

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Rust (Burgenland) 47.8008° N 16.6758° 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		18:05–21:47	3h 41m	AN <sub>+</sub> bis M <sub>7</sub>		21:47	10:52	05:47	37m	06:25	38m	07:03	38m	07:41	8h 29m	16:11	38m	16:49	38m	17:28	37m	18:05	15h 30m	11h 42m				Mo, 1. Jan
Di, 2. Jan		18:06–22:52	4h 46m	AN <sub>+</sub> bis M <sub>7</sub>		22:52	11:06	05:47	37m	06:25	38m	07:03	38m	07:41	8h 30m	16:12	38m	16:50	38m	17:28	37m	18:06	15h 29m	11h 41m				Di, 2. Jan
Mi, 3. Jan		18:07–23:58	5h 51m	AN <sub>+</sub> bis M <sub>7</sub>		23:58	11:19	05:47	37m	06:25	38m	07:03	38m	07:41	8h 31m	16:13	38m	16:51	38m	17:29	37m	18:07	15h 28m	11h 40m				Mi, 3. Jan
Do, 4. Jan		18:08–01:06*	6h 57m	AN <sub>+</sub> bis M <sub>7</sub>	☾	—:—	11:33	05:47	37m	06:25	38m	07:03	37m	07:41	8h 32m	16:14	37m	16:52	38m	17:30	37m	18:08	15h 27m	11h 39m				Do, 4. Jan
Fr, 5. Jan		18:09–02:16*	8h 07m	AN <sub>+</sub> bis M <sub>7</sub>		01:06	11:48	05:47	37m	06:25	38m	07:03	37m	07:41	8h 33m	16:15	37m	16:53	38m	17:31	37m	18:09	15h 25m	11h 38m				Fr, 5. Jan
Sa, 6. Jan		18:10–03:30*	9h 20m	AN <sub>+</sub> bis M <sub>7</sub>		02:16	12:06	05:47	37m	06:25	38m	07:03	37m	07:41	8h 35m	16:16	37m	16:54	38m	17:32	37m	18:10	15h 24m	11h 37m				Sa, 6. Jan
So, 7. Jan		18:11–04:48*	10h 37m	AN <sub>+</sub> bis M <sub>7</sub>		03:30	12:29	05:47	37m	06:25	38m	07:03	37m	07:41	8h 36m	16:17	37m	16:55	38m	17:33	37m	18:11	15h 23m	11h 36m				So, 7. Jan
Mo, 8. Jan		18:12–05:47*	11h 35m	AN <sub>+</sub> bis AN <sub>-</sub>		04:48	13:00	05:47	37m	06:25	38m	07:03	37m	07:40	8h 38m	16:18	37m	16:56	38m	17:34	37m	18:12	15h 21m	11h 35m				Mo, 8. Jan
Di, 9. Jan		18:13–05:47*	11h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		06:04	13:43	05:47	37m	06:24	38m	07:02	37m	07:40	8h 39m	16:20	37m	16:57	38m	17:35	37m	18:13	15h 20m	11h 34m				Di, 9. Jan
Mi, 10. Jan		18:14–05:47*	11h 33m	AN <sub>+</sub> bis AN <sub>-</sub>		07:14	14:42	05:47	37m	06:24	38m	07:02	37m	07:40	8h 41m	16:21	37m	16:58	38m	17:36	37m	18:14	15h 18m	11h 33m				Mi, 10. Jan
Do, 11. Jan		18:15–05:46*	11h 31m	AN <sub>+</sub> bis AN <sub>-</sub>	☉	08:11	15:57	05:47	37m	06:24	37m	07:02	37m	07:39	8h 42m	16:22	37m	17:00	37m	17:38	37m	18:15	15h 16m	11h 31m				Do, 11. Jan
Fr, 12. Jan		18:16–05:46*	11h 30m	AN <sub>+</sub> bis AN <sub>-</sub>		08:53	17:23	05:46	37m	06:23	37m	07:01	37m	07:39	8h 44m	16:23	37m	17:01	37m	17:39	37m	18:16	15h 14m	11h 30m				Fr, 12. Jan
Sa, 13. Jan		18:52–05:46*	10h 54m	M <sub>\</sub> bis AN <sub>-</sub>		09:25	18:52	05:46	37m	06:23	37m	07:01	37m	07:38	8h 46m	16:25	37m	17:02	37m	17:40	37m	18:17	15h 12m	11h 28m				Sa, 13. Jan
So, 14. Jan		20:18–05:45*	9h 27m	M <sub>\</sub> bis AN <sub>-</sub>		09:49	20:18	05:46	37m	06:23	37m	07:00	37m	07:38	8h 48m	16:26	37m	17:03	37m	17:41	37m	18:18	15h 11m	11h 27m				So, 14. Jan
