

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Saarlouis    49.3167° N   6.7500° E

Berechnung: pyEphem  
 Textsatz:    L<sup>A</sup>T<sub>E</sub>X

### Atmosphären-Einstellungen in pyEphem

Standort.pressure = 1010.0  
 Standort.horizon = '0:00:00.0'

Alle Zeitangaben beziehen sich auf den in der jeweiligen Zeile angegeben Kalendertag. Liegt ein Ereignis bereits nach Mitternacht, also schon am Folgetag, ist die Zeitangabe mit einem \* gekennzeichnet, z.B.: 00:20\*.

|   |  |   |  |
|---|--|---|--|
| <b>Spalte 1</b> Kalendertag.  | (Mondaufgang), Astr. MD (Astronomische Mitternachtsdämmerung), Naut. MD (Nautische Mitternachtsdämmerung). | <b>Spalte 15</b> Sonnenaufgang.   |  |
| <b>Spalte 2</b> Bei »MESZ« sind alle Zeitangaben in dieser Zeile in Mitteleuropäischer Sommerzeit, ansonsten standardmäßig in MEZ.  | <b>Spalte 6</b> Mondphase.   | <b>Spalte 16</b> Taglänge.  | <b>Für Beobachter, die zu Zeiten der Mitternachtsdämmerung während der astr. Dämmerung beoachten möchten:</b>  |
| <b>Spalte 3</b> Die für Deep-Sky-Beobachtungen nutzbare Zeitspanne: Es ist astronomisch dunkel (Sonne steht tiefer als $-18^\circ$ ) und kein Mond stört.   | <b>Spalte 7</b> Mondaufgang.   | <b>Spalte 17</b> Sonnenuntergang.   | <b>Spalte 26</b> Nutzbare Zeitspanne: Es ist »nautisch dunkel« (Sonne steht tiefer als $-12^\circ$ ) und kein Mond stört.  |
| <b>Spalte 4</b> Dauer der für Deep-Sky-Beobachtungen nutzbaren Zeitspanne.  | <b>Spalte 8</b> Monduntergang.   | <b>Spalte 18</b> Dauer der bürg. Abenddämmerung.                            | <b>Spalte 27</b> Dauer der in Spalte 26 angegebenen Zeitspanne.  |
| <b>Spalte 5</b> Ereignisse, die die für Deep-Sky-Beobachtungen nutzbare Zeitspanne begrenzen: AN <sub>+</sub> (Einbruch der astronomischen Nacht = Ende der astr. Abenddämmerung), M <sub>↓</sub> (Monduntergang), AN <sub>-</sub> (Ende der astronomischen Nacht = Beginn der astr. Morgendämmerung), M <sub>↑</sub> | <b>Spalte 9</b> Beginn der astr. Morgendämmerung (Sonnenhöhe = $-18^\circ$ ).                              | <b>Spalte 19</b> Ende der bürg. Abenddämmerung (Sonnenhöhe = $-6^\circ$ ).  | <b>Spalte 28</b> Ereignisse, die die nutzbare Zeitspanne begrenzen: ND <sub>+</sub> (Beginn der »naut. Dunkelheit« = Ende der naut. Abenddämmerung), M <sub>↓</sub> (Monduntergang), ND <sub>-</sub> (Ende der »naut. Dunkelheit« = Beginn der naut. Morgendämmerung), M <sub>↑</sub> (Mondaufgang), Naut. MD (Nautische Mitternachtsdämmerung). |
|   | <b>Spalte 10</b> Dauer der astr. Morgendämmerung.  | <b>Spalte 20</b> Dauer der naut. Abenddämmerung.                            | <b>Spalte 29</b> Identisch zu Spalte 1.  |
|   | <b>Spalte 11</b> Beginn der naut. Morgendämmerung (Sonnenhöhe = $-12^\circ$ ).                             | <b>Spalte 21</b> Ende der naut. Abenddämmerung (Sonnenhöhe = $-12^\circ$ ). |  |
|   | <b>Spalte 12</b> Dauer der naut. Morgendämmerung.  | <b>Spalte 22</b> Dauer der astr. Abenddämmerung.                            |  |
|   | <b>Spalte 13</b> Beginn der bürg. Morgendämmerung (Sonnenhöhe = $-6^\circ$ ).                              | <b>Spalte 23</b> Ende der astr. Abenddämmerung (Sonnenhöhe = $-18^\circ$ ). |  |
|   | <b>Spalte 14</b> Dauer der bürg. Morgendämmerung.  | <b>Spalte 24</b> Länge der Nacht.   |  |
|   |  | <b>Spalte 25</b> Länge der astr. Nacht.                                     |  |

| 1           | 2     | 3                          | 4       | 5                                   | 6    | 7     | 8     | 9                          | 10  | 11    | 12  | 13    | 14  | 15    | 16     | 17    | 18                      | 19    | 20  | 21    | 22  | 23    | 24      | 25       | 26                         | 27 | 28 | 29          |
|-------------|-------|----------------------------|---------|-------------------------------------|------|-------|-------|----------------------------|-----|-------|-----|-------|-----|-------|--------|-------|-------------------------|-------|-----|-------|-----|-------|---------|----------|----------------------------|----|----|-------------|
| 2024        | Zeit- | Astr. dunkel und kein Mond |         |                                     | Mond |       |       | Beginn der Morgendämmerung |     |       |     |       |     | Sonne |        |       | Ende der Abenddämmerung |       |     |       |     |       | Nacht   | Astr. N. | Naut. dunkel und kein Mond |    |    | 2024        |
|             | zone  |                            | Δt      |                                     | Ph.  | ↗     | ↘     | Astr.                      | Δt  | Naut. | Δt  | Bürg. | Δt  | ↗     | Δt     | ↘     | Δt                      | Bürg. | Δt  | Naut. | Δt  | Astr. | Δt      | Δt       |                            | Δt |    |             |
| Mo, 1. Jan  |       | 18:42–22:26                | 3h 43m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 22:26 | 11:35 | 06:29                      | 38m | 07:08 | 39m | 07:48 | 39m | 08:28 | 8h 16m | 16:44 | 39m                     | 17:24 | 39m | 18:04 | 38m | 18:42 | 15h 43m | 11h 46m  |                            |    |    | Mo, 1. Jan  |
| Di, 2. Jan  |       | 18:43–23:33                | 4h 50m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 23:33 | 11:47 | 06:29                      | 38m | 07:08 | 39m | 07:48 | 39m | 08:27 | 8h 17m | 16:45 | 39m                     | 17:25 | 39m | 18:05 | 38m | 18:43 | 15h 42m | 11h 46m  |                            |    |    | Di, 2. Jan  |
| Mi, 3. Jan  |       | 18:44–00:41*               | 5h 56m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | —:—   | 11:59 | 06:29                      | 38m | 07:08 | 39m | 07:48 | 39m | 08:27 | 8h 18m | 16:46 | 39m                     | 17:26 | 39m | 18:06 | 38m | 18:44 | 15h 40m | 11h 45m  |                            |    |    | Mi, 3. Jan  |
| Do, 4. Jan  |       | 18:45–01:50*               | 7h 04m  | AN <sub>+</sub> bis M <sub>7</sub>  | ☾    | 00:41 | 12:12 | 06:29                      | 38m | 07:08 | 39m | 07:48 | 39m | 08:27 | 8h 20m | 16:47 | 39m                     | 17:27 | 39m | 18:07 | 38m | 18:45 | 15h 39m | 11h 44m  |                            |    |    | Do, 4. Jan  |
| Fr, 5. Jan  |       | 18:46–03:02*               | 8h 15m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 01:50 | 12:25 | 06:29                      | 38m | 07:08 | 39m | 07:48 | 39m | 08:27 | 8h 21m | 16:48 | 39m                     | 17:28 | 39m | 18:08 | 38m | 18:46 | 15h 38m | 11h 43m  |                            |    |    | Fr, 5. Jan  |
| Sa, 6. Jan  |       | 18:47–04:18*               | 9h 31m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 03:02 | 12:41 | 06:29                      | 38m | 07:08 | 39m | 07:47 | 39m | 08:27 | 8h 22m | 16:50 | 39m                     | 17:29 | 39m | 18:09 | 38m | 18:47 | 15h 36m | 11h 42m  |                            |    |    | Sa, 6. Jan  |
| So, 7. Jan  |       | 18:48–05:37*               | 10h 49m | AN <sub>+</sub> bis M <sub>7</sub>  |      | 04:18 | 13:03 | 06:29                      | 38m | 07:08 | 39m | 07:47 | 39m | 08:27 | 8h 24m | 16:51 | 39m                     | 17:30 | 39m | 18:10 | 38m | 18:48 | 15h 35m | 11h 40m  |                            |    |    | So, 7. Jan  |
| Mo, 8. Jan  |       | 18:49–06:29*               | 11h 39m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 05:37 | 13:32 | 06:29                      | 38m | 07:08 | 39m | 07:47 | 39m | 08:26 | 8h 25m | 16:52 | 39m                     | 17:31 | 39m | 18:11 | 38m | 18:49 | 15h 33m | 11h 39m  |                            |    |    | Mo, 8. Jan  |
| Di, 9. Jan  |       | 18:50–06:29*               | 11h 38m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 06:55 | 14:14 | 06:29                      | 38m | 07:07 | 39m | 07:47 | 39m | 08:26 | 8h 27m | 16:53 | 39m                     | 17:32 | 39m | 18:12 | 38m | 18:50 | 15h 32m | 11h 38m  |                            |    |    | Di, 9. Jan  |
| Mi, 10. Jan |       | 18:51–06:28*               | 11h 37m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 08:05 | 15:14 | 06:29                      | 38m | 07:07 | 39m | 07:46 | 39m | 08:25 | 8h 29m | 16:55 | 39m                     | 17:34 | 39m | 18:13 | 38m | 18:51 | 15h 30m | 11h 37m  |                            |    |    | Mi, 10. Jan |
| Do, 11. Jan |       | 18:52–06:28*               | 11h 35m | AN <sub>+</sub> bis AN <sub>–</sub> | ☀    | 09:01 | 16:31 | 06:28                      | 38m | 07:07 | 39m | 07:46 | 38m | 08:25 | 8h 31m | 16:56 | 38m                     | 17:35 | 39m | 18:14 | 38m | 18:52 | 15h 28m | 11h 35m  |                            |    |    | Do, 11. Jan |
| Fr, 12. Jan |       | 18:54–06:28*               | 11h 34m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 09:42 | 17:58 | 06:28                      | 38m | 07:06 | 39m | 07:46 | 38m | 08:24 | 8h 32m | 16:57 | 38m                     | 17:36 | 39m | 18:15 | 38m | 18:54 | 15h 26m | 11h 34m  |                            |    |    | Fr, 12. Jan |
| Sa, 13. Jan |       | 19:29–06:27*               | 10h 58m | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 10:11 | 19:29 | 06:28                      | 38m | 07:06 | 39m | 07:45 | 38m | 08:24 | 8h 34m | 16:59 | 38m                     | 17:37 | 39m | 18:16 | 38m | 18:55 | 15h 24m | 11h 32m  |                            |    |    | Sa, 13. Jan |
| So, 14. Jan |       | 20:57–06:27*               | 9h 29m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 10:33 | 20:57 | 06:27                      | 38m | 07:05 | 39m | 07:44 | 38m | 08:23 | 8h 36m | 17:00 | 38m                     | 17:39 | 39m | 18:18 | 38m | 18:56 | 15h 22m | 11h 31m  |                            |    |    | So, 14. Jan |
| Mo, 15. Jan |       | 22:22–06:26*               | 8h 03m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 10:50 | 22:22 | 06:27                      | 38m | 07:05 | 38m | 07:44 | 38m | 08:22 | 8h 38m | 17:01 | 38m                     | 17:40 | 38m | 18:19 | 38m | 18:57 | 15h 20m | 11h 29m  |                            |    |    | Mo, 15. Jan |
| Di, 16. Jan |       | 23:45–06:26*               | 6h 40m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 11:06 | 23:45 | 06:26                      | 38m | 07:04 | 38m | 07:43 | 38m | 08:22 | 8h 41m | 17:03 | 38m                     | 17:41 | 38m | 18:20 | 38m | 18:58 | 15h 18m | 11h 27m  |                            |    |    | Di, 16. Jan |
| Mi, 17. Jan |       | 01:06*–06:25*              | 5h 18m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 11:21 | —:—   | 06:26                      | 38m | 07:04 | 38m | 07:43 | 38m | 08:21 | 8h 43m | 17:04 | 38m                     | 17:43 | 38m | 18:21 | 38m | 18:59 | 15h 15m | 11h 25m  |                            |    |    | Mi, 17. Jan |
| Do, 18. Jan |       | 02:27*–06:25*              | 3h 57m  | M <sub>↘</sub> bis AN <sub>–</sub>  | ☾    | 11:37 | 01:06 | 06:25                      | 37m | 07:03 | 38m | 07:42 | 38m | 08:20 | 8h 45m | 17:06 | 38m                     | 17:44 | 38m | 18:23 | 37m | 19:01 | 15h 13m | 11h 24m  |                            |    |    | Do, 18. Jan |
| Fr, 19. Jan |       | 03:48*–06:24*              | 2h 36m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 11:56 | 02:27 | 06:25                      | 37m | 07:03 | 38m | 07:41 | 38m | 08:19 | 8h 48m | 17:07 | 38m                     | 17:45 | 38m | 18:24 | 37m | 19:02 | 15h 11m | 11h 22m  |                            |    |    | Fr, 19. Jan |
| Sa, 20. Jan |       | 05:06*–06:23*              | 1h 17m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 12:20 | 03:48 | 06:24                      | 37m | 07:02 | 38m | 07:40 | 37m | 08:18 | 8h 50m | 17:09 | 37m                     | 17:47 | 38m | 18:25 | 37m | 19:03 | 15h 08m | 11h 20m  |                            |    |    | Sa, 20. Jan |
