

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Waidhofen an der Thaya 48.8167° N 15.2833° 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		18:09 – 21:51	3h 42m	AN <sub>+</sub> bis M <sub>7</sub>		21:51	10:59	05:54	38m	06:33	39m	07:12	39m	07:51	8h 21m	16:12	39m	16:51	39m	17:31	38m	18:09	15h 38m	11h 45m				Mo, 1. Jan
Di, 2. Jan		18:10 – 22:58	4h 47m	AN <sub>+</sub> bis M <sub>7</sub>		22:58	11:12	05:54	38m	06:33	39m	07:12	39m	07:51	8h 22m	16:13	39m	16:52	39m	17:32	38m	18:10	15h 37m	11h 44m				Di, 2. Jan
Mi, 3. Jan		18:11 – 00:05*	5h 53m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	11:25	05:55	38m	06:33	39m	07:12	39m	07:51	8h 23m	16:14	39m	16:53	39m	17:33	38m	18:11	15h 36m	11h 43m				Mi, 3. Jan
Do, 4. Jan		18:12 – 01:13*	7h 01m	AN <sub>+</sub> bis M <sub>7</sub>	☾	00:05	11:38	05:55	38m	06:33	39m	07:12	39m	07:51	8h 24m	16:15	39m	16:54	39m	17:34	38m	18:12	15h 35m	11h 42m				Do, 4. Jan
Fr, 5. Jan		18:13 – 02:25*	8h 12m	AN <sub>+</sub> bis M <sub>7</sub>		01:13	11:52	05:55	38m	06:33	39m	07:12	38m	07:51	8h 25m	16:16	38m	16:55	39m	17:35	38m	18:13	15h 34m	11h 41m				Fr, 5. Jan
Sa, 6. Jan		18:14 – 03:40*	9h 26m	AN <sub>+</sub> bis M <sub>7</sub>		02:25	12:08	05:54	38m	06:33	39m	07:12	38m	07:51	8h 26m	16:18	38m	16:56	39m	17:36	38m	18:14	15h 32m	11h 40m				Sa, 6. Jan
So, 7. Jan		18:15 – 04:59*	10h 43m	AN <sub>+</sub> bis M <sub>7</sub>		03:40	12:30	05:54	38m	06:32	39m	07:12	38m	07:50	8h 28m	16:19	38m	16:58	39m	17:37	38m	18:15	15h 31m	11h 39m				So, 7. Jan
Mo, 8. Jan		18:16 – 05:54*	11h 38m	AN <sub>+</sub> bis AN <sub>-</sub>		04:59	13:00	05:54	38m	06:32	38m	07:11	38m	07:50	8h 29m	16:20	38m	16:59	38m	17:38	38m	18:16	15h 29m	11h 38m				Mo, 8. Jan
Di, 9. Jan		18:17 – 05:54*	11h 37m	AN <sub>+</sub> bis AN <sub>-</sub>		06:16	13:42	05:54	38m	06:32	38m	07:11	38m	07:50	8h 31m	16:21	38m	17:00	38m	17:39	38m	18:17	15h 28m	11h 37m				Di, 9. Jan
Mi, 10. Jan		18:18 – 05:54*	11h 35m	AN <sub>+</sub> bis AN <sub>-</sub>		07:26	14:41	05:54	37m	06:32	38m	07:11	38m	07:49	8h 33m	16:22	38m	17:01	38m	17:40	37m	18:18	15h 26m	11h 35m				Mi, 10. Jan
Do, 11. Jan		18:19 – 05:53*	11h 34m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	08:23	15:57	05:54	37m	06:32	38m	07:10	38m	07:49	8h 35m	16:24	38m	17:02	38m	17:41	37m	18:19	15h 24m	11h 34m				Do, 11. Jan
Fr, 12. Jan		18:20 – 05:53*	11h 32m	AN <sub>+</sub> bis AN <sub>-</sub>		09:04	17:24	05:53	37m	06:31	38m	07:10	38m	07:48	8h 36m	16:25	38m	17:03	38m	17:42	37m	18:20	15h 22m	11h 32m				Fr, 12. Jan
Sa, 13. Jan		18:54 – 05:53*	10h 58m	M <sub>\</sub> bis AN <sub>-</sub>		09:34	18:54	05:53	37m	06:31	38m	07:09	38m	07:48	8h 38m	16:26	38m	17:05	38m	17:43	37m	18:21	15h 20m	11h 31m				Sa, 13. Jan
So, 14. Jan		20:22 – 05:52*	9h 30m	M <sub>\</sub> bis AN <sub>-</sub>		09:57	20:22	05:53	37m	06:30	38m	07:09	38m	07:47	8h 40m	16:28	38m	17:06	38m	17:44	37m	18:22	15h 18m	11h 29m				So, 14. Jan