Mo, 15. Jan		21:41–05:45*	8h 03m	M <sub>\</sub> bis AN <sub>-</sub>		10:08	21:41	05:45	36m	06:22	37m	07:00	37m	07:37	8h 50m	16:27	37m	17:04	37m	17:42	37m	18:19	15h 08m	11h 25m				Mo, 15. Jan
Di, 16. Jan		23:02–05:44*	6h 42m	M <sub>\</sub> bis AN <sub>-</sub>		10:26	23:02	05:45	36m	06:22	37m	06:59	36m	07:36	8h 52m	16:29	36m	17:06	37m	17:43	36m	18:20	15h 06m	11h 24m				Di, 16. Jan
Mi, 17. Jan		00:22*–05:44*	5h 22m	M <sub>\</sub> bis AN <sub>-</sub>		10:42	—:—	05:44	36m	06:21	37m	06:59	36m	07:36	8h 54m	16:30	36m	17:07	37m	17:45	36m	18:21	15h 04m	11h 22m				Mi, 17. Jan
Do, 18. Jan		01:41*–05:43*	4h 02m	M <sub>\</sub> bis AN <sub>-</sub>	☾	11:00	00:22	05:44	36m	06:21	37m	06:58	36m	07:35	8h 56m	16:32	36m	17:08	37m	17:46	36m	18:23	15h 02m	11h 20m				Do, 18. Jan
Fr, 19. Jan		03:00*–05:43*	2h 42m	M <sub>\</sub> bis AN <sub>-</sub>		11:21	01:41	05:43	36m	06:20	37m	06:57	36m	07:34	8h 58m	16:33	36m	17:10	37m	17:47	36m	18:24	15h 00m	11h 18m				Fr, 19. Jan
Sa, 20. Jan		04:16*–05:42*	1h 25m	M <sub>\</sub> bis AN <sub>-</sub>		11:46	03:00	05:43	36m	06:19	37m	06:57	36m	07:33	9h 01m	16:34	36m	17:11	37m	17:48	36m	18:25	14h 58m	11h 17m				Sa, 20. Jan
So, 21. Jan		05:27*–05:41*	14m	M <sub>\</sub> bis AN <sub>-</sub>		12:19	04:16	05:42	36m	06:19	37m	06:56	36m	07:32	9h 03m	16:36	36m	17:12	37m	17:50	36m	18:26	14h 55m	11h 15m				So, 21. Jan
Mo, 22. Jan		—:—:—:—	–	Mond stört		13:02	05:27	05:41	36m	06:18	37m	06:55	36m	07:32	9h 05m	16:37	36m	17:14	37m	17:51	36m	18:28	14h 53m	11h 13m				Mo, 22. Jan
Di, 23. Jan		—:—:—:—	–	Mond stört		13:55	06:27	05:41	36m	06:17	37m	06:54	36m	07:31	9h 08m	16:39	36m	17:15	37m	17:52	36m	18:29	14h 50m	11h 11m				Di, 23. Jan
Mi, 24. Jan		—:—:—:—	–	Mond stört		14:59	07:15	05:40	36m	06:16	36m	06:53	36m	07:30	9h 10m	16:40	36m	17:16	37m	17:53	36m	18:30	14h 48m	11h 09m				Mi, 24. Jan
Do, 25. Jan		—:—:—:—	–	Mond stört	☉	16:07	07:52	05:39	36m	06:16	36m	06:53	35m	07:29	9h 13m	16:42	36m	17:18	36m	17:55	36m	18:31	14h 45m	11h 06m				Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~	–	Mond stört		17:18	08:19	05:38	36m	06:15	36m	06:52	35m	07:27	9h 15m	16:43	35m	17:19	36m	17:56	36m	18:33	14h 42m	11h 04m				Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~	–	Mond stört		18:27	08:40	05:37	36m	06:14	36m	06:51	35m	07:26	9h 18m	16:45	35m	17:21	36m	17:58	36m	18:34	14h 40m	11h 02m				Sa, 27. Jan
So, 28. Jan		18:35–19:35	59m	AN <sub>+</sub> bis M <sub>7</sub>		19:35	08:57	05:37	36m	06:13	36m	06:50	35m	07:25	9h 21m	16:46	35m	17:22	36m	17:59	36m	18:35	14h 37m	11h 00m				So, 28. Jan
Mo, 29. Jan		18:37–20:41	2h 04m	AN <sub>+</sub> bis M <sub>7</sub>		20:41	09:12	05:36	36m	06:12	36m	06:49	35m	07:24	9h 23m	16:48	35m	17:24	36m	18:00	36m	18:37	14h 34m	10h 58m				Mo, 29. Jan
