

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Tirschenreuth 49.8825° N 12.3331° E

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

### Atmosphären-Einstellungen in pyEphem

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

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

**Spalte 1** Kalendertag.

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

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

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

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

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

**Spalte 6** Mondphase.

**Spalte 7** Mondaufgang.

**Spalte 8** Monduntergang.

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

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

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

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

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

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

**Spalte 15** Sonnenaufgang.

**Spalte 16** Taglänge.

**Spalte 17** Sonnenuntergang.

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

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

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

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

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

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

**Spalte 24** Länge der Nacht.

**Spalte 25** Länge der astr. Nacht.

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

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

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

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

**Spalte 29** Identisch zu Spalte 1.

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

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

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

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

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

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

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

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