

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Pfarrkirchen 48.4325° N 12.9380° 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		18:19 – 22:02	3h 42m	AN <sub>+</sub> bis M <sub>7</sub>		22:02	11:08	06:03	37m	06:41	39m	07:20	38m	07:59	8h 24m	16:23	38m	17:02	39m	17:41	38m	18:19	15h 35m	11h 44m					Mo, 1. Jan
Di, 2. Jan		18:20 – 23:08	4h 47m	AN <sub>+</sub> bis M <sub>7</sub>		23:08	11:22	06:03	37m	06:41	38m	07:20	38m	07:59	8h 25m	16:24	38m	17:03	38m	17:42	37m	18:20	15h 34m	11h 43m					Di, 2. Jan
Mi, 3. Jan		18:21 – 00:14*	5h 53m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	11:34	06:03	37m	06:41	38m	07:20	38m	07:59	8h 26m	16:25	38m	17:04	38m	17:43	37m	18:21	15h 33m	11h 42m					Mi, 3. Jan
Do, 4. Jan		18:22 – 01:22*	7h 00m	AN <sub>+</sub> bis M <sub>7</sub>	☾	00:14	11:47	06:03	37m	06:41	38m	07:20	38m	07:59	8h 27m	16:26	38m	17:05	38m	17:44	37m	18:22	15h 32m	11h 41m					Do, 4. Jan
Fr, 5. Jan		18:23 – 02:34*	8h 10m	AN <sub>+</sub> bis M <sub>7</sub>		01:22	12:02	06:03	37m	06:41	38m	07:20	38m	07:59	8h 28m	16:27	38m	17:06	38m	17:45	37m	18:23	15h 30m	11h 40m					Fr, 5. Jan
Sa, 6. Jan		18:24 – 03:49*	9h 24m	AN <sub>+</sub> bis M <sub>7</sub>		02:34	12:19	06:03	37m	06:41	38m	07:20	38m	07:58	8h 30m	16:29	38m	17:07	38m	17:46	37m	18:24	15h 29m	11h 39m					Sa, 6. Jan
So, 7. Jan		18:25 – 05:06*	10h 41m	AN <sub>+</sub> bis M <sub>7</sub>		03:49	12:41	06:03	37m	06:41	38m	07:20	38m	07:58	8h 31m	16:30	38m	17:08	38m	17:47	37m	18:25	15h 28m	11h 38m					So, 7. Jan
Mo, 8. Jan		18:26 – 06:03*	11h 37m	AN <sub>+</sub> bis AN <sub>-</sub>		05:06	13:12	06:03	37m	06:41	38m	07:20	38m	07:58	8h 33m	16:31	38m	17:09	38m	17:48	37m	18:26	15h 26m	11h 37m					Mo, 8. Jan
Di, 9. Jan		18:27 – 06:03*	11h 36m	AN <sub>+</sub> bis AN <sub>-</sub>		06:24	13:54	06:03	37m	06:41	38m	07:19	38m	07:57	8h 34m	16:32	38m	17:10	38m	17:49	37m	18:27	15h 24m	11h 36m					Di, 9. Jan
Mi, 10. Jan		18:28 – 06:02*	11h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		07:33	14:54	06:03	37m	06:40	38m	07:19	38m	07:57	8h 36m	16:33	38m	17:11	38m	17:50	37m	18:28	15h 23m	11h 34m					Mi, 10. Jan
Do, 11. Jan		18:29 – 06:02*	11h 33m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	08:30	16:10	06:02	37m	06:40	38m	07:19	38m	07:57	8h 38m	16:35	38m	17:13	38m	17:51	37m	18:29	15h 21m	11h 33m					Do, 11. Jan
