

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Zell am See 47.3233° N 12.7981° 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		18:21–22:04	3h 42m	AN <sub>+</sub> bis M <sub>7</sub>		22:04	11:07	06:02	37m	06:39	38m	07:17	37m	07:55	8h 33m	16:28	37m	17:06	38m	17:44	37m	18:21	15h 26m	11h 40m					Mo, 1. Jan
Di, 2. Jan		18:22–23:09	4h 46m	AN <sub>+</sub> bis M <sub>7</sub>		23:09	11:21	06:02	37m	06:39	38m	07:17	37m	07:55	8h 34m	16:29	37m	17:07	38m	17:45	37m	18:22	15h 25m	11h 40m					Di, 2. Jan
Mi, 3. Jan		18:23–00:14*	5h 51m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	11:35	06:02	37m	06:39	37m	07:17	37m	07:55	8h 35m	16:30	37m	17:08	37m	17:46	37m	18:23	15h 24m	11h 39m					Mi, 3. Jan
Do, 4. Jan		18:24–01:21*	6h 57m	AN <sub>+</sub> bis M <sub>7</sub>	☾	00:14	11:49	06:02	37m	06:39	37m	07:17	37m	07:55	8h 36m	16:31	37m	17:09	37m	17:47	37m	18:24	15h 23m	11h 38m					Do, 4. Jan
Fr, 5. Jan		18:25–02:31*	8h 06m	AN <sub>+</sub> bis M <sub>7</sub>		01:21	12:05	06:02	37m	06:39	37m	07:17	37m	07:55	8h 37m	16:32	37m	17:10	37m	17:48	37m	18:25	15h 22m	11h 37m					Fr, 5. Jan
Sa, 6. Jan		18:26–03:45*	9h 19m	AN <sub>+</sub> bis M <sub>7</sub>		02:31	12:23	06:02	37m	06:39	37m	07:17	37m	07:55	8h 38m	16:33	37m	17:11	37m	17:49	37m	18:26	15h 20m	11h 36m					Sa, 6. Jan
So, 7. Jan		18:27–05:02*	10h 34m	AN <sub>+</sub> bis M <sub>7</sub>		03:45	12:46	06:02	36m	06:39	37m	07:17	37m	07:54	8h 40m	16:35	37m	17:12	37m	17:50	36m	18:27	15h 19m	11h 35m					So, 7. Jan
Mo, 8. Jan		18:28–06:02*	11h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		05:02	13:18	06:02	36m	06:39	37m	07:17	37m	07:54	8h 41m	16:36	37m	17:13	37m	17:51	36m	18:28	15h 17m	11h 34m					Mo, 8. Jan
Di, 9. Jan		18:29–06:02*	11h 32m	AN <sub>+</sub> bis AN <sub>-</sub>		06:18	14:02	06:02	36m	06:39	37m	07:17	37m	07:54	8h 43m	16:37	37m	17:14	37m	17:52	36m	18:29	15h 16m	11h 32m					Di, 9. Jan
Mi, 10. Jan		18:30–06:02*	11h 31m	AN <sub>+</sub> bis AN <sub>-</sub>		07:27	15:01	06:02	36m	06:39	37m	07:16	37m	07:53	8h 44m	16:38	37m	17:15	37m	17:53	36m	18:30	15h 14m	11h 31m					Mi, 10. Jan
Do, 11. Jan		18:31–06:01*	11h 30m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	08:24	16:16	06:02	36m	06:38	37m	07:16	37m	07:53	8h 46m	16:39	37m	17:16	37m	17:54	36m	18:31	15h 13m	11h 30m					Do, 11. Jan
Fr, 12. Jan		18:32–06:01*	11h 29m	AN <sub>+</sub> bis AN <sub>-</sub>		09:07	17:42	06:01	36m	06:38	37m	07:16	36m	07:52	8h 48m	16:41	36m	17:18	37m	17:55	36m	18:32	15h 11m	11h 29m					Fr, 12. Jan
Sa, 13. Jan		19:09–06:01*	10h 51m	M <sub>\</sub> bis AN <sub>-</sub>		09:39	19:09	06:01	36m	06:38	37m	07:15	36m	07:52	8h 50m	16:42	36m	17:19	37m	17:56	36m	18:33	15h 09m	11h 27m					Sa, 13. Jan
So, 14. Jan		20:35–06:00*	9h 24m	M <sub>\</sub> bis AN <sub>-</sub>		10:03	20:35	06:01	36m	06:37	37m	07:15	36m	07:51	8h 51m	16:43	36m	17:20	37m	17:57	36m	18:34	15h 07m	11h 26m					So, 14. Jan
Mo, 15. Jan		21:58–06:00*	8h 01m	M <sub>\</sub> bis AN <sub>-</sub>		10:23	21:58	06:00	36m	06:37	37m	07:14	36m	07:51	8h 53m	16:45	36m	17:21	37m	17:59	36m	18:35	15h 05m	11h 24m					Mo, 15. Jan
