

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Erlangen 49.5964° N 11.0043° 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 angegebenen 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		18:25 – 22:08	3h 43m	AN <sub>+</sub> bis M <sub>7</sub>		22:08	11:18	06:13	38m	06:52	40m	07:32	40m	08:12	8h 14m	16:26	40m	17:06	40m	17:46	38m	18:25	15h 45m	11h 47m				Mo, 1. Jan
Di, 2. Jan		18:26 – 23:15	4h 49m	AN <sub>+</sub> bis M <sub>7</sub>		23:15	11:30	06:13	38m	06:52	40m	07:32	39m	08:12	8h 15m	16:27	39m	17:07	40m	17:47	38m	18:26	15h 44m	11h 46m				Di, 2. Jan
Mi, 3. Jan		18:27 – 00:23*	5h 56m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	11:42	06:13	38m	06:52	39m	07:32	39m	08:12	8h 16m	16:28	39m	17:08	39m	17:48	38m	18:27	15h 43m	11h 46m				Mi, 3. Jan
Do, 4. Jan		18:28 – 01:32*	7h 04m	AN <sub>+</sub> bis M <sub>7</sub>	☾	00:23	11:54	06:13	38m	06:52	39m	07:32	39m	08:11	8h 17m	16:29	39m	17:09	39m	17:49	38m	18:28	15h 42m	11h 45m				Do, 4. Jan
Fr, 5. Jan		18:29 – 02:45*	8h 16m	AN <sub>+</sub> bis M <sub>7</sub>		01:32	12:07	06:13	38m	06:52	39m	07:31	39m	08:11	8h 18m	16:30	39m	17:10	39m	17:50	38m	18:29	15h 40m	11h 44m				Fr, 5. Jan
Sa, 6. Jan		18:30 – 04:01*	9h 31m	AN <sub>+</sub> bis M <sub>7</sub>		02:45	12:23	06:13	38m	06:52	39m	07:31	39m	08:11	8h 20m	16:31	39m	17:11	39m	17:51	38m	18:30	15h 39m	11h 42m				Sa, 6. Jan
So, 7. Jan		18:31 – 05:21*	10h 50m	AN <sub>+</sub> bis M <sub>7</sub>		04:01	12:44	06:13	38m	06:51	39m	07:31	39m	08:11	8h 21m	16:33	39m	17:12	39m	17:52	38m	18:31	15h 37m	11h 41m				So, 7. Jan
Mo, 8. Jan		18:32 – 06:12*	11h 40m	AN <sub>+</sub> bis AN <sub>-</sub>		05:21	13:13	06:12	38m	06:51	39m	07:31	39m	08:10	8h 23m	16:34	39m	17:13	39m	17:53	38m	18:32	15h 36m	11h 40m				Mo, 8. Jan
Di, 9. Jan		18:33 – 06:12*	11h 39m	AN <sub>+</sub> bis AN <sub>-</sub>		06:39	13:55	06:12	38m	06:51	39m	07:31	39m	08:10	8h 25m	16:35	39m	17:15	39m	17:54	38m	18:33	15h 34m	11h 39m				Di, 9. Jan
Mi, 10. Jan		18:34 – 06:12*	11h 37m	AN <sub>+</sub> bis AN <sub>-</sub>		07:49	14:54	06:12	38m	06:51	39m	07:30	39m	08:09	8h 26m	16:36	39m	17:16	39m	17:55	38m	18:34	15h 32m	11h 37m				Mi, 10. Jan
Do, 11. Jan		18:35 – 06:11*	11h 36m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	08:45	16:11	06:12	38m	06:50	39m	07:30	39m	08:09	8h 28m	16:38	39m	17:17	39m	17:56	38m	18:35	15h 30m	11h 36m				Do, 11. Jan
Fr, 12. Jan		18:36 – 06:11*	11h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		09:26	17:39	06:11	38m	06:50	39m	07:29	39m	08:08	8h 30m	16:39	39m	17:18	39m	17:58	38m	18:36	15h 28m	11h 34m				Fr, 12. Jan
Sa, 13. Jan		19:10 – 06:11*	11h 00m	M <sub>\</sub> bis AN <sub>-</sub>		09:54	19:10	06:11	38m	06:50	39m	07:29	38m	08:08	8h 32m	16:40	39m	17:19	39m	17:59	38m	18:37	15h 26m	11h 33m				Sa, 13. Jan
So, 14. Jan		20:39 – 06:10*	9h 31m	M <sub>\</sub> bis AN <sub>-</sub>		10:16	20:39	06:11	38m	06:49	39m	07:28	38m	08:07	8h 34m	16:42	38m	17:21	39m	18:00	38m	18:38	15h 24m	11h 31m				So, 14. Jan
