

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Sedan 49.7025° N 4.9411° 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		18:49 – 22:33	3h 44m	AN <sub>+</sub> bis M <sub>7</sub>		22:33	11:43	06:37	39m	07:16	40m	07:56	40m	08:36	8h 13m	16:50	40m	17:30	40m	18:10	39m	18:49	15h 46m	11h 48m					Mo, 1. Jan
Di, 2. Jan		18:50 – 23:41	4h 50m	AN <sub>+</sub> bis M <sub>7</sub>		23:41	11:55	06:37	38m	07:16	40m	07:56	40m	08:36	8h 14m	16:51	40m	17:31	40m	18:11	38m	18:50	15h 45m	11h 47m					Di, 2. Jan
Mi, 3. Jan		18:51 – 00:49*	5h 57m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	12:07	06:37	38m	07:16	40m	07:56	40m	08:36	8h 15m	16:52	40m	17:32	40m	18:12	38m	18:51	15h 44m	11h 46m					Mi, 3. Jan
Do, 4. Jan		18:52 – 01:58*	7h 06m	AN <sub>+</sub> bis M <sub>7</sub>	☾	00:49	12:18	06:37	38m	07:16	40m	07:56	39m	08:36	8h 16m	16:53	39m	17:33	40m	18:13	38m	18:52	15h 43m	11h 45m					Do, 4. Jan
Fr, 5. Jan		18:53 – 03:11*	8h 17m	AN <sub>+</sub> bis M <sub>7</sub>		01:58	12:32	06:37	38m	07:16	39m	07:56	39m	08:36	8h 18m	16:54	39m	17:34	39m	18:14	38m	18:53	15h 41m	11h 44m					Fr, 5. Jan
Sa, 6. Jan		18:54 – 04:27*	9h 33m	AN <sub>+</sub> bis M <sub>7</sub>		03:11	12:48	06:37	38m	07:16	39m	07:56	39m	08:36	8h 19m	16:55	39m	17:35	39m	18:15	38m	18:54	15h 40m	11h 43m					Sa, 6. Jan
So, 7. Jan		18:55 – 05:47*	10h 52m	AN <sub>+</sub> bis M <sub>7</sub>		04:27	13:08	06:37	38m	07:16	39m	07:56	39m	08:35	8h 21m	16:56	39m	17:36	39m	18:16	38m	18:55	15h 38m	11h 42m					So, 7. Jan
Mo, 8. Jan		18:56 – 06:37*	11h 40m	AN <sub>+</sub> bis AN <sub>-</sub>		05:47	13:38	06:37	38m	07:16	39m	07:55	39m	08:35	8h 22m	16:58	39m	17:37	39m	18:17	38m	18:56	15h 36m	11h 40m					Mo, 8. Jan
Di, 9. Jan		18:57 – 06:36*	11h 39m	AN <sub>+</sub> bis AN <sub>-</sub>		07:05	14:19	06:37	38m	07:15	39m	07:55	39m	08:35	8h 24m	16:59	39m	17:38	39m	18:18	38m	18:57	15h 35m	11h 39m					Di, 9. Jan
Mi, 10. Jan		18:58 – 06:36*	11h 38m	AN <sub>+</sub> bis AN <sub>-</sub>		08:15	15:19	06:36	38m	07:15	39m	07:55	39m	08:34	8h 26m	17:00	39m	17:40	39m	18:19	38m	18:58	15h 33m	11h 38m					Mi, 10. Jan
Do, 11. Jan		18:59 – 06:36*	11h 36m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	09:11	16:36	06:36	38m	07:15	39m	07:54	39m	08:34	8h 27m	17:02	39m	17:41	39m	18:20	38m	18:59	15h 31m	11h 36m					Do, 11. Jan