| So, 21. Jan |       | 06:18*–06:23*              | 4m      | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 12:51 | 05:06 | 06:23                      | 37m | 07:01 | 38m | 07:40 | 37m | 08:17 | 8h 52m | 17:10 | 37m                     | 17:48 | 38m | 18:27 | 37m | 19:04 | 15h 06m | 11h 18m  |                            |    |    | So, 21. Jan |
| Mo, 22. Jan |       | —:— —:— —:—                | –       | Mond stört                          |      | 13:33 | 06:18 | 06:23                      | 37m | 07:00 | 38m | 07:39 | 37m | 08:16 | 8h 55m | 17:12 | 37m                     | 17:50 | 38m | 18:28 | 37m | 19:06 | 15h 03m | 11h 16m  |                            |    |    | Mo, 22. Jan |
| Di, 23. Jan |       | —:— —:~ —:~                | –       | Mond stört                          |      | 14:27 | 07:18 | 06:22                      | 37m | 07:00 | 38m | 07:38 | 37m | 08:15 | 8h 58m | 17:14 | 37m                     | 17:51 | 38m | 18:29 | 37m | 19:07 | 15h 00m | 11h 13m  |                            |    |    | Di, 23. Jan |
| Mi, 24. Jan |       | —:~ —:~ —:~                | –       | Mond stört                          |      | 15:31 | 08:05 | 06:21                      | 37m | 06:59 | 38m | 07:37 | 37m | 08:14 | 9h 00m | 17:15 | 37m                     | 17:53 | 3   |       |     |       |         |          |                            |    |    |             |

| 1           | 2     | 3                          | 4      | 5                       | 6    | 7     | 8     | 9                          | 10  | 11    | 12  | 13    | 14  | 15    | 16      | 17    | 18                      | 19    | 20  | 21    | 22  | 23    | 24      | 25       | 26                         | 27 | 28 | 29          |
|-------------|-------|----------------------------|--------|-------------------------|------|-------|-------|----------------------------|-----|-------|-----|-------|-----|-------|---------|-------|-------------------------|-------|-----|-------|-----|-------|---------|----------|----------------------------|----|----|-------------|
| 2024        | Zeit- | Astr. dunkel und kein Mond |        |                         | Mond |       |       | Beginn der Morgendämmerung |     |       |     |       |     | Sonne |         |       | Ende der Abenddämmerung |       |     |       |     |       | Nacht   | Astr. N. | Naut. dunkel und kein Mond |    |    | 2024        |
|             | zone  |                            | Δt     |                         | Ph.  | ↗     | ↘     | Astr.                      | Δt  | Naut. | Δt  | Bürg. | Δt  | ↗     | Δt      | ↘     | Δt                      | Bürg. | Δt  | Naut. | Δt  | Astr. | Δt      | Δt       |                            | Δt |    |             |
| Di, 20. Feb |       | —:—:—:—                    | –      | Mond stört              |      | 13:22 | 06:06 | 05:46                      | 36m | 06:22 | 36m | 06:59 | 34m | 07:33 | 10h 26m | 18:00 | 34m                     | 18:35 | 36m | 19:11 | 36m | 19:48 | 13h 31m | 9h 55m   |                            |    |    | Di, 20. Feb |
| Mi, 21. Feb |       | —:—:—:—                    | –      | Mond stört              |      | 14:30 | 06:43 | 05:44                      | 36m | 06:21 | 36m | 06:57 | 34m | 07:31 | 10h 30m | 18:02 | 34m                     | 18:36 | 36m | 19:13 | 36m | 19:49 | 13h 27m | 9h 52m   |                            |    |    | Mi, 21. Feb |
| Do, 22. Feb |       | —:~:~:~:~                  | –      | Mond stört              |      | 15:42 | 07:11 | 05:42                      | 36m | 06:19 | 36m | 06:55 | 34m | 07:30 | 10h 33m | 18:03 | 34m                     | 18:38 | 36m | 19:14 | 36m | 19:51 | 13h 24m | 9h 49m   |                            |    |    | Do, 22. Feb |
| Fr, 23. Feb |       | —:~:~:~:~                  | –      | Mond stört              |      | 16:53 | 07:32 | 05:40                      | 36m | 06:17 | 36m | 06:53 | 34m | 07:28 | 10h 37m | 18:05 | 34m                     | 18:39 | 36m | 19:16 | 36m | 19:53 | 13h 20m | 9h 45m   |                            |    |    | Fr, 23. Feb |
| Sa, 24. Feb |       | —:~:~:~:~                  | –      | Mond stört              | ☾    | 18:03 | 07:48 | 05:38                      | 36m | 06:15 | 36m | 06:51 | 34m | 07:26 | 10h 40m | 18:07 | 34m                     | 18:41 | 36m | 19:17 | 36m | 19:54 | 13h 17m | 9h 42m   |                            |    |    | Sa, 24. Feb |
| So, 25. Feb |       | —:~:~:~:~                  | –      | Mond stört              |      | 19:11 | 08:01 | 05:37                      | 36m | 06:13 | 36m | 06:50 | 34m | 07:24 | 10h 44m | 18:08 | 34m                     | 18:42 | 36m | 19:19 | 36m | 19:56 | 13h 13m | 9h 38m   |                            |    |    | So, 25. Feb |
| Mo, 26. Feb |       | 19:57 – 20:18              | 20m    | AN <sub>+</sub> bis M♊  |      | 20:18 | 08:13 | 05:35                      | 36m | 06:12 | 36m | 06:48 | 34m | 07:22 | 10h 48m | 18:10 | 34m                     | 18:44 | 36m | 19:20 | 36m | 19:57 | 13h 09m | 9h 35m   |                            |    |    | Mo, 26. Feb |
| Di, 27. Feb |       | 19:59 – 21:25              | 1h 26m | AN <sub>+</sub> bis M♊  |      | 21:25 | 08:25 | 05:33                      | 36m | 06:10 | 36m | 06:46 | 34m | 07:20 | 10h 51m | 18:11 | 34m                     | 18:46 | 36m | 19:22 | 37m | 19:59 | 13h 06m | 9h 31m   |                            |    |    | Di, 27. Feb |
| Mi, 28. Feb |       | 20:00 – 22:34              | 2h 33m | AN <sub>+</sub> bis M♊  |      | 22:34 | 08:37 | 05:31                      | 36m | 06:08 | 36m | 06:44 | 34m | 07:18 | 10h 55m | 18:13 | 34m                     | 18:47 | 36m | 19:23 | 37m | 20:00 | 13h 02m | 9h 28m   |                            |    |    | Mi, 28. Feb |
| Do, 29. Feb |       | 20:02 – 23:45              | 3h 42m | AN <sub>+</sub> bis M♊  |      | 23:45 | 08:51 | 05:29                      | 36m | 06:06 | 36m | 06:42 | 33m | 07:16 | 10h 58m | 18:15 | 34m                     | 18:49 | 36m | 19:25 | 37m | 20:02 | 12h 59m | 9h 24m   |                            |    |    | Do, 29. Feb |
| Fr, 1. Mär  |       | 20:04 – 00:59*             | 4h 55m | AN <sub>+</sub> bis M♊  |      | —:~   | 09:07 | 05:27                      | 37m | 06:04 | 36m | 06:40 | 33m | 07:14 | 11h 02m | 18:16 | 33m                     | 18:50 | 36m | 19:27 | 37m | 20:04 | 12h 55m | 9h 21m   |                            |    |    | Fr, 1. Mär  |
| Sa, 2. Mär  |       | 20:05 – 02:14*             | 6h 08m | AN <sub>+</sub> bis M♊  |      | 00:59 | 09:28 | 05:25                      | 37m | 06:02 | 36m | 06:38 | 33m | 07:12 | 11h 06m | 18:18 | 33m                     | 18:52 | 36m | 19:28 | 37m | 20:05 | 12h 51m | 9h 17m   |                            |    |    | Sa, 2. Mär  |
| So, 3. Mär  |       | 20:07 – 03:27*             | 7h 20m | AN <sub>+</sub> bis M♊  | ☾    | 02:14 | 09:57 | 05:23                      | 37m | 06:00 | 36m | 06:36 | 33m | 07:10 | 11h 09m | 18:20 | 33m                     | 18:53 | 36m | 19:30 | 37m | 20:07 | 12h 48m | 9h 13m   |                            |    |    | So, 3. Mär  |
| Mo, 4. Mär  |       | 20:09 – 04:32*             | 8h 23m | AN <sub>+</sub> bis M♊  |      | 03:27 | 10:38 | 05:21                      | 37m | 05:58 | 36m | 06:34 | 33m | 07:08 | 11h 13m | 18:21 | 33m                     | 18:55 | 36m | 19:31 | 37m | 20:09 | 12h 44m | 9h 10m   |                            |    |    | Mo, 4. Mär  |
| Di, 5. Mär  |       | 20:10 – 05:17*             | 9h 06m | AN <sub>+</sub> bis AN♈ |      | 04:32 | 11:36 | 05:19                      | 37m | 05:56 | 36m | 06:32 | 33m | 07:06 | 11h 17m | 18:23 | 33m                     | 18:57 | 36m | 19:33 | 37m | 20:10 | 12h 40m | 9h 06m   |                            |    |    | Di, 5. Mär  |
| Mi, 6. Mär  |       | 20:12 – 05:14*             | 9h 02m | AN <sub>+</sub> bis AN♈ |      | 05:25 | 12:50 | 05:17                      | 37m | 05:54 | 36m | 06:30 | 33m | 07:04 | 11h 20m | 18:24 | 33m                     | 18:58 | 36m | 19:34 | 37m | 20:12 | 12h 37m | 9h 02m   |                            |    |    | Mi, 6. Mär  |
| Do, 7. Mär  |       | 20:14 – 05:12*             | 8h 58m | AN <sub>+</sub> bis AN♈ |      | 06:04 | 14:16 | 05:14                      | 37m | 05:52 | 36m | 06:28 | 33m | 07:02 | 11h 24m | 18:26 | 33m                     | 19:00 | 36m | 19:36 | 37m | 20:14 | 12h 33m | 8h 58m   |                            |    |    | Do, 7. Mär  |
| Fr, 8. Mär  |       | 20:15 – 05:10*             | 8h 54m | AN <sub>+</sub> bis AN♈ |      | 06:33 | 15:47 | 05:12                      | 37m | 05:50 | 36m | 06:26 | 33m | 07:00 | 11h 27m | 18:28 | 33m                     | 19:01 | 36m | 19:38 | 37m | 20:15 | 12h 29m | 8h 54m   |                            |    |    | Fr, 8. Mär  |
| Sa, 9. Mär  |       | 20:17 – 05:08*             | 8h 50m | AN <sub>+</sub> bis AN♈ |      | 06:55 | 17:19 | 05:10                      | 37m | 05:48 | 36m | 06:24 | 33m | 06:58 | 11h 31m | 18:29 | 33m                     | 19:03 | 36m | 19:39 | 37m | 20:17 | 12h 26m | 8h 50m   |                            |    |    | Sa, 9. Mär  |
| So, 10. Mär |       | 20:19 – 05:06*             | 8h 47m | AN <sub>+</sub> bis AN♈ | ☾    | 07:13 | 18:49 | 05:08                      | 37m | 05:46 | 36m | 06:22 | 33m | 06:55 | 11h 35m | 18:31 | 33m                     | 19:04 | 36m | 19:41 | 37m | 20:19 | 12h 22m | 8h 47m   |                            |    |    | So, 10. Mär |
| Mo, 11. Mär |       | 20:20 – 05:03*             | 8h 43m | AN <sub>+</sub> bis AN♈ |      | 07:29 | 20:17 | 05:06                      | 37m | 05:43 | 36m | 06:20 | 33m | 06:53 | 11h 38m | 18:32 | 33m                     | 19:06 | 36m | 19:42 | 37m | 20:20 | 12h 18m | 8h 43m   |                            |    |    | Mo, 11. Mär |
| Di, 12. Mär |       | 21:45 – 05:01*             | 7h 16m | M♈ bis AN♈              |      | 07:45 | 21:45 | 05:03                      | 37m | 05:41 | 36m | 06:18 | 33m | 06:51 | 11h 42m | 18:34 | 33m                     | 19:08 | 36m | 19:44 | 37m | 20:22 | 12h 15m | 8h 39m   |                            |    |    | Di, 12. Mär |
| Mi, 13. Mär |       | 23:12 – 04:59*             | 5h 46m | M♈ bis AN♈              |      | 08:03 | 23:12 | 05:01                      | 37m | 05:39 | 36m | 06:15 | 33m | 06:49 | 11h 46m | 18:35 | 33m                     | 19:09 | 36m | 19:46 | 38m | 20:24 | 12h 11m | 8h 35m   |                            |    |    | Mi, 13. Mär |
| Do, 14. Mär |       | 00:38* – 04:57*            | 4h 18m | M♈ bis AN♈              |      | 08:24 | —:~   | 04:59                      | 38m | 05:37 | 36m | 06:13 | 33m | 06:47 | 11h 49m | 18:37 | 33m                     | 19:11 | 36m | 19:47 | 38m | 20:25 | 12h 07m | 8h 31m   |                            |    |    | Do, 14. Mär |
| Fr, 15. Mär |       | 01:58* – 04:54*            | 2h 55m | M♈ bis AN♈              | </   |       |       |                            |     |       |     |       |     |       |         |       |                         |       |     |       |     |       |         |          |                            |    |    |             |

| 1           | 2     | 3                          | 4      | 5                                   | 6    | 7     | 8     | 9                          | 10  | 11    | 12  | 13    | 14    | 15    | 16      | 17                      | 18  | 19    | 20  | 21    | 22    | 23       | 24                         | 25     | 26 | 27   | 28 | 29          |
