

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

St. Johann im Pongau 47.3500° N 13.2000° 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>l</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>l</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		18:20 – 22:02	3h 42m	AN <sub>+</sub> bis M <sub>7</sub>		22:02	11:05	06:00	37m	06:38	38m	07:16	37m	07:53	8h 33m	16:27	37m	17:04	38m	17:43	37m	18:20	15h 26m	11h 40m					Mo, 1. Jan
Di, 2. Jan		18:21 – 23:07	4h 46m	AN <sub>+</sub> bis M <sub>7</sub>		23:07	11:20	06:01	37m	06:38	38m	07:16	37m	07:53	8h 34m	16:28	37m	17:05	38m	17:43	37m	18:21	15h 25m	11h 40m					Di, 2. Jan
Mi, 3. Jan		18:21 – 00:13*	5h 51m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	11:33	06:01	37m	06:38	38m	07:16	37m	07:53	8h 35m	16:29	37m	17:06	38m	17:44	37m	18:21	15h 24m	11h 39m					Mi, 3. Jan
Do, 4. Jan		18:22 – 01:20*	6h 57m	AN <sub>+</sub> bis M <sub>7</sub>	☾	00:13	11:47	06:01	37m	06:38	37m	07:16	37m	07:53	8h 36m	16:30	37m	17:07	37m	17:45	37m	18:22	15h 23m	11h 38m					Do, 4. Jan
Fr, 5. Jan		18:23 – 02:30*	8h 06m	AN <sub>+</sub> bis M <sub>7</sub>		01:20	12:03	06:01	37m	06:38	37m	07:16	37m	07:53	8h 37m	16:31	37m	17:08	37m	17:46	37m	18:23	15h 22m	11h 37m					Fr, 5. Jan
Sa, 6. Jan		18:24 – 03:43*	9h 19m	AN <sub>+</sub> bis M <sub>7</sub>		02:30	12:21	06:01	37m	06:38	37m	07:16	37m	07:53	8h 38m	16:32	37m	17:09	37m	17:47	37m	18:24	15h 21m	11h 36m					Sa, 6. Jan
So, 7. Jan		18:25 – 05:00*	10h 34m	AN <sub>+</sub> bis M <sub>7</sub>		03:43	12:45	06:01	37m	06:38	37m	07:15	37m	07:53	8h 40m	16:33	37m	17:10	37m	17:48	37m	18:25	15h 19m	11h 35m					So, 7. Jan
Mo, 8. Jan		18:26 – 06:00*	11h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		05:00	13:16	06:01	36m	06:37	37m	07:15	37m	07:53	8h 41m	16:34	37m	17:11	37m	17:49	36m	18:26	15h 18m	11h 34m					Mo, 8. Jan
Di, 9. Jan		18:27 – 06:00*	11h 33m	AN <sub>+</sub> bis AN <sub>-</sub>		06:16	14:00	06:00	36m	06:37	37m	07:15	37m	07:52	8h 43m	16:35	37m	17:12	37m	17:50	36m	18:27	15h 16m	11h 33m					Di, 9. Jan
Mi, 10. Jan		18:28 – 06:00*	11h 31m	AN <sub>+</sub> bis AN <sub>-</sub>		07:26	14:59	06:00	36m	06:37	37m	07:15	37m	07:52	8h 44m	16:36	37m	17:14	37m	17:51	36m	18:28	15h 14m	11h 31m					Mi, 10. Jan
Do, 11. Jan		18:29 – 06:00*	11h 30m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	08:23	16:15	06:00	36m	06:37	37m	07:14	37m	07:51	8h 46m	16:38	37m	17:15	37m	17:52	36m	18:29	15h 13m	11h 30m					Do, 11. Jan
Fr, 12. Jan		18:30 – 05:59*	11h 29m	AN <sub>+</sub> bis AN <sub>-</sub>		09:06	17:40	06:00	36m	06:36	37m	07:14	36m	07:51	8h 48m	16:39	36m	17:16	37m	17:53	36m	18:30	15h 11m	11h 29m					Fr, 12. Jan
Sa, 13. Jan		19:08 – 05:59*	10h 51m	M <sub>\</sub> bis AN <sub>-</sub>		09:37	19:08	05:59	36m	06:36	37m	07:14	36m	07:50	8h 49m	16:40	36m	17:17	37m	17:55	36m	18:31	15h 09m	11h 27m					Sa, 13. Jan
So, 14. Jan		20:34 – 05:59*	9h 25m	M <sub>\</sub> bis AN <sub>-</sub>		10:02	20:34	05:59	36m	06:36	37m	07:13	36m	07:50	8h 51m	16:42	36m	17:18	37m	17:56	36m	18:32	15h 07m	11h 26m					So, 14. Jan