Di, 16. Jan		23:18–05:59*	6h 40m	M <sub>\</sub> bis AN <sub>-</sub>		10:41	23:18	06:00	36m	06:36	37m	07:14	36m	07:50	8h 55m	16:46	36m	17:23	37m	18:00	36m	18:36	15h 03m	11h 22m					Di, 16. Jan
Mi, 17. Jan		00:37*–05:59*	5h 21m	M <sub>\</sub> bis AN <sub>-</sub>		10:59	—:—	05:59	36m	06:36	37m	07:13	36m	07:49	8h 57m	16:47	36m	17:24	37m	18:01	36m	18:38	15h 01m	11h 21m					Mi, 17. Jan
Do, 18. Jan		01:56*–05:58*	4h 02m	M <sub>\</sub> bis AN <sub>-</sub>	☾	11:17	00:37	05:59	36m	06:35	37m	07:12	36m	07:49	8h 59m	16:49	36m	17:25	37m	18:02	36m	18:39	14h 59m	11h 19m					Do, 18. Jan
Fr, 19. Jan		03:14*–05:58*	2h 43m	M <sub>\</sub> bis AN <sub>-</sub>		11:38	01:56	05:58	36m	06:35	37m	07:12	36m	07:48	9h 02m	16:50	36m	17:26	37m	18:03	36m	18:40	14h 57m	11h 17m					Fr, 19. Jan
Sa, 20. Jan		04:30*–05:57*	1h 26m	M <sub>\</sub> bis AN <sub>-</sub>		12:04	03:14	05:58	36m	06:34	36m	07:11	36m	07:47	9h 04m	16:52	36m	17:28	36m	18:05	36m	18:41	14h 54m	11h 15m					Sa, 20. Jan
So, 21. Jan		05:40*–05:56*	16m	M <sub>\</sub> bis AN <sub>-</sub>		12:37	04:30	05:57	36m	06:33	36m	07:10	36m	07:46	9h 06m	16:53	36m	17:29	36m	18:06	36m	18:42	14h 52m	11h 14m					So, 21. Jan
Mo, 22. Jan		—:—:—:—	–	Mond stört		13:20	05:40	05:56	36m	06:33	36m	07:10	35m	07:45	9h 09m	16:54	35m	17:30	36m	18:07	36m	18:44	14h 50m	11h 12m					Mo, 22. Jan
Di, 23. Jan		—:—:—:—	–	Mond stört		14:14	06:41	05:56	36m	06:32	36m	07:09	35m	07:45	9h 11m	16:56	35m	17:32	36m	18:08	36m	18:45	14h 47m	11h 10m					Di, 23. Jan
Mi, 24. Jan		—:—:—:—	–	Mond stört		15:17	07:29	05:55	36m	06:31	36m	07:08	35m	07:44	9h 13m	16:57	35m	17:33	36m	18:10	36m	18:46	14h 45m	11h 08m					Mi, 24. Jan
Do, 25. Jan		—:~:~:~:~	–	Mond stört	☾	16:26	08:05	05:54	36m	06:30	36m	07:07	35m	07:43	9h 16m	16:59	35m	17:35	36m	18:11	36m	18:47	14h 42m	11h 06m					Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~	–	Mond stört		17:36	08:33	05:53	36m	06:30	36m	07:06	35m	07:42	9h 18m	17:00	35m	17:36	36m	18:12	36m	18:49	14h 40m	11h 04m					Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~	–	Mond stört		18:45	08:55	05:53	36m	06:29	36m	07:05	35m	07:40	9h 21m	17:02	35m	17:37	36m	18:14	36m	18:50	14h 37m	11h 01m					Sa, 27. Jan
So, 28. Jan		18:51–19:52	1h 00m	AN <sub>+</sub> bis M <sub>7</sub>		19:52	09:12	05:52	36m	06:28	36m	07:04	35m	07:39	9h 24m	17:03	35m	17:39	36m	18:15	36m	18:51	14h 34m	10h 59m					So, 28. Jan
Mo, 29. Jan		18:52–20:57	2h 04m	AN <sub>+</sub> bis M <sub>7</sub>		20:57	09:27	05:51	35m	06:27	36m	07:03	35m	07:38	9h 26m	17:05	35m	17:40	36m	18:16	36m	18:52	14h 32m	10h 57m					Mo, 29. Jan
Di, 30. Jan		18:54–22:02	3h 08m	AN <sub>+</sub> bis M <sub>7</sub>		22:02	09:41	05:50	35m	06:26	36m	07:02	35m	07:37	9h 29m	17:06	35m	17:42	36m	18:18	35m	18:54	14h 29m	10h 55m					Di, 30. Jan
Mi, 31. Jan		18:55–23:08	4h 12m	AN <sub>+</sub> bis M <sub>7</sub>		23:08	09:54	05:49	35m	06:25	36m	07:01	34m	07:36	9h 32m	17:08	34m	17:43	36m	18:19	35m	18:55	14h 26m	10h 52m					Mi, 31. Jan
Do, 1. Feb		18:56–00:15*	5h 18m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	10:09	05:48	35m	06:24	36m	07:00	34m	07:35	9h 35m	17:10	34m	17:44	36m	18:21	35m	18:56	14h 23m	10h 50m					Do, 1. Feb