|-------------|-------|----------------------------|--------|-------------------------------------|------|-------|-------|----------------------------|-----|-------|-----|-------|-------|-------|---------|-------------------------|-----|-------|-----|-------|-------|----------|----------------------------|--------|----|------|----|-------------|
| 2024        | Zeit- | Astr. dunkel und kein Mond |        |                                     | Mond |       |       | Beginn der Morgendämmerung |     |       |     |       | Sonne |       |         | Ende der Abenddämmerung |     |       |     |       | Nacht | Astr. N. | Naut. dunkel und kein Mond |        |    | 2024 |    |             |
|             | zone  |                            | Δt     |                                     | Ph.  | ↗     | ↘     | Astr.                      | Δt  | Naut. | Δt  | Bürg. | Δt    | ↗     | Δt      | ↘                       | Δt  | Bürg. | Δt  | Naut. | Δt    | Astr.    | Δt                         | Δt     |    | Δt   |    |             |
| Mi, 10. Apr | MESZ  | 23:08–04:49*               | 5h 40m | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 07:24 | 23:08 | 04:51                      | 43m | 05:35 | 39m | 06:15 | 35m   | 06:50 | 13h 28m | 20:18                   | 35m | 20:54 | 39m | 21:34 | 44m   | 22:18    | 10h 29m                    | 6h 30m |    |      |    | Mi, 10. Apr |
| Do, 11. Apr | MESZ  | 00:34*–04:46*              | 4h 11m | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 07:48 | —:—   | 04:49                      | 44m | 05:33 | 39m | 06:13 | 35m   | 06:48 | 13h 32m | 20:20                   | 35m | 20:55 | 40m | 21:35 | 44m   | 22:20    | 10h 25m                    | 6h 25m |    |      |    | Do, 11. Apr |
| Fr, 12. Apr | MESZ  | 01:52*–04:43*              | 2h 51m | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 08:21 | 00:34 | 04:46                      | 44m | 05:30 | 40m | 06:10 | 35m   | 06:46 | 13h 35m | 20:21                   | 35m | 20:57 | 40m | 21:37 | 44m   | 22:22    | 10h 22m                    | 6h 20m |    |      |    | Fr, 12. Apr |
| Sa, 13. Apr | MESZ  | 02:56*–04:40*              | 1h 44m | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 09:04 | 01:52 | 04:43                      | 44m | 05:28 | 40m | 06:08 | 35m   | 06:44 | 13h 39m | 20:23                   | 35m | 20:59 | 40m | 21:39 | 45m   | 22:25    | 10h 18m                    | 6h 15m |    |      |    | Sa, 13. Apr |
| So, 14. Apr | MESZ  | 03:44*–04:38*              | 53m    | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 10:00 | 02:56 | 04:40                      | 45m | 05:26 | 40m | 06:06 | 35m   | 06:42 | 13h 42m | 20:25                   | 35m | 21:00 | 40m | 21:41 | 45m   | 22:27    | 10h 15m                    | 6h 10m |    |      |    | So, 14. Apr |
| Mo, 15. Apr | MESZ  | 04:19*–04:35*              | 15m    | M <sub>↘</sub> bis AN <sub>–</sub>  | ☾    | 11:06 | 03:44 | 04:38                      | 45m | 05:23 | 40m | 06:04 | 35m   | 06:40 | 13h 46m | 20:26                   | 35m | 21:02 | 40m | 21:43 | 46m   | 22:29    | 10h 11m                    | 6h 05m |    |      |    | Mo, 15. Apr |
| Di, 16. Apr | MESZ  | —:— —:—                    | –      | Mond stört                          |      | 12:18 | 04:19 | 04:35                      | 46m | 05:21 | 40m | 06:02 | 35m   | 06:38 | 13h 49m | 20:28                   | 36m | 21:04 | 41m | 21:45 | 46m   | 22:31    | 10h 08m                    | 6h 00m |    |      |    | Di, 16. Apr |
| Mi, 17. Apr | MESZ  | —:— —:—                    | –      | Mond stört                          |      | 13:30 | 04:44 | 04:32                      | 46m | 05:19 | 41m | 06:00 | 36m   | 06:36 | 13h 53m | 20:29                   | 36m | 21:05 | 41m | 21:47 | 47m   | 22:34    | 10h 04m                    | 5h 55m |    |      |    | Mi, 17. Apr |
| Do, 18. Apr | MESZ  | —:~ —:~                    | –      | Mond stört                          |      | 14:41 | 05:03 | 04:29                      | 47m | 05:16 | 41m | 05:58 | 36m   | 06:34 | 13h 56m | 20:31                   | 36m | 21:07 | 41m | 21:49 | 47m   | 22:36    | 10h 01m                    | 5h 50m |    |      |    | Do, 18. Apr |
| Fr, 19. Apr | MESZ  | —:~ —:~                    | –      | Mond stört                          |      | 15:50 | 05:18 | 04:26                      | 47m | 05:14 | 41m | 05:56 | 36m   | 06:32 | 14h 00m | 20:32                   | 36m | 21:09 | 41m | 21:51 | 48m   | 22:39    | 9h 57m                     | 5h 45m |    |      |    | Fr, 19. Apr |
| Sa, 20. Apr | MESZ  | —:~ —:~                    | –      | Mond stört                          |      | 16:58 | 05:30 | 04:24                      | 47m | 05:12 | 41m | 05:53 | 36m   | 06:30 | 14h 03m | 20:34                   | 36m | 21:10 | 42m | 21:52 | 48m   | 22:41    | 9h 54m                     | 5h 39m |    |      |    | Sa, 20. Apr |
| So, 21. Apr | MESZ  | —:~ —:~                    | –      | Mond stört                          |      | 18:05 | 05:42 | 04:21                      | 48m | 05:09 | 42m | 05:51 | 36m   | 06:28 | 14h 07m | 20:35                   | 36m | 21:12 | 42m | 21:54 | 49m   | 22:43    | 9h 51m                     | 5h 34m |    |      |    | So, 21. Apr |
| Mo, 22. Apr | MESZ  | —:~ —:~                    | –      | Mond stört                          |      | 19:13 | 05:54 | 04:18                      | 49m | 05:07 | 42m | 05:49 | 36m   | 06:26 | 14h 10m | 20:37                   | 37m | 21:14 | 42m | 21:56 | 49m   | 22:46    | 9h 47m                     | 5h 29m |    |      |    | Mo, 22. Apr |
| Di, 23. Apr | MESZ  | —:~ —:~                    | –      | Mond stört                          |      | 20:23 | 06:06 | 04:15                      | 49m | 05:05 | 42m | 05:47 | 36m   | 06:24 | 14h 13m | 20:38                   | 37m | 21:15 | 43m | 21:58 | 50m   | 22:48    | 9h 44m                     | 5h 23m |    |      |    | Di, 23. Apr |
| Mi, 24. Apr | MESZ  | —:~ —:~                    | –      | Mond stört                          | ☾    | 21:36 | 06:21 | 04:12                      | 50m | 05:02 | 42m | 05:45 | 37m   | 06:22 | 14h 17m | 20:40                   | 37m | 21:17 | 43m | 22:00 | 50m   | 22:51    | 9h 40m                     | 5h 18m |    |      |    | Mi, 24. Apr |
| Do, 25. Apr | MESZ  | —:~ —:~                    | –      | Mond stört                          |      | 22:51 | 06:39 | 04:09                      | 50m | 05:00 | 43m | 05:43 | 37m   | 06:21 | 14h 20m | 20:41                   | 37m | 21:19 | 43m | 22:02 | 51m   | 22:54    | 9h 37m                     | 5h 12m |    |      |    | Do, 25. Apr |
| Fr, 26. Apr | MESZ  | 22:56–00:06*               | 1h 10m | AN <sub>+</sub> bis M <sub>↗</sub>  |      | —:~   | 07:02 | 04:06                      | 51m | 04:58 | 43m | 05:41 | 37m   | 06:19 | 14h 23m | 20:43                   | 37m | 21:20 | 43m | 22:04 | 51m   | 22:56    | 9h 34m                     | 5h 07m |    |      |    | Fr, 26. Apr |
| Sa, 27. Apr | MESZ  | 22:59–01:16*               | 2h 17m | AN <sub>+</sub> bis M <sub>↗</sub>  |      | 00:06 | 07:35 | 04:03                      | 51m | 04:55 | 43m | 05:39 | 37m   | 06:17 | 14h 27m | 20:44                   | 37m | 21:22 | 44m | 22:06 | 52m   | 22:59    | 9h 30m                     | 5h 01m |    |      |    | Sa, 27. Apr |
| So, 28. Apr | MESZ  | 23:01–02:16*               | 3h 14m | AN <sub>+</sub> bis M <sub>↗</sub>  |      | 01:16 | 08:21 | 04:01                      | 52m | 04:53 | 44m | 05:37 | 37m   | 06:15 | 14h 30m | 20:46                   | 38m | 21:24 | 44m | 22:08 | 53m   | 23:01    | 9h 27m                     | 4h 56m |    |      |    | So, 28. Apr |
| Mo, 29. Apr | MESZ  | 23:04–03:02*               | 3h 57m | AN <sub>+</sub> bis M <sub>↗</sub>  |      | 02:16 | 09:21 | 03:58                      | 53m | 04:51 | 44m | 05:35 | 37m   | 06:13 | 14h 33m | 20:47                   | 38m | 21:25 | 44m | 22:10 | 53m   | 23:04    | 9h 24m                     | 4h 50m |    |      |    | Mo, 29. Apr |
| Di, 30. Apr | MESZ  | 23:07–03:35*               | 4h 28m | AN <sub>+</sub> bis M <sub>↗</sub>  |      | 03:02 | 10:36 | 03:55                      | 53m | 04:49 | 44m | 05:33 | 38m   | 06:12 | 14h 37m | 20:49                   | 38m | 21:27 | 45m | 22:12 | 54m   | 23:07    | 9h 21m                     | 4h 44m |    |      |    | Di, 30. Apr |
| Mi, 1. Mai  | MESZ  | 23:10–03:49*               | 4h 38m | AN <sub>+</sub> bis AN <sub>–</sub> | ☾    | 03:35 | 11:58 | 03:52                      | 54m | 04:46 | 45m | 05:31 | 38m   | 06:10 | 14h 40m | 20:50                   | 38m | 21:29 | 45m | 22:14 | 55m   | 23:10    | 9h 17m                     | 4h 38m |    |      |    | Mi, 1. Mai  |
| Do, 2. Mai  | MESZ  | 23:12–03:46*               | 4h 33m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 04:01 | 13:23 | 03:49                      | 55m | 04:44 | 45m | 05:30 | 38m   | 06:08 | 14h 43m | 20:52                   | 38m | 21:30 | 45m | 22:16 | 56m   | 23:12    | 9h 14m                     | 4h 33m |    |      |    | Do, 2. Mai  |
| Fr, 3. Mai  | MESZ  | 23:15–03:43*               | 4h 27m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 04:20 | 14:49 | 03:46                      | 56m | 04:42 | 45m | 05:28 | 38m   | 06:06 | 14h 46m | 20:53                   | 38m | 21:32 | 46m | 22:18 | 56m   | 23:15    | 9h 11m                     | 4h 27m |    |      |    | Fr, 3. Mai  |
| S           |       |                            |        |                                     |      |       |       |                            |     |       |     |       |       |       |         |                         |     |       |     |       |       |          |                            |        |    |      |    |             |

| 1           | 2     | 3                          | 4      | 5                                   | 6    | 7     | 8     | 9                          | 10     | 11    | 12     | 13    | 14    | 15    | 16      | 17                      | 18  | 19    | 20     | 21    | 22     | 23       | 24                         | 25     | 26              | 27     | 28                                  | 29          |
|-------------|-------|----------------------------|--------|-------------------------------------|------|-------|-------|----------------------------|--------|-------|--------|-------|-------|-------|---------|-------------------------|-----|-------|--------|-------|--------|----------|----------------------------|--------|-----------------|--------|-------------------------------------|-------------|
| 2024        | Zeit- | Astr. dunkel und kein Mond |        |                                     | Mond |       |       | Beginn der Morgendämmerung |        |       |        |       | Sonne |       |         | Ende der Abenddämmerung |     |       |        |       | Nacht  | Astr. N. | Naut. dunkel und kein Mond |        |                 | 2024   |                                     |             |
|             | zone  |                            | Δt     |                                     | Ph.  | ↗     | ↘     | Astr.                      | Δt     | Naut. | Δt     | Bürg. | Δt    | ↗     | Δt      | ↘                       | Δt  | Bürg. | Δt     | Naut. | Δt     | Astr.    | Δt                         | Δt     |                 | Δt     |                                     |             |