Mo, 15. Jan		21:56 – 05:58*	8h 01m	M <sub>\</sub> bis AN <sub>-</sub>		10:22	21:56	05:59	36m	06:35	37m	07:13	36m	07:49	8h 53m	16:43	36m	17:20	37m	17:57	36m	18:34	15h 05m	11h 24m					Mo, 15. Jan
Di, 16. Jan		23:17 – 05:58*	6h 41m	M <sub>\</sub> bis AN <sub>-</sub>		10:40	23:17	05:58	36m	06:35	37m	07:12	36m	07:49	8h 55m	16:44	36m	17:21	37m	17:58	36m	18:35	15h 03m	11h 23m					Di, 16. Jan
Mi, 17. Jan		00:36* – 05:57*	5h 21m	M <sub>\</sub> bis AN <sub>-</sub>		10:57	—:—	05:58	36m	06:34	37m	07:12	36m	07:48	8h 57m	16:46	36m	17:22	37m	17:59	36m	18:36	15h 01m	11h 21m					Mi, 17. Jan
Do, 18. Jan		01:54* – 05:57*	4h 02m	M <sub>\</sub> bis AN <sub>-</sub>	☾	11:15	00:36	05:57	36m	06:34	37m	07:11	36m	07:47	8h 59m	16:47	36m	17:23	37m	18:01	36m	18:37	14h 59m	11h 19m					Do, 18. Jan
Fr, 19. Jan		03:13* – 05:56*	2h 43m	M <sub>\</sub> bis AN <sub>-</sub>		11:36	01:54	05:57	36m	06:33	37m	07:10	36m	07:46	9h 01m	16:48	36m	17:25	37m	18:02	36m	18:38	14h 57m	11h 17m					Fr, 19. Jan
Sa, 20. Jan		04:29* – 05:56*	1h 26m	M <sub>\</sub> bis AN <sub>-</sub>		12:02	03:13	05:56	36m	06:33	36m	07:10	36m	07:46	9h 04m	16:50	36m	17:26	36m	18:03	36m	18:39	14h 54m	11h 16m					Sa, 20. Jan
So, 21. Jan		05:39* – 05:55*	16m	M <sub>\</sub> bis AN <sub>-</sub>		12:36	04:29	05:56	36m	06:32	36m	07:09	36m	07:45	9h 06m	16:51	36m	17:27	36m	18:04	36m	18:41	14h 52m	11h 14m					So, 21. Jan
Mo, 22. Jan		—:—:—:—	–	Mond stört		13:19	05:39	05:55	36m	06:31	36m	07:08	35m	07:44	9h 08m	16:53	35m	17:29	36m	18:06	36m	18:42	14h 50m	11h 12m					Mo, 22. Jan
Di, 23. Jan		—:—:—:—	–	Mond stört		14:12	06:39	05:54	36m	06:30	36m	07:07	35m	07:43	9h 11m	16:54	35m	17:30	36m	18:07	36m	18:43	14h 47m	11h 10m					Di, 23. Jan
Mi, 24. Jan		—:—:—:—	–	Mond stört		15:16	07:27	05:53	36m	06:30	36m	07:06	35m	07:42	9h 13m	16:56	35m	17:31	36m	18:08	36m	18:44	14h 45m	11h 08m					Mi, 24. Jan
Do, 25. Jan		—:~:~:~:~	–	Mond stört	☾	16:24	08:04	05:53	36m	06:29	36m	07:05	35m	07:41	9h 16m	16:57	35m	17:33	36m	18:09	36m	18:46	14h 42m	11h 06m					Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~	–	Mond stört		17:34	08:32	05:52	36m	06:28	36m	07:04	35m	07:40	9h 18m	16:59	35m	17:34	36m	18:11	36m	18:47	14h 40m	11h 04m					Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~	–	Mond stört		18:43	08:53	05:51	36m	06:27	36m	07:04	35m	07:39	9h 21m	17:00	35m	17:36	36m	18:12	36m	18:48	14h 37m	11h 01m					Sa, 27. Jan
So, 28. Jan		18:50 – 19:50	1h 00m	AN <sub>+</sub> bis M <sub>7</sub>		19:50	09:10	05:50	36m	06:26	36m	07:02	35m	07:38	9h 23m	17:02	35m	17:37	36m	18:13	36m	18:50	14h 34m	10h 59m					So, 28. Jan
Mo, 29. Jan		18:51 – 20:56	2h 04m	AN <sub>+</sub> bis M <sub>7</sub>		20:56	09:25	05:49	35m	06:25	36m	07:01	35m	07:37	9h 26m	17:03	35m	17:38	36m	18:15	36m	18:51	14h 32m	10h 57m					Mo, 29. Jan
Di, 30. Jan		18:52 – 22:00	3h 08m	AN <sub>+</sub> bis M <sub>7</sub>		22:00	09:39	05:48	35m	06:24	36m	07:00	35m	07:35	9h 29m	17:05	35m	17:40	36m	18:16	35m	18:52	14h 29m	10h 55m					Di, 30. Jan
Mi, 31. Jan		18:53 – 23:06	4h 12m	AN <sub>+</sub> bis M <sub>7</sub>		23:06	09:53	05:47	35m	06:23	36m	06:59	34m	07:34	9h 32m	17:06	35m	17:41	36m	18:17	35m	18:53	14h 26m	10h 52m					Mi, 31. Jan
