

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Schleiz 50.5833° N 11.8167° 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\*.

**Spalte 1** Kalendertag.

**Spalte 2** Bei »MESZ« sind alle Zeitangaben in dieser Zeile in Mitteleuropäischer Sommerzeit, ansonsten standardmäßig in MEZ.

**Spalte 3** Die für Deep-Sky-Beobachtungen nutzbare Zeitspanne: Es ist astronomisch dunkel (Sonne steht tiefer als  $-18^\circ$ ) und kein Mond stört.

**Spalte 4** Dauer der für Deep-Sky-Beobachtungen nutzbaren Zeitspanne.

**Spalte 5** Ereignisse, die die für Deep-Sky-Beobachtungen nutzbare Zeitspanne begrenzen: AN<sub>+</sub> (Einbruch der astronomischen Nacht = Ende der astr. Abenddämmerung), M<sub>v</sub> (Monduntergang), AN<sub>-</sub> (Ende der astronomischen Nacht = Beginn der astr. Morgendämmerung), M<sub>7</sub>

(Mondaufgang), Astr. MD (Astronomische Mitternachtsdämmerung), Naut. MD (Nautische Mitternachtsdämmerung).

**Spalte 6** Mondphase.

**Spalte 7** Mondaufgang.

**Spalte 8** Monduntergang.

**Spalte 9** Beginn der astr. Morgendämmerung (Sonnenhöhe =  $-18^\circ$ ).

**Spalte 10** Dauer der astr. Morgendämmerung.

**Spalte 11** Beginn der naut. Morgendämmerung (Sonnenhöhe =  $-12^\circ$ ).

**Spalte 12** Dauer der naut. Morgendämmerung.

**Spalte 13** Beginn der bürg. Morgendämmerung (Sonnenhöhe =  $-6^\circ$ ).

**Spalte 14** Dauer der bürg. Morgendämmerung.

**Spalte 15** Sonnenaufgang.

**Spalte 16** Taglänge.

**Spalte 17** Sonnenuntergang.

**Spalte 18** Dauer der bürg. Abenddämmerung.

**Spalte 19** Ende der bürg. Abenddämmerung (Sonnenhöhe =  $-6^\circ$ ).

**Spalte 20** Dauer der naut. Abenddämmerung.

**Spalte 21** Ende der naut. Abenddämmerung (Sonnenhöhe =  $-12^\circ$ ).

**Spalte 22** Dauer der astr. Abenddämmerung.

**Spalte 23** Ende der astr. Abenddämmerung (Sonnenhöhe =  $-18^\circ$ ).

**Spalte 24** Länge der Nacht.

**Spalte 25** Länge der astr. Nacht.

**Für Beobachter, die zu Zeiten der Mitternachtsdämmerung während der astr. Dämmerung beobachten möchten:**

**Spalte 26** Nutzbare Zeitspanne: Es ist »nautisch dunkel« (Sonne steht tiefer als  $-12^\circ$ ) und kein Mond stört.

**Spalte 27** Dauer der in Spalte 26 angegebenen Zeitspanne.

**Spalte 28** Ereignisse, die die nutzbare Zeitspanne begrenzen: ND<sub>+</sub> (Beginn der »naut. Dunkelheit« = Ende der naut. Abenddämmerung), M<sub>v</sub> (Monduntergang), ND<sub>-</sub> (Ende der »naut. Dunkelheit« = Beginn der naut. Morgendämmerung), M<sub>7</sub> (Mondaufgang), Naut. MD (Nautische Mitternachtsdämmerung).