Di, 30. Jan		18:38–21:46	3h 08m	AN <sub>+</sub> bis M <sub>7</sub>		21:46	09:25	05:35	36m	06:11	36m	06:47	35m	07:23	9h 26m	16:50	35m	17:25	36m	18:02	36m	18:38	14h 32m	10h 55m				Di, 30. Jan
Mi, 31. Jan		18:39–22:52	4h 12m	AN <sub>+</sub> bis M <sub>7</sub>		22:52	09:38	05:34	36m	06:10	36m	06:46	35m	07:22	9h 29m	16:51	35m	17:27	36m	18:03	36m	18:39	14h 29m	10h 53m				Mi, 31. Jan
Do, 1. Feb		18:41–00:00*	5h 19m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	09:52	05:33	36m	06:09	36m	06:45	35m	07:20	9h 32m	16:53	35m	17:28	36m	18:04	36m	18:41	14h 26m	10h 50m				Do, 1. Feb
Fr, 2. Feb		18:42–01:11*	6h 29m	AN <sub>+</sub> bis M <sub>7</sub>		00:00	10:09	05:32	36m	06:08	36m	06:44	35m	07:19	9h 35m	16:54	35m	17:29	36m	18:06	36m	18:42	14h 23m	10h 48m				Fr, 2. Feb
Sa, 3. Feb		18:43–02:25*	7h 41m	AN <sub>+</sub> bis M <sub>7</sub>	☾	01:11	10:28	05:30	36m	06:07	36m	06:43	35m	07:18	9h 38m	16:56	35m	17:31	36m	18:07	36m	18:43	14h 20m	10h 45m				Sa, 3. Feb
So, 4. Feb		18:45–03:41*	8h 55m	AN <sub>+</sub> bis M <sub>7</sub>		02:25	10:54	05:29	36m	06:05	36m	06:41	34m	07:16	9h 41m	16:57	34m	17:32	36m	18:09	36m	18:45	14h 17m	10h 43m				So, 4. Feb
Mo, 5. Feb		18:46–04:53*	10h 06m	AN <sub>+</sub> bis M <sub>7</sub>		03:41	11:30	05:28	36m	06:04	36m	06:40	34m	07:15	9h 44m	16:59	34m	17:34	36m	18:10	36m	18:46	14h 14m	10h 40m				Mo, 5. Feb
Di, 6. Feb		18:47–05:26*	10h 38m	AN <sub>+</sub> bis AN <sub>-</sub>		04:53	12:20	05:27	35m	06:03	36m	06:39	34m	07:14	9h 47m	17:01	34m	17:35	36m	18:11	36m	18:47	14h 11m	10h 38m				Di, 6. Feb
Mi, 7. Feb		18:49–05:24*	10h 35m	AN <sub>+</sub> bis AN <sub>-</sub>		05:55	13:27	05:26	35m	06:02	35m	06:37	34m	07:12	9h 50m	17:02	34m	17:37	35m	18:13	35m	18:49	14h 08m	10h 35m				Mi, 7. Feb
Do, 8. Feb		18:50–05:23*	10h 32m	AN <sub>+</sub> bis AN <sub>-</sub>		06:44	14:48	05:24	35m	06:00	35m	06:36	34m	07:11	9h 53m	17:04	34m	17:38	35m	18:14	35m	18:50	14h 05m	10h 32m				Do, 8. Feb
Fr, 9. Feb		18:52–05:22*	10h 30m	AN <sub>+</sub> bis AN <sub>-</sub>	☉	07:21	16:17	05:23	35m	05:59	35m	06:35	34m	07:09	9h 56m	17:05	34m	17:40	35m	18:16	35m	18:52	14h 02m	10h 30m				Fr, 9. Feb
Sa, 10. Feb		18:53–05:20*	10h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		07:49	17:48	05:22	35m	05:58	35m	06:33	34m	07:08	9h 59m	17:07	34m	17:41	35m	18:17	35m	18:53	13h 59m	10h 27m				Sa, 10. Feb
So, 11. Feb		19:16–05:19*	10h 03m	M <sub>\</sub> bis AN <sub>-</sub>		08:11	19:16	05:20	35m	05:56	35m	06:32	34m	07:06	10h 02m	17:09	34m	17:43	35m	18:19	35m	18:54	13h 55m	10h 24m				So, 11. Feb
Mo, 12. Feb		20:41–05:17*	8h 36m	M <sub>\</sub> bis AN <sub>-</sub>		08:29</																						

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

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

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