Do, 1. Feb		18:55 – 00:14*	5h 18m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	10:07	05:46	35m	06:22	36m	06:58	34m	07:33	9h 34m	17:08	34m	17:43	36m	18:19	35m	18:55	14h 23m	10h 50m					Do, 1. Feb
Fr, 2. Feb		18:56 – 01:24*	6h 28m	AN <sub>+</sub> bis M <sub>7</sub>		00:14	10:24	05:45	35m	06:21	35m	06:57	34m	07:32	9h 37m	17:09	34m	17:44	35m	18:20	35m	18:56	14h 20m	10h 47m					Fr, 2. Feb
Sa, 3. Feb		18:57 – 02:38*	7h 40m	AN <sub>+</sub> bis M <sub>7</sub>	☾	01:24	10:44	05:44	35m	06:20	35m	06:56	34m	07:30	9h 40m	17:11	34m	17:46	35m	18:22	35m	18:57	14h 18m	10h 45m					Sa, 3. Feb
So, 4. Feb		18:59 – 03:53*	8h 54m	AN <sub>+</sub> bis M <sub>7</sub>		02:38	11:11	05:43	35m	06:19	35m	06:55	34m	07:29	9h 43m	17:13	34m	17:47	35m	18:23	35m	18:59	14h 15m	10h 42m					So, 4. Feb
Mo, 5. Feb		19:00 – 05:05*	10h 04m	AN <sub>+</sub> bis M <sub>7</sub>		03:53	11:47	05:42	35m	06:17	35m	06:53	34m	07:28	9h 46m	17:14	34m	17:49	35m	18:24	35m	19:00	14h 12m	10h 40m					Mo, 5. Feb
Di, 6. Feb		19:02 – 05:39*	10h 37m	AN <sub>+</sub> bis AN <sub>-</sub>		05:05	12:37	05:41	35m	06:16	35m	06:52	34m	07:26	9h 49m	17:16	34m	17:50	35m	18:26	35m	19:02	14h 09m	10h 37m					Di, 6. Feb
Mi, 7. Feb		19:03 – 05:38*	10h 35m	AN <sub>+</sub> bis AN <sub>-</sub>		06:07	13:44	05:39	35m	06:15	35m	06:51	34m	07:25	9h 52m	17:17	34m	17:52	35m	18:27	35m	19:03	14h 06m	10h 35m					Mi, 7. Feb
Do, 8. Feb		19:04 – 05:37*	10h 32m	AN <sub>+</sub> bis AN <sub>-</sub>		06:56	15:05	05:38	35m	06:14	35m	06:49	34m	07:23	9h 55m	17:19	34m	17:53	35m	18:29	35m	19:04	14h 03m	10h 32m					Do, 8. Feb
Fr, 9. Feb		19:06 – 05:35*	10h 29m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	07:34	16:34	05:37	35m	06:12	35m	06:48	34m	07:22	9h 58m	17:20	34m	17:54	35m	18:30	35m	19:06	14h 00m	10h 29m					Fr, 9. Feb
Sa, 10. Feb		19:07 – 05:34*	10h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		08:02	18:03	05:35	35m	06:11	35m	06:46	33m	07:20	10h 01m	17:22	34m	17:56	35m	18:31	35m	19:07	13h 56m	10h 27m					Sa, 10. Feb
So, 11. Feb		19:31 – 05:33*	10h 01m	M <sub>\</sub> bis AN <sub>-</sub>		08:24	19:31	05:34	35m	06:10	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.	$\Delta t$	$\Delta t$		$\Delta t$			
Di, 20. Feb		—:—:—:—	—	Mond stört		13:07	05:27	05:21	35m	05:56	34m	06:31	33m	07:04	10h 33m	17:37	33m	18:11	35m	18:46	35m	19:21	13h 24m	9h 57m					Di, 20. Feb
Mi, 21. Feb		—:—:—:—	—	Mond stört		14:13	06:06	05:19	35m	05:54	34m	06:29	33m	07:02	10h 36m	17:39	33m	18:12	34m	18:47	35m	19:23	13h 21m	9h 54m					Mi, 21. Feb
Do, 22. Feb		—:—:~:~	—	Mond stört		15:23	06:36	05:17	35m	05:53	34m	06:28	33m	07:01	10h 39m	17:41	33m	18:14	34m	18:49	35m	19:24	13h 18m	9h 51m					Do, 22. Feb
Fr, 23. Feb		—:~:~:~	—	Mond stört		16:32	06:59	05:16	35m	05:51	34m	06:26	32m	06:59	10h 43m	17:42	33m	18:15	34m	18:50	35m	19:25	13h 15m	9h 48m					Fr, 23. Feb
Sa, 24. Feb		—:~:~:~	—	Mond stört	○	17:40	07:17	05:14	35m	05:49	34m	06:24	32m	06:57	10h 46m	17:44	32m	18:17	34m	18:51	35m	19:27	13h 11m	9h 45m					Sa, 24. Feb
