7 | 15 | | | | |
| 16 | 63 15.9 -00.2 | S 20 | 46.7 +00.5 | 105 40.8 -00.2 | S 05 | 43.4 +01.1 | 265 56.0 -30.9 | N 16 | 39.4 +13.6 | 16 | | | | |
| 17 | 78 15.7 -00.2 | S 20 | 47.2 +00.5 | 120 40.6 -00.3 | S 05 | 44.5 +01.0 | 280 25.1 -31.0 | N 16 | 53.0 +13.5 | 17 | | | | |
| 18 | 93 15.5 -00.2 | S 20 | 47.7 +00.5 | 135 40.3 -00.2 | S 05 | 45.5 +01.0 | 294 54.1 -31.1 | N 17 | 06.5 +13.4 | 18 | | | | |
| 19 | 108 15.3 -00.2 | S 20 | 48.2 +00.5 | 150 40.1 -00.3 | S 05 | 46.5 +01.0 | 309 23.0 -31.1 | N 17 | 19.9 +13.3 | 19 | | | | |
| 20 | 123 15.1 -00.2 | S 20 | 48.7 +00.5 | 165 39.8 -00.2 | S 05 | 47.5 +01.0 | 323 51.9 -31.1 | N 17 | 33.2 +13.2 | 20 | | | | |
| 21 | 138 14.9 -00.1 | S 20 | 49.2 +00.4 | 180 39.6 -00.3 | S 05 | 48.5 +01.0 | 338 20.8 -31.3 | N 17 | 46.4 +13.0 | 21 | | | | |
| 22 | 153 14.8 -00.2 | S 20 | 49.6 +00.5 | 195 39.3 -00.2 | S 05 | 49.5 +01.0 | 352 49.5 -31.3 | N 17 | 59.4 +13.0 | 22 | | | | |
| 23 | 168 14.6 -00.2 | S 20 | 50.1 +00.5 | 210 39.1 -00.3 | S 05 | 50.5 +01.0 | 7 18.2 -31.3 | N 18 | 12.4 +12.9 | 23 | | | | |
| UT 02 06 10 14 18 22 | SD 16'2 16'2 16'2 16'2 16'2 16'2 | HP 00'1 00'1 00'1 00'1 00'1 00'1 | SHA 120° 119° 119° 119° 119° 119° | Greenwich Culmination Time: 11:46 | 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 162° 162° 162° 161° 161° 161° | Greenwich Culmination Time: 08:57 | UT 02 06 10 14 18 22 | SD 16'0 16'0 16'0 15'9 15'9 15'9 | HP 58'7 58'7 58'6 58'5 58'5 58'4 | SHA 329° 327° 325° 323° 320° 318° | Greenwich Culmination Time: 22:29 |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | |
|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | |
| 00 | 185 28.7 +00.6 | S 20 | 24.9 +00.4 | 27 51.6 +02.8 | N 12 | 48.2 +00.0 | 90 07.9 +02.4 | S 12 | 44.6 -00.1 | 00 | | | | |
| 01 | 200 29.3 +00.7 | S 20 | 25.3 +00.4 | 42 54.4 +02.7 | N 12 | 48.2 -00.1 | 105 10.3 +02.4 | S 12 | 44.5 +00.0 | 01 | | | | |
| 02 | 215 30.0 +00.6 | S 20 | 25.7 +00.3 | 57 57.1 +02.7 | N 12 | 48.1 -00.1 | 120 12.7 +02.4 | S 12 | 44.5 +00.0 | 02 | | | | |
| 03 | 230 30.6 +00.6 | S 20 | 26.0 +00.4 | 72 59.8 +02.8 | N 12 | 48.0 -00.1 | 135 15.1 +02.4 | S 12 | 44.5 -00.1 | 03 | | | | |
| 04 | 245 31.2 +00.6 | S 20 | 26.4 +00.4 | 88 02.6 +02.7 | N 12 | 47.9 -00.1 | 150 17.5 +02.3 | S 12 | 44.4 +00.0 | 04 | | | | |
| 05 | 260 31.8 +00.6 | S 20 | 26.8 +00.4 | 103 05.3 +02.7 | N 12 | 47.8 -00.1 | 165 19.8 +02.4 | S 12 | 44.4 +00.0 | 05 | | | | |
| 06 | 275 32.4 +00.6 | S 20 | 27.2 +00.4 | 118 08.0 +02.8 | N 12 | 47.7 +00.0 | 180 22.2 +02.4 | S 12 | 44.4 -00.1 | 06 | | | | |
| 07 | 290 33.0 +00.6 | S 20 | 27.6 +00.4 | 133 10.8 +02.7 | N 12 | 47.7 -00.1 | 195 24.6 +02.4 | S 12 | 44.3 +00.0 | 07 | | | | |
| 08 | 305 33.6 +00.6 | S 20 | 28.0 +00.4 | 148 13.5 +02.7 | N 12 | 47.6 -00.1 | 210 27.0 +02.4 | S 12 | 44.3 +00.0 | 08 | | | | |
| 09 | 320 34.2 +00.6 | S 20 | 28.4 +00.4 | 163 16.2 +02.8 | N 12 | 47.5 -00.1 | 225 29.4 +02.3 | S 12 | 44.3 -00.1 | 09 | | | | |
| 10 | 335 34.8 +00.7 | S 20 | 28.8 +00.4 | 178 19.0 +02.7 | N 12 | 47.4 -00.1 | 240 31.7 +02.4 | S 12 | 44.2 +00.0 | 10 | | | | |
| 11 | 350 35.5 +00.6 | S 20 | 29.2 +00.4 | 193 21.7 +02.7 | N 12 | 47.3 +00.0 | 255 34.1 +02.4 | S 12 | 44.2 -00.1 | 11 | | | | |
| 12 | 5 36.1 +00.6 | S 20 | 29.6 +00.4 | 208 24.4 +02.8 | N 12 | 47.3 -00.1 | 270 36.5 +02.4 | S 12 | 44.1 +00.0 | 12 | | | | |
| 13 | 20 36.7 +00.6 | S 20 | 30.0 +00.4 | 223 27.2 +02.7 | N 12 | 47.2 -00.1 | 285 38.9 +02.4 | S 12 | 44.1 +00.0 | 13 | | | | |
| 14 | 35 37.3 +00.6 | S 20 | 30.4 +00.4 | 238 29.9 +02.7 | N 12 | 47.1 -00.1 | 300 41.3 +02.3 | S 12 | 44.1 -00.1 | 14 | | | | |
| 15 | 50 37.9 +00.6 | S 20 | 30.8 +00.4 | 253 32.6 +02.8 | N 12 | 47.0 -00.1 | 315 43.6 +02.4 | S 12 | 44.0 +00.0 | 15 | | | | |
| 16 | 65 38.5 +00.6 | S 20 | 31.2 +00.4 | 268 35.4 +02.7 | N 12 | 46.9 +00.0 | 330 46.0 +02.4 | S 12 | 44.0 +00.0 | 16 | | | | |
| 17 | 80 39.1 +00.6 | S 20 | 31.6 +00.4 | 283 38.1 +02.7 | N 12 | 46.9 -00.1 | 345 48.4 +02.4 | S 12 | 44.0 -00.1 | 17 | | | | |
| 18 | 95 39.7 +00.6 | S 20 | 32.0 +00.4 | 298 40.8 +02.8 | N 12 | 46.8 -00.1 | 0 50.8 +02.3 | S 12 | 43.9 +00.0 | 18 | | | | |
| 19 | 110 40.3 +00.6 | S 20 | 32.4 +00.3 | 313 43.6 +02.7 | N 12 | 46.7 -00.1 | 15 53.1 +02.4 | S 12 | 43.9 -00.1 | 19 | | | | |
| 20 | 125 40.9 +00.6 | S 20 | 32.7 +00.4 | 328 46.3 +02.7 | N 12 | 46.6 -00.1 | 30 55.5 +02.4 | S 12 | 43.8 +00.0 | 20 | | | | |
| 21 | 140 41.5 +00.7 | S 20 | 33.1 +00.4 | 343 49.0 +02.8 | N 12 | 46.5 +00.0 | 45 57.9 +02.4 | S 12 | 43.8 +00.0 | 21 | | | | |
| 22 | 155 42.2 +00.6 | S 20 | 33.5 +00.4 | 358 51.8 +02.7 | N 12 | 46.5 -00.1 | 61 00.3 +02.4 | S 12 | 43.8 -00.1 | 22 | | | | |
| 23 | 170 42.8 +00.6 | S 20 | 33.9 +00.4 | 13 54.5 +02.7 | N 12 | 46.4 -00.1 | 76 02.7 +02.3 | S 12 | 43.7 +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 122° 122° 121° 121° 121° 121° | Greenwich Culmination Time: 11:37 | 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 324° 324° 324° 324° 324° 324° | Greenwich Culmination Time: 22:04 | 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 026° 026° 026° 026° 026° 026° | Greenwich Culmination Time: 17:56 |

| UT | Sun | | | | Venus | | | | Moon | | | | UT | | | | | | | |
|-----------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------------------------|------|------|-------|------|------|------|-----------------------------------|--|--|--|--|--|--|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 183 14.4 -00.2 | S 20 50.6 +00.5 | 225 38.8 -00.2 | S 05 51.5 +01.1 | 21 46.9 -31.5 | N 18 25.3 +12.8 | 00 | | | | | | | | | | | | | |
| 01 | 198 14.2 -00.2 | S 20 51.1 +00.5 | 240 38.6 -00.2 | S 05 52.6 +01.0 | 36 15.4 -31.5 | N 18 38.1 +12.6 | 01 | | | | | | | | | | | | | |
| 02 | 213 14.0 -00.2 | S 20 51.6 +00.4 | 255 38.4 -00.3 | S 05 53.6 +01.0 | 50 43.9 -31.5 | N 18 50.7 +12.6 | 02 | | | | | | | | | | | | | |
| 03 | 228 13.8 -00.2 | S 20 52.0 +00.5 | 270 38.1 -00.2 | S 05 54.6 +01.0 | 65 12.4 -31.6 | N 19 03.3 +12.4 | 03 | | | | | | | | | | | | | |
| 04 | 243 13.6 -00.2 | S 20 52.5 +00.5 | 285 37.9 -00.3 | S 05 55.6 +01.0 | 79 40.8 -31.7 | N 19 15.7 +12.4 | 04 | | | | | | | | | | | | | |
| 05 | 258 13.4 -00.2 | S 20 53.0 +00.5 | 300 37.6 -00.2 | S 05 56.6 +01.0 | 94 09.1 -31.8 | N 19 28.1 +12.2 | 05 | | | | | | | | | | | | | |
| 06 | 273 13.2 -00.2 | S 20 53.5 +00.5 | 315 37.4 -00.3 | S 05 57.6 +01.0 | 108 37.3 -31.8 | N 19 40.3 +12.1 | 06 | | | | | | | | | | | | | |
| 07 | 288 13.0 -00.2 | S 20 54.0 +00.4 | 330 37.1 -00.2 | S 05 58.6 +01.0 | 123 05.5 -31.8 | N 19 52.4 +11.9 | 07 | | | | | | | | | | | | | |
| 08 | 303 12.8 -00.2 | S 20 54.4 +00.5 | 345 36.9 -00.3 | S 05 59.6 +01.0 | 137 33.7 -32.0 | N 20 04.3 +11.9 | 08 | | | | | | | | | | | | | |
| 09 | 318 12.6 -00.2 | S 20 54.9 +00.5 | 0 36.6 -00.2 | S 06 00.6 +01.1 | 152 01.7 -32.0 | N 20 16.2 +11.7 | 09 | | | | | | | | | | | | | |
| 10 | 333 12.4 -00.1 | S 20 55.4 +00.5 | 15 36.4 -00.3 | S 06 01.7 +01.0 | 166 29.7 -32.0 | N 20 27.9 +11.7 | 10 | | | | | | | | | | | | | |
| 11 | 348 12.3 -00.2 | S 20 55.9 +00.4 | 30 36.1 -00.2 | S 06 02.7 +01.0 | 180 57.7 -32.2 | N 20 39.6 +11.4 | 11 | | | | | | | | | | | | | |
| 12 | 3 12.1 -00.2 | S 20 56.3 +00.5 | 45 35.9 -00.3 | S 06 03.7 +01.0 | 195 25.5 -32.2 | N 20 51.0 +11.4 | 12 | | | | | | | | | | | | | |
| 13 | 18 11.9 -00.2 | S 20 56.8 +00.5 | 60 35.6 -00.2 | S 06 04.7 +01.0 | 209 53.3 -32.2 | N 21 02.4 +11.3 | 13 | | | | | | | | | | | | | |
| 14 | 33 11.7 -00.2 | S 20 57.3 +00.4 | 75 35.4 -00.3 | S 06 05.7 +01.0 | 224 21.1 -32.3 | N 21 13.7 +11.1 | 14 | | | | | | | | | | | | | |
| 15 | 48 11.5 -00.2 | S 20 57.7 +00.5 | 90 35.1 -00.3 | S 06 06.7 +01.0 | 238 48.8 -32.4 | N 21 24.8 +11.0 | 15 | | | | | | | | | | | | | |
| 16 | 63 11.3 -00.2 | S 20 58.2 +00.5 | 105 34.8 -00.2 | S 06 07.7 +01.0 | 253 16.4 -32.5 | N 21 35.8 +10.8 | 16 | | | | | | | | | | | | | |
| 17 | 78 11.1 -00.2 | S 20 58.7 +00.5 | 120 34.6 -00.3 | S 06 08.7 +01.1 | 267 43.9 -32.5 | N 21 46.6 +10.7 | 17 | | | | | | | | | | | | | |
| 18 | 93 10.9 -00.2 | S 20 59.2 +00.4 | 135 34.3 -00.2 | S 06 09.8 +01.0 | 282 11.4 -32.5 | N 21 57.3 +10.6 | 18 | | | | | | | | | | | | | |
| 19 | 108 10.7 -00.2 | S 20 59.6 +00.5 | 150 34.1 -00.3 | S 06 10.8 +01.0 | 296 38.9 -32.6 | N 22 07.9 +10.5 | 19 | | | | | | | | | | | | | |
| 20 | 123 10.5 -00.2 | S 21 00.1 +00.5 | 165 33.8 -00.2 | S 06 11.8 +01.0 | 311 06.3 -32.7 | N 22 18.4 +10.3 | 20 | | | | | | | | | | | | | |
| 21 | 138 10.3 -00.2 | S 21 00.6 +00.4 | 180 33.6 -00.3 | S 06 12.8 +01.0 | 325 33.6 -32.8 | N 22 28.7 +10.2 | 21 | | | | | | | | | | | | | |
| 22 | 153 10.1 -00.2 | S 21 01.0 +00.5 | 195 33.3 -00.2 | S 06 13.8 +01.0 | 340 00.8 -32.8 | N 22 38.9 +10.1 | 22 | | | | | | | | | | | | | |
| 23 | 168 09.9 -00.2 | S 21 01.5 +00.5 | 210 33.1 -00.3 | S 06 14.8 +01.0 | 354 28.0 -32.8 | N 22 49.0 +09.9 | 23 | | | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 16'2 | 16'2 | 16'2 | 16'2 | 16'2 | 16'2 | SD | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | SD | | | | | | |
| HP | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | HP | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | 00'2 | HP | | | | | | |
| SHA | 118° | 118° | 118° | 118° | 118° | 118° | SHA | 161° | 161° | 161° | 160° | 160° | 160° | SHA | | | | | | |
| Greenwich Culmination Time: 11:47 | | | | | | | Greenwich Culmination Time: 08:57 | | | | | | | Greenwich Culmination Time: 23:22 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | | | | | | | |
|-----------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------------------------|------|--------|-------|------|------|------|-----------------------------------|--|--|--|--|--|--|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 185 43.4 +00.6 | S 20 34.3 +00.4 | 28 57.2 +02.8 | N 12 46.3 -00.1 | 91 05.0 +02.4 | S 12 43.7 +00.0 | 00 | | | | | | | | | | | | | |
| 01 | 200 44.0 +00.6 | S 20 34.7 +00.4 | 43 60.0 +02.7 | N 12 46.2 +00.0 | 106 07.4 +02.4 | S 12 43.7 -00.1 | 01 | | | | | | | | | | | | | |
| 02 | 215 44.6 +00.6 | S 20 35.1 +00.4 | 59 02.7 +02.7 | N 12 46.2 -00.1 | 121 09.8 +02.4 | S 12 43.6 +00.0 | 02 | | | | | | | | | | | | | |
| 03 | 230 45.2 +00.6 | S 20 35.5 +00.4 | 74 05.4 +02.8 | N 12 46.1 -00.1 | 136 12.2 +02.3 | S 12 43.6 -00.1 | 03 | | | | | | | | | | | | | |
| 04 | 245 45.8 +00.6 | S 20 35.9 +00.4 | 89 08.2 +02.7 | N 12 46.0 -00.1 | 151 14.5 +02.4 | S 12 43.5 +00.0 | 04 | | | | | | | | | | | | | |
| 05 | 260 46.4 +00.6 | S 20 36.3 +00.3 | 104 10.9 +02.7 | N 12 45.9 -00.1 | 166 16.9 +02.4 | S 12 43.5 +00.0 | 05 | | | | | | | | | | | | | |
| 06 | 275 47.0 +00.6 | S 20 36.6 +00.4 | 119 13.6 +02.7 | N 12 45.8 +00.0 | 181 19.3 +02.4 | S 12 43.5 -00.1 | 06 | | | | | | | | | | | | | |
| 07 | 290 47.6 +00.6 | S 20 37.0 +00.4 | 134 16.3 +02.8 | N 12 45.8 -00.1 | 196 21.7 +02.3 | S 12 43.4 +00.0 | 07 | | | | | | | | | | | | | |
| 08 | 305 48.2 +00.6 | S 20 37.4 +00.4 | 149 19.1 +02.7 | N 12 45.7 -00.1 | 211 24.0 +02.4 | S 12 43.4 +00.0 | 08 | | | | | | | | | | | | | |
| 09 | 320 48.8 +00.6 | S 20 37.8 +00.4 | 164 21.8 +02.7 | N 12 45.6 -00.1 | 226 26.4 +02.4 | S 12 43.4 -00.1 | 09 | | | | | | | | | | | | | |
| 10 | 335 49.4 +00.6 | S 20 38.2 +00.4 | 179 24.5 +02.8 | N 12 45.5 -00.1 | 241 28.8 +02.4 | S 12 43.3 +00.0 | 10 | | | | | | | | | | | | | |
| 11 | 350 50.0 +00.6 | S 20 38.6 +00.4 | 194 27.3 +02.7 | N 12 45.4 +00.0 | 256 31.2 +02.3 | S 12 43.3 -00.1 | 11 | | | | | | | | | | | | | |
| 12 | 5 50.6 +00.6 | S 20 39.0 +00.4 | 209 30.0 +02.7 | N 12 45.4 -00.1 | 271 33.5 +02.4 | S 12 43.2 +00.0 | 12 | | | | | | | | | | | | | |
| 13 | 20 51.2 +00.6 | S 20 39.4 +00.3 | 224 32.7 +02.8 | N 12 45.3 -00.1 | 286 35.9 +02.4 | S 12 43.2 +00.0 | 13 | | | | | | | | | | | | | |
| 14 | 35 51.8 +00.6 | S 20 39.7 +00.4 | 239 35.5 +02.7 | N 12 45.2 -00.1 | 301 38.3 +02.4 | S 12 43.2 -00.1 | 14 | | | | | | | | | | | | | |
| 15 | 50 52.4 +00.6 | S 20 40.1 +00.4 | 254 38.2 +02.7 | N 12 45.1 +00.0 | 316 40.7 +02.3 | S 12 43.1 +00.0 | 15 | | | | | | | | | | | | | |
| 16 | 65 53.0 +00.7 | S 20 40.5 +00.4 | 269 40.9 +02.7 | N 12 45.1 -00.1 | 331 43.0 +02.4 | S 12 43.1 -00.1 | 16 | | | | | | | | | | | | | |
| 17 | 80 53.7 +00.6 | S 20 40.9 +00.4 | 284 43.6 +02.8 | N 12 45.0 -00.1 | 346 45.4 +02.4 | S 12 43.0 +00.0 | 17 | | | | | | | | | | | | | |
| 18 | 95 54.3 +00.6 | S 20 41.3 +00.4 | 299 46.4 +02.7 | N 12 44.9 -00.1 | 1 47.8 +02.4 | S 12 43.0 +00.0 | 18 | | | | | | | | | | | | | |
| 19 | 110 54.9 +00.6 | S 20 41.7 +00.3 | 314 49.1 +02.7 | N 12 44.8 -00.1 | 16 50.2 +02.3 | S 12 43.0 -00.1 | 19 | | | | | | | | | | | | | |
| 20 | 125 55.5 +00.6 | S 20 42.0 +00.4 | 329 51.8 +02.7 | N 12 44.7 +00.0 | 31 52.5 +02.4 | S 12 42.9 +00.0 | 20 | | | | | | | | | | | | | |
| 21 | 140 56.1 +00.6 | S 20 42.4 +00.4 | 344 54.5 +02.8 | N 12 44.7 -00.1 | 46 54.9 +02.4 | S 12 42.9 -00.1 | 21 | | | | | | | | | | | | | |
| 22 | 155 56.7 +00.6 | S 20 42.8 +00.4 | 359 57.3 +02.7 | N 12 44.6 -00.1 | 61 57.3 +02.3 | S 12 42.8 +00.0 | 22 | | | | | | | | | | | | | |
| 23 | 170 57.3 +00.6 | S 20 43.2 +00.4 | 14 60.0 +02.7 | N 12 44.5 -00.1 | 76 59.6 +02.4 | S 12 42.8 +00.0 | 23 | | | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| 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 | | | | | | |
| 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 | | | | | | |
| SHA | 121° | 121° | 121° | 121° | 120° | 120° | SHA | 324° | 324° | 324° | 324° | 324° | 324° | SHA | | | | | | |
| Greenwich Culmination Time: 11:36 | | | | | | | Greenwich Culmination Time: 22:00 | | | | | | | Greenwich Culmination Time: 17:52 | | | | | | |

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| 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 54.6 -00.3 | S 21 33.6 +00.4 | 225 13.3 -00.3 | S 07 28.6 +01.1 | 328 15.5 -33.4 | N 28 04.6 -01.6 | 00 | | | | | | |
| 01 | 197 54.3 -00.2 | S 21 34.0 +00.4 | 240 13.0 -00.3 | S 07 29.7 +01.0 | 342 42.1 -33.4 | N 28 03.0 -01.8 | 01 | | | | | | |
| 02 | 212 54.1 -00.2 | S 21 34.4 +00.4 | 255 12.7 -00.3 | S 07 30.7 +01.0 | 357 08.7 -33.4 | N 28 01.2 -01.9 | 02 | | | | | | |
| 03 | 227 53.9 -00.2 | S 21 34.8 +00.5 | 270 12.4 -00.2 | S 07 31.7 +01.0 | 11 35.3 -33.2 | N 27 59.3 -02.1 | 03 | | | | | | |
| 04 | 242 53.7 -00.3 | S 21 35.3 +00.4 | 285 12.2 -00.3 | S 07 32.7 +01.0 | 26 02.1 -33.2 | N 27 57.2 -02.2 | 04 | | | | | | |
| 05 | 257 53.4 -00.2 | S 21 35.7 +00.4 | 300 11.9 -00.3 | S 07 33.7 +01.0 | 40 28.9 -33.2 | N 27 55.0 -02.4 | 05 | | | | | | |
| 06 | 272 53.2 -00.2 | S 21 36.1 +00.4 | 315 11.6 -00.3 | S 07 34.7 +01.0 | 54 55.7 -33.1 | N 27 52.6 -02.6 | 06 | | | | | | |
| 07 | 287 53.0 -00.2 | S 21 36.5 +00.4 | 330 11.3 -00.3 | S 07 35.7 +01.0 | 69 22.6 -33.0 | N 27 50.0 -02.6 | 07 | | | | | | |
| 08 | 302 52.8 -00.2 | S 21 36.9 +00.4 | 345 11.0 -00.3 | S 07 36.7 +01.0 | 83 49.6 -33.0 | N 27 47.4 -02.9 | 08 | | | | | | |
| 09 | 317 52.6 -00.3 | S 21 37.3 +00.4 | 0 10.7 -00.3 | S 07 37.7 +01.0 | 98 16.6 -32.9 | N 27 44.5 -03.0 | 09 | | | | | | |
| 10 | 332 52.3 -00.2 | S 21 37.7 +00.4 | 15 10.4 -00.3 | S 07 38.7 +01.0 | 112 43.7 -32.8 | N 27 41.5 -03.1 | 10 | | | | | | |
| 11 | 347 52.1 -00.2 | S 21 38.1 +00.4 | 30 10.1 -00.3 | S 07 39.7 +01.1 | 127 10.9 -32.7 | N 27 38.4 -03.3 | 11 | | | | | | |
| 12 | 2 51.9 -00.2 | S 21 38.5 +00.4 | 45 09.8 -00.3 | S 07 40.8 +01.0 | 141 38.2 -32.7 | N 27 35.1 -03.4 | 12 | | | | | | |
| 13 | 17 51.7 -00.3 | S 21 38.9 +00.4 | 60 09.5 -00.2 | S 07 41.8 +01.0 | 156 05.5 -32.6 | N 27 31.7 -03.5 | 13 | | | | | | |
| 14 | 32 51.4 -00.2 | S 21 39.3 +00.4 | 75 09.3 -00.3 | S 07 42.8 +01.0 | 170 32.9 -32.6 | N 27 28.2 -03.8 | 14 | | | | | | |
| 15 | 47 51.2 -00.2 | S 21 39.7 +00.4 | 90 09.0 -00.3 | S 07 43.8 +01.0 | 185 00.3 -32.4 | N 27 24.4 -03.8 | 15 | | | | | | |
| 16 | 62 51.0 -00.2 | S 21 40.1 +00.4 | 105 08.7 -00.3 | S 07 44.8 +01.0 | 199 27.9 -32.4 | N 27 20.6 -04.0 | 16 | | | | | | |
| 17 | 77 50.8 -00.3 | S 21 40.5 +00.4 | 120 08.4 -00.3 | S 07 45.8 +01.0 | 213 55.5 -32.4 | N 27 16.6 -04.1 | 17 | | | | | | |
| 18 | 92 50.5 -00.2 | S 21 40.9 +00.4 | 135 08.1 -00.3 | S 07 46.8 +01.0 | 228 23.1 -32.2 | N 27 12.5 -04.3 | 18 | | | | | | |
| 19 | 107 50.3 -00.2 | S 21 41.3 +00.4 | 150 07.8 -00.3 | S 07 47.8 +01.0 | 242 50.9 -32.2 | N 27 08.2 -04.4 | 19 | | | | | | |
| 20 | 122 50.1 -00.3 | S 21 41.7 +00.4 | 165 07.5 -00.3 | S 07 48.8 +01.0 | 257 18.7 -32.1 | N 27 03.8 -04.5 | 20 | | | | | | |
| 21 | 137 49.8 -00.2 | S 21 42.1 +00.4 | 180 07.2 -00.3 | S 07 49.8 +01.0 | 271 46.6 -32.0 | N 26 59.3 -04.7 | 21 | | | | | | |
| 22 | 152 49.6 -00.2 | S 21 42.5 +00.4 | 195 06.9 -00.3 | S 07 50.8 +01.0 | 286 14.6 -31.9 | N 26 54.6 -04.8 | 22 | | | | | | |
| 23 | 167 49.4 -00.2 | S 21 42.9 +00.4 | 210 06.6 -00.3 | S 07 51.8 +01.0 | 300 42.7 -31.8 | N 26 49.8 -05.0 | 23 | | | | | | |
| UT | 02 06 10 14 18 22 | SD 16'2 16'2 16'2 16'2 16'2 16'2 | HP 00'1 00'1 00'1 00'1 00'1 00'1 | SHA 114° 114° 114° 114° 113° 113° | Greenwich Culmination Time: 11:48 | | | | | | | | |
| 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 157° 156° 156° 156° 156° 156° | Greenwich Culmination Time: 08:59 | | | | | | | | |
| UT | 02 06 10 14 18 22 | SD 15'2 15'2 15'2 15'1 15'1 15'1 | HP 55'9 55'8 55'7 55'6 55'5 55'4 | SHA 258° 256° 254° 251° 249° 247° | Greenwich Culmination Time: 02:11 | | | | | | | | |
| <hr/> | | | | | | | | | | | | | |
| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 186 40.5 +00.6 | S 21 10.3 +00.4 | 33 18.4 +02.7 | N 12 39.1 -00.1 | 94 52.4 +02.4 | S 12 39.8 +00.0 | 00 | | | | | | |
| 01 | 201 41.1 +00.6 | S 21 10.7 +00.3 | 48 21.1 +02.7 | N 12 39.0 -00.1 | 109 54.8 +02.4 | S 12 39.8 -00.1 | 01 | | | | | | |
| 02 | 216 41.7 +00.5 | S 21 11.0 +00.4 | 63 23.8 +02.7 | N 12 38.9 +00.0 | 124 57.2 +02.3 | S 12 39.7 +00.0 | 02 | | | | | | |
| 03 | 231 42.2 +00.6 | S 21 11.4 +00.3 | 78 26.5 +02.7 | N 12 38.9 -00.1 | 139 59.5 +02.4 | S 12 39.7 -00.1 | 03 | | | | | | |
| 04 | 246 42.8 +00.6 | S 21 11.7 +00.4 | 93 29.2 +02.7 | N 12 38.8 -00.1 | 155 01.9 +02.3 | S 12 39.6 +00.0 | 04 | | | | | | |
| 05 | 261 43.4 +00.6 | S 21 12.1 +00.4 | 108 31.9 +02.7 | N 12 38.7 +00.0 | 170 04.2 +02.4 | S 12 39.6 -00.1 | 05 | | | | | | |
| 06 | 276 44.0 +00.6 | S 21 12.5 +00.3 | 123 34.6 +02.7 | N 12 38.7 -00.1 | 185 06.6 +02.4 | S 12 39.5 +00.0 | 06 | | | | | | |
| 07 | 291 44.6 +00.6 | S 21 12.8 +00.4 | 138 37.3 +02.7 | N 12 38.6 -00.1 | 200 09.0 +02.3 | S 12 39.5 -00.1 | 07 | | | | | | |
| 08 | 306 45.2 +00.5 | S 21 13.2 +00.3 | 153 40.0 +02.7 | N 12 38.5 +00.0 | 215 11.3 +02.4 | S 12 39.4 +00.0 | 08 | | | | | | |
| 09 | 321 45.7 +00.6 | S 21 13.5 +00.4 | 168 42.7 +02.7 | N 12 38.5 -00.1 | 230 13.7 +02.3 | S 12 39.4 +00.0 | 09 | | | | | | |
| 10 | 336 46.3 +00.6 | S 21 13.9 +00.3 | 183 45.4 +02.7 | N 12 38.4 -00.1 | 245 16.0 +02.4 | S 12 39.4 -00.1 | 10 | | | | | | |
| 11 | 351 46.9 +00.6 | S 21 14.2 +00.4 | 198 48.1 +02.7 | N 12 38.3 -00.1 | 260 18.4 +02.4 | S 12 39.3 +00.0 | 11 | | | | | | |
| 12 | 6 47.5 +00.6 | S 21 14.6 +00.4 | 213 50.8 +02.7 | N 12 38.2 +00.0 | 275 20.8 +02.3 | S 12 39.3 -00.1 | 12 | | | | | | |
| 13 | 21 48.1 +00.5 | S 21 15.0 +00.3 | 228 53.5 +02.7 | N 12 38.2 -00.1 | 290 23.1 +02.4 | S 12 39.2 +00.0 | 13 | | | | | | |
| 14 | 36 48.6 +00.6 | S 21 15.3 +00.4 | 243 56.2 +02.7 | N 12 38.1 -00.1 | 305 25.5 +02.3 | S 12 39.2 -00.1 | 14 | | | | | | |
| 15 | 51 49.2 +00.6 | S 21 15.7 +00.3 | 258 58.9 +02.8 | N 12 38.0 +00.0 | 320 27.8 +02.4 | S 12 39.1 +00.0 | 15 | | | | | | |
| 16 | 66 49.8 +00.6 | S 21 16.0 +00.4 | 274 01.7 +02.7 | N 12 38.0 -00.1 | 335 30.2 +02.3 | S 12 39.1 -00.1 | 16 | | | | | | |
| 17 | 81 50.4 +00.6 | S 21 16.4 +00.3 | 289 04.4 +02.7 | N 12 37.9 -00.1 | 350 32.5 +02.4 | S 12 39.0 +00.0 | 17 | | | | | | |
| 18 | 96 51.0 +00.5 | S 21 16.7 +00.4 | 304 07.1 +02.7 | N 12 37.8 +00.0 | 5 34.9 +02.4 | S 12 39.0 +00.0 | 18 | | | | | | |
| 19 | 111 51.5 +00.6 | S 21 17.1 +00.3 | 319 09.8 +02.7 | N 12 37.8 -00.1 | 20 37.3 +02.3 | S 12 39.0 -00.1 | 19 | | | | | | |
| 20 | 126 52.1 +00.6 | S 21 17.4 +00.4 | 334 12.5 +02.7 | N 12 37.7 -00.1 | 35 39.6 +02.4 | S 12 38.9 +00.0 | 20 | | | | | | |
| 21 | 141 52.7 +00.6 | S 21 17.8 +00.3 | 349 15.2 +02.7 | N 12 37.6 -00.1 | 50 42.0 +02.3 | S 12 38.9 -00.1 | 21 | | | | | | |
| 22 | 156 53.3 +00.5 | S 21 18.1 +00.4 | 4 17.9 +02.7 | N 12 37.5 +00.0 | 65 44.3 +02.4 | S 12 38.8 +00.0 | 22 | | | | | | |
| 23 | 171 53.8 +00.6 | S 21 18.5 +00.3 | 19 20.6 +02.7 | N 12 37.5 -00.1 | 80 46.7 +02.4 | S 12 38.8 -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 118° 118° 118° 118° 118° 117° | Greenwich Culmination Time: 11:32 | | | | | | | | |
| 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 325° 325° 325° 325° 325° 325° | Greenwich Culmination Time: 21:42 | | | | | | | | |
| 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 026° 026° 026° 026° 026° 026° | Greenwich Culmination Time: 17:37 | | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|-------|---------------|-----------------------------------|------|---------------|-------|------|------|------|-----------------------------------|--|--|--|--|--|--|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 182 32.0 -00.2 | S | 22 10.1 +00.3 | 224 43.9 -00.4 | S | 09 05.0 +01.0 | 280 45.3 -25.8 | N | 16 06.7 -11.9 | 00 | | | | | | | | | | |
| 01 | 197 31.8 -00.3 | S | 22 10.4 +00.3 | 239 43.5 -00.3 | S | 09 06.0 +01.0 | 295 19.5 -25.7 | N | 15 54.8 -11.9 | 01 | | | | | | | | | | |
| 02 | 212 31.5 -00.2 | S | 22 10.7 +00.4 | 254 43.2 -00.3 | S | 09 07.0 +01.0 | 309 53.8 -25.7 | N | 15 42.9 -11.9 | 02 | | | | | | | | | | |
| 03 | 227 31.3 -00.3 | S | 22 11.1 +00.3 | 269 42.9 -00.3 | S | 09 08.0 +01.0 | 324 28.1 -25.6 | N | 15 31.0 -12.0 | 03 | | | | | | | | | | |
| 04 | 242 31.0 -00.2 | S | 22 11.4 +00.4 | 284 42.6 -00.4 | S | 09 09.0 +01.0 | 339 02.5 -25.6 | N | 15 19.0 -12.1 | 04 | | | | | | | | | | |
| 05 | 257 30.8 -00.3 | S | 22 11.8 +00.3 | 299 42.2 -00.3 | S | 09 10.0 +01.0 | 353 36.9 -25.5 | N | 15 06.9 -12.1 | 05 | | | | | | | | | | |
| 06 | 272 30.5 -00.2 | S | 22 12.1 +00.4 | 314 41.9 -00.3 | S | 09 11.0 +01.0 | 8 11.4 -25.4 | N | 14 54.8 -12.2 | 06 | | | | | | | | | | |
| 07 | 287 30.3 -00.3 | S | 22 12.5 +00.3 | 329 41.6 -00.4 | S | 09 12.0 +01.0 | 22 46.0 -25.4 | N | 14 42.6 -12.2 | 07 | | | | | | | | | | |
| 08 | 302 30.0 -00.2 | S | 22 12.8 +00.3 | 344 41.2 -00.3 | S | 09 13.0 +01.0 | 37 20.6 -25.3 | N | 14 30.4 -12.3 | 08 | | | | | | | | | | |
| 09 | 317 29.8 -00.3 | S | 22 13.1 +00.4 | 359 40.9 -00.3 | S | 09 14.0 +01.0 | 51 55.3 -25.3 | N | 14 18.1 -12.4 | 09 | | | | | | | | | | |
| 10 | 332 29.5 -00.2 | S | 22 13.5 +00.3 | 14 40.6 -00.4 | S | 09 15.0 +01.0 | 66 30.0 -25.2 | N | 14 05.7 -12.4 | 10 | | | | | | | | | | |
| 11 | 347 29.3 -00.3 | S | 22 13.8 +00.3 | 29 40.2 -00.3 | S | 09 16.0 +01.0 | 81 04.8 -25.2 | N | 13 53.3 -12.4 | 11 | | | | | | | | | | |
| 12 | 2 29.0 -00.2 | S | 22 14.1 +00.4 | 44 39.9 -00.3 | S | 09 17.0 +01.0 | 95 39.6 -25.1 | N | 13 40.9 -12.5 | 12 | | | | | | | | | | |
| 13 | 17 28.8 -00.3 | S | 22 14.5 +00.3 | 59 39.6 -00.4 | S | 09 18.0 +01.0 | 110 14.5 -25.0 | N | 13 28.4 -12.5 | 13 | | | | | | | | | | |
| 14 | 32 28.5 -00.3 | S | 22 14.8 +00.3 | 74 39.2 -00.3 | S | 09 19.0 +01.0 | 124 49.5 -25.1 | N | 13 15.9 -12.6 | 14 | | | | | | | | | | |
| 15 | 47 28.2 -00.2 | S | 22 15.1 +00.4 | 89 38.9 -00.3 | S | 09 20.0 +01.0 | 139 24.4 -24.9 | N | 13 03.3 -12.6 | 15 | | | | | | | | | | |
| 16 | 62 28.0 -00.3 | S | 22 15.5 +00.3 | 104 38.6 -00.4 | S | 09 21.0 +01.0 | 153 59.5 -24.9 | N | 12 50.7 -12.7 | 16 | | | | | | | | | | |
| 17 | 77 27.7 -00.2 | S | 22 15.8 +00.3 | 119 38.2 -00.3 | S | 09 22.0 +01.0 | 168 34.6 -24.9 | N | 12 38.0 -12.7 | 17 | | | | | | | | | | |
| 18 | 92 27.5 -00.3 | S | 22 16.1 +00.4 | 134 37.9 -00.3 | S | 09 23.0 +01.0 | 183 09.7 -24.8 | N | 12 25.3 -12.8 | 18 | | | | | | | | | | |
| 19 | 107 27.2 -00.2 | S | 22 16.5 +00.3 | 149 37.6 -00.4 | S | 09 24.0 +01.0 | 197 44.9 -24.8 | N | 12 12.5 -12.8 | 19 | | | | | | | | | | |
| 20 | 122 27.0 -00.3 | S | 22 16.8 +00.3 | 164 37.2 -00.3 | S | 09 25.0 +00.9 | 212 20.1 -24.8 | N | 11 59.7 -12.9 | 20 | | | | | | | | | | |
| 21 | 137 26.7 -00.2 | S | 22 17.1 +00.4 | 179 36.9 -00.3 | S | 09 25.9 +01.0 | 226 55.3 -24.7 | N | 11 46.8 -12.9 | 21 | | | | | | | | | | |
| 22 | 152 26.5 -00.3 | S | 22 17.5 +00.3 | 194 36.6 -00.4 | S | 09 26.9 +01.0 | 241 30.6 -24.6 | N | 11 33.9 -12.9 | 22 | | | | | | | | | | |
| 23 | 167 26.2 -00.2 | S | 22 17.8 +00.3 | 209 36.2 -00.3 | S | 09 27.9 +01.0 | 256 06.0 -24.6 | N | 11 21.0 -13.0 | 23 | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 16'2 | 16'2 | 16'2 | 16'2 | 16'2 | 16'2 | SD | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | SD | | | | | | |
| HP | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | HP | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | HP | | | | | | |
| SHA | 110° | 110° | 110° | 109° | 109° | 109° | SHA | 152° | 152° | 152° | 152° | 151° | 151° | SHA | | | | | | |
| Greenwich Culmination Time: 11:50 | | | | | | | Greenwich Culmination Time: 09:01 | | | | | | | Greenwich Culmination Time: 05:26 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|---------|---------------|-----------------------------------|------|---------------|-------|------|------|------|-----------------------------------|--|--|--|--|--|--|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 187 35.4 +00.5 | S | 21 43.3 +00.3 | 37 37.1 +02.7 | N | 12 32.7 -00.1 | 98 38.4 +02.3 | S | 12 35.4 -00.1 | 00 | | | | | | | | | | |
| 01 | 202 35.9 +00.6 | S | 21 43.6 +00.4 | 52 39.8 +02.7 | N | 12 32.6 -00.1 | 113 40.7 +02.3 | S | 12 35.3 +00.0 | 01 | | | | | | | | | | |
| 02 | 217 36.5 +00.6 | S | 21 44.0 +00.3 | 67 42.5 +02.7 | N | 12 32.5 +00.0 | 128 43.0 +02.4 | S | 12 35.3 -00.1 | 02 | | | | | | | | | | |
| 03 | 232 37.1 +00.5 | S | 21 44.3 +00.3 | 82 45.2 +02.7 | N | 12 32.5 -00.1 | 143 45.4 +02.3 | S | 12 35.2 +00.0 | 03 | | | | | | | | | | |
| 04 | 247 37.6 +00.6 | S | 21 44.6 +00.3 | 97 47.9 +02.6 | N | 12 32.4 +00.0 | 158 47.7 +02.4 | S | 12 35.2 -00.1 | 04 | | | | | | | | | | |
| 05 | 262 38.2 +00.5 | S | 21 44.9 +00.4 | 112 50.5 +02.7 | N | 12 32.4 -00.1 | 173 50.1 +02.3 | S | 12 35.1 +00.0 | 05 | | | | | | | | | | |
| 06 | 277 38.7 +00.6 | S | 21 45.3 +00.3 | 127 53.2 +02.7 | N | 12 32.3 -00.1 | 188 52.4 +02.4 | S | 12 35.1 -00.1 | 06 | | | | | | | | | | |
| 07 | 292 39.3 +00.6 | S | 21 45.6 +00.3 | 142 55.9 +02.7 | N | 12 32.2 +00.0 | 203 54.8 +02.3 | S | 12 35.0 +00.0 | 07 | | | | | | | | | | |
| 08 | 307 39.9 +00.5 | S | 21 45.9 +00.3 | 157 58.6 +02.7 | N | 12 32.2 -00.1 | 218 57.1 +02.4 | S | 12 35.0 -00.1 | 08 | | | | | | | | | | |
| 09 | 322 40.4 +00.6 | S | 21 46.2 +00.4 | 173 01.3 +02.6 | N | 12 32.1 +00.0 | 233 59.5 +02.3 | S | 12 34.9 +00.0 | 09 | | | | | | | | | | |
| 10 | 337 41.0 +00.5 | S | 21 46.6 +00.3 | 188 03.9 +02.7 | N | 12 32.1 -00.1 | 249 01.8 +02.3 | S | 12 34.9 -00.1 | 10 | | | | | | | | | | |
| 11 | 352 41.5 +00.6 | S | 21 46.9 +00.3 | 203 06.6 +02.7 | N | 12 32.0 -00.1 | 264 04.1 +02.4 | S | 12 34.8 +00.0 | 11 | | | | | | | | | | |
| 12 | 7 42.1 +00.5 | S | 21 47.2 +00.3 | 218 09.3 +02.7 | N | 12 31.9 +00.0 | 279 06.5 +02.3 | S | 12 34.8 -00.1 | 12 | | | | | | | | | | |