Mo, 15. Jan		22:04 – 06:10*	8h 05m	M <sub>\</sub> bis AN <sub>-</sub>		10:33	22:04	06:10	38m	06:49	39m	07:28	38m	08:07	8h 36m	16:43	38m	17:22	39m	18:01	38m	18:40	15h 22m	11h 30m				Mo, 15. Jan
Di, 16. Jan		23:27 – 06:09*	6h 41m	M <sub>\</sub> bis AN <sub>-</sub>		10:49	23:27	06:10	38m	06:48	39m	07:27	38m	08:06	8h 38m	16:45	38m	17:23	39m	18:03	38m	18:41	15h 20m	11h 28m				Di, 16. Jan
Mi, 17. Jan		00:49* – 06:09*	5h 19m	M <sub>\</sub> bis AN <sub>-</sub>		11:03	—:—	06:09	38m	06:47	39m	07:26	38m	08:05	8h 41m	16:46	38m	17:25	39m	18:04	38m	18:42	15h 17m	11h 26m				Mi, 17. Jan
Do, 18. Jan		02:10* – 06:08*	3h 57m	M <sub>\</sub> bis AN <sub>-</sub>	☾	11:19	00:49	06:09	38m	06:47	38m	07:26	38m	08:04	8h 43m	16:48	38m	17:26	38m	18:05	38m	18:43	15h 15m	11h 24m				Do, 18. Jan
Fr, 19. Jan		03:31* – 06:07*	2h 36m	M <sub>\</sub> bis AN <sub>-</sub>		11:38	02:10	06:08	38m	06:46	38m	07:25	38m	08:03	8h 45m	16:49	38m	17:28	38m	18:06	38m	18:45	15h 13m	11h 22m				Fr, 19. Jan
Sa, 20. Jan		04:50* – 06:07*	1h 16m	M <sub>\</sub> bis AN <sub>-</sub>		12:01	03:31	06:07	38m	06:45	38m	07:24	38m	08:02	8h 48m	16:51	38m	17:29	38m	18:08	38m	18:46	15h 10m	11h 20m				Sa, 20. Jan
So, 21. Jan		06:02* – 06:06*	4m	M <sub>\</sub> bis AN <sub>-</sub>		12:32	04:50	06:07	38m	06:45	38m	07:23	38m	08:01	8h 50m	16:52	38m	17:30	38m	18:09	38m	18:47	15h 08m	11h 18m				So, 21. Jan
Mo, 22. Jan		—:—:—:—:—	–	Mond stört		13:14	06:02	06:06	37m	06:44	38m	07:22	37m	08:00	8h 53m	16:54	37m	17:32	38m	18:10	37m	18:48	15h 05m	11h 16m				Mo, 22. Jan
Di, 23. Jan		—:—:—:—:—	–	Mond stört		14:07	07:02	06:05	37m	06:43	38m	07:22	37m	07:59	8h 56m	16:55	37m	17:33	38m	18:12	37m	18:50	15h 02m	11h 14m				Di, 23. Jan
Mi, 24. Jan		—:—:—:—:—	–	Mond stört		15:12	07:50	06:04	37m	06:42	38m	07:21	37m	07:58	8h 58m	16:57	37m	17:35	38m	18:13	37m	18:51	15h 00m	11h 12m				Mi, 24. Jan
Do, 25. Jan		—:—:~:~:~	–	Mond stört	☾	16:22	08:24	06:03	37m	06:41	38m	07:20	37m	07:57	9h 01m	16:59	37m	17:36	38m	18:15	37m	18:52	14h 57m	11h 10m				Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~	–	Mond stört		17:35	08:50	06:03	37m	06:40	38m	07:19	37m	07:56	9h 04m	17:00	37m	17:38	38m	18:16	37m	18:54	14h 54m	11h 07m				Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~	–	Mond stört		18:46	09:09	06:02	37m	06:39	38m	07:17	37m	07:55	9h 07m	17:02	37m	17:39	38m	18:17	37m	18:55	14h 51m	11h 05m				Sa, 27. Jan
So, 28. Jan		18:57 – 19:55	58m	AN <sub>+</sub> bis M <sub>7</sub>		19:55	09:24	06:01	37m	06:38	38m	07:16	37m	07:54	9h 10m	17:04	37m	17:41	38m	18:19	37m	18:57	14h 48m	11h 02m				So, 28. Jan
Mo, 29. Jan		18:58 – 21:03	2h 05m	AN <sub>+</sub> bis M <sub>7</sub>		21:03	09:37	06:00	37m	06:37	37m	07:15	37m	07:52	9h 13m	17:05	37m	17:42	38m	18:20	37m	18:58	14h 45m	11h 00m				Mo, 29. Jan