| Do, 30. Mai | MESZ  | 00:53* – 02:07*            | 1h 13m | AN <sub>+</sub> bis AN <sub>–</sub> | ☾    | 02:26 | 12:35 | 02:12                      | 1h 39m | 03:51 | 57m    | 04:48 | 44m   | 05:32 | 15h 56m | 21:29                   | 44m | 22:13 | 57m    | 23:10 | 1h 42m | 00:53*   | 8h 03m                     | 1h 13m |                 |        |                                     | Do, 30. Mai |
| Fr, 31. Mai | MESZ  | 00:59* – 02:01*            | 1h 02m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 02:43 | 13:58 | 02:07                      | 1h 42m | 03:50 | 57m    | 04:47 | 44m   | 05:32 | 15h 57m | 21:30                   | 44m | 22:14 | 57m    | 23:12 | 1h 47m | 00:59*   | 8h 01m                     | 1h 02m |                 |        |                                     | Fr, 31. Mai |
| Sa, 1. Jun  | MESZ  | 01:06* – 01:55*            | 48m    | AN <sub>+</sub> bis AN <sub>–</sub> |      | 02:58 | 15:20 | 02:01                      | 1h 47m | 03:48 | 57m    | 04:46 | 44m   | 05:31 | 15h 59m | 21:31                   | 44m | 22:15 | 58m    | 23:14 | 1h 52m | 01:06*   | 7h 59m                     | 48m    |                 |        |                                     | Sa, 1. Jun  |
| So, 2. Jun  | MESZ  | 01:16* – 01:46*            | 30m    | AN <sub>+</sub> bis AN <sub>–</sub> |      | 03:13 | 16:43 | 01:55                      | 1h 52m | 03:47 | 58m    | 04:45 | 44m   | 05:30 | 16h 01m | 21:31                   | 44m | 22:16 | 58m    | 23:15 | 2h 00m | 01:16*   | 7h 58m                     | 30m    |                 |        |                                     | So, 2. Jun  |
| Mo, 3. Jun  | MESZ  |                            |        | Astr. MD                            |      | 03:30 | 18:08 | 01:46                      | 2h 00m | 03:46 | 58m    | 04:45 | 44m   | 05:30 | 16h 02m | 21:32                   | 45m | 22:17 | 59m    | 23:17 |        | —:—      | 7h 56m                     |        | 23:17 – 03:45*  | 4h 28m | ND <sub>+</sub> bis ND <sub>–</sub> | Mo, 3. Jun  |
| Di, 4. Jun  | MESZ  |                            |        | Astr. MD                            |      | 03:49 | 19:35 | —:—                        |        | 03:45 | 59m    | 04:44 | 45m   | 05:29 | 16h 04m | 21:33                   | 45m | 22:19 | 59m    | 23:18 |        | —:—      | 7h 55m                     |        | 23:18 – 03:44*  | 4h 25m | ND <sub>+</sub> bis ND <sub>–</sub> | Di, 4. Jun  |
| Mi, 5. Jun  | MESZ  |                            |        | Astr. MD                            |      | 04:13 | 21:00 | —:—                        |        | 03:44 | 59m    | 04:43 | 45m   | 05:29 | 16h 05m | 21:34                   | 45m | 22:20 | 59m    | 23:19 |        | —:—      | 7h 53m                     |        | 23:19 – 03:43*  | 4h 23m | ND <sub>+</sub> bis ND <sub>–</sub> | Mi, 5. Jun  |
| Do, 6. Jun  | MESZ  |                            |        | Astr. MD                            | ☀    | 04:47 | 22:18 | —:—                        |        | 03:43 | 59m    | 04:43 | 45m   | 05:28 | 16h 06m | 21:35                   | 45m | 22:21 | 1h 00m | 23:21 |        | —:—      | 7h 52m                     |        | 23:21 – 03:42*  | 4h 21m | ND <sub>+</sub> bis ND <sub>–</sub> | Do, 6. Jun  |
| Fr, 7. Jun  | MESZ  |                            |        | Astr. MD                            |      | 05:32 | 23:22 | —:—                        |        | 03:42 | 1h 00m | 04:42 | 45m   | 05:28 | 16h 08m | 21:36                   | 45m | 22:21 | 1h 00m | 23:22 |        | —:—      | 7h 51m                     |        | 23:22 – 03:41*  | 4h 18m | M <sub>↘</sub> bis ND <sub>–</sub>  | Fr, 7. Jun  |
| Sa, 8. Jun  | MESZ  |                            |        | Astr. MD                            |      | 06:31 | —:—   | —:—                        |        | 03:41 | 1h 00m | 04:42 | 45m   | 05:27 | 16h 09m | 21:37                   | 45m | 22:22 | 1h 00m | 23:23 |        | —:—      | 7h 50m                     |        | 00:11* – 03:40* | 3h 29m | M <sub>↘</sub> bis ND <sub>–</sub>  | Sa, 8. Jun  |
| So, 9. Jun  | MESZ  |                            |        | Astr. MD                            |      | 07:41 | 00:11 | —:—                        |        | 03:40 | 1h 00m | 04:41 | 45m   | 05:27 | 16h 10m | 21:37                   | 45m | 22:23 | 1h 00m | 23:24 |        | —:—      | 7h 49m                     |        | 00:45* – 03:40* | 2h 54m | M <sub>↘</sub> bis ND <sub>–</sub>  | So, 9. Jun  |
| Mo, 10. Jun | MESZ  |                            |        | Astr. MD                            |      | 08:55 | 00:45 | —:—                        |        | 03:40 | 1h 00m | 04:41 | 45m   | 05:27 | 16h 11m | 21:38                   | 45m | 22:24 | 1h 01m | 23:25 |        | —:—      | 7h 48m                     |        | 01:10* – 03:39* | 2h 29m | M <sub>↘</sub> bis ND <sub>–</sub>  | Mo, 10. Jun |
| Di, 11. Jun | MESZ  |                            |        | Astr. MD                            |      | 10:09 | 01:10 | —:—                        |        | 03:39 | 1h 01m | 04:40 | 45m   | 05:26 | 16h 12m | 21:39                   | 46m | 22:25 | 1h 01m | 23:26 |        | —:—      | 7h 47m                     |        | 01:28* – 03:39* | 2h 10m | M <sub>↘</sub> bis ND <sub>–</sub>  | Di, 11. Jun |
| Mi, 12. Jun | MESZ  |                            |        | Astr. MD                            |      | 11:21 | 01:28 | —:—                        |        | 03:39 | 1h 01m | 04:40 | 46m   | 05:26 | 16h 13m | 21:39                   | 46m | 22:25 | 1h 01m | 23:27 |        | —:—      | 7h 46m                     |        | 01:43* – 03:38* | 1h 54m | M <sub>↘</sub> bis ND <sub>–</sub>  | Mi, 12. Jun |
| Do, 13. Jun | MESZ  |                            |        | Astr. MD                            |      | 12:31 | 01:43 | —:—                        |        | 03:38 | 1h 01m | 04:40 | 46m   | 05:26 | 16h 13m | 21:40                   | 46m | 22:26 | 1h 01m | 23:28 |        | —:—      | 7h 46m                     |        | 01:56* – 03:38* | 1h 41m | M <sub>↘</sub> bis ND <sub>–</sub>  | Do, 13. Jun |
| Fr, 14. Jun | MESZ  |                            |        | Astr. MD                            | ☾    | 13:38 | 01:56 | —:—                        |        | 03:38 | 1h 01m | 04:40 | 46m   | 05:26 | 16h 14m | 21:40                   | 46m | 22:26 | 1h 02m | 23:29 |        | —:—      | 7h 45m                     |        | 02:08* – 03:37* | 1h 29m | M <sub>↘</sub> bis ND <sub>–</sub>  | Fr, 14. Jun |
| Sa, 15. Jun | MESZ  |                            |        | Astr. MD                            |      | 14:45 | 02:08 | —:—                        |        | 03:37 | 1h 02m | 04:39 | 46m   | 05:26 | 16h 14m | 21:41                   | 46m | 22:27 | 1h 02m | 23:29 |        | —:—      | 7h 45m                     |        | 02:19* – 03:37* | 1h 17m | M <sub>↘</sub> bis ND <sub>–</sub>  | Sa, 15. Jun |
| So, 16. Jun | MESZ  |                            |        | Astr. MD                            |      | 15:53 | 02:19 | —:—                        |        | 03:37 | 1h 02m | 04:39 | 46m   | 05:26 | 16h 15m | 21:41                   | 46m | 22:27 | 1h 02m | 23:30 |        | —:—      | 7h 44m                     |        | 02:32* – 03:37* | 1h 04m | M <sub>↘</sub> bis ND <sub>–</sub>  | So, 16. Jun |
| Mo, 17. Jun | MESZ  |                            |        | Astr. MD                            |      | 17:04 | 02:32 | —:—                        |        | 03:37 | 1h 02m | 04:39 | 46m   | 05:26 | 16h 15m | 21:41                   | 46m | 22:28 | 1h 02m | 23:30 |        | —:—      | 7h 44m                     |        | 02:48* – 03:37* | 49m    | M <sub>↘</sub> bis ND <sub>–</sub>  | Mo, 17. Jun |
| Di, 18. Jun | MESZ  |                            |        | Astr. MD                            |      | 18:18 | 02:48 | —:—                        |        | 03:37 | 1h 02m | 04:39 | 46m   | 05:26 | 16h 15m | 21:42                   | 46m | 22:28 | 1h 02m | 23:31 |        | —:—      | 7h 44m                     |        | 03:07* – 03:37* | 29m    | M <sub>↘</sub> bis ND <sub>–</sub>  | Di, 18. Jun |
| Mi, 19. Jun | MESZ  |                            |        | Astr. MD                            |      | 19:34 | 03:07 | —:—                        |        | 03:37 | 1h 02m | 04:39 | 46m   | 05:26 | 16h 16m | 21:42                   | 46m | 22:29 | 1h 02m | 23:31 |        | —:—      | 7h 44m                     |        | 03:34* – 03:37* | 3m     | M <sub>↘</sub> bis ND <sub>–</sub>  | Mi, 19. Jun |
| Do, 20. Jun | MESZ  |                            |        | Astr. MD                            |      | 20:49 | 03:34 | —:—                        |        | 03:37 | 1h 02m | 04:40 | 46m   | 05:26 | 16h 16m | 21:42                   | 46m | 22:29 | 1h 02m | 23:31 |        | —:—      | 7h 44m                     |        | —:— —:— —:—     | –      | Mond stört                          | Do, 20. Jun |
| Fr, 21. Jun | MESZ  |                            |        | Astr. MD                            |      | 21:58 | 04:11 | —:—                        |        | 03:37 | 1h 02m | 04:40 | 46m   | 05:26 | 16h 16m | 21:42                   | 46m | 22:29 | 1h 02m | 23:31 |        | —:—      | 7h 44m                     |        | —:— —:— —:—     | –      | Mond stört                          | Fr, 21. Jun |
| Sa, 22. Jun | MESZ  |                            |        | Astr. MD                            | ☾    | 22:55 | 05:03 | —:—                        |        | 03:38 | 1h 02m | 04:40 | 46m   | 05:27 | 16h 16m | 21:43                   | 46m | 22:29 | 1h 02m | 23:32 |        | —:—      | 7h 44m                     |        | —:— —:— —:—     | –      | Mond stört                          | Sa, 22. Jun |



| 1           | 2     | 3                          | 4          | 5                                   | 6    | 7          | 8          | 9                          | 10         | 11    | 12         | 13    | 14         | 15         | 16         | 17                      | 18         | 19    | 20         | 21    | 22         | 23       | 24                         | 25         | 26 | 27         | 28 | 29          |
|-------------|-------|----------------------------|------------|-------------------------------------|------|------------|------------|----------------------------|------------|-------|------------|-------|------------|------------|------------|-------------------------|------------|-------|------------|-------|------------|----------|----------------------------|------------|----|------------|----|-------------|
| 2024        | Zeit- | Astr. dunkel und kein Mond |            |                                     | Mond |            |            | Beginn der Morgendämmerung |            |       |            |       | Sonne      |            |            | Ende der Abenddämmerung |            |       |            |       | Nacht      | Astr. N. | Naut. dunkel und kein Mond |            |    | 2024       |    |             |
|             | zone  |                            | $\Delta t$ |                                     | Ph.  | $\nearrow$ | $\searrow$ | Astr.                      | $\Delta t$ | Naut. | $\Delta t$ | Bürg. | $\Delta t$ | $\nearrow$ | $\Delta t$ | $\searrow$              | $\Delta t$ | Bürg. | $\Delta t$ | Naut. | $\Delta t$ | Astr.    | $\Delta t$                 | $\Delta t$ |    | $\Delta t$ |    |             |
| Fr, 19. Jul | MESZ  | —:—:—:—:—                  | –          | Mond stört                          |      | 20:43      | 02:49      | 02:47                      | 1h 22m     | 04:10 | 54m        | 05:05 | 43m        | 05:48      | 15h 41m    | 21:29                   | 42m        | 22:12 | 53m        | 23:06 | 1h 20m     | 00:27*   | 8h 19m                     | 2h 24m     |    |            |    | Fr, 19. Jul |