| 13 | 22 42.6 +00.6 | S | 21 47.5 +00.3 | 233 12.0 +02.7 | N | 12 31.9 -00.1 | 294 08.8 +02.4 | S | 12 34.7 +00.0 | 13 | | | | | | | | | | |
| 14 | 37 43.2 +00.6 | S | 21 47.8 +00.4 | 248 14.7 +02.6 | N | 12 31.8 -00.1 | 309 11.2 +02.3 | S | 12 34.7 -00.1 | 14 | | | | | | | | | | |
| 15 | 52 43.8 +00.5 | S | 21 48.2 +00.3 | 263 17.3 +02.7 | N | 12 31.7 +00.0 | 324 13.5 +02.4 | S | 12 34.6 +00.0 | 15 | | | | | | | | | | |
| 16 | 67 44.3 +00.6 | S | 21 48.5 +00.3 | 278 20.0 +02.7 | N | 12 31.7 -00.1 | 339 15.9 +02.3 | S | 12 34.6 -00.1 | 16 | | | | | | | | | | |
| 17 | 82 44.9 +00.5 | S | 21 48.8 +00.3 | 293 22.7 +02.7 | N | 12 31.6 +00.0 | 354 18.2 +02.4 | S | 12 34.5 +00.0 | 17 | | | | | | | | | | |
| 18 | 97 45.4 +00.6 | S | 21 49.1 +00.4 | 308 25.4 +02.7 | N | 12 31.6 -00.1 | 9 20.6 +02.3 | S | 12 34.5 -00.1 | 18 | | | | | | | | | | |
| 19 | 112 46.0 +00.5 | S | 21 49.5 +00.3 | 323 28.1 +02.6 | N | 12 31.5 -00.1 | 24 22.9 +02.3 | S | 12 34.4 +00.0 | 19 | | | | | | | | | | |
| 20 | 127 46.5 +00.6 | S | 21 49.8 +00.3 | 338 30.7 +02.7 | N | 12 31.4 +00.0 | 39 25.2 +02.4 | S | 12 34.4 -00.1 | 20 | | | | | | | | | | |
| 21 | 142 47.1 +00.5 | S | 21 50.1 +00.3 | 353 33.4 +02.7 | N | 12 31.4 -00.1 | 54 27.6 +02.3 | S | 12 34.3 +00.0 | 21 | | | | | | | | | | |
| 22 | 157 47.6 +00.6 | S | 21 50.4 +00.3 | 8 36.1 +02.7 | N | 12 31.3 +00.0 | 69 29.9 +02.4 | S | 12 34.3 -00.1 | 22 | | | | | | | | | | |
| 23 | 172 48.2 +00.6 | S | 21 50.7 +00.4 | 23 38.8 +02.6 | N | 12 31.3 -00.1 | 84 32.3 +02.3 | S | 12 34.2 +00.0 | 23 | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 00'0 | 00'0 | 00'0 | 00'0 | 00'0 | 00'0 | SD | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | SD | | | | | | |
| HP | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | HP | 00'0 | 00'0 | 00'0 | 00'0 | 00'0 | 00'0 | HP | | | | | | |
| SHA | 115° | 115° | 115° | 115° | 114° | 114° | SHA | 325° | 325° | 325° | 325° | 325° | 325° | SHA | | | | | | |
| Greenwich Culmination Time: 11:29 | | | | | | | Greenwich Culmination Time: 21:25 | | | | | | | Greenwich Culmination Time: 17:22 | | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> A: 76% | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|--------------|---------------|-----------------------------------|------|---|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 26.0 -00.3 | S | 22 18.1 +00.3 | 224 35.9 -00.4 | S | 09 28.9 +01.0 | 270 41.4 -24.6 | N | 11 08.0 -13.1 | 00 | | | |
| 01 | 197 25.7 -00.2 | S | 22 18.4 +00.4 | 239 35.5 -00.3 | S | 09 29.9 +01.0 | 285 16.8 -24.5 | N | 10 54.9 -13.0 | 01 | | | |
| 02 | 212 25.5 -00.3 | S | 22 18.8 +00.3 | 254 35.2 -00.3 | S | 09 30.9 +01.0 | 299 52.3 -24.5 | N | 10 41.9 -13.1 | 02 | | | |
| 03 | 227 25.2 -00.3 | S | 22 19.1 +00.3 | 269 34.9 -00.4 | S | 09 31.9 +01.0 | 314 27.8 -24.5 | N | 10 28.8 -13.2 | 03 | | | |
| 04 | 242 24.9 -00.2 | S | 22 19.4 +00.3 | 284 34.5 -00.3 | S | 09 32.9 +01.0 | 329 03.3 -24.4 | N | 10 15.6 -13.2 | 04 | | | |
| 05 | 257 24.7 -00.3 | S | 22 19.7 +00.4 | 299 34.2 -00.4 | S | 09 33.9 +01.0 | 343 38.9 -24.4 | N | 10 02.4 -13.2 | 05 | | | |
| 06 | 272 24.4 -00.2 | S | 22 20.1 +00.3 | 314 33.8 -00.3 | S | 09 34.9 +01.0 | 358 14.5 -24.4 | N | 09 49.2 -13.2 | 06 | | | |
| 07 | 287 24.2 -00.3 | S | 22 20.4 +00.3 | 329 33.5 -00.3 | S | 09 35.9 +01.0 | 12 50.1 -24.3 | N | 09 36.0 -13.3 | 07 | | | |
| 08 | 302 23.9 -00.2 | S | 22 20.7 +00.3 | 344 33.2 -00.4 | S | 09 36.9 +01.0 | 27 25.8 -24.4 | N | 09 22.7 -13.4 | 08 | | | |
| 09 | 317 23.7 -00.3 | S | 22 21.0 +00.3 | 359 32.8 -00.3 | S | 09 37.9 +00.9 | 42 01.4 -24.2 | N | 09 09.3 -13.3 | 09 | | | |
| 10 | 332 23.4 -00.2 | S | 22 21.3 +00.4 | 14 32.5 -00.4 | S | 09 38.8 +01.0 | 56 37.2 -24.3 | N | 08 56.0 -13.4 | 10 | | | |
| 11 | 347 23.2 -00.3 | S | 22 21.7 +00.3 | 29 32.1 -00.3 | S | 09 39.8 +01.0 | 71 12.9 -24.2 | N | 08 42.6 -13.5 | 11 | | | |
| 12 | 2 22.9 -00.3 | S | 22 22.0 +00.3 | 44 31.8 -00.4 | S | 09 40.8 +01.0 | 85 48.7 -24.2 | N | 08 29.1 -13.4 | 12 | | | |
| 13 | 17 22.6 -00.2 | S | 22 22.3 +00.3 | 59 31.4 -00.3 | S | 09 41.8 +01.0 | 100 24.5 -24.2 | N | 08 15.7 -13.5 | 13 | | | |
| 14 | 32 22.4 -00.3 | S | 22 22.6 +00.3 | 74 31.1 -00.4 | S | 09 42.8 +01.0 | 115 00.3 -24.1 | N | 08 02.2 -13.6 | 14 | | | |
| 15 | 47 22.1 -00.2 | S | 22 22.9 +00.4 | 89 30.7 -00.3 | S | 09 43.8 +01.0 | 129 36.2 -24.1 | N | 07 48.6 -13.5 | 15 | | | |
| 16 | 62 21.9 -00.3 | S | 22 23.3 +00.3 | 104 30.4 -00.3 | S | 09 44.8 +01.0 | 144 12.1 -24.1 | N | 07 35.1 -13.6 | 16 | | | |
| 17 | 77 21.6 -00.3 | S | 22 23.6 +00.3 | 119 30.1 -00.4 | S | 09 45.8 +01.0 | 158 48.0 -24.1 | N | 07 21.5 -13.7 | 17 | | | |
| 18 | 92 21.3 -00.2 | S | 22 23.9 +00.3 | 134 29.7 -00.3 | S | 09 46.8 +01.0 | 173 23.9 -24.1 | N | 07 07.8 -13.6 | 18 | | | |
| 19 | 107 21.1 -00.3 | S | 22 24.2 +00.3 | 149 29.4 -00.4 | S | 09 47.8 +00.9 | 187 59.8 -24.0 | N | 06 54.2 -13.7 | 19 | | | |
| 20 | 122 20.8 -00.2 | S | 22 24.5 +00.3 | 164 29.0 -00.3 | S | 09 48.7 +01.0 | 202 35.8 -24.1 | N | 06 40.5 -13.7 | 20 | | | |
| 21 | 137 20.6 -00.3 | S | 22 24.8 +00.3 | 179 28.7 -00.4 | S | 09 49.7 +01.0 | 217 11.7 -24.0 | N | 06 26.8 -13.7 | 21 | | | |
| 22 | 152 20.3 -00.2 | S | 22 25.1 +00.3 | 194 28.3 -00.3 | S | 09 50.7 +01.0 | 231 47.7 -24.0 | N | 06 13.1 -13.8 | 22 | | | |
| 23 | 167 20.1 -00.3 | S | 22 25.4 +00.3 | 209 28.0 -00.4 | S | 09 51.7 +01.0 | 246 23.7 -24.0 | N | 05 59.3 -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 16'2 16'2 16'2 16'2 16'2 16'2 | | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | | SD 14'8 14'8 14'8 14'8 14'8 14'8 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 54'2 54'2 54'2 54'3 54'3 54'3 | | | | | | |
| | SHA 109° 109° 108° 108° 108° 108° | | | SHA 151° 151° 151° 150° 150° 150° | | | SHA 196° 194° 193° 191° 189° 187° | | | | | | |
| | Greenwich Culmination Time: 11:50 | | | Greenwich Culmination Time: 09:01 | | | Greenwich Culmination Time: 06:07 | | | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|----------------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 187 48.8 +00.5 | S | 21 51.1 +00.3 | 38 41.4 +02.7 | N | 12 31.2 -00.1 | 99 34.6 +02.4 | S | 12 34.2 -00.1 | 00 | | | |
| 01 | 202 49.3 +00.6 | S | 21 51.4 +00.3 | 53 44.1 +02.7 | N | 12 31.1 +00.0 | 114 37.0 +02.3 | S | 12 34.1 +00.0 | 01 | | | |
| 02 | 217 49.9 +00.5 | S | 21 51.7 +00.3 | 68 46.8 +02.7 | N | 12 31.1 -00.1 | 129 39.3 +02.3 | S | 12 34.1 -00.1 | 02 | | | |
| 03 | 232 50.4 +00.6 | S | 21 52.0 +00.3 | 83 49.5 +02.6 | N | 12 31.0 +00.0 | 144 41.6 +02.4 | S | 12 34.0 +00.0 | 03 | | | |
| 04 | 247 51.0 +00.5 | S | 21 52.3 +00.4 | 98 52.1 +02.7 | N | 12 31.0 -00.1 | 159 44.0 +02.3 | S | 12 34.0 -00.1 | 04 | | | |
| 05 | 262 51.5 +00.6 | S | 21 52.7 +00.3 | 113 54.8 +02.7 | N | 12 30.9 -00.1 | 174 46.3 +02.4 | S | 12 33.9 +00.0 | 05 | | | |
| 06 | 277 52.1 +00.5 | S | 21 53.0 +00.3 | 128 57.5 +02.7 | N | 12 30.8 +00.0 | 189 48.7 +02.3 | S | 12 33.9 -00.1 | 06 | | | |
| 07 | 292 52.6 +00.6 | S | 21 53.3 +00.3 | 144 00.2 +02.6 | N | 12 30.8 -00.1 | 204 51.0 +02.3 | S | 12 33.8 +00.0 | 07 | | | |
| 08 | 307 53.2 +00.5 | S | 21 53.6 +00.3 | 159 02.8 +02.7 | N | 12 30.7 +00.0 | 219 53.3 +02.4 | S | 12 33.8 -00.1 | 08 | | | |
| 09 | 322 53.7 +00.6 | S | 21 53.9 +00.3 | 174 05.5 +02.7 | N | 12 30.7 -00.1 | 234 55.7 +02.3 | S | 12 33.7 +00.0 | 09 | | | |
| 10 | 337 54.3 +00.5 | S | 21 54.2 +00.3 | 189 08.2 +02.7 | N | 12 30.6 +00.0 | 249 58.0 +02.4 | S | 12 33.7 -00.1 | 10 | | | |
| 11 | 352 54.8 +00.6 | S | 21 54.5 +00.4 | 204 10.9 +02.6 | N | 12 30.6 -00.1 | 265 00.4 +02.3 | S | 12 33.6 -00.1 | 11 | | | |
| 12 | 7 55.4 +00.5 | S | 21 54.9 +00.3 | 219 13.5 +02.7 | N | 12 30.5 -00.1 | 280 02.7 +02.3 | S | 12 33.5 +00.0 | 12 | | | |
| 13 | 22 55.9 +00.6 | S | 21 55.2 +00.3 | 234 16.2 +02.7 | N | 12 30.4 +00.0 | 295 05.0 +02.4 | S | 12 33.5 -00.1 | 13 | | | |
| 14 | 37 56.5 +00.5 | S | 21 55.5 +00.3 | 249 18.9 +02.6 | N | 12 30.4 -00.1 | 310 07.4 +02.3 | S | 12 33.4 +00.0 | 14 | | | |
| 15 | 52 57.0 +00.6 | S | 21 55.8 +00.3 | 264 21.5 +02.7 | N | 12 30.3 +00.0 | 325 09.7 +02.4 | S | 12 33.4 -00.1 | 15 | | | |
| 16 | 67 57.6 +00.5 | S | 21 56.1 +00.3 | 279 24.2 +02.7 | N | 12 30.3 -00.1 | 340 12.1 +02.3 | S | 12 33.3 +00.0 | 16 | | | |
| 17 | 82 58.1 +00.6 | S | 21 56.4 +00.3 | 294 26.9 +02.7 | N | 12 30.2 -00.1 | 355 14.4 +02.3 | S | 12 33.3 -00.1 | 17 | | | |
| 18 | 97 58.7 +00.5 | S | 21 56.7 +00.4 | 309 29.6 +02.6 | N | 12 30.1 +00.0 | 10 16.7 +02.4 | S | 12 33.2 +00.0 | 18 | | | |
| 19 | 112 59.2 +00.6 | S | 21 57.1 +00.3 | 324 32.2 +02.7 | N | 12 30.1 -00.1 | 25 19.1 +02.3 | S | 12 33.2 -00.1 | 19 | | | |
| 20 | 127 59.8 +00.5 | S | 21 57.4 +00.3 | 339 34.9 +02.7 | N | 12 30.0 +00.0 | 40 21.4 +02.4 | S | 12 33.1 +00.0 | 20 | | | |
| 21 | 143 00.3 +00.6 | S | 21 57.7 +00.3 | 354 37.6 +02.6 | N | 12 30.0 -00.1 | 55 23.8 +02.3 | S | 12 33.1 -00.1 | 21 | | | |
| 22 | 158 00.9 +00.5 | S | 21 58.0 +00.3 | 9 40.2 +02.7 | N | 12 29.9 +00.0 | 70 26.1 +02.3 | S | 12 33.0 +00.0 | 22 | | | |
| 23 | 173 01.4 +00.6 | S | 21 58.3 +00.3 | 24 42.9 +02.7 | N | 12 29.9 -00.1 | 85 28.4 +02.4 | S | 12 33.0 -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 00'1 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 114° 114° 114° 114° 114° 114° | | | SHA 325° 325° 325° 325° 325° 325° | | | SHA 026° 026° 026° 026° 026° 026° | | | | | | |
| | Greenwich Culmination Time: 11:28 | | | Greenwich Culmination Time: 21:21 | | | Greenwich Culmination Time: 17:18 | | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|--------------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 19.8 -00.3 | S | 22 25.7 +00.4 | 224 27.6 -00.3 | S | 09 52.7 +01.0 | 260 59.7 -23.9 | N | 05 45.5 -13.8 | 00 | | | |
| 01 | 197 19.5 -00.2 | S | 22 26.1 +00.3 | 239 27.3 -00.4 | S | 09 53.7 +01.0 | 275 35.8 -24.0 | N | 05 31.7 -13.8 | 01 | | | |
| 02 | 212 19.3 -00.3 | S | 22 26.4 +00.3 | 254 26.9 -00.3 | S | 09 54.7 +01.0 | 290 11.8 -24.0 | N | 05 17.9 -13.9 | 02 | | | |
| 03 | 227 19.0 -00.3 | S | 22 26.7 +00.3 | 269 26.6 -00.4 | S | 09 55.7 +00.9 | 304 47.8 -23.9 | N | 05 04.0 -13.9 | 03 | | | |
| 04 | 242 18.7 -00.2 | S | 22 27.0 +00.3 | 284 26.2 -00.3 | S | 09 56.6 +01.0 | 319 23.9 -24.0 | N | 04 50.1 -13.9 | 04 | | | |
| 05 | 257 18.5 -00.3 | S | 22 27.3 +00.3 | 299 25.9 -00.4 | S | 09 57.6 +01.0 | 333 59.9 -23.9 | N | 04 36.2 -13.9 | 05 | | | |
| 06 | 272 18.2 -00.2 | S | 22 27.6 +00.3 | 314 25.5 -00.3 | S | 09 58.6 +01.0 | 348 36.0 -23.9 | N | 04 22.3 -14.0 | 06 | | | |
| 07 | 287 18.0 -00.3 | S | 22 27.9 +00.3 | 329 25.2 -00.4 | S | 09 59.6 +01.0 | 3 12.1 -23.9 | N | 04 08.3 -13.9 | 07 | | | |
| 08 | 302 17.7 -00.3 | S | 22 28.2 +00.3 | 344 24.8 -00.3 | S | 10 00.6 +01.0 | 17 48.2 -24.0 | N | 03 54.4 -14.0 | 08 | | | |
| 09 | 317 17.4 -00.2 | S | 22 28.5 +00.3 | 359 24.5 -00.4 | S | 10 01.6 +01.0 | 32 24.2 -23.9 | N | 03 40.4 -14.0 | 09 | | | |
| 10 | 332 17.2 -00.3 | S | 22 28.8 +00.3 | 14 24.1 -00.4 | S | 10 02.6 +00.9 | 47 00.3 -23.9 | N | 03 26.4 -14.1 | 10 | | | |
| 11 | 347 16.9 -00.3 | S | 22 29.1 +00.3 | 29 23.7 -00.3 | S | 10 03.5 +01.0 | 61 36.4 -23.9 | N | 03 12.3 -14.0 | 11 | | | |
| 12 | 2 16.6 -00.2 | S | 22 29.4 +00.3 | 44 23.4 -00.4 | S | 10 04.5 +01.0 | 76 12.5 -24.0 | N | 02 58.3 -14.1 | 12 | | | |
| 13 | 17 16.4 -00.3 | S | 22 29.7 +00.3 | 59 23.0 -00.3 | S | 10 05.5 +01.0 | 90 48.5 -23.9 | N | 02 44.2 -14.0 | 13 | | | |
| 14 | 32 16.1 -00.2 | S | 22 30.0 +00.3 | 74 22.7 -00.4 | S | 10 06.5 +01.0 | 105 24.6 -23.9 | N | 02 30.2 -14.1 | 14 | | | |
| 15 | 47 15.9 -00.3 | S | 22 30.3 +00.3 | 89 22.3 -00.3 | S | 10 07.5 +01.0 | 120 00.7 -24.0 | N | 02 16.1 -14.2 | 15 | | | |
| 16 | 62 15.6 -00.3 | S | 22 30.6 +00.3 | 104 22.0 -00.4 | S | 10 08.5 +01.0 | 134 36.7 -23.9 | N | 02 01.9 -14.1 | 16 | | | |
| 17 | 77 15.3 -00.2 | S | 22 30.9 +00.3 | 119 21.6 -00.3 | S | 10 09.5 +00.9 | 149 12.8 -24.0 | N | 01 47.8 -14.1 | 17 | | | |
| 18 | 92 15.1 -00.3 | S | 22 31.2 +00.3 | 134 21.3 -00.4 | S | 10 10.4 +01.0 | 163 48.8 -23.9 | N | 01 33.7 -14.2 | 18 | | | |
| 19 | 107 14.8 -00.3 | S | 22 31.5 +00.3 | 149 20.9 -00.4 | S | 10 11.4 +01.0 | 178 24.9 -24.0 | N | 01 19.5 -14.2 | 19 | | | |
| 20 | 122 14.5 -00.2 | S | 22 31.8 +00.3 | 164 20.5 -00.3 | S | 10 12.4 +01.0 | 193 00.9 -24.0 | N | 01 05.3 -14.1 | 20 | | | |
| 21 | 137 14.3 -00.3 | S | 22 32.1 +00.3 | 179 20.2 -00.4 | S | 10 13.4 +01.0 | 207 36.9 -24.0 | N | 00 51.2 -14.2 | 21 | | | |
| 22 | 152 14.0 -00.3 | S | 22 32.4 +00.2 | 194 19.8 -00.3 | S | 10 14.4 +01.0 | 222 12.9 -24.0 | N | 00 37.0 -14.2 | 22 | | | |
| 23 | 167 13.7 -00.2 | S | 22 32.6 +00.3 | 209 19.5 -00.4 | S | 10 15.4 +00.9 | 236 48.9 -24.0 | N | 00 22.8 -14.2 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'2 16'2 16'2 16'2 16'2 16'2 | | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | | SD 14'8 14'8 14'8 14'8 14'9 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 54'4 54'4 54'5 54'5 54'6 | | | | | | |
| | SHA 108° 108° 107° 107° 107° 107° | | | SHA 150° 150° 149° 149° 149° 149° | | | SHA 186° 184° 182° 180° 179° 177° | | | | | | |
| | Greenwich Culmination Time: 11:50 | | | Greenwich Culmination Time: 09:02 | | | Greenwich Culmination Time: 06:46 | | | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|----------------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 188 02.0 +00.5 | S | 21 58.6 +00.3 | 39 45.6 +02.6 | N | 12 29.8 -00.1 | 100 30.8 +02.3 | S | 12 32.9 +00.0 | 00 | | | |
| 01 | 203 02.5 +00.6 | S | 21 58.9 +00.3 | 54 48.2 +02.7 | N | 12 29.7 +00.0 | 115 33.1 +02.4 | S | 12 32.9 -00.1 | 01 | | | |
| 02 | 218 03.1 +00.5 | S | 21 59.2 +00.3 | 69 50.9 +02.7 | N | 12 29.7 -00.1 | 130 35.5 +02.3 | S | 12 32.8 +00.0 | 02 | | | |
| 03 | 233 03.6 +00.6 | S | 21 59.5 +00.4 | 84 53.6 +02.7 | N | 12 29.6 +00.0 | 145 37.8 +02.3 | S | 12 32.8 -00.1 | 03 | | | |
| 04 | 248 04.2 +00.5 | S | 21 59.9 +00.3 | 99 56.3 +02.6 | N | 12 29.6 -00.1 | 160 40.1 +02.4 | S | 12 32.7 +00.0 | 04 | | | |
| 05 | 263 04.7 +00.6 | S | 22 00.2 +00.3 | 114 58.9 +02.7 | N | 12 29.5 +00.0 | 175 42.5 +02.3 | S | 12 32.7 -00.1 | 05 | | | |
| 06 | 278 05.3 +00.5 | S | 22 00.5 +00.3 | 130 01.6 +02.7 | N | 12 29.5 -00.1 | 190 44.8 +02.3 | S | 12 32.6 +00.0 | 06 | | | |
| 07 | 293 05.8 +00.6 | S | 22 00.8 +00.3 | 145 04.3 +02.6 | N | 12 29.4 -00.1 | 205 47.1 +02.4 | S | 12 32.6 -00.1 | 07 | | | |
| 08 | 308 06.4 +00.5 | S | 22 01.1 +00.3 | 160 06.9 +02.7 | N | 12 29.3 +00.0 | 220 49.5 +02.3 | S | 12 32.5 +00.0 | 08 | | | |
| 09 | 323 06.9 +00.6 | S | 22 01.4 +00.3 | 175 09.6 +02.7 | N | 12 29.3 -00.1 | 235 51.8 +02.3 | S | 12 32.5 -00.1 | 09 | | | |
| 10 | 338 07.5 +00.5 | S | 22 01.7 +00.3 | 190 12.3 +02.6 | N | 12 29.2 +00.0 | 250 54.1 +02.4 | S | 12 32.4 +00.0 | 10 | | | |
| 11 | 353 08.0 +00.6 | S | 22 02.0 +00.3 | 205 14.9 +02.7 | N | 12 29.2 -00.1 | 265 56.5 +02.3 | S | 12 32.4 -00.1 | 11 | | | |
| 12 | 8 08.6 +00.5 | S | 22 02.3 +00.3 | 220 17.6 +02.7 | N | 12 29.1 +00.0 | 280 58.8 +02.4 | S | 12 32.3 +00.0 | 12 | | | |
| 13 | 23 09.1 +00.6 | S | 22 02.6 +00.3 | 235 20.3 +02.6 | N | 12 29.1 -00.1 | 296 01.2 +02.3 | S | 12 32.3 -00.1 | 13 | | | |
| 14 | 38 09.7 +00.5 | S | 22 02.9 +00.3 | 250 22.9 +02.7 | N | 12 29.0 -00.1 | 311 03.5 +02.3 | S | 12 32.2 -00.1 | 14 | | | |
| 15 | 53 10.2 +00.5 | S | 22 03.2 +00.3 | 265 25.6 +02.6 | N | 12 28.9 +00.0 | 326 05.8 +02.4 | S | 12 32.1 +00.0 | 15 | | | |
| 16 | 68 10.7 +00.6 | S | 22 03.5 +00.4 | 280 28.2 +02.7 | N | 12 28.9 -00.1 | 341 08.2 +02.3 | S | 12 32.1 -00.1 | 16 | | | |
| 17 | 83 11.3 +00.5 | S | 22 03.9 +00.3 | 295 30.9 +02.7 | N | 12 28.8 +00.0 | 356 10.5 +02.3 | S | 12 32.0 +00.0 | 17 | | | |
| 18 | 98 11.8 +00.6 | S | 22 04.2 +00.3 | 310 33.6 +02.6 | N | 12 28.8 -00.1 | 11 12.8 +02.4 | S | 12 32.0 -00.1 | 18 | | | |
| 19 | 113 12.4 +00.5 | S | 22 04.5 +00.3 | 325 36.2 +02.7 | N | 12 28.7 +00.0 | 26 15.2 +02.3 | S | 12 31.9 +00.0 | 19 | | | |
| 20 | 128 12.9 +00.6 | S | 22 04.8 +00.3 | 340 38.9 +02.7 | N | 12 28.7 -00.1 | 41 17.5 +02.3 | S | 12 31.9 -00.1 | 20 | | | |
| 21 | 143 13.5 +00.5 | S | 22 05.1 +00.3 | 355 41.6 +02.6 | N | 12 28.6 +00.0 | 56 19.8 +02.4 | S | 12 31.8 +00.0 | 21 | | | |
| 22 | 158 14.0 +00.6 | S | 22 05.4 +00.3 | 10 44.2 +02.7 | N | 12 28.6 -00.1 | 71 22.2 +02.3 | S | 12 31.8 -00.1 | 22 | | | |
| 23 | 173 14.6 +00.5 | S | 22 05.7 +00.3 | 25 46.9 +02.7 | N | 12 28.5 -00.1 | 86 24.5 +02.4 | S | 12 31.7 +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 00'1 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 113° 113° 113° 113° 113° 113° | | | SHA 325° 325° 325° 325° 325° 325° | | | SHA 026° 026° 026° 026° 026° 026° | | | | | | |
| | Greenwich Culmination Time: 11:27 | | | Greenwich Culmination Time: 21:17 | | | Greenwich Culmination Time: 17:15 | | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> A: 82% | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|--------------|-----------------------------------|----------------|------|---|-------|------|-----------------------------------|------|-----|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 182 13.5 -00.3 | S | 22 32.9 +00.3 | 224 19.1 -00.4 | S | 10 16.3 +01.0 | 251 24.9 -24.0 | N | 00 08.6 -14.3 | 00 | | | | | | | | | | |
| 01 | 197 13.2 -00.3 | S | 22 33.2 +00.3 | 239 18.7 -00.3 | S | 10 17.3 +01.0 | 266 00.9 -24.1 | S | 00 05.7 +14.2 | 01 | | | | | | | | | | |
| 02 | 212 12.9 -00.2 | S | 22 33.5 +00.3 | 254 18.4 -00.4 | S | 10 18.3 +01.0 | 280 36.8 -24.1 | S | 00 19.9 +14.2 | 02 | | | | | | | | | | |
| 03 | 227 12.7 -00.3 | S | 22 33.8 +00.3 | 269 18.0 -00.3 | S | 10 19.3 +01.0 | 295 12.7 -24.1 | S | 00 34.1 +14.3 | 03 | | | | | | | | | | |
| 04 | 242 12.4 -00.3 | S | 22 34.1 +00.3 | 284 17.7 -00.4 | S | 10 20.3 +00.9 | 309 48.6 -24.1 | S | 00 48.4 +14.2 | 04 | | | | | | | | | | |
| 05 | 257 12.1 -00.2 | S | 22 34.4 +00.3 | 299 17.3 -00.4 | S | 10 21.2 +01.0 | 324 24.5 -24.1 | S | 01 02.6 +14.3 | 05 | | | | | | | | | | |
| 06 | 272 11.9 -00.3 | S | 22 34.7 +00.2 | 314 16.9 -00.3 | S | 10 22.2 +01.0 | 339 00.4 -24.2 | S | 01 16.9 +14.3 | 06 | | | | | | | | | | |
| 07 | 287 11.6 -00.3 | S | 22 34.9 +00.3 | 329 16.6 -00.4 | S | 10 23.2 +01.0 | 353 36.2 -24.2 | S | 01 31.2 +14.2 | 07 | | | | | | | | | | |
| 08 | 302 11.3 -00.2 | S | 22 35.2 +00.3 | 344 16.2 -00.4 | S | 10 24.2 +01.0 | 8 12.0 -24.2 | S | 01 45.4 +14.3 | 08 | | | | | | | | | | |
| 09 | 317 11.1 -00.3 | S | 22 35.5 +00.3 | 359 15.8 -00.3 | S | 10 25.2 +00.9 | 22 47.8 -24.3 | S | 01 59.7 +14.3 | 09 | | | | | | | | | | |
| 10 | 332 10.8 -00.3 | S | 22 35.8 +00.3 | 14 15.5 -00.4 | S | 10 26.1 +01.0 | 37 23.5 -24.2 | S | 02 14.0 +14.3 | 10 | | | | | | | | | | |
| 11 | 347 10.5 -00.2 | S | 22 36.1 +00.3 | 29 15.1 -00.4 | S | 10 27.1 +01.0 | 51 59.3 -24.3 | S | 02 28.3 +14.2 | 11 | | | | | | | | | | |
| 12 | 2 10.3 -00.3 | S | 22 36.4 +00.2 | 44 14.7 -00.3 | S | 10 28.1 +01.0 | 66 35.0 -24.4 | S | 02 42.5 +14.3 | 12 | | | | | | | | | | |
| 13 | 17 10.0 -00.3 | S | 22 36.6 +00.3 | 59 14.4 -00.4 | S | 10 29.1 +01.0 | 81 10.6 -24.3 | S | 02 56.8 +14.3 | 13 | | | | | | | | | | |
| 14 | 32 09.7 -00.2 | S | 22 36.9 +00.3 | 74 14.0 -00.4 | S | 10 30.1 +00.9 | 95 46.3 -24.4 | S | 03 11.1 +14.3 | 14 | | | | | | | | | | |
| 15 | 47 09.5 -00.3 | S | 22 37.2 +00.3 | 89 13.6 -00.3 | S | 10 31.0 +01.0 | 110 21.9 -24.5 | S | 03 25.4 +14.3 | 15 | | | | | | | | | | |
| 16 | 62 09.2 -00.3 | S | 22 37.5 +00.3 | 104 13.3 -00.4 | S | 10 32.0 +01.0 | 124 57.4 -24.5 | S | 03 39.7 +14.2 | 16 | | | | | | | | | | |
| 17 | 77 08.9 -00.3 | S | 22 37.8 +00.2 | 119 12.9 -00.4 | S | 10 33.0 +01.0 | 139 32.9 -24.5 | S | 03 53.9 +14.3 | 17 | | | | | | | | | | |
| 18 | 92 08.6 -00.2 | S | 22 38.0 +00.3 | 134 12.5 -00.3 | S | 10 34.0 +01.0 | 154 08.4 -24.5 | S | 04 08.2 +14.3 | 18 | | | | | | | | | | |
| 19 | 107 08.4 -00.3 | S | 22 38.3 +00.3 | 149 12.2 -00.4 | S | 10 35.0 +00.9 | 168 43.9 -24.6 | S | 04 22.5 +14.3 | 19 | | | | | | | | | | |
| 20 | 122 08.1 -00.3 | S | 22 38.6 +00.3 | 164 11.8 -00.4 | S | 10 35.9 +01.0 | 183 19.3 -24.6 | S | 04 36.8 +14.2 | 20 | | | | | | | | | | |
| 21 | 137 07.8 -00.2 | S | 22 38.9 +00.2 | 179 11.4 -00.3 | S | 10 36.9 +01.0 | 197 54.7 -24.7 | S | 04 51.0 +14.3 | 21 | | | | | | | | | | |
| 22 | 152 07.6 -00.3 | S | 22 39.1 +00.3 | 194 11.1 -00.4 | S | 10 37.9 +01.0 | 212 30.0 -24.7 | S | 05 05.3 +14.2 | 22 | | | | | | | | | | |
| 23 | 167 07.3 -00.3 | S | 22 39.4 +00.3 | 209 10.7 -00.4 | S | 10 38.9 +00.9 | 227 05.3 -24.8 | S | 05 19.5 +14.3 | 23 | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 16'2 | 16'2 | 16'2 | 16'2 | 16'2 | 16'2 | SD | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | SD | 14'9 | 14'9 | 14'9 | 15'0 | 15'0 | 15'0 |
| HP | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | HP | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | HP | 54'7 | 54'7 | 54'8 | 54'9 | 55'0 | 55'0 |
| SHA | 107° | 106° | 106° | 106° | 106° | 106° | SHA | 149° | 149° | 148° | 148° | 148° | 148° | SHA | 175° | 173° | 171° | 170° | 168° | 166° |
| Greenwich Culmination Time: 11:51 | | | | | | Greenwich Culmination Time: 09:02 | | | | | | Greenwich Culmination Time: 07:26 | | | | | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT | | | | | | | |
|-----------------------------------|----------------|-------|---------------|----------------|----------------|-----------------------------------|----------------|------|---------------|-------|------|-----------------------------------|------|-----|------|------|------|------|------|------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 188 15.1 +00.5 | S | 22 06.0 +00.3 | 40 49.6 +02.6 | N | 12 28.4 +00.0 | 101 26.9 +02.3 | S | 12 31.7 -00.1 | 00 | | | | | | | | | | |
| 01 | 203 15.6 +00.6 | S | 22 06.3 +00.3 | 55 52.2 +02.7 | N | 12 28.4 -00.1 | 116 29.2 +02.3 | S | 12 31.6 +00.0 | 01 | | | | | | | | | | |
| 02 | 218 16.2 +00.5 | S | 22 06.6 +00.3 | 70 54.9 +02.6 | N | 12 28.3 +00.0 | 131 31.5 +02.4 | S | 12 31.6 -00.1 | 02 | | | | | | | | | | |
| 03 | 233 16.7 +00.6 | S | 22 06.9 +00.3 | 85 57.5 +02.7 | N | 12 28.3 -00.1 | 146 33.9 +02.3 | S | 12 31.5 +00.0 | 03 | | | | | | | | | | |
| 04 | 248 17.3 +00.5 | S | 22 07.2 +00.3 | 101 00.2 +02.7 | N | 12 28.2 +00.0 | 161 36.2 +02.3 | S | 12 31.5 -00.1 | 04 | | | | | | | | | | |
| 05 | 263 17.8 +00.6 | S | 22 07.5 +00.3 | 116 02.9 +02.6 | N | 12 28.2 -00.1 | 176 38.5 +02.4 | S | 12 31.4 +00.0 | 05 | | | | | | | | | | |
| 06 | 278 18.4 +00.5 | S | 22 07.8 +00.3 | 131 05.5 +02.7 | N | 12 28.1 +00.0 | 191 40.9 +02.3 | S | 12 31.4 -00.1 | 06 | | | | | | | | | | |
| 07 | 293 18.9 +00.5 | S | 22 08.1 +00.3 | 146 08.2 +02.6 | N | 12 28.1 -00.1 | 206 43.2 +02.3 | S | 12 31.3 -00.1 | 07 | | | | | | | | | | |
| 08 | 308 19.4 +00.6 | S | 22 08.4 +00.3 | 161 10.8 +02.7 | N | 12 28.0 -00.1 | 221 45.5 +02.4 | S | 12 31.2 +00.0 | 08 | | | | | | | | | | |
| 09 | 323 20.0 +00.5 | S | 22 08.7 +00.3 | 176 13.5 +02.7 | N | 12 27.9 +00.0 | 236 47.9 +02.3 | S | 12 31.2 -00.1 | 09 | | | | | | | | | | |
| 10 | 338 20.5 +00.6 | S | 22 09.0 +00.3 | 191 16.2 +02.6 | N | 12 27.9 -00.1 | 251 50.2 +02.3 | S | 12 31.1 +00.0 | 10 | | | | | | | | | | |
| 11 | 353 21.1 +00.5 | S | 22 09.3 +00.3 | 206 18.8 +02.7 | N | 12 27.8 +00.0 | 266 52.5 +02.4 | S | 12 31.1 -00.1 | 11 | | | | | | | | | | |
| 12 | 8 21.6 +00.5 | S | 22 09.6 +00.3 | 221 21.5 +02.6 | N | 12 27.8 -00.1 | 281 54.9 +02.3 | S | 12 31.0 +00.0 | 12 | | | | | | | | | | |
| 13 | 23 22.1 +00.6 | S | 22 09.9 +00.3 | 236 24.1 +02.7 | N | 12 27.7 +00.0 | 296 57.2 +02.3 | S | 12 31.0 -00.1 | 13 | | | | | | | | | | |
| 14 | 38 22.7 +00.5 | S | 22 10.2 +00.3 | 251 26.8 +02.7 | N | 12 27.7 -00.1 | 311 59.5 +02.4 | S | 12 30.9 +00.0 | 14 | | | | | | | | | | |
| 15 | 53 23.2 +00.6 | S | 22 10.5 +00.3 | 266 29.5 +02.6 | N | 12 27.6 +00.0 | 327 01.9 +02.3 | S | 12 30.9 -00.1 | 15 | | | | | | | | | | |
| 16 | 68 23.8 +00.5 | S | 22 10.8 +00.3 | 281 32.1 +02.7 | N | 12 27.6 -00.1 | 342 04.2 +02.3 | S | 12 30.8 +00.0 | 16 | | | | | | | | | | |
| 17 | 83 24.3 +00.5 | S | 22 11.1 +00.3 | 296 34.8 +02.6 | N | 12 27.5 +00.0 | 357 06.5 +02.3 | S | 12 30.8 -00.1 | 17 | | | | | | | | | | |
| 18 | 98 24.8 +00.6 | S | 22 11.4 +00.3 | 311 37.4 +02.7 | N | 12 27.5 -00.1 | 12 08.8 +02.4 | S | 12 30.7 +00.0 | 18 | | | | | | | | | | |
| 19 | 113 25.4 +00.5 | S | 22 11.7 +00.3 | 326 40.1 +02.6 | N | 12 27.4 +00.0 | 27 11.2 +02.3 | S | 12 30.7 -00.1 | 19 | | | | | | | | | | |
| 20 | 128 25.9 +00.6 | S | 22 12.0 +00.2 | 341 42.7 +02.7 | N | 12 27.4 -00.1 | 42 13.5 +02.3 | S | 12 30.6 -00.1 | 20 | | | | | | | | | | |
| 21 | 143 26.5 +00.5 | S | 22 12.2 +00.3 | 356 45.4 +02.6 | N | 12 27.3 +00.0 | 57 15.8 +02.4 | S | 12 30.5 +00.0 | 21 | | | | | | | | | | |
| 22 | 158 27.0 +00.5 | S | 22 12.5 +00.3 | 11 48.0 +02.7 | N | 12 27.3 -00.1 | 72 18.2 +02.3 | S | 12 30.5 -00.1 | 22 | | | | | | | | | | |
| 23 | 173 27.5 +00.6 | S | 22 12.8 +00.3 | 26 50.7 +02.7 | N | 12 27.2 -00.1 | 87 20.5 +02.3 | S | 12 30.4 +00.0 | 23 | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| 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 | 113° | 113° | 112° | 112° | 112° | 112° | SHA | 325° | 325° | 325° | 325° | 325° | 325° | SHA | 026° | 026° | 026° | 026° | 026° | 026° |
| Greenwich Culmination Time: 11:26 | | | | | | Greenwich Culmination Time: 21:12 | | | | | | Greenwich Culmination Time: 17:11 | | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|----------------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 07.0 -00.3 | S | 22 39.7 +00.3 | 224 10.3 -00.4 | S | 10 39.8 +01.0 | 241 40.5 -24.8 | S | 05 33.8 +14.2 | 00 | | | |
| 01 | 197 06.7 -00.2 | S | 22 40.0 +00.2 | 239 09.9 -00.3 | S | 10 40.8 +01.0 | 256 15.7 -24.8 | S | 05 48.0 +14.2 | 01 | | | |
| 02 | 212 06.5 -00.3 | S | 22 40.2 +00.3 | 254 09.6 -00.4 | S | 10 41.8 +01.0 | 270 50.9 -24.9 | S | 06 02.2 +14.2 | 02 | | | |
| 03 | 227 06.2 -00.3 | S | 22 40.5 +00.3 | 269 09.2 -00.4 | S | 10 42.8 +00.9 | 285 26.0 -25.0 | S | 06 16.4 +14.2 | 03 | | | |
| 04 | 242 05.9 -00.2 | S | 22 40.8 +00.2 | 284 08.8 -00.4 | S | 10 43.7 +01.0 | 300 01.0 -25.0 | S | 06 30.6 +14.2 | 04 | | | |
| 05 | 257 05.7 -00.3 | S | 22 41.0 +00.3 | 299 08.4 -00.3 | S | 10 44.7 +01.0 | 314 36.0 -25.0 | S | 06 44.8 +14.2 | 05 | | | |
| 06 | 272 05.4 -00.3 | S | 22 41.3 +00.3 | 314 08.1 -00.4 | S | 10 45.7 +01.0 | 329 11.0 -25.1 | S | 06 59.0 +14.2 | 06 | | | |
| 07 | 287 05.1 -00.3 | S | 22 41.6 +00.2 | 329 07.7 -00.4 | S | 10 46.7 +00.9 | 343 45.9 -25.2 | S | 07 13.2 +14.1 | 07 | | | |
| 08 | 302 04.8 -00.2 | S | 22 41.8 +00.3 | 344 07.3 -00.4 | S | 10 47.6 +01.0 | 358 20.7 -25.2 | S | 07 27.3 +14.2 | 08 | | | |
| 09 | 317 04.6 -00.3 | S | 22 42.1 +00.3 | 359 06.9 -00.3 | S | 10 48.6 +01.0 | 12 55.5 -25.3 | S | 07 41.5 +14.1 | 09 | | | |
| 10 | 332 04.3 -00.3 | S | 22 42.4 +00.2 | 14 06.6 -00.4 | S | 10 49.6 +01.0 | 27 30.2 -25.3 | S | 07 55.6 +14.1 | 10 | | | |
| 11 | 347 04.0 -00.3 | S | 22 42.6 +00.3 | 29 06.2 -00.4 | S | 10 50.6 +00.9 | 42 04.9 -25.4 | S | 08 09.7 +14.1 | 11 | | | |
| 12 | 2 03.7 -00.2 | S | 22 42.9 +00.3 | 44 05.8 -00.4 | S | 10 51.5 +01.0 | 56 39.5 -25.5 | S | 08 23.8 +14.0 | 12 | | | |
| 13 | 17 03.5 -00.3 | S | 22 43.2 +00.2 | 59 05.4 -00.3 | S | 10 52.5 +01.0 | 71 14.0 -25.5 | S | 08 37.8 +14.1 | 13 | | | |