Fr, 12. Jan		19:00 – 06:35*	11h 35m	AN <sub>+</sub> bis AN <sub>-</sub>		09:51	18:04	06:36	38m	07:14	39m	07:54	39m	08:33	8h 29m	17:03	39m	17:42	39m	18:22	38m	19:00	15h 29m	11h 35m					Fr, 12. Jan
Sa, 13. Jan		19:35 – 06:35*	10h 59m	M <sub>\</sub> bis AN <sub>-</sub>		10:20	19:35	06:35	38m	07:14	39m	07:53	39m	08:33	8h 31m	17:04	39m	17:43	39m	18:23	38m	19:01	15h 27m	11h 33m					Sa, 13. Jan
So, 14. Jan		21:04 – 06:35*	9h 30m	M <sub>\</sub> bis AN <sub>-</sub>		10:41	21:04	06:35	38m	07:14	39m	07:53	38m	08:32	8h 33m	17:06	39m	17:45	39m	18:24	38m	19:03	15h 25m	11h 32m					So, 14. Jan
Mo, 15. Jan		22:30 – 06:34*	8h 04m	M <sub>\</sub> bis AN <sub>-</sub>		10:58	22:30	06:35	38m	07:13	39m	07:52	38m	08:31	8h 35m	17:07	38m	17:46	39m	18:25	38m	19:04	15h 23m	11h 30m					Mo, 15. Jan
Di, 16. Jan		23:53 – 06:34*	6h 40m	M <sub>\</sub> bis AN <sub>-</sub>		11:13	23:53	06:34	38m	07:12	39m	07:52	38m	08:30	8h 38m	17:09	38m	17:47	39m	18:27	38m	19:05	15h 21m	11h 28m					Di, 16. Jan
Mi, 17. Jan		01:15* – 06:33*	5h 18m	M <sub>\</sub> bis AN <sub>-</sub>		11:28	—:—	06:34	38m	07:12	39m	07:51	38m	08:30	8h 40m	17:10	38m	17:49	39m	18:28	38m	19:06	15h 18m	11h 26m					Mi, 17. Jan
Do, 18. Jan		02:36* – 06:32*	3h 56m	M <sub>\</sub> bis AN <sub>-</sub>	☾	11:44	01:15	06:33	38m	07:11	39m	07:50	38m	08:29	8h 42m	17:12	38m	17:50	39m	18:29	38m	19:07	15h 16m	11h 24m					Do, 18. Jan
Fr, 19. Jan		03:57* – 06:32*	2h 34m	M <sub>\</sub> bis AN <sub>-</sub>		12:02	02:36	06:32	38m	07:11	38m	07:50	38m	08:28	8h 45m	17:13	38m	17:52	38m	18:30	38m	19:09	15h 13m	11h 22m					Fr, 19. Jan
Sa, 20. Jan		05:16* – 06:31*	1h 15m	M <sub>\</sub> bis AN <sub>-</sub>		12:26	03:57	06:32	38m	07:10	38m	07:49	38m	08:27	8h 47m	17:15	38m	17:53	38m	18:32	38m	19:10	15h 11m	11h 20m					Sa, 20. Jan
So, 21. Jan		06:28* – 06:30*	2m	M <sub>\</sub> bis AN <sub>-</sub>		12:57	05:16	06:31	38m	07:09	38m	07:48	38m	08:26	8h 50m	17:16	38m	17:54	38m	18:33	38m	19:11	15h 08m	11h 18m					So, 21. Jan
Mo, 22. Jan		—:—:—:—:—	–	Mond stört		13:38	06:28	06:30	38m	07:08	38m	07:47	38m	08:25	8h 52m	17:18	38m	17:56	38m	18:35	38m	19:13	15h 06m	11h 16m					Mo, 22. Jan
Di, 23. Jan		—:—:—:—:—	–	Mond stört		14:32	07:28	06:29	37m	07:07	38m	07:46	37m	08:24	8h 55m	17:19	37m	17:57	38m	18:36	38m	19:14	15h 03m	11h 14m					Di, 23. Jan