So, 25. Feb		—:~:~:~	—	Mond stört		18:46	07:33	05:12	35m	05:48	34m	06:22	32m	06:55	10h 49m	17:45	32m	18:18	34m	18:53	35m	19:28	13h 08m	9h 41m					So, 25. Feb
Mo, 26. Feb		19:30 – 19:51	21m	AN <sub>+</sub> bis M <sub>7</sub>		19:51	07:46	05:10	35m	05:46	34m	06:21	32m	06:53	10h 53m	17:47	32m	18:19	34m	18:54	35m	19:30	13h 05m	9h 38m					Mo, 26. Feb
Di, 27. Feb		19:31 – 20:56	1h 25m	AN <sub>+</sub> bis M <sub>7</sub>		20:56	08:00	05:09	35m	05:44	34m	06:19	32m	06:52	10h 56m	17:48	32m	18:21	34m	18:56	35m	19:31	13h 01m	9h 35m					Di, 27. Feb
Mi, 28. Feb		19:33 – 22:03	2h 30m	AN <sub>+</sub> bis M <sub>7</sub>		22:03	08:14	05:07	35m	05:42	34m	06:17	32m	06:50	10h 59m	17:50	32m	18:22	34m	18:57	35m	19:33	12h 58m	9h 32m					Mi, 28. Feb
Do, 29. Feb		19:34 – 23:12	3h 37m	AN <sub>+</sub> bis M <sub>7</sub>		23:12	08:29	05:05	35m	05:40	34m	06:15	32m	06:48	11h 03m	17:51	32m	18:24	34m	18:59	35m	19:34	12h 54m	9h 28m					Do, 29. Feb
Fr, 1. Mrz		19:36 – 00:23*	4h 47m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	08:47	05:03	35m	05:39	34m	06:13	32m	06:46	11h 06m	17:53	32m	18:25	34m	19:00	35m	19:36	12h 51m	9h 25m					Fr, 1. Mrz
Sa, 2. Mrz		19:37 – 01:36*	5h 59m	AN <sub>+</sub> bis M <sub>7</sub>		00:23	09:11	05:01	35m	05:37	34m	06:12	32m	06:44	11h 09m	17:54	32m	18:27	34m	19:02	35m	19:37	12h 48m	9h 22m					Sa, 2. Mrz
So, 3. Mrz		19:39 – 02:48*	7h 09m	AN <sub>+</sub> bis M <sub>7</sub>	●	01:36	09:42	04:59	35m	05:35	34m	06:10	32m	06:42	11h 13m	17:56	32m	18:28	34m	19:03	35m	19:39	12h 44m	9h 18m					So, 3. Mrz
Mo, 4. Mrz		19:40 – 03:53*	8h 12m	AN <sub>+</sub> bis M <sub>7</sub>		02:48	10:24	04:57	35m	05:33	34m	06:08	32m	06:40	11h 16m	17:57	32m	18:30	34m	19:04	35m	19:40	12h 41m	9h 15m					Mo, 4. Mrz
Di, 5. Mrz		19:42 – 04:47*	9h 04m	AN <sub>+</sub> bis M <sub>7</sub>		03:53	11:21	04:55	35m	05:31	34m	06:06	32m	06:38	11h 20m	17:59	32m	18:31	34m	19:06	35m	19:42	12h 37m	9h 11m					Di, 5. Mrz
Mi, 6. Mrz		19:43 – 04:51*	9h 08m	AN <sub>+</sub> bis AN <sub>-</sub>		04:47	12:34	04:53	35m	05:29	34m	06:04	32m	06:36	11h 23m	18:00	32m	18:33	34m	19:07	35m	19:43	12h 34m	9h 08m					Mi, 6. Mrz
Do, 7. Mrz		19:45 – 04:49*	9h 04m	AN <sub>+</sub> bis AN <sub>-</sub>		05:28	13:58	04:51	35m	05:27	34m	06:02	32m	06:35	11h 26m	18:01	32m	18:34	34m	19:09	35m	19:45	12h 31m	9h 04m					Do, 7. Mrz
Fr, 8. Mrz		19:46 – 04:47*	9h 01m	AN <sub>+</sub> bis AN <sub>-</sub>		05:59	15:26	04:49	35m	05:25	34m	06:00	32m	06:33	11h 30m	18:03	32m	18:35	34m	19:10	36m	19:46	12h 27m	9h 01m					Fr, 8. Mrz
Sa, 9. Mrz		19:48 – 04:45*	8h 57m	AN <sub>+</sub> bis AN <sub>-</sub>		06:24	16:55	04:47	35m	05:23	34m	05:58	32m	06:31	11h 33m	18:04	32m	18:37	34m	19:12	36m	19:48	12h 24m	8h 57m					Sa, 9. Mrz
So, 10. Mrz		19:49 – 04:43*	8h 53m	AN <sub>+</sub> bis AN <sub>-</sub>	●	06:44	18:22	04:45	36m	05:21	34m	05:56	32m	06:29	11h 37m	18:06	32m	18:38	34m	19:13	36m	19:49	12h 20m	8h 53m					So, 10. Mrz
Mo, 11. Mrz		19:51 – 04:41*	8h 50m	AN <sub>+</sub> bis AN <sub>-</sub>		07:03	19:48	04:43	36m	05:19	34m	05:54	32m	06:27	11h 40m	18:07	32m	18:40	34m	19:15	36m	19:51	12h 17m	8h 50m					Mo, 11. Mrz