Fr, 2. Feb		18:58–01:26*	6h 28m	AN <sub>+</sub> bis M <sub>7</sub>		00:15	10:25	05:47	35m	06:23	35m	06:59	34m	07:33	9h 37m	17:11	34m	17:46	35m	18:22	35m	18:58	14h 20m	10h 47m					Fr, 2. Feb
Sa, 3. Feb		18:59–02:39*	7h 40m	AN <sub>+</sub> bis M <sub>7</sub>	☾	01:26	10:46	05:46	35m	06:21	35m	06:57	34m	07:32	9h 40m	17:13	34m	17:47	35m	18:23	35m	18:59	14h 17m	10h 45m					Sa, 3. Feb
So, 4. Feb		19:00–03:54*	8h 53m	AN <sub>+</sub> bis M <sub>7</sub>		02:39	11:12	05:45	35m	06:20	35m	06:56	34m	07:31	9h 43m	17:14	34m	17:49	35m	18:25	35m	19:00	14h 15m	10h 42m					So, 4. Feb
Mo, 5. Feb		19:02–05:06*	10h 04m	AN <sub>+</sub> bis M <sub>7</sub>		03:54	11:49	05:43	35m	06:19	35m	06:55	34m	07:29	9h 46m	17:16	34m	17:50	35m	18:26	35m	19:02	14h 12m	10h 40m					Mo, 5. Feb
Di, 6. Feb		19:03–05:41*	10h 37m	AN <sub>+</sub> bis AN <sub>-</sub>		05:06	12:39	05:42	35m	06:18	35m	06:54	34m	07:28	9h 49m	17:17	34m	17:52	35m	18:27	35m	19:03	14h 09m	10h 37m					Di, 6. Feb
Mi, 7. Feb		19:05–05:40*	10h 35m	AN <sub>+</sub> bis AN <sub>-</sub>		06:08	13:46	05:41	35m	06:17	35m	06:52	34m	07:26	9h 52m	17:19	34m	17:53	35m	18:29	35m	19:05	14h 06m	10h 35m					Mi, 7. Feb
Do, 8. Feb		19:06–05:38*	10h 32m	AN <sub>+</sub> bis AN <sub>-</sub>		06:58	15:07	05:40	35m	06:15	35m	06:51	34m	07:25	9h 55m	17:20	34m	17:55	35m	18:30	35m	19:06	14h 03m	10h 32m					Do, 8. Feb
Fr, 9. Feb		19:07–05:37*	10h 29m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	07:35	16:36	05:38	35m	06:14	35m	06:49	34m	07:24	9h 58m	17:22	34m	17:56	35m	18:32	35m	19:07	13h 59m	10h 29m					Fr, 9. Feb
Sa, 10. Feb		19:09–05:36*	10h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		08:03	18:05	05:37	35m	06:13	35m	06:48	33m	07:22	10h 01m	17:24	34m	17:58	35m	18:33	35m	19:09	13h 56m	10h 27m					Sa, 10. Feb
So, 11. Feb		19:33–05:34*	10h 01m	M <sub>\</sub> bis AN <sub>-</sub>		08:25	19:33	05:36	35m	06:11	35m	06:47	33m	07:20	10h 04m	17:25	33m												

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

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

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

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

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

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
2024	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne			Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2024		
		$\Delta t$			Ph.	$\nearrow$	$\searrow$	Astr.	$\Delta t$	Naut.	$\Delta t$	Bürg.	$\Delta t$	$\nearrow$	$\Delta t$	$\searrow$	$\Delta t$	Bürg.	$\Delta t$	Naut.	$\Delta t$	Astr.	$\Delta t$	$\Delta t$		$\Delta t$		
So, 27. Okt		18:43–02:25*	7h 41m	AN <sub>+</sub> bis M <sub>J</sub>		01:18	15:18	05:00	35m	05:36	35m	06:11	33m	06:44	10h 14m	16:59	33m	17:33	35m	18:08	35m	18:43	13h 46m	10h 17m				So, 27. Okt
Mo, 28. Okt		18:42–03:30*	8h 48m	AN <sub>+</sub> bis M <sub>J</sub>		02:25	15:32	05:01	35m	05:37	35m	06:12	33m	06:46	10h 11m	16:58	33m	17:31	35m	18:06	35m	18:42	13h 49m	10h 20m				Mo, 28. Okt
Di, 29. Okt		18:40–04:35*	9h 54m	AN <sub>+</sub> bis M <sub>J</sub>		03:30	15:45	05:03	35m	05:38	35m	06:14	33m	06:47	10h 08m	16:56	33m	17:30	35m	18:05	35m	18:40	13h 52m	10h 23m				Di, 29. Okt