| 14 | 32 03.2 -00.3 | S | 22 43.4 +00.3 | 74 05.1 -00.4 | S | 10 53.5 +01.0 | 85 48.5 -25.6 | S | 08 51.9 +14.0 | 14 | | | |
| 15 | 47 02.9 -00.3 | S | 22 43.7 +00.2 | 89 04.7 -00.4 | S | 10 54.5 +00.9 | 100 22.9 -25.6 | S | 09 05.9 +14.0 | 15 | | | |
| 16 | 62 02.6 -00.2 | S | 22 43.9 +00.3 | 104 04.3 -00.4 | S | 10 55.4 +01.0 | 114 57.3 -25.7 | S | 09 19.9 +14.0 | 16 | | | |
| 17 | 77 02.4 -00.3 | S | 22 44.2 +00.3 | 119 03.9 -00.4 | S | 10 56.4 +01.0 | 129 31.6 -25.8 | S | 09 33.9 +13.9 | 17 | | | |
| 18 | 92 02.1 -00.3 | S | 22 44.5 +00.2 | 134 03.5 -00.3 | S | 10 57.4 +00.9 | 144 05.8 -25.8 | S | 09 47.8 +13.9 | 18 | | | |
| 19 | 107 01.8 -00.3 | S | 22 44.7 +00.3 | 149 03.2 -00.4 | S | 10 58.3 +01.0 | 158 40.0 -26.0 | S | 10 01.7 +13.9 | 19 | | | |
| 20 | 122 01.5 -00.2 | S | 22 45.0 +00.2 | 164 02.8 -00.4 | S | 10 59.3 +01.0 | 173 14.0 -25.9 | S | 10 15.6 +13.9 | 20 | | | |
| 21 | 137 01.3 -00.3 | S | 22 45.2 +00.3 | 179 02.4 -00.4 | S | 11 00.3 +01.0 | 187 48.1 -26.1 | S | 10 29.5 +13.9 | 21 | | | |
| 22 | 152 01.0 -00.3 | S | 22 45.5 +00.2 | 194 02.0 -00.4 | S | 11 01.3 +00.9 | 202 22.0 -26.1 | S | 10 43.4 +13.8 | 22 | | | |
| 23 | 167 00.7 -00.3 | S | 22 45.7 +00.3 | 209 01.6 -00.4 | S | 11 02.2 +01.0 | 216 55.9 -26.2 | S | 10 57.2 +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 16'2 16'2 16'2 16'2 16'2 16'2 | | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | | SD 15'0 15'0 15'1 15'1 15'1 15'2 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 55'1 55'2 55'3 55'4 55'5 55'6 | | | | | | |
| | SHA 106° 105° 105° 105° 105° 105° | | | SHA 148° 147° 147° 147° 147° 147° | | | SHA 164° 162° 161° 159° 157° 155° | | | | | | |
| | Greenwich Culmination Time: 11:51 | | | Greenwich Culmination Time: 09:03 | | | Greenwich Culmination Time: 08:06 | | | | | | |
| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 188 28.1 +00.5 | S | 22 13.1 +00.3 | 41 53.4 +02.6 | N | 12 27.1 +00.0 | 102 22.8 +02.4 | S | 12 30.4 -00.1 | 00 | | | |
| 01 | 203 28.6 +00.6 | S | 22 13.4 +00.3 | 56 56.0 +02.7 | N | 12 27.1 -00.1 | 117 25.2 +02.3 | S | 12 30.3 +00.0 | 01 | | | |
| 02 | 218 29.2 +00.5 | S | 22 13.7 +00.3 | 71 58.7 +02.6 | N | 12 27.0 +00.0 | 132 27.5 +02.3 | S | 12 30.3 -00.1 | 02 | | | |
| 03 | 233 29.7 +00.5 | S | 22 14.0 +00.3 | 87 01.3 +02.7 | N | 12 27.0 -00.1 | 147 29.8 +02.4 | S | 12 30.2 +00.0 | 03 | | | |
| 04 | 248 30.2 +00.6 | S | 22 14.3 +00.3 | 102 04.0 +02.6 | N | 12 26.9 +00.0 | 162 32.2 +02.3 | S | 12 30.2 -00.1 | 04 | | | |
| 05 | 263 30.8 +00.5 | S | 22 14.6 +00.3 | 117 06.6 +02.7 | N | 12 26.9 -00.1 | 177 34.5 +02.3 | S | 12 30.1 +00.0 | 05 | | | |
| 06 | 278 31.3 +00.5 | S | 22 14.9 +00.3 | 132 09.3 +02.6 | N | 12 26.8 +00.0 | 192 36.8 +02.4 | S | 12 30.1 -00.1 | 06 | | | |
| 07 | 293 31.8 +00.6 | S | 22 15.2 +00.3 | 147 11.9 +02.7 | N | 12 26.8 -00.1 | 207 39.2 +02.3 | S | 12 30.0 -00.1 | 07 | | | |
| 08 | 308 32.4 +00.5 | S | 22 15.5 +00.3 | 162 14.6 +02.6 | N | 12 26.7 +00.0 | 222 41.5 +02.3 | S | 12 29.9 +00.0 | 08 | | | |
| 09 | 323 32.9 +00.5 | S | 22 15.8 +00.2 | 177 17.2 +02.7 | N | 12 26.7 -00.1 | 237 43.8 +02.3 | S | 12 29.9 -00.1 | 09 | | | |
| 10 | 338 33.4 +00.6 | S | 22 16.0 +00.3 | 192 19.9 +02.6 | N | 12 26.6 +00.0 | 252 46.1 +02.4 | S | 12 29.8 +00.0 | 10 | | | |
| 11 | 353 34.0 +00.5 | S | 22 16.3 +00.3 | 207 22.5 +02.7 | N | 12 26.6 -00.1 | 267 48.5 +02.3 | S | 12 29.8 -00.1 | 11 | | | |
| 12 | 8 34.5 +00.5 | S | 22 16.6 +00.3 | 222 25.2 +02.6 | N | 12 26.5 +00.0 | 282 50.8 +02.3 | S | 12 29.7 +00.0 | 12 | | | |
| 13 | 23 35.0 +00.6 | S | 22 16.9 +00.3 | 237 27.8 +02.7 | N | 12 26.5 -00.1 | 297 53.1 +02.4 | S | 12 29.7 -00.1 | 13 | | | |
| 14 | 38 35.6 +00.5 | S | 22 17.2 +00.3 | 252 30.5 +02.6 | N | 12 26.4 +00.0 | 312 55.5 +02.3 | S | 12 29.6 +00.0 | 14 | | | |
| 15 | 53 36.1 +00.6 | S | 22 17.5 +00.3 | 267 33.1 +02.7 | N | 12 26.4 -00.1 | 327 57.8 +02.3 | S | 12 29.6 -00.1 | 15 | | | |
| 16 | 68 36.7 +00.5 | S | 22 17.8 +00.3 | 282 35.8 +02.6 | N | 12 26.3 +00.0 | 343 00.1 +02.3 | S | 12 29.5 -00.1 | 16 | | | |
| 17 | 83 37.2 +00.5 | S | 22 18.1 +00.3 | 297 38.4 +02.7 | N | 12 26.3 -00.1 | 358 02.4 +02.4 | S | 12 29.4 +00.0 | 17 | | | |
| 18 | 98 37.7 +00.6 | S | 22 18.4 +00.2 | 312 41.1 +02.6 | N | 12 26.2 +00.0 | 13 04.8 +02.3 | S | 12 29.4 -00.1 | 18 | | | |
| 19 | 113 38.3 +00.5 | S | 22 18.6 +00.3 | 327 43.7 +02.7 | N | 12 26.2 -00.1 | 28 07.1 +02.3 | S | 12 29.3 +00.0 | 19 | | | |
| 20 | 128 38.8 +00.5 | S | 22 18.9 +00.3 | 342 46.4 +02.6 | N | 12 26.1 +00.0 | 43 09.4 +02.4 | S | 12 29.3 -00.1 | 20 | | | |
| 21 | 143 39.3 +00.6 | S | 22 19.2 +00.3 | 357 49.0 +02.7 | N | 12 26.1 -00.1 | 58 11.8 +02.3 | S | 12 29.2 +00.0 | 21 | | | |
| 22 | 158 39.9 +00.5 | S | 22 19.5 +00.3 | 12 51.7 +02.6 | N | 12 26.0 +00.0 | 73 14.1 +02.3 | S | 12 29.2 -00.1 | 22 | | | |
| 23 | 173 40.4 +00.5 | S | 22 19.8 +00.3 | 27 54.3 +02.7 | N | 12 26.0 -00.1 | 88 16.4 +02.3 | S | 12 29.1 +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 112° 112° 112° 112° 111° 111° | | | SHA 325° 325° 325° 325° 325° 325° | | | SHA 026° 026° 026° 026° 026° 026° | | | | | | |
| | Greenwich Culmination Time: 11:25 | | | Greenwich Culmination Time: 21:08 | | | Greenwich Culmination Time: 17:07 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|-----------------------------------|-------------------------------|-----------------|-----------------------------------|-----------------|-------------------------------|-----------------------------------|-----|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 182 00.4 -00.2 | S 22 46.0 +00.2 | 224 01.2 -00.3 | S 11 03.2 +01.0 | 231 29.7 -26.3 | S 11 11.0 +13.7 | 00 | | | | | | |
| 01 | 197 00.2 -00.3 | S 22 46.2 +00.3 | 239 00.9 -00.4 | S 11 04.2 +00.9 | 246 03.4 -26.4 | S 11 24.7 +13.7 | 01 | | | | | | |
| 02 | 211 59.9 -00.3 | S 22 46.5 +00.2 | 254 00.5 -00.4 | S 11 05.1 +01.0 | 260 37.0 -26.4 | S 11 38.4 +13.7 | 02 | | | | | | |
| 03 | 226 59.6 -00.3 | S 22 46.7 +00.3 | 269 00.1 -00.4 | S 11 06.1 +01.0 | 275 10.6 -26.5 | S 11 52.1 +13.7 | 03 | | | | | | |
| 04 | 241 59.3 -00.2 | S 22 47.0 +00.2 | 283 59.7 -00.4 | S 11 07.1 +00.9 | 289 44.1 -26.6 | S 12 05.8 +13.6 | 04 | | | | | | |
| 05 | 256 59.1 -00.3 | S 22 47.2 +00.3 | 298 59.3 -00.4 | S 11 08.0 +01.0 | 304 17.5 -26.7 | S 12 19.4 +13.6 | 05 | | | | | | |
| 06 | 271 58.8 -00.3 | S 22 47.5 +00.2 | 313 58.9 -00.3 | S 11 09.0 +01.0 | 318 50.8 -26.8 | S 12 33.0 +13.5 | 06 | | | | | | |
| 07 | 286 58.5 -00.3 | S 22 47.7 +00.3 | 328 58.6 -00.4 | S 11 10.0 +00.9 | 333 24.0 -26.8 | S 12 46.5 +13.5 | 07 | | | | | | |
| 08 | 301 58.2 -00.3 | S 22 48.0 +00.2 | 343 58.2 -00.4 | S 11 10.9 +01.0 | 347 57.2 -26.9 | S 13 00.0 +13.5 | 08 | | | | | | |
| 09 | 316 57.9 -00.2 | S 22 48.2 +00.3 | 358 57.8 -00.4 | S 11 11.9 +01.0 | 2 30.3 -27.0 | S 13 13.5 +13.4 | 09 | | | | | | |
| 10 | 331 57.7 -00.3 | S 22 48.5 +00.2 | 13 57.4 -00.4 | S 11 12.9 +00.9 | 17 03.3 -27.1 | S 13 26.9 +13.4 | 10 | | | | | | |
| 11 | 346 57.4 -00.3 | S 22 48.7 +00.3 | 28 57.0 -00.4 | S 11 13.8 +01.0 | 31 36.2 -27.2 | S 13 40.3 +13.3 | 11 | | | | | | |
| 12 | 1 57.1 -00.3 | S 22 49.0 +00.2 | 43 56.6 -00.4 | S 11 14.8 +01.0 | 46 09.0 -27.3 | S 13 53.6 +13.3 | 12 | | | | | | |
| 13 | 16 56.8 -00.3 | S 22 49.2 +00.3 | 58 56.2 -00.4 | S 11 15.8 +00.9 | 60 41.7 -27.4 | S 14 06.9 +13.2 | 13 | | | | | | |
| 14 | 31 56.5 -00.2 | S 22 49.5 +00.2 | 73 55.8 -00.4 | S 11 16.7 +01.0 | 75 14.3 -27.5 | S 14 20.1 +13.2 | 14 | | | | | | |
| 15 | 46 56.3 -00.3 | S 22 49.7 +00.2 | 88 55.4 -00.3 | S 11 17.7 +01.0 | 89 46.8 -27.5 | S 14 33.3 +13.2 | 15 | | | | | | |
| 16 | 61 56.0 -00.3 | S 22 49.9 +00.3 | 103 55.1 -00.4 | S 11 18.7 +00.9 | 104 19.3 -27.7 | S 14 46.5 +13.1 | 16 | | | | | | |
| 17 | 76 55.7 -00.3 | S 22 50.2 +00.2 | 118 54.7 -00.4 | S 11 19.6 +01.0 | 118 51.6 -27.7 | S 14 59.6 +13.0 | 17 | | | | | | |
| 18 | 91 55.4 -00.2 | S 22 50.4 +00.3 | 133 54.3 -00.4 | S 11 20.6 +01.0 | 133 23.9 -27.9 | S 15 12.6 +13.0 | 18 | | | | | | |
| 19 | 106 55.2 -00.3 | S 22 50.7 +00.2 | 148 53.9 -00.4 | S 11 21.6 +00.9 | 147 56.0 -27.9 | S 15 25.6 +12.9 | 19 | | | | | | |
| 20 | 121 54.9 -00.3 | S 22 50.9 +00.2 | 163 53.5 -00.4 | S 11 22.5 +01.0 | 162 28.1 -28.0 | S 15 38.5 +12.9 | 20 | | | | | | |
| 21 | 136 54.6 -00.3 | S 22 51.1 +00.3 | 178 53.1 -00.4 | S 11 23.5 +00.9 | 177 00.1 -28.2 | S 15 51.4 +12.8 | 21 | | | | | | |
| 22 | 151 54.3 -00.3 | S 22 51.4 +00.2 | 193 52.7 -00.4 | S 11 24.4 +01.0 | 191 31.9 -28.2 | S 16 04.2 +12.8 | 22 | | | | | | |
| 23 | 166 54.0 -00.3 | S 22 51.6 +00.2 | 208 52.3 -00.4 | S 11 25.4 +01.0 | 206 03.7 -28.3 | S 16 17.0 +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 | 16'2 16'2 16'2 16'2 16'2 16'2 | SD | 00'1 00'1 00'1 00'1 00'1 00'1 | SD | 15'2 15'2 15'2 15'3 15'3 15'3 | | | | | | | | |
| HP | 00'1 00'1 00'1 00'1 00'1 00'1 | HP | 00'1 00'1 00'1 00'1 00'1 00'1 | HP | 55'7 55'8 56'0 56'1 56'2 56'3 | | | | | | | | |
| SHA | 104° 104° 104° 104° 104° 104° | SHA | 146° 146° 146° 146° 146° 145° | SHA | 153° 151° 149° 147° 145° 143° | | | | | | | | |
| Greenwich Culmination Time: 11:52 | | | Greenwich Culmination Time: 09:04 | | | Greenwich Culmination Time: 08:49 | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|-----------------------------------|-------------------------------|-----------------|-----------------------------------|-----------------|-------------------------------|-----------------------------------|-----|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 188 40.9 +00.6 | S 22 20.1 +00.3 | 42 57.0 +02.6 | N 12 25.9 +00.0 | 103 18.7 +02.4 | S 12 29.1 -00.1 | 00 | | | | | | |
| 01 | 203 41.5 +00.5 | S 22 20.4 +00.2 | 57 59.6 +02.7 | N 12 25.9 -00.1 | 118 21.1 +02.3 | S 12 29.0 -00.1 | 01 | | | | | | |
| 02 | 218 42.0 +00.5 | S 22 20.6 +00.3 | 73 02.3 +02.6 | N 12 25.8 +00.0 | 133 23.4 +02.3 | S 12 28.9 +00.0 | 02 | | | | | | |
| 03 | 233 42.5 +00.5 | S 22 20.9 +00.3 | 88 04.9 +02.7 | N 12 25.8 -00.1 | 148 25.7 +02.3 | S 12 28.9 -00.1 | 03 | | | | | | |
| 04 | 248 43.0 +00.6 | S 22 21.2 +00.3 | 103 07.6 +02.6 | N 12 25.7 +00.0 | 163 28.0 +02.4 | S 12 28.8 +00.0 | 04 | | | | | | |
| 05 | 263 43.6 +00.5 | S 22 21.5 +00.3 | 118 10.2 +02.7 | N 12 25.7 -00.1 | 178 30.4 +02.3 | S 12 28.8 -00.1 | 05 | | | | | | |
| 06 | 278 44.1 +00.5 | S 22 21.8 +00.3 | 133 12.9 +02.6 | N 12 25.6 +00.0 | 193 32.7 +02.3 | S 12 28.7 +00.0 | 06 | | | | | | |
| 07 | 293 44.6 +00.6 | S 22 22.1 +00.2 | 148 15.5 +02.7 | N 12 25.6 -00.1 | 208 35.0 +02.4 | S 12 28.7 -00.1 | 07 | | | | | | |
| 08 | 308 45.2 +00.5 | S 22 22.3 +00.3 | 163 18.2 +02.6 | N 12 25.5 +00.0 | 223 37.4 +02.3 | S 12 28.6 +00.0 | 08 | | | | | | |
| 09 | 323 45.7 +00.5 | S 22 22.6 +00.3 | 178 20.8 +02.6 | N 12 25.5 -00.1 | 238 39.7 +02.3 | S 12 28.6 -00.1 | 09 | | | | | | |
| 10 | 338 46.2 +00.6 | S 22 22.9 +00.3 | 193 23.4 +02.7 | N 12 25.4 +00.0 | 253 42.0 +02.3 | S 12 28.5 -00.1 | 10 | | | | | | |
| 11 | 353 46.8 +00.5 | S 22 23.2 +00.3 | 208 26.1 +02.6 | N 12 25.4 -00.1 | 268 44.3 +02.4 | S 12 28.4 +00.0 | 11 | | | | | | |
| 12 | 8 47.3 +00.5 | S 22 23.5 +00.2 | 223 28.7 +02.7 | N 12 25.3 +00.0 | 283 46.7 +02.3 | S 12 28.4 -00.1 | 12 | | | | | | |
| 13 | 23 47.8 +00.6 | S 22 23.7 +00.3 | 238 31.4 +02.6 | N 12 25.3 -00.1 | 298 49.0 +02.3 | S 12 28.3 +00.0 | 13 | | | | | | |
| 14 | 38 48.4 +00.5 | S 22 24.0 +00.3 | 253 34.0 +02.7 | N 12 25.2 +00.0 | 313 51.3 +02.3 | S 12 28.3 -00.1 | 14 | | | | | | |
| 15 | 53 48.9 +00.5 | S 22 24.3 +00.3 | 268 36.7 +02.6 | N 12 25.2 -00.1 | 328 53.6 +02.4 | S 12 28.2 +00.0 | 15 | | | | | | |
| 16 | 68 49.4 +00.5 | S 22 24.6 +00.3 | 283 39.3 +02.7 | N 12 25.1 +00.0 | 343 56.0 +02.3 | S 12 28.2 -00.1 | 16 | | | | | | |
| 17 | 83 49.9 +00.6 | S 22 24.9 +00.2 | 298 42.0 +02.6 | N 12 25.1 -00.1 | 358 58.3 +02.3 | S 12 28.1 -00.1 | 17 | | | | | | |
| 18 | 98 50.5 +00.5 | S 22 25.1 +00.3 | 313 44.6 +02.6 | N 12 25.0 +00.0 | 14 00.6 +02.3 | S 12 28.0 +00.0 | 18 | | | | | | |
| 19 | 113 51.0 +00.5 | S 22 25.4 +00.3 | 328 47.2 +02.7 | N 12 25.0 -00.1 | 29 02.9 +02.4 | S 12 28.0 -00.1 | 19 | | | | | | |
| 20 | 128 51.5 +00.6 | S 22 25.7 +00.3 | 343 49.9 +02.6 | N 12 24.9 +00.0 | 44 05.3 +02.3 | S 12 27.9 +00.0 | 20 | | | | | | |
| 21 | 143 52.1 +00.5 | S 22 26.0 +00.3 | 358 52.5 +02.7 | N 12 24.9 -00.1 | 59 07.6 +02.3 | S 12 27.9 -00.1 | 21 | | | | | | |
| 22 | 158 52.6 +00.5 | S 22 26.3 +00.2 | 13 55.2 +02.6 | N 12 24.8 +00.0 | 74 09.9 +02.3 | S 12 27.8 +00.0 | 22 | | | | | | |
| 23 | 173 53.1 +00.5 | S 22 26.5 +00.3 | 28 57.8 +02.6 | N 12 24.8 -00.1 | 89 12.2 +02.4 | S 12 27.8 -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 | 00'1 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 | 111° 111° 111° 111° 111° 110° | SHA | 325° 325° 325° 326° 326° 326° | SHA | 026° 026° 026° 026° 026° 026° | | | | | | | | |
| Greenwich Culmination Time: 11:24 | | | Greenwich Culmination Time: 21:04 | | | Greenwich Culmination Time: 17:04 | | | | | | | |

Table with 5 main columns for celestial bodies: Sun, Venus, Moon, Mars, Jupiter, and Saturn. Each column contains UT (00-23), GHA, ddGHA, Dec, dDec, and UT. It includes data for each hour of the day and a summary table at the bottom of each section for SD, HP, and SHA values.

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 181 40.0 -00.3 | S | 23 02.2 +00.2 | 223 32.4 -00.4 | S | 12 12.2 +00.9 | 195 41.9 -34.0 | S | 24 58.8 +07.8 | 00 | | | |
| 01 | 196 39.7 -00.3 | S | 23 02.4 +00.2 | 238 32.0 -00.4 | S | 12 13.1 +01.0 | 210 07.9 -34.1 | S | 25 06.6 +07.7 | 01 | | | |
| 02 | 211 39.4 -00.2 | S | 23 02.6 +00.2 | 253 31.6 -00.5 | S | 12 14.1 +00.9 | 224 33.8 -34.3 | S | 25 14.3 +07.5 | 02 | | | |
| 03 | 226 39.2 -00.3 | S | 23 02.8 +00.2 | 268 31.1 -00.4 | S | 12 15.0 +01.0 | 238 59.5 -34.3 | S | 25 21.8 +07.4 | 03 | | | |
| 04 | 241 38.9 -00.3 | S | 23 03.0 +00.2 | 283 30.7 -00.4 | S | 12 16.0 +00.9 | 253 25.2 -34.5 | S | 25 29.2 +07.3 | 04 | | | |
| 05 | 256 38.6 -00.3 | S | 23 03.2 +00.2 | 298 30.3 -00.4 | S | 12 16.9 +00.9 | 267 50.7 -34.5 | S | 25 36.5 +07.1 | 05 | | | |
| 06 | 271 38.3 -00.3 | S | 23 03.4 +00.2 | 313 29.9 -00.4 | S | 12 17.8 +01.0 | 282 16.2 -34.7 | S | 25 43.6 +07.0 | 06 | | | |
| 07 | 286 38.0 -00.3 | S | 23 03.6 +00.2 | 328 29.5 -00.5 | S | 12 18.8 +00.9 | 296 41.5 -34.8 | S | 25 50.6 +06.8 | 07 | | | |
| 08 | 301 37.7 -00.3 | S | 23 03.8 +00.2 | 343 29.0 -00.4 | S | 12 19.7 +01.0 | 311 06.7 -34.9 | S | 25 57.4 +06.6 | 08 | | | |
| 09 | 316 37.4 -00.3 | S | 23 04.0 +00.1 | 358 28.6 -00.4 | S | 12 20.7 +00.9 | 325 31.8 -35.0 | S | 26 04.0 +06.5 | 09 | | | |
| 10 | 331 37.1 -00.3 | S | 23 04.1 +00.2 | 13 28.2 -00.4 | S | 12 21.6 +01.0 | 339 56.8 -35.1 | S | 26 10.5 +06.3 | 10 | | | |
| 11 | 346 36.8 -00.3 | S | 23 04.3 +00.2 | 28 27.8 -00.5 | S | 12 22.6 +00.9 | 354 21.7 -35.2 | S | 26 16.8 +06.2 | 11 | | | |
| 12 | 1 36.5 -00.3 | S | 23 04.5 +00.2 | 43 27.3 -00.4 | S | 12 23.5 +00.9 | 8 46.5 -35.4 | S | 26 23.0 +06.1 | 12 | | | |
| 13 | 16 36.2 -00.2 | S | 23 04.7 +00.2 | 58 26.9 -00.4 | S | 12 24.4 +01.0 | 23 11.1 -35.4 | S | 26 29.1 +05.8 | 13 | | | |
| 14 | 31 36.0 -00.3 | S | 23 04.9 +00.2 | 73 26.5 -00.4 | S | 12 25.4 +00.9 | 37 35.7 -35.5 | S | 26 34.9 +05.7 | 14 | | | |
| 15 | 46 35.7 -00.3 | S | 23 05.1 +00.2 | 88 26.1 -00.5 | S | 12 26.3 +01.0 | 52 00.2 -35.6 | S | 26 40.6 +05.6 | 15 | | | |
| 16 | 61 35.4 -00.3 | S | 23 05.3 +00.1 | 103 25.6 -00.4 | S | 12 27.3 +00.9 | 66 24.6 -35.7 | S | 26 46.2 +05.3 | 16 | | | |
| 17 | 76 35.1 -00.3 | S | 23 05.4 +00.2 | 118 25.2 -00.4 | S | 12 28.2 +00.9 | 80 48.9 -35.8 | S | 26 51.5 +05.2 | 17 | | | |
| 18 | 91 34.8 -00.3 | S | 23 05.6 +00.2 | 133 24.8 -00.4 | S | 12 29.1 +01.0 | 95 13.1 -35.9 | S | 26 56.7 +05.1 | 18 | | | |
| 19 | 106 34.5 -00.3 | S | 23 05.8 +00.2 | 148 24.4 -00.5 | S | 12 30.1 +00.9 | 109 37.2 -36.0 | S | 27 01.8 +04.8 | 19 | | | |
| 20 | 121 34.2 -00.3 | S | 23 06.0 +00.2 | 163 23.9 -00.4 | S | 12 31.0 +01.0 | 124 01.2 -36.0 | S | 27 06.6 +04.7 | 20 | | | |
| 21 | 136 33.9 -00.3 | S | 23 06.2 +00.2 | 178 23.5 -00.4 | S | 12 32.0 +00.9 | 138 25.2 -36.2 | S | 27 11.3 +04.5 | 21 | | | |
| 22 | 151 33.6 -00.3 | S | 23 06.4 +00.1 | 193 23.1 -00.5 | S | 12 32.9 +00.9 | 152 49.0 -36.2 | S | 27 15.8 +04.4 | 22 | | | |
| 23 | 166 33.3 -00.3 | S | 23 06.5 +00.2 | 208 22.6 -00.4 | S | 12 33.8 +01.0 | 167 12.8 -36.4 | S | 27 20.2 +04.2 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'2 16'2 16'2 16'2 16'2 16'2 | | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | | SD 15'8 15'8 15'8 15'9 15'9 15'9 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 57'8 58'0 58'1 58'2 58'3 58'4 | | | | | | |
| | SHA 101° 101° 101° 101° 100° 100° | | | SHA 143° 143° 143° 142° 142° 142° | | | SHA 114° 112° 109° 107° 104° 101° | | | | | | |
| | Greenwich Culmination Time: 11:53 | | | Greenwich Culmination Time: 09:06 | | | Greenwich Culmination Time: 11:23 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|---------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 189 18.7 +00.5 | S | 22 39.6 +00.3 | 46 06.8 +02.6 | N | 12 22.6 -00.1 | 106 05.9 +02.3 | S | 12 24.9 -00.1 | 00 | | | |
| 01 | 204 19.2 +00.5 | S | 22 39.9 +00.3 | 61 09.4 +02.7 | N | 12 22.5 +00.0 | 121 08.2 +02.4 | S | 12 24.8 +00.0 | 01 | | | |
| 02 | 219 19.7 +00.5 | S | 22 40.2 +00.2 | 76 12.1 +02.6 | N | 12 22.5 +00.0 | 136 10.6 +02.3 | S | 12 24.8 -00.1 | 02 | | | |
| 03 | 234 20.2 +00.5 | S | 22 40.4 +00.3 | 91 14.7 +02.6 | N | 12 22.5 -00.1 | 151 12.9 +02.3 | S | 12 24.7 -00.1 | 03 | | | |
| 04 | 249 20.7 +00.6 | S | 22 40.7 +00.2 | 106 17.3 +02.6 | N | 12 22.4 +00.0 | 166 15.2 +02.3 | S | 12 24.6 +00.0 | 04 | | | |
| 05 | 264 21.3 +00.5 | S | 22 40.9 +00.3 | 121 19.9 +02.6 | N | 12 22.4 -00.1 | 181 17.5 +02.3 | S | 12 24.6 -00.1 | 05 | | | |
| 06 | 279 21.8 +00.5 | S | 22 41.2 +00.2 | 136 22.5 +02.7 | N | 12 22.3 +00.0 | 196 19.8 +02.3 | S | 12 24.5 +00.0 | 06 | | | |
| 07 | 294 22.3 +00.5 | S | 22 41.4 +00.3 | 151 25.2 +02.6 | N | 12 22.3 +00.0 | 211 22.1 +02.4 | S | 12 24.5 -00.1 | 07 | | | |
| 08 | 309 22.8 +00.5 | S | 22 41.7 +00.2 | 166 27.8 +02.6 | N | 12 22.3 -00.1 | 226 24.5 +02.3 | S | 12 24.4 -00.1 | 08 | | | |
| 09 | 324 23.3 +00.5 | S | 22 41.9 +00.3 | 181 30.4 +02.6 | N | 12 22.2 +00.0 | 241 26.8 +02.3 | S | 12 24.3 +00.0 | 09 | | | |
| 10 | 339 23.8 +00.6 | S | 22 42.2 +00.3 | 196 33.0 +02.7 | N | 12 22.2 -00.1 | 256 29.1 +02.3 | S | 12 24.3 -00.1 | 10 | | | |
| 11 | 354 24.4 +00.5 | S | 22 42.5 +00.2 | 211 35.7 +02.6 | N | 12 22.1 +00.0 | 271 31.4 +02.3 | S | 12 24.2 +00.0 | 11 | | | |
| 12 | 9 24.9 +00.5 | S | 22 42.7 +00.3 | 226 38.3 +02.6 | N | 12 22.1 -00.1 | 286 33.7 +02.3 | S | 12 24.2 -00.1 | 12 | | | |
| 13 | 24 25.4 +00.5 | S | 22 43.0 +00.2 | 241 40.9 +02.6 | N | 12 22.0 +00.0 | 301 36.0 +02.3 | S | 12 24.1 -00.1 | 13 | | | |
| 14 | 39 25.9 +00.5 | S | 22 43.2 +00.3 | 256 43.5 +02.6 | N | 12 22.0 +00.0 | 316 38.3 +02.4 | S | 12 24.0 +00.0 | 14 | | | |
| 15 | 54 26.4 +00.5 | S | 22 43.5 +00.2 | 271 46.1 +02.7 | N | 12 22.0 -00.1 | 331 40.7 +02.3 | S | 12 24.0 -00.1 | 15 | | | |
| 16 | 69 26.9 +00.5 | S | 22 43.7 +00.3 | 286 48.8 +02.6 | N | 12 21.9 +00.0 | 346 43.0 +02.3 | S | 12 23.9 +00.0 | 16 | | | |
| 17 | 84 27.4 +00.6 | S | 22 44.0 +00.2 | 301 51.4 +02.6 | N | 12 21.9 -00.1 | 1 45.3 +02.3 | S | 12 23.9 -00.1 | 17 | | | |
| 18 | 99 28.0 +00.5 | S | 22 44.2 +00.3 | 316 54.0 +02.6 | N | 12 21.8 +00.0 | 16 47.6 +02.3 | S | 12 23.8 -00.1 | 18 | | | |
| 19 | 114 28.5 +00.5 | S | 22 44.5 +00.2 | 331 56.6 +02.6 | N | 12 21.8 +00.0 | 31 49.9 +02.3 | S | 12 23.7 +00.0 | 19 | | | |
| 20 | 129 29.0 +00.5 | S | 22 44.7 +00.3 | 346 59.2 +02.7 | N | 12 21.8 -00.1 | 46 52.2 +02.3 | S | 12 23.7 -00.1 | 20 | | | |
| 21 | 144 29.5 +00.5 | S | 22 45.0 +00.2 | 2 01.9 +02.6 | N | 12 21.7 +00.0 | 61 54.5 +02.4 | S | 12 23.6 +00.0 | 21 | | | |
| 22 | 159 30.0 +00.5 | S | 22 45.2 +00.3 | 17 04.5 +02.6 | N | 12 21.7 -00.1 | 76 56.9 +02.3 | S | 12 23.6 -00.1 | 22 | | | |
| 23 | 174 30.5 +00.5 | S | 22 45.5 +00.2 | 32 07.1 +02.6 | N | 12 21.6 +00.0 | 91 59.2 +02.3 | S | 12 23.5 -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 00'1 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 109° 109° 109° 108° 108° 108° | | | SHA 326° 326° 326° 326° 326° 326° | | | SHA 026° 026° 026° 026° 026° 026° | | | | | | |
| | Greenwich Culmination Time: 11:22 | | | Greenwich Culmination Time: 20:51 | | | Greenwich Culmination Time: 16:52 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|---------|---------------|----------------|-----------------------------------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 181 33.0 -00.3 | S | 23 06.7 +00.2 | 223 22.2 -00.4 | S | 12 34.8 +00.9 | 181 36.4 -36.4 | S | 27 24.4 +04.0 | | | | |
| 01 | 196 32.7 -00.3 | S | 23 06.9 +00.2 | 238 21.8 -00.4 | S | 12 35.7 +00.9 | 196 00.0 -36.4 | S | 27 28.4 +03.8 | | | | |
| 02 | 211 32.4 -00.3 | S | 23 07.1 +00.1 | 253 21.4 -00.5 | S | 12 36.6 +01.0 | 210 23.6 -36.6 | S | 27 32.2 +03.6 | | | | |
| 03 | 226 32.1 -00.3 | S | 23 07.2 +00.2 | 268 20.9 -00.4 | S | 12 37.6 +00.9 | 224 47.0 -36.6 | S | 27 35.8 +03.5 | | | | |
| 04 | 241 31.8 -00.2 | S | 23 07.4 +00.2 | 283 20.5 -00.4 | S | 12 38.5 +00.9 | 239 10.4 -36.7 | S | 27 39.3 +03.3 | | | | |
| 05 | 256 31.6 -00.3 | S | 23 07.6 +00.2 | 298 20.1 -00.5 | S | 12 39.4 +01.0 | 253 33.7 -36.8 | S | 27 42.6 +03.1 | | | | |
| 06 | 271 31.3 -00.3 | S | 23 07.8 +00.1 | 313 19.6 -00.4 | S | 12 40.4 +00.9 | 267 56.9 -36.9 | S | 27 45.7 +02.9 | | | | |
| 07 | 286 31.0 -00.3 | S | 23 07.9 +00.2 | 328 19.2 -00.4 | S | 12 41.3 +00.9 | 282 20.0 -36.9 | S | 27 48.6 +02.7 | | | | |
| 08 | 301 30.7 -00.3 | S | 23 08.1 +00.2 | 343 18.8 -00.5 | S | 12 42.2 +01.0 | 296 43.1 -36.9 | S | 27 51.3 +02.6 | | | | |
| 09 | 316 30.4 -00.3 | S | 23 08.3 +00.1 | 358 18.3 -00.4 | S | 12 43.2 +00.9 | 311 06.2 -37.1 | S | 27 53.9 +02.3 | | | | |
| 10 | 331 30.1 -00.3 | S | 23 08.4 +00.2 | 13 17.9 -00.4 | S | 12 44.1 +00.9 | 325 29.1 -37.0 | S | 27 56.2 +02.2 | | | | |
| 11 | 346 29.8 -00.3 | S | 23 08.6 +00.2 | 28 17.5 -00.5 | S | 12 45.0 +01.0 | 339 52.1 -37.2 | S | 27 58.4 +02.0 | | | | |
| 12 | 1 29.5 -00.3 | S | 23 08.8 +00.2 | 43 17.0 -00.4 | S | 12 46.0 +00.9 | 354 14.9 -37.2 | S | 28 00.4 +01.8 | | | | |
| 13 | 16 29.2 -00.3 | S | 23 09.0 +00.1 | 58 16.6 -00.5 | S | 12 46.9 +00.9 | 8 37.7 -37.2 | S | 28 02.2 +01.6 | | | | |
| 14 | 31 28.9 -00.3 | S | 23 09.1 +00.2 | 73 16.1 -00.4 | S | 12 47.8 +01.0 | 23 00.5 -37.3 | S | 28 03.8 +01.4 | | | | |
| 15 | 46 28.6 -00.3 | S | 23 09.3 +00.2 | 88 15.7 -00.4 | S | 12 48.8 +00.9 | 37 23.2 -37.3 | S | 28 05.2 +01.2 | | | | |
| 16 | 61 28.3 -00.3 | S | 23 09.5 +00.1 | 103 15.3 -00.5 | S | 12 49.7 +00.9 | 51 45.9 -37.4 | S | 28 06.4 +01.1 | | | | |
| 17 | 76 28.0 -00.3 | S | 23 09.6 +00.2 | 118 14.8 -00.4 | S | 12 50.6 +01.0 | 66 08.5 -37.4 | S | 28 07.5 +00.8 | | | | |
| 18 | 91 27.7 -00.3 | S | 23 09.8 +00.1 | 133 14.4 -00.4 | S | 12 51.6 +00.9 | 80 31.1 -37.4 | S | 28 08.3 +00.7 | | | | |
| 19 | 106 27.4 -00.3 | S | 23 09.9 +00.2 | 148 14.0 -00.5 | S | 12 52.5 +00.9 | 94 53.7 -37.5 | S | 28 09.0 +00.4 | | | | |
| 20 | 121 27.1 -00.3 | S | 23 10.1 +00.2 | 163 13.5 -00.4 | S | 12 53.4 +00.9 | 109 16.2 -37.5 | S | 28 09.4 +00.3 | | | | |
| 21 | 136 26.8 -00.3 | S | 23 10.3 +00.1 | 178 13.1 -00.5 | S | 12 54.3 +01.0 | 123 38.7 -37.6 | S | 28 09.7 +00.1 | | | | |
| 22 | 151 26.5 -00.3 | S | 23 10.4 +00.2 | 193 12.6 -00.4 | S | 12 55.3 +00.9 | 138 01.1 -37.5 | S | 28 09.8 -00.1 | | | | |
| 23 | 166 26.2 -00.3 | S | 23 10.6 +00.1 | 208 12.2 -00.5 | S | 12 56.2 +00.9 | 152 23.6 -37.6 | S | 28 09.7 -00.4 | | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | UT 02 06 10 14 18 22 | | | | | |
| | SD 16'2 16'2 16'2 16'2 16'2 16'2 | | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | | | SD 15'9 16'0 16'0 16'0 16'0 16'1 | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | | HP 58'5 58'6 58'7 58'8 58'8 58'9 | | | | | |
| | SHA 100° 100° 100° 099° 099° 099° | | | SHA 142° 142° 141° 141° 141° 141° | | | | SHA 099° 096° 094° 091° 088° 086° | | | | | |
| | Greenwich Culmination Time: 11:54 | | | Greenwich Culmination Time: 09:06 | | | | Greenwich Culmination Time: 12:23 | | | | | |
| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 189 31.0 +00.5 | S | 22 45.7 +00.3 | 47 09.7 +02.6 | N | 12 21.6 +00.0 | 107 01.5 +02.3 | S | 12 23.4 +00.0 | | | | |
| 01 | 204 31.5 +00.5 | S | 22 46.0 +00.2 | 62 12.3 +02.6 | N | 12 21.6 -00.1 | 122 03.8 +02.3 | S | 12 23.4 -00.1 | | | | |
| 02 | 219 32.0 +00.6 | S | 22 46.2 +00.3 | 77 14.9 +02.7 | N | 12 21.5 +00.0 | 137 06.1 +02.3 | S | 12 23.3 -00.1 | | | | |
| 03 | 234 32.6 +00.5 | S | 22 46.5 +00.2 | 92 17.6 +02.6 | N | 12 21.5 -00.1 | 152 08.4 +02.3 | S | 12 23.2 +00.0 | | | | |
| 04 | 249 33.1 +00.5 | S | 22 46.7 +00.3 | 107 20.2 +02.6 | N | 12 21.4 +00.0 | 167 10.7 +02.3 | S | 12 23.2 -00.1 | | | | |
| 05 | 264 33.6 +00.5 | S | 22 47.0 +00.2 | 122 22.8 +02.6 | N | 12 21.4 +00.0 | 182 13.0 +02.4 | S | 12 23.1 +00.0 | | | | |
| 06 | 279 34.1 +00.5 | S | 22 47.2 +00.3 | 137 25.4 +02.6 | N | 12 21.4 -00.1 | 197 15.4 +02.3 | S | 12 23.1 -00.1 | | | | |
| 07 | 294 34.6 +00.5 | S | 22 47.5 +00.2 | 152 28.0 +02.6 | N | 12 21.3 +00.0 | 212 17.7 +02.3 | S | 12 23.0 -00.1 | | | | |
| 08 | 309 35.1 +00.5 | S | 22 47.7 +00.3 | 167 30.6 +02.7 | N | 12 21.3 +00.0 | 227 20.0 +02.3 | S | 12 22.9 +00.0 | | | | |
| 09 | 324 35.6 +00.5 | S | 22 48.0 +00.2 | 182 33.3 +02.6 | N | 12 21.3 -00.1 | 242 22.3 +02.3 | S | 12 22.9 -00.1 | | | | |
| 10 | 339 36.1 +00.5 | S | 22 48.2 +00.2 | 197 35.9 +02.6 | N | 12 21.2 +00.0 | 257 24.6 +02.3 | S | 12 22.8 +00.0 | | | | |
| 11 | 354 36.6 +00.6 | S | 22 48.4 +00.3 | 212 38.5 +02.6 | N | 12 21.2 -00.1 | 272 26.9 +02.3 | S | 12 22.8 -00.1 | | | | |
| 12 | 9 37.2 +00.5 | S | 22 48.7 +00.2 | 227 41.1 +02.6 | N | 12 21.1 +00.0 | 287 29.2 +02.3 | S | 12 22.7 -00.1 | | | | |
| 13 | 24 37.7 +00.5 | S | 22 48.9 +00.3 | 242 43.7 +02.6 | N | 12 21.1 +00.0 | 302 31.5 +02.3 | S | 12 22.6 +00.0 | | | | |
| 14 | 39 38.2 +00.5 | S | 22 49.2 +00.2 | 257 46.3 +02.6 | N | 12 21.1 -00.1 | 317 33.8 +02.4 | S | 12 22.6 -00.1 | | | | |
| 15 | 54 38.7 +00.5 | S | 22 49.4 +00.3 | 272 48.9 +02.6 | N | 12 21.0 +00.0 | 332 36.2 +02.3 | S | 12 22.5 -00.1 | | | | |
| 16 | 69 39.2 +00.5 | S | 22 49.7 +00.2 | 287 51.5 +02.7 | N | 12 21.0 -00.1 | 347 38.5 +02.3 | S | 12 22.4 +00.0 | | | | |
| 17 | 84 39.7 +00.5 | S | 22 49.9 +00.3 | 302 54.2 +02.6 | N | 12 20.9 +00.0 | 2 40.8 +02.3 | S | 12 22.4 -00.1 | | | | |
| 18 | 99 40.2 +00.5 | S | 22 50.2 +00.2 | 317 56.8 +02.6 | N | 12 20.9 +00.0 | 17 43.1 +02.3 | S | 12 22.3 +00.0 | | | | |
| 19 | 114 40.7 +00.5 | S | 22 50.4 +00.2 | 332 59.4 +02.6 | N | 12 20.9 -00.1 | 32 45.4 +02.3 | S | 12 22.3 -00.1 | | | | |
| 20 | 129 41.2 +00.5 | S | 22 50.6 +00.3 | 348 02.0 +02.6 | N | 12 20.8 +00.0 | 47 47.7 +02.3 | S | 12 22.2 -00.1 | | | | |
| 21 | 144 41.7 +00.5 | S | 22 50.9 +00.2 | 3 04.6 +02.6 | N | 12 20.8 +00.0 | 62 50.0 +02.3 | S | 12 22.1 +00.0 | | | | |
| 22 | 159 42.2 +00.5 | S | 22 51.1 +00.3 | 18 07.2 +02.6 | N | 12 20.8 -00.1 | 77 52.3 +02.3 | S | 12 22.1 -00.1 | | | | |