Di, 12. Mrz		21:14 – 04:39*	7h 25m	M <sub>\</sub> bis AN <sub>-</sub>		07:21	21:14	04:41	36m	05:17	34m	05:52	32m	06:25	11h 44m	18:09	32m	18:41	34m	19:16	36m	19:53	12h 13m	8h 46m					Di, 12. Mrz
Mi, 13. Mrz		22:39 – 04:37*	5h 58m	M <sub>\</sub> bis AN <sub>-</sub>		07:41	22:39	04:39	36m	05:15	34m	05:50	32m	06:23	11h 47m	18:10	32m	18:43	35m	19:18	36m	19:54	12h 10m	8h 42m					Mi, 13. Mrz
Do, 14. Mrz		00:02* – 04:35*	4h 33m	M <sub>\</sub> bis AN <sub>-</sub>		08:05	—:—	04:37	36m	05:13	34m	05:48	32m	06:21	11h 50m	18:12	32m	18:44	35m	19:19	36m	19:56	12h 07m	8h 39m					Do, 14. Mrz
Fr, 15. Mrz		01:20* – 04:33*	3h 12m	M <sub>\</sub> bis AN <sub>-</sub>		08:34	00:02	04:35	36m	05:11	35m	05:46	32m	06:19	11h 54m	18:13	32m	18:46	35m	19:21	36m	19:57	12h 03m	8h 35m					Fr, 15. Mrz
Sa, 16. Mrz		02:29* – 04:30*	2h 01m	M <sub>\</sub> bis AN <sub>-</sub>		09:11	01:20	04:33	36m	05:09	35m	05:44	32m	06:17	11h 57m	18:14	32m	18:47	35m	19:22	36m	19:59	12h 00m	8h 31m					Sa, 16. Mrz
So, 17. Mrz		03:25* – 04:28*	1h 03m	M <sub>\</sub> bis AN <sub>-</sub>	◐	09:59	02:29	04:30	36m	05:07	35m	05:42	32m	06:15	12h 01m	18:16	32m	18:48	35m	19:24	36m	20:01	11h 56m	8h 27m					So, 17. Mrz
Mo, 18. Mrz		04:08* – 04:26*	17m	M <sub>\</sub> bis AN <sub>-</sub>		10:58	03:25	04:28	36m	05:05	35m	05:40	32m	06:13	12h 04m	18:17	32m	18:50	35m	19:25	36m	20:02	11h 53m	8h 23m					Mo, 18. Mrz
Di, 19. Mrz		—:~:~:~	—	Mond stört		12:04	04:08	04:26	36m	05:03	35m	05:38	32m	06:11	12h 08m	18:19	32m	18:51	35m	19:27	37m	20:04	11h 49m	8h 20m					Di, 19. Mrz
Mi, 20. Mrz		—:~:~:~	—	Mond stört		13:13	04:41	04:24	37m	05:01	35m	05:36	32m	06:09	12h 11m	18:20	32m	18:53	35m	19:28	37m	20:05	11h 46m	8h 16m					Mi, 20. Mrz
Do, 21. Mrz		—:~:~:~	—	Mond stört		14:22	05:05	04:22	37m	04:59	35m	05:34	32m	06:07	12h 14m	18:22	32m	18:54	35m	19:30	37m	20:07	11h 43m	8h 12m					Do, 21. Mrz
Fr, 22. Mrz		—:~:~:~	—	Mond stört		15:30	05:24	04:19	37m	04:57	35m	05:32	32m	06:05	12h 18m	18:23	32m	18:56	35m	19:31	37m	20:09	11h 39m	8h 08m					Fr, 22. Mrz
Sa, 23. Mrz		—:~:~:~	—	Mond stört		16:37	05:40	04:17	37m	04:55	35m	05:30	32m	06:03	12h 21m	18:24	32m	18:57	35m	19:33	37m	20:10	11h 36m	8h 04m					Sa, 23. Mrz
So, 24. Mrz		—:~:~:~	—	Mond stört		17:42	05:55	04:15	37m	04:52	35m	05:28	32m	06:01	12h 25m	18:26	32m	18:59	35m	19:34	37m	20:12	11h 32m	8h 00m					So, 24. Mrz
Mo, 25. Mrz		—:~:~:~	—	Mond stört	○	18:48	06:08	04:13	37m	04:50	35m	05:26	32m	05:59	12h 28m	18:27	32m	19:00	35m	19:36	37m	20:14	11h 29m	7h 56m					Mo, 25. Mrz
Di, 26. Mrz		—:~:~:~	—	Mond stört		19:54	06:21	04:10	37m	04:48	35m	05:24	32m	05:57	12h 32m	18:29	32m	19:01	35m	19:37	38m	20:16	11h 25m	7h 52m					Di, 26. Mrz
Mi, 27. Mrz		20:17 – 21:02	45m	AN <sub>+</sub> bis M <sub>7</sub>		21:02	06:36	04:08	38m	04:46	35m	05:22	32m	05:55	12h 35m	18:30	32m	19:03	36m	19:39	38m	20:17	11h 22m	7h 48m					Mi, 27. Mrz
Do, 28. Mrz		20:19 – 22:13	1h 54m	AN <sub>+</sub> bis M <sub>7</sub>		22:13	06:53	04:06	38m	04:44	35m	05:20	32m	05:53	12h 38m	18:31	32m	19:04	36m	19:40	38m	20:19	11h 19m	7h 44m					Do, 28. Mrz