2024	Zeit-	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne			Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2024		
	zone		$\Delta t$		Ph.	$\nearrow$	$\searrow$	Astr.	$\Delta t$	Naut.	$\Delta t$	Bürg.	$\Delta t$	$\nearrow$	$\Delta t$	$\searrow$	$\Delta t$	Bürg.	$\Delta t$	Naut.	$\Delta t$	Astr.	$\Delta t$	$\Delta t$		$\Delta t$		
Fr, 19. Jul	MESZ	—:—:—:—	—	Mond stört		19:52	02:17	02:33	1h 09m	03:42	50m	04:33	40m	05:14	15h 29m	20:44	40m	21:24	50m	22:15	1h 08m	23:23	8h 31m	3h 12m				Fr, 19. Jul
Sa, 20. Jul	MESZ	—:—:—:—	—	Mond stört		20:43	03:19	02:36	1h 08m	03:44	50m	04:34	40m	05:15	15h 27m	20:43	40m	21:23	49m	22:13	1h 07m	23:21	8h 33m	3h 17m				Sa, 20. Jul
So, 21. Jul	MESZ	—:—:~:~:~	—	Mond stört	○	21:21	04:34	02:38	1h 07m	03:46	49m	04:36	40m	05:16	15h 25m	20:42	40m	21:22	49m	22:11	1h 06m	23:18	8h 35m	3h 23m				So, 21. Jul
Mo, 22. Jul	MESZ	—:~:~:~:~	—	Mond stört		21:49	05:59	02:41	1h 06m	03:47	49m	04:37	40m	05:17	15h 22m	20:40	40m	21:21	49m	22:10	1h 05m	23:15	8h 38m	3h 28m				Mo, 22. Jul
Di, 23. Jul	MESZ	—:~:~:~:~	—	Mond stört		22:11	07:25	02:44	1h 05m	03:49	49m	04:38	40m	05:19	15h 20m	20:39	40m	21:19	48m	22:08	1h 04m	23:13	8h 40m	3h 33m				Di, 23. Jul
Mi, 24. Jul	MESZ	—:~:~:~:~	—	Mond stört		22:30	08:50	02:46	1h 04m	03:51	48m	04:40	40m	05:20	15h 18m	20:38	39m	21:18	48m	22:07	1h 03m	23:10	8h 42m	3h 39m				Mi, 24. Jul
Do, 25. Jul	MESZ	—:~:~:~:~	—	Mond stört		22:47	10:14	02:49	1h 03m	03:53	48m	04:41	39m	05:21	15h 15m	20:37	39m	21:17	48m	22:05	1h 02m	23:07	8h 45m	3h 44m				Do, 25. Jul
Fr, 26. Jul	MESZ	—:~:~:~:~	—	Mond stört		23:04	11:35	02:52	1h 02m	03:54	48m	04:42	39m	05:22	15h 13m	20:36	39m	21:15	47m	22:03	1h 01m	23:05	8h 47m	3h 49m				Fr, 26. Jul
Sa, 27. Jul	MESZ	23:02 – 23:22	20m	AN <sub>+</sub> bis M <sub>7</sub>		23:22	12:57	02:54	1h 01m	03:56	47m	04:44	39m	05:23	15h 10m	20:34	39m	21:14	47m	22:01	1h 00m	23:02	8h 50m	3h 55m				Sa, 27. Jul
So, 28. Jul	MESZ	22:59 – 23:44	44m	AN <sub>+</sub> bis M <sub>7</sub>	◐	23:44	14:19	02:57	1h 00m	03:58	47m	04:45	39m	05:25	15h 08m	20:33	39m	21:12	47m	21:59	59m	22:59	8h 52m	4h 00m				So, 28. Jul
Mo, 29. Jul	MESZ	22:57 – 00:12*	1h 15m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	15:41	03:00	59m	04:00	47m	04:47	39m	05:26	15h 05m	20:32	38m	21:11	46m	21:58	59m	22:57	8h 55m	4h 05m				Mo, 29. Jul
Di, 30. Jul	MESZ	22:54 – 00:49*	1h 55m	AN <sub>+</sub> bis M <sub>7</sub>		00:12	17:00	03:02	59m	04:01	46m	04:48	39m	05:27	15h 03m	20:30	38m	21:09	46m	21:56	58m	22:54	8h 57m	4h 11m				Di, 30. Jul
Mi, 31. Jul	MESZ	22:51 – 01:37*	2h 46m	AN <sub>+</sub> bis M <sub>7</sub>		00:49	18:10	03:05	58m	04:03	46m	04:50	38m	05:28	15h 00m	20:29	38m	21:08	46m	21:54	57m	22:51	9h 00m	4h 16m				Mi, 31. Jul