| 23 | 174 42.7 +00.5 | S | 22 51.4 +00.2 | 33 09.8 +02.6 | N | 12 20.7 +00.0 | 92 54.6 +02.4 | S | 12 22.0 -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 00'1 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 108° 108° 108° 108° 108° 107° | | | SHA 326° 326° 326° 326° 326° 326° | | | | SHA 026° 026° 026° 026° 026° 026° | | | | | |
| | Greenwich Culmination Time: 11:21 | | | Greenwich Culmination Time: 20:47 | | | | Greenwich Culmination Time: 16:49 | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> | | | | UT |
|----|-----------------------------------|--------------|--------------|-----------------------------------|--------------|--------------|-----------------------------------|-------------|--------------|--------------|--------------|-------------|----|
| | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | |
| 00 | 181 25.9 -00.3 | S 23 | 10.7 +00.2 | 223 11.7 -00.4 | S 12 | 57.1 +01.0 | 166 46.0 -37.6 | S 28 | 09.3 -00.5 | 00 | | | |
| 01 | 196 25.6 -00.3 | S 23 | 10.9 +00.2 | 238 11.3 -00.4 | S 12 | 58.1 +00.9 | 181 08.4 -37.6 | S 28 | 08.8 -00.7 | 01 | | | |
| 02 | 211 25.3 -00.3 | S 23 | 11.1 +00.1 | 253 10.9 -00.5 | S 12 | 59.0 +00.9 | 195 30.8 -37.6 | S 28 | 08.1 -00.9 | 02 | | | |
| 03 | 226 25.0 -00.3 | S 23 | 11.2 +00.2 | 268 10.4 -00.4 | S 12 | 59.9 +00.9 | 209 53.2 -37.7 | S 28 | 07.2 -01.1 | 03 | | | |
| 04 | 241 24.7 -00.3 | S 23 | 11.4 +00.1 | 283 10.0 -00.5 | S 13 | 00.8 +01.0 | 224 15.5 -37.6 | S 28 | 06.1 -01.3 | 04 | | | |
| 05 | 256 24.4 -00.3 | S 23 | 11.5 +00.2 | 298 09.5 -00.4 | S 13 | 01.8 +00.9 | 238 37.9 -37.7 | S 28 | 04.8 -01.4 | 05 | | | |
| 06 | 271 24.1 -00.3 | S 23 | 11.7 +00.1 | 313 09.1 -00.5 | S 13 | 02.7 +00.9 | 253 00.2 -37.6 | S 28 | 03.4 -01.7 | 06 | | | |
| 07 | 286 23.8 -00.2 | S 23 | 11.8 +00.2 | 328 08.6 -00.4 | S 13 | 03.6 +00.9 | 267 22.6 -37.7 | S 28 | 01.7 -01.9 | 07 | | | |
| 08 | 301 23.6 -00.3 | S 23 | 12.0 +00.1 | 343 08.2 -00.5 | S 13 | 04.5 +01.0 | 281 44.9 -37.6 | S 27 | 59.8 -02.1 | 08 | | | |
| 09 | 316 23.3 -00.3 | S 23 | 12.1 +00.2 | 358 07.7 -00.4 | S 13 | 05.5 +00.9 | 296 07.3 -37.7 | S 27 | 57.7 -02.3 | 09 | | | |
| 10 | 331 23.0 -00.3 | S 23 | 12.3 +00.1 | 13 07.3 -00.4 | S 13 | 06.4 +00.9 | 310 29.6 -37.6 | S 27 | 55.4 -02.4 | 10 | | | |
| 11 | 346 22.7 -00.3 | S 23 | 12.4 +00.2 | 28 06.9 -00.5 | S 13 | 07.3 +00.9 | 324 52.0 -37.6 | S 27 | 53.0 -02.7 | 11 | | | |
| 12 | 1 22.4 -00.3 | S 23 | 12.6 +00.1 | 43 06.4 -00.4 | S 13 | 08.2 +00.9 | 339 14.4 -37.6 | S 27 | 50.3 -02.8 | 12 | | | |
| 13 | 16 22.1 -00.3 | S 23 | 12.7 +00.2 | 58 06.0 -00.5 | S 13 | 09.1 +01.0 | 353 36.8 -37.6 | S 27 | 47.5 -03.1 | 13 | | | |
| 14 | 31 21.8 -00.3 | S 23 | 12.9 +00.1 | 73 05.5 -00.4 | S 13 | 10.1 +00.9 | 7 59.2 -37.6 | S 27 | 44.4 -03.2 | 14 | | | |
| 15 | 46 21.5 -00.3 | S 23 | 13.0 +00.2 | 88 05.1 -00.5 | S 13 | 11.0 +00.9 | 22 21.6 -37.5 | S 27 | 41.2 -03.5 | 15 | | | |
| 16 | 61 21.2 -00.3 | S 23 | 13.2 +00.1 | 103 04.6 -00.4 | S 13 | 11.9 +00.9 | 36 44.1 -37.6 | S 27 | 37.7 -03.6 | 16 | | | |
| 17 | 76 20.9 -00.3 | S 23 | 13.3 +00.2 | 118 04.2 -00.5 | S 13 | 12.8 +01.0 | 51 06.5 -37.4 | S 27 | 34.1 -03.8 | 17 | | | |
| 18 | 91 20.6 -00.3 | S 23 | 13.5 +00.1 | 133 03.7 -00.4 | S 13 | 13.8 +00.9 | 65 29.1 -37.5 | S 27 | 30.3 -04.0 | 18 | | | |
| 19 | 106 20.3 -00.3 | S 23 | 13.6 +00.2 | 148 03.3 -00.5 | S 13 | 14.7 +00.9 | 79 51.6 -37.4 | S 27 | 26.3 -04.2 | 19 | | | |
| 20 | 121 20.0 -00.3 | S 23 | 13.8 +00.1 | 163 02.8 -00.5 | S 13 | 15.6 +00.9 | 94 14.2 -37.4 | S 27 | 22.1 -04.4 | 20 | | | |
| 21 | 136 19.7 -00.3 | S 23 | 13.9 +00.1 | 178 02.3 -00.4 | S 13 | 16.5 +00.9 | 108 36.8 -37.4 | S 27 | 17.7 -04.6 | 21 | | | |
| 22 | 151 19.4 -00.3 | S 23 | 14.0 +00.2 | 193 01.9 -00.5 | S 13 | 17.4 +00.9 | 122 59.4 -37.3 | S 27 | 13.1 -04.8 | 22 | | | |
| 23 | 166 19.1 -00.3 | S 23 | 14.2 +00.1 | 208 01.4 -00.4 | S 13 | 18.3 +01.0 | 137 22.1 -37.2 | S 27 | 08.3 -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 16'2 16'2 16'2 16'2 16'2 16'2 | | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | | SD 16'1 16'1 16'1 16'1 16'1 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 59'0 59'1 59'1 59'2 59'2 59'3 | | | | | | |
| | SHA 099° 099° 099° 098° 098° 098° | | | SHA 141° 140° 140° 140° 140° 140° | | | SHA 083° 080° 078° 075° 072° 070° | | | | | | |
| | Greenwich Culmination Time: 11:54 | | | Greenwich Culmination Time: 09:07 | | | Greenwich Culmination Time: 13:26 | | | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
|----|-----------------------------------|--------------|--------------|-----------------------------------|----------------|--------------|-----------------------------------|-------------|---------------|--------------|--------------|-------------|----|
| | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | |
| 00 | 189 43.2 +00.6 | S 22 | 51.6 +00.2 | 48 12.4 +02.6 | N 12 | 20.7 +00.0 | 107 57.0 +02.3 | S 12 | 21.9 +00.0 | 00 | | | |
| 01 | 204 43.8 +00.5 | S 22 | 51.8 +00.3 | 63 15.0 +02.7 | N 12 | 20.7 -00.1 | 122 59.3 +02.3 | S 12 | 21.9 -00.1 | 01 | | | |
| 02 | 219 44.3 +00.5 | S 22 | 52.1 +00.2 | 78 17.7 +02.6 | N 12 | 20.6 +00.0 | 138 01.6 +02.3 | S 12 | 21.8 +00.0 | 02 | | | |
| 03 | 234 44.8 +00.5 | S 22 | 52.3 +00.3 | 93 20.3 +02.6 | N 12 | 20.6 -00.1 | 153 03.9 +02.3 | S 12 | 21.8 -00.1 | 03 | | | |
| 04 | 249 45.3 +00.5 | S 22 | 52.6 +00.2 | 108 22.9 +02.6 | N 12 | 20.5 +00.0 | 168 06.2 +02.3 | S 12 | 21.7 -00.1 | 04 | | | |
| 05 | 264 45.8 +00.5 | S 22 | 52.8 +00.2 | 123 25.5 +02.6 | N 12 | 20.5 +00.0 | 183 08.5 +02.3 | S 12 | 21.6 +00.0 | 05 | | | |
| 06 | 279 46.3 +00.5 | S 22 | 53.0 +00.3 | 138 28.1 +02.6 | N 12 | 20.5 -00.1 | 198 10.8 +02.3 | S 12 | 21.6 -00.1 | 06 | | | |
| 07 | 294 46.8 +00.5 | S 22 | 53.3 +00.2 | 153 30.7 +02.6 | N 12 | 20.4 +00.0 | 213 13.1 +02.3 | S 12 | 21.5 -00.1 | 07 | | | |
| 08 | 309 47.3 +00.5 | S 22 | 53.5 +00.2 | 168 33.3 +02.6 | N 12 | 20.4 +00.0 | 228 15.4 +02.3 | S 12 | 21.4 +00.0 | 08 | | | |
| 09 | 324 47.8 +00.5 | S 22 | 53.7 +00.3 | 183 35.9 +02.6 | N 12 | 20.4 -00.1 | 243 17.7 +02.3 | S 12 | 21.4 -00.1 | 09 | | | |
| 10 | 339 48.3 +00.5 | S 22 | 54.0 +00.2 | 198 38.5 +02.6 | N 12 | 20.3 +00.0 | 258 20.0 +02.4 | S 12 | 21.3 +00.0 | 10 | | | |
| 11 | 354 48.8 +00.5 | S 22 | 54.2 +00.3 | 213 41.1 +02.6 | N 12 | 20.3 +00.0 | 273 22.4 +02.3 | S 12 | 21.3 -00.1 | 11 | | | |
| 12 | 9 49.3 +00.5 | S 22 | 54.5 +00.2 | 228 43.7 +02.6 | N 12 | 20.3 -00.1 | 288 24.7 +02.3 | S 12 | 21.2 -00.1 | 12 | | | |
| 13 | 24 49.8 +00.5 | S 22 | 54.7 +00.2 | 243 46.3 +02.6 | N 12 | 20.2 +00.0 | 303 27.0 +02.3 | S 12 | 21.1 +00.0 | 13 | | | |
| 14 | 39 50.3 +00.5 | S 22 | 54.9 +00.3 | 258 48.9 +02.6 | N 12 | 20.2 -00.1 | 318 29.3 +02.3 | S 12 | 21.1 -00.1 | 14 | | | |
| 15 | 54 50.8 +00.5 | S 22 | 55.2 +00.2 | 273 51.5 +02.6 | N 12 | 20.1 +00.0 | 333 31.6 +02.3 | S 12 | 21.0 -00.1 | 15 | | | |
| 16 | 69 51.3 +00.5 | S 22 | 55.4 +00.2 | 288 54.1 +02.6 | N 12 | 20.1 +00.0 | 348 33.9 +02.3 | S 12 | 20.9 +00.0 | 16 | | | |
| 17 | 84 51.8 +00.5 | S 22 | 55.6 +00.3 | 303 56.7 +02.7 | N 12 | 20.1 -00.1 | 3 36.2 +02.3 | S 12 | 20.9 -00.1 | 17 | | | |
| 18 | 99 52.3 +00.5 | S 22 | 55.9 +00.2 | 318 59.4 +02.6 | N 12 | 20.0 +00.0 | 18 38.5 +02.3 | S 12 | 20.8 +00.0 | 18 | | | |
| 19 | 114 52.8 +00.5 | S 22 | 56.1 +00.2 | 334 02.0 +02.6 | N 12 | 20.0 +00.0 | 33 40.8 +02.3 | S 12 | 20.8 -00.1 | 19 | | | |
| 20 | 129 53.3 +00.5 | S 22 | 56.3 +00.3 | 349 04.6 +02.6 | N 12 | 20.0 -00.1 | 48 43.1 +02.3 | S 12 | 20.7 -00.1 | 20 | | | |
| 21 | 144 53.8 +00.5 | S 22 | 56.6 +00.2 | 4 07.2 +02.6 | N 12 | 19.9 +00.0 | 63 45.4 +02.3 | S 12 | 20.6 +00.0 | 21 | | | |
| 22 | 159 54.3 +00.5 | S 22 | 56.8 +00.2 | 19 09.8 +02.6 | N 12 | 19.9 +00.0 | 78 47.7 +02.3 | S 12 | 20.6 -00.1 | 22 | | | |
| 23 | 174 54.8 +00.6 | S 22 | 57.0 +00.3 | 34 12.4 +02.6 | N 12 | 19.9 -00.1 | 93 50.0 +02.3 | S 12 | 20.5 -00.1 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 00'0 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 107° 107° 107° 107° 107° 107° | | | SHA 326° 326° 326° 326° 326° 326° | | | SHA 026° 026° 026° 026° 025° 025° | | | | | | |
| | Greenwich Culmination Time: 11:20 | | | Greenwich Culmination Time: 20:43 | | | Greenwich Culmination Time: 16:45 | | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> A: 10% | | | | UT | | |
|----|--|--------------|--------------|----------------|--|--------------|----------------|-------------|---|--|--------------|-------------|----|--|--|
| | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | | | |
| 00 | 181 18.8 -00.3 | S 23 | 14.3 +00.2 | 223 01.0 -00.5 | S 13 | 19.3 +00.9 | 151 44.9 -37.2 | S 27 | 03.4 -05.2 | 00 | | | | | |
| 01 | 196 18.5 -00.3 | S 23 | 14.5 +00.1 | 238 00.5 -00.4 | S 13 | 20.2 +00.9 | 166 07.7 -37.2 | S 26 | 58.2 -05.3 | 01 | | | | | |
| 02 | 211 18.2 -00.3 | S 23 | 14.6 +00.1 | 253 00.1 -00.5 | S 13 | 21.1 +00.9 | 180 30.5 -37.1 | S 26 | 52.9 -05.6 | 02 | | | | | |
| 03 | 226 17.9 -00.3 | S 23 | 14.7 +00.2 | 267 59.6 -00.4 | S 13 | 22.0 +00.9 | 194 53.4 -37.1 | S 26 | 47.3 -05.7 | 03 | | | | | |
| 04 | 241 17.6 -00.3 | S 23 | 14.9 +00.1 | 282 59.2 -00.5 | S 13 | 22.9 +00.9 | 209 16.3 -37.0 | S 26 | 41.6 -05.9 | 04 | | | | | |
| 05 | 256 17.3 -00.3 | S 23 | 15.0 +00.1 | 297 58.7 -00.4 | S 13 | 23.8 +01.0 | 223 39.3 -36.9 | S 26 | 35.7 -06.0 | 05 | | | | | |
| 06 | 271 17.0 -00.3 | S 23 | 15.1 +00.2 | 312 58.3 -00.5 | S 13 | 24.8 +00.9 | 238 02.4 -36.9 | S 26 | 29.7 -06.3 | 06 | | | | | |
| 07 | 286 16.7 -00.3 | S 23 | 15.3 +00.1 | 327 57.8 -00.5 | S 13 | 25.7 +00.9 | 252 25.5 -36.9 | S 26 | 23.4 -06.4 | 07 | | | | | |
| 08 | 301 16.4 -00.3 | S 23 | 15.4 +00.1 | 342 57.3 -00.4 | S 13 | 26.6 +00.9 | 266 48.6 -36.7 | S 26 | 17.0 -06.7 | 08 | | | | | |
| 09 | 316 16.1 -00.3 | S 23 | 15.5 +00.2 | 357 56.9 -00.5 | S 13 | 27.5 +00.9 | 281 11.9 -36.7 | S 26 | 10.3 -06.8 | 09 | | | | | |
| 10 | 331 15.8 -00.3 | S 23 | 15.7 +00.1 | 12 56.4 -00.4 | S 13 | 28.4 +00.9 | 295 35.2 -36.7 | S 26 | 03.5 -06.9 | 10 | | | | | |
| 11 | 346 15.5 -00.3 | S 23 | 15.8 +00.1 | 27 56.0 -00.5 | S 13 | 29.3 +00.9 | 309 58.5 -36.5 | S 25 | 56.6 -07.2 | 11 | | | | | |
| 12 | 1 15.2 -00.3 | S 23 | 15.9 +00.2 | 42 55.5 -00.5 | S 13 | 30.2 +00.9 | 324 22.0 -36.5 | S 25 | 49.4 -07.3 | 12 | | | | | |
| 13 | 16 14.9 -00.3 | S 23 | 16.1 +00.1 | 57 55.0 -00.4 | S 13 | 31.1 +01.0 | 338 45.5 -36.4 | S 25 | 42.1 -07.5 | 13 | | | | | |
| 14 | 31 14.6 -00.3 | S 23 | 16.2 +00.1 | 72 54.6 -00.5 | S 13 | 32.1 +00.9 | 353 09.1 -36.4 | S 25 | 34.6 -07.7 | 14 | | | | | |
| 15 | 46 14.3 -00.3 | S 23 | 16.3 +00.2 | 87 54.1 -00.4 | S 13 | 33.0 +00.9 | 7 32.7 -36.3 | S 25 | 26.9 -07.8 | 15 | | | | | |
| 16 | 61 14.0 -00.4 | S 23 | 16.5 +00.1 | 102 53.7 -00.5 | S 13 | 33.9 +00.9 | 21 56.4 -36.1 | S 25 | 19.1 -08.1 | 16 | | | | | |
| 17 | 76 13.6 -00.3 | S 23 | 16.6 +00.1 | 117 53.2 -00.5 | S 13 | 34.8 +00.9 | 36 20.3 -36.1 | S 25 | 11.0 -08.1 | 17 | | | | | |
| 18 | 91 13.3 -00.3 | S 23 | 16.7 +00.1 | 132 52.7 -00.4 | S 13 | 35.7 +00.9 | 50 44.2 -36.1 | S 25 | 02.9 -08.4 | 18 | | | | | |
| 19 | 106 13.0 -00.3 | S 23 | 16.8 +00.2 | 147 52.3 -00.5 | S 13 | 36.6 +00.9 | 65 08.1 -35.9 | S 24 | 54.5 -08.5 | 19 | | | | | |
| 20 | 121 12.7 -00.3 | S 23 | 17.0 +00.1 | 162 51.8 -00.5 | S 13 | 37.5 +00.9 | 79 32.2 -35.9 | S 24 | 46.0 -08.7 | 20 | | | | | |
| 21 | 136 12.4 -00.3 | S 23 | 17.1 +00.1 | 177 51.3 -00.4 | S 13 | 38.4 +00.9 | 93 56.3 -35.8 | S 24 | 37.3 -08.8 | 21 | | | | | |
| 22 | 151 12.1 -00.3 | S 23 | 17.2 +00.1 | 192 50.9 -00.5 | S 13 | 39.3 +00.9 | 108 20.5 -35.7 | S 24 | 28.5 -09.1 | 22 | | | | | |
| 23 | 166 11.8 -00.3 | S 23 | 17.3 +00.1 | 207 50.4 -00.5 | S 13 | 40.2 +00.9 | 122 44.8 -35.6 | S 24 | 19.4 -09.1 | 23 | | | | | |
| | UT 02 06 10 14 18 22 SD 16'2 16'2 16'2 16'2 16'2 16'2 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 098° 098° 097° 097° 097° 097° 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 140° 139° 139° 139° 139° 139° Greenwich Culmination Time: 09:08 | | | | | | | | | | |
| | | | | | | | | | | UT 02 06 10 14 18 22 SD 16'2 16'2 16'2 16'2 16'2 16'2 HP 59'3 59'4 59'4 59'5 59'5 59'5 SHA 067° 064° 062° 059° 057° 054° Greenwich Culmination Time: 14:28 | | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
|----|--|--------------|--------------|----------------|--|--------------|----------------|-------------|---------------|--|--------------|-------------|----|
| | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | |
| 00 | 189 55.4 +00.5 | S 22 | 57.3 +00.2 | 49 15.0 +02.6 | N 12 | 19.8 +00.0 | 108 52.3 +02.4 | S 12 | 20.4 +00.0 | 00 | | | |
| 01 | 204 55.9 +00.5 | S 22 | 57.5 +00.2 | 64 17.6 +02.6 | N 12 | 19.8 +00.0 | 123 54.7 +02.3 | S 12 | 20.4 -00.1 | 01 | | | |
| 02 | 219 56.4 +00.5 | S 22 | 57.7 +00.2 | 79 20.2 +02.6 | N 12 | 19.8 -00.1 | 138 57.0 +02.3 | S 12 | 20.3 -00.1 | 02 | | | |
| 03 | 234 56.9 +00.5 | S 22 | 57.9 +00.3 | 94 22.8 +02.6 | N 12 | 19.7 +00.0 | 153 59.3 +02.3 | S 12 | 20.2 +00.0 | 03 | | | |
| 04 | 249 57.4 +00.5 | S 22 | 58.2 +00.2 | 109 25.4 +02.6 | N 12 | 19.7 +00.0 | 169 01.6 +02.3 | S 12 | 20.2 -00.1 | 04 | | | |
| 05 | 264 57.9 +00.5 | S 22 | 58.4 +00.2 | 124 28.0 +02.6 | N 12 | 19.7 -00.1 | 184 03.9 +02.3 | S 12 | 20.1 +00.0 | 05 | | | |
| 06 | 279 58.4 +00.5 | S 22 | 58.6 +00.3 | 139 30.6 +02.6 | N 12 | 19.6 +00.0 | 199 06.2 +02.3 | S 12 | 20.1 -00.1 | 06 | | | |
| 07 | 294 58.9 +00.5 | S 22 | 58.9 +00.2 | 154 33.2 +02.6 | N 12 | 19.6 +00.0 | 214 08.5 +02.3 | S 12 | 20.0 -00.1 | 07 | | | |
| 08 | 309 59.4 +00.5 | S 22 | 59.1 +00.2 | 169 35.8 +02.6 | N 12 | 19.6 -00.1 | 229 10.8 +02.3 | S 12 | 19.9 +00.0 | 08 | | | |
| 09 | 324 59.9 +00.5 | S 22 | 59.3 +00.2 | 184 38.4 +02.6 | N 12 | 19.5 +00.0 | 244 13.1 +02.3 | S 12 | 19.9 -00.1 | 09 | | | |
| 10 | 340 00.4 +00.5 | S 22 | 59.5 +00.3 | 199 41.0 +02.6 | N 12 | 19.5 +00.0 | 259 15.4 +02.3 | S 12 | 19.8 -00.1 | 10 | | | |
| 11 | 355 00.9 +00.5 | S 22 | 59.8 +00.2 | 214 43.6 +02.6 | N 12 | 19.5 -00.1 | 274 17.7 +02.3 | S 12 | 19.7 +00.0 | 11 | | | |
| 12 | 10 01.4 +00.5 | S 22 | 60.0 +00.2 | 229 46.2 +02.6 | N 12 | 19.4 +00.0 | 289 20.0 +02.3 | S 12 | 19.7 -00.1 | 12 | | | |
| 13 | 25 01.9 +00.5 | S 23 | 00.2 +00.2 | 244 48.8 +02.6 | N 12 | 19.4 +00.0 | 304 22.3 +02.3 | S 12 | 19.6 -00.1 | 13 | | | |
| 14 | 40 02.4 +00.5 | S 23 | 00.4 +00.3 | 259 51.4 +02.6 | N 12 | 19.4 -00.1 | 319 24.6 +02.3 | S 12 | 19.5 +00.0 | 14 | | | |
| 15 | 55 02.9 +00.5 | S 23 | 00.7 +00.2 | 274 54.0 +02.5 | N 12 | 19.3 +00.0 | 334 26.9 +02.3 | S 12 | 19.5 -00.1 | 15 | | | |
| 16 | 70 03.4 +00.5 | S 23 | 00.9 +00.2 | 289 56.5 +02.6 | N 12 | 19.3 +00.0 | 349 29.2 +02.3 | S 12 | 19.4 -00.1 | 16 | | | |
| 17 | 85 03.9 +00.5 | S 23 | 01.1 +00.2 | 304 59.1 +02.6 | N 12 | 19.3 -00.1 | 4 31.5 +02.3 | S 12 | 19.3 +00.0 | 17 | | | |
| 18 | 100 04.4 +00.5 | S 23 | 01.3 +00.3 | 320 01.7 +02.6 | N 12 | 19.2 +00.0 | 19 33.8 +02.3 | S 12 | 19.3 -00.1 | 18 | | | |
| 19 | 115 04.9 +00.5 | S 23 | 01.6 +00.2 | 335 04.3 +02.6 | N 12 | 19.2 +00.0 | 34 36.1 +02.3 | S 12 | 19.2 -00.1 | 19 | | | |
| 20 | 130 05.4 +00.4 | S 23 | 01.8 +00.2 | 350 06.9 +02.6 | N 12 | 19.2 +00.0 | 49 38.4 +02.3 | S 12 | 19.1 +00.0 | 20 | | | |
| 21 | 145 05.8 +00.5 | S 23 | 02.0 +00.2 | 5 09.5 +02.6 | N 12 | 19.2 -00.1 | 64 40.7 +02.3 | S 12 | 19.1 -00.1 | 21 | | | |
| 22 | 160 06.3 +00.5 | S 23 | 02.2 +00.3 | 20 12.1 +02.6 | N 12 | 19.1 +00.0 | 79 43.0 +02.4 | S 12 | 19.0 +00.0 | 22 | | | |
| 23 | 175 06.8 +00.5 | S 23 | 02.5 +00.2 | 35 14.7 +02.6 | N 12 | 19.1 +00.0 | 94 45.4 +02.3 | S 12 | 19.0 -00.1 | 23 | | | |
| | UT 02 06 10 14 18 22 SD 00'0 00'0 00'0 00'0 00'0 00'0 HP 00'1 00'1 00'1 00'1 00'1 00'1 SHA 106° 106° 106° 106° 106° 106° Greenwich Culmination Time: 11:19 | | | | 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 326° 326° 326° 326° 326° 326° Greenwich Culmination Time: 20:39 | | | | | 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 025° 025° 025° 025° 025° 025° Greenwich Culmination Time: 16:41 | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> | | | | UT |
|----|-----------------------------------|-------|------------|-----------------------------------|--------------|------------|-----------------------------------|------|-------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 181 11.5 -00.3 | S 23 | 17.4 +00.2 | 222 49.9 -00.4 | S 13 | 41.1 +00.9 | 137 09.2 -35.5 | S 24 | 10.3 -09.3 | 00 | | | |
| 01 | 196 11.2 -00.3 | S 23 | 17.6 +00.1 | 237 49.5 -00.5 | S 13 | 42.0 +01.0 | 151 33.7 -35.4 | S 24 | 01.0 -09.5 | 01 | | | |
| 02 | 211 10.9 -00.3 | S 23 | 17.7 +00.1 | 252 49.0 -00.5 | S 13 | 43.0 +00.9 | 165 58.3 -35.3 | S 23 | 51.5 -09.7 | 02 | | | |
| 03 | 226 10.6 -00.3 | S 23 | 17.8 +00.1 | 267 48.5 -00.4 | S 13 | 43.9 +00.9 | 180 23.0 -35.3 | S 23 | 41.8 -09.8 | 03 | | | |
| 04 | 241 10.3 -00.3 | S 23 | 17.9 +00.1 | 282 48.1 -00.5 | S 13 | 44.8 +00.9 | 194 47.7 -35.1 | S 23 | 32.0 -09.9 | 04 | | | |
| 05 | 256 10.0 -00.3 | S 23 | 18.0 +00.1 | 297 47.6 -00.5 | S 13 | 45.7 +00.9 | 209 12.6 -35.1 | S 23 | 22.1 -10.1 | 05 | | | |
| 06 | 271 09.7 -00.3 | S 23 | 18.1 +00.2 | 312 47.1 -00.4 | S 13 | 46.6 +00.9 | 223 37.5 -35.0 | S 23 | 12.0 -10.2 | 06 | | | |
| 07 | 286 09.4 -00.3 | S 23 | 18.3 +00.1 | 327 46.7 -00.5 | S 13 | 47.5 +00.9 | 238 02.5 -34.8 | S 23 | 01.8 -10.4 | 07 | | | |
| 08 | 301 09.1 -00.3 | S 23 | 18.4 +00.1 | 342 46.2 -00.5 | S 13 | 48.4 +00.9 | 252 27.7 -34.8 | S 22 | 51.4 -10.6 | 08 | | | |
| 09 | 316 08.8 -00.3 | S 23 | 18.5 +00.1 | 357 45.7 -00.4 | S 13 | 49.3 +00.9 | 266 52.9 -34.7 | S 22 | 40.8 -10.6 | 09 | | | |
| 10 | 331 08.5 -00.3 | S 23 | 18.6 +00.1 | 12 45.3 -00.5 | S 13 | 50.2 +00.9 | 281 18.2 -34.6 | S 22 | 30.2 -10.9 | 10 | | | |
| 11 | 346 08.2 -00.3 | S 23 | 18.7 +00.1 | 27 44.8 -00.5 | S 13 | 51.1 +00.9 | 295 43.6 -34.5 | S 22 | 19.3 -10.9 | 11 | | | |
| 12 | 1 07.9 -00.3 | S 23 | 18.8 +00.1 | 42 44.3 -00.5 | S 13 | 52.0 +00.9 | 310 09.1 -34.4 | S 22 | 08.4 -11.1 | 12 | | | |
| 13 | 16 07.6 -00.3 | S 23 | 18.9 +00.1 | 57 43.8 -00.4 | S 13 | 52.9 +00.9 | 324 34.7 -34.3 | S 21 | 57.3 -11.2 | 13 | | | |
| 14 | 31 07.3 -00.3 | S 23 | 19.0 +00.2 | 72 43.4 -00.5 | S 13 | 53.8 +00.9 | 339 00.4 -34.2 | S 21 | 46.1 -11.4 | 14 | | | |
| 15 | 46 07.0 -00.3 | S 23 | 19.2 +00.1 | 87 42.9 -00.5 | S 13 | 54.7 +00.9 | 353 26.2 -34.0 | S 21 | 34.7 -11.5 | 15 | | | |
| 16 | 61 06.7 -00.3 | S 23 | 19.3 +00.1 | 102 42.4 -00.5 | S 13 | 55.6 +00.9 | 7 52.2 -34.0 | S 21 | 23.2 -11.7 | 16 | | | |
| 17 | 76 06.4 -00.3 | S 23 | 19.4 +00.1 | 117 41.9 -00.4 | S 13 | 56.5 +00.9 | 22 18.2 -34.0 | S 21 | 11.5 -11.7 | 17 | | | |
| 18 | 91 06.1 -00.3 | S 23 | 19.5 +00.1 | 132 41.5 -00.5 | S 13 | 57.4 +00.9 | 36 44.2 -33.8 | S 20 | 59.8 -11.9 | 18 | | | |
| 19 | 106 05.8 -00.3 | S 23 | 19.6 +00.1 | 147 41.0 -00.5 | S 13 | 58.3 +00.9 | 51 10.4 -33.7 | S 20 | 47.9 -12.0 | 19 | | | |
| 20 | 121 05.5 -00.3 | S 23 | 19.7 +00.1 | 162 40.5 -00.5 | S 13 | 59.2 +00.9 | 65 36.7 -33.6 | S 20 | 35.9 -12.2 | 20 | | | |
| 21 | 136 05.2 -00.3 | S 23 | 19.8 +00.1 | 177 40.0 -00.4 | S 14 | 00.1 +00.9 | 80 03.1 -33.5 | S 20 | 23.7 -12.2 | 21 | | | |
| 22 | 151 04.9 -00.4 | S 23 | 19.9 +00.1 | 192 39.6 -00.5 | S 14 | 01.0 +00.9 | 94 29.6 -33.4 | S 20 | 11.5 -12.4 | 22 | | | |
| 23 | 166 04.5 -00.3 | S 23 | 20.0 +00.1 | 207 39.1 -00.5 | S 14 | 01.9 +00.9 | 108 56.2 -33.3 | S 19 | 59.1 -12.5 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'2 16'3 16'3 16'3 16'3 16'3 | | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | | SD 16'2 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 59'6 59'6 59'6 59'6 59'6 | | | | | | |
| | SHA 097° 097° 096° 096° 096° 096° | | | SHA 138° 138° 138° 138° 138° 137° | | | SHA 052° 049° 047° 044° 042° 039° | | | | | | |
| | Greenwich Culmination Time: 11:55 | | | Greenwich Culmination Time: 09:08 | | | Greenwich Culmination Time: 15:27 | | | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
|----|-----------------------------------|-------|------------|-----------------------------------|----------------|------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 190 07.3 +00.5 | S 23 | 02.7 +00.2 | 50 17.3 +02.6 | N 12 | 19.1 -00.1 | 109 47.7 +02.3 | S 12 | 18.9 -00.1 | 00 | | | |
| 01 | 205 07.8 +00.5 | S 23 | 02.9 +00.2 | 65 19.9 +02.6 | N 12 | 19.0 +00.0 | 124 50.0 +02.3 | S 12 | 18.8 +00.0 | 01 | | | |
| 02 | 220 08.3 +00.5 | S 23 | 03.1 +00.2 | 80 22.5 +02.6 | N 12 | 19.0 +00.0 | 139 52.3 +02.3 | S 12 | 18.8 -00.1 | 02 | | | |
| 03 | 235 08.8 +00.5 | S 23 | 03.3 +00.3 | 95 25.1 +02.6 | N 12 | 19.0 -00.1 | 154 54.6 +02.3 | S 12 | 18.7 -00.1 | 03 | | | |
| 04 | 250 09.3 +00.5 | S 23 | 03.6 +00.2 | 110 27.7 +02.6 | N 12 | 18.9 +00.0 | 169 56.9 +02.3 | S 12 | 18.6 +00.0 | 04 | | | |
| 05 | 265 09.8 +00.5 | S 23 | 03.8 +00.2 | 125 30.3 +02.6 | N 12 | 18.9 +00.0 | 184 59.2 +02.3 | S 12 | 18.6 -00.1 | 05 | | | |
| 06 | 280 10.3 +00.5 | S 23 | 04.0 +00.2 | 140 32.9 +02.6 | N 12 | 18.9 -00.1 | 200 01.5 +02.3 | S 12 | 18.5 -00.1 | 06 | | | |
| 07 | 295 10.8 +00.5 | S 23 | 04.2 +00.2 | 155 35.5 +02.5 | N 12 | 18.8 +00.0 | 215 03.8 +02.3 | S 12 | 18.4 +00.0 | 07 | | | |
| 08 | 310 11.3 +00.5 | S 23 | 04.4 +00.3 | 170 38.0 +02.6 | N 12 | 18.8 +00.0 | 230 06.1 +02.3 | S 12 | 18.4 -00.1 | 08 | | | |
| 09 | 325 11.8 +00.5 | S 23 | 04.7 +00.2 | 185 40.6 +02.6 | N 12 | 18.8 -00.1 | 245 08.4 +02.3 | S 12 | 18.3 -00.1 | 09 | | | |
| 10 | 340 12.3 +00.5 | S 23 | 04.9 +00.2 | 200 43.2 +02.6 | N 12 | 18.7 +00.0 | 260 10.7 +02.3 | S 12 | 18.2 +00.0 | 10 | | | |
| 11 | 355 12.8 +00.5 | S 23 | 05.1 +00.2 | 215 45.8 +02.6 | N 12 | 18.7 +00.0 | 275 13.0 +02.3 | S 12 | 18.2 -00.1 | 11 | | | |
| 12 | 10 13.3 +00.5 | S 23 | 05.3 +00.2 | 230 48.4 +02.6 | N 12 | 18.7 +00.0 | 290 15.3 +02.3 | S 12 | 18.1 -00.1 | 12 | | | |
| 13 | 25 13.8 +00.5 | S 23 | 05.5 +00.2 | 245 51.0 +02.6 | N 12 | 18.7 -00.1 | 305 17.6 +02.3 | S 12 | 18.0 +00.0 | 13 | | | |
| 14 | 40 14.3 +00.5 | S 23 | 05.7 +00.3 | 260 53.6 +02.6 | N 12 | 18.6 +00.0 | 320 19.9 +02.3 | S 12 | 18.0 -00.1 | 14 | | | |
| 15 | 55 14.8 +00.5 | S 23 | 06.0 +00.2 | 275 56.2 +02.6 | N 12 | 18.6 +00.0 | 335 22.2 +02.3 | S 12 | 17.9 -00.1 | 15 | | | |
| 16 | 70 15.3 +00.5 | S 23 | 06.2 +00.2 | 290 58.8 +02.6 | N 12 | 18.6 -00.1 | 350 24.5 +02.3 | S 12 | 17.8 +00.0 | 16 | | | |
| 17 | 85 15.8 +00.5 | S 23 | 06.4 +00.2 | 306 01.4 +02.5 | N 12 | 18.5 +00.0 | 5 26.8 +02.3 | S 12 | 17.8 -00.1 | 17 | | | |
| 18 | 100 16.3 +00.5 | S 23 | 06.6 +00.2 | 321 03.9 +02.6 | N 12 | 18.5 +00.0 | 20 29.1 +02.3 | S 12 | 17.7 -00.1 | 18 | | | |
| 19 | 115 16.8 +00.4 | S 23 | 06.8 +00.2 | 336 06.5 +02.6 | N 12 | 18.5 +00.0 | 35 31.4 +02.3 | S 12 | 17.6 +00.0 | 19 | | | |
| 20 | 130 17.2 +00.5 | S 23 | 07.0 +00.2 | 351 09.1 +02.6 | N 12 | 18.5 -00.1 | 50 33.7 +02.3 | S 12 | 17.6 -00.1 | 20 | | | |
| 21 | 145 17.7 +00.5 | S 23 | 07.2 +00.3 | 6 11.7 +02.6 | N 12 | 18.4 +00.0 | 65 36.0 +02.3 | S 12 | 17.5 -00.1 | 21 | | | |
| 22 | 160 18.2 +00.5 | S 23 | 07.5 +00.2 | 21 14.3 +02.6 | N 12 | 18.4 +00.0 | 80 38.3 +02.3 | S 12 | 17.4 +00.0 | 22 | | | |
| 23 | 175 18.7 +00.5 | S 23 | 07.7 +00.2 | 36 16.9 +02.6 | N 12 | 18.4 -00.1 | 95 40.6 +02.3 | S 12 | 17.4 -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 00'1 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 106° 106° 105° 105° 105° 105° | | | SHA 326° 326° 326° 326° 326° 326° | | | SHA 025° 025° 025° 025° 025° 025° | | | | | | |
| | Greenwich Culmination Time: 11:19 | | | Greenwich Culmination Time: 20:35 | | | Greenwich Culmination Time: 16:38 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|-----------------------------------|-------------------------------|-----------------|----------------|-----------------------------------|----------------|-----------------|-------------------------------|-----------------------------------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 181 04.2 -00.3 | S 23 20.1 +00.1 | 222 38.6 -00.5 | S 14 02.8 +00.8 | 123 22.9 -33.2 | S 19 46.6 -12.6 | 00 | | | | | | |
| 01 | 196 03.9 -00.3 | S 23 20.2 +00.1 | 237 38.1 -00.5 | S 14 03.6 +00.9 | 137 49.7 -33.1 | S 19 34.0 -12.8 | 01 | | | | | | |
| 02 | 211 03.6 -00.3 | S 23 20.3 +00.1 | 252 37.6 -00.4 | S 14 04.5 +00.9 | 152 16.6 -33.0 | S 19 21.2 -12.8 | 02 | | | | | | |
| 03 | 226 03.3 -00.3 | S 23 20.4 +00.1 | 267 37.2 -00.5 | S 14 05.4 +00.9 | 166 43.6 -33.0 | S 19 08.4 -13.0 | 03 | | | | | | |
| 04 | 241 03.0 -00.3 | S 23 20.5 +00.1 | 282 36.7 -00.5 | S 14 06.3 +00.9 | 181 10.6 -32.8 | S 18 55.4 -13.1 | 04 | | | | | | |
| 05 | 256 02.7 -00.3 | S 23 20.6 +00.1 | 297 36.2 -00.5 | S 14 07.2 +00.9 | 195 37.8 -32.7 | S 18 42.3 -13.1 | 05 | | | | | | |
| 06 | 271 02.4 -00.3 | S 23 20.7 +00.1 | 312 35.7 -00.5 | S 14 08.1 +00.9 | 210 05.1 -32.6 | S 18 29.2 -13.3 | 06 | | | | | | |
| 07 | 286 02.1 -00.3 | S 23 20.8 +00.1 | 327 35.2 -00.4 | S 14 09.0 +00.9 | 224 32.5 -32.6 | S 18 15.9 -13.4 | 07 | | | | | | |
| 08 | 301 01.8 -00.3 | S 23 20.9 +00.1 | 342 34.8 -00.5 | S 14 09.9 +00.9 | 238 59.9 -32.4 | S 18 02.5 -13.5 | 08 | | | | | | |
| 09 | 316 01.5 -00.3 | S 23 21.0 +00.1 | 357 34.3 -00.5 | S 14 10.8 +00.9 | 253 27.5 -32.3 | S 17 49.0 -13.6 | 09 | | | | | | |
| 10 | 331 01.2 -00.3 | S 23 21.1 +00.0 | 12 33.8 -00.5 | S 14 11.7 +00.9 | 267 55.2 -32.3 | S 17 35.4 -13.7 | 10 | | | | | | |
| 11 | 346 00.9 -00.3 | S 23 21.1 +00.1 | 27 33.3 -00.5 | S 14 12.6 +00.9 | 282 22.9 -32.2 | S 17 21.7 -13.8 | 11 | | | | | | |
| 12 | 1 00.6 -00.3 | S 23 21.2 +00.1 | 42 32.8 -00.5 | S 14 13.5 +00.8 | 296 50.7 -32.0 | S 17 07.9 -13.8 | 12 | | | | | | |
| 13 | 16 00.3 -00.3 | S 23 21.3 +00.1 | 57 32.3 -00.5 | S 14 14.3 +00.9 | 311 18.7 -32.0 | S 16 54.1 -14.0 | 13 | | | | | | |
| 14 | 30 60.0 -00.3 | S 23 21.4 +00.1 | 72 31.8 -00.4 | S 14 15.2 +00.9 | 325 46.7 -31.9 | S 16 40.1 -14.1 | 14 | | | | | | |
| 15 | 45 59.7 -00.3 | S 23 21.5 +00.1 | 87 31.4 -00.5 | S 14 16.1 +00.9 | 340 14.8 -31.8 | S 16 26.0 -14.2 | 15 | | | | | | |
| 16 | 60 59.4 -00.3 | S 23 21.6 +00.1 | 102 30.9 -00.5 | S 14 17.0 +00.9 | 354 43.0 -31.7 | S 16 11.8 -14.2 | 16 | | | | | | |
| 17 | 75 59.1 -00.4 | S 23 21.7 +00.1 | 117 30.4 -00.5 | S 14 17.9 +00.9 | 9 11.3 -31.6 | S 15 57.6 -14.3 | 17 | | | | | | |
| 18 | 90 58.7 -00.3 | S 23 21.8 +00.1 | 132 29.9 -00.5 | S 14 18.8 +00.9 | 23 39.7 -31.5 | S 15 43.3 -14.4 | 18 | | | | | | |
| 19 | 105 58.4 -00.3 | S 23 21.9 +00.0 | 147 29.4 -00.5 | S 14 19.7 +00.8 | 38 08.2 -31.4 | S 15 28.9 -14.5 | 19 | | | | | | |
| 20 | 120 58.1 -00.3 | S 23 21.9 +00.1 | 162 28.9 -00.5 | S 14 20.5 +00.9 | 52 36.8 -31.4 | S 15 14.4 -14.6 | 20 | | | | | | |
| 21 | 135 57.8 -00.3 | S 23 22.0 +00.1 | 177 28.4 -00.5 | S 14 21.4 +00.9 | 67 05.4 -31.2 | S 14 59.8 -14.7 | 21 | | | | | | |
| 22 | 150 57.5 -00.3 | S 23 22.1 +00.1 | 192 27.9 -00.4 | S 14 22.3 +00.9 | 81 34.2 -31.2 | S 14 45.1 -14.7 | 22 | | | | | | |
| 23 | 165 57.2 -00.3 | S 23 22.2 +00.1 | 207 27.5 -00.5 | S 14 23.2 +00.9 | 96 03.0 -31.1 | S 14 30.4 -14.8 | 23 | | | | | | |
| UT | 02 06 10 14 18 22 | | UT | 02 06 10 14 18 22 | | UT | 02 06 10 14 18 22 | | | | | | |
| SD | 16'3 16'3 16'3 16'3 16'3 16'3 | | SD | 00'1 00'1 00'1 00'1 00'1 00'1 | | SD | 16'2 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 | 59'6 59'6 59'5 59'5 59'5 59'5 | | | | | | |
| SHA | 096° 095° 095° 095° 095° 095° | | SHA | 137° 137° 137° 137° 136° 136° | | SHA | 037° 034° 032° 030° 028° 025° | | | | | | |