Fr, 29. Mrz		20:21 – 23:26	3h 05m	AN <sub>+</sub> bis M <sub>7</sub>		23:26	07:15	04:03	38m	04:42	36m	05:18	32m	05:51	12h 42m	18:33	32m	19:06	36m	19:42	38m	20:21	11h 15m	7h 40m					Fr, 29. Mrz
Sa, 30. Mrz		20:23 – 00:37*	4h 14m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	07:42	04:01	38m	04:40	36m	05:16	32m	05:49	12h 45m	18:34	32m	19:07	36m	19:44	38m	20:23	11h 12m	7h 35m					Sa, 30. Mrz
So, 31. Mrz	MESZ	21:24 – 02:44*	5h 19m	AN <sub>+</sub> bis M <sub>7</sub>		01:37	09:20	04:59	38m	05:37	36m	06:14	32m	06:47	12h 49m	19:36	33m	20:09	36m	20:45	39m	21:24	11h 08m	7h 31m					So, 31. Mrz
Mo, 1. Apr	MESZ	21:26 – 03:40*	6h 14m	AN <sub>+</sub> bis M <sub>7</sub>		02:44	10:11	04:56	39m	05:35	36m	06:12	33m	06:45	12h 52m	19:37	33m	20:10	36m	20:47	39m	21:26	11h						

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

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



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

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
2024	Zeit- 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	21:24 – 04:45*	7h 21m	AN <sub>+</sub> bis AN <sub>-</sub>		10:58	20:57	04:44	39m	05:23	36m	06:00	33m	06:34	13h 00m	19:35	33m	20:08	36m	20:44	39m	21:24	11h 00m	7h 21m					Sa, 7. Sep
So, 8. Sep	MESZ	21:22 – 04:47*	7h 25m	AN <sub>+</sub> bis AN <sub>-</sub>		12:07	21:17	04:45	39m	05:25	36m	06:02	33m	06:35	12h 57m	19:33	33m	20:06	36m	20:42	39m	21:22	11h 03m	7h 25m					So, 8. Sep
Mo, 9. Sep	MESZ	21:42 – 04:49*	7h 06m	M <sub>\</sub> bis AN <sub>-</sub>		13:17	21:42	04:47	39m	05:27	36m	06:03	33m	06:36	12h 54m	19:31	33m	20:04	36m	20:40	39m	21:19	11h 07m	7h 29m					Mo, 9. Sep
Di, 10. Sep	MESZ	22:16 – 04:51*	6h 34m	M <sub>\</sub> bis AN <sub>-</sub>		14:28	22:16	04:49	39m	05:28	36m	06:05	33m	06:38	12h 50m	19:29	32m	20:01	36m	20:38	38m	21:17	11h 10m	7h 33m					Di, 10. Sep
Mi, 11. Sep	MESZ	23:02 – 04:52*	5h 50m	M <sub>\</sub> bis AN <sub>-</sub>	☾	15:35	23:02	04:51	39m	05:30	36m	06:06	33m	06:39	12h 47m	19:26	32m	19:59	36m	20:36	38m	21:14	11h 13m	7h 37m					Mi, 11. Sep
Do, 12. Sep	MESZ	00:02* – 04:54*	4h 51m	M <sub>\</sub> bis AN <sub>-</sub>		16:33	—:—	04:52	38m	05:31	36m	06:07	32m	06:40	12h 44m	19:24	32m	19:57	36m	20:33	38m	21:12	11h 17m	7h 41m					Do, 12. Sep
Fr, 13. Sep	MESZ	01:16* – 04:56*	3h 39m	M <sub>\</sub> bis AN <sub>-</sub>		17:21	00:02	04:54	38m	05:33	36m	06:09	32m	06:42	12h 40m	19:22	32m	19:55	36m	20:31	38m	21:10	11h 20m	7h 45m					Fr, 13. Sep
Sa, 14. Sep	MESZ	02:38* – 04:57*	2h 18m	M <sub>\</sub> bis AN <sub>-</sub>		17:57	01:16	04:56	38m	05:34	36m	06:10	32m	06:43	12h 37m	19:20	32m	19:53	35m	20:29	38m	21:07	11h 23m	7h 49m					Sa, 14. Sep
So, 15. Sep	MESZ	04:05* – 04:59*	53m	M <sub>\</sub> bis AN <sub>-</sub>		18:26	02:38	04:57	38m	05:35	35m	06:11	32m	06:44	12h 34m	19:18	32m	19:51	35m	20:27	38m	21:05	11h 27m	7h 53m					So, 15. Sep
Mo, 16. Sep	MESZ	—:—:—:—	–	Mond stört		18:48	04:05	04:59	38m	05:37	35m	06:13	32m	06:46	12h 30m	19:16	32m	19:49	35m	20:25	37m	21:03	11h 30m	7h 57m					Mo, 16. Sep