Mi, 24. Jan		—:—:—:—:—	–	Mond stört		15:36	08:15	06:29	37m	07:07	38m	07:45	37m	08:23	8h 58m	17:21	37m	17:59	38m	18:37	37m	19:15	15h 00m	11h 12m					Mi, 24. Jan
Do, 25. Jan		—:~:~:~:~:~	–	Mond stört	☾	16:47	08:50	06:28	37m	07:06	38m	07:44	37m	08:22	9h 00m	17:23	37m	18:00	38m	18:39	37m	19:17	14h 57m	11h 10m					Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~:~	–	Mond stört		18:00	09:15	06:27	37m	07:05	38m	07:43	37m	08:21	9h 03m	17:24	37m	18:02	38m	18:40	37m	19:18	14h 55m	11h 07m					Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~:~	–	Mond stört		19:11	09:34	06:26	37m	07:04	38m	07:42	37m	08:19	9h 06m	17:26	37m	18:03	38m	18:42	37m	19:19	14h 52m	11h 05m					Sa, 27. Jan
So, 28. Jan		19:21 – 20:21	59m	AN <sub>+</sub> bis M <sub>7</sub>		20:21	09:49	06:25	37m	07:03	38m	07:41	37m	08:18	9h 09m	17:28	37m	18:05	38m	18:43	37m	19:21	14h 49m	11h 03m					So, 28. Jan
Mo, 29. Jan		19:22 – 21:28	2h 06m	AN <sub>+</sub> bis M <sub>7</sub>		21:28	10:01	06:24	37m	07:02	38m	07:40	37m	08:17	9h 12m	17:29	37m	18:06	38m	18:44	37m	19:22	14h 46m	11h 00m					Mo, 29. Jan
Di, 30. Jan		19:24 – 22:36	3h 12m	AN <sub>+</sub> bis M <sub>7</sub>		22:36	10:13	06:23	37m	07:01	37m	07:38	37m	08:16	9h 15m	17:31	37m	18:08	38m	18:46	37m	19:24	14h 43m	10h 58m					Di, 30. Jan
Mi, 31. Jan		19:25 – 23:44	4h 18m	AN <sub>+</sub> bis M <sub>7</sub>		23:44	10:24	06:22	37m	06:59	37m	07:37	36m	08:14	9h 18m	17:33	36m	18:09	37m	18:47	37m	19:25	14h 40m	10h 55m					Mi, 31. Jan
Do, 1. Feb		19:26 – 00:54*	5h 27m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	10:37	06:21	37m	06:58	37m	07:36	36m	08:13	9h 21m	17:34	36m	18:11	37m	18:49	37m	19:26	14h 37m	10h 52m					Do, 1. Feb
Fr, 2. Feb		19:28 – 02:07*	6h 39m	AN <sub>+</sub> bis M <sub>7</sub>		00:54	10:51	06:19	37m	06:57	37m	07:35	36m	08:11	9h 24m	17:36	36m	18:13	37m	18:50	37m	19:28	14h 33m	10h 50m					Fr, 2. Feb
Sa, 3. Feb		19:29 – 03:23*	7h 54m	AN <sub>+</sub> bis M <sub>7</sub>	☾	02:07	11:09	06:18	37m	06:56	37m	07:33	36m	08:10	9h 27m	17:38	36m	18:14	37m	18:52	37m	19:29	14h 30m	10h 47m					Sa, 3. Feb
So, 4. Feb		19:31 – 04:41*	9h 10m	AN <sub>+</sub> bis M <sub>7</sub>		03:23	11:33	06:17	37m	06:54	37m	07:32	36m	08:08	9h 30m	17:39	36m	18:16	37m	18:53	37m	19:31	14h 27m	10h 44m					So, 4. Feb