| Greenwich Culmination Time: 11:55 | | | | Greenwich Culmination Time: 09:09 | | | | Greenwich Culmination Time: 16:21 | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|-----------------------------------|-------------------------------|-----------------|----------------|-----------------------------------|----------------|-----------------|-------------------------------|-----------------------------------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 190 19.2 +00.5 | S 23 07.9 +00.2 | 51 19.5 +02.5 | N 12 18.3 +00.0 | 110 42.9 +02.3 | S 12 17.3 -00.1 | 00 | | | | | | |
| 01 | 205 19.7 +00.5 | S 23 08.1 +00.2 | 66 22.0 +02.6 | N 12 18.3 +00.0 | 125 45.2 +02.3 | S 12 17.2 +00.0 | 01 | | | | | | |
| 02 | 220 20.2 +00.5 | S 23 08.3 +00.2 | 81 24.6 +02.6 | N 12 18.3 +00.0 | 140 47.5 +02.3 | S 12 17.2 -00.1 | 02 | | | | | | |
| 03 | 235 20.7 +00.5 | S 23 08.5 +00.2 | 96 27.2 +02.6 | N 12 18.3 -00.1 | 155 49.8 +02.3 | S 12 17.1 -00.1 | 03 | | | | | | |
| 04 | 250 21.2 +00.5 | S 23 08.7 +00.2 | 111 29.8 +02.6 | N 12 18.2 +00.0 | 170 52.1 +02.3 | S 12 17.0 +00.0 | 04 | | | | | | |
| 05 | 265 21.7 +00.5 | S 23 08.9 +00.3 | 126 32.4 +02.6 | N 12 18.2 +00.0 | 185 54.4 +02.3 | S 12 17.0 -00.1 | 05 | | | | | | |
| 06 | 280 22.2 +00.5 | S 23 09.2 +00.2 | 141 35.0 +02.5 | N 12 18.2 -00.1 | 200 56.7 +02.3 | S 12 16.9 -00.1 | 06 | | | | | | |
| 07 | 295 22.7 +00.5 | S 23 09.4 +00.2 | 156 37.5 +02.6 | N 12 18.1 +00.0 | 215 59.0 +02.3 | S 12 16.8 +00.0 | 07 | | | | | | |
| 08 | 310 23.2 +00.4 | S 23 09.6 +00.2 | 171 40.1 +02.6 | N 12 18.1 +00.0 | 231 01.3 +02.3 | S 12 16.8 -00.1 | 08 | | | | | | |
| 09 | 325 23.6 +00.5 | S 23 09.8 +00.2 | 186 42.7 +02.6 | N 12 18.1 +00.0 | 246 03.6 +02.3 | S 12 16.7 -00.1 | 09 | | | | | | |
| 10 | 340 24.1 +00.5 | S 23 10.0 +00.2 | 201 45.3 +02.6 | N 12 18.1 -00.1 | 261 05.9 +02.3 | S 12 16.6 +00.0 | 10 | | | | | | |
| 11 | 355 24.6 +00.5 | S 23 10.2 +00.2 | 216 47.9 +02.6 | N 12 18.0 +00.0 | 276 08.2 +02.3 | S 12 16.6 -00.1 | 11 | | | | | | |
| 12 | 10 25.1 +00.5 | S 23 10.4 +00.2 | 231 50.5 +02.5 | N 12 18.0 +00.0 | 291 10.5 +02.3 | S 12 16.5 -00.1 | 12 | | | | | | |
| 13 | 25 25.6 +00.5 | S 23 10.6 +00.2 | 246 53.0 +02.6 | N 12 18.0 +00.0 | 306 12.8 +02.3 | S 12 16.4 +00.0 | 13 | | | | | | |
| 14 | 40 26.1 +00.5 | S 23 10.8 +00.2 | 261 55.6 +02.6 | N 12 18.0 -00.1 | 321 15.1 +02.3 | S 12 16.4 -00.1 | 14 | | | | | | |
| 15 | 55 26.6 +00.5 | S 23 11.0 +00.2 | 276 58.2 +02.6 | N 12 17.9 +00.0 | 336 17.4 +02.3 | S 12 16.3 -00.1 | 15 | | | | | | |
| 16 | 70 27.1 +00.5 | S 23 11.2 +00.2 | 292 00.8 +02.6 | N 12 17.9 +00.0 | 351 19.7 +02.3 | S 12 16.2 +00.0 | 16 | | | | | | |
| 17 | 85 27.6 +00.5 | S 23 11.4 +00.2 | 307 03.4 +02.5 | N 12 17.9 -00.1 | 6 22.0 +02.3 | S 12 16.2 -00.1 | 17 | | | | | | |
| 18 | 100 28.1 +00.4 | S 23 11.6 +00.2 | 322 05.9 +02.6 | N 12 17.8 +00.0 | 21 24.3 +02.3 | S 12 16.1 -00.1 | 18 | | | | | | |
| 19 | 115 28.5 +00.5 | S 23 11.8 +00.2 | 337 08.5 +02.6 | N 12 17.8 +00.0 | 36 26.6 +02.2 | S 12 16.0 +00.0 | 19 | | | | | | |
| 20 | 130 29.0 +00.5 | S 23 12.0 +00.3 | 352 11.1 +02.6 | N 12 17.8 +00.0 | 51 28.8 +02.3 | S 12 16.0 -00.1 | 20 | | | | | | |
| 21 | 145 29.5 +00.5 | S 23 12.3 +00.2 | 7 13.7 +02.6 | N 12 17.8 -00.1 | 66 31.1 +02.3 | S 12 15.9 -00.1 | 21 | | | | | | |
| 22 | 160 30.0 +00.5 | S 23 12.5 +00.2 | 22 16.3 +02.5 | N 12 17.7 +00.0 | 81 33.4 +02.3 | S 12 15.8 +00.0 | 22 | | | | | | |
| 23 | 175 30.5 +00.5 | S 23 12.7 +00.2 | 37 18.8 +02.6 | N 12 17.7 +00.0 | 96 35.7 +02.3 | S 12 15.8 -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 | 00'1 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 | 105° 105° 105° 104° 104° 104° | | SHA | 326° 326° 326° 326° 326° 326° | | SHA | 025° 025° 025° 025° 025° 025° | | | | | | |
| Greenwich Culmination Time: 11:18 | | | | Greenwich Culmination Time: 20:31 | | | | Greenwich Culmination Time: 16:34 | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> | | | | UT | |
|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | |
| 00 | 180 56.9 -00.3 | S 23 22.3 +00.0 | 222 27.0 -00.5 | S 14 24.1 +00.9 | 110 31.9 -31.0 | S 14 15.6 -14.9 | 00 | | | | | | | |
| 01 | 195 56.6 -00.3 | S 23 22.3 +00.1 | 237 26.5 -00.5 | S 14 25.0 +00.9 | 125 00.9 -31.0 | S 14 00.7 -15.0 | 01 | | | | | | | |
| 02 | 210 56.3 -00.3 | S 23 22.4 +00.1 | 252 26.0 -00.5 | S 14 25.9 +00.8 | 139 29.9 -30.8 | S 13 45.7 -15.0 | 02 | | | | | | | |
| 03 | 225 56.0 -00.3 | S 23 22.5 +00.1 | 267 25.5 -00.5 | S 14 26.7 +00.9 | 153 59.1 -30.8 | S 13 30.7 -15.1 | 03 | | | | | | | |
| 04 | 240 55.7 -00.3 | S 23 22.6 +00.1 | 282 25.0 -00.5 | S 14 27.6 +00.9 | 168 28.3 -30.7 | S 13 15.6 -15.2 | 04 | | | | | | | |
| 05 | 255 55.4 -00.3 | S 23 22.7 +00.0 | 297 24.5 -00.5 | S 14 28.5 +00.9 | 182 57.6 -30.6 | S 13 00.4 -15.2 | 05 | | | | | | | |
| 06 | 270 55.1 -00.3 | S 23 22.7 +00.1 | 312 24.0 -00.5 | S 14 29.4 +00.9 | 197 27.0 -30.5 | S 12 45.2 -15.3 | 06 | | | | | | | |
| 07 | 285 54.8 -00.3 | S 23 22.8 +00.1 | 327 23.5 -00.5 | S 14 30.3 +00.8 | 211 56.5 -30.5 | S 12 29.9 -15.4 | 07 | | | | | | | |
| 08 | 300 54.5 -00.4 | S 23 22.9 +00.1 | 342 23.0 -00.5 | S 14 31.1 +00.9 | 226 26.0 -30.4 | S 12 14.5 -15.4 | 08 | | | | | | | |
| 09 | 315 54.1 -00.3 | S 23 23.0 +00.0 | 357 22.5 -00.5 | S 14 32.0 +00.9 | 240 55.6 -30.3 | S 11 59.1 -15.5 | 09 | | | | | | | |
| 10 | 330 53.8 -00.3 | S 23 23.0 +00.1 | 12 22.0 -00.5 | S 14 32.9 +00.9 | 255 25.3 -30.2 | S 11 43.6 -15.5 | 10 | | | | | | | |
| 11 | 345 53.5 -00.3 | S 23 23.1 +00.1 | 27 21.5 -00.5 | S 14 33.8 +00.8 | 269 55.1 -30.2 | S 11 28.1 -15.6 | 11 | | | | | | | |
| 12 | 0 53.2 -00.3 | S 23 23.2 +00.1 | 42 21.0 -00.5 | S 14 34.6 +00.9 | 284 24.9 -30.1 | S 11 12.5 -15.7 | 12 | | | | | | | |
| 13 | 15 52.9 -00.3 | S 23 23.3 +00.0 | 57 20.5 -00.5 | S 14 35.5 +00.9 | 298 54.8 -30.0 | S 10 56.8 -15.7 | 13 | | | | | | | |
| 14 | 30 52.6 -00.3 | S 23 23.3 +00.1 | 72 20.0 -00.5 | S 14 36.4 +00.9 | 313 24.8 -30.0 | S 10 41.1 -15.7 | 14 | | | | | | | |
| 15 | 45 52.3 -00.3 | S 23 23.4 +00.1 | 87 19.5 -00.5 | S 14 37.3 +00.8 | 327 54.8 -29.9 | S 10 25.4 -15.8 | 15 | | | | | | | |
| 16 | 60 52.0 -00.3 | S 23 23.5 +00.0 | 102 19.0 -00.5 | S 14 38.1 +00.9 | 342 24.9 -29.8 | S 10 09.6 -15.8 | 16 | | | | | | | |
| 17 | 75 51.7 -00.3 | S 23 23.5 +00.1 | 117 18.5 -00.5 | S 14 39.0 +00.9 | 356 55.1 -29.8 | S 09 53.8 -15.9 | 17 | | | | | | | |
| 18 | 90 51.4 -00.3 | S 23 23.6 +00.1 | 132 18.0 -00.5 | S 14 39.9 +00.9 | 11 25.3 -29.7 | S 09 37.9 -16.0 | 18 | | | | | | | |
| 19 | 105 51.1 -00.3 | S 23 23.7 +00.0 | 147 17.5 -00.5 | S 14 40.8 +00.8 | 25 55.6 -29.7 | S 09 21.9 -16.0 | 19 | | | | | | | |
| 20 | 120 50.8 -00.3 | S 23 23.7 +00.1 | 162 17.0 -00.5 | S 14 41.6 +00.9 | 40 25.9 -29.6 | S 09 05.9 -16.0 | 20 | | | | | | | |
| 21 | 135 50.5 -00.4 | S 23 23.8 +00.1 | 177 16.5 -00.5 | S 14 42.5 +00.9 | 54 56.3 -29.5 | S 08 49.9 -16.0 | 21 | | | | | | | |
| 22 | 150 50.1 -00.3 | S 23 23.9 +00.0 | 192 16.0 -00.5 | S 14 43.4 +00.9 | 69 26.8 -29.5 | S 08 33.9 -16.1 | 22 | | | | | | | |
| 23 | 165 49.8 -00.3 | S 23 23.9 +00.1 | 207 15.5 -00.5 | S 14 44.3 +00.8 | 83 57.3 -29.4 | S 08 17.8 -16.2 | 23 | | | | | | | |
| UT 02 06 10 14 18 22 | SD 16'3 16'3 16'3 16'3 16'3 16'3 | HP 00'1 00'1 00'1 00'1 00'1 00'1 | SHA 095° 094° 094° 094° 094° 094° | 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 136° 136° 136° 135° 135° 135° | Greenwich Culmination Time: 09:10 | 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 59'3 59'3 | SHA 023° 021° 019° 016° 014° 012° | Greenwich Culmination Time: 17:12 |
| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT | |
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | |
| 00 | 190 31.0 +00.5 | S 23 12.9 +00.2 | 52 21.4 +02.6 | N 12 17.7 +00.0 | 111 38.0 +02.3 | S 12 15.7 -00.1 | 00 | | | | | | | |
| 01 | 205 31.5 +00.5 | S 23 13.1 +00.2 | 67 24.0 +02.6 | N 12 17.7 -00.1 | 126 40.3 +02.3 | S 12 15.6 +00.0 | 01 | | | | | | | |
| 02 | 220 32.0 +00.5 | S 23 13.3 +00.2 | 82 26.6 +02.5 | N 12 17.6 +00.0 | 141 42.6 +02.3 | S 12 15.6 -00.1 | 02 | | | | | | | |
| 03 | 235 32.5 +00.4 | S 23 13.5 +00.2 | 97 29.1 +02.6 | N 12 17.6 +00.0 | 156 44.9 +02.3 | S 12 15.5 -00.1 | 03 | | | | | | | |
| 04 | 250 32.9 +00.5 | S 23 13.7 +00.2 | 112 31.7 +02.6 | N 12 17.6 +00.0 | 171 47.2 +02.3 | S 12 15.4 +00.0 | 04 | | | | | | | |
| 05 | 265 33.4 +00.5 | S 23 13.9 +00.2 | 127 34.3 +02.6 | N 12 17.6 -00.1 | 186 49.5 +02.3 | S 12 15.4 -00.1 | 05 | | | | | | | |
| 06 | 280 33.9 +00.5 | S 23 14.1 +00.2 | 142 36.9 +02.5 | N 12 17.5 +00.0 | 201 51.8 +02.3 | S 12 15.3 -00.1 | 06 | | | | | | | |
| 07 | 295 34.4 +00.5 | S 23 14.3 +00.2 | 157 39.4 +02.6 | N 12 17.5 +00.0 | 216 54.1 +02.3 | S 12 15.2 +00.0 | 07 | | | | | | | |
| 08 | 310 34.9 +00.5 | S 23 14.5 +00.2 | 172 42.0 +02.6 | N 12 17.5 +00.0 | 231 56.4 +02.3 | S 12 15.2 -00.1 | 08 | | | | | | | |
| 09 | 325 35.4 +00.5 | S 23 14.7 +00.2 | 187 44.6 +02.6 | N 12 17.5 -00.1 | 246 58.7 +02.3 | S 12 15.1 -00.1 | 09 | | | | | | | |
| 10 | 340 35.9 +00.5 | S 23 14.9 +00.2 | 202 47.2 +02.5 | N 12 17.4 +00.0 | 262 01.0 +02.3 | S 12 15.0 +00.0 | 10 | | | | | | | |
| 11 | 355 36.4 +00.4 | S 23 15.1 +00.2 | 217 49.7 +02.6 | N 12 17.4 +00.0 | 277 03.3 +02.3 | S 12 15.0 -00.1 | 11 | | | | | | | |
| 12 | 10 36.8 +00.5 | S 23 15.3 +00.2 | 232 52.3 +02.6 | N 12 17.4 +00.0 | 292 05.6 +02.3 | S 12 14.9 -00.1 | 12 | | | | | | | |
| 13 | 25 37.3 +00.5 | S 23 15.5 +00.2 | 247 54.9 +02.6 | N 12 17.4 -00.1 | 307 07.9 +02.3 | S 12 14.8 +00.0 | 13 | | | | | | | |
| 14 | 40 37.8 +00.5 | S 23 15.7 +00.2 | 262 57.5 +02.5 | N 12 17.3 +00.0 | 322 10.2 +02.3 | S 12 14.8 -00.1 | 14 | | | | | | | |
| 15 | 55 38.3 +00.5 | S 23 15.9 +00.2 | 278 00.0 +02.6 | N 12 17.3 +00.0 | 337 12.5 +02.3 | S 12 14.7 -00.1 | 15 | | | | | | | |
| 16 | 70 38.8 +00.5 | S 23 16.1 +00.1 | 293 02.6 +02.6 | N 12 17.3 +00.0 | 352 14.8 +02.3 | S 12 14.6 +00.0 | 16 | | | | | | | |
| 17 | 85 39.3 +00.5 | S 23 16.2 +00.2 | 308 05.2 +02.6 | N 12 17.3 +00.0 | 7 17.1 +02.2 | S 12 14.6 -00.1 | 17 | | | | | | | |
| 18 | 100 39.8 +00.4 | S 23 16.4 +00.2 | 323 07.8 +02.5 | N 12 17.3 -00.1 | 22 19.3 +02.3 | S 12 14.5 -00.1 | 18 | | | | | | | |
| 19 | 115 40.2 +00.5 | S 23 16.6 +00.2 | 338 10.3 +02.6 | N 12 17.2 +00.0 | 37 21.6 +02.3 | S 12 14.4 +00.0 | 19 | | | | | | | |
| 20 | 130 40.7 +00.5 | S 23 16.8 +00.2 | 353 12.9 +02.6 | N 12 17.2 +00.0 | 52 23.9 +02.3 | S 12 14.4 -00.1 | 20 | | | | | | | |
| 21 | 145 41.2 +00.5 | S 23 17.0 +00.2 | 8 15.5 +02.5 | N 12 17.2 +00.0 | 67 26.2 +02.3 | S 12 14.3 -00.1 | 21 | | | | | | | |
| 22 | 160 41.7 +00.5 | S 23 17.2 +00.2 | 23 18.0 +02.6 | N 12 17.2 -00.1 | 82 28.5 +02.3 | S 12 14.2 -00.1 | 22 | | | | | | | |
| 23 | 175 42.2 +00.5 | S 23 17.4 +00.2 | 38 20.6 +02.6 | N 12 17.1 +00.0 | 97 30.8 +02.3 | S 12 14.1 +00.0 | 23 | | | | | | | |
| UT 02 06 10 14 18 22 | SD 00'0 00'0 00'0 00'0 00'0 00'0 | HP 00'1 00'1 00'1 00'1 00'1 00'1 | SHA 104° 104° 104° 104° 104° 103° | Greenwich Culmination Time: 11:17 | 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 326° 326° 326° 326° 326° 326° | Greenwich Culmination Time: 20:27 | UT 02 06 10 14 18 22 | SD 00'1 00'1 00'1 00'1 00'1 00'1 | HP 00'0 00'0 00'0 00'0 00'0 00'0 | SHA 025° 025° 025° 025° 025° 025° | Greenwich Culmination Time: 16:30 |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|-------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 180 49.5 -00.3 | S 23 24.0 +00.0 | 222 15.0 -00.5 | S 14 45.1 +00.9 | 98 27.9 -29.4 | S 08 01.6 -16.1 | 00 | | | | | | |
| 01 | 195 49.2 -00.3 | S 23 24.0 +00.1 | 237 14.5 -00.5 | S 14 46.0 +00.9 | 112 58.5 -29.3 | S 07 45.5 -16.2 | 01 | | | | | | |
| 02 | 210 48.9 -00.3 | S 23 24.1 +00.1 | 252 14.0 -00.5 | S 14 46.9 +00.8 | 127 29.2 -29.2 | S 07 29.3 -16.3 | 02 | | | | | | |
| 03 | 225 48.6 -00.3 | S 23 24.2 +00.0 | 267 13.5 -00.5 | S 14 47.7 +00.9 | 141 60.0 -29.3 | S 07 13.0 -16.2 | 03 | | | | | | |
| 04 | 240 48.3 -00.3 | S 23 24.2 +00.1 | 282 13.0 -00.5 | S 14 48.6 +00.9 | 156 30.7 -29.1 | S 06 56.8 -16.3 | 04 | | | | | | |
| 05 | 255 48.0 -00.3 | S 23 24.3 +00.0 | 297 12.5 -00.5 | S 14 49.5 +00.8 | 171 01.6 -29.1 | S 06 40.5 -16.3 | 05 | | | | | | |
| 06 | 270 47.7 -00.3 | S 23 24.3 +00.1 | 312 12.0 -00.5 | S 14 50.3 +00.9 | 185 32.5 -29.1 | S 06 24.2 -16.4 | 06 | | | | | | |
| 07 | 285 47.4 -00.3 | S 23 24.4 +00.0 | 327 11.5 -00.5 | S 14 51.2 +00.9 | 200 03.4 -29.0 | S 06 07.8 -16.4 | 07 | | | | | | |
| 08 | 300 47.1 -00.3 | S 23 24.4 +00.1 | 342 11.0 -00.5 | S 14 52.1 +00.8 | 214 34.4 -29.0 | S 05 51.4 -16.3 | 08 | | | | | | |
| 09 | 315 46.8 -00.4 | S 23 24.5 +00.1 | 357 10.5 -00.5 | S 14 52.9 +00.9 | 229 05.4 -29.0 | S 05 35.1 -16.5 | 09 | | | | | | |
| 10 | 330 46.4 -00.3 | S 23 24.6 +00.0 | 12 10.0 -00.5 | S 14 53.8 +00.9 | 243 36.4 -28.9 | S 05 18.6 -16.4 | 10 | | | | | | |
| 11 | 345 46.1 -00.3 | S 23 24.6 +00.1 | 27 09.5 -00.6 | S 14 54.7 +00.8 | 258 07.5 -28.8 | S 05 02.2 -16.4 | 11 | | | | | | |
| 12 | 0 45.8 -00.3 | S 23 24.7 +00.0 | 42 08.9 -00.5 | S 14 55.5 +00.9 | 272 38.7 -28.9 | S 04 45.8 -16.5 | 12 | | | | | | |
| 13 | 15 45.5 -00.3 | S 23 24.7 +00.1 | 57 08.4 -00.5 | S 14 56.4 +00.9 | 287 09.8 -28.7 | S 04 29.3 -16.5 | 13 | | | | | | |
| 14 | 30 45.2 -00.3 | S 23 24.8 +00.0 | 72 07.9 -00.5 | S 14 57.3 +00.8 | 301 41.1 -28.8 | S 04 12.8 -16.5 | 14 | | | | | | |
| 15 | 45 44.9 -00.3 | S 23 24.8 +00.1 | 87 07.4 -00.5 | S 14 58.1 +00.9 | 316 12.3 -28.7 | S 03 56.3 -16.5 | 15 | | | | | | |
| 16 | 60 44.6 -00.3 | S 23 24.9 +00.0 | 102 06.9 -00.5 | S 14 59.0 +00.8 | 330 43.6 -28.7 | S 03 39.8 -16.5 | 16 | | | | | | |
| 17 | 75 44.3 -00.3 | S 23 24.9 +00.1 | 117 06.4 -00.5 | S 14 59.8 +00.9 | 345 14.9 -28.7 | S 03 23.3 -16.6 | 17 | | | | | | |
| 18 | 90 44.0 -00.3 | S 23 25.0 +00.0 | 132 05.9 -00.5 | S 15 00.7 +00.9 | 359 46.2 -28.6 | S 03 06.7 -16.5 | 18 | | | | | | |
| 19 | 105 43.7 -00.3 | S 23 25.0 +00.0 | 147 05.4 -00.6 | S 15 01.6 +00.8 | 14 17.6 -28.6 | S 02 50.2 -16.6 | 19 | | | | | | |
| 20 | 120 43.4 -00.3 | S 23 25.0 +00.1 | 162 04.8 -00.5 | S 15 02.4 +00.9 | 28 49.0 -28.6 | S 02 33.6 -16.5 | 20 | | | | | | |
| 21 | 135 43.1 -00.4 | S 23 25.1 +00.0 | 177 04.3 -00.5 | S 15 03.3 +00.8 | 43 20.4 -28.5 | S 02 17.1 -16.6 | 21 | | | | | | |
| 22 | 150 42.7 -00.3 | S 23 25.1 +00.1 | 192 03.8 -00.5 | S 15 04.1 +00.9 | 57 51.9 -28.5 | S 02 00.5 -16.5 | 22 | | | | | | |
| 23 | 165 42.4 -00.3 | S 23 25.2 +00.0 | 207 03.3 -00.5 | S 15 05.0 +00.9 | 72 23.4 -28.5 | S 01 44.0 -16.6 | 23 | | | | | | |
| | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | | | | | | | |
| | SD 16'3 16'3 16'3 16'3 16'3 16'3 | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | SD 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 59'3 59'2 59'2 59'1 59'1 59'0 | | | | | | | | |
| | SHA 093° 093° 093° 093° 093° 092° | | SHA 135° 135° 134° 134° 134° 134° | | SHA 010° 008° 006° 004° 002° 360° | | | | | | | | |
| | Greenwich Culmination Time: 11:56 | | Greenwich Culmination Time: 09:11 | | Greenwich Culmination Time: 18:00 | | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 190 42.7 +00.4 | S 23 17.6 +00.2 | 53 23.2 +02.5 | N 12 17.1 +00.0 | 112 33.1 +02.3 | S 12 14.1 -00.1 | 00 | | | | | | |
| 01 | 205 43.1 +00.5 | S 23 17.8 +00.2 | 68 25.7 +02.6 | N 12 17.1 +00.0 | 127 35.4 +02.3 | S 12 14.0 -00.1 | 01 | | | | | | |
| 02 | 220 43.6 +00.5 | S 23 18.0 +00.2 | 83 28.3 +02.6 | N 12 17.1 -00.1 | 142 37.7 +02.3 | S 12 13.9 +00.0 | 02 | | | | | | |
| 03 | 235 44.1 +00.5 | S 23 18.2 +00.2 | 98 30.9 +02.5 | N 12 17.0 +00.0 | 157 40.0 +02.3 | S 12 13.9 -00.1 | 03 | | | | | | |
| 04 | 250 44.6 +00.5 | S 23 18.4 +00.2 | 113 33.4 +02.6 | N 12 17.0 +00.0 | 172 42.3 +02.3 | S 12 13.8 -00.1 | 04 | | | | | | |
| 05 | 265 45.1 +00.5 | S 23 18.6 +00.2 | 128 36.0 +02.6 | N 12 17.0 +00.0 | 187 44.6 +02.3 | S 12 13.7 +00.0 | 05 | | | | | | |
| 06 | 280 45.6 +00.4 | S 23 18.8 +00.1 | 143 38.6 +02.5 | N 12 17.0 +00.0 | 202 46.9 +02.3 | S 12 13.7 -00.1 | 06 | | | | | | |
| 07 | 295 46.0 +00.5 | S 23 18.9 +00.2 | 158 41.1 +02.6 | N 12 17.0 -00.1 | 217 49.2 +02.2 | S 12 13.6 -00.1 | 07 | | | | | | |
| 08 | 310 46.5 +00.5 | S 23 19.1 +00.2 | 173 43.7 +02.6 | N 12 16.9 +00.0 | 232 51.4 +02.3 | S 12 13.5 +00.0 | 08 | | | | | | |
| 09 | 325 47.0 +00.5 | S 23 19.3 +00.2 | 188 46.3 +02.5 | N 12 16.9 +00.0 | 247 53.7 +02.3 | S 12 13.5 -00.1 | 09 | | | | | | |
| 10 | 340 47.5 +00.5 | S 23 19.5 +00.2 | 203 48.8 +02.6 | N 12 16.9 +00.0 | 262 56.0 +02.3 | S 12 13.4 -00.1 | 10 | | | | | | |
| 11 | 355 48.0 +00.5 | S 23 19.7 +00.2 | 218 51.4 +02.6 | N 12 16.9 -00.1 | 277 58.3 +02.3 | S 12 13.3 +00.0 | 11 | | | | | | |
| 12 | 10 48.5 +00.4 | S 23 19.9 +00.2 | 233 54.0 +02.5 | N 12 16.8 +00.0 | 293 00.6 +02.3 | S 12 13.3 -00.1 | 12 | | | | | | |
| 13 | 25 48.9 +00.5 | S 23 20.1 +00.2 | 248 56.5 +02.6 | N 12 16.8 +00.0 | 308 02.9 +02.3 | S 12 13.2 -00.1 | 13 | | | | | | |
| 14 | 40 49.4 +00.5 | S 23 20.3 +00.2 | 263 59.1 +02.6 | N 12 16.8 +00.0 | 323 05.2 +02.3 | S 12 13.1 -00.1 | 14 | | | | | | |
| 15 | 55 49.9 +00.5 | S 23 20.5 +00.1 | 279 01.7 +02.5 | N 12 16.8 +00.0 | 338 07.5 +02.3 | S 12 13.0 +00.0 | 15 | | | | | | |
| 16 | 70 50.4 +00.5 | S 23 20.6 +00.2 | 294 04.2 +02.6 | N 12 16.8 -00.1 | 353 09.8 +02.3 | S 12 13.0 -00.1 | 16 | | | | | | |
| 17 | 85 50.9 +00.4 | S 23 20.8 +00.2 | 309 06.8 +02.6 | N 12 16.7 +00.0 | 8 12.1 +02.3 | S 12 12.9 -00.1 | 17 | | | | | | |
| 18 | 100 51.3 +00.5 | S 23 21.0 +00.2 | 324 09.4 +02.5 | N 12 16.7 +00.0 | 23 14.4 +02.3 | S 12 12.8 +00.0 | 18 | | | | | | |
| 19 | 115 51.8 +00.5 | S 23 21.2 +00.2 | 339 11.9 +02.6 | N 12 16.7 +00.0 | 38 16.7 +02.2 | S 12 12.8 -00.1 | 19 | | | | | | |
| 20 | 130 52.3 +00.5 | S 23 21.4 +00.2 | 354 14.5 +02.6 | N 12 16.7 +00.0 | 53 18.9 +02.3 | S 12 12.7 -00.1 | 20 | | | | | | |
| 21 | 145 52.8 +00.5 | S 23 21.6 +00.2 | 9 17.1 +02.5 | N 12 16.7 -00.1 | 68 21.2 +02.3 | S 12 12.6 +00.0 | 21 | | | | | | |
| 22 | 160 53.3 +00.4 | S 23 21.8 +00.1 | 24 19.6 +02.6 | N 12 16.6 +00.0 | 83 23.5 +02.3 | S 12 12.6 -00.1 | 22 | | | | | | |
| 23 | 175 53.7 +00.5 | S 23 21.9 +00.2 | 39 22.2 +02.5 | N 12 16.6 +00.0 | 98 25.8 +02.3 | S 12 12.5 -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 00'1 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 103° 103° 103° 103° 103° 103° | | SHA 326° 326° 326° 326° 326° 326° | | SHA 025° 025° 025° 025° 025° 025° | | | | | | | | |
| | Greenwich Culmination Time: 11:16 | | Greenwich Culmination Time: 20:22 | | Greenwich Culmination Time: 16:27 | | | | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> A: 27% | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|--------------|---------------|-----------------------------------|------|---|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 180 42.1 -00.3 | S | 23 25.2 +00.1 | 222 02.8 -00.5 | S | 15 05.9 +00.8 | 86 54.9 -28.5 | S | 01 27.4 -16.5 | 00 | | | |
| 01 | 195 41.8 -00.3 | S | 23 25.3 +00.0 | 237 02.3 -00.5 | S | 15 06.7 +00.9 | 101 26.4 -28.5 | S | 01 10.9 -16.6 | 01 | | | |
| 02 | 210 41.5 -00.3 | S | 23 25.3 +00.0 | 252 01.8 -00.6 | S | 15 07.6 +00.8 | 115 57.9 -28.4 | S | 00 54.3 -16.6 | 02 | | | |
| 03 | 225 41.2 -00.3 | S | 23 25.3 +00.1 | 267 01.2 -00.5 | S | 15 08.4 +00.9 | 130 29.5 -28.4 | S | 00 37.7 -16.5 | 03 | | | |
| 04 | 240 40.9 -00.3 | S | 23 25.4 +00.0 | 282 00.7 -00.5 | S | 15 09.3 +00.8 | 145 01.1 -28.5 | S | 00 21.2 -16.6 | 04 | | | |
| 05 | 255 40.6 -00.3 | S | 23 25.4 +00.1 | 297 00.2 -00.5 | S | 15 10.1 +00.9 | 159 32.6 -28.3 | S | 00 04.6 -16.5 | 05 | | | |
| 06 | 270 40.3 -00.3 | S | 23 25.5 +00.0 | 311 59.7 -00.5 | S | 15 11.0 +00.8 | 174 04.3 -28.4 | N | 00 11.9 +16.5 | 06 | | | |
| 07 | 285 40.0 -00.3 | S | 23 25.5 +00.0 | 326 59.2 -00.6 | S | 15 11.8 +00.9 | 188 35.9 -28.4 | N | 00 28.4 +16.5 | 07 | | | |
| 08 | 300 39.7 -00.4 | S | 23 25.5 +00.1 | 341 58.6 -00.5 | S | 15 12.7 +00.9 | 203 07.5 -28.4 | N | 00 44.9 +16.6 | 08 | | | |
| 09 | 315 39.3 -00.3 | S | 23 25.6 +00.0 | 356 58.1 -00.5 | S | 15 13.6 +00.8 | 217 39.1 -28.3 | N | 01 01.5 +16.5 | 09 | | | |
| 10 | 330 39.0 -00.3 | S | 23 25.6 +00.0 | 11 57.6 -00.5 | S | 15 14.4 +00.9 | 232 10.8 -28.4 | N | 01 18.0 +16.4 | 10 | | | |
| 11 | 345 38.7 -00.3 | S | 23 25.6 +00.1 | 26 57.1 -00.5 | S | 15 15.3 +00.8 | 246 42.4 -28.3 | N | 01 34.4 +16.5 | 11 | | | |
| 12 | 0 38.4 -00.3 | S | 23 25.7 +00.0 | 41 56.6 -00.6 | S | 15 16.1 +00.9 | 261 14.1 -28.4 | N | 01 50.9 +16.5 | 12 | | | |
| 13 | 15 38.1 -00.3 | S | 23 25.7 +00.0 | 56 56.0 -00.5 | S | 15 17.0 +00.8 | 275 45.7 -28.3 | N | 02 07.4 +16.4 | 13 | | | |
| 14 | 30 37.8 -00.3 | S | 23 25.7 +00.1 | 71 55.5 -00.5 | S | 15 17.8 +00.9 | 290 17.4 -28.3 | N | 02 23.8 +16.4 | 14 | | | |
| 15 | 45 37.5 -00.3 | S | 23 25.8 +00.0 | 86 55.0 -00.5 | S | 15 18.7 +00.8 | 304 49.1 -28.4 | N | 02 40.2 +16.4 | 15 | | | |
| 16 | 60 37.2 -00.3 | S | 23 25.8 +00.0 | 101 54.5 -00.6 | S | 15 19.5 +00.9 | 319 20.7 -28.3 | N | 02 56.6 +16.4 | 16 | | | |
| 17 | 75 36.9 -00.3 | S | 23 25.8 +00.0 | 116 53.9 -00.5 | S | 15 20.4 +00.8 | 333 52.4 -28.3 | N | 03 13.0 +16.3 | 17 | | | |
| 18 | 90 36.6 -00.4 | S | 23 25.8 +00.1 | 131 53.4 -00.5 | S | 15 21.2 +00.8 | 348 24.1 -28.4 | N | 03 29.3 +16.4 | 18 | | | |
| 19 | 105 36.2 -00.3 | S | 23 25.9 +00.0 | 146 52.9 -00.5 | S | 15 22.0 +00.9 | 2 55.7 -28.3 | N | 03 45.7 +16.3 | 19 | | | |
| 20 | 120 35.9 -00.3 | S | 23 25.9 +00.0 | 161 52.4 -00.6 | S | 15 22.9 +00.8 | 17 27.4 -28.4 | N | 04 02.0 +16.2 | 20 | | | |
| 21 | 135 35.6 -00.3 | S | 23 25.9 +00.0 | 176 51.8 -00.5 | S | 15 23.7 +00.9 | 31 59.0 -28.3 | N | 04 18.2 +16.3 | 21 | | | |
| 22 | 150 35.3 -00.3 | S | 23 25.9 +00.1 | 191 51.3 -00.5 | S | 15 24.6 +00.8 | 46 30.7 -28.4 | N | 04 34.5 +16.2 | 22 | | | |
| 23 | 165 35.0 -00.3 | S | 23 26.0 +00.0 | 206 50.8 -00.6 | S | 15 25.4 +00.9 | 61 02.3 -28.4 | N | 04 50.7 +16.2 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'3 16'3 16'3 16'3 16'3 16'3 | | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | | SD 16'1 16'1 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 59'0 58'9 58'9 58'8 58'7 58'7 | | | | | | |
| | SHA 092° 092° 092° 092° 092° 091° | | | SHA 134° 133° 133° 133° 133° 133° | | | SHA 358° 356° 353° 351° 349° 347° | | | | | | |
| | Greenwich Culmination Time: 11:57 | | | Greenwich Culmination Time: 09:12 | | | Greenwich Culmination Time: 18:47 | | | | | | |

| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|----------------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 190 54.2 +00.5 | S | 23 22.1 +00.2 | 54 24.7 +02.6 | N | 12 16.6 +00.0 | 113 28.1 +02.3 | S | 12 12.4 -00.1 | 00 | | | |
| 01 | 205 54.7 +00.5 | S | 23 22.3 +00.2 | 69 27.3 +02.6 | N | 12 16.6 +00.0 | 128 30.4 +02.3 | S | 12 12.3 +00.0 | 01 | | | |
| 02 | 220 55.2 +00.5 | S | 23 22.5 +00.2 | 84 29.9 +02.5 | N | 12 16.6 -00.1 | 143 32.7 +02.3 | S | 12 12.3 -00.1 | 02 | | | |
| 03 | 235 55.7 +00.4 | S | 23 22.7 +00.2 | 99 32.4 +02.6 | N | 12 16.5 +00.0 | 158 35.0 +02.3 | S | 12 12.2 -00.1 | 03 | | | |
| 04 | 250 56.1 +00.5 | S | 23 22.9 +00.1 | 114 35.0 +02.5 | N | 12 16.5 +00.0 | 173 37.3 +02.2 | S | 12 12.1 +00.0 | 04 | | | |
| 05 | 265 56.6 +00.5 | S | 23 23.0 +00.2 | 129 37.5 +02.6 | N | 12 16.5 +00.0 | 188 39.5 +02.3 | S | 12 12.1 -00.1 | 05 | | | |
| 06 | 280 57.1 +00.5 | S | 23 23.2 +00.2 | 144 40.1 +02.6 | N | 12 16.5 +00.0 | 203 41.8 +02.3 | S | 12 12.0 -00.1 | 06 | | | |
| 07 | 295 57.6 +00.5 | S | 23 23.4 +00.2 | 159 42.7 +02.5 | N | 12 16.5 -00.1 | 218 44.1 +02.3 | S | 12 11.9 +00.0 | 07 | | | |
| 08 | 310 58.1 +00.4 | S | 23 23.6 +00.2 | 174 45.2 +02.6 | N | 12 16.4 +00.0 | 233 46.4 +02.3 | S | 12 11.9 -00.1 | 08 | | | |
| 09 | 325 58.5 +00.5 | S | 23 23.8 +00.1 | 189 47.8 +02.5 | N | 12 16.4 +00.0 | 248 48.7 +02.3 | S | 12 11.8 -00.1 | 09 | | | |
| 10 | 340 59.0 +00.5 | S | 23 23.9 +00.2 | 204 50.3 +02.6 | N | 12 16.4 +00.0 | 263 51.0 +02.3 | S | 12 11.7 -00.1 | 10 | | | |
| 11 | 355 59.5 +00.5 | S | 23 24.1 +00.2 | 219 52.9 +02.5 | N | 12 16.4 +00.0 | 278 53.3 +02.3 | S | 12 11.6 +00.0 | 11 | | | |
| 12 | 10 60.0 +00.4 | S | 23 24.3 +00.2 | 234 55.4 +02.6 | N | 12 16.4 -00.1 | 293 55.6 +02.3 | S | 12 11.6 -00.1 | 12 | | | |
| 13 | 26 00.4 +00.5 | S | 23 24.5 +00.1 | 249 58.0 +02.6 | N | 12 16.3 +00.0 | 308 57.9 +02.2 | S | 12 11.5 -00.1 | 13 | | | |
| 14 | 41 00.9 +00.5 | S | 23 24.6 +00.2 | 265 00.6 +02.5 | N | 12 16.3 +00.0 | 324 00.1 +02.3 | S | 12 11.4 +00.0 | 14 | | | |
| 15 | 56 01.4 +00.5 | S | 23 24.8 +00.2 | 280 03.1 +02.6 | N | 12 16.3 +00.0 | 339 02.4 +02.3 | S | 12 11.4 -00.1 | 15 | | | |
| 16 | 71 01.9 +00.4 | S | 23 25.0 +00.2 | 295 05.7 +02.5 | N | 12 16.3 +00.0 | 354 04.7 +02.3 | S | 12 11.3 -00.1 | 16 | | | |
| 17 | 86 02.3 +00.5 | S | 23 25.2 +00.2 | 310 08.2 +02.6 | N | 12 16.3 +00.0 | 9 07.0 +02.3 | S | 12 11.2 +00.0 | 17 | | | |
| 18 | 101 02.8 +00.5 | S | 23 25.4 +00.1 | 325 10.8 +02.5 | N | 12 16.3 -00.1 | 24 09.3 +02.3 | S | 12 11.2 -00.1 | 18 | | | |
| 19 | 116 03.3 +00.5 | S | 23 25.5 +00.2 | 340 13.3 +02.6 | N | 12 16.2 +00.0 | 39 11.6 +02.3 | S | 12 11.1 -00.1 | 19 | | | |
| 20 | 131 03.8 +00.5 | S | 23 25.7 +00.2 | 355 15.9 +02.5 | N | 12 16.2 +00.0 | 54 13.9 +02.3 | S | 12 11.0 -00.1 | 20 | | | |
| 21 | 146 04.3 +00.4 | S | 23 25.9 +00.2 | 10 18.4 +02.6 | N | 12 16.2 +00.0 | 69 16.2 +02.2 | S | 12 10.9 +00.0 | 21 | | | |
| 22 | 161 04.7 +00.5 | S | 23 26.1 +00.1 | 25 21.0 +02.5 | N | 12 16.2 +00.0 | 84 18.4 +02.3 | S | 12 10.9 -00.1 | 22 | | | |
| 23 | 176 05.2 +00.5 | S | 23 26.2 +00.2 | 40 23.5 +02.6 | N | 12 16.2 +00.0 | 99 20.7 +02.3 | S | 12 10.8 -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 00'1 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 103° 102° 102° 102° 102° 102° | | | SHA 326° 326° 326° 326° 326° 326° | | | SHA 025° 025° 025° 025° 025° 025° | | | | | | |
| | Greenwich Culmination Time: 11:16 | | | Greenwich Culmination Time: 20:18 | | | Greenwich Culmination Time: 16:23 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon A: 30% | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|-------|---------------|-----------------------------------|------|--|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 180 34.7 -00.3 | S | 23 26.0 +00.0 | 221 50.2 -00.5 | S | 15 26.3 +00.8 | 75 33.9 -28.4 | N | 05 06.9 +16.1 | 00 | | | |
| 01 | 195 34.4 -00.3 | S | 23 26.0 +00.0 | 236 49.7 -00.5 | S | 15 27.1 +00.9 | 90 05.5 -28.4 | N | 05 23.0 +16.2 | 01 | | | |
| 02 | 210 34.1 -00.3 | S | 23 26.0 +00.1 | 251 49.2 -00.5 | S | 15 28.0 +00.8 | 104 37.1 -28.4 | N | 05 39.2 +16.0 | 02 | | | |
| 03 | 225 33.8 -00.3 | S | 23 26.1 +00.0 | 266 48.7 -00.6 | S | 15 28.8 +00.8 | 119 08.7 -28.4 | N | 05 55.2 +16.1 | 03 | | | |
| 04 | 240 33.5 -00.3 | S | 23 26.1 +00.0 | 281 48.1 -00.5 | S | 15 29.6 +00.9 | 133 40.3 -28.5 | N | 06 11.3 +16.0 | 04 | | | |
| 05 | 255 33.2 -00.4 | S | 23 26.1 +00.0 | 296 47.6 -00.5 | S | 15 30.5 +00.8 | 148 11.8 -28.4 | N | 06 27.3 +16.0 | 05 | | | |
| 06 | 270 32.8 -00.3 | S | 23 26.1 +00.0 | 311 47.1 -00.6 | S | 15 31.3 +00.9 | 162 43.4 -28.5 | N | 06 43.3 +15.9 | 06 | | | |
| 07 | 285 32.5 -00.3 | S | 23 26.1 +00.0 | 326 46.5 -00.5 | S | 15 32.2 +00.8 | 177 14.9 -28.5 | N | 06 59.2 +15.9 | 07 | | | |
| 08 | 300 32.2 -00.3 | S | 23 26.1 +00.1 | 341 46.0 -00.5 | S | 15 33.0 +00.8 | 191 46.4 -28.5 | N | 07 15.1 +15.8 | 08 | | | |