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

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

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.	$\uparrow$	$\searrow$	Astr.	$\Delta t$	Naut.	$\Delta t$	Bürg.	$\Delta t$	$\uparrow$	$\Delta t$	$\searrow$	$\Delta t$	Bürg.	$\Delta t$	Naut.	$\Delta t$	Astr.	$\Delta t$	$\Delta t$		$\Delta t$		
Fr, 19. Jul	MESZ	—:—:—:—	—	Mond stört		20:31	02:19	01:51	1h 47m	03:39	58m	04:37	45m	05:22	15h 52m	21:14	44m	21:59	57m	22:57	1h 41m	00:39*	8h 08m	1h 20m				Fr, 19. Jul
Sa, 20. Jul	MESZ	—:—:—:—	—	Mond stört		21:20	03:20	01:59	1h 41m	03:41	57m	04:38	44m	05:23	15h 50m	21:13	44m	21:58	57m	22:55	1h 37m	00:32*	8h 11m	1h 33m				Sa, 20. Jul
So, 21. Jul	MESZ	—:—:~:~:~	—	Mond stört	○	21:54	04:38	02:05	1h 37m	03:43	57m	04:40	44m	05:24	15h 47m	21:12	44m	21:56	56m	22:53	1h 33m	00:27*	8h 13m	1h 44m				So, 21. Jul
Mo, 22. Jul	MESZ	—:~:~:~:~	—	Mond stört		22:18	06:06	02:11	1h 33m	03:45	56m	04:41	44m	05:26	15h 45m	21:11	44m	21:55	56m	22:51	1h 30m	00:21*	8h 16m	1h 55m				Mo, 22. Jul
Di, 23. Jul	MESZ	—:~:~:~:~	—	Mond stört		22:37	07:37	02:17	1h 30m	03:47	56m	04:43	44m	05:27	15h 42m	21:10	43m	21:53	55m	22:49	1h 27m	00:16*	8h 18m	2h 05m				Di, 23. Jul
Mi, 24. Jul	MESZ	—:~:~:~:~	—	Mond stört		22:52	09:06	02:22	1h 27m	03:49	55m	04:45	43m	05:28	15h 39m	21:08	43m	21:52	55m	22:47	1h 24m	00:11*	8h 21m	2h 15m				Mi, 24. Jul
Do, 25. Jul	MESZ	—:~:~:~:~	—	Mond stört		23:06	10:33	02:27	1h 24m	03:51	55m	04:46	43m	05:30	15h 37m	21:07	43m	21:50	54m	22:45	1h 22m	00:07*	8h 24m	2h 24m				Do, 25. Jul
Fr, 26. Jul	MESZ	—:~:~:~:~	—	Mond stört		23:20	11:58	02:31	1h 22m	03:53	54m	04:48	43m	05:31	15h 34m	21:06	43m	21:49	54m	22:43	1h 19m	00:03*	8h 27m	2h 32m				Fr, 26. Jul
Sa, 27. Jul	MESZ	—:~:~:~:~	—	Mond stört		23:35	13:23	02:35	1h 19m	03:55	54m	04:49	43m	05:33	15h 31m	21:04	42m	21:47	53m	22:41	1h 17m	23:58	8h 29m	2h 41m				Sa, 27. Jul
So, 28. Jul	MESZ	—:~:~:~:~	—	Mond stört	●	23:53	14:49	02:40	1h 17m	03:57	53m	04:51	42m	05:34	15h 28m	21:03	42m	21:45	53m	22:38	1h 15m	23:54	8h 32m	2h 49m				So, 28. Jul
Mo, 29. Jul	MESZ	23:50–00:18*	27m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	16:15	02:44	1h 15m	04:00	53m	04:53	42m	05:35	15h 25m	21:01	42m	21:44	52m	22:36	1h 13m	23:50	8h 35m	2h 57m				Mo, 29. Jul
Di, 30. Jul	MESZ	23:46–00:52*	1h 05m	AN <sub>+</sub> bis M <sub>7</sub>		00:18	17:37	02:48	1h 14m	04:02	52m	04:54	42m	05:37	15h 22m	21:00	42m	21:42	52m	22:34	1h 12m	23:46	8h 38m	3h 05m				Di, 30. Jul
Mi, 31. Jul	MESZ	23:42–01:39*	1h 56m	AN <sub>+</sub> bis M <sub>7</sub>		00:52	18:49	02:51	1h 12m	04:04	52m	04:56	42m	05:38	15h 19m	20:58	41m	21:40	51m	22:32	1h 10m	23:42	8h 41m	3h 12m				Mi, 31. Jul
Do, 1. Aug	MESZ	23:39–02:40*	3h 01m	AN <sub>+</sub> bis M <sub>7</sub>		01:39	19:48	02:55	1h 10m	04:06	51m	04:58	42m	05:40	15h 16m	20:57	41m	21:38	51m	22:29	1h 09m	23:39	8h 44m	3h 20m				Do, 1. Aug