Fr, 12. Jan		18:30 – 06:02*	11h 31m	AN <sub>+</sub> bis AN <sub>-</sub>		09:12	17:36	06:02	37m	06:40	38m	07:18	37m	07:56	8h 39m	16:36	37m	17:14	38m	17:52	37m	18:30	15h 19m	11h 31m					Fr, 12. Jan
Sa, 13. Jan		19:05 – 06:01*	10h 56m	M <sub>\</sub> bis AN <sub>-</sub>		09:42	19:05	06:02	37m	06:39	38m	07:18	37m	07:56	8h 41m	16:37	37m	17:15	38m	17:53	37m	18:31	15h 17m	11h 30m					Sa, 13. Jan
So, 14. Jan		20:33 – 06:01*	9h 28m	M <sub>\</sub> bis AN <sub>-</sub>		10:05	20:33	06:01	37m	06:39	38m	07:17	37m	07:55	8h 43m	16:39	37m	17:16	38m	17:55	37m	18:32	15h 15m	11h 28m					So, 14. Jan
Mo, 15. Jan		21:57 – 06:01*	8h 03m	M <sub>\</sub> bis AN <sub>-</sub>		10:24	21:57	06:01	37m	06:38	38m	07:17	37m	07:54	8h 45m	16:40	37m	17:18	38m	17:56	37m	18:33	15h 13m	11h 27m					Mo, 15. Jan
Di, 16. Jan		23:18 – 06:00*	6h 41m	M <sub>\</sub> bis AN <sub>-</sub>		10:41	23:18	06:01	37m	06:38	38m	07:16	37m	07:54	8h 47m	16:41	37m	17:19	38m	17:57	37m	18:34	15h 11m	11h 25m					Di, 16. Jan
Mi, 17. Jan		00:39* – 06:00*	5h 20m	M <sub>\</sub> bis AN <sub>-</sub>		10:57	—:—	06:00	37m	06:37	38m	07:15	37m	07:53	8h 49m	16:43	37m	17:20	38m	17:58	37m	18:36	15h 09m	11h 23m					Mi, 17. Jan
Do, 18. Jan		01:59* – 05:59*	4h 00m	M <sub>\</sub> bis AN <sub>-</sub>	☾	11:14	00:39	06:00	37m	06:37	37m	07:15	37m	07:52	8h 52m	16:44	37m	17:22	37m	18:00	37m	18:37	15h 07m	11h 22m					Do, 18. Jan
Fr, 19. Jan		03:18* – 05:58*	2h 40m	M <sub>\</sub> bis AN <sub>-</sub>		11:34	01:59	05:59	37m	06:36	37m	07:14	37m	07:51	8h 54m	16:46	37m	17:23	37m	18:01	37m	18:38	15h 04m	11h 20m					Fr, 19. Jan
Sa, 20. Jan		04:35* – 05:58*	1h 22m	M <sub>\</sub> bis AN <sub>-</sub>		11:59	03:18	05:58	37m	06:36	37m	07:13	37m	07:50	8h 56m	16:47	37m	17:24	37m	18:02	37m	18:39	15h 02m	11h 18m					Sa, 20. Jan
So, 21. Jan		05:46* – 05:57*	10m	M <sub>\</sub> bis AN <sub>-</sub>		12:31	04:35	05:58	37m	06:35	37m	07:13	36m	07:50	8h 59m	16:49	36m	17:26	37m	18:03	37m	18:41	14h 59m	11h 16m					So, 21. Jan
Mo, 22. Jan		—:—:—:—:—	–	Mond stört		13:13	05:46	05:57	37m	06:34	37m	07:12	36m	07:49	9h 01m	16:50	36m	17:27	37m	18:05	37m	18:42	14h 57m	11h 14m					Mo, 22. Jan
Di, 23. Jan		—:—:—:—:—	–	Mond stört		14:07	06:47	05:56	37m	06:33	37m	07:11	36m	07:48	9h 04m	16:52	36m	17:29	37m	18:06	37m	18:43	14h 54m	11h 12m					Di, 23. Jan
Mi, 24. Jan		—:—:—:—:—	–	Mond stört		15:11	07:34	05:55	36m	06:32	37m	07:10	36m	07:47	9h 06m	16:53	36m	17:30	37m	18:07	37m	18:44	14h 52m	11h 10m					Mi, 24. Jan
