

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Scheibbs 48.0047° N 15.1678° 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		18:11 – 21:53	3h 41m	AN <sub>+</sub> bis M <sub>7</sub>		21:53	10:58	05:54	37m	06:31	38m	07:10	38m	07:48	8h 27m	16:16	38m	16:55	38m	17:33	37m	18:11	15h 32m	11h 42m					Mo, 1. Jan
Di, 2. Jan		18:12 – 22:59	4h 46m	AN <sub>+</sub> bis M <sub>7</sub>		22:59	11:12	05:54	37m	06:31	38m	07:10	38m	07:48	8h 28m	16:17	38m	16:55	38m	17:34	37m	18:12	15h 31m	11h 42m					Di, 2. Jan
Mi, 3. Jan		18:13 – 00:05*	5h 52m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	11:25	05:54	37m	06:31	38m	07:10	38m	07:48	8h 29m	16:18	38m	16:56	38m	17:35	37m	18:13	15h 29m	11h 41m					Mi, 3. Jan
Do, 4. Jan		18:13 – 01:12*	6h 58m	AN <sub>+</sub> bis M <sub>7</sub>	☾	00:05	11:39	05:54	37m	06:31	38m	07:10	38m	07:48	8h 31m	16:19	38m	16:57	38m	17:36	37m	18:13	15h 28m	11h 40m					Do, 4. Jan
Fr, 5. Jan		18:14 – 02:23*	8h 08m	AN <sub>+</sub> bis M <sub>7</sub>		01:12	11:54	05:54	37m	06:31	38m	07:10	38m	07:48	8h 32m	16:20	38m	16:58	38m	17:37	37m	18:14	15h 27m	11h 39m					Fr, 5. Jan
Sa, 6. Jan		18:15 – 03:38*	9h 22m	AN <sub>+</sub> bis M <sub>7</sub>		02:23	12:11	05:54	37m	06:31	38m	07:10	38m	07:48	8h 33m	16:21	38m	16:59	38m	17:38	37m	18:15	15h 26m	11h 38m					Sa, 6. Jan
So, 7. Jan		18:16 – 04:55*	10h 38m	AN <sub>+</sub> bis M <sub>7</sub>		03:38	12:34	05:54	37m	06:31	38m	07:10	37m	07:47	8h 34m	16:22	37m	17:00	38m	17:39	37m	18:16	15h 24m	11h 37m					So, 7. Jan
Mo, 8. Jan		18:17 – 05:53*	11h 36m	AN <sub>+</sub> bis AN <sub>-</sub>		04:55	13:05	05:54	37m	06:31	38m	07:09	37m	07:47	8h 36m	16:24	37m	17:02	38m	17:40	37m	18:17	15h 23m	11h 36m					Mo, 8. Jan
Di, 9. Jan		18:18 – 05:53*	11h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		06:12	13:48	05:53	37m	06:31	38m	07:09	37m	07:47	8h 38m	16:25	37m	17:03	38m	17:41	37m	18:18	15h 21m	11h 34m					Di, 9. Jan
Mi, 10. Jan		18:19 – 05:53*	11h 33m	AN <sub>+</sub> bis AN <sub>-</sub>		07:21	14:47	05:53	37m	06:31	38m	07:09	37m	07:46	8h 39m	16:26	37m	17:04	38m	17:42	37m	18:19	15h 19m	11h 33m					Mi, 10. Jan
Do, 11. Jan		18:20 – 05:53*	11h 32m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	08:18	16:03	05:53	37m	06:30	38m	07:08	37m	07:46	8h 41m	16:27	37m	17:05	38m	17:43	37m	18:20	15h 18m	11h 32m					Do, 11. Jan
Fr, 12. Jan		18:22 – 05:52*	11h 30m	AN <sub>+</sub> bis AN <sub>-</sub>		09:01	17:29	05:53	37m	06:30	38m	07:08	37m	07:46	8h 43m	16:29	37m	17:06	38m	17:44	37m	18:22	15h 16m	11h 30m					Fr, 12. Jan
Sa, 13. Jan		18:57 – 05:52*	10h 54m	M <sub>7</sub> bis AN <sub>-</sub>		09:32	18:57	05:52	37m	06:30	37m	07:08	37m	07:45	8h 44m	16:30	37m	17:07	37m	17:45	37m	18:23	15h 14m	11h 29m					Sa, 13. Jan