Mo, 15. Jan		21:47 – 05:52*	8h 04m	M <sub>\</sub> bis AN <sub>-</sub>		10:15	21:47	05:52	37m	06:30	38m	07:08	38m	07:46	8h 42m	16:29	38m	17:07	38m	17:46	37m	18:23	15h 16m	11h 28m				Mo, 15. Jan
Di, 16. Jan		23:09 – 05:51*	6h 42m	M <sub>\</sub> bis AN <sub>-</sub>		10:31	23:09	05:52	37m	06:29	38m	07:08	37m	07:46	8h 44m	16:31	37m	17:09	38m	17:47	37m	18:25	15h 14m	11h 26m				Di, 16. Jan
Mi, 17. Jan		00:29* – 05:51*	5h 21m	M <sub>\</sub> bis AN <sub>-</sub>		10:47	—:—	05:51	37m	06:29	38m	07:07	37m	07:45	8h 47m	16:32	37m	17:10	38m	17:48	37m	18:26	15h 12m	11h 24m				Mi, 17. Jan
Do, 18. Jan		01:50* – 05:50*	4h 00m	M <sub>\</sub> bis AN <sub>-</sub>	☾	11:04	00:29	05:51	37m	06:28	38m	07:06	37m	07:44	8h 49m	16:33	37m	17:11	38m	17:49	37m	18:27	15h 09m	11h 22m				Do, 18. Jan
Fr, 19. Jan		03:10* – 05:49*	2h 39m	M <sub>\</sub> bis AN <sub>-</sub>		11:23	01:50	05:50	37m	06:28	38m	07:06	37m	07:43	8h 51m	16:35	37m	17:13	38m	17:51	37m	18:28	15h 07m	11h 21m				Fr, 19. Jan
Sa, 20. Jan		04:27* – 05:49*	1h 21m	M <sub>\</sub> bis AN <sub>-</sub>		11:48	03:10	05:49	37m	06:27	38m	07:05	37m	07:42	8h 54m	16:36	37m	17:14	38m	17:52	37m	18:30	15h 05m	11h 19m				Sa, 20. Jan
So, 21. Jan		05:39* – 05:48*	9m	M <sub>\</sub> bis AN <sub>-</sub>		12:19	04:27	05:49	37m	06:26	38m	07:04	37m	07:41	8h 56m	16:38	37m	17:15	38m	17:53	37m	18:31	15h 02m	11h 17m				So, 21. Jan
Mo, 22. Jan		—:—:—:—:—	–	Mond stört		13:01	05:39	05:48	37m	06:25	37m	07:03	37m	07:41	8h 58m	16:40	37m	17:17	37m	17:55	37m	18:32	15h 00m	11h 15m				Mo, 22. Jan
Di, 23. Jan		—:—:—:—:—	–	Mond stört		13:55	06:40	05:47	37m	06:25	37m	07:02	37m	07:40	9h 01m	16:41	37m	17:18	37m	17:56	37m	18:33	14h 57m	11h 13m				Di, 23. Jan
Mi, 24. Jan		—:—:—:—:—	–	Mond stört		14:59	07:27	05:46	37m	06:24	37m	07:02	36m	07:38	9h 04m	16:43	36m	17:20	37m	17:57	37m	18:35	14h 54m	11h 10m				Mi, 24. Jan
Do, 25. Jan		—:—:~:~:~	–	Mond stört	☾	16:08	08:03	05:46	37m	06:23	37m	07:01	36m	07:37	9h 06m	16:44	36m	17:21	37m	17:59	37m	18:36	14h 52m	11h 08m				Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~	–	Mond stört		17:20	08:29	05:45	37m	06:22	37m	07:00	36m	07:36	9h 09m	16:46	36m	17:23	37m	18:00	37m	18:37	14h 49m	11h 06m				Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~	–	Mond stört		18:30	08:49	05:44	37m	06:21	37m	06:59	36m	07:35	9h 12m	16:47	36m	17:24	37m	18:02	37m	18:39	14h 46m	11h 04m				Sa, 27. Jan
So, 28. Jan		18:40 – 19:39	58m	AN <sub>+</sub> bis M <sub>7</sub>		19:39	09:05	05:43	37m	06:20	37m	06:57	36m	07:34	9h 15m	16:49	36m	17:25	37m	18:03	37m	18:40	14h 43m	11h 01m				So, 28. Jan
Mo, 29. Jan		18:41 – 20:46	2h 04m	AN <sub>+</sub> bis M <sub>7</sub>		20:46	09:19	05:42	37m	06:19	37m	06:56	36m	07:33	9h 17m	16:51	36m	17:27	37m	18:04	37m	18:41	14h 40m	10h 59m				Mo, 29. Jan