| Sa, 20. Jul | MESZ  | —:—:—:—:—                  | –          | Mond stört                          |      | 21:32      | 03:51      | 02:51                      | 1h 20m     | 04:12 | 53m        | 05:06 | 42m        | 05:49      | 15h 39m    | 21:28                   | 42m        | 22:11 | 53m        | 23:04 | 1h 18m     | 00:23*   | 8h 21m                     | 2h 31m     |    |            |    | Sa, 20. Jul |
| So, 21. Jul | MESZ  | —:—:~:~:~:~                | –          | Mond stört                          | ☾    | 22:08      | 05:08      | 02:55                      | 1h 18m     | 04:14 | 53m        | 05:07 | 42m        | 05:50      | 15h 36m    | 21:27                   | 42m        | 22:10 | 53m        | 23:03 | 1h 17m     | 00:20*   | 8h 24m                     | 2h 38m     |    |            |    | So, 21. Jul |
| Mo, 22. Jul | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          |      | 22:34      | 06:34      | 02:59                      | 1h 17m     | 04:16 | 53m        | 05:09 | 42m        | 05:51      | 15h 34m    | 21:26                   | 42m        | 22:08 | 52m        | 23:01 | 1h 15m     | 00:16*   | 8h 26m                     | 2h 45m     |    |            |    | Mo, 22. Jul |
| Di, 23. Jul | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          |      | 22:55      | 08:03      | 03:02                      | 1h 15m     | 04:18 | 52m        | 05:10 | 42m        | 05:53      | 15h 32m    | 21:25                   | 42m        | 22:07 | 52m        | 22:59 | 1h 13m     | 00:13*   | 8h 29m                     | 2h 52m     |    |            |    | Di, 23. Jul |
| Mi, 24. Jul | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          |      | 23:11      | 09:30      | 03:06                      | 1h 13m     | 04:20 | 52m        | 05:12 | 42m        | 05:54      | 15h 29m    | 21:23                   | 41m        | 22:05 | 51m        | 22:57 | 1h 12m     | 00:09*   | 8h 31m                     | 2h 59m     |    |            |    | Mi, 24. Jul |
| Do, 25. Jul | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          |      | 23:27      | 10:55      | 03:09                      | 1h 12m     | 04:21 | 51m        | 05:13 | 41m        | 05:55      | 15h 27m    | 21:22                   | 41m        | 22:04 | 51m        | 22:55 | 1h 10m     | 00:06*   | 8h 34m                     | 3h 06m     |    |            |    | Do, 25. Jul |
| Fr, 26. Jul | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          |      | 23:42      | 12:19      | 03:12                      | 1h 10m     | 04:23 | 51m        | 05:15 | 41m        | 05:56      | 15h 24m    | 21:21                   | 41m        | 22:02 | 50m        | 22:53 | 1h 09m     | 00:03*   | 8h 36m                     | 3h 12m     |    |            |    | Fr, 26. Jul |
| Sa, 27. Jul | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          |      | 23:59      | 13:42      | 03:16                      | 1h 09m     | 04:25 | 50m        | 05:16 | 41m        | 05:58      | 15h 21m    | 21:20                   | 41m        | 22:01 | 50m        | 22:51 | 1h 08m     | 00:00*   | 8h 39m                     | 3h 19m     |    |            |    | Sa, 27. Jul |
| So, 28. Jul | MESZ  | 23:56–00:19*               | 22m        | AN <sub>+</sub> bis M <sub>♊</sub>  | ☾    | —:~:~      | 15:06      | 03:19                      | 1h 08m     | 04:27 | 50m        | 05:18 | 41m        | 05:59      | 15h 19m    | 21:18                   | 40m        | 21:59 | 50m        | 22:49 | 1h 07m     | 23:56    | 8h 42m                     | 3h 25m     |    |            |    | So, 28. Jul |
| Mo, 29. Jul | MESZ  | 23:53–00:45*               | 52m        | AN <sub>+</sub> bis M <sub>♊</sub>  |      | 00:19      | 16:30      | 03:22                      | 1h 07m     | 04:29 | 50m        | 05:19 | 40m        | 06:00      | 15h 16m    | 21:17                   | 40m        | 21:57 | 49m        | 22:47 | 1h 05m     | 23:53    | 8h 44m                     | 3h 32m     |    |            |    | Mo, 29. Jul |
| Di, 30. Jul | MESZ  | 23:50–01:21*               | 1h 31m     | AN <sub>+</sub> bis M <sub>♊</sub>  |      | 00:45      | 17:50      | 03:25                      | 1h 05m     | 04:31 | 49m        | 05:21 | 40m        | 06:02      | 15h 13m    | 21:15                   | 40m        | 21:56 | 49m        | 22:45 | 1h 04m     | 23:50    | 8h 47m                     | 3h 38m     |    |            |    | Di, 30. Jul |
| Mi, 31. Jul | MESZ  | 23:47–02:09*               | 2h 22m     | AN <sub>+</sub> bis M <sub>♊</sub>  |      | 01:21      | 19:02      | 03:28                      | 1h 04m     | 04:33 | 49m        | 05:22 | 40m        | 06:03      | 15h 10m    | 21:14                   | 40m        | 21:54 | 48m        | 22:43 | 1h 03m     | 23:47    | 8h 50m                     | 3h 44m     |    |            |    | Mi, 31. Jul |
| Do, 1. Aug  | MESZ  | 23:43–03:10*               | 3h 26m     | AN <sub>+</sub> bis M <sub>♊</sub>  |      | 02:09      | 20:00      | 03:32                      | 1h 03m     | 04:35 | 48m        | 05:24 | 40m        | 06:04      | 15h 07m    | 21:12                   | 40m        | 21:52 | 48m        | 22:41 | 1h 02m     | 23:43    | 8h 53m                     | 3h 51m     |    |            |    | Do, 1. Aug  |
| Fr, 2. Aug  | MESZ  | 23:40–03:38*               | 3h 57m     | AN <sub>+</sub> bis AN <sub>♈</sub> |      | 03:10      | 20:43      | 03:35                      | 1h 02m     | 04:37 | 48m        | 05:26 | 40m        | 06:06      | 15h 04m    | 21:11                   | 39m        | 21:51 | 48m        | 22:39 | 1h 01m     | 23:40    | 8h 56m                     | 3h 57m     |    |            |    | Fr, 2. Aug  |
| Sa, 3. Aug  | MESZ  | 23:37–03:41*               | 4h 03m     | AN <sub>+</sub> bis AN <sub>♈</sub> |      | 04:20      | 21:14      | 03:38                      | 1h 01m     | 04:39 | 48m        | 05:27 | 39m        | 06:07      | 15h 02m    | 21:09                   | 39m        | 21:49 | 47m        | 22:37 | 1h 00m     | 23:37    | 8h 59m                     | 4h 03m     |    |            |    | Sa, 3. Aug  |
| So, 4. Aug  | MESZ  | 23:34–03:43*               | 4h 09m     | AN <sub>+</sub> bis AN <sub>♈</sub> | ☾    | 05:35      | 21:37      | 03:41                      | 1h 00m     | 04:41 | 47m        | 05:29 | 39m        | 06:09      | 14h 59m    | 21:08                   | 39m        | 21:47 | 47m        | 22:35 | 59m        | 23:34    | 9h 02m                     | 4h 09m     |    |            |    | So, 4. Aug  |
| Mo, 5. Aug  | MESZ  | 23:31–03:46*               | 4h 15m     | AN <sub>+</sub> bis AN <sub>♈</sub> |      | 06:49      | 21:54      | 03:43                      | 59m        | 04:43 | 47m        | 05:30 | 39m        | 06:10      | 14h 56m    | 21:06                   | 39m        | 21:45 | 46m        | 22:32 | 58m        | 23:31    | 9h 05m                     | 4h 15m     |    |            |    | Mo, 5. Aug  |
| Di, 6. Aug  | MESZ  | 23:28–03:49*               | 4h 21m     | AN <sub>+</sub> bis AN <sub>♈</sub> |      | 08:01      | 22:08      | 03:46                      | 58m        | 04:45 | 46m        | 05:32 | 39m        | 06:11      | 14h 53m    | 21:04                   | 39m        | 21:44 | 46m        | 22:30 | 57m        | 23:28    | 9h 08m                     | 4h 21m     |    |            |    | Di, 6. Aug  |
| Mi, 7. Aug  | MESZ  | 23:25–03:52*               | 4h 27m     | AN <sub>+</sub> bis AN <sub>♈</sub> |      | 09:11      | 22:20      | 03:49                      | 57m        | 04:47 | 46m        | 05:34 | 39m        | 06:13      | 14h 49m    | 21:03                   | 38m        | 21:42 | 46m        | 22:28 | 57m        | 23:25    | 9h 11m                     | 4h 27m     |    |            |    | Mi, 7. Aug  |
| Do, 8. Aug  | MESZ  | 23:22–03:55*               | 4h 32m     | AN <sub>+</sub> bis AN <sub>♈</sub> |      | 10:18      | 22:32      | 03:52                      | 57m        | 04:49 | 46m        | 05:35 | 38m        | 06:14      | 14h 46m    | 21:01                   | 38m        | 21:40 | 45m        | 22:26 | 56m        | 23:22    | 9h 14m                     | 4h 32m     |    |            |    | Do, 8. Aug  |
| Fr, 9. Aug  | MESZ  | 23:19–03:57*               | 4h 38m     | AN <sub>+</sub> bis AN <sub>♈</sub> |      | 11:25      | 22:44      | 03:55                      | 56m        | 04:51 | 45m        | 05:37 | 38m        | 06:16      | 14h 43m    | 20:59                   | 38m        | 21:38 | 45m        | 22:23 | 55m        | 23:19    | 9h 17m                     | 4h 38m     |    |            |    | Fr, 9. Aug  |
| Sa, 10. Aug | MESZ  | 23:16–04:00*               | 4h 44m     | AN <sub>+</sub> bis AN <sub>♈</sub> |      | 12:33      | 22:57      | 03:57                      | 55m        | 04:53 | 45m        | 05:38 | 38m        | 06:17      | 14h 40m    | 20:58                   | 38m        | 21:36 | 45m        | 22:21 | 54m        | 23:16    | 9h 20m                     | 4h 44m     |    |            |    | Sa, 10. Aug |
| So, 11. Aug | MESZ  | 23:13–04:03*               | 4h 49m     | AN <sub>+</sub> bis AN <sub>♈</sub> |      | 13:43      | 23:12      | 04:00                      | 54m        | 04:55 | 45m        | 05:40 | 38m        | 06:18      | 14h 37m    | 20:56                   | 38m        | 21:34 | 44m        | 22:19 | 53m        | 23:13    | 9h 24m                     | 4h 49m     |    |            |    | So, 11. Aug |
| Mo, 12. Aug | MESZ  | 23:32–04:05*               | 4h 33m     | M <sub>♊</sub> bis AN <sub>♈</sub>  | ☾    | 14:55      | 23:32      | 04:03                      | 54m        | 04:57 | 44m        | 05:42 | 38m        | 06:20      | 14h 34m    | 20:54                   | 38m        | 21:32 | 44m        | 22:17 | 53m        | 23:10    | 9h 27m                     | 4h 55m     |    |            |    | Mo, 12. Aug |
| Di, 13. Aug | MESZ  | 23:59–04:08*               | 4h 09m     | M <sub>♊</sub> bis AN <sub>♈</sub>  |      | 16:09      | 23:59      | 04:05                      | 53m        | 04:59 | 44m        | 05:43 | 38m        | 06:21      | 14h 30m    | 20:52                   | 37m        | 21:30 | 44m        | 22:14 | 52m        | 23:07    | 9h 30m                     | 5h 01m     |    |            |    | Di, 13. Aug |
| Mi, 14. Aug | MESZ  | 00:37*–04:11*              | 3h 33m     | M <sub>♊</sub> bis AN <sub>♈</sub>  |      | 17:22      | —:~        | 04:08                      | 52m        | 05:01 | 44m        | 05:45 | 37m        | 06:23      | 14h 27m    | 20:50                   | 37m        | 21:28 | 43m        | 22:12 | 51m        | 23:04    | 9h 33m                     | 5h 06m     |    |            |    | Mi, 14. Aug |
| Do, 15. Aug | MESZ  | 01:30*–04:13*              | 2h 43m     | M <sub>♊</sub> bis AN <sub>♈</sub>  |      | 18:28      | 00:37      | 04:11                      | 52m        | 05:03 | 43m        | 05:47 | 37m        | 06:24      | 14h 24m    | 20:49                   | 37m        | 21:26 | 43m        | 22:10 | 51m        | 23:01    | 9h 37m                     | 5h 11m     |    |            |    | Do, 15. Aug |
| Fr, 16. Aug | MESZ  | 02:40*–04:16*              | 1h 36m     | M <sub>♊</sub> bis AN <sub>♈</sub>  |      | 19:23      | 01:30      | 04:13                      | 51m        | 05:04 | 43m        | 05:48 | 37m        | 06:26      | 14h 21m    | 20:47                   | 37m        | 21:24 | 43m        | 22:07 | 50m        | 22:58    | 9h 40m                     | 5h 17m     |    |            |    | Fr, 16. Aug |