Do, 1. Aug	MESZ	22:49 – 02:38*	3h 49m	AN <sub>+</sub> bis M <sub>7</sub>		01:37	19:09	03:08	57m	04:05	46m	04:51	38m	05:30	14h 57m	20:28	38m	21:06	45m	21:52	56m	22:49	9h 03m	4h 21m				Do, 1. Aug
Fr, 2. Aug	MESZ	22:46 – 03:13*	4h 26m	AN <sub>+</sub> bis AN <sub>-</sub>		02:38	19:53	03:10	56m	04:07	45m	04:53	38m	05:31	14h 55m	20:26	38m	21:05	45m	21:50	55m	22:46	9h 06m	4h 26m				Fr, 2. Aug
Sa, 3. Aug	MESZ	22:43 – 03:15*	4h 31m	AN <sub>+</sub> bis AN <sub>-</sub>		03:47	20:26	03:13	55m	04:09	45m	04:54	38m	05:32	14h 52m	20:25	38m	21:03	45m	21:48	55m	22:43	9h 08m	4h 31m				Sa, 3. Aug
So, 4. Aug	MESZ	22:40 – 03:18*	4h 37m	AN <sub>+</sub> bis AN <sub>-</sub>	●	05:00	20:51	03:15	55m	04:10	45m	04:55	38m	05:34	14h 49m	20:23	37m	21:01	44m	21:46	54m	22:40	9h 11m	4h 37m				So, 4. Aug
Mo, 5. Aug	MESZ	22:38 – 03:20*	4h 42m	AN <sub>+</sub> bis AN <sub>-</sub>		06:13	21:10	03:18	54m	04:12	44m	04:57	37m	05:35	14h 46m	20:22	37m	20:59	44m	21:44	53m	22:38	9h 14m	4h 42m				Mo, 5. Aug
Di, 6. Aug	MESZ	22:35 – 03:23*	4h 47m	AN <sub>+</sub> bis AN <sub>-</sub>		07:23	21:26	03:20	53m	04:14	44m	04:58	37m	05:36	14h 43m	20:20	37m	20:58	44m	21:42	53m	22:35	9h 17m	4h 47m				Di, 6. Aug
Mi, 7. Aug	MESZ	22:32 – 03:25*	4h 52m	AN <sub>+</sub> bis AN <sub>-</sub>		08:31	21:39	03:23	53m	04:16	44m	05:00	37m	05:38	14h 41m	20:19	37m	20:56	43m	21:40	52m	22:32	9h 20m	4h 52m				Mi, 7. Aug
Do, 8. Aug	MESZ	22:30 – 03:27*	4h 57m	AN <sub>+</sub> bis AN <sub>-</sub>		09:37	21:52	03:25	52m	04:18	43m	05:01	37m	05:39	14h 38m	20:17	37m	20:54	43m	21:38	51m	22:30	9h 23m	4h 57m				Do, 8. Aug
Fr, 9. Aug	MESZ	22:27 – 03:30*	5h 02m	AN <sub>+</sub> bis AN <sub>-</sub>		10:42	22:05	03:27	51m	04:19	43m	05:03	37m	05:40	14h 35m	20:15	37m	20:52	43m	21:36	51m	22:27	9h 26m	5h 02m				Fr, 9. Aug
Sa, 10. Aug	MESZ	22:24 – 03:32*	5h 07m	AN <sub>+</sub> bis AN <sub>-</sub>		11:49	22:20	03:30	51m	04:21	43m	05:04	37m	05:42	14h 32m	20:14	36m	20:51	42m	21:34	50m	22:24	9h 29m	5h 07m				Sa, 10. Aug
So, 11. Aug	MESZ	22:37 – 03:35*	4h 57m	M <sub>7</sub> bis AN <sub>-</sub>		12:57	22:37	03:32	50m	04:23	43m	05:06	36m	05:43	14h 29m	20:12	36m	20:49	42m	21:32	50m	22:22	9h 32m	5h 12m				So, 11. Aug
Mo, 12. Aug	MESZ	22:58 – 03:37*	4h 38m	M <sub>7</sub> bis AN <sub>-</sub>	◑	14:07	22:58	03:35	50m	04:25	42m	05:07	36m	05:44	14h 26m	20:10	36m	20:47	42m	21:29	49m	22:19	9h 35m	5h 17m				Mo, 12. Aug
Di, 13. Aug	MESZ	23:26 – 03:39*	4h 12m	M <sub>7</sub> bis AN <sub>-</sub>		15:19	23:26	03:37	49m	04:27	42m	05:09	36m	05:46	14h 23m	20:09	36m	20:45	42m	21:27	49m	22:16	9h 38m	5h 22m				Di, 13. Aug
Mi, 14. Aug	MESZ	00:05* – 03:41*	3h 36m	M <sub>7</sub> bis AN <sub>-</sub>		16:31	—:—	03:39	49m	04:28	42m	05:10	36m	05:47	14h 20m	20:07	36m	20:43	41m	21:25	48m	22:14	9h 41m	5h 27m				Mi, 14. Aug
Do, 15. Aug	MESZ	00:58* – 03:44*	2h 45m	M <sub>7</sub> bis AN <sub>-</sub>		17:37	00:05	03:41	48m	04:30	41m	05:12	36m	05:48	14h 17m	20:05	36m	20:41	41m	21:23	48m	22:11	9h 44m	5h 32m				Do, 15. Aug