Mo, 5. Feb		19:32 – 05:54*	10h 21m	AN <sub>+</sub> bis M <sub>7</sub>		04:41	12:07	06:16	37m	06:53	37m	07:31	36m	08:07	9h 34m	17:41	36m	18:17	37m	18:55	37m	19:32	14h 24m	10h 42m					Mo, 5. Feb
Di, 6. Feb		19:34 – 06:13*	10h 39m	AN <sub>+</sub> bis AN <sub>-</sub>		05:54	12:56	06:14	37m	06:52	37m	07:29	36m	08:05	9h 37m	17:43	36m	18:19	37m	18:56	37m	19:34	14h 21m	10h 39m					Di, 6. Feb
Mi, 7. Feb		19:35 – 06:12*	10h 36m	AN <sub>+</sub> bis AN <sub>-</sub>		06:56	14:04	06:13	37m	06:50	37m	07:28	36m	08:04	9h 40m	17:44	36m	18:21	37m	18:58	37m	19:35	14h 17m	10h 36m					Mi, 7. Feb
Do, 8. Feb		19:37 – 06:10*	10h 33m	AN <sub>+</sub> bis AN <sub>-</sub>		07:43	15:28	06:12	37m	06:49	37m	07:26	35m	08:02	9h 43m	17:46	35m	18:22	37m	18:59	37m	19:37	14h 14m	10h 33m					Do, 8. Feb
Fr, 9. Feb		19:38 – 06:09*	10h 30m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	08:17	17:00	06:10	37m	06:48	37m	07:25	35m	08:01	9h 47m	17:48	35m	18:24	37m	19:01	37m	19:38	14h 11m	10h 30m					Fr, 9. Feb
Sa, 10. Feb		19:40 – 06:07*	10h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		08:42	18:33	06:09	37m	06:46	37m	07:23	35m	07:59	9h 50m	17:50	35m	18:25	37m	19:03	37m	19:40	14h 07m	10h 27m					Sa, 10. Feb
So, 11. Feb		20:03 – 06:06*	10h 02m	M <sub>\</sub> bis AN <sub>-</sub>		09:01	20:03	06:07	37m	06:45	37m	07:22	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		13:27	06:16	05:53	37m	06:30	36m	07:06	34m	07:41	10h 25m	18:07	34m	18:41	36m	19:18	37m	19:55	13h 32m	9h 55m				Di, 20. Feb
Mi, 21. Feb		—:—:—:—	—	Mond stört		14:36	06:53	05:51	37m	06:28	36m	07:05	34m	07:39	10h 28m	18:08	34m	18:43	36m	19:20	37m	19:57	13h 29m	9h 52m				Mi, 21. Feb
Do, 22. Feb		—:—:~:~:~	—	Mond stört		15:48	07:20	05:49	37m	06:26	36m	07:03	34m	07:37	10h 32m	18:10	34m	18:45	36m	19:21	37m	19:58	13h 25m	9h 48m				Do, 22. Feb
Fr, 23. Feb		—:~:~:~:~	—	Mond stört		17:00	07:40	05:47	37m	06:24	36m	07:01	34m	07:35	10h 36m	18:12	34m	18:46	36m	19:23	37m	20:00	13h 21m	9h 45m				Fr, 23. Feb
Sa, 24. Feb		—:~:~:~:~	—	Mond stört	○	18:10	07:56	05:45	37m	06:22	36m	06:59	34m	07:33	10h 39m	18:13	34m	18:48	36m	19:24	37m	20:02	13h 18m	9h 41m				Sa, 24. Feb
So, 25. Feb		—:~:~:~:~	—	Mond stört		19:18	08:09	05:43	37m	06:21	36m	06:57	34m	07:32	10h 43m	18:15	34m	18:49	36m	19:26	37m	20:03	13h 14m	9h 38m				So, 25. Feb
Mo, 26. Feb		20:05–20:26	20m	AN <sub>+</sub> bis M <sub>7</sub>		20:26	08:21	05:42	37m	06:19	36m	06:55	34m	07:30	10h 47m	18:17	34m	18:51	36m	19:28	37m	20:05	13h 10m	9h 34m				Mo, 26. Feb