| Sa, 17. Aug | MESZ  | 04:02*–04:18*              | 15m        | M <sub>♊</sub> bis AN <sub>♈</sub>  |      | 20:04      | 02:40      | 04:16                      | 50m        | 05:06 | 43m        | 05:50 | 37m        | 06:27      | 14h 17m    | 20:45                   | 37m        | 21:22 | 43m        | 22:05 | 50m        | 22:55    | 9h 43m                     | 5h 22m     |    |            |    | Sa, 17. Aug |
| So, 18. Aug | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          |      | 20:35      | 04:02      | 04:18                      | 50m        | 05:08 | 43m        | 05:51 | 37m        | 06:29      | 14h 14m    | 20:43                   | 37m        | 21:20 | 42m        | 22:03 | 49m        | 22:52    | 9h 46m                     | 5h 28m     |    |            |    | So, 18. Aug |
| Mo, 19. Aug | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          | ☾    | 20:57      | 05:32      | 04:20                      | 49m        | 05:10 | 42m        | 05:53 | 37m        | 06:30      | 14h 11m    | 20:41                   | 36m        | 21:18 | 42m        | 22:00 | 49m        | 22:50    | 9h 50m                     | 5h 33m     |    |            |    | Mo, 19. Aug |
| Di, 20. Aug | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          |      | 21:16      | 07:02      | 04:23                      | 49m        | 05:12 | 42m        | 05:55 | 36m        | 06:31      | 14h 07m    | 20:39                   | 36m        | 21:16 | 42m        | 21:58 | 48m        | 22:47    | 9h 53m                     | 5h 38m     |    |            |    | Di, 20. Aug |
| Mi, 21. Aug | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          |      | 21:32      | 08:30      | 04:25                      | 48m        | 05:14 | 42m        | 05:56 | 36m        | 06:33      | 14h 04m    | 20:37                   | 36m        | 21:14 | 41m        | 21:56 | 48m        | 22:44    | 9h 57m                     | 5h 43m     |    |            |    | Mi, 21. Aug |
| Do, 22. Aug | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          |      | 21:47      | 09:58      | 04:28                      | 48m        | 05:16 | 41m        | 05:58 | 36m        | 06:34      | 14h 00m    | 20:35                   | 36m        | 21:12 | 41m        | 21:53 | 47m        | 22:41    | 10h 00m                    | 5h 49m     |    |            |    | Do, 22. Aug |
| Fr, 23. Aug | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          |      | 22:04      | 11:24      | 04:30                      | 47m        | 05:18 | 41m        | 05:59 | 36m        | 06:36      | 13h 57m    | 20:33                   | 36m        | 21:10 | 41m        | 21:51 | 47m        | 22:38    | 10h 03m                    | 5h 54m     |    |            |    | Fr, 23. Aug |
| Sa, 24. Aug | MESZ  | —:~:~:~:~:~                | –          | Mond stört                          |      | 22:23      | 12:51      | 04:32                      | 47m        | 05:19 | 41m        | 06:01 | 36m        | 06:37      | 13h 54m    | 20:31                   | 36m        | 21:07 | 41m        | 21:49 | 46m        | 22:35    | 10h 07m                    | 5h 59m     |    |            |    | Sa, 24. Aug |
| So, 25. Aug | MESZ  | 22:32–22:48                | 15m        | AN <sub>+</sub> bis M <sub>♊</sub>  |      | 22:48      | 14:17      | 04:35                      | 46m        | 05:21 | 41m        | 06:02 | 36m        | 06:39      | 13h 50m    | 20:29                   | 35m        | 21:05 | 40m        | 21:46 | 46m        | 22:32    | 10h 10m                    | 6h 04m     |    |            |    | So, 25. Aug |
| Mo, 26. Aug | MESZ  | 22:30–23:20                | 50m        | AN <sub>+</sub> bis M <sub>♊</sub>  | ☾    | 23:20      | 15:40      | 04:37                      | 46m        | 05:23 | 40m        | 06:04 | 36m        | 06:40      | 13h 47m    | 20:27                   | 35m        | 21:03 | 40m        | 21:44 | 45m        | 22:30    | 10h 14m                    | 6h 09m     |    |            |    | Mo, 26. Aug |
| Di, 27. Aug | MESZ  | 22:27–00:04*               | 1h 37m     | AN <sub>+</sub> bis M <sub>♊</sub>  |      | —:~        | 16:55      | 04:39                      | 45m        | 05:25 | 40m        | 06:06 | 35m        | 06:42      | 13h 43m    | 20:25                   | 35m        | 21:01 | 40m        | 21:41 | 45m        | 22:27    | 10h 17m                    | 6h 14m     |    |            |    | Di, 27. Aug |
| Mi, 28. Aug | MESZ  | 22:24–01:01*               | 2h 37m     | AN <sub>+</sub> bis M <sub>♊</sub>  |      | 00:04      | 17:57      | 04:41                      | 45m        | 05:27 | 40m        | 06:07 | 35m        | 06:43      | 13h 40m    | 20:23                   | 35m        | 20:59 | 40m        | 21:39 | 45m        | 22:24    | 10h 21m                    | 6h 19m     |    |            |    | Mi, 28. Aug |
| Do, 29. Aug | MESZ  | 22:21–02:09*               | 3h 47m     | AN <sub>+</sub> bis M <sub>♊</sub>  |      | 01:01      | 18:44      | 04:43                      | 45m        | 05:28 | 40m        | 06:09 | 35m        | 06:44      | 13h 36m    | 20:21                   | 35m        | 20:57 | 40m        | 21:37 |            |          |                            |            |    |            |    |             |

| 1           | 2     | 3                          | 4      | 5                                   | 6    | 7     | 8     | 9                          | 10  | 11    | 12  | 13    | 14  | 15    | 16      | 17    | 18                      | 19    | 20  | 21    | 22  | 23    | 24      | 25       | 26                         | 27 | 28 | 29          |
|-------------|-------|----------------------------|--------|-------------------------------------|------|-------|-------|----------------------------|-----|-------|-----|-------|-----|-------|---------|-------|-------------------------|-------|-----|-------|-----|-------|---------|----------|----------------------------|----|----|-------------|
| 2024        | Zeit- | Astr. dunkel und kein Mond |        |                                     | Mond |       |       | Beginn der Morgendämmerung |     |       |     |       |     | Sonne |         |       | Ende der Abenddämmerung |       |     |       |     |       | Nacht   | Astr. N. | Naut. dunkel und kein Mond |    |    | 2024        |
|             | zone  |                            | Δt     |                                     | Ph.  | ↗     | ↘     | Astr.                      | Δt  | Naut. | Δt  | Bürg. | Δt  | ↗     | Δt      | ↘     | Δt                      | Bürg. | Δt  | Naut. | Δt  | Astr. | Δt      | Δt       |                            | Δt |    |             |
| Sa, 7. Sep  | MESZ  | 21:57 – 05:04*             | 7h 06m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 11:30 | 21:18 | 05:02                      | 42m | 05:44 | 38m | 06:23 | 34m | 06:57 | 13h 04m | 20:02 | 34m                     | 20:37 | 38m | 21:15 | 41m | 21:57 | 10h 56m | 7h 06m   |                            |    |    | Sa, 7. Sep  |
| So, 8. Sep  | MESZ  | 21:55 – 05:06*             | 7h 11m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 12:41 | 21:35 | 05:04                      | 41m | 05:46 | 38m | 06:24 | 34m | 06:59 | 13h 01m | 20:00 | 34m                     | 20:35 | 38m | 21:13 | 41m | 21:55 | 11h 00m | 7h 11m   |                            |    |    | So, 8. Sep  |
| Mo, 9. Sep  | MESZ  | 21:59 – 05:08*             | 7h 09m | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 13:54 | 21:59 | 05:06                      | 41m | 05:47 | 38m | 06:26 | 34m | 07:00 | 12h 57m | 19:58 | 34m                     | 20:32 | 38m | 21:11 | 41m | 21:52 | 11h 03m | 7h 15m   |                            |    |    | Mo, 9. Sep  |
| Di, 10. Sep | MESZ  | 22:31 – 05:10*             | 6h 38m | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 15:06 | 22:31 | 05:08                      | 41m | 05:49 | 38m | 06:27 | 34m | 07:02 | 12h 54m | 19:56 | 34m                     | 20:30 | 38m | 21:08 | 41m | 21:49 | 11h 07m | 7h 20m   |                            |    |    | Di, 10. Sep |
| Mi, 11. Sep | MESZ  | 23:16 – 05:12*             | 5h 55m | M <sub>↘</sub> bis AN <sub>–</sub>  | ☾    | 16:14 | 23:16 | 05:10                      | 41m | 05:51 | 38m | 06:29 | 34m | 07:03 | 12h 50m | 19:54 | 34m                     | 20:28 | 37m | 21:06 | 40m | 21:47 | 11h 10m | 7h 24m   |                            |    |    | Mi, 11. Sep |
| Do, 12. Sep | MESZ  | 00:16* – 05:13*            | 4h 56m | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 17:13 | —:—   | 05:12                      | 40m | 05:52 | 37m | 06:30 | 34m | 07:05 | 12h 46m | 19:52 | 34m                     | 20:26 | 37m | 21:04 | 40m | 21:44 | 11h 14m | 7h 29m   |                            |    |    | Do, 12. Sep |
| Fr, 13. Sep | MESZ  | 01:32* – 05:15*            | 3h 43m | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 17:59 | 00:16 | 05:13                      | 40m | 05:54 | 37m | 06:32 | 34m | 07:06 | 12h 43m | 19:49 | 34m                     | 20:24 | 37m | 21:01 | 40m | 21:42 | 11h 18m | 7h 33m   |                            |    |    | Fr, 13. Sep |
| Sa, 14. Sep | MESZ  | 02:57* – 05:17*            | 2h 19m | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 18:33 | 01:32 | 05:15                      | 40m | 05:56 | 37m | 06:33 | 34m | 07:08 | 12h 39m | 19:47 | 34m                     | 20:21 | 37m | 20:59 | 40m | 21:39 | 11h 21m | 7h 37m   |                            |    |    | Sa, 14. Sep |
| So, 15. Sep | MESZ  | 04:26* – 05:19*            | 52m    | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 18:58 | 02:57 | 05:17                      | 40m | 05:57 | 37m | 06:35 | 34m | 07:09 | 12h 36m | 19:45 | 34m                     | 20:19 | 37m | 20:57 | 39m | 21:37 | 11h 25m | 7h 42m   |                            |    |    | So, 15. Sep |
| Mo, 16. Sep | MESZ  | —:— —:—:—                  | –      | Mond stört                          |      | 19:18 | 04:26 | 05:19                      | 40m | 05:59 | 37m | 06:36 | 34m | 07:10 | 12h 32m | 19:43 | 33m                     | 20:17 | 37m | 20:54 | 39m | 21:34 | 11h 28m | 7h 46m   |                            |    |    | Mo, 16. Sep |
| Di, 17. Sep | MESZ  | —:— —:—:~                  | –      | Mond stört                          |      | 19:35 | 05:56 | 05:21                      | 39m | 06:00 | 37m | 06:38 | 34m | 07:12 | 12h 28m | 19:41 | 33m                     | 20:15 | 37m | 20:52 | 39m | 21:32 | 11h 32m | 7h 50m   |                            |    |    | Di, 17. Sep |
| Mi, 18. Sep | MESZ  | —:~ —:~:~                  | –      | Mond stört                          | ☾    | 19:51 | 07:25 | 05:22                      | 39m | 06:02 | 37m | 06:39 | 34m | 07:13 | 12h 25m | 19:39 | 33m                     | 20:13 | 37m | 20:50 | 39m | 21:29 | 11h 36m | 7h 55m   |                            |    |    | Mi, 18. Sep |
| Do, 19. Sep | MESZ  | —:~ —:~:~                  | –      | Mond stört                          |      | 20:07 | 08:54 | 05:24                      | 39m | 06:04 | 37m | 06:41 | 33m | 07:15 | 12h 21m | 19:36 | 33m                     | 20:10 | 36m | 20:47 | 39m | 21:27 | 11h 39m | 7h 59m   |                            |    |    | Do, 19. Sep |
| Fr, 20. Sep | MESZ  | —:~ —:~:~                  | –      | Mond stört                          |      | 20:26 | 10:24 | 05:26                      | 39m | 06:05 | 37m | 06:42 | 33m | 07:16 | 12h 18m | 19:34 | 33m                     | 20:08 | 36m | 20:45 | 39m | 21:24 | 11h 43m | 8h 03m   |                            |    |    | Fr, 20. Sep |