Fr, 16. Aug	MESZ	02:07* – 03:46*	1h 38m	M <sub>7</sub> bis AN <sub>-</sub>		18:33	00:58	03:44	48m	04:32	41m	05:13	36m	05:50	14h 13m	20:03	35m	20:39	41m	21:21	47m	22:08	9h 47m	5h 37m				Fr, 16. Aug
Sa, 17. Aug	MESZ	03:28* – 03:48*	20m	M <sub>7</sub> bis AN <sub>-</sub>		19:16	02:07	03:46	47m	04:34	41m	05:15	35m	05:51	14h 10m	20:02	35m	20:38	41m	21:19	47m	22:06	9h 50m	5h 42m				Sa, 17. Aug
So, 18. Aug	MESZ	—:~:~:~:~	—	Mond stört		19:48	03:28	03:48	47m	04:35	41m	05:16	35m	05:52	14h 07m	20:00	35m	20:36	40m	21:16	46m	22:03	9h 53m	5h 47m				So, 18. Aug
Mo, 19. Aug	MESZ	—:~:~:~:~	—	Mond stört	○	20:13	04:55	03:50	46m	04:37	40m	05:18	35m	05:54	14h 04m	19:58	35m	20:34	40m	21:14	46m	22:01	9h 56m	5h 51m				Mo, 19. Aug
Di, 20. Aug	MESZ	—:~:~:~:~	—	Mond stört		20:33	06:23	03:52	46m	04:39	40m	05:19	35m	05:55	14h 01m	19:56	35m	20:32	40m	21:12	45m	21:58	10h 00m	5h 56m				Di, 20. Aug
Mi, 21. Aug	MESZ	—:~:~:~:~	—	Mond stört		20:51	07:50	03:55	45m	04:40	40m	05:21	35m	05:56	13h 58m	19:54	35m	20:30	40m	21:10	45m	21:55	10h 03m	6h 01m				Mi, 21. Aug
Do, 22. Aug	MESZ	—:~:~:~:~	—	Mond stört		21:08	09:15	03:57	45m	04:42	40m	05:22	35m	05:58	13h 54m	19:53	35m	20:28	39m	21:08	45m	21:53	10h 06m	6h 06m				Do, 22. Aug
Fr, 23. Aug	MESZ	—:~:~:~:~	—	Mond stört		21:27	10:40	03:59	45m	04:44	39m	05:24	35m	05:59	13h 51m	19:51	35m	20:26	39m	21:05	44m	21:50	10h 09m	6h 10m				Fr, 23. Aug
Sa, 24. Aug	MESZ	21:47 – 21:48	0m	AN <sub>+</sub> bis M <sub>7</sub>		21:48	12:04	04:01	44m	04:46	39m	05:25	35m	06:00	13h 48m	19:49	34m	20:24	39m	21:03	44m	21:47	10h 12m	6h 15m				Sa, 24. Aug
So, 25. Aug	MESZ	21:45 – 22:14	29m	AN <sub>+</sub> bis M <sub>7</sub>		22:14	13:28	04:03	44m	04:47	39m	05:27	34m	06:02	13h 45m	19:47	34m	20:22	39m	21:01	43m	21:45	10h 16m	6h 20m				So, 25. Aug
Mo, 26. Aug	MESZ	21:42 – 22:48	1h 05m	AN <sub>+</sub> bis M <sub>7</sub>	◑	22:48	14:50	04:05	43m	04:49	39m	05:28	34m	06:03	13h 41m	19:45	34m	20:20	39m	20:59	43m	21:42	10h 19m	6h 24m				Mo, 26. Aug
Di, 27. Aug	MESZ	21:40 – 23:33	1h 53m	AN <sub>+</sub> bis M <sub>7</sub>		23:33	16:04	04:07	43m	04:51	39m	05:30	34m	06:04	13h 38m	19:43	34m	20:18	38m	20:56	43m	21:40	10h 22m	6h 29m				Di, 27. Aug
Mi, 28. Aug	MESZ	21:37 – 00:30*	2h 52m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	17:06	04:09	43m	04:52	38m	05:31	34m	06:06	13h 35m	19:41	34m	20:15	38m	20:54	42m	21:37	10h 26m	6h 33m				Mi, 28. Aug
Do, 29. Aug	MESZ	21:35 – 01:36*	4h 01m	AN <sub>+</sub> bis M <sub>7</sub>		00:30	17:54	04:11	42m	04:54	38m	05:33	34m	06:07	13h 31m	19:39	34m	20:13	38m	20:52	42m	21:35	10h 29m	6h 38m				Do, 29. Aug
Fr, 30. Aug	MESZ	21:32 – 02:48*	5h 1																									

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