Di, 30. Jan		18:59 – 22:10	3h 10m	AN <sub>+</sub> bis M <sub>7</sub>		22:10	09:49	05:59	37m	06:36	37m	07:14	36m	07:51	9h 15m	17:07	36m	17:44	37m	18:22	37m	18:59	14h 42m	10h 58m				Di, 30. Jan
Mi, 31. Jan		19:01 – 23:18	4h 17m	AN <sub>+</sub> bis M <sub>7</sub>		23:18	10:00	05:57	37m	06:35	37m	07:13	36m	07:50	9h 18m	17:09	36m	17:45	37m	18:23	37m	19:01	14h 39m	10h 55m				Mi, 31. Jan
Do, 1. Feb		19:02 – 00:28*	5h 25m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	10:12	05:56	37m	06:34	37m	07:12	36m	07:48	9h 22m	17:10	36m	17:47	37m	18:25	37m	19:02	14h 36m	10h 52m				Do, 1. Feb
Fr, 2. Feb		19:04 – 01:41*	6h 37m	AN <sub>+</sub> bis M <sub>7</sub>		00:28	10:27	05:55	37m	06:33	37m	07:10	36m	07:47	9h 25m	17:12	36m	17:49	37m	18:26	37m	19:04	14h 33m	10h 50m				Fr, 2. Feb
Sa, 3. Feb		19:05 – 02:57*	7h 52m	AN <sub>+</sub> bis M <sub>7</sub>	☾	01:41	10:45	05:54	37m	06:31	37m	07:09	36m	07:45	9h 28m	17:14	36m	17:50	37m	18:28	37m	19:05	14h 30m	10h 47m				Sa, 3. Feb
So, 4. Feb		19:07 – 04:15*	9h 08m	AN <sub>+</sub> bis M <sub>7</sub>		02:57	11:09	05:53	37m	06:30	37m	07:08	36m	07:44	9h 31m	17:15	36m	17:52	37m	18:29	37m	19:07	14h 27m	10h 44m				So, 4. Feb
Mo, 5. Feb		19:08 – 05:28*	10h 20m	AN <sub>+</sub> bis M <sub>7</sub>		04:15	11:43	05:51	37m	06:29	37m	07:06	36m	07:42	9h 34m	17:17	36m	17:53	37m	18:31	37m	19:08	14h 23m	10h 42m				Mo, 5. Feb
Di, 6. Feb		19:10 – 05:49*	10h 39m	AN <sub>+</sub> bis AN <sub>-</sub>		05:28	12:32	05:50	37m	06:27	37m	07:05	36m	07:41	9h 37m	17:19	36m	17:55	37m	18:32	37m	19:10	14h 20m	10h 39m				Di, 6. Feb
Mi, 7. Feb		19:11 – 05:47*	10h 36m	AN <sub>+</sub> bis AN <sub>-</sub>		06:30	13:39	05:49	37m	06:26	37m	07:03	35m	07:39	9h 41m	17:20	36m	17:56	37m	18:34	37m	19:11	14h 17m	10h 36m				Mi, 7. Feb
Do, 8. Feb		19:13 – 05:46*	10h 33m	AN <sub>+</sub> bis AN <sub>-</sub>		07:18	15:03	05:47	37m	06:25	37m	07:02	35m	07:38	9h 44m	17:22	35m	17:58	37m	18:35	37m	19:13	14h 13m	10h 33m				Do, 8. Feb
Fr, 9. Feb		19:14 – 05:45*	10h 30m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	07:52	16:34	05:46	37m	06:23	37m	07:00	35m	07:36	9h 47m	17:24	35m	18:00	37m	18:37	37m	19:14	14h 10m	10h 30m				Fr, 9. Feb
Sa, 10. Feb		19:16 – 05:43*	10h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		08:17	18:07	05:45	37m	06:22	37m	06:59	35m	07:34	9h 51m	17:26	35m	18:01	37m	18:38	37m	19:16	14h 07m	10h 27m				Sa, 10. Feb
So, 11. Feb		19:37 – 05:42*	10h 04m	M <sub>\</sub> bis AN <sub>-</sub>		08:37	19:37	05:43	37m	06:20	36m	06:57	35m	07:33	9h 54m	17:27	35m	18:03	37m	18:40	37m	19:17	14h 03m	10h 24m				So, 11. Feb
Mo, 12. Feb</																												

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

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

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



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

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



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