

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Tulln an der Donau 48.3333° N 16.0500° 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		18:07–21:49	3h 41m	AN <sub>+</sub> bis M <sub>7</sub>		21:49	10:55	05:51	37m	06:28	38m	07:07	38m	07:46	8h 25m	16:11	38m	16:50	38m	17:29	37m	18:07	15h 34m	11h 43m					Mo, 1. Jan
Di, 2. Jan		18:08–22:55	4h 47m	AN <sub>+</sub> bis M <sub>7</sub>		22:55	11:09	05:51	37m	06:29	38m	07:07	38m	07:46	8h 26m	16:12	38m	16:51	38m	17:30	37m	18:08	15h 33m	11h 43m					Di, 2. Jan
Mi, 3. Jan		18:09–00:01*	5h 52m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	11:22	05:51	37m	06:29	38m	07:07	38m	07:46	8h 27m	16:13	38m	16:52	38m	17:31	37m	18:09	15h 32m	11h 42m					Mi, 3. Jan
Do, 4. Jan		18:09–01:09*	6h 59m	AN <sub>+</sub> bis M <sub>7</sub>	☾	00:01	11:35	05:51	37m	06:29	38m	07:07	38m	07:46	8h 28m	16:14	38m	16:53	38m	17:32	37m	18:09	15h 31m	11h 41m					Do, 4. Jan
Fr, 5. Jan		18:10–02:20*	8h 09m	AN <sub>+</sub> bis M <sub>7</sub>		01:09	11:50	05:51	37m	06:29	38m	07:07	38m	07:46	8h 29m	16:15	38m	16:54	38m	17:33	37m	18:10	15h 30m	11h 40m					Fr, 5. Jan
Sa, 6. Jan		18:11–03:35*	9h 23m	AN <sub>+</sub> bis M <sub>7</sub>		02:20	12:07	05:51	37m	06:28	38m	07:07	38m	07:46	8h 30m	16:16	38m	16:55	38m	17:34	37m	18:11	15h 28m	11h 39m					Sa, 6. Jan
So, 7. Jan		18:12–04:53*	10h 40m	AN <sub>+</sub> bis M <sub>7</sub>		03:35	12:29	05:51	37m	06:28	38m	07:07	38m	07:45	8h 32m	16:18	38m	16:56	38m	17:35	37m	18:12	15h 27m	11h 38m					So, 7. Jan
Mo, 8. Jan		18:13–05:50*	11h 37m	AN <sub>+</sub> bis AN <sub>-</sub>		04:53	12:59	05:51	37m	06:28	38m	07:07	38m	07:45	8h 33m	16:19	38m	16:57	38m	17:36	37m	18:13	15h 25m	11h 37m					Mo, 8. Jan
Di, 9. Jan		18:14–05:50*	11h 35m	AN <sub>+</sub> bis AN <sub>-</sub>		06:10	13:42	05:50	37m	06:28	38m	07:06	38m	07:45	8h 35m	16:20	38m	16:58	38m	17:37	37m	18:14	15h 24m	11h 35m					Di, 9. Jan
Mi, 10. Jan		18:15–05:50*	11h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		07:20	14:41	05:50	37m	06:28	38m	07:06	38m	07:44	8h 37m	16:21	38m	16:59	38m	17:38	37m	18:15	15h 22m	11h 34m					Mi, 10. Jan
Do, 11. Jan		18:16–05:50*	11h 33m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	08:16	15:57	05:50	37m	06:27	38m	07:06	37m	07:44	8h 38m	16:23	37m	17:01	38m	17:39	37m	18:16	15h 20m	11h 33m					Do, 11. Jan
Fr, 12. Jan		18:18–05:49*	11h 31m	AN <sub>+</sub> bis AN <sub>-</sub>		08:59	17:23	05:50	37m	06:27	38m	07:05	37m	07:43	8h 40m	16:24	37m	17:02	38m	17:40	37m	18:18	15h 18m	11h 31m					Fr, 12. Jan
Sa, 13. Jan		18:52–05:49*	10h 56m	M <sub>\</sub> bis AN <sub>-</sub>		09:29	18:52	05:49	37m	06:27	38m	07:05	37m	07:43	8h 42m	16:25	37m	17:03	38m	17:41	37m	18:19	15h 16m	11h 30m					Sa, 13. Jan
So, 14. Jan		20:20–05:48*	9h 28m	M <sub>\</sub> bis AN <sub>-</sub>		09:53	20:20	05:49	37m	06:26	38m	07:04	37m	07:42	8h 44m	16:27	37m	17:04	38m	17:42	37m	18:20	15h 14m	11h 28m					So, 14. Jan