| 09 | 315 31.9 -00.3 | S | 23 26.2 +00.0 | 356 45.5 -00.6 | S | 15 33.8 +00.9 | 206 17.9 -28.6 | N | 07 30.9 +15.9 | 09 | | | |
| 10 | 330 31.6 -00.3 | S | 23 26.2 +00.0 | 11 44.9 -00.5 | S | 15 34.7 +00.8 | 220 49.3 -28.6 | N | 07 46.8 +15.7 | 10 | | | |
| 11 | 345 31.3 -00.3 | S | 23 26.2 +00.0 | 26 44.4 -00.5 | S | 15 35.5 +00.9 | 235 20.7 -28.6 | N | 08 02.5 +15.7 | 11 | | | |
| 12 | 0 31.0 -00.3 | S | 23 26.2 +00.0 | 41 43.9 -00.6 | S | 15 36.4 +00.8 | 249 52.1 -28.6 | N | 08 18.2 +15.7 | 12 | | | |
| 13 | 15 30.7 -00.3 | S | 23 26.2 +00.0 | 56 43.3 -00.5 | S | 15 37.2 +00.8 | 264 23.5 -28.7 | N | 08 33.9 +15.6 | 13 | | | |
| 14 | 30 30.4 -00.3 | S | 23 26.2 +00.0 | 71 42.8 -00.5 | S | 15 38.0 +00.9 | 278 54.8 -28.6 | N | 08 49.5 +15.6 | 14 | | | |
| 15 | 45 30.1 -00.4 | S | 23 26.2 +00.0 | 86 42.3 -00.6 | S | 15 38.9 +00.8 | 293 26.2 -28.8 | N | 09 05.1 +15.5 | 15 | | | |
| 16 | 60 29.7 -00.3 | S | 23 26.2 +00.1 | 101 41.7 -00.5 | S | 15 39.7 +00.8 | 307 57.4 -28.7 | N | 09 20.6 +15.4 | 16 | | | |
| 17 | 75 29.4 -00.3 | S | 23 26.3 +00.0 | 116 41.2 -00.6 | S | 15 40.5 +00.9 | 322 28.7 -28.8 | N | 09 36.0 +15.4 | 17 | | | |
| 18 | 90 29.1 -00.3 | S | 23 26.3 +00.0 | 131 40.6 -00.5 | S | 15 41.4 +00.8 | 336 59.9 -28.8 | N | 09 51.4 +15.4 | 18 | | | |
| 19 | 105 28.8 -00.3 | S | 23 26.3 +00.0 | 146 40.1 -00.5 | S | 15 42.2 +00.8 | 351 31.1 -28.8 | N | 10 06.8 +15.3 | 19 | | | |
| 20 | 120 28.5 -00.3 | S | 23 26.3 +00.0 | 161 39.6 -00.6 | S | 15 43.0 +00.9 | 6 02.3 -28.9 | N | 10 22.1 +15.2 | 20 | | | |
| 21 | 135 28.2 -00.3 | S | 23 26.3 +00.0 | 176 39.0 -00.5 | S | 15 43.9 +00.8 | 20 33.4 -28.9 | N | 10 37.3 +15.2 | 21 | | | |
| 22 | 150 27.9 -00.3 | S | 23 26.3 +00.0 | 191 38.5 -00.6 | S | 15 44.7 +00.8 | 35 04.5 -29.0 | N | 10 52.5 +15.1 | 22 | | | |
| 23 | 165 27.6 -00.3 | S | 23 26.3 +00.0 | 206 37.9 -00.5 | S | 15 45.5 +00.9 | 49 35.5 -29.0 | N | 11 07.6 +15.1 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'3 16'3 16'3 16'3 16'3 16'3 | | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | | SD 16'0 16'0 15'9 15'9 15'9 15'9 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 58'6 58'6 58'5 58'4 58'4 58'3 | | | | | | |
| | SHA 091° 091° 091° 091° 090° 090° | | | SHA 132° 132° 132° 132° 132° 131° | | | SHA 345° 343° 341° 339° 337° 335° | | | | | | |
| | Greenwich Culmination Time: 11:57 | | | Greenwich Culmination Time: 09:12 | | | Greenwich Culmination Time: 19:35 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|---------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 191 05.7 +00.5 | S | 23 26.4 +00.2 | 55 26.1 +02.6 | N | 12 16.2 -00.1 | 114 23.0 +02.3 | S | 12 10.7 +00.0 | 00 | | | |
| 01 | 206 06.2 +00.4 | S | 23 26.6 +00.2 | 70 28.7 +02.5 | N | 12 16.1 +00.0 | 129 25.3 +02.3 | S | 12 10.7 -00.1 | 01 | | | |
| 02 | 221 06.6 +00.5 | S | 23 26.8 +00.1 | 85 31.2 +02.6 | N | 12 16.1 +00.0 | 144 27.6 +02.3 | S | 12 10.6 -00.1 | 02 | | | |
| 03 | 236 07.1 +00.5 | S | 23 26.9 +00.2 | 100 33.8 +02.5 | N | 12 16.1 +00.0 | 159 29.9 +02.3 | S | 12 10.5 -00.1 | 03 | | | |
| 04 | 251 07.6 +00.5 | S | 23 27.1 +00.2 | 115 36.3 +02.6 | N | 12 16.1 +00.0 | 174 32.2 +02.3 | S | 12 10.4 +00.0 | 04 | | | |
| 05 | 266 08.1 +00.4 | S | 23 27.3 +00.1 | 130 38.9 +02.5 | N | 12 16.1 +00.0 | 189 34.5 +02.2 | S | 12 10.4 -00.1 | 05 | | | |
| 06 | 281 08.5 +00.5 | S | 23 27.4 +00.2 | 145 41.4 +02.6 | N | 12 16.1 -00.1 | 204 36.7 +02.3 | S | 12 10.3 -00.1 | 06 | | | |
| 07 | 296 09.0 +00.5 | S | 23 27.6 +00.2 | 160 44.0 +02.5 | N | 12 16.0 +00.0 | 219 39.0 +02.3 | S | 12 10.2 +00.0 | 07 | | | |
| 08 | 311 09.5 +00.5 | S | 23 27.8 +00.1 | 175 46.5 +02.6 | N | 12 16.0 +00.0 | 234 41.3 +02.3 | S | 12 10.2 -00.1 | 08 | | | |
| 09 | 326 10.0 +00.4 | S | 23 27.9 +00.2 | 190 49.1 +02.5 | N | 12 16.0 +00.0 | 249 43.6 +02.3 | S | 12 10.1 -00.1 | 09 | | | |
| 10 | 341 10.4 +00.5 | S | 23 28.1 +00.2 | 205 51.6 +02.6 | N | 12 16.0 +00.0 | 264 45.9 +02.3 | S | 12 10.0 -00.1 | 10 | | | |
| 11 | 356 10.9 +00.5 | S | 23 28.3 +00.2 | 220 54.2 +02.5 | N | 12 16.0 +00.0 | 279 48.2 +02.3 | S | 12 09.9 +00.0 | 11 | | | |
| 12 | 11 11.4 +00.4 | S | 23 28.5 +00.1 | 235 56.7 +02.6 | N | 12 16.0 -00.1 | 294 50.5 +02.2 | S | 12 09.9 -00.1 | 12 | | | |
| 13 | 26 11.8 +00.5 | S | 23 28.6 +00.2 | 250 59.3 +02.5 | N | 12 15.9 +00.0 | 309 52.7 +02.3 | S | 12 09.8 -00.1 | 13 | | | |
| 14 | 41 12.3 +00.5 | S | 23 28.8 +00.2 | 266 01.8 +02.6 | N | 12 15.9 +00.0 | 324 55.0 +02.3 | S | 12 09.7 +00.0 | 14 | | | |
| 15 | 56 12.8 +00.5 | S | 23 29.0 +00.1 | 281 04.4 +02.5 | N | 12 15.9 +00.0 | 339 57.3 +02.3 | S | 12 09.7 -00.1 | 15 | | | |
| 16 | 71 13.3 +00.4 | S | 23 29.1 +00.2 | 296 06.9 +02.5 | N | 12 15.9 +00.0 | 354 59.6 +02.3 | S | 12 09.6 -00.1 | 16 | | | |
| 17 | 86 13.7 +00.5 | S | 23 29.3 +00.2 | 311 09.4 +02.6 | N | 12 15.9 +00.0 | 10 01.9 +02.3 | S | 12 09.5 -00.1 | 17 | | | |
| 18 | 101 14.2 +00.5 | S | 23 29.5 +00.1 | 326 12.0 +02.5 | N | 12 15.9 +00.0 | 25 04.2 +02.2 | S | 12 09.4 +00.0 | 18 | | | |
| 19 | 116 14.7 +00.5 | S | 23 29.6 +00.2 | 341 14.5 +02.6 | N | 12 15.9 -00.1 | 40 06.4 +02.3 | S | 12 09.4 -00.1 | 19 | | | |
| 20 | 131 15.2 +00.4 | S | 23 29.8 +00.2 | 356 17.1 +02.5 | N | 12 15.8 +00.0 | 55 08.7 +02.3 | S | 12 09.3 -00.1 | 20 | | | |
| 21 | 146 15.6 +00.5 | S | 23 30.0 +00.1 | 11 19.6 +02.6 | N | 12 15.8 +00.0 | 70 11.0 +02.3 | S | 12 09.2 +00.0 | 21 | | | |
| 22 | 161 16.1 +00.5 | S | 23 30.1 +00.2 | 26 22.2 +02.5 | N | 12 15.8 +00.0 | 85 13.3 +02.3 | S | 12 09.2 -00.1 | 22 | | | |
| 23 | 176 16.6 +00.4 | S | 23 30.3 +00.2 | 41 24.7 +02.6 | N | 12 15.8 +00.0 | 100 15.6 +02.3 | S | 12 09.1 -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 00'1 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 102° 102° 101° 101° 101° 101° | | | SHA 326° 326° 326° 326° 326° 326° | | | SHA 025° 025° 025° 025° 025° 025° | | | | | | |
| | Greenwich Culmination Time: 11:15 | | | Greenwich Culmination Time: 20:14 | | | Greenwich Culmination Time: 16:19 | | | | | | |

| Sun | | | | | Venus | | | | | Moon | | | | | A: 33% | | | | | |
|-----------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------------------------|-----------|-----------|-------------|-----------|-----------|-----------|-----------------------------------|--------|--|--|--|--|--|
| UT | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | UT | | | | | | | |
| | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | | | | | | | | |
| 00 | 180 27.3 -00.4 | S 23 26.3 +00.0 | 221 37.4 -00.5 | S 15 46.4 +00.8 | 64 06.5 -29.0 | N 11 22.7 +15.0 | 00 | | | | | | | | | | | | | |
| 01 | 195 26.9 -00.3 | S 23 26.3 +00.0 | 236 36.9 -00.6 | S 15 47.2 +00.8 | 78 37.5 -29.1 | N 11 37.7 +14.9 | 01 | | | | | | | | | | | | | |
| 02 | 210 26.6 -00.3 | S 23 26.3 +00.0 | 251 36.3 -00.5 | S 15 48.0 +00.8 | 93 08.4 -29.1 | N 11 52.6 +14.8 | 02 | | | | | | | | | | | | | |
| 03 | 225 26.3 -00.3 | S 23 26.3 +00.0 | 266 35.8 -00.6 | S 15 48.8 +00.9 | 107 39.3 -29.2 | N 12 07.4 +14.8 | 03 | | | | | | | | | | | | | |
| 04 | 240 26.0 -00.3 | S 23 26.3 +00.0 | 281 35.2 -00.5 | S 15 49.7 +00.8 | 122 10.1 -29.2 | N 12 22.2 +14.7 | 04 | | | | | | | | | | | | | |
| 05 | 255 25.7 -00.3 | S 23 26.3 +00.0 | 296 34.7 -00.6 | S 15 50.5 +00.8 | 136 40.9 -29.2 | N 12 36.9 +14.7 | 05 | | | | | | | | | | | | | |
| 06 | 270 25.4 -00.3 | S 23 26.3 +00.0 | 311 34.1 -00.5 | S 15 51.3 +00.9 | 151 11.7 -29.3 | N 12 51.6 +14.6 | 06 | | | | | | | | | | | | | |
| 07 | 285 25.1 -00.3 | S 23 26.3 +00.0 | 326 33.6 -00.5 | S 15 52.2 +00.8 | 165 42.4 -29.3 | N 13 06.2 +14.5 | 07 | | | | | | | | | | | | | |
| 08 | 300 24.8 -00.3 | S 23 26.3 +00.0 | 341 33.1 -00.6 | S 15 53.0 +00.8 | 180 13.1 -29.4 | N 13 20.7 +14.4 | 08 | | | | | | | | | | | | | |
| 09 | 315 24.5 -00.3 | S 23 26.3 +00.0 | 356 32.5 -00.5 | S 15 53.8 +00.8 | 194 43.7 -29.5 | N 13 35.1 +14.4 | 09 | | | | | | | | | | | | | |
| 10 | 330 24.2 -00.4 | S 23 26.3 +00.0 | 11 32.0 -00.6 | S 15 54.6 +00.9 | 209 14.2 -29.5 | N 13 49.5 +14.3 | 10 | | | | | | | | | | | | | |
| 11 | 345 23.8 -00.3 | S 23 26.3 +00.0 | 26 31.4 -00.5 | S 15 55.5 +00.8 | 223 44.7 -29.5 | N 14 03.8 +14.2 | 11 | | | | | | | | | | | | | |
| 12 | 0 23.5 -00.3 | S 23 26.3 +00.0 | 41 30.9 -00.6 | S 15 56.3 +00.8 | 238 15.2 -29.6 | N 14 18.0 +14.1 | 12 | | | | | | | | | | | | | |
| 13 | 15 23.2 -00.3 | S 23 26.3 +00.0 | 56 30.3 -00.5 | S 15 57.1 +00.8 | 252 45.6 -29.6 | N 14 32.1 +14.0 | 13 | | | | | | | | | | | | | |
| 14 | 30 22.9 -00.3 | S 23 26.3 -00.1 | 71 29.8 -00.6 | S 15 57.9 +00.8 | 267 16.0 -29.7 | N 14 46.1 +14.0 | 14 | | | | | | | | | | | | | |
| 15 | 45 22.6 -00.3 | S 23 26.2 +00.0 | 86 29.2 -00.5 | S 15 58.7 +00.9 | 281 46.3 -29.7 | N 15 00.1 +13.9 | 15 | | | | | | | | | | | | | |
| 16 | 60 22.3 -00.3 | S 23 26.2 +00.0 | 101 28.7 -00.6 | S 15 59.6 +00.8 | 296 16.6 -29.8 | N 15 14.0 +13.8 | 16 | | | | | | | | | | | | | |
| 17 | 75 22.0 -00.3 | S 23 26.2 +00.0 | 116 28.1 -00.5 | S 16 00.4 +00.8 | 310 46.8 -29.9 | N 15 27.8 +13.7 | 17 | | | | | | | | | | | | | |
| 18 | 90 21.7 -00.3 | S 23 26.2 +00.0 | 131 27.6 -00.6 | S 16 01.2 +00.8 | 325 16.9 -29.9 | N 15 41.5 +13.6 | 18 | | | | | | | | | | | | | |
| 19 | 105 21.4 -00.3 | S 23 26.2 +00.0 | 146 27.0 -00.5 | S 16 02.0 +00.8 | 339 47.0 -30.0 | N 15 55.1 +13.6 | 19 | | | | | | | | | | | | | |
| 20 | 120 21.1 -00.4 | S 23 26.2 +00.0 | 161 26.5 -00.6 | S 16 02.8 +00.9 | 354 17.0 -30.0 | N 16 08.7 +13.4 | 20 | | | | | | | | | | | | | |
| 21 | 135 20.7 -00.3 | S 23 26.2 +00.0 | 176 25.9 -00.5 | S 16 03.7 +00.8 | 8 47.0 -30.1 | N 16 22.1 +13.4 | 21 | | | | | | | | | | | | | |
| 22 | 150 20.4 -00.3 | S 23 26.2 -00.1 | 191 25.4 -00.6 | S 16 04.5 +00.8 | 23 16.9 -30.1 | N 16 35.5 +13.2 | 22 | | | | | | | | | | | | | |
| 23 | 165 20.1 -00.3 | S 23 26.1 +00.0 | 206 24.8 -00.5 | S 16 05.3 +00.8 | 37 46.8 -30.2 | N 16 48.7 +13.2 | 23 | | | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | | | | | | | |
| SD | 16'3 | 16'3 | 16'3 | 16'3 | 16'3 | 16'3 | SD | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | | | | | | | |
| 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 | | | | | | | |
| SHA | 090° | 090° | 090° | 090° | 089° | 089° | SHA | 131° | 131° | 131° | 131° | 130° | 130° | | | | | | | |
| Greenwich Culmination Time: 11:58 | | | | | | | Greenwich Culmination Time: 09:13 | | | | | | | Greenwich Culmination Time: 20:23 | | | | | | |

| Mars | | | | | Jupiter | | | | | Saturn | | | | | | | | | | |
|-----------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------------------------|-----------|-----------|---------------|-----------|-----------|-----------|-----------------------------------|--|--|--|--|--|--|
| UT | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | UT | | | | | | | |
| | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | ° ' " | ' " | | | | | | | | |
| 00 | 191 17.0 +00.5 | S 23 30.5 +00.1 | 56 27.3 +02.5 | N 12 15.8 +00.0 | 115 17.9 +02.2 | S 12 09.0 -00.1 | 00 | | | | | | | | | | | | | |
| 01 | 206 17.5 +00.5 | S 23 30.6 +00.2 | 71 29.8 +02.6 | N 12 15.8 +00.0 | 130 20.1 +02.3 | S 12 08.9 +00.0 | 01 | | | | | | | | | | | | | |
| 02 | 221 18.0 +00.5 | S 23 30.8 +00.1 | 86 32.4 +02.5 | N 12 15.8 -00.1 | 145 22.4 +02.3 | S 12 08.9 -00.1 | 02 | | | | | | | | | | | | | |
| 03 | 236 18.5 +00.4 | S 23 30.9 +00.2 | 101 34.9 +02.5 | N 12 15.7 +00.0 | 160 24.7 +02.3 | S 12 08.8 -00.1 | 03 | | | | | | | | | | | | | |
| 04 | 251 18.9 +00.5 | S 23 31.1 +00.2 | 116 37.4 +02.6 | N 12 15.7 +00.0 | 175 27.0 +02.3 | S 12 08.7 -00.1 | 04 | | | | | | | | | | | | | |
| 05 | 266 19.4 +00.5 | S 23 31.3 +00.1 | 131 40.0 +02.5 | N 12 15.7 +00.0 | 190 29.3 +02.3 | S 12 08.6 +00.0 | 05 | | | | | | | | | | | | | |
| 06 | 281 19.9 +00.4 | S 23 31.4 +00.2 | 146 42.5 +02.6 | N 12 15.7 +00.0 | 205 31.6 +02.2 | S 12 08.6 -00.1 | 06 | | | | | | | | | | | | | |
| 07 | 296 20.3 +00.5 | S 23 31.6 +00.1 | 161 45.1 +02.5 | N 12 15.7 +00.0 | 220 33.8 +02.3 | S 12 08.5 -00.1 | 07 | | | | | | | | | | | | | |
| 08 | 311 20.8 +00.5 | S 23 31.7 +00.2 | 176 47.6 +02.6 | N 12 15.7 +00.0 | 235 36.1 +02.3 | S 12 08.4 +00.0 | 08 | | | | | | | | | | | | | |
| 09 | 326 21.3 +00.5 | S 23 31.9 +00.2 | 191 50.2 +02.5 | N 12 15.7 -00.1 | 250 38.4 +02.3 | S 12 08.4 -00.1 | 09 | | | | | | | | | | | | | |
| 10 | 341 21.8 +00.4 | S 23 32.1 +00.1 | 206 52.7 +02.5 | N 12 15.6 +00.0 | 265 40.7 +02.3 | S 12 08.3 -00.1 | 10 | | | | | | | | | | | | | |
| 11 | 356 22.2 +00.5 | S 23 32.2 +00.2 | 221 55.2 +02.6 | N 12 15.6 +00.0 | 280 43.0 +02.3 | S 12 08.2 -00.1 | 11 | | | | | | | | | | | | | |
| 12 | 11 22.7 +00.5 | S 23 32.4 +00.1 | 236 57.8 +02.5 | N 12 15.6 +00.0 | 295 45.3 +02.2 | S 12 08.1 +00.0 | 12 | | | | | | | | | | | | | |
| 13 | 26 23.2 +00.4 | S 23 32.5 +00.2 | 252 00.3 +02.6 | N 12 15.6 +00.0 | 310 47.5 +02.3 | S 12 08.1 -00.1 | 13 | | | | | | | | | | | | | |
| 14 | 41 23.6 +00.5 | S 23 32.7 +00.2 | 267 02.9 +02.5 | N 12 15.6 +00.0 | 325 49.8 +02.3 | S 12 08.0 -00.1 | 14 | | | | | | | | | | | | | |
| 15 | 56 24.1 +00.5 | S 23 32.9 +00.1 | 282 05.4 +02.5 | N 12 15.6 +00.0 | 340 52.1 +02.3 | S 12 07.9 -00.1 | 15 | | | | | | | | | | | | | |
| 16 | 71 24.6 +00.4 | S 23 33.0 +00.2 | 297 07.9 +02.6 | N 12 15.6 +00.0 | 355 54.4 +02.3 | S 12 07.8 +00.0 | 16 | | | | | | | | | | | | | |
| 17 | 86 25.0 +00.5 | S 23 33.2 +00.1 | 312 10.5 +02.5 | N 12 15.6 -00.1 | 10 56.7 +02.2 | S 12 07.8 -00.1 | 17 | | | | | | | | | | | | | |
| 18 | 101 25.5 +00.5 | S 23 33.3 +00.2 | 327 13.0 +02.5 | N 12 15.5 +00.0 | 25 58.9 +02.3 | S 12 07.7 -00.1 | 18 | | | | | | | | | | | | | |
| 19 | 116 26.0 +00.4 | S 23 33.5 +00.1 | 342 15.5 +02.6 | N 12 15.5 +00.0 | 41 01.2 +02.3 | S 12 07.6 +00.0 | 19 | | | | | | | | | | | | | |
| 20 | 131 26.4 +00.5 | S 23 33.6 +00.2 | 357 18.1 +02.5 | N 12 15.5 +00.0 | 56 03.5 +02.3 | S 12 07.6 -00.1 | 20 | | | | | | | | | | | | | |
| 21 | 146 26.9 +00.5 | S 23 33.8 +00.2 | 12 20.6 +02.6 | N 12 15.5 +00.0 | 71 05.8 +02.3 | S 12 07.5 -00.1 | 21 | | | | | | | | | | | | | |
| 22 | 161 27.4 +00.4 | S 23 34.0 +00.1 | 27 23.2 +02.5 | N 12 15.5 +00.0 | 86 08.1 +02.3 | S 12 07.4 -00.1 | 22 | | | | | | | | | | | | | |
| 23 | 176 27.8 +00.5 | S 23 34.1 +00.2 | 42 25.7 +02.5 | N 12 15.5 +00.0 | 101 10.4 +02.2 | S 12 07.3 +00.0 | 23 | | | | | | | | | | | | | |
| 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 | 00'1 | 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 | | | | | | | |
| SHA | 101° | 101° | 101° | 101° | 100° | 100° | SHA | 326° | 326° | 326° | 326° | 326° | 326° | | | | | | | |
| Greenwich Culmination Time: 11:14 | | | | | | | Greenwich Culmination Time: 20:10 | | | | | | | Greenwich Culmination Time: 16:16 | | | | | | |

| UT | <i>Sun</i> | | | | <i>Venus</i> | | | | <i>Moon</i> A: 37% | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|----------------|---------------|-----------------------------------|------|---|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 180 19.8 -00.3 | S | 23 26.1 +00.0 | 221 24.3 -00.6 | S | 16 06.1 +00.8 | 52 16.6 -30.2 | N | 17 01.9 +13.1 | 00 | | | |
| 01 | 195 19.5 -00.3 | S | 23 26.1 +00.0 | 236 23.7 -00.6 | S | 16 06.9 +00.8 | 66 46.4 -30.4 | N | 17 15.0 +13.0 | 01 | | | |
| 02 | 210 19.2 -00.3 | S | 23 26.1 +00.0 | 251 23.1 -00.5 | S | 16 07.7 +00.8 | 81 16.0 -30.3 | N | 17 28.0 +12.9 | 02 | | | |
| 03 | 225 18.9 -00.3 | S | 23 26.1 -00.1 | 266 22.6 -00.6 | S | 16 08.5 +00.9 | 95 45.7 -30.5 | N | 17 40.9 +12.8 | 03 | | | |
| 04 | 240 18.6 -00.3 | S | 23 26.0 +00.0 | 281 22.0 -00.5 | S | 16 09.4 +00.8 | 110 15.2 -30.4 | N | 17 53.7 +12.6 | 04 | | | |
| 05 | 255 18.3 -00.3 | S | 23 26.0 +00.0 | 296 21.5 -00.6 | S | 16 10.2 +00.8 | 124 44.8 -30.6 | N | 18 06.3 +12.6 | 05 | | | |
| 06 | 270 18.0 -00.4 | S | 23 26.0 +00.0 | 311 20.9 -00.5 | S | 16 11.0 +00.8 | 139 14.2 -30.6 | N | 18 18.9 +12.5 | 06 | | | |
| 07 | 285 17.6 -00.3 | S | 23 26.0 +00.0 | 326 20.4 -00.6 | S | 16 11.8 +00.8 | 153 43.6 -30.7 | N | 18 31.4 +12.4 | 07 | | | |
| 08 | 300 17.3 -00.3 | S | 23 26.0 -00.1 | 341 19.8 -00.6 | S | 16 12.6 +00.8 | 168 12.9 -30.7 | N | 18 43.8 +12.3 | 08 | | | |
| 09 | 315 17.0 -00.3 | S | 23 25.9 +00.0 | 356 19.2 -00.5 | S | 16 13.4 +00.8 | 182 42.2 -30.8 | N | 18 56.1 +12.2 | 09 | | | |
| 10 | 330 16.7 -00.3 | S | 23 25.9 +00.0 | 11 18.7 -00.6 | S | 16 14.2 +00.8 | 197 11.4 -30.9 | N | 19 08.3 +12.0 | 10 | | | |
| 11 | 345 16.4 -00.3 | S | 23 25.9 +00.0 | 26 18.1 -00.5 | S | 16 15.0 +00.8 | 211 40.5 -30.9 | N | 19 20.3 +12.0 | 11 | | | |
| 12 | 0 16.1 -00.3 | S | 23 25.9 -00.1 | 41 17.6 -00.6 | S | 16 15.8 +00.8 | 226 09.6 -31.0 | N | 19 32.3 +11.8 | 12 | | | |
| 13 | 15 15.8 -00.3 | S | 23 25.8 +00.0 | 56 17.0 -00.6 | S | 16 16.6 +00.9 | 240 38.6 -31.1 | N | 19 44.1 +11.8 | 13 | | | |
| 14 | 30 15.5 -00.3 | S | 23 25.8 +00.0 | 71 16.4 -00.5 | S | 16 17.5 +00.8 | 255 07.5 -31.1 | N | 19 55.9 +11.6 | 14 | | | |
| 15 | 45 15.2 -00.3 | S | 23 25.8 -00.1 | 86 15.9 -00.6 | S | 16 18.3 +00.8 | 269 36.4 -31.2 | N | 20 07.5 +11.5 | 15 | | | |
| 16 | 60 14.9 -00.4 | S | 23 25.7 +00.0 | 101 15.3 -00.5 | S | 16 19.1 +00.8 | 284 05.2 -31.3 | N | 20 19.0 +11.4 | 16 | | | |
| 17 | 75 14.5 -00.3 | S | 23 25.7 +00.0 | 116 14.8 -00.6 | S | 16 19.9 +00.8 | 298 33.9 -31.3 | N | 20 30.4 +11.3 | 17 | | | |
| 18 | 90 14.2 -00.3 | S | 23 25.7 +00.0 | 131 14.2 -00.6 | S | 16 20.7 +00.8 | 313 02.6 -31.4 | N | 20 41.7 +11.2 | 18 | | | |
| 19 | 105 13.9 -00.3 | S | 23 25.7 -00.1 | 146 13.6 -00.5 | S | 16 21.5 +00.8 | 327 31.2 -31.4 | N | 20 52.9 +11.0 | 19 | | | |
| 20 | 120 13.6 -00.3 | S | 23 25.6 +00.0 | 161 13.1 -00.6 | S | 16 22.3 +00.8 | 341 59.8 -31.5 | N | 21 03.9 +10.9 | 20 | | | |
| 21 | 135 13.3 -00.3 | S | 23 25.6 +00.0 | 176 12.5 -00.6 | S | 16 23.1 +00.8 | 356 28.3 -31.6 | N | 21 14.8 +10.8 | 21 | | | |
| 22 | 150 13.0 -00.3 | S | 23 25.6 -00.1 | 191 11.9 -00.5 | S | 16 23.9 +00.8 | 10 56.7 -31.6 | N | 21 25.6 +10.7 | 22 | | | |
| 23 | 165 12.7 -00.3 | S | 23 25.5 +00.0 | 206 11.4 -00.6 | S | 16 24.7 +00.8 | 25 25.1 -31.7 | N | 21 36.3 +10.6 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'3 16'3 16'3 16'3 16'3 16'3 | | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | | SD 15'8 15'7 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 57'8 57'8 57'7 57'6 57'5 57'5 | | | | | | |
| | SHA 089° 089° 089° 088° 088° 088° | | | SHA 130° 130° 130° 129° 129° 129° | | | SHA 320° 318° 315° 313° 311° 309° | | | | | | |
| | Greenwich Culmination Time: 11:58 | | | Greenwich Culmination Time: 09:14 | | | Greenwich Culmination Time: 21:14 | | | | | | |
| UT | <i>Mars</i> | | | | <i>Jupiter</i> | | | | <i>Saturn</i> | | | | UT |
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 191 28.3 +00.5 | S | 23 34.3 +00.1 | 57 28.2 +02.6 | N | 12 15.5 +00.0 | 116 12.6 +02.3 | S | 12 07.3 -00.1 | 00 | | | |
| 01 | 206 28.8 +00.4 | S | 23 34.4 +00.2 | 72 30.8 +02.5 | N | 12 15.5 +00.0 | 131 14.9 +02.3 | S | 12 07.2 -00.1 | 01 | | | |
| 02 | 221 29.2 +00.5 | S | 23 34.6 +00.1 | 87 33.3 +02.5 | N | 12 15.5 -00.1 | 146 17.2 +02.3 | S | 12 07.1 -00.1 | 02 | | | |
| 03 | 236 29.7 +00.5 | S | 23 34.7 +00.2 | 102 35.8 +02.6 | N | 12 15.4 +00.0 | 161 19.5 +02.3 | S | 12 07.0 +00.0 | 03 | | | |
| 04 | 251 30.2 +00.4 | S | 23 34.9 +00.1 | 117 38.4 +02.5 | N | 12 15.4 +00.0 | 176 21.8 +02.2 | S | 12 07.0 -00.1 | 04 | | | |
| 05 | 266 30.6 +00.5 | S | 23 35.0 +00.2 | 132 40.9 +02.5 | N | 12 15.4 +00.0 | 191 24.0 +02.3 | S | 12 06.9 -00.1 | 05 | | | |
| 06 | 281 31.1 +00.5 | S | 23 35.2 +00.1 | 147 43.4 +02.6 | N | 12 15.4 +00.0 | 206 26.3 +02.3 | S | 12 06.8 -00.1 | 06 | | | |
| 07 | 296 31.6 +00.4 | S | 23 35.3 +00.2 | 162 46.0 +02.5 | N | 12 15.4 +00.0 | 221 28.6 +02.3 | S | 12 06.7 +00.0 | 07 | | | |
| 08 | 311 32.0 +00.5 | S | 23 35.5 +00.1 | 177 48.5 +02.5 | N | 12 15.4 +00.0 | 236 30.9 +02.3 | S | 12 06.7 -00.1 | 08 | | | |
| 09 | 326 32.5 +00.5 | S | 23 35.6 +00.2 | 192 51.0 +02.6 | N | 12 15.4 +00.0 | 251 33.2 +02.2 | S | 12 06.6 -00.1 | 09 | | | |
| 10 | 341 33.0 +00.4 | S | 23 35.8 +00.1 | 207 53.6 +02.5 | N | 12 15.4 +00.0 | 266 35.4 +02.3 | S | 12 06.5 -00.1 | 10 | | | |
| 11 | 356 33.4 +00.5 | S | 23 35.9 +00.2 | 222 56.1 +02.5 | N | 12 15.4 -00.1 | 281 37.7 +02.3 | S | 12 06.4 +00.0 | 11 | | | |
| 12 | 11 33.9 +00.5 | S | 23 36.1 +00.1 | 237 58.6 +02.6 | N | 12 15.3 +00.0 | 296 40.0 +02.3 | S | 12 06.4 -00.1 | 12 | | | |
| 13 | 26 34.4 +00.4 | S | 23 36.2 +00.2 | 253 01.2 +02.5 | N | 12 15.3 +00.0 | 311 42.3 +02.2 | S | 12 06.3 -00.1 | 13 | | | |
| 14 | 41 34.8 +00.5 | S | 23 36.4 +00.1 | 268 03.7 +02.5 | N | 12 15.3 +00.0 | 326 44.5 +02.3 | S | 12 06.2 +00.0 | 14 | | | |
| 15 | 56 35.3 +00.5 | S | 23 36.5 +00.2 | 283 06.2 +02.6 | N | 12 15.3 +00.0 | 341 46.8 +02.3 | S | 12 06.2 -00.1 | 15 | | | |
| 16 | 71 35.8 +00.4 | S | 23 36.7 +00.1 | 298 08.8 +02.5 | N | 12 15.3 +00.0 | 356 49.1 +02.3 | S | 12 06.1 -00.1 | 16 | | | |
| 17 | 86 36.2 +00.5 | S | 23 36.8 +00.2 | 313 11.3 +02.5 | N | 12 15.3 +00.0 | 11 51.4 +02.3 | S | 12 06.0 -00.1 | 17 | | | |
| 18 | 101 36.7 +00.5 | S | 23 37.0 +00.1 | 328 13.8 +02.6 | N | 12 15.3 +00.0 | 26 53.7 +02.2 | S | 12 05.9 +00.0 | 18 | | | |
| 19 | 116 37.2 +00.4 | S | 23 37.1 +00.2 | 343 16.4 +02.5 | N | 12 15.3 +00.0 | 41 55.9 +02.3 | S | 12 05.9 -00.1 | 19 | | | |
| 20 | 131 37.6 +00.5 | S | 23 37.3 +00.1 | 358 18.9 +02.5 | N | 12 15.3 +00.0 | 56 58.2 +02.3 | S | 12 05.8 -00.1 | 20 | | | |
| 21 | 146 38.1 +00.5 | S | 23 37.4 +00.1 | 13 21.4 +02.5 | N | 12 15.3 +00.0 | 72 00.5 +02.3 | S | 12 05.7 -00.1 | 21 | | | |
| 22 | 161 38.6 +00.4 | S | 23 37.5 +00.2 | 28 23.9 +02.6 | N | 12 15.3 -00.1 | 87 02.8 +02.2 | S | 12 05.6 +00.0 | 22 | | | |
| 23 | 176 39.0 +00.5 | S | 23 37.7 +00.1 | 43 26.5 +02.5 | N | 12 15.2 +00.0 | 102 05.0 +02.3 | S | 12 05.6 -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 00'1 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 100° 100° 100° 100° 100° 099° | | | SHA 326° 326° 326° 326° 326° 326° | | | SHA 025° 025° 025° 025° 025° 025° | | | | | | |
| | Greenwich Culmination Time: 11:13 | | | Greenwich Culmination Time: 20:06 | | | Greenwich Culmination Time: 16:12 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 180 12.4 -00.3 | S 23 25.5 -00.1 | 221 10.8 -00.6 | S 16 25.5 +00.8 | 39 53.4 -31.8 | N 21 46.9 +10.4 | 00 | | | | | | |
| 01 | 195 12.1 -00.3 | S 23 25.4 +00.0 | 236 10.2 -00.5 | S 16 26.3 +00.8 | 54 21.6 -31.8 | N 21 57.3 +10.4 | 01 | | | | | | |
| 02 | 210 11.8 -00.4 | S 23 25.4 +00.0 | 251 09.7 -00.6 | S 16 27.1 +00.8 | 68 49.8 -31.9 | N 22 07.7 +10.1 | 02 | | | | | | |
| 03 | 225 11.4 -00.3 | S 23 25.4 -00.1 | 266 09.1 -00.6 | S 16 27.9 +00.8 | 83 17.9 -31.9 | N 22 17.8 +10.1 | 03 | | | | | | |
| 04 | 240 11.1 -00.3 | S 23 25.3 +00.0 | 281 08.5 -00.5 | S 16 28.7 +00.8 | 97 46.0 -32.0 | N 22 27.9 +09.9 | 04 | | | | | | |
| 05 | 255 10.8 -00.3 | S 23 25.3 -00.1 | 296 08.0 -00.6 | S 16 29.5 +00.8 | 112 14.0 -32.1 | N 22 37.8 +09.9 | 05 | | | | | | |
| 06 | 270 10.5 -00.3 | S 23 25.2 +00.0 | 311 07.4 -00.6 | S 16 30.3 +00.8 | 126 41.9 -32.2 | N 22 47.7 +09.6 | 06 | | | | | | |
| 07 | 285 10.2 -00.3 | S 23 25.2 +00.0 | 326 06.8 -00.6 | S 16 31.1 +00.8 | 141 09.7 -32.2 | N 22 57.3 +09.6 | 07 | | | | | | |
| 08 | 300 09.9 -00.3 | S 23 25.2 -00.1 | 341 06.2 -00.5 | S 16 31.9 +00.8 | 155 37.5 -32.2 | N 23 06.9 +09.4 | 08 | | | | | | |
| 09 | 315 09.6 -00.3 | S 23 25.1 +00.0 | 356 05.7 -00.6 | S 16 32.7 +00.8 | 170 05.3 -32.3 | N 23 16.3 +09.3 | 09 | | | | | | |
| 10 | 330 09.3 -00.3 | S 23 25.1 -00.1 | 11 05.1 -00.6 | S 16 33.5 +00.7 | 184 33.0 -32.4 | N 23 25.6 +09.1 | 10 | | | | | | |
| 11 | 345 09.0 -00.3 | S 23 25.0 +00.0 | 26 04.5 -00.5 | S 16 34.2 +00.8 | 199 00.6 -32.5 | N 23 34.7 +09.0 | 11 | | | | | | |
| 12 | 0 08.7 -00.4 | S 23 25.0 -00.1 | 41 04.0 -00.6 | S 16 35.0 +00.8 | 213 28.1 -32.5 | N 23 43.7 +08.9 | 12 | | | | | | |
| 13 | 15 08.3 -00.3 | S 23 24.9 +00.0 | 56 03.4 -00.6 | S 16 35.8 +00.8 | 227 55.6 -32.5 | N 23 52.6 +08.7 | 13 | | | | | | |
| 14 | 30 08.0 -00.3 | S 23 24.9 -00.1 | 71 02.8 -00.6 | S 16 36.6 +00.8 | 242 23.1 -32.6 | N 24 01.3 +08.6 | 14 | | | | | | |
| 15 | 45 07.7 -00.3 | S 23 24.8 +00.0 | 86 02.2 -00.5 | S 16 37.4 +00.8 | 256 50.5 -32.7 | N 24 09.9 +08.5 | 15 | | | | | | |
| 16 | 60 07.4 -00.3 | S 23 24.8 -00.1 | 101 01.7 -00.6 | S 16 38.2 +00.8 | 271 17.8 -32.7 | N 24 18.4 +08.3 | 16 | | | | | | |
| 17 | 75 07.1 -00.3 | S 23 24.7 +00.0 | 116 01.1 -00.6 | S 16 39.0 +00.8 | 285 45.1 -32.8 | N 24 26.7 +08.2 | 17 | | | | | | |
| 18 | 90 06.8 -00.3 | S 23 24.7 -00.1 | 131 00.5 -00.6 | S 16 39.8 +00.8 | 300 12.3 -32.8 | N 24 34.9 +08.0 | 18 | | | | | | |
| 19 | 105 06.5 -00.3 | S 23 24.6 +00.0 | 145 59.9 -00.6 | S 16 40.6 +00.8 | 314 39.5 -32.9 | N 24 42.9 +07.9 | 19 | | | | | | |
| 20 | 120 06.2 -00.3 | S 23 24.6 -00.1 | 160 59.3 -00.5 | S 16 41.4 +00.7 | 329 06.6 -32.9 | N 24 50.8 +07.7 | 20 | | | | | | |
| 21 | 135 05.9 -00.3 | S 23 24.5 +00.0 | 175 58.8 -00.6 | S 16 42.1 +00.8 | 343 33.7 -33.0 | N 24 58.5 +07.6 | 21 | | | | | | |
| 22 | 150 05.6 -00.4 | S 23 24.5 -00.1 | 190 58.2 -00.6 | S 16 42.9 +00.8 | 358 00.7 -33.1 | N 25 06.1 +07.5 | 22 | | | | | | |
| 23 | 165 05.2 -00.3 | S 23 24.4 +00.0 | 205 57.6 -00.6 | S 16 43.7 +00.8 | 12 27.6 -33.1 | N 25 13.6 +07.3 | 23 | | | | | | |
| | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | | | | | | | |
| | SD 16'3 16'3 16'3 16'3 16'3 16'3 | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | SD 15'6 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 57'2 57'1 57'0 | | | | | | | | |
| | SHA 088° 088° 087° 087° 087° 087° | | SHA 129° 129° 128° 128° 128° 128° | | SHA 306° 304° 302° 300° 297° 295° | | | | | | | | |
| | Greenwich Culmination Time: 11:59 | | Greenwich Culmination Time: 09:15 | | Greenwich Culmination Time: 22:08 | | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 191 39.5 +00.4 | S 23 37.8 +00.2 | 58 29.0 +02.5 | N 12 15.2 +00.0 | 117 07.3 +02.3 | S 12 05.5 -00.1 | 00 | | | | | | |
| 01 | 206 39.9 +00.5 | S 23 38.0 +00.1 | 73 31.5 +02.6 | N 12 15.2 +00.0 | 132 09.6 +02.3 | S 12 05.4 -00.1 | 01 | | | | | | |
| 02 | 221 40.4 +00.5 | S 23 38.1 +00.2 | 88 34.1 +02.5 | N 12 15.2 +00.0 | 147 11.9 +02.3 | S 12 05.3 +00.0 | 02 | | | | | | |
| 03 | 236 40.9 +00.4 | S 23 38.3 +00.1 | 103 36.6 +02.5 | N 12 15.2 +00.0 | 162 14.2 +02.2 | S 12 05.3 -00.1 | 03 | | | | | | |
| 04 | 251 41.3 +00.5 | S 23 38.4 +00.1 | 118 39.1 +02.5 | N 12 15.2 +00.0 | 177 16.4 +02.3 | S 12 05.2 -00.1 | 04 | | | | | | |
| 05 | 266 41.8 +00.5 | S 23 38.5 +00.2 | 133 41.6 +02.6 | N 12 15.2 +00.0 | 192 18.7 +02.3 | S 12 05.1 -00.1 | 05 | | | | | | |
| 06 | 281 42.3 +00.4 | S 23 38.7 +00.1 | 148 44.2 +02.5 | N 12 15.2 +00.0 | 207 21.0 +02.3 | S 12 05.0 +00.0 | 06 | | | | | | |
| 07 | 296 42.7 +00.5 | S 23 38.8 +00.2 | 163 46.7 +02.5 | N 12 15.2 +00.0 | 222 23.3 +02.2 | S 12 05.0 -00.1 | 07 | | | | | | |
| 08 | 311 43.2 +00.5 | S 23 39.0 +00.1 | 178 49.2 +02.5 | N 12 15.2 +00.0 | 237 25.5 +02.3 | S 12 04.9 -00.1 | 08 | | | | | | |
| 09 | 326 43.7 +00.4 | S 23 39.1 +00.2 | 193 51.7 +02.6 | N 12 15.2 +00.0 | 252 27.8 +02.3 | S 12 04.8 -00.1 | 09 | | | | | | |
| 10 | 341 44.1 +00.5 | S 23 39.3 +00.1 | 208 54.3 +02.5 | N 12 15.2 +00.0 | 267 30.1 +02.3 | S 12 04.7 +00.0 | 10 | | | | | | |