| Sa, 21. Sep | MESZ  | —:~ —:~:~                  | –      | Mond stört                          |      | 20:49 | 11:54 | 05:28                      | 39m | 06:07 | 36m | 06:44 | 33m | 07:18 | 12h 14m | 19:32 | 33m                     | 20:06 | 36m | 20:43 | 38m | 21:22 | 11h 46m | 8h 07m   |                            |    |    | Sa, 21. Sep |
| So, 22. Sep | MESZ  | —:~ —:~:~                  | –      | Mond stört                          |      | 21:19 | 13:22 | 05:29                      | 38m | 06:08 | 36m | 06:45 | 33m | 07:19 | 12h 10m | 19:30 | 33m                     | 20:04 | 36m | 20:41 | 38m | 21:19 | 11h 50m | 8h 11m   |                            |    |    | So, 22. Sep |
| Mo, 23. Sep | MESZ  | 21:17 – 22:00              | 42m    | AN <sub>+</sub> bis M <sub>♁</sub>  |      | 22:00 | 14:43 | 05:31                      | 38m | 06:10 | 36m | 06:47 | 33m | 07:21 | 12h 07m | 19:28 | 33m                     | 20:02 | 36m | 20:38 | 38m | 21:17 | 11h 54m | 8h 15m   |                            |    |    | Mo, 23. Sep |
| Di, 24. Sep | MESZ  | 21:15 – 22:54              | 1h 39m | AN <sub>+</sub> bis M <sub>♁</sub>  | ☾    | 22:54 | 15:52 | 05:33                      | 38m | 06:12 | 36m | 06:48 | 33m | 07:22 | 12h 03m | 19:26 | 33m                     | 19:59 | 36m | 20:36 | 38m | 21:15 | 11h 57m | 8h 20m   |                            |    |    | Di, 24. Sep |
| Mi, 25. Sep | MESZ  | 21:12 – 23:59              | 2h 47m | AN <sub>+</sub> bis M <sub>♁</sub>  |      | 23:59 | 16:44 | 05:35                      | 38m | 06:13 | 36m | 06:50 | 33m | 07:24 | 12h 00m | 19:24 | 33m                     | 19:57 | 36m | 20:34 | 38m | 21:12 | 12h 01m | 8h 24m   |                            |    |    | Mi, 25. Sep |
| Do, 26. Sep | MESZ  | 21:10 – 01:12*             | 4h 02m | AN <sub>+</sub> bis M <sub>♁</sub>  |      | —:~   | 17:22 | 05:36                      | 38m | 06:15 | 36m | 06:51 | 33m | 07:25 | 11h 56m | 19:21 | 33m                     | 19:55 | 36m | 20:32 | 38m | 21:10 | 12h 05m | 8h 28m   |                            |    |    | Do, 26. Sep |
| Fr, 27. Sep | MESZ  | 21:07 – 02:26*             | 5h 18m | AN <sub>+</sub> bis M <sub>♁</sub>  |      | 01:12 | 17:49 | 05:38                      | 38m | 06:16 | 36m | 06:53 | 33m | 07:26 | 11h 52m | 19:19 | 33m                     | 19:53 | 36m | 20:29 | 38m | 21:07 | 12h 08m | 8h 32m   |                            |    |    | Fr, 27. Sep |
| Sa, 28. Sep | MESZ  | 21:05 – 03:39*             | 6h 33m | AN <sub>+</sub> bis M <sub>♁</sub>  |      | 02:26 | 18:09 | 05:40                      | 38m | 06:18 | 36m | 06:54 | 33m | 07:28 | 11h 49m | 19:17 | 33m                     | 19:51 | 36m | 20:27 | 38m | 21:05 | 12h 12m | 8h 36m   |                            |    |    | Sa, 28. Sep |
| So, 29. Sep | MESZ  | 21:03 – 04:49*             | 7h 46m | AN <sub>+</sub> bis M <sub>♁</sub>  |      | 03:39 | 18:24 | 05:41                      | 38m | 06:19 | 36m | 06:56 | 33m | 07:29 | 11h 45m | 19:15 | 33m                     | 19:49 | 36m | 20:25 | 37m | 21:03 | 12h 15m | 8h 39m   |                            |    |    | So, 29. Sep |
| Mo, 30. Sep | MESZ  | 21:01 – 05:44*             | 8h 43m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 04:49 | 18:37 | 05:43                      | 37m | 06:21 | 36m | 06:57 | 33m | 07:31 | 11h 41m | 1     |                         |       |     |       |     |       |         |          |                            |    |    |             |

| 1           | 2     | 3                          | 4       | 5                                   | 6    | 7     | 8     | 9                          | 10  | 11    | 12  | 13    | 14  | 15    | 16      | 17    | 18                      | 19    | 20  | 21    | 22  | 23      | 24      | 25       | 26                         | 27 | 28 | 29          |
|-------------|-------|----------------------------|---------|-------------------------------------|------|-------|-------|----------------------------|-----|-------|-----|-------|-----|-------|---------|-------|-------------------------|-------|-----|-------|-----|---------|---------|----------|----------------------------|----|----|-------------|
| 2024        | Zeit- | Astr. dunkel und kein Mond |         |                                     | Mond |       |       | Beginn der Morgendämmerung |     |       |     |       |     | Sonne |         |       | Ende der Abenddämmerung |       |     |       |     |         | Nacht   | Astr. N. | Naut. dunkel und kein Mond |    |    | 2024        |
|             | zone  |                            | Δt      |                                     | Ph.  | ↗     | ↘     | Astr.                      | Δt  | Naut. | Δt  | Bürg. | Δt  | ↗     | Δt      | ↘     | Δt                      | Bürg. | Δt  | Naut. | Δt  | Astr.   | Δt      | Δt       |                            | Δt |    |             |
| So, 27. Okt |       | 19:08–02:48*               | 7h 40m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 01:39 | 15:45 | 05:24                      | 36m | 06:01 | 36m | 06:38 | 35m | 07:13 | 10h 06m | 17:19 | 35m                     | 17:54 | 36m | 18:31 | 36m | 19:08   | 13h 55m | 10h 17m  |                            |    |    | So, 27. Okt |
| Mo, 28. Okt |       | 19:06–03:55*               | 8h 48m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 02:48 | 15:57 | 05:25                      | 36m | 06:02 | 36m | 06:39 | 35m | 07:14 | 10h 03m | 17:17 | 35m                     | 17:53 | 36m | 18:29 | 36m | 19:06   | 13h 58m | 10h 20m  |                            |    |    | Mo, 28. Okt |
| Di, 29. Okt |       | 19:05–05:02*               | 9h 57m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 03:55 | 16:09 | 05:27                      | 36m | 06:04 | 36m | 06:41 | 35m | 07:16 | 9h 59m  | 17:16 | 35m                     | 17:51 | 36m | 18:28 | 36m | 19:05   | 14h 01m | 10h 23m  |                            |    |    | Di, 29. Okt |
| Mi, 30. Okt |       | 19:03–05:30*               | 10h 26m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 05:02 | 16:20 | 05:28                      | 36m | 06:05 | 36m | 06:42 | 35m | 07:17 | 9h 56m  | 17:14 | 35m                     | 17:49 | 36m | 18:26 | 36m | 19:03   | 14h 05m | 10h 26m  |                            |    |    | Mi, 30. Okt |
| Do, 31. Okt |       | 19:02–05:31*               | 10h 29m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 06:10 | 16:33 | 05:30                      | 36m | 06:07 | 36m | 06:44 | 35m | 07:19 | 9h 53m  | 17:12 | 35m                     | 17:48 | 36m | 18:25 | 36m | 19:02   | 14h 08m | 10h 29m  |                            |    |    | Do, 31. Okt |
| Fr, 1. Nov  |       | 19:00–05:33*               | 10h 32m | AN <sub>+</sub> bis AN <sub>–</sub> | ●    | 07:20 | 16:49 | 05:31                      | 37m | 06:08 | 36m | 06:45 | 35m | 07:21 | 9h 49m  | 17:11 | 35m                     | 17:46 | 36m | 18:23 | 36m | 19:00   | 14h 11m | 10h 32m  |                            |    |    | Fr, 1. Nov  |
| Sa, 2. Nov  |       | 18:59–05:34*               | 10h 35m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 08:32 | 17:08 | 05:33                      | 37m | 06:10 | 36m | 06:47 | 35m | 07:22 | 9h 46m  | 17:09 | 35m                     | 17:45 | 36m | 18:22 | 36m | 18:59   | 14h 14m | 10h 35m  |                            |    |    | Sa, 2. Nov  |
| So, 3. Nov  |       | 18:57–05:35*               | 10h 38m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 09:45 | 17:34 | 05:34                      | 37m | 06:11 | 37m | 06:48 | 35m | 07:24 | 9h 43m  | 17:07 | 35m                     | 17:43 | 37m | 18:20 | 37m | 18:57   | 14h 18m | 10h 38m  |                            |    |    | So, 3. Nov  |
| Mo, 4. Nov  |       | 18:56–05:37*               | 10h 41m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 10:55 | 18:10 | 05:35                      | 37m | 06:13 | 37m | 06:50 | 35m | 07:26 | 9h 40m  | 17:06 | 35m                     | 17:42 | 37m | 18:19 | 37m | 18:56   | 14h 21m | 10h 41m  |                            |    |    | Mo, 4. Nov  |
| Di, 5. Nov  |       | 18:59–05:38*               | 10h 39m | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 11:59 | 18:59 | 05:37                      | 37m | 06:14 | 37m | 06:51 | 35m | 07:27 | 9h 37m  | 17:04 | 35m                     | 17:40 | 37m | 18:17 | 37m | 18:55   | 14h 24m | 10h 43m  |                            |    |    | Di, 5. Nov  |
| Mi, 6. Nov  |       | 20:02–05:40*               | 9h 37m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 12:52 | 20:02 | 05:38                      | 37m | 06:15 | 37m | 06:53 | 36m | 07:29 | 9h 33m  | 17:03 | 36m                     | 17:39 | 37m | 18:16 | 37m | 18:53   | 14h 27m | 10h 46m  |                            |    |    | Mi, 6. Nov  |
| Do, 7. Nov  |       | 21:16–05:41*               | 8h 24m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 13:32 | 21:16 | 05:40                      | 37m | 06:17 | 37m | 06:54 | 36m | 07:30 | 9h 30m  | 17:01 | 36m                     | 17:38 | 37m | 18:15 | 37m | 18:52   | 14h 30m | 10h 49m  |                            |    |    | Do, 7. Nov  |
| Fr, 8. Nov  |       | 22:37–05:42*               | 7h 05m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 14:02 | 22:37 | 05:41                      | 37m | 06:18 | 37m | 06:56 | 36m | 07:32 | 9h 27m  | 17:00 | 36m                     | 17:36 | 37m | 18:14 | 37m | 18:51   | 14h 33m | 10h 51m  |                            |    |    | Fr, 8. Nov  |
| Sa, 9. Nov  |       | 00:00*–05:44*              | 5h 43m  | M <sub>↘</sub> bis AN <sub>–</sub>  | ☾    | 14:24 | —:—   | 05:42                      | 37m | 06:20 | 37m | 06:57 | 36m | 07:34 | 9h 24m  | 16:58 | 36m                     | 17:35 | 37m | 18:12 | 37m | 18:50   | 14h 36m | 10h 54m  |                            |    |    | Sa, 9. Nov  |
| So, 10. Nov |       | 01:23*–05:45*              | 4h 21m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 14:43 | 00:00 | 05:44                      | 37m | 06:21 | 37m | 06:59 | 36m | 07:35 | 9h 21m  | 16:57 | 36m                     | 17:34 | 37m | 18:11 | 37m | 18:48   | 14h 39m | 10h 56m  |                            |    |    | So, 10. Nov |
| Mo, 11. Nov |       | 02:47*–05:47*              | 2h 59m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 14:58 | 01:23 | 05:45                      | 37m | 06:23 | 37m | 07:00 | 36m | 07:37 | 9h 18m  | 16:56 | 36m                     | 17:32 | 37m | 18:10 | 37m | 18:47   | 14h 42m | 10h 59m  |                            |    |    | Mo, 11. Nov |
| Di, 12. Nov |       | 04:13*–05:48*              | 1h 34m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 15:14 | 02:47 | 05:47                      | 37m | 06:24 | 37m | 07:02 | 36m | 07:38 | 9h 15m  | 16:54 | 36m                     | 17:31 | 37m | 18:09 | 37m | 18:46   | 14h 45m | 11h 01m  |                            |    |    | Di, 12. Nov |
| Mi, 13. Nov |       | 05:41*–05:49*              | 7m      | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 15:30 | 04:13 | 05:48                      | 37m | 06:25 | 37m | 07:03 | 36m | 07:40 | 9h 12m  | 16:53 | 36m                     | 17:30 | 37m | 18:08 | 37m | 18:45   | 14h 48m | 11h 04m  |                            |    |    | Mi, 13. Nov |
| Do, 14. Nov |       | —:— —:—:—                  | –       | Mond stört                          |      | 15:48 | 05:41 | 05:49                      | 37m | 06:27 | 37m | 07:05 | 37m | 07:42 | 9h 10m  | 16:52 | 37m                     | 17:29 | 37m | 18:07 | 37m | 18:44   | 14h 51m | 11h 06m  |                            |    |    | Do, 14. Nov |