Di, 30. Jan		18:43 – 21:52	3h 09m	AN <sub>+</sub> bis M <sub>7</sub>		21:52	09:31	05:41	36m	06:18	37m	06:55	36m	07:31	9h 20m	16:52	36m	17:28	37m	18:06	37m	18:43	14h 37m	10h 57m				Di, 30. Jan
Mi, 31. Jan		18:44 – 22:59	4h 14m	AN <sub>+</sub> bis M <sub>7</sub>		22:59	09:43	05:40	36m	06:17	37m	06:54	36m	07:30	9h 23m	16:54	36m	17:30	37m	18:07	36m	18:44	14h 35m	10h 54m				Mi, 31. Jan
Do, 1. Feb		18:46 – 00:08*	5h 22m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	09:56	05:39	36m	06:16	37m	06:53	36m	07:29	9h 26m	16:55	36m	17:31	37m	18:09	36m	18:46	14h 32m	10h 52m				Do, 1. Feb
Fr, 2. Feb		18:47 – 01:20*	6h 33m	AN <sub>+</sub> bis M <sub>7</sub>		00:08	10:12	05:38	36m	06:14	37m	06:52	35m	07:27	9h 29m	16:57	35m	17:33	37m	18:10	36m	18:47	14h 28m	10h 49m				Fr, 2. Feb
Sa, 3. Feb		18:48 – 02:36*	7h 47m	AN <sub>+</sub> bis M <sub>7</sub>	☾	01:20	10:30	05:36	36m	06:13	36m	06:50	35m	07:26	9h 32m	16:59	35m	17:35	36m	18:12	36m	18:48	14h 25m	10h 46m				Sa, 3. Feb
So, 4. Feb		18:50 – 03:52*	9h 02m	AN <sub>+</sub> bis M <sub>7</sub>		02:36	10:55	05:35	36m	06:12	36m	06:49	35m	07:25	9h 35m	17:00	35m	17:36	36m	18:13	36m	18:50	14h 22m	10h 44m				So, 4. Feb
Mo, 5. Feb		18:51 – 05:05*	10h 13m	AN <sub>+</sub> bis M <sub>7</sub>		03:52	11:30	05:34	36m	06:11	36m	06:48	35m	07:23	9h 38m	17:02	35m	17:38	36m	18:14	36m	18:51	14h 19m	10h 41m				Mo, 5. Feb
Di, 6. Feb		18:53 – 05:32*	10h 38m	AN <sub>+</sub> bis AN <sub>-</sub>		05:05	12:19	05:33	36m	06:09	36m	06:46	35m	07:22	9h 41m	17:04	35m	17:39	36m	18:16	36m	18:53	14h 16m	10h 38m				Di, 6. Feb
Mi, 7. Feb		18:54 – 05:30*	10h 36m	AN <sub>+</sub> bis AN <sub>-</sub>		06:07	13:26	05:32	36m	06:08	36m	06:45	35m	07:20	9h 45m	17:05	35m	17:41	36m	18:17	36m	18:54	14h 13m	10h 36m				Mi, 7. Feb
Do, 8. Feb		18:56 – 05:29*	10h 33m	AN <sub>+</sub> bis AN <sub>-</sub>		06:56	14:49	05:30	36m	06:07	36m	06:43	35m	07:19	9h 48m	17:07	35m	17:42	36m	18:19	36m	18:56	14h 10m	10h 33m				Do, 8. Feb
Fr, 9. Feb		18:57 – 05:27*	10h 30m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	07:31	16:19	05:29	36m	06:05	36m	06:42	35m	07:17	9h 51m	17:09	35m	17:44	36m	18:20	36m	18:57	14h 06m	10h 30m				Fr, 9. Feb
Sa, 10. Feb		18:58 – 05:26*	10h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		07:57	17:51	05:27	36m	06:04	36m	06:40	35m	07:15	9h 54m	17:10	35m	17:45	36m	18:22	36m	18:58	14h 03m	10h 27m				Sa, 10. Feb
So, 11. Feb		19:20 – 05:25*	10h 04m	M <sub>\</sub> bis AN <sub>-</sub>		08:18	19:20	05:26	36m	06:03	36m	06:39	34m	07:14	9h 58m	17:12	34m	17:47	36m	18:23	36m	19:00	14h 00m	10h 24m				So, 11. Feb
Mo, 12. Feb		20:47 – 05:23																										

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

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

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

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



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