| 11 | 356 44.6 +00.4 | S 23 39.4 +00.1 | 223 56.8 +02.5 | N 12 15.2 -00.1 | 282 32.4 +02.2 | S 12 04.7 -00.1 | 11 | | | | | | |
| 12 | 11 45.0 +00.5 | S 23 39.5 +00.2 | 238 59.3 +02.5 | N 12 15.1 +00.0 | 297 34.6 +02.3 | S 12 04.6 -00.1 | 12 | | | | | | |
| 13 | 26 45.5 +00.5 | S 23 39.7 +00.1 | 254 01.8 +02.6 | N 12 15.1 +00.0 | 312 36.9 +02.3 | S 12 04.5 -00.1 | 13 | | | | | | |
| 14 | 41 46.0 +00.4 | S 23 39.8 +00.1 | 269 04.4 +02.5 | N 12 15.1 +00.0 | 327 39.2 +02.3 | S 12 04.4 +00.0 | 14 | | | | | | |
| 15 | 56 46.4 +00.5 | S 23 39.9 +00.2 | 284 06.9 +02.5 | N 12 15.1 +00.0 | 342 41.5 +02.3 | S 12 04.4 -00.1 | 15 | | | | | | |
| 16 | 71 46.9 +00.4 | S 23 40.1 +00.1 | 299 09.4 +02.5 | N 12 15.1 +00.0 | 357 43.8 +02.2 | S 12 04.3 -00.1 | 16 | | | | | | |
| 17 | 86 47.3 +00.5 | S 23 40.2 +00.2 | 314 11.9 +02.5 | N 12 15.1 +00.0 | 12 46.0 +02.3 | S 12 04.2 -00.1 | 17 | | | | | | |
| 18 | 101 47.8 +00.5 | S 23 40.4 +00.1 | 329 14.4 +02.6 | N 12 15.1 +00.0 | 27 48.3 +02.3 | S 12 04.1 +00.0 | 18 | | | | | | |
| 19 | 116 48.3 +00.4 | S 23 40.5 +00.1 | 344 17.0 +02.5 | N 12 15.1 +00.0 | 42 50.6 +02.3 | S 12 04.1 -00.1 | 19 | | | | | | |
| 20 | 131 48.7 +00.5 | S 23 40.6 +00.2 | 359 19.5 +02.5 | N 12 15.1 +00.0 | 57 52.9 +02.2 | S 12 04.0 -00.1 | 20 | | | | | | |
| 21 | 146 49.2 +00.4 | S 23 40.8 +00.1 | 14 22.0 +02.5 | N 12 15.1 +00.0 | 72 55.1 +02.3 | S 12 03.9 -00.1 | 21 | | | | | | |
| 22 | 161 49.6 +00.5 | S 23 40.9 +00.1 | 29 24.5 +02.6 | N 12 15.1 +00.0 | 87 57.4 +02.3 | S 12 03.8 +00.0 | 22 | | | | | | |
| 23 | 176 50.1 +00.5 | S 23 41.0 +00.2 | 44 27.1 +02.5 | N 12 15.1 +00.0 | 102 59.7 +02.3 | S 12 03.8 -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 00'1 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 099° 099° 099° 099° 099° 099° | | SHA 326° 326° 326° 326° 326° 326° | | SHA 025° 025° 025° 025° 025° 025° | | | | | | | | |
| | Greenwich Culmination Time: 11:13 | | Greenwich Culmination Time: 20:02 | | Greenwich Culmination Time: 16:09 | | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 180 04.9 -00.3 | S 23 24.4 -00.1 | 220 57.0 -00.6 | S 16 44.5 +00.8 | 26 54.5 -33.1 | N 25 20.9 +07.1 | 00 | | | | | | |
| 01 | 195 04.6 -00.3 | S 23 24.3 +00.0 | 235 56.4 -00.5 | S 16 45.3 +00.8 | 41 21.4 -33.2 | N 25 28.0 +07.0 | 01 | | | | | | |
| 02 | 210 04.3 -00.3 | S 23 24.3 -00.1 | 250 55.9 -00.6 | S 16 46.1 +00.7 | 55 48.2 -33.2 | N 25 35.0 +06.9 | 02 | | | | | | |
| 03 | 225 04.0 -00.3 | S 23 24.2 -00.1 | 265 55.3 -00.6 | S 16 46.8 +00.8 | 70 15.0 -33.3 | N 25 41.9 +06.7 | 03 | | | | | | |
| 04 | 240 03.7 -00.3 | S 23 24.1 +00.0 | 280 54.7 -00.6 | S 16 47.6 +00.8 | 84 41.7 -33.3 | N 25 48.6 +06.6 | 04 | | | | | | |
| 05 | 255 03.4 -00.3 | S 23 24.1 -00.1 | 295 54.1 -00.6 | S 16 48.4 +00.8 | 99 08.4 -33.4 | N 25 55.2 +06.4 | 05 | | | | | | |
| 06 | 270 03.1 -00.3 | S 23 24.0 +00.0 | 310 53.5 -00.5 | S 16 49.2 +00.8 | 113 35.0 -33.4 | N 26 01.6 +06.2 | 06 | | | | | | |
| 07 | 285 02.8 -00.3 | S 23 24.0 -00.1 | 325 53.0 -00.6 | S 16 50.0 +00.7 | 128 01.6 -33.4 | N 26 07.8 +06.2 | 07 | | | | | | |
| 08 | 300 02.5 -00.3 | S 23 23.9 -00.1 | 340 52.4 -00.6 | S 16 50.7 +00.8 | 142 28.2 -33.5 | N 26 14.0 +05.9 | 08 | | | | | | |
| 09 | 315 02.2 -00.4 | S 23 23.8 +00.0 | 355 51.8 -00.6 | S 16 51.5 +00.8 | 156 54.7 -33.5 | N 26 19.9 +05.8 | 09 | | | | | | |
| 10 | 330 01.8 -00.3 | S 23 23.8 -00.1 | 10 51.2 -00.6 | S 16 52.3 +00.8 | 171 21.2 -33.5 | N 26 25.7 +05.6 | 10 | | | | | | |
| 11 | 345 01.5 -00.3 | S 23 23.7 -00.1 | 25 50.6 -00.6 | S 16 53.1 +00.8 | 185 47.7 -33.6 | N 26 31.3 +05.5 | 11 | | | | | | |
| 12 | 0 01.2 -00.3 | S 23 23.6 +00.0 | 40 50.0 -00.6 | S 16 53.9 +00.7 | 200 14.1 -33.6 | N 26 36.8 +05.4 | 12 | | | | | | |
| 13 | 15 00.9 -00.3 | S 23 23.6 -00.1 | 55 49.4 -00.5 | S 16 54.6 +00.8 | 214 40.5 -33.7 | N 26 42.2 +05.1 | 13 | | | | | | |
| 14 | 30 00.6 -00.3 | S 23 23.5 -00.1 | 70 48.9 -00.6 | S 16 55.4 +00.8 | 229 06.8 -33.7 | N 26 47.3 +05.1 | 14 | | | | | | |
| 15 | 45 00.3 -00.3 | S 23 23.4 +00.0 | 85 48.3 -00.6 | S 16 56.2 +00.8 | 243 33.1 -33.7 | N 26 52.4 +04.8 | 15 | | | | | | |
| 16 | 59 60.0 -00.3 | S 23 23.4 -00.1 | 100 47.7 -00.6 | S 16 57.0 +00.7 | 257 59.4 -33.7 | N 26 57.2 +04.7 | 16 | | | | | | |
| 17 | 74 59.7 -00.3 | S 23 23.3 -00.1 | 115 47.1 -00.6 | S 16 57.7 +00.8 | 272 25.7 -33.7 | N 27 01.9 +04.6 | 17 | | | | | | |
| 18 | 89 59.4 -00.3 | S 23 23.2 +00.0 | 130 46.5 -00.6 | S 16 58.5 +00.8 | 286 52.0 -33.8 | N 27 06.5 +04.4 | 18 | | | | | | |
| 19 | 104 59.1 -00.3 | S 23 23.2 -00.1 | 145 45.9 -00.6 | S 16 59.3 +00.7 | 301 18.2 -33.8 | N 27 10.9 +04.2 | 19 | | | | | | |
| 20 | 119 58.8 -00.4 | S 23 23.1 -00.1 | 160 45.3 -00.6 | S 17 00.0 +00.8 | 315 44.4 -33.8 | N 27 15.1 +04.1 | 20 | | | | | | |
| 21 | 134 58.4 -00.3 | S 23 23.0 -00.1 | 175 44.7 -00.6 | S 17 00.8 +00.8 | 330 10.6 -33.9 | N 27 19.2 +03.9 | 21 | | | | | | |
| 22 | 149 58.1 -00.3 | S 23 22.9 +00.0 | 190 44.1 -00.6 | S 17 01.6 +00.8 | 344 36.7 -33.8 | N 27 23.1 +03.7 | 22 | | | | | | |
| 23 | 164 57.8 -00.3 | S 23 22.9 -00.1 | 205 43.5 -00.5 | S 17 02.4 +00.7 | 359 02.9 -33.9 | N 27 26.8 +03.6 | 23 | | | | | | |
| | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | | | | | | | |
| | SD 16'3 16'3 16'3 16'3 16'3 16'3 | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | SD 15'5 15'5 15'5 15'4 15'4 15'4 | | | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | HP 56'9 56'8 56'7 56'7 56'6 56'5 | | | | | | | | |
| | SHA 087° 087° 086° 086° 086° 086° | | SHA 128° 127° 127° 127° 127° 127° | | SHA 292° 290° 288° 285° 283° 280° | | | | | | | | |
| | Greenwich Culmination Time: 11:59 | | Greenwich Culmination Time: 09:16 | | Greenwich Culmination Time: 23:03 | | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 191 50.6 +00.4 | S 23 41.2 +00.1 | 59 29.6 +02.5 | N 12 15.1 +00.0 | 118 02.0 +02.2 | S 12 03.7 -00.1 | 00 | | | | | | |
| 01 | 206 51.0 +00.5 | S 23 41.3 +00.1 | 74 32.1 +02.5 | N 12 15.1 +00.0 | 133 04.2 +02.3 | S 12 03.6 -00.1 | 01 | | | | | | |
| 02 | 221 51.5 +00.4 | S 23 41.4 +00.2 | 89 34.6 +02.5 | N 12 15.1 +00.0 | 148 06.5 +02.3 | S 12 03.5 +00.0 | 02 | | | | | | |
| 03 | 236 51.9 +00.5 | S 23 41.6 +00.1 | 104 37.1 +02.5 | N 12 15.1 -00.1 | 163 08.8 +02.2 | S 12 03.5 -00.1 | 03 | | | | | | |
| 04 | 251 52.4 +00.5 | S 23 41.7 +00.1 | 119 39.6 +02.6 | N 12 15.0 +00.0 | 178 11.0 +02.3 | S 12 03.4 -00.1 | 04 | | | | | | |
| 05 | 266 52.9 +00.4 | S 23 41.8 +00.2 | 134 42.2 +02.5 | N 12 15.0 +00.0 | 193 13.3 +02.3 | S 12 03.3 -00.1 | 05 | | | | | | |
| 06 | 281 53.3 +00.5 | S 23 42.0 +00.1 | 149 44.7 +02.5 | N 12 15.0 +00.0 | 208 15.6 +02.3 | S 12 03.2 +00.0 | 06 | | | | | | |
| 07 | 296 53.8 +00.4 | S 23 42.1 +00.1 | 164 47.2 +02.5 | N 12 15.0 +00.0 | 223 17.9 +02.2 | S 12 03.2 -00.1 | 07 | | | | | | |
| 08 | 311 54.2 +00.5 | S 23 42.2 +00.2 | 179 49.7 +02.5 | N 12 15.0 +00.0 | 238 20.1 +02.3 | S 12 03.1 -00.1 | 08 | | | | | | |
| 09 | 326 54.7 +00.5 | S 23 42.4 +00.1 | 194 52.2 +02.6 | N 12 15.0 +00.0 | 253 22.4 +02.3 | S 12 03.0 -00.1 | 09 | | | | | | |
| 10 | 341 55.2 +00.4 | S 23 42.5 +00.1 | 209 54.8 +02.5 | N 12 15.0 +00.0 | 268 24.7 +02.3 | S 12 02.9 -00.1 | 10 | | | | | | |
| 11 | 356 55.6 +00.5 | S 23 42.6 +00.1 | 224 57.3 +02.5 | N 12 15.0 +00.0 | 283 27.0 +02.2 | S 12 02.8 +00.0 | 11 | | | | | | |
| 12 | 11 56.1 +00.4 | S 23 42.7 +00.2 | 239 59.8 +02.5 | N 12 15.0 +00.0 | 298 29.2 +02.3 | S 12 02.8 -00.1 | 12 | | | | | | |
| 13 | 26 56.5 +00.5 | S 23 42.9 +00.1 | 255 02.3 +02.5 | N 12 15.0 +00.0 | 313 31.5 +02.3 | S 12 02.7 -00.1 | 13 | | | | | | |
| 14 | 41 57.0 +00.4 | S 23 43.0 +00.1 | 270 04.8 +02.5 | N 12 15.0 +00.0 | 328 33.8 +02.3 | S 12 02.6 -00.1 | 14 | | | | | | |
| 15 | 56 57.4 +00.5 | S 23 43.1 +00.2 | 285 07.3 +02.5 | N 12 15.0 +00.0 | 343 36.1 +02.2 | S 12 02.5 +00.0 | 15 | | | | | | |
| 16 | 71 57.9 +00.5 | S 23 43.3 +00.1 | 300 09.8 +02.6 | N 12 15.0 +00.0 | 358 38.3 +02.3 | S 12 02.5 -00.1 | 16 | | | | | | |
| 17 | 86 58.4 +00.4 | S 23 43.4 +00.1 | 315 12.4 +02.5 | N 12 15.0 +00.0 | 13 40.6 +02.3 | S 12 02.4 -00.1 | 17 | | | | | | |
| 18 | 101 58.8 +00.5 | S 23 43.5 +00.1 | 330 14.9 +02.5 | N 12 15.0 +00.0 | 28 42.9 +02.2 | S 12 02.3 -00.1 | 18 | | | | | | |
| 19 | 116 59.3 +00.4 | S 23 43.6 +00.2 | 345 17.4 +02.5 | N 12 15.0 +00.0 | 43 45.1 +02.3 | S 12 02.2 +00.0 | 19 | | | | | | |
| 20 | 131 59.7 +00.5 | S 23 43.8 +00.1 | 0 19.9 +02.5 | N 12 15.0 +00.0 | 58 47.4 +02.3 | S 12 02.2 -00.1 | 20 | | | | | | |
| 21 | 147 00.2 +00.4 | S 23 43.9 +00.1 | 15 22.4 +02.5 | N 12 15.0 +00.0 | 73 49.7 +02.3 | S 12 02.1 -00.1 | 21 | | | | | | |
| 22 | 162 00.6 +00.5 | S 23 44.0 +00.1 | 30 24.9 +02.5 | N 12 15.0 +00.0 | 88 52.0 +02.2 | S 12 02.0 -00.1 | 22 | | | | | | |
| 23 | 177 01.1 +00.5 | S 23 44.1 +00.2 | 45 27.4 +02.5 | N 12 15.0 +00.0 | 103 54.2 +02.3 | S 12 01.9 +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 099° 098° 098° 098° 098° 098° | | SHA 326° 326° 326° 326° 326° 326° | | SHA 025° 025° 025° 025° 025° 025° | | | | | | | | |
| | Greenwich Culmination Time: 11:12 | | Greenwich Culmination Time: 19:58 | | Greenwich Culmination Time: 16:05 | | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT | | | | | | | |
|-----------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------------------------|------|------|-------|------|------|------|-----------------------------------|--|--|--|--|--|--|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 179 57.5 -00.3 | S 23 22.8 -00.1 | 220 43.0 -00.6 | S 17 03.1 +00.8 | 13 29.0 -33.9 | N 27 30.4 +03.4 | 00 | | | | | | | | | | | | | |
| 01 | 194 57.2 -00.3 | S 23 22.7 -00.1 | 235 42.4 -00.6 | S 17 03.9 +00.8 | 27 55.1 -33.9 | N 27 33.8 +03.3 | 01 | | | | | | | | | | | | | |
| 02 | 209 56.9 -00.3 | S 23 22.6 +00.0 | 250 41.8 -00.6 | S 17 04.7 +00.7 | 42 21.2 -33.9 | N 27 37.1 +03.1 | 02 | | | | | | | | | | | | | |
| 03 | 224 56.6 -00.3 | S 23 22.6 -00.1 | 265 41.2 -00.6 | S 17 05.4 +00.8 | 56 47.3 -33.9 | N 27 40.2 +03.0 | 03 | | | | | | | | | | | | | |
| 04 | 239 56.3 -00.3 | S 23 22.5 -00.1 | 280 40.6 -00.6 | S 17 06.2 +00.8 | 71 13.4 -33.9 | N 27 43.2 +02.8 | 04 | | | | | | | | | | | | | |
| 05 | 254 56.0 -00.3 | S 23 22.4 -00.1 | 295 40.0 -00.6 | S 17 07.0 +00.7 | 85 39.5 -33.9 | N 27 46.0 +02.6 | 05 | | | | | | | | | | | | | |
| 06 | 269 55.7 -00.3 | S 23 22.3 -00.1 | 310 39.4 -00.6 | S 17 07.7 +00.8 | 100 05.6 -34.0 | N 27 48.6 +02.5 | 06 | | | | | | | | | | | | | |
| 07 | 284 55.4 -00.3 | S 23 22.2 +00.0 | 325 38.8 -00.6 | S 17 08.5 +00.7 | 114 31.6 -33.9 | N 27 51.1 +02.3 | 07 | | | | | | | | | | | | | |
| 08 | 299 55.1 -00.4 | S 23 22.2 -00.1 | 340 38.2 -00.6 | S 17 09.2 +00.8 | 128 57.7 -33.9 | N 27 53.4 +02.1 | 08 | | | | | | | | | | | | | |
| 09 | 314 54.7 -00.3 | S 23 22.1 -00.1 | 355 37.6 -00.6 | S 17 10.0 +00.8 | 143 23.8 -33.9 | N 27 55.5 +02.0 | 09 | | | | | | | | | | | | | |
| 10 | 329 54.4 -00.3 | S 23 22.0 -00.1 | 10 37.0 -00.6 | S 17 10.8 +00.7 | 157 49.9 -33.9 | N 27 57.5 +01.8 | 10 | | | | | | | | | | | | | |
| 11 | 344 54.1 -00.3 | S 23 21.9 -00.1 | 25 36.4 -00.6 | S 17 11.5 +00.8 | 172 16.0 -33.9 | N 27 59.3 +01.7 | 11 | | | | | | | | | | | | | |
| 12 | 359 53.8 -00.3 | S 23 21.8 -00.1 | 40 35.8 -00.6 | S 17 12.3 +00.8 | 186 42.1 -33.9 | N 28 01.0 +01.5 | 12 | | | | | | | | | | | | | |
| 13 | 14 53.5 -00.3 | S 23 21.7 +00.0 | 55 35.2 -00.6 | S 17 13.1 +00.7 | 201 08.2 -33.9 | N 28 02.5 +01.3 | 13 | | | | | | | | | | | | | |
| 14 | 29 53.2 -00.3 | S 23 21.7 -00.1 | 70 34.6 -00.6 | S 17 13.8 +00.8 | 215 34.3 -33.9 | N 28 03.8 +01.2 | 14 | | | | | | | | | | | | | |
| 15 | 44 52.9 -00.3 | S 23 21.6 -00.1 | 85 34.0 -00.6 | S 17 14.6 +00.7 | 230 00.4 -33.9 | N 28 05.0 +01.0 | 15 | | | | | | | | | | | | | |
| 16 | 59 52.6 -00.3 | S 23 21.5 -00.1 | 100 33.4 -00.6 | S 17 15.3 +00.8 | 244 26.5 -33.8 | N 28 06.0 +00.9 | 16 | | | | | | | | | | | | | |
| 17 | 74 52.3 -00.3 | S 23 21.4 -00.1 | 115 32.8 -00.6 | S 17 16.1 +00.7 | 258 52.7 -33.8 | N 28 06.9 +00.6 | 17 | | | | | | | | | | | | | |
| 18 | 89 52.0 -00.3 | S 23 21.3 -00.1 | 130 32.2 -00.6 | S 17 16.8 +00.8 | 273 18.9 -33.9 | N 28 07.5 +00.6 | 18 | | | | | | | | | | | | | |
| 19 | 104 51.7 -00.3 | S 23 21.2 -00.1 | 145 31.6 -00.6 | S 17 17.6 +00.7 | 287 45.0 -33.7 | N 28 08.1 +00.4 | 19 | | | | | | | | | | | | | |
| 20 | 119 51.4 -00.3 | S 23 21.1 -00.1 | 160 31.0 -00.6 | S 17 18.3 +00.8 | 302 11.3 -33.8 | N 28 08.5 +00.2 | 20 | | | | | | | | | | | | | |
| 21 | 134 51.1 -00.4 | S 23 21.0 -00.1 | 175 30.4 -00.6 | S 17 19.1 +00.8 | 316 37.5 -33.7 | N 28 08.7 +00.0 | 21 | | | | | | | | | | | | | |
| 22 | 149 50.7 -00.3 | S 23 20.9 -00.1 | 190 29.8 -00.6 | S 17 19.9 +00.7 | 331 03.8 -33.7 | N 28 08.7 -00.1 | 22 | | | | | | | | | | | | | |
| 23 | 164 50.4 -00.3 | S 23 20.8 -00.1 | 205 29.2 -00.6 | S 17 20.6 +00.8 | 345 30.1 -33.7 | N 28 08.6 -00.2 | 23 | | | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 16'3 | 16'3 | 16'3 | 16'3 | 16'3 | 16'3 | SD | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | SD | | | | | | |
| HP | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | HP | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | HP | | | | | | |
| SHA | 086° | 085° | 085° | 085° | 085° | 085° | SHA | 126° | 126° | 126° | 126° | 126° | 125° | SHA | | | | | | |
| Greenwich Culmination Time: 12:00 | | | | | | | Greenwich Culmination Time: 09:17 | | | | | | | Greenwich Culmination Time: -1:00 | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | | | | | | | |
|-----------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------------------------|------|--------|-------|------|------|------|-----------------------------------|--|--|--|--|--|--|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | | | | | | | | |
| 00 | 192 01.6 +00.4 | S 23 44.3 +00.1 | 60 29.9 +02.6 | N 12 15.0 +00.0 | 118 56.5 +02.3 | S 12 01.9 -00.1 | 00 | | | | | | | | | | | | | |
| 01 | 207 02.0 +00.5 | S 23 44.4 +00.1 | 75 32.5 +02.5 | N 12 15.0 +00.0 | 133 58.8 +02.2 | S 12 01.8 -00.1 | 01 | | | | | | | | | | | | | |
| 02 | 222 02.5 +00.4 | S 23 44.5 +00.1 | 90 35.0 +02.5 | N 12 15.0 +00.0 | 149 01.0 +02.3 | S 12 01.7 -00.1 | 02 | | | | | | | | | | | | | |
| 03 | 237 02.9 +00.5 | S 23 44.6 +00.2 | 105 37.5 +02.5 | N 12 15.0 +00.0 | 164 03.3 +02.3 | S 12 01.6 -00.1 | 03 | | | | | | | | | | | | | |
| 04 | 252 03.4 +00.4 | S 23 44.8 +00.1 | 120 40.0 +02.5 | N 12 15.0 +00.0 | 179 05.6 +02.3 | S 12 01.5 +00.0 | 04 | | | | | | | | | | | | | |
| 05 | 267 03.8 +00.5 | S 23 44.9 +00.1 | 135 42.5 +02.5 | N 12 15.0 +00.0 | 194 07.9 +02.2 | S 12 01.5 -00.1 | 05 | | | | | | | | | | | | | |
| 06 | 282 04.3 +00.4 | S 23 45.0 +00.1 | 150 45.0 +02.5 | N 12 15.0 +00.0 | 209 10.1 +02.3 | S 12 01.4 -00.1 | 06 | | | | | | | | | | | | | |
| 07 | 297 04.7 +00.5 | S 23 45.1 +00.1 | 165 47.5 +02.5 | N 12 15.0 +00.0 | 224 12.4 +02.3 | S 12 01.3 -00.1 | 07 | | | | | | | | | | | | | |
| 08 | 312 05.2 +00.5 | S 23 45.2 +00.2 | 180 50.0 +02.5 | N 12 15.0 +00.0 | 239 14.7 +02.2 | S 12 01.2 +00.0 | 08 | | | | | | | | | | | | | |
| 09 | 327 05.7 +00.4 | S 23 45.4 +00.1 | 195 52.5 +02.5 | N 12 15.0 +00.0 | 254 16.9 +02.3 | S 12 01.2 -00.1 | 09 | | | | | | | | | | | | | |
| 10 | 342 06.1 +00.5 | S 23 45.5 +00.1 | 210 55.0 +02.5 | N 12 15.0 -00.1 | 269 19.2 +02.3 | S 12 01.1 -00.1 | 10 | | | | | | | | | | | | | |
| 11 | 357 06.6 +00.4 | S 23 45.6 +00.1 | 225 57.5 +02.6 | N 12 14.9 +00.0 | 284 21.5 +02.3 | S 12 01.0 -00.1 | 11 | | | | | | | | | | | | | |
| 12 | 12 07.0 +00.5 | S 23 45.7 +00.1 | 241 00.1 +02.5 | N 12 14.9 +00.0 | 299 23.8 +02.2 | S 12 00.9 +00.0 | 12 | | | | | | | | | | | | | |
| 13 | 27 07.5 +00.4 | S 23 45.8 +00.2 | 256 02.6 +02.5 | N 12 14.9 +00.0 | 314 26.0 +02.3 | S 12 00.9 -00.1 | 13 | | | | | | | | | | | | | |
| 14 | 42 07.9 +00.5 | S 23 46.0 +00.1 | 271 05.1 +02.5 | N 12 14.9 +00.0 | 329 28.3 +02.3 | S 12 00.8 -00.1 | 14 | | | | | | | | | | | | | |
| 15 | 57 08.4 +00.4 | S 23 46.1 +00.1 | 286 07.6 +02.5 | N 12 14.9 +00.0 | 344 30.6 +02.2 | S 12 00.7 -00.1 | 15 | | | | | | | | | | | | | |
| 16 | 72 08.8 +00.5 | S 23 46.2 +00.1 | 301 10.1 +02.5 | N 12 14.9 +00.0 | 359 32.8 +02.3 | S 12 00.6 -00.1 | 16 | | | | | | | | | | | | | |
| 17 | 87 09.3 +00.4 | S 23 46.3 +00.1 | 316 12.6 +02.5 | N 12 14.9 +00.0 | 14 35.1 +02.3 | S 12 00.5 +00.0 | 17 | | | | | | | | | | | | | |
| 18 | 102 09.7 +00.5 | S 23 46.4 +00.1 | 331 15.1 +02.5 | N 12 14.9 +00.0 | 29 37.4 +02.2 | S 12 00.5 -00.1 | 18 | | | | | | | | | | | | | |
| 19 | 117 10.2 +00.5 | S 23 46.5 +00.2 | 346 17.6 +02.5 | N 12 14.9 +00.0 | 44 39.6 +02.3 | S 12 00.4 -00.1 | 19 | | | | | | | | | | | | | |
| 20 | 132 10.7 +00.4 | S 23 46.7 +00.1 | 1 20.1 +02.5 | N 12 14.9 +00.0 | 59 41.9 +02.3 | S 12 00.3 -00.1 | 20 | | | | | | | | | | | | | |
| 21 | 147 11.1 +00.5 | S 23 46.8 +00.1 | 16 22.6 +02.5 | N 12 14.9 +00.0 | 74 44.2 +02.2 | S 12 00.2 +00.0 | 21 | | | | | | | | | | | | | |
| 22 | 162 11.6 +00.4 | S 23 46.9 +00.1 | 31 25.1 +02.5 | N 12 14.9 +00.0 | 89 46.4 +02.3 | S 12 00.2 -00.1 | 22 | | | | | | | | | | | | | |
| 23 | 177 12.0 +00.5 | S 23 47.0 +00.1 | 46 27.6 +02.5 | N 12 14.9 +00.0 | 104 48.7 +02.3 | S 12 00.1 -00.1 | 23 | | | | | | | | | | | | | |
| UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | 02 | 06 | 10 | 14 | 18 | 22 | UT | | | | | | |
| SD | 00'0 | 00'0 | 00'0 | 00'0 | 00'0 | 00'0 | SD | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | SD | | | | | | |
| HP | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | 00'1 | HP | 00'0 | 00'0 | 00'0 | 00'0 | 00'0 | 00'0 | HP | | | | | | |
| SHA | 098° | 098° | 097° | 097° | 097° | 097° | SHA | 326° | 326° | 326° | 326° | 326° | 326° | SHA | | | | | | |
| Greenwich Culmination Time: 11:11 | | | | | | | Greenwich Culmination Time: 19:54 | | | | | | | Greenwich Culmination Time: 16:01 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon A: 51% | | | | UT | |
|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|--|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | | |
| 00 | 179 50.1 -00.3 | S 23 20.7 -00.1 | 220 28.6 -00.6 | S 17 21.4 +00.7 | 359 56.4 -33.7 | N 28 08.4 -00.5 | 00 | | | | | | | |
| 01 | 194 49.8 -00.3 | S 23 20.6 +00.0 | 235 28.0 -00.6 | S 17 22.1 +00.8 | 14 22.7 -33.6 | N 28 07.9 -00.5 | 01 | | | | | | | |
| 02 | 209 49.5 -00.3 | S 23 20.6 -00.1 | 250 27.4 -00.7 | S 17 22.9 +00.7 | 28 49.1 -33.6 | N 28 07.4 -00.8 | 02 | | | | | | | |
| 03 | 224 49.2 -00.3 | S 23 20.5 -00.1 | 265 26.7 -00.6 | S 17 23.6 +00.8 | 43 15.5 -33.5 | N 28 06.6 -00.9 | 03 | | | | | | | |
| 04 | 239 48.9 -00.3 | S 23 20.4 -00.1 | 280 26.1 -00.6 | S 17 24.4 +00.7 | 57 42.0 -33.5 | N 28 05.7 -01.0 | 04 | | | | | | | |
| 05 | 254 48.6 -00.3 | S 23 20.3 -00.1 | 295 25.5 -00.6 | S 17 25.1 +00.8 | 72 08.5 -33.5 | N 28 04.7 -01.2 | 05 | | | | | | | |
| 06 | 269 48.3 -00.3 | S 23 20.2 -00.1 | 310 24.9 -00.6 | S 17 25.9 +00.7 | 86 35.0 -33.4 | N 28 03.5 -01.4 | 06 | | | | | | | |
| 07 | 284 48.0 -00.3 | S 23 20.1 -00.1 | 325 24.3 -00.6 | S 17 26.6 +00.7 | 101 01.6 -33.4 | N 28 02.1 -01.5 | 07 | | | | | | | |
| 08 | 299 47.7 -00.3 | S 23 20.0 -00.1 | 340 23.7 -00.6 | S 17 27.3 +00.8 | 115 28.2 -33.4 | N 28 00.6 -01.7 | 08 | | | | | | | |
| 09 | 314 47.4 -00.3 | S 23 19.9 -00.1 | 355 23.1 -00.6 | S 17 28.1 +00.7 | 129 54.8 -33.3 | N 27 58.9 -01.8 | 09 | | | | | | | |
| 10 | 329 47.1 -00.3 | S 23 19.8 -00.2 | 10 22.5 -00.6 | S 17 28.8 +00.8 | 144 21.5 -33.2 | N 27 57.1 -01.9 | 10 | | | | | | | |
| 11 | 344 46.8 -00.4 | S 23 19.6 -00.1 | 25 21.9 -00.6 | S 17 29.6 +00.7 | 158 48.3 -33.2 | N 27 55.2 -02.2 | 11 | | | | | | | |
| 12 | 359 46.4 -00.3 | S 23 19.5 -00.1 | 40 21.3 -00.7 | S 17 30.3 +00.8 | 173 15.1 -33.2 | N 27 53.0 -02.3 | 12 | | | | | | | |
| 13 | 14 46.1 -00.3 | S 23 19.4 -00.1 | 55 20.6 -00.6 | S 17 31.1 +00.7 | 187 41.9 -33.0 | N 27 50.7 -02.4 | 13 | | | | | | | |
| 14 | 29 45.8 -00.3 | S 23 19.3 -00.1 | 70 20.0 -00.6 | S 17 31.8 +00.8 | 202 08.9 -33.1 | N 27 48.3 -02.6 | 14 | | | | | | | |
| 15 | 44 45.5 -00.3 | S 23 19.2 -00.1 | 85 19.4 -00.6 | S 17 32.6 +00.7 | 216 35.8 -33.0 | N 27 45.7 -02.7 | 15 | | | | | | | |
| 16 | 59 45.2 -00.3 | S 23 19.1 -00.1 | 100 18.8 -00.6 | S 17 33.3 +00.7 | 231 02.8 -32.9 | N 27 43.0 -02.9 | 16 | | | | | | | |
| 17 | 74 44.9 -00.3 | S 23 19.0 -00.1 | 115 18.2 -00.6 | S 17 34.0 +00.8 | 245 29.9 -32.9 | N 27 40.1 -03.0 | 17 | | | | | | | |
| 18 | 89 44.6 -00.3 | S 23 18.9 -00.1 | 130 17.6 -00.6 | S 17 34.8 +00.7 | 259 57.0 -32.8 | N 27 37.1 -03.2 | 18 | | | | | | | |
| 19 | 104 44.3 -00.3 | S 23 18.8 -00.1 | 145 17.0 -00.7 | S 17 35.5 +00.7 | 274 24.2 -32.7 | N 27 33.9 -03.3 | 19 | | | | | | | |
| 20 | 119 44.0 -00.3 | S 23 18.7 -00.1 | 160 16.3 -00.6 | S 17 36.2 +00.8 | 288 51.5 -32.7 | N 27 30.6 -03.4 | 20 | | | | | | | |
| 21 | 134 43.7 -00.3 | S 23 18.6 -00.1 | 175 15.7 -00.6 | S 17 37.0 +00.7 | 303 18.8 -32.6 | N 27 27.2 -03.6 | 21 | | | | | | | |
| 22 | 149 43.4 -00.3 | S 23 18.5 -00.2 | 190 15.1 -00.6 | S 17 37.7 +00.8 | 317 46.2 -32.6 | N 27 23.6 -03.8 | 22 | | | | | | | |
| 23 | 164 43.1 -00.3 | S 23 18.3 -00.1 | 205 14.5 -00.6 | S 17 38.5 +00.7 | 332 13.6 -32.5 | N 27 19.8 -03.9 | 23 | | | | | | | |
| UT 02 06 10 14 18 22 | SD 16'3 16'3 16'3 16'3 16'3 16'3 | HP 00'1 00'1 00'1 00'1 00'1 00'1 | SHA 085° 084° 084° 084° 084° 084° | Greenwich Culmination Time: 12:00 | UT 02 06 10 14 18 22 | SD 00'1 00'1 00'1 00'1 00'1 00'1 | HP 00'1 00'1 00'1 00'1 00'1 00'1 | SHA 125° 125° 125° 125° 124° 124° | Greenwich Culmination Time: 09:18 | UT 02 06 10 14 18 22 | SD 15'2 15'2 15'2 15'2 15'1 15'1 | HP 55'9 55'8 55'7 55'7 55'6 55'5 | SHA 264° 261° 259° 256° 254° 252° | Greenwich Culmination Time: 00:00 |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT | |
|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | GHA ° ' " | ddGHA ' " | Dec ° ' " | dDec ' " | | |
| 00 | 192 12.5 +00.4 | S 23 47.1 +00.1 | 61 30.1 +02.5 | N 12 14.9 +00.0 | 119 51.0 +02.3 | S 11 60.0 -00.1 | 00 | | | | | | | |
| 01 | 207 12.9 +00.5 | S 23 47.2 +00.1 | 76 32.6 +02.5 | N 12 14.9 +00.0 | 134 53.3 +02.2 | S 11 59.9 -00.1 | 01 | | | | | | | |
| 02 | 222 13.4 +00.4 | S 23 47.3 +00.1 | 91 35.1 +02.5 | N 12 14.9 +00.0 | 149 55.5 +02.3 | S 11 59.8 +00.0 | 02 | | | | | | | |
| 03 | 237 13.8 +00.5 | S 23 47.4 +00.2 | 106 37.6 +02.5 | N 12 14.9 +00.0 | 164 57.8 +02.3 | S 11 59.8 -00.1 | 03 | | | | | | | |
| 04 | 252 14.3 +00.4 | S 23 47.6 +00.1 | 121 40.1 +02.5 | N 12 14.9 +00.0 | 180 00.1 +02.2 | S 11 59.7 -00.1 | 04 | | | | | | | |
| 05 | 267 14.7 +00.5 | S 23 47.7 +00.1 | 136 42.6 +02.5 | N 12 14.9 +00.0 | 195 02.3 +02.3 | S 11 59.6 -00.1 | 05 | | | | | | | |
| 06 | 282 15.2 +00.4 | S 23 47.8 +00.1 | 151 45.1 +02.5 | N 12 14.9 +00.0 | 210 04.6 +02.3 | S 11 59.5 +00.0 | 06 | | | | | | | |
| 07 | 297 15.6 +00.5 | S 23 47.9 +00.1 | 166 47.6 +02.5 | N 12 14.9 +00.0 | 225 06.9 +02.2 | S 11 59.5 -00.1 | 07 | | | | | | | |
| 08 | 312 16.1 +00.4 | S 23 48.0 +00.1 | 181 50.1 +02.5 | N 12 14.9 +00.1 | 240 09.1 +02.3 | S 11 59.4 -00.1 | 08 | | | | | | | |
| 09 | 327 16.5 +00.5 | S 23 48.1 +00.1 | 196 52.6 +02.5 | N 12 15.0 +00.0 | 255 11.4 +02.3 | S 11 59.3 -00.1 | 09 | | | | | | | |
| 10 | 342 17.0 +00.4 | S 23 48.2 +00.1 | 211 55.1 +02.5 | N 12 15.0 +00.0 | 270 13.7 +02.2 | S 11 59.2 -00.1 | 10 | | | | | | | |
| 11 | 357 17.4 +00.5 | S 23 48.3 +00.1 | 226 57.6 +02.5 | N 12 15.0 +00.0 | 285 15.9 +02.3 | S 11 59.1 +00.0 | 11 | | | | | | | |
| 12 | 12 17.9 +00.4 | S 23 48.4 +00.2 | 242 00.1 +02.5 | N 12 15.0 +00.0 | 300 18.2 +02.3 | S 11 59.1 -00.1 | 12 | | | | | | | |
| 13 | 27 18.3 +00.5 | S 23 48.6 +00.1 | 257 02.6 +02.5 | N 12 15.0 +00.0 | 315 20.5 +02.2 | S 11 59.0 -00.1 | 13 | | | | | | | |
| 14 | 42 18.8 +00.4 | S 23 48.7 +00.1 | 272 05.1 +02.5 | N 12 15.0 +00.0 | 330 22.7 +02.3 | S 11 58.9 -00.1 | 14 | | | | | | | |
| 15 | 57 19.2 +00.5 | S 23 48.8 +00.1 | 287 07.6 +02.5 | N 12 15.0 +00.0 | 345 25.0 +02.3 | S 11 58.8 -00.1 | 15 | | | | | | | |
| 16 | 72 19.7 +00.4 | S 23 48.9 +00.1 | 302 10.1 +02.5 | N 12 15.0 +00.0 | 0 27.3 +02.2 | S 11 58.7 +00.0 | 16 | | | | | | | |
| 17 | 87 20.1 +00.5 | S 23 49.0 +00.1 | 317 12.6 +02.5 | N 12 15.0 +00.0 | 15 29.5 +02.3 | S 11 58.7 -00.1 | 17 | | | | | | | |
| 18 | 102 20.6 +00.4 | S 23 49.1 +00.1 | 332 15.1 +02.5 | N 12 15.0 +00.0 | 30 31.8 +02.3 | S 11 58.6 -00.1 | 18 | | | | | | | |
| 19 | 117 21.0 +00.5 | S 23 49.2 +00.1 | 347 17.6 +02.5 | N 12 15.0 +00.0 | 45 34.1 +02.2 | S 11 58.5 -00.1 | 19 | | | | | | | |
| 20 | 132 21.5 +00.4 | S 23 49.3 +00.1 | 2 20.1 +02.5 | N 12 15.0 +00.0 | 60 36.3 +02.3 | S 11 58.4 +00.0 | 20 | | | | | | | |
| 21 | 147 21.9 +00.5 | S 23 49.4 +00.1 | 17 22.6 +02.5 | N 12 15.0 +00.0 | 75 38.6 +02.3 | S 11 58.4 -00.1 | 21 | | | | | | | |
| 22 | 162 22.4 +00.4 | S 23 49.5 +00.1 | 32 25.1 +02.5 | N 12 15.0 +00.0 | 90 40.9 +02.2 | S 11 58.3 -00.1 | 22 | | | | | | | |
| 23 | 177 22.8 +00.5 | S 23 49.6 +00.1 | 47 27.6 +02.5 | N 12 15.0 +00.0 | 105 43.1 +02.3 | S 11 58.2 -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 097° 097° 097° 097° 096° 096° | Greenwich Culmination Time: 11:10 | UT 02 06 10 14 18 22 | SD 00'4 00'4 00'4 00'4 00'4 00'4 | HP 00'0 00'0 00'0 00'0 00'0 00'0 | SHA 326° 326° 326° 326° 326° 326° | Greenwich Culmination Time: 19:50 | UT 02 06 10 14 18 22 | SD 00'1 00'1 00'1 00'1 00'1 00'1 | HP 00'0 00'0 00'0 00'0 00'0 00'0 | SHA 025° 025° 025° 025° 025° 025° | Greenwich Culmination Time: 15:58 |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 179 42.8 -00.3 | S 23 18.2 -00.1 | 220 13.9 -00.6 | S 17 39.2 +00.7 | 346 41.1 -32.4 | N 27 15.9 -04.0 | 00 | | | | | | |
| 01 | 194 42.5 -00.3 | S 23 18.1 -00.1 | 235 13.3 -00.7 | S 17 39.9 +00.8 | 1 08.7 -32.3 | N 27 11.9 -04.2 | 01 | | | | | | |
| 02 | 209 42.2 -00.3 | S 23 18.0 -00.1 | 250 12.6 -00.6 | S 17 40.7 +00.7 | 15 36.4 -32.3 | N 27 07.7 -04.3 | 02 | | | | | | |
| 03 | 224 41.9 -00.3 | S 23 17.9 -00.1 | 265 12.0 -00.6 | S 17 41.4 +00.7 | 30 04.1 -32.2 | N 27 03.4 -04.5 | 03 | | | | | | |
| 04 | 239 41.6 -00.4 | S 23 17.8 -00.2 | 280 11.4 -00.6 | S 17 42.1 +00.7 | 44 31.9 -32.2 | N 26 58.9 -04.6 | 04 | | | | | | |
| 05 | 254 41.2 -00.3 | S 23 17.6 -00.1 | 295 10.8 -00.6 | S 17 42.8 +00.8 | 58 59.7 -32.0 | N 26 54.3 -04.7 | 05 | | | | | | |
| 06 | 269 40.9 -00.3 | S 23 17.5 -00.1 | 310 10.2 -00.7 | S 17 43.6 +00.7 | 73 27.7 -32.0 | N 26 49.6 -04.9 | 06 | | | | | | |
| 07 | 284 40.6 -00.3 | S 23 17.4 -00.1 | 325 09.5 -00.6 | S 17 44.3 +00.7 | 87 55.7 -31.9 | N 26 44.7 -05.0 | 07 | | | | | | |
| 08 | 299 40.3 -00.3 | S 23 17.3 -00.1 | 340 08.9 -00.6 | S 17 45.0 +00.8 | 102 23.8 -31.9 | N 26 39.7 -05.1 | 08 | | | | | | |
| 09 | 314 40.0 -00.3 | S 23 17.2 -00.2 | 355 08.3 -00.6 | S 17 45.8 +00.7 | 116 51.9 -31.7 | N 26 34.6 -05.3 | 09 | | | | | | |
| 10 | 329 39.7 -00.3 | S 23 17.0 -00.1 | 10 07.7 -00.7 | S 17 46.5 +00.7 | 131 20.2 -31.7 | N 26 29.3 -05.4 | 10 | | | | | | |
| 11 | 344 39.4 -00.3 | S 23 16.9 -00.1 | 25 07.0 -00.6 | S 17 47.2 +00.7 | 145 48.5 -31.6 | N 26 23.9 -05.5 | 11 | | | | | | |
| 12 | 359 39.1 -00.3 | S 23 16.8 -00.1 | 40 06.4 -00.6 | S 17 47.9 +00.8 | 160 16.9 -31.6 | N 26 18.4 -05.7 | 12 | | | | | | |
| 13 | 14 38.8 -00.3 | S 23 16.7 -00.2 | 55 05.8 -00.6 | S 17 48.7 +00.7 | 174 45.3 -31.4 | N 26 12.7 -05.8 | 13 | | | | | | |
| 14 | 29 38.5 -00.3 | S 23 16.5 -00.1 | 70 05.2 -00.7 | S 17 49.4 +00.7 | 189 13.9 -31.4 | N 26 06.9 -05.9 | 14 | | | | | | |