Do, 25. Jan		—:—:~:~:~	–	Mond stört	☾	16:20	08:10	05:55	36m	06:32	37m	07:09	36m	07:46	9h 09m	16:55	36m	17:31	37m	18:09	36m	18:46	14h 49m	11h 08m					Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~	–	Mond stört		17:31	08:37	05:54	36m	06:31	37m	07:08	36m	07:44	9h 11m	16:56	36m	17:33	37m	18:10	36m	18:47	14h 46m	11h 05m					Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~	–	Mond stört		18:41	08:57	05:53	36m	06:30	37m	07:07	36m	07:43	9h 14m	16:58	36m	17:34	37m	18:12	36m	18:48	14h 44m	11h 03m					Sa, 27. Jan
So, 28. Jan		18:50 – 19:49	59m	AN <sub>+</sub> bis M <sub>7</sub>		19:49	09:14	05:52	36m	06:29	37m	07:06	36m	07:42	9h 17m	17:00	36m	17:36	37m	18:13	36m	18:50	14h 41m	11h 01m					So, 28. Jan
Mo, 29. Jan		18:51 – 20:56	2h 04m	AN <sub>+</sub> bis M <sub>7</sub>		20:56	09:28	05:51	36m	06:28	37m	07:05	36m	07:41	9h 20m	17:01	36m	17:37	37m	18:14	36m	18:51	14h 38m	10h 58m					Mo, 29. Jan
Di, 30. Jan		18:52 – 22:02	3h 09m	AN <sub>+</sub> bis M <sub>7</sub>		22:02	09:41	05:50	36m	06:27	36m	07:04	35m	07:40	9h 23m	17:03	35m	17:39	37m	18:16	36m	18:52	14h 35m	10h 56m					Di, 30. Jan
Mi, 31. Jan		18:54 – 23:08	4h 14m	AN <sub>+</sub> bis M <sub>7</sub>		23:08	09:53	05:49	36m	06:26	36m	07:03	35m	07:38	9h 25m	17:04	35m	17:40	36m	18:17	36m	18:54	14h 32m	10h 54m					Mi, 31. Jan
Do, 1. Feb		18:55 – 00:17*	5h 21m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	10:07	05:48	36m	06:25	36m	07:01	35m	07:37	9h 28m	17:06	35m	17:42	36m	18:19	36m	18:55	14h 29m	10h 51m					Do, 1. Feb
Fr, 2. Feb		18:57 – 01:29*	6h 32m	AN <sub>+</sub> bis M <sub>7</sub>		00:17	10:22	05:47	36m	06:23	36m	07:00	35m	07:36	9h 31m	17:08	35m	17:43	36m	18:20	36m	18:57	14h 26m	10h 49m					Fr, 2. Feb
Sa, 3. Feb		18:58 – 02:44*	7h 45m	AN <sub>+</sub> bis M <sub>7</sub>	☾	01:29	10:41	05:46	36m	06:22	36m	06:59	35m	07:34	9h 34m	17:09	35m	17:45	36m	18:21	36m	18:58	14h 23m	10h 46m					Sa, 3. Feb
So, 4. Feb		18:59 – 04:00*	9h 00m	AN <sub>+</sub> bis M <sub>7</sub>		02:44	11:07	05:44	36m	06:21	36m	06:58	35m	07:33	9h 37m	17:11	35m	17:46	36m	18:23	36m	18:59	14h 20m	10h 43m					So, 4. Feb
Mo, 5. Feb		19:01 – 05:12*	10h 11m	AN <sub>+</sub> bis M <sub>7</sub>		04:00	11:42	05:43	36m	06:20	36m	06:56	35m	07:32	9h 40m	17:12	35m	17:48	36m	18:24	36m	19:01	14h 17m	10h 41m					Mo, 5. Feb
Di, 6. Feb		19:02 – 05:41*	10h 38m	AN <sub>+</sub> bis AN <sub>-</sub>		05:12	12:32	05:42	36m	06:18	36m	06:55	35m	07:30	9h 43m	17:14	35m	17:49	36m	18:26	36m	19:02	14h 14m	10h 38m					Di, 6. Feb