Di, 27. Feb		20:06–21:33	1h 26m	AN <sub>+</sub> bis M <sub>7</sub>		21:33	08:32	05:40	37m	06:17	36m	06:53	34m	07:28	10h 50m	18:18	34m	18:53	36m	19:29	37m	20:06	13h 07m	9h 31m				Di, 27. Feb
Mi, 28. Feb		20:08–22:42	2h 34m	AN <sub>+</sub> bis M <sub>7</sub>		22:42	08:44	05:38	37m	06:15	36m	06:51	34m	07:26	10h 54m	18:20	34m	18:54	36m	19:31	37m	20:08	13h 03m	9h 27m				Mi, 28. Feb
Do, 29. Feb		20:10–23:54	3h 44m	AN <sub>+</sub> bis M <sub>7</sub>		23:54	08:57	05:36	37m	06:13	36m	06:49	34m	07:24	10h 57m	18:22	34m	18:56	36m	19:32	37m	20:10	13h 00m	9h 23m				Do, 29. Feb
Fr, 1. Mrz		20:11–01:08*	4h 56m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	09:13	05:34	37m	06:11	36m	06:47	34m	07:22	11h 01m	18:23	34m	18:57	36m	19:34	37m	20:11	12h 56m	9h 20m				Fr, 1. Mrz
Sa, 2. Mrz		20:13–02:24*	6h 10m	AN <sub>+</sub> bis M <sub>7</sub>		01:08	09:34	05:32	37m	06:09	36m	06:45	34m	07:20	11h 05m	18:25	34m	18:59	36m	19:36	37m	20:13	12h 52m	9h 16m				Sa, 2. Mrz
So, 3. Mrz		20:15–03:37*	7h 22m	AN <sub>+</sub> bis M <sub>7</sub>	●	02:24	10:02	05:30	37m	06:07	36m	06:43	34m	07:17	11h 08m	18:26	34m	19:01	36m	19:37	37m	20:15	12h 48m	9h 12m				So, 3. Mrz
Mo, 4. Mrz		20:16–04:43*	8h 26m	AN <sub>+</sub> bis M <sub>7</sub>		03:37	10:43	05:27	37m	06:05	36m	06:41	34m	07:15	11h 12m	18:28	34m	19:02	36m	19:39	37m	20:16	12h 45m	9h 08m				Mo, 4. Mrz
Di, 5. Mrz		20:18–05:23*	9h 05m	AN <sub>+</sub> bis AN <sub>-</sub>		04:43	11:41	05:25	37m	06:03	36m	06:39	34m	07:13	11h 16m	18:30	34m	19:04	36m	19:40	37m	20:18	12h 41m	9h 05m				Di, 5. Mrz
Mi, 6. Mrz		20:20–05:21*	9h 01m	AN <sub>+</sub> bis AN <sub>-</sub>		05:35	12:55	05:23	37m	06:01	36m	06:37	34m	07:11	11h 20m	18:31	34m	19:05	36m	19:42	37m	20:20	12h 37m	9h 01m				Mi, 6. Mrz
Do, 7. Mrz		20:21–05:19*	8h 57m	AN <sub>+</sub> bis AN <sub>-</sub>		06:14	14:22	05:21	37m	05:59	36m	06:35	34m	07:09	11h 23m	18:33	34m	19:07	36m	19:44	37m	20:21	12h 34m	8h 57m				Do, 7. Mrz
Fr, 8. Mrz		20:23–05:17*	8h 53m	AN <sub>+</sub> bis AN <sub>-</sub>		06:42	15:54	05:19	37m	05:57	36m	06:33	33m	07:07	11h 27m	18:35	34m	19:09	36m	19:45	37m	20:23	12h 30m	8h 53m				Fr, 8. Mrz
Sa, 9. Mrz		20:25–05:14*	8h 49m	AN <sub>+</sub> bis AN <sub>-</sub>		07:03	17:26	05:17	37m	05:55	36m	06:31	33m	07:05	11h 31m	18:36	34m	19:10	36m	19:47	38m	20:25	12h 26m	8h 49m				Sa, 9. Mrz