Mi, 30. Okt		18:39–05:05*	10h 26m	AN <sub>+</sub> bis AN <sub>-</sub>		04:35	15:58	05:04	35m	05:40	35m	06:15	33m	06:49	10h 05m	16:54	33m	17:28	35m	18:04	35m	18:39	13h 56m	10h 26m				Mi, 30. Okt
Do, 31. Okt		18:38–05:07*	10h 29m	AN <sub>+</sub> bis AN <sub>-</sub>		05:41	16:13	05:05	35m	05:41	35m	06:16	33m	06:50	10h 02m	16:53	33m	17:27	35m	18:02	35m	18:38	13h 59m	10h 29m				Do, 31. Okt
Fr, 1. Nov		18:36–05:08*	10h 31m	AN <sub>+</sub> bis AN <sub>-</sub>	●	06:49	16:31	05:07	35m	05:42	35m	06:18	34m	06:52	9h 59m	16:51	34m	17:25	35m	18:01	35m	18:36	14h 02m	10h 31m				Fr, 1. Nov
Sa, 2. Nov		18:35–05:09*	10h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		07:58	16:52	05:08	35m	05:44	35m	06:19	34m	06:53	9h 56m	16:50	34m	17:24	35m	17:59	35m	18:35	14h 05m	10h 34m				Sa, 2. Nov
So, 3. Nov		18:34–05:11*	10h 36m	AN <sub>+</sub> bis AN <sub>-</sub>		09:09	17:20	05:09	35m	05:45	35m	06:21	34m	06:55	9h 53m	16:48	34m	17:22	35m	17:58	35m	18:34	14h 08m	10h 36m				So, 3. Nov
Mo, 4. Nov		18:32–05:12*	10h 39m	AN <sub>+</sub> bis AN <sub>-</sub>		10:18	17:58	05:11	35m	05:46	35m	06:22	34m	06:56	9h 50m	16:47	34m	17:21	35m	17:57	35m	18:32	14h 11m	10h 39m				Mo, 4. Nov
Di, 5. Nov		18:47–05:13*	10h 26m	M <sub>\</sub> bis AN <sub>-</sub>		11:21	18:47	05:12	35m	05:48	35m	06:23	34m	06:58	9h 47m	16:45	34m	17:20	35m	17:55	35m	18:31	14h 14m	10h 42m				Di, 5. Nov
Mi, 6. Nov		19:49–05:15*	9h 25m	M <sub>\</sub> bis AN <sub>-</sub>		12:14	19:49	05:13	35m	05:49	35m	06:25	34m	06:59	9h 44m	16:44	34m	17:18	35m	17:54	35m	18:30	14h 16m	10h 44m				Mi, 6. Nov
Do, 7. Nov		21:01–05:16*	8h 14m	M <sub>\</sub> bis AN <sub>-</sub>		12:56	21:01	05:15	35m	05:50	35m	06:26	34m	07:01	9h 41m	16:43	34m	17:17	35m	17:53	35m	18:29	14h 19m	10h 47m				Do, 7. Nov
Fr, 8. Nov		22:20–05:17*	6h 57m	M <sub>\</sub> bis AN <sub>-</sub>		13:28	22:20	05:16	35m	05:52	35m	06:28	34m	07:02	9h 38m	16:41	34m	17:16	35m	17:52	35m	18:28	14h 22m	10h 49m				Fr, 8. Nov
Sa, 9. Nov		23:40–05:18*	5h 38m	M <sub>\</sub> bis AN <sub>-</sub>	◐	13:53	23:40	05:17	35m	05:53	36m	06:29	34m	07:04	9h 36m	16:40	34m	17:15	35m	17:51	35m	18:27	14h 25m	10h 51m				Sa, 9. Nov
So, 10. Nov		01:01*–05:20*	4h 18m	M <sub>\</sub> bis AN <sub>-</sub>		14:14	—:—	05:18	35m	05:54	36m	06:30	34m	07:05	9h 33m	16:39	34m	17:14	36m	17:50	35m	18:25	14h 28m	10h 54m				So, 10. Nov
Mo, 11. Nov		02:23*–05:21*	2h 58m	M <sub>\</sub> bis AN <sub>-</sub>		14:32	01:01	05:20	35m	05:56	36m	06:32	35m	07:07	9h 30m	16:37	35m	17:12	36m	17:49	35m	18:24	14h 30m	10h 56m				Mo, 11. Nov
Di, 12. Nov		03:46*–05:22*	1h 36m	M <sub>\</sub> bis AN <sub>-</sub>		14:50	02:23	05:21	35m	05:57	36m	06:33	35m	07:08	9h 27m	16:36	35m	17:11	36m	17:48	35m	18:23	14h 33m	10h 58m				Di, 12. Nov
Mi, 13. Nov		05:11*–05:23*	12m	M <sub>\</sub> bis AN <sub>-</sub>		15:08	03:46	05:22	36m	05:58	36m	06:35	35m	07:10	9h 25m	16:35	35m	17:10	36m	17:46	36m	18:23	14h 36m	11h 00m				Mi, 13. Nov
Do, 14. Nov		—:—:—:—	–	Mond stört		15:29	05:11	05:23	36m	06:00	36m	06:36	35m	07:11	9h 22m	16:34	35m	17:09	36m	17:46	36m	18:22	14h 38m	11h 03m				Do, 14. Nov