Fr, 2. Aug	MESZ	23:35–03:02*	3h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		02:40	20:30	02:59	1h 09m	04:08	51m	04:59	41m	05:41	15h 13m	20:55	41m	21:36	50m	22:27	1h 07m	23:35	8h 47m	3h 27m				Fr, 2. Aug
Sa, 3. Aug	MESZ	23:31–03:06*	3h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		03:51	21:00	03:02	1h 07m	04:10	50m	05:01	41m	05:43	15h 10m	20:53	41m	21:35	50m	22:25	1h 06m	23:31	8h 50m	3h 34m				Sa, 3. Aug
So, 4. Aug	MESZ	23:28–03:09*	3h 41m	AN <sub>+</sub> bis AN <sub>-</sub>	●	05:08	21:21	03:06	1h 06m	04:12	50m	05:03	41m	05:44	15h 07m	20:52	41m	21:33	49m	22:22	1h 05m	23:28	8h 53m	3h 41m				So, 4. Aug
Mo, 5. Aug	MESZ	23:24–03:13*	3h 48m	AN <sub>+</sub> bis AN <sub>-</sub>		06:23	21:37	03:09	1h 05m	04:15	49m	05:04	41m	05:45	15h 04m	20:50	40m	21:31	49m	22:20	1h 04m	23:24	8h 57m	3h 48m				Mo, 5. Aug
Di, 6. Aug	MESZ	23:21–03:16*	3h 55m	AN <sub>+</sub> bis AN <sub>-</sub>		07:37	21:50	03:13	1h 04m	04:17	49m	05:06	40m	05:47	15h 01m	20:48	40m	21:29	48m	22:18	1h 02m	23:21	9h 00m	3h 55m				Di, 6. Aug
Mi, 7. Aug	MESZ	23:17–03:19*	4h 01m	AN <sub>+</sub> bis AN <sub>-</sub>		08:48	22:01	03:16	1h 02m	04:19	48m	05:08	40m	05:48	14h 57m	20:46	40m	21:27	48m	22:15	1h 01m	23:17	9h 03m	4h 01m				Mi, 7. Aug
Do, 8. Aug	MESZ	23:14–03:22*	4h 08m	AN <sub>+</sub> bis AN <sub>-</sub>		09:57	22:11	03:19	1h 01m	04:21	48m	05:10	40m	05:50	14h 54m	20:45	40m	21:25	48m	22:13	1h 00m	23:14	9h 06m	4h 08m				Do, 8. Aug
Fr, 9. Aug	MESZ	23:10–03:25*	4h 15m	AN <sub>+</sub> bis AN <sub>-</sub>		11:05	22:22	03:22	1h 00m	04:23	48m	05:11	40m	05:51	14h 51m	20:43	39m	21:23	47m	22:11	59m	23:10	9h 10m	4h 15m				Fr, 9. Aug
Sa, 10. Aug	MESZ	23:07–03:28*	4h 21m	AN <sub>+</sub> bis AN <sub>-</sub>		12:14	22:33	03:25	59m	04:25	47m	05:13	40m	05:53	14h 48m	20:41	39m	21:21	47m	22:08	58m	23:07	9h 13m	4h 21m				Sa, 10. Aug
So, 11. Aug	MESZ	23:04–03:31*	4h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		13:25	22:47	03:28	58m	04:27	47m	05:15	39m	05:54	14h 44m	20:39	39m	21:19	46m	22:06	57m	23:04	9h 16m	4h 27m				So, 11. Aug
Mo, 12. Aug	MESZ	23:05–03:34*	4h 28m	M <sub>7</sub> bis AN <sub>-</sub>	◐	14:39	23:05	03:31	57m	04:29	46m	05:16	39m	05:56	14h 41m	20:37	39m	21:17	46m	22:03	57m	23:00	9h 20m	4h 34m				Mo, 12. Aug
Di, 13. Aug	MESZ	23:31–03:37*	4h 06m	M <sub>7</sub> bis AN <sub>-</sub>		15:55	23:31	03:34	57m	04:32	46m	05:18	39m	05:58	14h 37m	20:35	39m	21:15	46m	22:01	56m	22:57	9h 23m	4h 40m				Di, 13. Aug
Mi, 14. Aug	MESZ	00:07*–03:40*	3h 33m	M <sub>7</sub> bis AN <sub>-</sub>		17:09	—:—	03:37	56m	04:34	46m	05:20	39m	05:59	14h 34m	20:34	38m	21:13	45m	21:58	55m	22:54	9h 26m	4h 46m				Mi, 14. Aug
Do, 15. Aug	MESZ	00:59*–03:43*	2h 43m	M <sub>7</sub> bis AN <sub>-</sub>		18:16	00:07	03:40	55m	04:36	45m	05:22	39m	06:01	14h 31m	20:32	38m	21:10	45m	21:56	54m	22:51	9h 30m	4h 52m				Do, 15. Aug