Mi, 7. Feb		19:04 – 05:39*	10h 35m	AN <sub>+</sub> bis AN <sub>-</sub>		06:15	13:39	05:41	36m	06:17	36m	06:54	35m	07:29	9h 47m	17:16	35m	17:51	36m	18:27	36m	19:04	14h 11m	10h 35m					Mi, 7. Feb
Do, 8. Feb		19:05 – 05:38*	10h 33m	AN <sub>+</sub> bis AN <sub>-</sub>		07:03	15:01	05:39	36m	06:16	36m	06:52	34m	07:27	9h 50m	17:17	35m	17:52	36m	18:29	36m	19:05	14h 08m	10h 33m					Do, 8. Feb
Fr, 9. Feb		19:06 – 05:37*	10h 30m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	07:39	16:31	05:38	36m	06:14	36m	06:51	34m	07:26	9h 53m	17:19	34m	17:54	36m	18:30	36m	19:06	14h 05m	10h 30m					Fr, 9. Feb
Sa, 10. Feb		19:08 – 05:35*	10h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		08:06	18:02	05:37	36m	06:13	36m	06:49	34m	07:24	9h 56m	17:21	34m	17:55	36m	18:32	36m	19:08	14h 01m	10h 27m					Sa, 10. Feb
So, 11. Feb		19:31 – 05:34*	10h 03m	M <sub>\</sub> bis AN <sub>-</sub>		08:27	19:31	05:35	36m	06:12	36m	06:48	34m	07															

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

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

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	00:03*–02:07*	2h 04m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	01:59	12:11	02:10	1h 23m	03:34	54m	04:29	42m	05:11	15h 48m	21:00	43m	21:43	54m	22:38	1h 25m	00:03*	8h 10m	2h 04m				Do, 30. Mai
Fr, 31. Mai	MESZ	00:07*–02:04*	1h 57m	AN <sub>+</sub> bis AN <sub>-</sub>		02:17	13:32	02:07	1h 25m	03:33	54m	04:28	43m	05:11	15h 50m	21:01	43m	21:44	55m	22:39	1h 27m	00:07*	8h 09m	1h 57m				Fr, 31. Mai
Sa, 1. Jun	MESZ	00:10*–02:01*	1h 51m	AN <sub>+</sub> bis AN <sub>-</sub>		02:33	14:54	02:04	1h 27m	03:32	55m	04:27	43m	05:10	15h 51m	21:02	43m	21:45	55m	22:41	1h 29m	00:10*	8h 07m	1h 51m				Sa, 1. Jun
So, 2. Jun	MESZ	00:13*–01:58*	1h 44m	AN <sub>+</sub> bis AN <sub>-</sub>		02:49	16:16	02:01	1h 29m	03:31	55m	04:26	43m	05:09	15h 53m	21:03	43m	21:46	55m	22:42	1h 31m	00:13*	8h 06m	1h 44m				So, 2. Jun
Mo, 3. Jun	MESZ	00:17*–01:55*	1h 38m	AN <sub>+</sub> bis AN <sub>-</sub>		03:06	17:40	01:58	1h 31m	03:30	55m	04:25	43m	05:09	15h 54m	21:04	43m	21:47	56m	22:43	1h 33m	00:17*	8h 04m	1h 38m				Mo, 3. Jun
Di, 4. Jun	MESZ	00:20*–01:52*	1h 31m	AN <sub>+</sub> bis AN <sub>-</sub>		03:26	19:05	01:55	1h 33m	03:29	56m	04:25	43m	05:08	15h 56m	21:04	43m	21:48	56m	22:45	1h 35m	00:20*	8h 03m	1h 31m				Di, 4. Jun