Mo, 15. Jan		21:44–05:48*	8h 04m	M <sub>\</sub> bis AN <sub>-</sub>		10:11	21:44	05:48	37m	06:26	38m	07:04	37m	07:41	8h 46m	16:28	37m	17:05	38m	17:44	37m	18:21	15h 12m	11h 27m					Mo, 15. Jan
Di, 16. Jan		23:05–05:48*	6h 42m	M <sub>\</sub> bis AN <sub>-</sub>		10:28	23:05	05:48	37m	06:25	38m	07:03	37m	07:41	8h 48m	16:29	37m	17:07	38m	17:45	37m	18:22	15h 10m	11h 25m					Di, 16. Jan
Mi, 17. Jan		00:25*–05:47*	5h 21m	M <sub>\</sub> bis AN <sub>-</sub>		10:44	—:—	05:48	37m	06:25	37m	07:03	37m	07:40	8h 50m	16:31	37m	17:08	37m	17:46	37m	18:23	15h 08m	11h 23m					Mi, 17. Jan
Do, 18. Jan		01:45*–05:46*	4h 01m	M <sub>\</sub> bis AN <sub>-</sub>	☾	11:02	00:25	05:47	37m	06:24	37m	07:02	37m	07:39	8h 52m	16:32	37m	17:09	37m	17:47	37m	18:25	15h 06m	11h 21m					Do, 18. Jan
Fr, 19. Jan		03:05*–05:46*	2h 41m	M <sub>\</sub> bis AN <sub>-</sub>		11:22	01:45	05:46	37m	06:24	37m	07:01	37m	07:38	8h 55m	16:34	37m	17:11	37m	17:49	37m	18:26	15h 04m	11h 20m					Fr, 19. Jan
Sa, 20. Jan		04:22*–05:45*	1h 23m	M <sub>\</sub> bis AN <sub>-</sub>		11:47	03:05	05:46	37m	06:23	37m	07:01	37m	07:38	8h 57m	16:35	37m	17:12	37m	17:50	37m	18:27	15h 01m	11h 18m					Sa, 20. Jan
So, 21. Jan		05:33*–05:44*	11m	M <sub>\</sub> bis AN <sub>-</sub>		12:19	04:22	05:45	37m	06:22	37m	07:00	36m	07:37	8h 59m	16:37	36m	17:14	37m	17:51	37m	18:28	14h 59m	11h 16m					So, 21. Jan
Mo, 22. Jan		—:—:—:—	–	Mond stört		13:01	05:33	05:44	37m	06:21	37m	06:59	36m	07:36	9h 02m	16:38	36m	17:15	37m	17:52	37m	18:30	14h 56m	11h 14m					Mo, 22. Jan
Di, 23. Jan		—:—:—:—	–	Mond stört		13:55	06:33	05:44	36m	06:21	37m	06:58	36m	07:35	9h 04m	16:40	36m	17:16	37m	17:54	37m	18:31	14h 54m	11h 12m					Di, 23. Jan
Mi, 24. Jan		—:—:—:—	–	Mond stört		14:58	07:21	05:43	36m	06:20	37m	06:57	36m	07:34	9h 07m	16:41	36m	17:18	37m	17:55	36m	18:32	14h 51m	11h 10m					Mi, 24. Jan
Do, 25. Jan		—:~:~:~:~	–	Mond stört	☾	16:08	07:57	05:42	36m	06:19	37m	06:56	36m	07:33	9h 09m	16:43	36m	17:19	37m	17:56	36m	18:33	14h 48m	11h 07m					Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~	–	Mond stört		17:18	08:24	05:41	36m	06:18	37m	06:55	36m	07:32	9h 12m	16:44	36m	17:21	37m	17:58	36m	18:35	14h 46m	11h 05m					Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~	–	Mond stört		18:28	08:44	05:40	36m	06:17	37m	06:54	36m	07:31	9h 15m	16:46	36m	17:22	37m	17:59	36m	18:36	14h 43m	11h 03m					Sa, 27. Jan
So, 28. Jan		18:37–19:36	59m	AN <sub>+</sub> bis M <sub>7</sub>		19:36	09:01	05:39	36m	06:16	37m	06:53	36m	07:29	9h 18m	16:47	36m	17:23	37m	18:01	36m	18:37	14h 40m	11h 01m					So, 28. Jan
Mo, 29. Jan		18:39–20:43	2h 04m	AN <sub>+</sub> bis M <sub>7</sub>		20:43	09:15	05:39	36m	06:15	36m	06:52	35m	07:28	9h 20m	16:49	36m	17:25	37m	18:02	36m	18:39	14h 37m	10h 58m					Mo, 29. Jan