Fr, 15. Nov		—:—:—:—	–	Mond stört	○	15:55	06:40	05:25	36m	06:01	36m	06:37	35m	07:13	9h 19m	16:33	35m	17:08	36m	17:45	36m	18:21	14h 41m	11h 05m				Fr, 15. Nov
Sa, 16. Nov		—:—:—:—	–	Mond stört		16:29	08:08	05:26	36m	06:02	36m	06:39	35m	07:14	9h 17m	16:32	35m	17:07	36m	17:44	36m	18:20	14h 44m	11h 07m				Sa, 16. Nov
So, 17. Nov		—:—:~:~:~	–	Mond stört		17:15	09:32	05:27	36m	06:03	36m	06:40	35m	07:16	9h 14m	16:31	35m	17:06	36m	17:43	36m	18:19	14h 46m	11h 09m				So, 17. Nov
Mo, 18. Nov		—:~:~:~:~	–	Mond stört		18:14	10:43	05:28	36m	06:05	36m	06:41	35m	07:17	9h 12m	16:30	35m	17:05	36m	17:42	36m	18:18	14h 48m	11h 11m				Mo, 18. Nov
Di, 19. Nov		18:18–19:24	1h 06m	AN <sub>+</sub> bis M <sub>J</sub>		19:24	11:37	05:30	36m	06:06	36m	06:43	35m	07:18	9h 10m	16:29	35m	17:04	36m	17:41	36m	18:18	14h 51m	11h 13m				Di, 19. Nov
Mi, 20. Nov		18:17–20:39	2h 22m	AN <sub>+</sub> bis M <sub>J</sub>		20:39	12:17	05:31	36m	06:07	36m	06:44	36m	07:20	9h 07m	16:28	35m	17:04	36m	17:40	36m	18:17	14h 53m	11h 15m				Mi, 20. Nov
Do, 21. Nov		18:16–21:54	3h 37m	AN <sub>+</sub> bis M <sub>J</sub>		21:54	12:45	05:32	36m	06:08	36m	06:45	36m	07:21	9h 05m	16:27	36m	17:03	36m	17:40	36m	18:16	14h 55m	11h 16m				Do, 21. Nov
Fr, 22. Nov		18:16–23:05	4h 49m	AN <sub>+</sub> bis M <sub>J</sub>		23:05	13:07	05:33	36m	06:10	36m	06:47	36m	07:23	9h 03m	16:26	36m	17:02	36m	17:39	36m	18:16	14h 58m	11h 18m				Fr, 22. Nov
Sa, 23. Nov		18:15–00:13*	5h 58m	AN <sub>+</sub> bis M <sub>J</sub>	◑	—:—	13:24	05:34	36m	06:11	37m	06:48	36m	07:24	9h 01m	16:25	36m	17:01	37m	17:38	36m	18:15	15h 00m	11h 20m				Sa, 23. Nov
So, 24. Nov		18:14–01:19*	7h 04m	AN <sub>+</sub> bis M <sub>J</sub>		00:13	13:38	05:35	36m	06:12	37m	06:49	36m	07:25	8h 58m	16:24	36m	17:01	37m	17:38	36m	18:14	15h 02m	11h 22m				So, 24. Nov
Mo, 25. Nov		18:14–02:24*	8h 10m	AN <sub>+</sub> bis M <sub>J</sub>		01:19	13:52	05:36	36m	06:13	37m	06:50	36m	07:27	8h 56m	16:24	36m	17:00	37m	17:37	36m	18:14	15h 04m	11h 23m				Mo, 25. Nov
Di, 26. Nov		18:13–03:30*	9h 16m	AN <sub>+</sub> bis M <sub>J</sub>		02:24	14:05	05:38	36m	06:14	37m	06:52	36m	07:28	8h 54m	16:23	36m	17:00	37m	17:37	36m	18:13	15h 06m	11h 25m				Di, 26. Nov
Mi, 27. Nov		18:13–04:37*	10h 23m	AN <sub>+</sub> bis M <sub>J</sub>		03:30	14:20	05:39	36m	06:15	37m	06:53	36m	07:29	8h 52m	16:22	36m	16:59	37m	17:36	36m	18:13	15h 08m	11h 26m				Mi, 27. Nov
Do, 28. Nov		18:13–05:41*	11h 28m	AN <sub>+</sub> bis AN <sub>-</sub>		04:37	14:36	05:40	36m	06:17	37m	06:54	36m	07:31	8h 50m	16:22	36m	16:58	37m	17:36	36m	18:13	15h 10m	11h 28m				Do, 28. Nov
Fr, 29. Nov		18:12–05:42*	11h 29m	AN <sub>+</sub> bis AN <sub>-</sub>		05:46	14:56	05:41	36m	06:18	37m	06:55	36m	07:32	8h 49m	16:21	36m	16:58	37m	17:35	36m	18:12	15h 12m	11h 29m				Fr, 29. Nov
Sa, 30. Nov		18:12–05:43*	11h 31m	AN <sub>+</sub> bis AN <sub>-</sub>		06:57	15:22	05:42	36m	06:19	37m	06:56	36m	07:33	8h 47m	16:21	36m	16:58	37m	17:35	36m	18:12	15h 13m	11h 31m				Sa, 30. Nov