Di, 17. Sep	MESZ	—:—:—:—	–	Mond stört		19:07	05:32	05:00	37m	05:38	35m	06:14	32m	06:47	12h 27m	19:14	32m	19:47	35m	20:23	37m	21:00	11h 33m	8h 01m					Di, 17. Sep
Mi, 18. Sep	MESZ	—:—:—:—	–	Mond stört	☾	19:26	06:58	05:02	37m	05:40	35m	06:16	32m	06:48	12h 23m	19:12	32m	19:45	35m	20:20	37m	20:58	11h 37m	8h 05m					Mi, 18. Sep
Do, 19. Sep	MESZ	—:~:~:~:~	–	Mond stört		19:44	08:25	05:04	37m	05:41	35m	06:17	32m	06:50	12h 20m	19:10	32m	19:43	35m	20:18	37m	20:56	11h 40m	8h 09m					Do, 19. Sep
Fr, 20. Sep	MESZ	—:~:~:~:~	–	Mond stört		20:05	09:52	05:05	37m	05:43	35m	06:18	32m	06:51	12h 17m	19:08	32m	19:41	35m	20:16	37m	20:53	11h 44m	8h 13m					Fr, 20. Sep
Sa, 21. Sep	MESZ	—:~:~:~:~	–	Mond stört		20:30	11:19	05:07	37m	05:44	35m	06:20	32m	06:52	12h 13m	19:06	32m	19:39	35m	20:14	37m	20:51	11h 47m	8h 17m					Sa, 21. Sep
So, 22. Sep	MESZ	20:49 – 21:03	13m	AN <sub>+</sub> bis M <sub>7</sub>		21:03	12:45	05:08	37m	05:46	35m	06:21	32m	06:54	12h 10m	19:04	32m	19:37	35m	20:12	37m	20:49	11h 50m	8h 21m					So, 22. Sep
Mo, 23. Sep	MESZ	20:47 – 21:45	58m	AN <sub>+</sub> bis M <sub>7</sub>		21:45	14:04	05:10	37m	05:47	35m	06:22	32m	06:55	12h 07m	19:02	32m	19:34	35m	20:10	36m	20:47	11h 54m	8h 24m					Mo, 23. Sep
Di, 24. Sep	MESZ	20:44 – 22:39	1h 55m	AN <sub>+</sub> bis M <sub>7</sub>	☾	22:39	15:12	05:11	36m	05:48	35m	06:24	32m	06:56	12h 03m	19:00	32m	19:32	35m	20:08	36m	20:44	11h 57m	8h 28m					Di, 24. Sep
Mi, 25. Sep	MESZ	20:42 – 23:44	3h 02m	AN <sub>+</sub> bis M <sub>7</sub>		23:44	16:06	05:13	36m	05:50	35m	06:25	32m	06:58	12h 00m	18:58	32m	19:30	35m	20:05	36m	20:42	12h 00m	8h 32m					Mi, 25. Sep
Do, 26. Sep	MESZ	20:40 – 00:55*	4h 14m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	16:45	05:15	36m	05:51	35m	06:26	32m	06:59	11h 56m	18:56	32m	19:28	35m	20:03	36m	20:40	12h 04m	8h 36m					Do, 26. Sep
Fr, 27. Sep	MESZ	20:38 – 02:07*	5h 29m	AN <sub>+</sub> bis M <sub>7</sub>		00:55	17:14	05:16	36m	05:53	35m	06:28	32m	07:00	11h 53m	18:54	32m	19:26	34m	20:01	36m	20:38	12h 07m	8h 39m					Fr, 27. Sep
Sa, 28. Sep	MESZ	20:36 – 03:17*	6h 41m	AN <sub>+</sub> bis M <sub>7</sub>		02:07	17:36	05:18	36m	05:54	35m	06:29	32m	07:02	11h 50m	18:52	32m	19:24	34m	19:59	36m	20:36	12h 11m	8h 43m					Sa, 28. Sep
So, 29. Sep	MESZ	20:33 – 04:26*	7h 52m	AN <sub>+</sub> bis M <sub>7</sub>		03:17	17:54	05:19	36m	05:56	35m	06:31	32m	07:03	11h 46m	18:50	32m	19:22	34m	19:57	36m	20:33	12h 14m	8h 47m					So, 29. Sep
Mo, 30. Sep	MESZ	20:31 – 05:22*	8h 50m	AN <sub>+</sub> bis AN <sub>-</sub>		04:26	18:09	05:21	36m	05:57	34m	06:32	32m	07:04	11h 43m	18:48	32m	19:20	34m	19:55	36m	20:31	12h 17m	8h 50m					Mo, 30. Sep
Di, 1. Okt	MESZ	20:29 – 05:24*	8h 54m	AN <sub>+</sub> bis AN <sub>-</sub>		05:32	18:22	05:22	36m	05:58	34m	06:33	32m	07:06	11h 40m	18:46	32m	19:18	34m	19:53	36m	20:29	12h 21m	8h 54m					Di, 1. Okt
Mi, 2. Okt	MESZ	20:27 – 05:25*	8h 57m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	06:37	18:35	05:24	36m	06:00	34m	06:35	32m	07:07	11h 36m	18:44	32m	19:16	34m	19:51	36m	20:27	12h 24m	8h 57m					Mi, 2. Okt