So, 14. Jan		20:24 – 05:52*	9h 27m	M <sub>7</sub> bis AN <sub>-</sub>		09:55	20:24	05:52	37m	06:29	37m	07:07	37m	07:44	8h 46m	16:31	37m	17:09	37m	17:47	37m	18:24	15h 12m	11h 27m					So, 14. Jan
Mo, 15. Jan		21:48 – 05:51*	8h 03m	M <sub>7</sub> bis AN <sub>-</sub>		10:15	21:48	05:52	37m	06:29	37m	07:07	37m	07:44	8h 48m	16:33	37m	17:10	37m	17:48	37m	18:25	15h 10m	11h 26m					Mo, 15. Jan
Di, 16. Jan		23:09 – 05:51*	6h 41m	M <sub>7</sub> bis AN <sub>-</sub>		10:32	23:09	05:51	37m	06:28	37m	07:06	37m	07:43	8h 50m	16:34	37m	17:11	37m	17:49	37m	18:26	15h 08m	11h 24m					Di, 16. Jan
Mi, 17. Jan		00:28* – 05:50*	5h 21m	M <sub>7</sub> bis AN <sub>-</sub>		10:48	—:—	05:51	37m	06:28	37m	07:05	37m	07:42	8h 53m	16:35	37m	17:13	37m	17:50	37m	18:27	15h 06m	11h 22m					Mi, 17. Jan
Do, 18. Jan		01:48* – 05:50*	4h 01m	M <sub>7</sub> bis AN <sub>-</sub>	☾	11:06	00:28	05:50	36m	06:27	37m	07:05	36m	07:42	8h 55m	16:37	36m	17:14	37m	17:51	37m	18:28	15h 03m	11h 21m					Do, 18. Jan
Fr, 19. Jan		03:07* – 05:49*	2h 42m	M <sub>7</sub> bis AN <sub>-</sub>		11:26	01:48	05:50	36m	06:27	37m	07:04	36m	07:41	8h 57m	16:38	36m	17:15	37m	17:53	36m	18:30	15h 01m	11h 19m					Fr, 19. Jan
Sa, 20. Jan		04:24* – 05:48*	1h 24m	M <sub>7</sub> bis AN <sub>-</sub>		11:52	03:07	05:49	36m	06:26	37m	07:03	36m	07:40	8h 59m	16:40	36m	17:17	37m	17:54	36m	18:31	14h 59m	11h 17m					Sa, 20. Jan
So, 21. Jan		05:34* – 05:48*	13m	M <sub>7</sub> bis AN <sub>-</sub>		12:24	04:24	05:48	36m	06:25	37m	07:03	36m	07:39	9h 02m	16:41	36m	17:18	37m	17:55	36m	18:32	14h 56m	11h 15m					So, 21. Jan
Mo, 22. Jan		—:—:—:—:—	–	Mond stört		13:07	05:34	05:48	36m	06:24	37m	07:02	36m	07:38	9h 04m	16:43	36m	17:19	37m	17:57	36m	18:33	14h 54m	11h 13m					Mo, 22. Jan
Di, 23. Jan		—:—:—:—:—	–	Mond stört		14:00	06:35	05:47	36m	06:24	37m	07:01	36m	07:37	9h 06m	16:44	36m	17:21	37m	17:58	36m	18:35	14h 52m	11h 11m					Di, 23. Jan
Mi, 24. Jan		—:—:—:—:—	–	Mond stört		15:04	07:23	05:46	36m	06:23	37m	07:00	36m	07:36	9h 09m	16:46	36m	17:22	37m	17:59	36m	18:36	14h 49m	11h 09m					Mi, 24. Jan
Do, 25. Jan		—:—:~:~:~	–	Mond stört	☾	16:13	07:59	05:45	36m	06:22	37m	06:59	36m	07:35	9h 12m	16:47	36m	17:23	37m	18:01	36m	18:37	14h 46m	11h 07m					Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~	–	Mond stört		17:23	08:26	05:45	36m	06:21	36m	06:58	36m	07:34	9h 14m	16:49	36m	17:25	37m	18:02	36m	18:39	14h 44m	11h 05m					Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~	–	Mond stört		18:33	08:47	05:44	36m	06:20	36m	06:57	35m	07:33	9h 17m	16:50	35m	17:26	36m	18:03	36m	18:40	14h 41m	11h 02m					Sa, 27. Jan
So, 28. Jan		18:41 – 19:41	59m	AN <sub>+</sub> bis M <sub>7</sub>		19:41	09:04	05:43	36m	06:19	36m	06:56	35m	07:32	9h 20m	16:52	35m	17:28	36m	18:05	36m	18:41	14h 38m	11h 00m					So, 28. Jan
Mo, 29. Jan		18:42 – 20:47	2h 04m	AN <sub>+</sub> bis M <sub>7</sub>		20:47	09:18	05:42	36m	06:18	36m	06:55	35m	07:31	9h 22m	16:53	35m	17:29	36m	18:06	36m	18:42	14h 36m	10h 58m					Mo, 29. Jan