Mi, 5. Jun	MESZ	00:24*–01:49*	1h 24m	AN <sub>+</sub> bis AN <sub>-</sub>		03:52	20:29	01:52	1h 35m	03:28	56m	04:24	43m	05:08	15h 57m	21:05	43m	21:49	56m	22:46	1h 38m	00:24*	8h 02m	1h 24m				Mi, 5. Jun
Do, 6. Jun	MESZ	00:28*–01:45*	1h 17m	AN <sub>+</sub> bis AN <sub>-</sub>	☀	04:26	21:46	01:49	1h 38m	03:27	56m	04:23	43m	05:07	15h 58m	21:06	44m	21:50	56m	22:47	1h 40m	00:28*	8h 00m	1h 17m				Do, 6. Jun
Fr, 7. Jun	MESZ	00:31*–01:42*	1h 10m	AN <sub>+</sub> bis AN <sub>-</sub>		05:12	22:51	01:45	1h 40m	03:26	56m	04:23	44m	05:07	15h 59m	21:07	44m	21:51	57m	22:48	1h 43m	00:31*	7h 59m	1h 10m				Fr, 7. Jun
Sa, 8. Jun	MESZ	00:35*–01:39*	1h 03m	AN <sub>+</sub> bis AN <sub>-</sub>		06:11	23:40	01:42	1h 43m	03:25	57m	04:22	44m	05:07	16h 01m	21:08	44m	21:52	57m	22:49	1h 45m	00:35*	7h 58m	1h 03m				Sa, 8. Jun
So, 9. Jun	MESZ	00:39*–01:35*	56m	AN <sub>+</sub> bis AN <sub>-</sub>		07:20	—:—	01:39	1h 45m	03:25	57m	04:22	44m	05:06	16h 02m	21:08	44m	21:53	57m	22:50	1h 48m	00:39*	7h 57m	56m				So, 9. Jun
Mo, 10. Jun	MESZ	00:43*–01:32*	48m	AN <sub>+</sub> bis AN <sub>-</sub>		08:33	00:15	01:35	1h 48m	03:24	57m	04:22	44m	05:06	16h 02m	21:09	44m	21:53	57m	22:51	1h 51m	00:43*	7h 56m	48m				Mo, 10. Jun
Di, 11. Jun	MESZ	01:01*–01:28*	26m	M <sub>\</sub> bis AN <sub>-</sub>		09:47	00:41	01:32	1h 51m	03:23	57m	04:21	44m	05:06	16h 03m	21:10	44m	21:54	58m	22:52	1h 55m	00:47*	7h 56m	40m				Di, 11. Jun
Mi, 12. Jun	MESZ	01:17*–01:23*	6m	M <sub>\</sub> bis AN <sub>-</sub>		10:58	01:01	01:28	1h 55m	03:23	58m	04:21	44m	05:06	16h 04m	21:10	44m	21:55	58m	22:53	1h 59m	00:52*	7h 55m	30m				Mi, 12. Jun
Do, 13. Jun	MESZ	—:—:—:—	—	Mond stört		12:06	01:17	01:23	1h 59m	03:23	58m	04:21	44m	05:05	16h 05m	21:11	44m	21:55	58m	22:54	2h 04m	00:58*	7h 54m	19m				Do, 13. Jun
Fr, 14. Jun	MESZ			Astr. MD	☾	13:13	01:30	01:18	2h 04m	03:22	58m	04:21	44m	05:05	16h 05m	21:11	44m	21:56	58m	22:54	—:—	7h 54m		01:43*–03:22*	1h 39m	M <sub>\</sub> bis ND <sub>-</sub>		Fr, 14. Jun
Sa, 15. Jun	MESZ			Astr. MD		14:19	01:43	—:—		03:22	58m	04:21	44m	05:05	16h 06m	21:12	44m	21:56	58m	22:55	—:—	7h 53m		01:55*–03:22*	1h 26m	M <sub>\</sub> bis ND <sub>-</sub>		Sa, 15. Jun
So, 16. Jun	MESZ			Astr. MD		15:26	01:55	—:—		03:22	58m	04:20	44m	05:05	16h 06m	21:12	44m	21:57	58m	22:56	—:—	7h 53m		02:09*–03:22*	1h 12m	M <sub>\</sub> bis ND <sub>-</sub>		So, 16. Jun