2024	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne			Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2024		
			$\Delta t$		Ph.	$\nearrow$	$\searrow$	Astr.	$\Delta t$	Naut.	$\Delta t$	Bürg.	$\Delta t$	$\nearrow$	$\Delta t$	$\searrow$	$\Delta t$	Bürg.	$\Delta t$	Naut.	$\Delta t$	Astr.	$\Delta t$	$\Delta t$		$\Delta t$		
Sa, 7. Sep	MESZ	21:12 – 04:30*	7h 18m	AN <sub>+</sub> bis AN <sub>-</sub>		10:45	20:42	04:28	40m	05:08	37m	05:46	33m	06:19	13h 01m	19:21	33m	19:55	37m	20:32	40m	21:12	10h 59m	7h 18m				Sa, 7. Sep
So, 8. Sep	MESZ	21:09 – 04:32*	7h 22m	AN <sub>+</sub> bis AN <sub>-</sub>		11:54	21:01	04:30	40m	05:10	37m	05:47	33m	06:21	12h 58m	19:19	33m	19:52	36m	20:29	39m	21:09	11h 02m	7h 22m				So, 8. Sep
Mo, 9. Sep	MESZ	21:26 – 04:33*	7h 07m	M <sub>\</sub> bis AN <sub>-</sub>		13:05	21:26	04:32	39m	05:12	37m	05:49	33m	06:22	12h 55m	19:17	33m	19:50	36m	20:27	39m	21:07	11h 06m	7h 26m				Mo, 9. Sep
Di, 10. Sep	MESZ	21:59 – 04:35*	6h 36m	M <sub>\</sub> bis AN <sub>-</sub>		14:16	21:59	04:33	39m	05:13	36m	05:50	33m	06:23	12h 51m	19:15	33m	19:48	36m	20:25	39m	21:04	11h 09m	7h 30m				Di, 10. Sep
Mi, 11. Sep	MESZ	22:45 – 04:37*	5h 52m	M <sub>\</sub> bis AN <sub>-</sub>	☾	15:23	22:45	04:35	39m	05:15	36m	05:51	33m	06:25	12h 48m	19:13	33m	19:46	36m	20:23	39m	21:02	11h 13m	7h 34m				Mi, 11. Sep
Do, 12. Sep	MESZ	23:45 – 04:39*	4h 53m	M <sub>\</sub> bis AN <sub>-</sub>		16:22	23:45	04:37	39m	05:16	36m	05:53	33m	06:26	12h 44m	19:11	33m	19:44	36m	20:21	39m	21:00	11h 16m	7h 39m				Do, 12. Sep
Fr, 13. Sep	MESZ	00:59* – 04:40*	3h 41m	M <sub>\</sub> bis AN <sub>-</sub>		17:09	—:—	04:39	39m	05:18	36m	05:54	33m	06:27	12h 41m	19:09	33m	19:42	36m	20:18	38m	20:57	11h 19m	7h 43m				Fr, 13. Sep
Sa, 14. Sep	MESZ	02:22* – 04:42*	2h 20m	M <sub>\</sub> bis AN <sub>-</sub>		17:45	00:59	04:40	38m	05:19	36m	05:56	33m	06:29	12h 38m	19:07	33m	19:40	36m	20:16	38m	20:55	11h 23m	7h 47m				Sa, 14. Sep
So, 15. Sep	MESZ	03:49* – 04:44*	54m	M <sub>\</sub> bis AN <sub>-</sub>		18:13	02:22	04:42	38m	05:21	36m	05:57	33m	06:30	12h 34m	19:05	33m	19:38	36m	20:14	38m	20:52	11h 26m	7h 51m				So, 15. Sep
Mo, 16. Sep	MESZ	—:—:—:—	–	Mond stört		18:35	03:49	04:44	38m	05:22	36m	05:58	33m	06:31	12h 31m	19:03	32m	19:36	36m	20:12	38m	20:50	11h 30m	7h 55m				Mo, 16. Sep
Di, 17. Sep	MESZ	—:—:—:—	–	Mond stört		18:54	05:16	04:45	38m	05:24	36m	06:00	33m	06:33	12h 27m	19:01	32m	19:33	35m	20:09	38m	20:48	11h 33m	7h 59m				Di, 17. Sep
Mi, 18. Sep	MESZ	—:—:—:—	–	Mond stört	☉	19:11	06:43	04:47	38m	05:25	36m	06:01	32m	06:34	12h 24m	18:58	32m	19:31	35m	20:07	37m	20:45	11h 37m	8h 03m				Mi, 18. Sep
Do, 19. Sep	MESZ	—:—:~:~	–	Mond stört		19:29	08:10	04:49	38m	05:27	35m	06:03	32m	06:36	12h 20m	18:56	32m	19:29	35m	20:05	37m	20:43	11h 40m	8h 07m				Do, 19. Sep