So, 10. Mrz		20:27–05:12*	8h 45m	AN <sub>+</sub> bis AN <sub>-</sub>	●	07:21	18:56	05:14	37m	05:52	36m	06:29	33m	07:03	11h 34m	18:38	34m	19:12	36m	19:48	38m	20:27	12h 22m	8h 45m				So, 10. Mrz
Mo, 11. Mrz		20:28–05:10*	8h 41m	AN <sub>+</sub> bis AN <sub>-</sub>		07:36	20:25	05:12	38m	05:50	36m	06:27	33m	07:01	11h 38m	18:39	34m	19:13	36m	19:50	38m	20:28	12h 19m	8h 41m				Mo, 11. Mrz
Di, 12. Mrz		21:53–05:08*	7h 14m	M <sub>7</sub> bis AN <sub>-</sub>		07:52	21:53	05:10	38m	05:48	36m	06:25	33m	06:59	11h 42m	18:41	34m	19:15	36m	19:52	38m	20:30	12h 15m	8h 37m				Di, 12. Mrz
Mi, 13. Mrz		23:21–05:05*	5h 43m	M <sub>7</sub> bis AN <sub>-</sub>		08:09	23:21	05:08	38m	05:46	36m	06:23	33m	06:56	11h 46m	18:43	34m	19:17	36m	19:53	38m	20:32	12h 11m	8h 33m				Mi, 13. Mrz
Do, 14. Mrz		00:48*–05:03*	4h 15m	M <sub>7</sub> bis AN <sub>-</sub>		08:30	—:—	05:05	38m	05:44	36m	06:20	33m	06:54	11h 49m	18:44	34m	19:18	36m	19:55	38m	20:34	12h 08m	8h 29m				Do, 14. Mrz
Fr, 15. Mrz		02:08*–05:01*	2h 52m	M <sub>7</sub> bis AN <sub>-</sub>		08:56	00:48	05:03	38m	05:42	36m	06:18	33m	06:52	11h 53m	18:46	34m	19:20	36m	19:57	38m	20:35	12h 04m	8h 25m				Fr, 15. Mrz
Sa, 16. Mrz		03:19*–04:58*	1h 39m	M <sub>7</sub> bis AN <sub>-</sub>		09:31	02:08	05:01	38m	05:39	36m	06:16	33m	06:50	11h 57m	18:47	34m	19:21	36m	19:58	38m	20:37	12h 00m	8h 21m				Sa, 16. Mrz
So, 17. Mrz		04:14*–04:56*	41m	M <sub>7</sub> bis AN <sub>-</sub>	●	10:18	03:19	04:58	38m	05:37	36m	06:14	33m	06:48	12h 00m	18:49	34m	19:23	37m	20:00	38m	20:39	11h 56m	8h 17m				So, 17. Mrz
Mo, 18. Mrz		—:~:~:~:~	—	Mond stört		11:17	04:14	04:56	38m	05:35	36m	06:12	33m	06:46	12h 04m	18:50	34m	19:25	37m	20:02	39m	20:41	11h 53m	8h 12m				Mo, 18. Mrz
Di, 19. Mrz		—:~:~:~:~	—	Mond stört		12:25	04:56	04:54	39m	05:33	37m	06:10	34m	06:44	12h 08m	18:52	34m	19:26	37m	20:03	39m	20:43	11h 49m	8h 08m				Di, 19. Mrz
Mi, 20. Mrz		—:~:~:~:~	—	Mond stört		13:37	05:26	04:51	39m	05:30	37m	06:07	34m	06:41	12h 12m	18:54	34m	19:28	37m	20:05	39m	20:44	11h 45m	8h 04m				Mi, 20. Mrz
Do, 21. Mrz		—:~:~:~:~	—	Mond stört		14:49	05:47	04:49	39m	05:28	37m	06:05	34m	06:39	12h 15m	18:55	34m	19:29	37m	20:07	39m	20:46	11h 41m	8h 00m				Do, 21. Mrz