Mo, 17. Jun	MESZ			Astr. MD		16:36	02:09	—:—		03:22	58m	04:20	44m	05:05	16h 07m	21:12	44m	21:57	58m	22:56	—:—	7h 52m		02:25*–03:22*	56m	M <sub>\</sub> bis ND <sub>-</sub>		Mo, 17. Jun
Di, 18. Jun	MESZ			Astr. MD		17:48	02:25	—:—		03:22	58m	04:20	44m	05:05	16h 07m	21:13	44m	21:58	58m	22:57	—:—	7h 52m		02:46*–03:22*	35m	M <sub>\</sub> bis ND <sub>-</sub>		Di, 18. Jun
Mi, 19. Jun	MESZ			Astr. MD		19:03	02:46	—:—		03:22	58m	04:21	44m	05:05	16h 07m	21:13	44m	21:58	58m	22:57	—:—	7h 52m		03:13*–03:22*	8m	M <sub>\</sub> bis ND <sub>-</sub>		Mi, 19. Jun
Do, 20. Jun	MESZ			Astr. MD		20:18	03:13	—:—		03:22	58m	04:21	44m	05:06	16h 07m	21:13	44m	21:58	58m	22:57	—:—	7h 52m		—:—:—:—	—	Mond stört		Do, 20. Jun
Fr, 21. Jun	MESZ			Astr. MD		21:26	03:51	—:—		03:22	58m	04:21	44m	05:06	16h 07m	21:13	44m	21:58	58m	22:57	—:—	7h 52m		—:—:—:—	—	Mond stört		Fr, 21. Jun
Sa, 22. Jun	MESZ			Astr. MD	☽	22:24	04:43	—:—		03:22	58m	04:21	44m	05:06	16h 07m	21:14	44m	21:59	58m	22:57	—:—	7h 52m		—:—:—:—	—	Mond stört		Sa, 22. Jun
So, 23. Jun	MESZ			Astr. MD		23:07	05:51	—:—		03:23	58m	04:21	44m	05:06	16h 07m	21:14	44m	21:59	58m	22:57	—:—	7h 53m		22:57–23:07	9m	ND <sub>+</sub> bis M <sub>7</sub>		So, 23. Jun
Mo, 24. Jun	MESZ			Astr. MD		23:39	07:10	—:—		03:23	58m	04:22	44m	05:07	16h 07m	21:14	44m	21:59	58m	22:57	—:—	7h 53m		22:57–23:39	42m	ND <sub>+</sub> bis M <sub>7</sub>		Mo, 24. Jun
Di, 25. Jun	MESZ			Astr. MD		—:—	08:34	—:—		03:24	58m	04:22	44m	05:07	16h 06m	21:14	44m	21:59	58m	22:57	—:—	7h 53m		22:57–00:04*	1h 06m	ND <sub>+</sub> bis M <sub>7</sub>		Di, 25. Jun
Mi, 26. Jun	MESZ			Astr. MD		00:04	09:59	—:—		03:24	58m	04:23	44m	05:08	16h 06m	21:14	44m	21:59	58m	22:57	—:—	7h 54m		22:57–00:23*	1h 25m	ND <sub>+</sub> bis M <sub>7</sub>		Mi, 26. Jun
Do, 27. Jun	MESZ	—:—:—:—	—	Mond stört		00:23	11:22	—:—		03:25	58m	04:23	44m	05:08	16h 05m	21:14	44m	21:58	58m	22:57	2h 03m	01:00*	7h 54m	21m				Do, 27. Jun
Fr, 28. Jun	MESZ	00:55*–00:55*	0m	AN <sub>+</sub> bis M <sub>7</sub>	☾	00:40	12:43	01:22	2h 03m	03:25	58m	04:24	44m	05:08	16h 05m	21:14	44m	21:58	58m	22:56	1h 58m	00:55*	7h 55m	32m				Fr, 28. Jun
Sa, 29. Jun	MESZ	00:51*–01:12*	21m	AN <sub>+</sub> bis M <sub>7</sub>		00:55	14:04	01:28	1h 58m	03:26	58m	04:24	44m	05:09	16h 04m	21:13	44m	21:58	58m	22:56	1h 54m	00:51*	7h 56m	41m				Sa, 29. Jun