| 15 | 44 38.2 -00.3 | S 23 16.4 -00.1 | 85 04.5 -00.6 | S 17 50.1 +00.7 | 203 42.5 -31.2 | N 26 01.0 -06.0 | 15 | | | | | | |
| 16 | 59 37.9 -00.3 | S 23 16.3 -00.1 | 100 03.9 -00.6 | S 17 50.8 +00.8 | 218 11.3 -31.2 | N 25 55.0 -06.2 | 16 | | | | | | |
| 17 | 74 37.6 -00.3 | S 23 16.2 -00.2 | 115 03.3 -00.7 | S 17 51.6 +00.7 | 232 40.1 -31.1 | N 25 48.8 -06.3 | 17 | | | | | | |
| 18 | 89 37.3 -00.3 | S 23 16.0 -00.1 | 130 02.6 -00.6 | S 17 52.3 +00.7 | 247 09.0 -31.1 | N 25 42.5 -06.4 | 18 | | | | | | |
| 19 | 104 37.0 -00.3 | S 23 15.9 -00.1 | 145 02.0 -00.6 | S 17 53.0 +00.7 | 261 37.9 -30.9 | N 25 36.1 -06.6 | 19 | | | | | | |
| 20 | 119 36.7 -00.3 | S 23 15.8 -00.2 | 160 01.4 -00.6 | S 17 53.7 +00.7 | 276 07.0 -30.9 | N 25 29.5 -06.6 | 20 | | | | | | |
| 21 | 134 36.4 -00.3 | S 23 15.6 -00.1 | 175 00.8 -00.7 | S 17 54.4 +00.8 | 290 36.1 -30.7 | N 25 22.9 -06.8 | 21 | | | | | | |
| 22 | 149 36.1 -00.3 | S 23 15.5 -00.1 | 190 00.1 -00.6 | S 17 55.2 +00.7 | 305 05.4 -30.7 | N 25 16.1 -06.9 | 22 | | | | | | |
| 23 | 164 35.8 -00.3 | S 23 15.4 -00.2 | 204 59.5 -00.6 | S 17 55.9 +00.7 | 319 34.7 -30.6 | N 25 09.2 -07.1 | 23 | | | | | | |
| | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | UT 02 06 10 14 18 22 | | | | | | | | |
| | SD 16'3 16'3 16'3 16'3 16'3 16'3 | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | SD 15'1 15'1 15'1 15'0 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 55'4 55'3 55'3 55'2 55'1 55'0 | | | | | | | | |
| | SHA 083° 083° 083° 083° 083° 082° | | SHA 124° 124° 124° 123° 123° 123° | | SHA 249° 247° 245° 242° 240° 238° | | | | | | | | |
| | Greenwich Culmination Time: 12:01 | | Greenwich Culmination Time: 09:19 | | Greenwich Culmination Time: 00:55 | | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 192 23.3 +00.4 | S 23 49.7 +00.1 | 62 30.1 +02.5 | N 12 15.0 +00.0 | 120 45.4 +02.3 | S 11 58.1 -00.1 | 00 | | | | | | |
| 01 | 207 23.7 +00.5 | S 23 49.8 +00.1 | 77 32.6 +02.5 | N 12 15.0 +00.0 | 135 47.7 +02.2 | S 11 58.0 +00.0 | 01 | | | | | | |
| 02 | 222 24.2 +00.4 | S 23 49.9 +00.1 | 92 35.1 +02.5 | N 12 15.0 +00.0 | 150 49.9 +02.3 | S 11 58.0 -00.1 | 02 | | | | | | |
| 03 | 237 24.6 +00.5 | S 23 50.0 +00.1 | 107 37.6 +02.5 | N 12 15.0 +00.0 | 165 52.2 +02.3 | S 11 57.9 -00.1 | 03 | | | | | | |
| 04 | 252 25.1 +00.4 | S 23 50.1 +00.1 | 122 40.1 +02.4 | N 12 15.0 +00.0 | 180 54.5 +02.2 | S 11 57.8 -00.1 | 04 | | | | | | |
| 05 | 267 25.5 +00.5 | S 23 50.2 +00.1 | 137 42.5 +02.5 | N 12 15.0 +00.0 | 195 56.7 +02.3 | S 11 57.7 -00.1 | 05 | | | | | | |
| 06 | 282 26.0 +00.4 | S 23 50.3 +00.1 | 152 45.0 +02.5 | N 12 15.0 +00.0 | 210 59.0 +02.3 | S 11 57.6 +00.0 | 06 | | | | | | |
| 07 | 297 26.4 +00.5 | S 23 50.4 +00.1 | 167 47.5 +02.5 | N 12 15.0 +00.0 | 226 01.3 +02.2 | S 11 57.6 -00.1 | 07 | | | | | | |
| 08 | 312 26.9 +00.4 | S 23 50.5 +00.1 | 182 50.0 +02.5 | N 12 15.0 +00.0 | 241 03.5 +02.3 | S 11 57.5 -00.1 | 08 | | | | | | |
| 09 | 327 27.3 +00.5 | S 23 50.6 +00.1 | 197 52.5 +02.5 | N 12 15.0 +00.0 | 256 05.8 +02.2 | S 11 57.4 -00.1 | 09 | | | | | | |
| 10 | 342 27.8 +00.4 | S 23 50.7 +00.1 | 212 55.0 +02.5 | N 12 15.0 +00.0 | 271 08.0 +02.3 | S 11 57.3 -00.1 | 10 | | | | | | |
| 11 | 357 28.2 +00.5 | S 23 50.8 +00.1 | 227 57.5 +02.5 | N 12 15.0 +00.0 | 286 10.3 +02.3 | S 11 57.2 +00.0 | 11 | | | | | | |
| 12 | 12 28.7 +00.4 | S 23 50.9 +00.1 | 242 60.0 +02.5 | N 12 15.0 +00.0 | 301 12.6 +02.2 | S 11 57.2 -00.1 | 12 | | | | | | |
| 13 | 27 29.1 +00.5 | S 23 51.0 +00.1 | 258 02.5 +02.5 | N 12 15.0 +00.0 | 316 14.8 +02.3 | S 11 57.1 -00.1 | 13 | | | | | | |
| 14 | 42 29.6 +00.4 | S 23 51.1 +00.1 | 273 05.0 +02.5 | N 12 15.0 +00.0 | 331 17.1 +02.3 | S 11 57.0 -00.1 | 14 | | | | | | |
| 15 | 57 30.0 +00.5 | S 23 51.2 +00.1 | 288 07.5 +02.4 | N 12 15.0 +00.1 | 346 19.4 +02.2 | S 11 56.9 +00.0 | 15 | | | | | | |
| 16 | 72 30.5 +00.4 | S 23 51.3 +00.1 | 303 09.9 +02.5 | N 12 15.1 +00.0 | 1 21.6 +02.3 | S 11 56.9 -00.1 | 16 | | | | | | |
| 17 | 87 30.9 +00.5 | S 23 51.4 +00.1 | 318 12.4 +02.5 | N 12 15.1 +00.0 | 16 23.9 +02.3 | S 11 56.8 -00.1 | 17 | | | | | | |
| 18 | 102 31.4 +00.4 | S 23 51.5 +00.1 | 333 14.9 +02.5 | N 12 15.1 +00.0 | 31 26.2 +02.2 | S 11 56.7 -00.1 | 18 | | | | | | |
| 19 | 117 31.8 +00.4 | S 23 51.6 +00.1 | 348 17.4 +02.5 | N 12 15.1 +00.0 | 46 28.4 +02.3 | S 11 56.6 -00.1 | 19 | | | | | | |
| 20 | 132 32.2 +00.5 | S 23 51.7 +00.1 | 3 19.9 +02.5 | N 12 15.1 +00.0 | 61 30.7 +02.3 | S 11 56.5 +00.0 | 20 | | | | | | |
| 21 | 147 32.7 +00.4 | S 23 51.8 +00.1 | 18 22.4 +02.5 | N 12 15.1 +00.0 | 76 33.0 +02.2 | S 11 56.5 -00.1 | 21 | | | | | | |
| 22 | 162 33.1 +00.5 | S 23 51.9 +00.1 | 33 24.9 +02.5 | N 12 15.1 +00.0 | 91 35.2 +02.3 | S 11 56.4 -00.1 | 22 | | | | | | |
| 23 | 177 33.6 +00.4 | S 23 52.0 +00.1 | 48 27.4 +02.4 | N 12 15.1 +00.0 | 106 37.5 +02.2 | S 11 56.3 -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 096° 096° 096° 096° 096° 095° | | SHA 326° 326° 326° 326° 326° 326° | | SHA 025° 025° 025° 025° 024° 024° | | | | | | | | |
| | Greenwich Culmination Time: 11:10 | | Greenwich Culmination Time: 19:46 | | Greenwich Culmination Time: 15:54 | | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 179 35.5 -00.3 | S 23 15.2 -00.1 | 219 58.9 -00.7 | S 17 56.6 +00.7 | 334 04.1 -30.5 | N 25 02.1 -07.1 | 00 | | | | | | |
| 01 | 194 35.2 -00.4 | S 23 15.1 -00.1 | 234 58.2 -00.6 | S 17 57.3 +00.7 | 348 33.6 -30.5 | N 24 55.0 -07.3 | 01 | | | | | | |
| 02 | 209 34.8 -00.3 | S 23 15.0 -00.2 | 249 57.6 -00.6 | S 17 58.0 +00.7 | 3 03.1 -30.3 | N 24 47.7 -07.3 | 02 | | | | | | |
| 03 | 224 34.5 -00.3 | S 23 14.8 -00.1 | 264 57.0 -00.7 | S 17 58.7 +00.8 | 17 32.8 -30.3 | N 24 40.4 -07.5 | 03 | | | | | | |
| 04 | 239 34.2 -00.3 | S 23 14.7 -00.1 | 279 56.3 -00.6 | S 17 59.5 +00.7 | 32 02.5 -30.1 | N 24 32.9 -07.6 | 04 | | | | | | |
| 05 | 254 33.9 -00.3 | S 23 14.6 -00.2 | 294 55.7 -00.6 | S 18 00.2 +00.7 | 46 32.4 -30.1 | N 24 25.3 -07.7 | 05 | | | | | | |
| 06 | 269 33.6 -00.3 | S 23 14.4 -00.1 | 309 55.1 -00.7 | S 18 00.9 +00.7 | 61 02.3 -30.0 | N 24 17.6 -07.8 | 06 | | | | | | |
| 07 | 284 33.3 -00.3 | S 23 14.3 -00.2 | 324 54.4 -00.6 | S 18 01.6 +00.7 | 75 32.3 -29.9 | N 24 09.8 -08.0 | 07 | | | | | | |
| 08 | 299 33.0 -00.3 | S 23 14.1 -00.1 | 339 53.8 -00.6 | S 18 02.3 +00.7 | 90 02.4 -29.8 | N 24 01.8 -08.0 | 08 | | | | | | |
| 09 | 314 32.7 -00.3 | S 23 14.0 -00.1 | 354 53.2 -00.7 | S 18 03.0 +00.7 | 104 32.6 -29.7 | N 23 53.8 -08.2 | 09 | | | | | | |
| 10 | 329 32.4 -00.3 | S 23 13.9 -00.2 | 9 52.5 -00.6 | S 18 03.7 +00.7 | 119 02.9 -29.6 | N 23 45.6 -08.2 | 10 | | | | | | |
| 11 | 344 32.1 -00.3 | S 23 13.7 -00.1 | 24 51.9 -00.6 | S 18 04.4 +00.7 | 133 33.3 -29.6 | N 23 37.4 -08.4 | 11 | | | | | | |
| 12 | 359 31.8 -00.3 | S 23 13.6 -00.2 | 39 51.3 -00.7 | S 18 05.1 +00.7 | 148 03.7 -29.4 | N 23 29.0 -08.4 | 12 | | | | | | |
| 13 | 14 31.5 -00.3 | S 23 13.4 -00.1 | 54 50.6 -00.6 | S 18 05.8 +00.7 | 162 34.3 -29.4 | N 23 20.6 -08.6 | 13 | | | | | | |
| 14 | 29 31.2 -00.3 | S 23 13.3 -00.2 | 69 50.0 -00.7 | S 18 06.5 +00.8 | 177 04.9 -29.2 | N 23 12.0 -08.6 | 14 | | | | | | |
| 15 | 44 30.9 -00.3 | S 23 13.1 -00.1 | 84 49.3 -00.6 | S 18 07.3 +00.7 | 191 35.7 -29.2 | N 23 03.4 -08.8 | 15 | | | | | | |
| 16 | 59 30.6 -00.3 | S 23 13.0 -00.2 | 99 48.7 -00.6 | S 18 08.0 +00.7 | 206 06.5 -29.1 | N 22 54.6 -08.8 | 16 | | | | | | |
| 17 | 74 30.3 -00.3 | S 23 12.8 -00.1 | 114 48.1 -00.7 | S 18 08.7 +00.7 | 220 37.4 -29.0 | N 22 45.8 -09.0 | 17 | | | | | | |
| 18 | 89 30.0 -00.3 | S 23 12.7 -00.1 | 129 47.4 -00.6 | S 18 09.4 +00.7 | 235 08.4 -28.9 | N 22 36.8 -09.1 | 18 | | | | | | |
| 19 | 104 29.7 -00.3 | S 23 12.6 -00.2 | 144 46.8 -00.7 | S 18 10.1 +00.7 | 249 39.5 -28.8 | N 22 27.7 -09.1 | 19 | | | | | | |
| 20 | 119 29.4 -00.3 | S 23 12.4 -00.1 | 159 46.1 -00.6 | S 18 10.8 +00.7 | 264 10.7 -28.8 | N 22 18.6 -09.2 | 20 | | | | | | |
| 21 | 134 29.1 -00.3 | S 23 12.3 -00.2 | 174 45.5 -00.6 | S 18 11.5 +00.7 | 278 41.9 -28.6 | N 22 09.4 -09.4 | 21 | | | | | | |
| 22 | 149 28.8 -00.3 | S 23 12.1 -00.2 | 189 44.9 -00.7 | S 18 12.2 +00.7 | 293 13.3 -28.6 | N 22 00.0 -09.4 | 22 | | | | | | |
| 23 | 164 28.5 -00.3 | S 23 11.9 -00.1 | 204 44.2 -00.6 | S 18 12.9 +00.7 | 307 44.7 -28.5 | N 21 50.6 -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 16'3 16'3 16'3 16'3 16'3 16'3 | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | SD 15'0 15'0 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 082° 082° 082° 082° 082° 081° | | SHA 123° 122° 122° 122° 122° 122° | | SHA 236° 234° 231° 229° 227° 225° | | | | | | | | |
| | Greenwich Culmination Time: 12:01 | | Greenwich Culmination Time: 09:20 | | Greenwich Culmination Time: 01:47 | | | | | | | | |

| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
|----|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----|------|--------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 192 34.0 +00.5 | S 23 52.1 +00.1 | 63 29.8 +02.5 | N 12 15.1 +00.0 | 121 39.7 +02.3 | S 11 56.2 -00.1 | 00 | | | | | | |
| 01 | 207 34.5 +00.4 | S 23 52.2 +00.1 | 78 32.3 +02.5 | N 12 15.1 +00.0 | 136 42.0 +02.3 | S 11 56.1 +00.0 | 01 | | | | | | |
| 02 | 222 34.9 +00.5 | S 23 52.3 +00.1 | 93 34.8 +02.5 | N 12 15.1 +00.0 | 151 44.3 +02.2 | S 11 56.1 -00.1 | 02 | | | | | | |
| 03 | 237 35.4 +00.4 | S 23 52.4 +00.0 | 108 37.3 +02.5 | N 12 15.1 +00.0 | 166 46.5 +02.3 | S 11 56.0 -00.1 | 03 | | | | | | |
| 04 | 252 35.8 +00.5 | S 23 52.4 +00.1 | 123 39.8 +02.5 | N 12 15.1 +00.0 | 181 48.8 +02.3 | S 11 55.9 -00.1 | 04 | | | | | | |
| 05 | 267 36.3 +00.4 | S 23 52.5 +00.1 | 138 42.3 +02.5 | N 12 15.1 +00.0 | 196 51.1 +02.2 | S 11 55.8 -00.1 | 05 | | | | | | |
| 06 | 282 36.7 +00.5 | S 23 52.6 +00.1 | 153 44.8 +02.4 | N 12 15.1 +00.0 | 211 53.3 +02.3 | S 11 55.7 +00.0 | 06 | | | | | | |
| 07 | 297 37.2 +00.4 | S 23 52.7 +00.1 | 168 47.2 +02.5 | N 12 15.1 +00.0 | 226 55.6 +02.2 | S 11 55.7 -00.1 | 07 | | | | | | |
| 08 | 312 37.6 +00.4 | S 23 52.8 +00.1 | 183 49.7 +02.5 | N 12 15.1 +00.1 | 241 57.8 +02.3 | S 11 55.6 -00.1 | 08 | | | | | | |
| 09 | 327 38.0 +00.5 | S 23 52.9 +00.1 | 198 52.2 +02.5 | N 12 15.2 +00.0 | 257 00.1 +02.3 | S 11 55.5 -00.1 | 09 | | | | | | |
| 10 | 342 38.5 +00.4 | S 23 53.0 +00.1 | 213 54.7 +02.5 | N 12 15.2 +00.0 | 272 02.4 +02.2 | S 11 55.4 -00.1 | 10 | | | | | | |
| 11 | 357 38.9 +00.5 | S 23 53.1 +00.1 | 228 57.2 +02.5 | N 12 15.2 +00.0 | 287 04.6 +02.3 | S 11 55.3 -00.1 | 11 | | | | | | |
| 12 | 12 39.4 +00.4 | S 23 53.2 +00.1 | 243 59.7 +02.4 | N 12 15.2 +00.0 | 302 06.9 +02.3 | S 11 55.2 +00.0 | 12 | | | | | | |
| 13 | 27 39.8 +00.5 | S 23 53.3 +00.0 | 259 02.1 +02.5 | N 12 15.2 +00.0 | 317 09.2 +02.2 | S 11 55.2 -00.1 | 13 | | | | | | |
| 14 | 42 40.3 +00.4 | S 23 53.3 +00.1 | 274 04.6 +02.5 | N 12 15.2 +00.0 | 332 11.4 +02.3 | S 11 55.1 -00.1 | 14 | | | | | | |
| 15 | 57 40.7 +00.5 | S 23 53.4 +00.1 | 289 07.1 +02.5 | N 12 15.2 +00.0 | 347 13.7 +02.2 | S 11 55.0 -00.1 | 15 | | | | | | |
| 16 | 72 41.2 +00.4 | S 23 53.5 +00.1 | 304 09.6 +02.5 | N 12 15.2 +00.0 | 2 15.9 +02.3 | S 11 54.9 -00.1 | 16 | | | | | | |
| 17 | 87 41.6 +00.4 | S 23 53.6 +00.1 | 319 12.1 +02.4 | N 12 15.2 +00.0 | 17 18.2 +02.3 | S 11 54.8 +00.0 | 17 | | | | | | |
| 18 | 102 42.0 +00.5 | S 23 53.7 +00.1 | 334 14.5 +02.5 | N 12 15.2 +00.0 | 32 20.5 +02.2 | S 11 54.8 -00.1 | 18 | | | | | | |
| 19 | 117 42.5 +00.4 | S 23 53.8 +00.1 | 349 17.0 +02.5 | N 12 15.2 +00.0 | 47 22.7 +02.3 | S 11 54.7 -00.1 | 19 | | | | | | |
| 20 | 132 42.9 +00.5 | S 23 53.9 +00.0 | 4 19.5 +02.5 | N 12 15.2 +00.0 | 62 25.0 +02.2 | S 11 54.6 -00.1 | 20 | | | | | | |
| 21 | 147 43.4 +00.4 | S 23 53.9 +00.1 | 19 22.0 +02.5 | N 12 15.2 +00.1 | 77 27.2 +02.3 | S 11 54.5 -00.1 | 21 | | | | | | |
| 22 | 162 43.8 +00.5 | S 23 54.0 +00.1 | 34 24.5 +02.4 | N 12 15.3 +00.0 | 92 29.5 +02.3 | S 11 54.4 +00.0 | 22 | | | | | | |
| 23 | 177 44.3 +00.4 | S 23 54.1 +00.1 | 49 26.9 +02.5 | N 12 15.3 +00.0 | 107 31.8 +02.2 | S 11 54.4 -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 00'1 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 095° 095° 095° 095° 095° 095° | | SHA 326° 326° 326° 326° 326° 326° | | SHA 024° 024° 024° 024° 024° 024° | | | | | | | | |
| | Greenwich Culmination Time: 11:09 | | Greenwich Culmination Time: 19:42 | | Greenwich Culmination Time: 15:50 | | | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|----------------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 179 28.2 -00.3 | S | 23 11.8 -00.2 | 219 43.6 -00.7 | S | 18 13.6 +00.7 | 322 16.2 -28.3 | N | 21 41.1 -09.6 | 00 | | | |
| 01 | 194 27.9 -00.3 | S | 23 11.6 -00.1 | 234 42.9 -00.6 | S | 18 14.3 +00.7 | 336 47.9 -28.3 | N | 21 31.5 -09.7 | 01 | | | |
| 02 | 209 27.6 -00.3 | S | 23 11.5 -00.2 | 249 42.3 -00.7 | S | 18 15.0 +00.7 | 351 19.6 -28.2 | N | 21 21.8 -09.8 | 02 | | | |
| 03 | 224 27.3 -00.3 | S | 23 11.3 -00.1 | 264 41.6 -00.6 | S | 18 15.7 +00.7 | 5 51.4 -28.2 | N | 21 12.0 -09.9 | 03 | | | |
| 04 | 239 27.0 -00.3 | S | 23 11.2 -00.2 | 279 41.0 -00.7 | S | 18 16.4 +00.6 | 20 23.2 -28.0 | N | 21 02.1 -09.9 | 04 | | | |
| 05 | 254 26.7 -00.3 | S | 23 11.0 -00.1 | 294 40.3 -00.6 | S | 18 17.0 +00.7 | 34 55.2 -28.0 | N | 20 52.2 -10.1 | 05 | | | |
| 06 | 269 26.4 -00.3 | S | 23 10.9 -00.2 | 309 39.7 -00.7 | S | 18 17.7 +00.7 | 49 27.2 -27.8 | N | 20 42.1 -10.1 | 06 | | | |
| 07 | 284 26.1 -00.3 | S | 23 10.7 -00.2 | 324 39.0 -00.6 | S | 18 18.4 +00.7 | 63 59.4 -27.8 | N | 20 32.0 -10.2 | 07 | | | |
| 08 | 299 25.8 -00.3 | S | 23 10.5 -00.1 | 339 38.4 -00.7 | S | 18 19.1 +00.7 | 78 31.6 -27.7 | N | 20 21.8 -10.3 | 08 | | | |
| 09 | 314 25.5 -00.3 | S | 23 10.4 -00.2 | 354 37.7 -00.6 | S | 18 19.8 +00.7 | 93 03.9 -27.6 | N | 20 11.5 -10.4 | 09 | | | |
| 10 | 329 25.2 -00.3 | S | 23 10.2 -00.1 | 9 37.1 -00.7 | S | 18 20.5 +00.7 | 107 36.3 -27.6 | N | 20 01.1 -10.4 | 10 | | | |
| 11 | 344 24.9 -00.3 | S | 23 10.1 -00.2 | 24 36.4 -00.6 | S | 18 21.2 +00.7 | 122 08.7 -27.4 | N | 19 50.7 -10.5 | 11 | | | |
| 12 | 359 24.6 -00.3 | S | 23 09.9 -00.2 | 39 35.8 -00.7 | S | 18 21.9 +00.7 | 136 41.3 -27.4 | N | 19 40.2 -10.6 | 12 | | | |
| 13 | 14 24.3 -00.3 | S | 23 09.7 -00.1 | 54 35.1 -00.6 | S | 18 22.6 +00.7 | 151 13.9 -27.3 | N | 19 29.6 -10.7 | 13 | | | |
| 14 | 29 24.0 -00.3 | S | 23 09.6 -00.2 | 69 34.5 -00.7 | S | 18 23.3 +00.6 | 165 46.6 -27.2 | N | 19 18.9 -10.8 | 14 | | | |
| 15 | 44 23.7 -00.3 | S | 23 09.4 -00.2 | 84 33.8 -00.6 | S | 18 23.9 +00.7 | 180 19.4 -27.1 | N | 19 08.1 -10.8 | 15 | | | |
| 16 | 59 23.4 -00.3 | S | 23 09.2 -00.1 | 99 33.2 -00.7 | S | 18 24.6 +00.7 | 194 52.3 -27.1 | N | 18 57.3 -10.9 | 16 | | | |
| 17 | 74 23.1 -00.3 | S | 23 09.1 -00.2 | 114 32.5 -00.6 | S | 18 25.3 +00.7 | 209 25.2 -26.9 | N | 18 46.4 -11.0 | 17 | | | |
| 18 | 89 22.8 -00.3 | S | 23 08.9 -00.2 | 129 31.9 -00.7 | S | 18 26.0 +00.7 | 223 58.3 -26.9 | N | 18 35.4 -11.0 | 18 | | | |
| 19 | 104 22.5 -00.3 | S | 23 08.7 -00.1 | 144 31.2 -00.6 | S | 18 26.7 +00.7 | 238 31.4 -26.8 | N | 18 24.4 -11.1 | 19 | | | |
| 20 | 119 22.2 -00.3 | S | 23 08.6 -00.2 | 159 30.6 -00.7 | S | 18 27.4 +00.6 | 253 04.6 -26.8 | N | 18 13.3 -11.2 | 20 | | | |
| 21 | 134 21.9 -00.3 | S | 23 08.4 -00.2 | 174 29.9 -00.6 | S | 18 28.0 +00.7 | 267 37.8 -26.6 | N | 18 02.1 -11.3 | 21 | | | |
| 22 | 149 21.6 -00.3 | S | 23 08.2 -00.1 | 189 29.3 -00.7 | S | 18 28.7 +00.7 | 282 11.2 -26.6 | N | 17 50.8 -11.3 | 22 | | | |
| 23 | 164 21.3 -00.3 | S | 23 08.1 -00.2 | 204 28.6 -00.6 | S | 18 29.4 +00.7 | 296 44.6 -26.5 | N | 17 39.5 -11.3 | 23 | | | |
| | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | UT 02 06 10 14 18 22 | | | | | | |
| | SD 16'3 16'3 16'3 16'3 16'3 16'3 | | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | | SD 14'9 14'9 14'8 14'8 14'8 14'8 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 54'6 54'5 54'5 54'4 54'4 54'3 | | | | | | |
| | SHA 081° 081° 081° 081° 080° 080° | | | SHA 121° 121° 121° 121° 121° 120° | | | SHA 223° 221° 219° 217° 215° 213° | | | | | | |
| | Greenwich Culmination Time: 12:02 | | | Greenwich Culmination Time: 09:21 | | | Greenwich Culmination Time: 02:35 | | | | | | |
| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 192 44.7 +00.4 | S | 23 54.2 +00.1 | 64 29.4 +02.5 | N | 12 15.3 +00.0 | 122 34.0 +02.3 | S | 11 54.3 -00.1 | 00 | | | |
| 01 | 207 45.1 +00.5 | S | 23 54.3 +00.1 | 79 31.9 +02.5 | N | 12 15.3 +00.0 | 137 36.3 +02.2 | S | 11 54.2 -00.1 | 01 | | | |
| 02 | 222 45.6 +00.4 | S | 23 54.4 +00.0 | 94 34.4 +02.4 | N | 12 15.3 +00.0 | 152 38.5 +02.3 | S | 11 54.1 -00.1 | 02 | | | |
| 03 | 237 46.0 +00.5 | S | 23 54.4 +00.1 | 109 36.8 +02.5 | N | 12 15.3 +00.0 | 167 40.8 +02.3 | S | 11 54.0 +00.0 | 03 | | | |
| 04 | 252 46.5 +00.4 | S | 23 54.5 +00.1 | 124 39.3 +02.5 | N | 12 15.3 +00.0 | 182 43.1 +02.2 | S | 11 54.0 -00.1 | 04 | | | |
| 05 | 267 46.9 +00.5 | S | 23 54.6 +00.1 | 139 41.8 +02.5 | N | 12 15.3 +00.0 | 197 45.3 +02.3 | S | 11 53.9 -00.1 | 05 | | | |
| 06 | 282 47.4 +00.4 | S | 23 54.7 +00.1 | 154 44.3 +02.4 | N | 12 15.3 +00.0 | 212 47.6 +02.2 | S | 11 53.8 -00.1 | 06 | | | |
| 07 | 297 47.8 +00.4 | S | 23 54.8 +00.0 | 169 46.7 +02.5 | N | 12 15.3 +00.0 | 227 49.8 +02.3 | S | 11 53.7 -00.1 | 07 | | | |
| 08 | 312 48.2 +00.5 | S | 23 54.8 +00.1 | 184 49.2 +02.5 | N | 12 15.3 +00.1 | 242 52.1 +02.3 | S | 11 53.6 +00.0 | 08 | | | |
| 09 | 327 48.7 +00.4 | S | 23 54.9 +00.1 | 199 51.7 +02.5 | N | 12 15.4 +00.0 | 257 54.4 +02.2 | S | 11 53.6 -00.1 | 09 | | | |
| 10 | 342 49.1 +00.5 | S | 23 55.0 +00.1 | 214 54.2 +02.4 | N | 12 15.4 +00.0 | 272 56.6 +02.3 | S | 11 53.5 -00.1 | 10 | | | |
| 11 | 357 49.6 +00.4 | S | 23 55.1 +00.1 | 229 56.6 +02.5 | N | 12 15.4 +00.0 | 287 58.9 +02.2 | S | 11 53.4 -00.1 | 11 | | | |
| 12 | 12 50.0 +00.4 | S | 23 55.2 +00.0 | 244 59.1 +02.5 | N | 12 15.4 +00.0 | 303 01.1 +02.3 | S | 11 53.3 -00.1 | 12 | | | |
| 13 | 27 50.4 +00.5 | S | 23 55.2 +00.1 | 260 01.6 +02.5 | N | 12 15.4 +00.0 | 318 03.4 +02.3 | S | 11 53.2 -00.1 | 13 | | | |
| 14 | 42 50.9 +00.4 | S | 23 55.3 +00.1 | 275 04.1 +02.4 | N | 12 15.4 +00.0 | 333 05.7 +02.2 | S | 11 53.1 +00.0 | 14 | | | |
| 15 | 57 51.3 +00.5 | S | 23 55.4 +00.1 | 290 06.5 +02.5 | N | 12 15.4 +00.0 | 348 07.9 +02.3 | S | 11 53.1 -00.1 | 15 | | | |
| 16 | 72 51.8 +00.4 | S | 23 55.5 +00.0 | 305 09.0 +02.5 | N | 12 15.4 +00.0 | 3 10.2 +02.2 | S | 11 53.0 -00.1 | 16 | | | |
| 17 | 87 52.2 +00.4 | S | 23 55.5 +00.1 | 320 11.5 +02.5 | N | 12 15.4 +00.1 | 18 12.4 +02.3 | S | 11 52.9 -00.1 | 17 | | | |
| 18 | 102 52.6 +00.5 | S | 23 55.6 +00.1 | 335 14.0 +02.4 | N | 12 15.5 +00.0 | 33 14.7 +02.2 | S | 11 52.8 -00.1 | 18 | | | |
| 19 | 117 53.1 +00.4 | S | 23 55.7 +00.1 | 350 16.4 +02.5 | N | 12 15.5 +00.0 | 48 16.9 +02.3 | S | 11 52.7 +00.0 | 19 | | | |
| 20 | 132 53.5 +00.5 | S | 23 55.8 +00.0 | 5 18.9 +02.5 | N | 12 15.5 +00.0 | 63 19.2 +02.3 | S | 11 52.7 -00.1 | 20 | | | |
| 21 | 147 54.0 +00.4 | S | 23 55.8 +00.1 | 20 21.4 +02.4 | N | 12 15.5 +00.0 | 78 21.5 +02.2 | S | 11 52.6 -00.1 | 21 | | | |
| 22 | 162 54.4 +00.5 | S | 23 55.9 +00.1 | 35 23.8 +02.5 | N | 12 15.5 +00.0 | 93 23.7 +02.3 | S | 11 52.5 -00.1 | 22 | | | |
| 23 | 177 54.9 +00.4 | S | 23 56.0 +00.1 | 50 26.3 +02.5 | N | 12 15.5 +00.0 | 108 26.0 +02.2 | S | 11 52.4 -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 00'1 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 094° 094° 094° 094° 094° 094° | | | SHA 326° 326° 326° 326° 326° 326° | | | SHA 024° 024° 024° 024° 024° 024° | | | | | | |
| | Greenwich Culmination Time: 11:08 | | | Greenwich Culmination Time: 19:38 | | | Greenwich Culmination Time: 15:47 | | | | | | |

| UT | Sun | | | | Venus | | | | Moon | | | | UT |
|----|-----------------------------------|-------|---------------|-----------------------------------|----------------|---------------|-----------------------------------|------|---------------|-------|-----|------|----|
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 179 21.0 -00.3 | S | 23 07.9 -00.2 | 219 28.0 -00.7 | S | 18 30.1 +00.7 | 311 18.1 -26.5 | N | 17 28.2 -11.5 | 00 | | | |
| 01 | 194 20.7 -00.3 | S | 23 07.7 -00.2 | 234 27.3 -00.7 | S | 18 30.8 +00.6 | 325 51.6 -26.3 | N | 17 16.7 -11.5 | 01 | | | |
| 02 | 209 20.4 -00.3 | S | 23 07.5 -00.1 | 249 26.6 -00.6 | S | 18 31.4 +00.7 | 340 25.3 -26.3 | N | 17 05.2 -11.6 | 02 | | | |
| 03 | 224 20.1 -00.3 | S | 23 07.4 -00.2 | 264 26.0 -00.7 | S | 18 32.1 +00.7 | 354 59.0 -26.2 | N | 16 53.6 -11.6 | 03 | | | |
| 04 | 239 19.8 -00.3 | S | 23 07.2 -00.2 | 279 25.3 -00.6 | S | 18 32.8 +00.7 | 9 32.8 -26.2 | N | 16 42.0 -11.7 | 04 | | | |
| 05 | 254 19.5 -00.3 | S | 23 07.0 -00.2 | 294 24.7 -00.7 | S | 18 33.5 +00.7 | 24 06.6 -26.1 | N | 16 30.3 -11.8 | 05 | | | |
| 06 | 269 19.2 -00.3 | S | 23 06.8 -00.1 | 309 24.0 -00.7 | S | 18 34.2 +00.6 | 38 40.5 -26.0 | N | 16 18.5 -11.8 | 06 | | | |
| 07 | 284 18.9 -00.3 | S | 23 06.7 -00.2 | 324 23.3 -00.6 | S | 18 34.8 +00.7 | 53 14.5 -25.9 | N | 16 06.7 -11.9 | 07 | | | |
| 08 | 299 18.6 -00.3 | S | 23 06.5 -00.2 | 339 22.7 -00.7 | S | 18 35.5 +00.7 | 67 48.6 -25.9 | N | 15 54.8 -11.9 | 08 | | | |
| 09 | 314 18.3 -00.3 | S | 23 06.3 -00.2 | 354 22.0 -00.6 | S | 18 36.2 +00.6 | 82 22.7 -25.8 | N | 15 42.9 -12.0 | 09 | | | |
| 10 | 329 18.0 -00.3 | S | 23 06.1 -00.2 | 9 21.4 -00.7 | S | 18 36.8 +00.7 | 96 56.9 -25.8 | N | 15 30.9 -12.0 | 10 | | | |
| 11 | 344 17.7 -00.3 | S | 23 05.9 -00.1 | 24 20.7 -00.7 | S | 18 37.5 +00.7 | 111 31.1 -25.6 | N | 15 18.9 -12.1 | 11 | | | |
| 12 | 359 17.4 -00.3 | S | 23 05.8 -00.2 | 39 20.0 -00.6 | S | 18 38.2 +00.7 | 126 05.5 -25.7 | N | 15 06.8 -12.2 | 12 | | | |
| 13 | 14 17.1 -00.3 | S | 23 05.6 -00.2 | 54 19.4 -00.7 | S | 18 38.9 +00.6 | 140 39.8 -25.5 | N | 14 54.6 -12.2 | 13 | | | |
| 14 | 29 16.8 -00.3 | S | 23 05.4 -00.2 | 69 18.7 -00.7 | S | 18 39.5 +00.7 | 155 14.3 -25.5 | N | 14 42.4 -12.2 | 14 | | | |
| 15 | 44 16.5 -00.3 | S | 23 05.2 -00.2 | 84 18.0 -00.6 | S | 18 40.2 +00.7 | 169 48.8 -25.4 | N | 14 30.2 -12.3 | 15 | | | |
| 16 | 59 16.2 -00.3 | S | 23 05.0 -00.2 | 99 17.4 -00.7 | S | 18 40.9 +00.6 | 184 23.4 -25.4 | N | 14 17.9 -12.4 | 16 | | | |
| 17 | 74 15.9 -00.3 | S | 23 04.8 -00.2 | 114 16.7 -00.7 | S | 18 41.5 +00.7 | 198 58.0 -25.3 | N | 14 05.5 -12.4 | 17 | | | |
| 18 | 89 15.6 -00.3 | S | 23 04.6 -00.1 | 129 16.0 -00.6 | S | 18 42.2 +00.6 | 213 32.7 -25.3 | N | 13 53.1 -12.5 | 18 | | | |
| 19 | 104 15.3 -00.3 | S | 23 04.5 -00.2 | 144 15.4 -00.7 | S | 18 42.8 +00.7 | 228 07.4 -25.2 | N | 13 40.6 -12.5 | 19 | | | |
| 20 | 119 15.0 -00.3 | S | 23 04.3 -00.2 | 159 14.7 -00.7 | S | 18 43.5 +00.7 | 242 42.2 -25.1 | N | 13 28.1 -12.5 | 20 | | | |
| 21 | 134 14.7 -00.3 | S | 23 04.1 -00.2 | 174 14.0 -00.6 | S | 18 44.2 +00.6 | 257 17.1 -25.1 | N | 13 15.6 -12.6 | 21 | | | |
| 22 | 149 14.4 -00.3 | S | 23 03.9 -00.2 | 189 13.4 -00.7 | S | 18 44.8 +00.7 | 271 52.0 -25.0 | N | 13 03.0 -12.7 | 22 | | | |
| 23 | 164 14.1 -00.3 | S | 23 03.7 -00.2 | 204 12.7 -00.7 | S | 18 45.5 +00.7 | 286 27.0 -25.0 | N | 12 50.3 -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 16'3 16'3 16'3 16'3 16'3 16'3 | | | SD 00'1 00'1 00'1 00'1 00'1 00'1 | | | SD 14'8 14'8 14'8 14'8 14'8 14'8 | | | | | | |
| | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 00'1 00'1 00'1 00'1 00'1 00'1 | | | HP 54'3 54'3 54'2 54'2 54'2 54'2 | | | | | | |
| | SHA 080° 080° 080° 080° 079° 079° | | | SHA 120° 120° 120° 120° 119° 119° | | | SHA 211° 209° 207° 205° 204° 202° | | | | | | |
| | Greenwich Culmination Time: 12:02 | | | Greenwich Culmination Time: 09:22 | | | Greenwich Culmination Time: 03:20 | | | | | | |
| UT | Mars | | | | Jupiter | | | | Saturn | | | | UT |
| | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | GHA | ddGHA | Dec | dDec | |
| 00 | 192 55.3 +00.4 | S | 23 56.1 +00.0 | 65 28.8 +02.4 | N | 12 15.5 +00.0 | 123 28.2 +02.3 | S | 11 52.3 -00.1 | 00 | | | |
| 01 | 207 55.7 +00.5 | S | 23 56.1 +00.1 | 80 31.2 +02.5 | N | 12 15.5 +00.0 | 138 30.5 +02.2 | S | 11 52.2 +00.0 | 01 | | | |
| 02 | 222 56.2 +00.4 | S | 23 56.2 +00.1 | 95 33.7 +02.5 | N | 12 15.5 +00.1 | 153 32.7 +02.3 | S | 11 52.2 -00.1 | 02 | | | |
| 03 | 237 56.6 +00.4 | S | 23 56.3 +00.1 | 110 36.2 +02.5 | N | 12 15.6 +00.0 | 168 35.0 +02.3 | S | 11 52.1 -00.1 | 03 | | | |
| 04 | 252 57.0 +00.5 | S | 23 56.4 +00.0 | 125 38.7 +02.4 | N | 12 15.6 +00.0 | 183 37.3 +02.2 | S | 11 52.0 -00.1 | 04 | | | |
| 05 | 267 57.5 +00.4 | S | 23 56.4 +00.1 | 140 41.1 +02.5 | N | 12 15.6 +00.0 | 198 39.5 +02.3 | S | 11 51.9 -00.1 | 05 | | | |
| 06 | 282 57.9 +00.5 | S | 23 56.5 +00.1 | 155 43.6 +02.5 | N | 12 15.6 +00.0 | 213 41.8 +02.2 | S | 11 51.8 +00.0 | 06 | | | |
| 07 | 297 58.4 +00.4 | S | 23 56.6 +00.0 | 170 46.1 +02.4 | N | 12 15.6 +00.0 | 228 44.0 +02.3 | S | 11 51.8 -00.1 | 07 | | | |
| 08 | 312 58.8 +00.4 | S | 23 56.6 +00.1 | 185 48.5 +02.5 | N | 12 15.6 +00.0 | 243 46.3 +02.2 | S | 11 51.7 -00.1 | 08 | | | |
| 09 | 327 59.2 +00.5 | S | 23 56.7 +00.1 | 200 51.0 +02.5 | N | 12 15.6 +00.0 | 258 48.5 +02.3 | S | 11 51.6 -00.1 | 09 | | | |
| 10 | 342 59.7 +00.4 | S | 23 56.8 +00.0 | 215 53.5 +02.4 | N | 12 15.6 +00.1 | 273 50.8 +02.3 | S | 11 51.5 -00.1 | 10 | | | |
| 11 | 358 00.1 +00.5 | S | 23 56.8 +00.1 | 230 55.9 +02.5 | N | 12 15.7 +00.0 | 288 53.1 +02.2 | S | 11 51.4 -00.1 | 11 | | | |
| 12 | 13 00.6 +00.4 | S | 23 56.9 +00.1 | 245 58.4 +02.5 | N | 12 15.7 +00.0 | 303 55.3 +02.3 | S | 11 51.3 +00.0 | 12 | | | |
| 13 | 28 01.0 +00.4 | S | 23 57.0 +00.0 | 261 00.9 +02.4 | N | 12 15.7 +00.0 | 318 57.6 +02.2 | S | 11 51.3 -00.1 | 13 | | | |
| 14 | 43 01.4 +00.5 | S | 23 57.0 +00.1 | 276 03.3 +02.5 | N | 12 15.7 +00.0 | 333 59.8 +02.3 | S | 11 51.2 -00.1 | 14 | | | |
| 15 | 58 01.9 +00.4 | S | 23 57.1 +00.1 | 291 05.8 +02.4 | N | 12 15.7 +00.0 | 349 02.1 +02.2 | S | 11 51.1 -00.1 | 15 | | | |
| 16 | 73 02.3 +00.4 | S | 23 57.2 +00.0 | 306 08.2 +02.5 | N | 12 15.7 +00.0 | 4 04.3 +02.3 | S | 11 51.0 -00.1 | 16 | | | |
| 17 | 88 02.7 +00.5 | S | 23 57.2 +00.1 | 321 10.7 +02.5 | N | 12 15.7 +00.1 | 19 06.6 +02.2 | S | 11 50.9 -00.1 | 17 | | | |
| 18 | 103 03.2 +00.4 | S | 23 57.3 +00.1 | 336 13.2 +02.4 | N | 12 15.8 +00.0 | 34 08.8 +02.3 | S | 11 50.8 +00.0 | 18 | | | |
| 19 | 118 03.6 +00.5 | S | 23 57.4 +00.0 | 351 15.6 +02.5 | N | 12 15.8 +00.0 | 49 11.1 +02.3 | S | 11 50.8 -00.1 | 19 | | | |
| 20 | 133 04.1 +00.4 | S | 23 57.4 +00.1 | 6 18.1 +02.5 | N | 12 15.8 +00.0 | 64 13.4 +02.2 | S | 11 50.7 -00.1 | 20 | | | |
| 21 | 148 04.5 +00.4 | S | 23 57.5 +00.1 | 21 20.6 +02.4 | N | 12 15.8 +00.0 | 79 15.6 +02.3 | S | 11 50.6 -00.1 | 21 | | | |
| 22 | 163 04.9 +00.5 | S | 23 57.6 +00.0 | 36 23.0 +02.5 | N | 12 15.8 +00.0 | 94 17.9 +02.2 | S | 11 50.5 -00.1 | 22 | | | |
| 23 | 178 05.4 +00.4 | S | 23 57.6 +00.1 | 51 25.5 +02.4 | N | 12 15.8 +00.0 | 109 20.1 +02.3 | S | 11 50.4 -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 00'1 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 094° 094° 093° 093° 093° 093° | | | SHA 326° 326° 326° 326° 326° 326° | | | SHA 024° 024° 024° 024° 024° 024° | | | | | | |
| | Greenwich Culmination Time: 11:07 | | | Greenwich Culmination Time: 19:34 | | | Greenwich Culmination Time: 15:43 | | | | | | |