Di, 30. Jan		18:40–21:49	3h 08m	AN <sub>+</sub> bis M <sub>7</sub>		21:49	09:28	05:38	36m	06:14	36m	06:51	35m	07:27	9h 23m	16:51	35m	17:26	36m	18:03	36m	18:40	14h 35m	10h 56m					Di, 30. Jan
Mi, 31. Jan		18:41–22:55	4h 13m	AN <sub>+</sub> bis M <sub>7</sub>		22:55	09:41	05:36	36m	06:13	36m	06:50	35m	07:26	9h 26m	16:52	35m	17:28	36m	18:05	36m	18:41	14h 32m	10h 54m					Mi, 31. Jan
Do, 1. Feb		18:43–00:04*	5h 21m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	09:54	05:35	36m	06:12	36m	06:49	35m	07:24	9h 29m	16:54	35m	17:29	36m	18:06	36m	18:43	14h 29m	10h 51m					Do, 1. Feb
Fr, 2. Feb		18:44–01:15*	6h 31m	AN <sub>+</sub> bis M <sub>7</sub>		00:04	10:10	05:34	36m	06:11	36m	06:48	35m	07:23	9h 32m	16:55	35m	17:31	36m	18:08	36m	18:44	14h 26m	10h 49m					Fr, 2. Feb
Sa, 3. Feb		18:46–02:30*	7h 44m	AN <sub>+</sub> bis M <sub>7</sub>	☾	01:15	10:29	05:33	36m	06:10	36m	06:46	35m	07:22	9h 35m	16:57	35m	17:32	36m	18:09	36m	18:46	14h 23m	10h 46m					Sa, 3. Feb
So, 4. Feb		18:47–03:46*	8h 59m	AN <sub>+</sub> bis M <sub>7</sub>		02:30	10:54	05:32	36m	06:08	36m	06:45	35m	07:20	9h 38m	16:59	35m	17:34	36m	18:10	36m	18:47	14h 20m	10h 43m					So, 4. Feb
Mo, 5. Feb		18:48–04:59*	10h 10m	AN <sub>+</sub> bis M <sub>7</sub>		03:46	11:30	05:31	36m	06:07	36m	06:44	35m	07:19	9h 41m	17:00	35m	17:35	36m	18:12	36m	18:48	14h 17m	10h 41m					Mo, 5. Feb
Di, 6. Feb		18:50–05:28*	10h 38m	AN <sub>+</sub> bis AN <sub>-</sub>		04:59	12:19	05:30	36m	06:06	36m	06:42	35m	07:17	9h 44m	17:02	35m	17:37	36m	18:13	36m	18:50	14h 14m	10h 38m					Di, 6. Feb
Mi, 7. Feb		18:51–05:27*	10h 35m	AN <sub>+</sub> bis AN <sub>-</sub>		06:01	13:26	05:28	36m	06:05	36m	06:41	34m	07:16	9h 47m	17:03	35m	17:38	36m	18:15	36m	18:51	14h 10m	10h 35m					Mi, 7. Feb
Do, 8. Feb		18:53–05:26*	10h 33m	AN <sub>+</sub> bis AN <sub>-</sub>		06:50	14:48	05:27	36m	06:03	36m	06:40	34m	07:14	9h 50m	17:05	34m	17:40	36m	18:16	36m	18:53	14h 07m	10h 33m					Do, 8. Feb
Fr, 9. Feb		18:54–05:24*	10h 30m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	07:26	16:18	05:26	36m	06:02	36m	06:38	34m	07:13	9h 53m	17:07	34m	17:42	36m	18:18	36m	18:54	14h 04m	10h 30m					Fr, 9. Feb
Sa, 10. Feb		18:55–05:23*	10h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		07:53	17:49	05:24	36m	06:00	36m	06:37	34m	07:11	9h 57m	17:08	34m	17:43	36m	18:19	36m	18:55	14h 01m	10h 27m					Sa, 10. Feb
So, 11. Feb		19:18–05:21*	10h 03m	M <sub>\</sub> bis AN <sub>-</sub>		08:14	19:18	05:23	36m	05:59	36m	06:35	34m	07:10	10h 00m	17:10	34m												

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

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

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

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

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



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