So, 1. Dez		18:12–05:44*	11h 32m	AN <sub>+</sub> bis AN <sub>-</sub>	●	08:07	15:57	05:43	36m	06:20	37m	06:57	37m	07:34	8h 45m	16:20	37m	16:57	37m	17:35	36m	18:12	15h 15m	11h 32m				So, 1. Dez
Mo, 2. Dez		18:11–05:45*	11h 33m	AN <sub>+</sub> bis AN <sub>-</sub>		09:13	16:43	05:44	36m	06:21	37m	06:59	37m	07:36	8h 44m	16:20	37m	16:57	37m	17:35	36m	18:11	15h 17m	11h 33m				Mo, 2. Dez
Di, 3. Dez		18:11–05:46*	11h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		10:10	17:42	05:45	36m	06:22	37m	07:00	37m	07:37	8h 42m	16:19	37m	16:57	37m	17:34	36m	18:11	15h 18m	11h 34m				Di, 3. Dez
Mi, 4. Dez		18:53–05:47*	10h 54m	M <sub>\</sub> bis AN <sub>-</sub>		10:56	18:53	05:46	36m	06:23	37m	07:01	37m	07:38	8h 41m	16:19	37m	16:56	37m	17:34	36m	18:11	15h 20m	11h 35m				Mi, 4. Dez
Do, 5. Dez		20:09–05:48*	9h 38m	M <sub>\</sub> bis AN <sub>-</sub>		11:31	20:09	05:47	37m	06:24	37m	07:02	37m	07:39	8h 39m	16:19	37m	16:56	37m	17:34	37m	18:11	15h 21m	11h 36m				Do, 5. Dez
Fr, 6. Dez		21:29–05:49*	8h 20m	M <sub>\</sub> bis AN <sub>-</sub>		11:58	21:29	05:48	37m	06:25	37m	07:03	37m	07:40	8h 38m	16:19	37m	16:56	37m	17:34	37m	18:11	15h 22m	11h 37m				Fr, 6. Dez
Sa, 7. Dez		22:48–05:50*	7h 01m	M <sub>\</sub> bis AN <sub>-</sub>		12:19	22:48	05:49	37m	06:26	37m	07:04	37m	07:41	8h 37m	16:18	37m	16:56	37m	17:34	37m	18:11	15h 23m	11h 38m				Sa, 7. Dez
So, 8. Dez		00:07*–05:50*	5h 43m	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		17:01	09:22	05:56	37m	06:33	38m	07:11	37m	07:49	8h 29m	16:19	37m	16:57	38m	17:35	37m	18:12	15h 30m	11h 44m				Mo, 16. Dez
Di, 17. Dez		18:13–18:16	2m	AN <sub>+</sub> bis M <sub>7</sub>		18:16	10:09	05:56	37m	06:34	38m	07:12	37m	07:50	8h 29m	16:19	37m	16:57	38m	17:35	37m	18:13	15h 31m	11h 44m				Di, 17. Dez
Mi, 18. Dez		18:13–19:32	1h 19m	AN <sub>+</sub> bis M <sub>7</sub>		19:32	10:43	05:57	37m	06:34	38m	07:13	37m	07:51	8h 29m	16:20	37m	16:58	38m	17:36	37m	18:13	15h 31m	11h 44m				Mi, 18. Dez
Do, 19. Dez		18:14–20:47	2h 33m	AN <sub>+</sub> bis M <sub>7</sub>		20:47	11:08	05:58	37m	06:35	38m	07:13	37m	07:51	8h 28m	16:20	37m	16:58	38m	17:36	37m	18:14	15h 31m	11h 44m				Do, 19. Dez
Fr, 20. Dez		18:14–21:58	3h 43m	AN <sub>+</sub> bis M <sub>7</sub>		21:58	11:27	05:58	37m	06:35	38m	07:14	37m	07:52	8h 28m	16:20	37m	16:58	38m	17:37	37m	18:14	15h 31m	11h 44m				Fr, 20. Dez
Sa, 21. Dez		18:14–23:06	4h 51m	AN <sub>+</sub> bis M <sub>7</sub>		23:06	11:43	05:59	37m	06:36	38m	07:14	37m	07:52	8h 28m	16:21	37m	16:59	38m	17:37	37m	18:14	15h 31m	11h 44m				Sa, 21. Dez
So, 22. Dez		18:15–00:11*	5h 56m	AN <sub>+</sub> bis M <sub>7</sub>	☾	—:—	11:57	05:59	37m	06:36	38m	07:15	37m	07:53	8h 28m	16:21	37m	16:59	38m	17:38	37m	18:15	15h 31m	11h 44m				So, 22. Dez
Mo, 23. Dez		18:16–01:17*	7h 01m	AN <sub>+</sub> bis M <sub>7</sub>		00:11	12:11	06:00	37m	06:37	38m	07:15	37m	07:53	8h 28m	16:22	37m	17:00	38m	17:38	37m	18:16	15h 31m	11h 44m				Mo, 23. Dez
Di, 24. Dez		18:16–02:23*	8h 06m	AN <sub>+</sub> bis M <sub>7</sub>		01:17	12:25	06:00	37m	06:37	38m	07:16	37m	07:54	8h 29m	16:23	37m	17:01	38m	17:39	37m	18:16	15h 31m	11h 44m				Di, 24. Dez