Do, 3. Okt	MESZ	20:25 – 05:26*	9h 01m	AN <sub>+</sub> bis AN <sub>-</sub>		07:43	18:49	05:25	36m	06:01	34m	06:36	32m	07:08	11h 33m	18:42	32m	19:14	34m	19:49	35m	20:25	12h 28m	9h 01m					Do, 3. Okt
Fr, 4. Okt	MESZ	20:23 – 05:28*	9h 04m	AN <sub>+</sub> bis AN <sub>-</sub>		08:49	19:04	05:26	36m	06:02	34m	06:37	32m	07:10	11h 30m	18:40	32m	19:12	34m	19:47	35m	20:23	12h 31m	9h 04m					Fr, 4. Okt
Sa, 5. Okt	MESZ	20:21 – 05:29*	9h 08m	AN <sub>+</sub> bis AN <sub>-</sub>		09:57	19:22	05:28	35m	06:04	34m	06:39	32m	07:11	11h 26m	18:38	32m	19:10	34m	19:45	35m	20:21	12h 34m	9h 08m					Sa, 5. Okt
So, 6. Okt	MESZ	20:19 – 05:31*	9h 11m	AN <sub>+</sub> bis AN <sub>-</sub>		11:07	19:45	05:29	35m	06:05	34m	06:40	32m	07:13	11h 23m	18:36	32m	19:08	34m	19:43	35m	20:19	12h 38m	9h 11m					So, 6. Okt
Mo, 7. Okt	MESZ	20:17 – 05:32*	9h 15m	AN <sub>+</sub> bis AN <sub>-</sub>		12:17	20:16	05:31	35m	06:07	34m	06:41	32m	07:14	11h 19m	18:34	32m	19:06	34m	19:41	35m	20:17	12h 41m	9h 15m					Mo, 7. Okt
Di, 8. Okt	MESZ	20:56 – 05:34*	8h 37m	M <sub>\</sub> bis AN <sub>-</sub>		13:25	20:56	05:32	35m	06:08	34m	06:43	32m	07:15	11h 16m	18:32	32m	19:05	34m	19:39	35m	20:15	12h 44m	9h 18m					Di, 8. Okt
Mi, 9. Okt	MESZ	21:50 – 05:35*	7h 45m	M <sub>\</sub> bis AN <sub>-</sub>		14:25	21:50	05:34	35m	06:09	34m	06:44	32m	07:17	11h 13m	18:30	32m	19:03	34m	19:37	35m	20:13	12h 48m	9h 22m					Mi, 9. Okt
Do, 10. Okt	MESZ	22:57 – 05:36*	6h 39m	M <sub>\</sub> bis AN <sub>-</sub>	☾	15:16	22:57	05:35	35m	06:11	34m	06:46	32m	07:18	11h 09m	18:28	32m	19:01	34m	19:35	35m	20:11	12h 51m	9h 25m					Do, 10. Okt
Fr, 11. Okt	MESZ	00:13* – 05:38*	5h 24m	M <sub>\</sub> bis AN <sub>-</sub>		15:55	—:—	05:36	35m	06:12	34m	06:47	32m	07:20	11h 06m	18:26	32m	18:59	34m	19:34	35m	20:09	12h 54m	9h 28m					Fr, 11. Okt
Sa, 12. Okt	MESZ	01:35* – 05:39*	4h 03m	M <sub>\</sub> bis AN <sub>-</sub>		16:25	00:13	05:38	35m	06:13	34m	06:48	32m	07:21	11h 03m	18:24	32m	18:57	34m	19:32	35m	20:07	12h 58m	9h 31m					Sa, 12. Okt
So, 13. Okt	MESZ	03:00* – 05:41*	2h 41m	M <sub>\</sub> bis AN <sub>-</sub>		16:49	01:35	05:39	35m	06:15	34m	06:50	32m	07:22	10h 59m	18:22	32m	18:55	34m	19:30	35m	20:05	13h 01m	9h 35m					So, 13. Okt
Mo, 14. Okt	MESZ	04:24* – 05:42*	1h 17m	M <sub>\</sub> bis AN <sub>-</sub>		17:09	03:00	05:41	35m	06:16	34m	06:51	32m	07:24	10h 56m	18:21	32m	18:53	34m	19:28	35m	20:04	13h 04m	9h 38m					Mo, 14. Okt
Di, 15. Okt	MESZ	—:~:~:~:~	–	Mond stört		17:28	04:24	05:42	35m	06:18	34m	06:52	32m	07:25	10h 53m	18:19	32m	18:51	34m	19:26	35m	20:02	13h 08m	9h 41m					Di, 15. Okt
Mi, 16. Okt	MESZ	—:~:~:~:~	–	Mond stört		17:46	05:50	05:43	35m	06:19	34m	06:54	32m	07:27	10h 50m	18:17	32m	18:50	34m	19:24	35m	20:00	13h 11m	9h 44m					Mi, 16. Okt
Do, 17. Okt	MESZ	—:~:~:~:~	–	Mond stört	☾	18:05	07:16	05:45	35m	06:20	34m	06:55	32m	07:28	10h 46m	18:15	32m	18:48	34m	19:23	35m	19:58	13h 14m	9h 48m					Do, 17. Okt
Fr, 18. Okt	MESZ	—:~:~:~:~	–	Mond stört		18:29	08:45</																						

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