Di, 30. Jan		18:44 – 21:52	3h 08m	AN <sub>+</sub> bis M <sub>7</sub>		21:52	09:31	05:41	36m	06:17	36m	06:54	35m	07:29	9h 25m	16:55	35m	17:31	36m	18:07	36m	18:44	14h 33m	10h 56m					Di, 30. Jan
Mi, 31. Jan		18:45 – 22:59	4h 13m	AN <sub>+</sub> bis M <sub>7</sub>		22:59	09:44	05:40	36m	06:16	36m	06:53	35m	07:28	9h 28m	16:57	35m	17:32	36m	18:09	36m	18:45	14h 30m	10h 53m					Mi, 31. Jan
Do, 1. Feb		18:47 – 00:07*	5h 20m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	09:58	05:39	36m	06:15	36m	06:52	35m	07:27	9h 31m	16:58	35m	17:34	36m	18:10	36m	18:47	14h 27m	10h 51m					Do, 1. Feb
Fr, 2. Feb		18:48 – 01:18*	6h 30m	AN <sub>+</sub> bis M <sub>7</sub>		00:07	10:14	05:38	36m	06:14	36m	06:50	35m	07:26	9h 34m	17:00	35m	17:35	36m	18:12	36m	18:48	14h 24m	10h 48m					Fr, 2. Feb
Sa, 3. Feb		18:49 – 02:32*	7h 43m	AN <sub>+</sub> bis M <sub>7</sub>	☾	01:18	10:34	05:37	36m	06:13	36m	06:49	35m	07:24	9h 37m	17:01	35m	17:37	36m	18:13	36m	18:49	14h 21m	10h 46m					Sa, 3. Feb
So, 4. Feb		18:51 – 03:48*	8h 57m	AN <sub>+</sub> bis M <sub>7</sub>		02:32	11:00	05:35	36m	06:12	36m	06:48	35m	07:23	9h 40m	17:03	35m	17:38	36m	18:14	36m	18:51	14h 18m	10h 43m					So, 4. Feb
Mo, 5. Feb		18:52 – 05:00*	10h 08m	AN <sub>+</sub> bis M <sub>7</sub>		03:48	11:35	05:34	36m	06:10	36m	06:47	34m	07:22	9h 43m	17:05	34m	17:40	36m	18:16	36m	18:52	14h 15m	10h 40m					Mo, 5. Feb
Di, 6. Feb		18:53 – 05:32*	10h 38m	AN <sub>+</sub> bis AN <sub>-</sub>		05:00	12:25	05:33	36m	06:09	36m	06:45	34m	07:20	9h 46m	17:06	34m	17:41	36m	18:17	36m	18:53	14h 12m	10h 38m					Di, 6. Feb
Mi, 7. Feb		18:55 – 05:30*	10h 35m	AN <sub>+</sub> bis AN <sub>-</sub>		06:03	13:32	05:32	36m	06:08	36m	06:44	34m	07:19	9h 49m	17:08	34m	17:43	36m	18:19	36m	18:55	14h 09m	10h 35m					Mi, 7. Feb
Do, 8. Feb		18:56 – 05:29*	10h 32m	AN <sub>+</sub> bis AN <sub>-</sub>		06:52	14:54	05:30	36m	06:06	36m	06:42	34m	07:17	9h 52m	17:09	34m	17:44	36m	18:20	36m	18:56	14h 06m	10h 32m					Do, 8. Feb
Fr, 9. Feb		18:58 – 05:28*	10h 30m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	07:28	16:23	05:29	36m	06:05	35m	06:41	34m	07:16	9h 55m	17:11	34m	17:46	35m	18:22	36m	18:58	14h 03m	10h 30m					Fr, 9. Feb
Sa, 10. Feb		18:59 – 05:26*	10h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		07:55	17:53	05:28	35m	06:04	35m	06:40	34m	07:14	9h 58m	17:13	34m	17:47	35m	18:23	36m	18:59	13h 59m	10h 27m					Sa, 10. Feb
So, 11. Feb		19:22 – 05:25*	10h 03m	M <sub>7</sub> bis AN <sub>-</sub>		08:17	19:22	05:26	35m	06:02	35m	06:38																	

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

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

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

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