Mi, 25. Dez		18:17–03:31*	9h 13m	AN <sub>+</sub> bis M <sub>7</sub>		02:23	12:40	06:00	37m	06:38	38m	07:16	37m	07:54	8h 29m	16:23	37m	17:01	38m	17:39	37m	18:17	15h 30m	11h 44m				Mi, 25. Dez
Do, 26. Dez		18:17–04:41*	10h 23m	AN <sub>+</sub> bis M <sub>7</sub>		03:31	12:59	06:01	37m	06:38	38m	07:16	37m	07:54	8h 29m	16:24	37m	17:02	38m	17:40	37m	18:17	15h 30m	11h 43m				Do, 26. Dez
Fr, 27. Dez		18:18–05:52*	11h 33m	AN <sub>+</sub> bis M <sub>7</sub>		04:41	13:22	06:01	37m	06:38	38m	07:17	37m	07:54	8h 30m	16:25	37m	17:03	38m	17:41	37m	18:18	15h 29m	11h 43m				Fr, 27. Dez
Sa, 28. Dez		18:19–06:02*	11h 42m	AN <sub>+</sub> bis AN <sub>-</sub>		05:52	13:53	06:01	37m	06:39	38m	07:17	37m	07:55	8h 30m	16:26	37m	17:03	38m	17:42	37m	18:19	15h 29m	11h 42m				Sa, 28. Dez
So, 29. Dez		18:20–06:02*	11h 42m	AN <sub>+</sub> bis AN <sub>-</sub>		07:00	14:36	06:02	37m	06:39	38m	07:17	37m	07:55	8h 31m	16:26	37m	17:04	38m	17:42	37m	18:20	15h 28m	11h 42m				So, 29. Dez
Mo, 30. Dez		18:20–06:02*	11h 41m	AN <sub>+</sub> bis AN <sub>-</sub>	☉	08:02	15:31	06:02	37m	06:39	38m	07:17	37m	07:55	8h 32m	16:27	37m	17:05	38m	17:43	37m	18:20	15h 27m	11h 41m				Mo, 30. Dez
Di, 31. Dez		18:21–06:02*	11h 40m	AN <sub>+</sub> bis AN <sub>-</sub>		08:52	16:39	06:02	37m	06:39	38m	07:17	37m	07:55	8h 33m	16:28	37m	17:06	38m	17:44	37m	18:21	15h 26m	11h 40m				Di, 31. Dez
Mi, 1. Jan		18:22–06:02*	11h 40m	AN <sub>+</sub> bis AN <sub>-</sub>		09:31	17:56	06:02	37m	06:39	38m	07:17	37m	07:55	8h 34m	16:29	37m	17:07	38m	17:45	37m	18:22	15h 25m	11h 40m				Mi, 1. Jan
Do, 2. Jan		19:17–06:02*	10h 45m	M <sub>\</sub> bis AN <sub>-</sub>		10:01	19:17	06:02	37m	06:39	37m	07:17	37m	07:55	8h 35m	16:30	37m	17:08	38m	17:46	37m	18:23	15h 24m	11h 39m				Do, 2. Jan
Fr, 3. Jan		20:37–06:02*	9h 25m	M <sub>\</sub> bis AN <sub>-</sub>		10:24	20:37	06:02	37m	06:39	37m	07:17	37m	07:55	8h 36m	16:31	37m	17:09	37m	17:47	37m	18:24	15h 23m	11h 38m				Fr, 3. Jan
Sa, 4. Jan		21:57–06:02*	8h 05m	M <sub>\</sub> bis AN <sub>-</sub>		10:43	21:57	06:02	37m	06:39	37m	07:17	37m	07:55	8h 37m	16:32	37m	17:10	37m	17:48	37m	18:25	15h 22m	11h 37m				Sa, 4. Jan
So, 5. Jan		23:15–06:02*	6h 46m	M <sub>\</sub> bis AN <sub>-</sub>		11:00	23:15	06:02	37m	06:39	37m	07:17	37m	07:55	8h 38m	16:33	37m	17:11	37m	17:49	37m	18:26	15h 21m	11h 36m				So, 5. Jan
Mo, 6. Jan		00:35*–06:02*	5h 27m	M <sub>\</sub> bis AN <sub>-</sub>		11:17	—:—	06:02	36m	06:39	37m	07:17	37m	07:54	8h 39m	16:34	37m	17:12	37m	17:50	37m	18:27	15h 19m	11h 35m				Mo, 6. Jan
Di, 7. Jan		01:56*–06:02*	4h 06m	M <sub>\</sub> bis AN <sub>-</sub>	☾	11:35	00:35	06:02	36m	06:39	37m	07:17	37m	07:54	8h 41m	16:36	37m	17:13	37m	17:51	36m	18:28	15h 18m	11h 34m				Di, 7. Jan
Mi, 8. Jan		03:19*–06:02*	2h 43m	M <sub>\</sub> bis AN <sub>-</sub>		11:55	01:56	06:02	36m	06:39	37m	07:17	37m	07:54	8h 42m	16:37	37m	17:14	37m	17:52	36m	18:29	15h 16m	11h 33m				Mi, 8. Jan
Do, 9. Jan		04:42*–06:02*	1h 19m	M <sub>\</sub> bis AN <sub>-</sub>		12:21	03:19	06:02	36m	06:39	37m	07:16	37m	07:53	8h 44m	16:38	37m	17:15	37m	17:53	36m	18:30	15h 15m	11h 32m				Do, 9. Jan
Fr, 10. Jan		06:01*–06:01*	0m	M <sub>\</sub> bis AN <sub>-</sub>		12:55	04:42	06:02	36m	06:38	37m	07:16	37m	07:53	8h 46m	16:39	37m	17:16	37m	17:54	36m	18:31	15h 13m	11h 30m				Fr, 10. Jan