So, 30. Jun	MESZ	00:47*–01:30*	43m	AN <sub>+</sub> bis M <sub>7</sub>		01:12	15:25	01:32	1h 54m	03:27	58m	04:25	44m	05:10	16h 03m	21:13	44m	21:58	57m	22:56	1h 51m	00:47*	7h 56m	49m				So, 30. Jun
Mo, 1. Jul	MESZ	00:43*–01:41*	57m	AN <sub>+</sub> bis AN <sub>-</sub>		01:30	16:48	01:37	1h 51m	03:28	57m	04:26	44m	05:10	16h 02m	21:13	44m	21:57	57m	22:55	1h 48m	00:43*	7h 57m	57m				Mo, 1. Jul
Di, 2. Jul	MESZ	00:40*–01:45*	1h 04m	AN <sub>+</sub> bis AN <sub>-</sub>		01:53	18:11	01:41	1h 48m	03:29	57m	04:26	44m	05:11	16h 01m	21:13	44m	21:57	57m	22:54	1h 45m	00:40*	7h 58m	1h 04m				Di, 2. Jul
Mi, 3. Jul	MESZ	00:36*–01:48*	1h 12m	AN <sub>+</sub> bis AN <sub>-</sub>		02:23	19:30	01:45	1h 45m	03:30	57m	04:27	44m	05:12	16h 00m	21:12	44m	21:56	57m	22:54	1h 42m	00:36*	7h 59m	1h 12m				Mi, 3. Jul
Do, 4. Jul	MESZ	00:33*–01:52*	1h 19m	AN <sub>+</sub> bis AN <sub>-</sub>		03:04	20:38	01:48	1h 42m	03:31	57m	04:28	44m	05:12	15h 59m	21:12	44m	21:56	56m	22:53	1h 40m	00:33*	8h 01m	1h 19m				Do, 4. Jul
Fr, 5. Jul	MESZ	00:30*–01:56*	1h 25m	AN <sub>+</sub> bis AN <sub>-</sub>		03:57	21:33	01:52	1h 40m	03:32	56m	04:29	44m	05:13	15h 58m	21:12	43m	21:55	56m	22:52	1h 37m	00:30*	8h 02m	1h 25m				Fr, 5. Jul
Sa, 6. Jul	MESZ	00:27*–01:59*	1h 32m	AN <sub>+</sub> bis AN <sub>-</sub>	☀	05:02	22:13	01:56	1h 37m	03:33	56m	04:30	43m	05:14	15h 57m	21:11	43m	21:55	56m	22:51	1h 35m	00:27*	8h 03m	1h 32m				Sa, 6. Jul
So, 7. Jul	MESZ	00:23*–02:03*	1h 39m	AN <sub>+</sub> bis AN <sub>-</sub>		06:14	22:42	01:59	1h 35m	03:35	56m	04:31	43m	05:15	15h 55m	21:11	43m	21:54	55m	22:50	1h 33m	00:23*	8h 04m	1h 39m				So, 7. Jul
Mo, 8. Jul	MESZ	00:20*–02:06*	1h 45m	AN <sub>+</sub> bis AN <sub>-</sub>		07:29	23:04	02:03	1h 33m	03:36	55m	04:32	43m	05:15	15h 54m	21:10	43m	21:53	55m	22:49	1h 31m	00:20*	8h 06m	1h 45m				Mo, 8. Jul
Di, 9. Jul	MESZ	00:17*–02:09*	1h 52m	AN <sub>+</sub> bis AN <sub>-</sub>		08:41	23:21	02:06	1h 31m	03:37	55m	04:33	43m	05:16	15h 53m	21:09	43m	21:53	55m	22:48	1h 29m	00:17*	8h 07m	1h 52m				Di, 9. Jul
Mi, 10. Jul	MESZ	00:14*–02:13*	1h 58m	AN <sub>+</sub> bis AN <sub>-</sub>		09:51	23:36	02:09	1h 29m	03:39	55m	04:34	43m	05:17	15h 51m	21:09	43m	21:52	54m	22:47	1h 27m	00:14*	8h 09m	1h 58m				Mi, 10. Jul
Do, 11. Jul	MESZ	00:11*–02:16*	2h 04m	AN <sub>+</sub> bis																								

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

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

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