Fr, 16. Aug	MESZ	02:10*–03:46*	1h 36m	M <sub>7</sub> bis AN <sub>-</sub>		19:11	00:59	03:43	54m	04:38	45m	05:23	38m	06:02	14h 27m	20:30	38m	21:08	45m	21:53	53m	22:47	9h 33m	4h 58m				Fr, 16. Aug
Sa, 17. Aug	MESZ	03:34*–03:49*	14m	M <sub>7</sub> bis AN <sub>-</sub>		19:51	02:10	03:46	54m	04:40	45m	05:25	38m	06:04	14h 24m	20:28	38m	21:06	44m	21:51	53m	22:44	9h 37m	5h 04m				Sa, 17. Aug
So, 18. Aug	MESZ	—:~:~:~:~	—	Mond stört		20:19	03:34	03:49	53m	04:42	44m	05:27	38m	06:05	14h 20m	20:26	38m	21:04	44m	21:49	52m	22:41	9h 40m	5h 10m				So, 18. Aug
Mo, 19. Aug	MESZ	—:~:~:~:~	—	Mond stört	○	20:40	05:05	03:51	52m	04:44	44m	05:28	38m	06:07	14h 17m	20:24	38m	21:02	44m	21:46	51m	22:38	9h 44m	5h 15m				Mo, 19. Aug
Di, 20. Aug	MESZ	—:~:~:~:~	—	Mond stört		20:57	06:37	03:54	52m	04:46	44m	05:30	38m	06:08	14h 13m	20:22	37m	21:00	43m	21:44	51m	22:35	9h 47m	5h 21m				Di, 20. Aug
Mi, 21. Aug	MESZ	—:~:~:~:~	—	Mond stört		21:12	08:08	03:56	51m	04:48	43m	05:32	37m	06:10	14h 10m	20:20	37m	20:57	43m	21:41	50m	22:32	9h 51m	5h 27m				Mi, 21. Aug
Do, 22. Aug	MESZ	—:~:~:~:~	—	Mond stört		21:26	09:37	03:59	50m	04:50	43m	05:33	37m	06:11	14h 06m	20:18	37m	20:55	43m	21:39	50m	22:29	9h 55m	5h 32m				Do, 22. Aug
Fr, 23. Aug	MESZ	—:~:~:~:~	—	Mond stört		21:40	11:05	04:02	50m	04:52	43m	05:35	37m	06:13	14h 02m	20:16	37m	20:53	43m	21:36	49m	22:26	9h 58m	5h 38m				Fr, 23. Aug
Sa, 24. Aug	MESZ	—:~:~:~:~	—	Mond stört		21:58	12:33	04:04	49m	04:54	43m	05:37	37m	06:14	13h 59m	20:14	37m	20:51	42m	21:34	49m	22:23	10h 02m	5h 43m				Sa, 24. Aug
So, 25. Aug	MESZ	22:20–22:21	1m	AN <sub>+</sub> bis M <sub>7</sub>		22:21	14:01	04:07	49m	04:56	42m	05:39	37m	06:16	13h 55m	20:12	37m	20:49	42m	21:31	48m	22:20	10h 05m	5h 49m				So, 25. Aug
Mo, 26. Aug	MESZ	22:17–22:52	34m	AN <sub>+</sub> bis M <sub>7</sub>	◑	22:52	15:26	04:09	48m	04:58	42m	05:40	37m	06:17	13h 52m	20:09	36m	20:46	42m	21:29	48m	22:17	10h 09m	5h 54m				Mo, 26. Aug
Di, 27. Aug	MESZ	22:14–23:34	1h 20m	AN <sub>+</sub> bis M <sub>7</sub>		23:34	16:43	04:11	48m	05:00	42m	05:42	37m	06:19	13h 48m	20:07	36m	20:44	41m	21:26	47m	22:14	10h 13m	6h 00m				Di, 27. Aug
Mi, 28. Aug	MESZ	22:11–00:31*	2h 20m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	17:45	04:14	47m	05:02	42m	05:44	36m	06:20	13h 44m	20:05	36m	20:42	41m	21:24	47m	22:11	10h 16m	6h 05m				Mi, 28. Aug
Do, 29. Aug	MESZ	22:08–01:40*	3h 31m	AN <sub>+</sub> bis M <sub>7</sub>		00:31	18:32	04:16	47m	05:03	41m	05:45	36m	06:22	13h 41m	20:03	36m	20:40	41m	21:21	46m	22:08	10h 20m	6h 10m				Do, 29. Aug
Fr, 30. Aug	MESZ	22:05–02:55*	4h 49m	AN <sub>+</sub> bis M <sub>7&lt;/</sub>																								

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

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

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