| Fr, 15. Nov |       | —:— —:—:—                  | –       | Mond stört                          | ○    | 16:12 | 07:13 | 05:51                      | 37m | 06:28 | 37m | 07:06 | 37m | 07:43 | 9h 07m  | 16:51 | 37m                     | 17:28 | 37m | 18:06 | 37m | 18:43   | 14h 54m | 11h 08m  |                            |    |    | Fr, 15. Nov |
| Sa, 16. Nov |       | —:~ —:~:~                  | –       | Mond stört                          |      | 16:43 | 08:44 | 05:52                      | 37m | 06:29 | 38m | 07:08 | 37m | 07:45 | 9h 04m  | 16:49 | 37m                     | 17:27 | 38m | 18:05 | 37m | 18:42   | 14h 56m | 11h 10m  |                            |    |    | Sa, 16. Nov |
| So, 17. Nov |       | —:~ —:~:~                  | –       | Mond stört                          |      | 17:28 | 10:09 | 05:53                      | 37m | 06:31 | 38m | 07:09 | 37m | 07:46 | 9h 01m  | 16:48 | 37m                     | 17:26 | 38m | 18:04 | 37m | 18:41   | 14h 59m | 11h 13m  |                            |    |    | So, 17. Nov |
| Mo, 18. Nov |       | —:~ —:~:~                  | –       | Mond stört                          |      | 18:27 | 11:21 | 05:54                      | 37m | 06:32 | 38m | 07:10 | 37m | 07:48 | 8h 59m  | 16:47 | 37m                     | 17:25 | 38m | 18:03 | 37m | 18:41   | 15h 02m | 11h 15m  |                            |    |    | Mo, 18. Nov |
| Di, 19. Nov |       | 18:40–19:38                | 58m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 19:38 | 12:14 | 05:56                      | 37m | 06:33 | 38m | 07:12 | 37m | 07:49 | 8h 56m  | 16:46 | 37m                     | 17:24 | 38m | 18:02 | 37m | 18:40</ |         |          |                            |    |    |             |



| 1           | 2     | 3                          | 4       | 5                                   | 6    | 7     | 8     | 9                          | 10  | 11    | 12  | 13    | 14    | 15    | 16     | 17                      | 18  | 19    | 20  | 21    | 22    | 23       | 24                         | 25      | 26 | 27      | 28 | 29          |
|-------------|-------|----------------------------|---------|-------------------------------------|------|-------|-------|----------------------------|-----|-------|-----|-------|-------|-------|--------|-------------------------|-----|-------|-----|-------|-------|----------|----------------------------|---------|----|---------|----|-------------|
| 2024/25     | Zeit- | Astr. dunkel und kein Mond |         |                                     | Mond |       |       | Beginn der Morgendämmerung |     |       |     |       | Sonne |       |        | Ende der Abenddämmerung |     |       |     |       | Nacht | Astr. N. | Naut. dunkel und kein Mond |         |    | 2024/25 |    |             |
|             | zone  |                            | Δt      |                                     | Ph.  | ↗     | ↘     | Astr.                      | Δt  | Naut. | Δt  | Bürg. | Δt    | ↗     | Δt     | ↘                       | Δt  | Bürg. | Δt  | Naut. | Δt    | Astr.    | Δt                         | Δt      |    | Δt      |    |             |
| Mo, 16. Dez |       | —:—:—:—                    | –       | Mond stört                          |      | 17:14 | 10:00 | 06:23                      | 38m | 07:02 | 39m | 07:42 | 39m   | 08:22 | 8h 12m | 16:35                   | 39m | 17:15 | 39m | 17:55 | 38m   | 18:33    | 15h 47m                    | 11h 50m |    |         |    | Mo, 16. Dez |
| Di, 17. Dez |       | —:—:—:—                    | –       | Mond stört                          |      | 18:30 | 10:45 | 06:24                      | 38m | 07:03 | 39m | 07:43 | 39m   | 08:23 | 8h 12m | 16:35                   | 39m | 17:15 | 39m | 17:55 | 38m   | 18:34    | 15h 48m                    | 11h 50m |    |         |    | Di, 17. Dez |
| Mi, 18. Dez |       | 18:34 – 19:50              | 1h 15m  | AN <sub>+</sub> bis M <sub>f</sub>  |      | 19:50 | 11:17 | 06:24                      | 38m | 07:03 | 39m | 07:43 | 40m   | 08:23 | 8h 11m | 16:35                   | 40m | 17:15 | 39m | 17:55 | 38m   | 18:34    | 15h 48m                    | 11h 50m |    |         |    | Mi, 18. Dez |
| Do, 19. Dez |       | 18:35 – 21:06              | 2h 31m  | AN <sub>+</sub> bis M <sub>f</sub>  |      | 21:06 | 11:39 | 06:25                      | 38m | 07:04 | 40m | 07:44 | 40m   | 08:24 | 8h 11m | 16:36                   | 40m | 17:16 | 40m | 17:56 | 38m   | 18:35    | 15h 48m                    | 11h 51m |    |         |    | Do, 19. Dez |
| Fr, 20. Dez |       | 18:35 – 22:20              | 3h 44m  | AN <sub>+</sub> bis M <sub>f</sub>  |      | 22:20 | 11:56 | 06:26                      | 38m | 07:04 | 40m | 07:44 | 40m   | 08:24 | 8h 11m | 16:36                   | 40m | 17:16 | 40m | 17:56 | 38m   | 18:35    | 15h 48m                    | 11h 51m |    |         |    | Fr, 20. Dez |
| Sa, 21. Dez |       | 18:35 – 23:29              | 4h 53m  | AN <sub>+</sub> bis M <sub>f</sub>  |      | 23:29 | 12:10 | 06:26                      | 38m | 07:05 | 40m | 07:45 | 40m   | 08:25 | 8h 11m | 16:37                   | 40m | 17:17 | 40m | 17:57 | 38m   | 18:35    | 15h 48m                    | 11h 51m |    |         |    | Sa, 21. Dez |
| So, 22. Dez |       | 18:36 – 00:37*             | 6h 01m  | AN <sub>+</sub> bis M <sub>f</sub>  | ☾    | —:—   | 12:22 | 06:27                      | 38m | 07:05 | 40m | 07:45 | 40m   | 08:25 | 8h 11m | 16:37                   | 40m | 17:17 | 40m | 17:57 | 38m   | 18:36    | 15h 48m                    | 11h 51m |    |         |    | So, 22. Dez |
| Mo, 23. Dez |       | 18:37 – 01:44*             | 7h 07m  | AN <sub>+</sub> bis M <sub>f</sub>  |      | 00:37 | 12:34 | 06:27                      | 38m | 07:06 | 40m | 07:46 | 40m   | 08:26 | 8h 11m | 16:38                   | 40m | 17:18 | 40m | 17:58 | 38m   | 18:37    | 15h 48m                    | 11h 50m |    |         |    | Mo, 23. Dez |
| Di, 24. Dez |       | 18:37 – 02:52*             | 8h 15m  | AN <sub>+</sub> bis M <sub>f</sub>  |      | 01:44 | 12:46 | 06:27                      | 38m | 07:06 | 39m | 07:46 | 40m   | 08:26 | 8h 12m | 16:38                   | 40m | 17:18 | 39m | 17:58 | 38m   | 18:37    | 15h 48m                    | 11h 50m |    |         |    | Di, 24. Dez |
| Mi, 25. Dez |       | 18:38 – 04:02*             | 9h 24m  | AN <sub>+</sub> bis M <sub>f</sub>  |      | 02:52 | 13:00 | 06:28                      | 38m | 07:07 | 39m | 07:47 | 39m   | 08:27 | 8h 12m | 16:39                   | 39m | 17:19 | 39m | 17:59 | 38m   | 18:38    | 15h 47m                    | 11h 50m |    |         |    | Mi, 25. Dez |
| Do, 26. Dez |       | 18:38 – 05:15*             | 10h 36m | AN <sub>+</sub> bis M <sub>f</sub>  |      | 04:02 | 13:16 | 06:28                      | 38m | 07:07 | 39m | 07:47 | 39m   | 08:27 | 8h 12m | 16:40                   | 39m | 17:20 | 39m | 18:00 | 38m   | 18:38    | 15h 47m                    | 11h 50m |    |         |    | Do, 26. Dez |
| Fr, 27. Dez |       | 18:39 – 06:28*             | 11h 48m | AN <sub>+</sub> bis M <sub>f</sub>  |      | 05:15 | 13:38 | 06:28                      | 38m | 07:07 | 39m | 07:47 | 39m   | 08:27 | 8h 13m | 16:40                   | 39m | 17:20 | 39m | 18:00 | 38m   | 18:39    | 15h 46m                    | 11h 49m |    |         |    | Fr, 27. Dez |
| Sa, 28. Dez |       | 18:40 – 06:29*             | 11h 49m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 06:28 | 14:07 | 06:29                      | 38m | 07:08 | 39m | 07:47 | 39m   | 08:27 | 8h 14m | 16:41                   | 39m | 17:21 | 39m | 18:01 | 38m   | 18:40    | 15h 46m                    | 11h 49m |    |         |    | Sa, 28. Dez |
| So, 29. Dez |       | 18:41 – 06:29*             | 11h 48m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 07:38 | 14:48 | 06:29                      | 38m | 07:08 | 39m | 07:48 | 39m   | 08:27 | 8h 14m | 16:42                   | 39m | 17:22 | 39m | 18:02 | 38m   | 18:41    | 15h 45m                    | 11h 48m |    |         |    | So, 29. Dez |
| Mo, 30. Dez |       | 18:41 – 06:29*             | 11h 47m | AN <sub>+</sub> bis AN <sub>–</sub> | ☀    | 08:40 | 15:43 | 06:29                      | 38m | 07:08 | 39m | 07:48 | 39m   | 08:28 | 8h 15m | 16:43                   | 39m | 17:23 | 39m | 18:03 | 38m   | 18:41    | 15h 44m                    | 11h 47m |    |         |    | Mo, 30. Dez |
| Di, 31. Dez |       | 18:42 – 06:29*             | 11h 47m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 09:29 | 16:53 | 06:29                      | 38m | 07:08 | 39m | 07:48 | 39m   | 08:28 | 8h 16m | 16:44                   | 39m | 17:24 | 39m | 18:04 | 38m   | 18:42    | 15h 43m                    | 11h 47m |    |         |    | Di, 31. Dez |
| Mi, 1. Jan  |       | 18:43 – 06:29*             | 11h 46m | AN <sub>+</sub> bis AN <sub>–</sub> |      | 10:06 | 18:12 | 06:29                      | 38m | 07:08 | 39m | 07:48 | 39m   | 08:28 | 8h 17m | 16:45                   | 39m | 17:25 | 39m | 18:04 | 38m   | 18:43    | 15h 42m                    | 11h 46m |    |         |    | Mi, 1. Jan  |
| Do, 2. Jan  |       | 19:35 – 06:29*             | 10h 54m | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 10:33 | 19:35 | 06:29                      | 38m | 07:08 | 39m | 07:48 | 39m   | 08:27 | 8h 18m | 16:46                   | 39m | 17:26 | 39m | 18:05 | 38m   | 18:44    | 15h 41m                    | 11h 45m |    |         |    | Do, 2. Jan  |
| Fr, 3. Jan  |       | 20:58 – 06:29*             | 9h 31m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 10:54 | 20:58 | 06:29                      | 38m | 07:08 | 39m | 07:48 | 39m   | 08:27 | 8h 19m | 16:47                   | 39m | 17:27 | 39m | 18:06 | 38m   | 18:45    | 15h 40m                    | 11h 44m |    |         |    | Fr, 3. Jan  |
| Sa, 4. Jan  |       | 22:20 – 06:29*             | 8h 09m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 11:11 | 22:20 | 06:29                      | 38m | 07:08 | 39m | 07:48 | 39m   | 08:27 | 8h 21m | 16:48                   | 39m | 17:28 | 39m | 18:07 | 38m   | 18:46    | 15h 38m                    | 11h 43m |    |         |    | Sa, 4. Jan  |
| So, 5. Jan  |       | 23:41 – 06:29*             | 6h 48m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 11:26 | 23:41 | 06:29                      | 38m | 07:08 | 39m | 07:47 | 39m   | 08:27 | 8h 22m | 16:49                   | 39m | 17:29 | 39m | 18:08 | 38m   | 18:47    | 15h 37m                    | 11h 42m |    |         |    | So, 5. Jan  |
| Mo, 6. Jan  |       | 01:03* – 06:29*            | 5h 26m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 11:40 | —:—   | 06:29                      | 38m | 07:08 | 39m | 07:47 | 39m   | 08:27 | 8h 23m | 16:51                   | 39m | 17:30 | 39m | 18:09 | 38m   | 18:48    | 15h 35m                    | 11h 41m |    |         |    | Mo, 6. Jan  |
| Di, 7. Jan  |       | 02:26* – 06:29*            | 4h 02m  | M <sub>↘</sub> bis AN <sub>–</sub>  | ☾    | 11:56 | 01:03 | 06:29                      | 38m | 07:08 | 39m | 07:47 | 39m   | 08:26 | 8h 25m | 16:52                   | 39m | 17:31 | 39m | 18:10 | 38m   | 18:49    | 15h 34m                    | 11h 40m |    |         |    | Di, 7. Jan  |
| Mi, 8. Jan  |       | 03:52* – 06:29*            | 2h 36m  | M <sub>↘</sub> bis AN <sub>–</sub>  |      | 12:14 | 02:26 | 06:29                      | 38m | 07:07 | 39m | 07:47 | 39m   | 08:26 | 8h 2   |                         |     |       |     |       |       |          |                            |         |    |         |    |             |