Sa, 11. Jan		—:—:—:—	—	Mond stört		13:41	06:01	06:01	36m	06:38	37m	07:16	36m	07:53	8h 47m	16:40	36m	17:17	37m	17:55	36m	18:32	15h 11m	11h 29m				Sa, 11. Jan
So, 12. Jan		—:—:—:—	—	Mond stört		14:41	07:08	06:01	36m	06:38	37m	07:15	36m	07:52	8h 49m	16:42	36m	17:19	37m	17:56	36m	18:33	15h 09m	11h 27m				So, 12. Jan
Mo, 13. Jan		—:—:—:—	—	Mond stört	☉	15:52	08:01	06:01	36m	06:37	37m	07:15	36m	07:52	8h 51m	16:43	36m	17:20	37m	17:57	36m	18:34	15h 08m	11h 26m				Mo, 13. Jan
Di, 14. Jan		—:~:~:~:~	—	Mond stört		17:09	08:40	06:00	36m	06:37	37m	07:14	36m	07:51	8h 53m	16:44	36m	17:21	37m	17:58	36m	18:35	15h 06m	11h 24m				Di, 14. Jan
Mi, 15. Jan		—:~:~:~:~	—	Mond stört		18:25	09:08	06:00	36m	06:37	37m	07:14	36m	07:50	8h 55m	16:46	36m	17:22	37m	17:59	36m	18:36	15h 04m	11h 23m				Mi, 15. Jan
Do, 16. Jan		18:37–19:39	1h 01m	AN <sub>+</sub> bis M <sub>7</sub>		19:39	09:30	05:59	36m	06:36	37m	07:13	36m	07:50	8h 57m	16:47	36m	17:23	37m	18:01	36m	18:37	15h 01m	11h 21m				Do, 16. Jan
Fr, 17. Jan		18:38–20:49	2h 10m	AN <sub>+</sub> bis M <sub>7</sub>		20:49	09:47	05:59	36m	06:35	37m	07:13	36m	07:49	8h 59m	16:48	36m	17:25	37m	18:02	36m	18:38	14h 59m	11h 20m				Fr, 17. Jan
Sa, 18. Jan		18:40–21:56	3h 16m	AN <sub>+</sub> bis M <sub>7</sub>		21:56	10:02	05:58	36m	06:35	37m	07:12	36m	07:48	9h 01m	16:50	36m	17:26	37m	18:03	36m	18:40	14h 57m	11h 18m				Sa, 18. Jan
So, 19. Jan		18:41–23:02	4h 21m	AN <sub>+</sub> bis M <sub>7</sub>		23:02	10:16	05:58	36m	06:34	36m	07:11	36m	07:47	9h 03m	16:51	36m	17:27	36m	18:04	36m	18:41	14h 55m	11h 16m				So, 19. Jan
Mo, 20. Jan		18:42–00:08*	5h 25m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	10:29	05:57	36m	06:34	36m	07:10	36m	07:47	9h 06m	16:53	36m	17:29	36m	18:06	36m	18:42	14h 53m	11h 14m				Mo, 20. Jan
Di, 21. Jan		18:43–01:15*	6h 31m	AN <sub>+</sub> bis M <sub>7</sub>	☾	00:08	10:44	05:57	36m	06:33	36m	07:10	35m	07:46	9h 08m	16:54	35m	17:30	36m	18:07	36m	18:43	14h 50m	11h 12m				Di, 21. Jan
Mi, 22. Jan		18:44–02:24*	7h 39m	AN <sub>+</sub> bis M <sub>7</sub>		01:15	11:01	05:56	36m	06:32	36m	07:09	35m	07:45	9h 10m	16:56	35m	17:31	36m	18:08	36m	18:44	14h 48m	11h 10m				Mi, 22. Jan
Do, 23. Jan		18:46–03:34*	8h 48m	AN <sub>+</sub> bis M <sub>7</sub>		02:24	11:22	05:55	36m	06:31	36m	07:08	35m	07:44	9h 13m	16:57	35m	17:33	36m	18:09	36m	18:46	14h 45m	11h 08m				Do, 23. Jan
Fr, 24. Jan		18:47–04:43*	9h 56m	AN <sub>+</sub> bis M <sub>7</sub>		03:34	11:49	05:54	36m	06:31	36m	07:07	35m	07:43	9h 15m	16:59	35m	17:34	36m	18:11	36m	18:47	14h 43m	11h 06m				Fr, 24. Jan
Sa, 25. Jan		18:48–05:48*	10h 59m	AN <sub>+</sub> bis M <sub>7</sub>		04:43	12:26	05:54	36m	06:30	36m	07:06	35m	07:42	9h 18m	17:00	35m	17:36	36m	18:12	36m	18:48	14h 40m	11h 04m				Sa, 25. Jan
So, 26. Jan		18:50–05:52*	11h 02m	AN <sub>+</sub> bis AN <sub>-</sub>		05:48	13:15	05:53	36m	06:29	36m	07:05	35m	07:41	9h 20m	17:02	35m	17:37	36m	18:13	36m	18:50	14h 38m	11h 02m				So, 26. Jan
Mo, 27. Jan		18:51–05:51*	11h 00m	AN <sub>+</sub> bis AN																								