Fr, 22. Mrz		—:~:~:~:~	—	Mond stört		15:59	06:04	04:46	39m	05:26	37m	06:03	34m	06:37	12h 19m	18:57	34m	19:31	37m	20:08	39m	20:48	11h 38m	7h 55m				Fr, 22. Mrz
Sa, 23. Mrz		—:~:~:~:~	—	Mond stört		17:08	06:18	04:44	39m	05:23	37m	06:01	34m	06:35	12h 23m	18:58	34m	19:33	37m	20:10	39m	20:50	11h 34m	7h 51m				Sa, 23. Mrz
So, 24. Mrz		—:~:~:~:~	—	Mond stört		18:16	06:30	04:41	39m	05:21	37m	05:59	34m	06:33	12h 27m	19:00	34m	19:34	37m	20:12	40m	20:52	11h 30m	7h 46m				So, 24. Mrz
Mo, 25. Mrz		—:~:~:~:~	—	Mond stört	○	19:24	06:41	04:39	40m	05:19	37m	05:56	34m	06:31	12h 30m	19:01	34m	19:36	37m	20:13	40m	20:54	11h 27m	7h 42m				Mo, 25. Mrz
Di, 26. Mrz		—:~:~:~:~	—	Mond stört		20:33	06:52	04:36	40m	05:17	37m	05:54	34m	06:28	12h 34m	19:03	34m	19:37	37m	20:15	40m	20:56	11h 23m	7h 38m				Di, 26. Mrz
Mi, 27. Mrz		20:58–21:44	45m	AN <sub>+</sub> bis M <sub>7</sub>		21:44	07:05	04:34	40m	05:14	37m	05:52	34m	06:26	12h 38m	19:05	34m	19:39	37m	20:17	40m	20:58	11h 19m	7h 33m				Mi, 27. Mrz
Do, 28. Mrz		21:00–22:57	1h 57m	AN <sub>+</sub> bis M <sub>7</sub>		22:57	07:20	04:31	40m	05:12	37m	05:50	34m	06:24	12h 41m	19:06	34m	19:41	38m	20:19	40m	21:00	11h 15m	7h 29m				Do, 28. Mrz
Fr, 29. Mrz		21:02–00:12*	3h 10m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	07:38	04:29	40m	05:10	38m	05:48	34m	06:22	12h 45m	19:08	34m	19:42	38m	20:20	41m	21:02	11h 12m	7h 24m				Fr, 29. Mrz
Sa, 30. Mrz		21:04–01:26*	4h 22m	AN <sub>+</sub> bis M <sub>7</sub>		00:12	08:04	04:26	41m	05:07	38m	05:45	34m	06:20	12h 49m	19:09	34m	19:44	38m	20:22	41m	21:04	11h 08m	7h 19m				Sa, 30. Mrz
So, 31. Mrz	MESZ	22:06–03:34*	5h 28m	AN <sub>+</sub> bis M <sub>7</sub>		02:26	09:40	05:23	41m	06:05	38m	06:43	34m	07:18	12h 53m	20:11	34m	20:45	38m	21:24	41m	22:06	11h 04m	7h 15m				So, 31. Mrz
Mo, 1. Apr	MESZ	22:08–04:29*	6h 21m	AN <sub>+</sub> bis M <sub>7</sub>		03:34	10:29	05:21	41m	06:02	38m	06:41	34m	07:16	12h 56m	20:12	34m	20:47	38m	21:26	41m	22:08	11h 01m	7h 10m				Mo, 1. Apr
Di, 2. Apr	MESZ	22:10–05:11*	7h 01m	AN <sub>+</sub> bis M <sub>7</sub>	●	04:29	11:36	05:18	41m	06:00	38m	06:39	34m	07:13	13h 00m	20:												

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

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



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



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