Fr, 20. Sep	MESZ	—:~:~:~	–	Mond stört		19:50	09:38	04:50	37m	05:28	35m	06:04	32m	06:37	12h 17m	18:54	32m	19:27	35m	20:03	37m	20:41	11h 43m	8h 11m				Fr, 20. Sep
Sa, 21. Sep	MESZ	—:~:~:~	–	Mond stört		20:14	11:06	04:52	37m	05:30	35m	06:05	32m	06:38	12h 14m	18:52	32m	19:25	35m	20:01	37m	20:38	11h 47m	8h 15m				Sa, 21. Sep
So, 22. Sep	MESZ	20:36 – 20:46	10m	AN <sub>+</sub> bis M <sub>7</sub>		20:46	12:32	04:53	37m	05:31	35m	06:07	32m	06:40	12h 10m	18:50	32m	19:23	35m	19:59	37m	20:36	11h 50m	8h 19m				So, 22. Sep
Mo, 23. Sep	MESZ	20:34 – 21:28	54m	AN <sub>+</sub> bis M <sub>7</sub>		21:28	13:52	04:55	37m	05:32	35m	06:08	32m	06:41	12h 07m	18:48	32m	19:21	35m	19:56	37m	20:34	11h 54m	8h 22m				Mo, 23. Sep
Di, 24. Sep	MESZ	20:31 – 22:22	1h 50m	AN <sub>+</sub> bis M <sub>7</sub>	☾	22:22	15:01	04:57	37m	05:34	35m	06:10	32m	06:42	12h 03m	18:46	32m	19:19	35m	19:54	37m	20:31	11h 57m	8h 26m				Di, 24. Sep
Mi, 25. Sep	MESZ	20:29 – 23:27	2h 57m	AN <sub>+</sub> bis M <sub>7</sub>		23:27	15:54	04:58	37m	05:35	35m	06:11	32m	06:44	12h 00m	18:44	32m	19:17	35m	19:52	37m	20:29	12h 01m	8h 30m				Mi, 25. Sep
Do, 26. Sep	MESZ	20:27 – 00:38*	4h 11m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	16:33	05:00	37m	05:37	35m	06:12	32m	06:45	11h 56m	18:42	32m	19:15	35m	19:50	36m	20:27	12h 04m	8h 34m				Do, 26. Sep
Fr, 27. Sep	MESZ	20:25 – 01:50*	5h 25m	AN <sub>+</sub> bis M <sub>7</sub>		00:38	17:02	05:01	36m	05:38	35m	06:14	32m	06:46	11h 53m	18:40	32m	19:13	35m	19:48	36m	20:25	12h 07m	8h 38m				Fr, 27. Sep
Sa, 28. Sep	MESZ	20:23 – 03:02*	6h 38m	AN <sub>+</sub> bis M <sub>7</sub>		01:50	17:24	05:03	36m	05:40	35m	06:15	32m	06:48	11h 50m	18:38	32m	19:11	35m	19:46	36m	20:23	12h 11m	8h 41m				Sa, 28. Sep
So, 29. Sep	MESZ	20:20 – 04:10*	7h 49m	AN <sub>+</sub> bis M <sub>7</sub>		03:02	17:41	05:04	36m	05:41	35m	06:16	32m	06:49	11h 46m	18:36	32m	19:09	35m	19:44	36m	20:20	12h 14m	8h 45m				So, 29. Sep
Mo, 30. Sep	MESZ	20:18 – 05:07*	8h 49m	AN <sub>+</sub> bis AN <sub>-</sub>		04:10	17:55	05:06	36m	05:43	35m	06:18	32m	06:51	11h 43m	18:34	32m	19:06	35m	19:42	36m	20:18	12h 18m	8h 49m				Mo, 30. Sep
Di, 1. Okt	MESZ	20:16 – 05:09*	8h 52m	AN <sub>+</sub> bis AN <sub>-</sub>		05:17	18:08	05:07	36m	05:44	35m	06:19	32m	06:52	11h 39m	18:32	32m	19:04	35m	19:40	36m	20:16	12h 21m	8h 52m				Di, 1. Okt
Mi, 2. Okt	MESZ	20:14 – 05:10*	8h 56m	AN <sub>+</sub> bis AN <sub>-</sub>	☀	06:23	18:21	05:09	36m	05:45	35m	06:21	32m	06:53	11h 36m	18:30	32m	19:02	35m	19:38	36m	20:14	12h 25m	8h 56m				Mi, 2. Okt
Do, 3. Okt	MESZ	20:12 – 05:12*	9h 00m	AN <sub>+</sub> bis AN <sub>-</sub>		07:29	18:34	05:10	36m	05:47	35m	06:22	32m	06:55	11h 32m	18:28	32m	19:00	35m	19:36	36m	20:12	12h 28m	9h 00m				Do, 3. Okt
Fr, 4. Okt	MESZ	20:10 – 05:13*	9h 03m	AN <sub>+</sub> bis AN <sub>-</sub>		08:35	18:49	05:12	36m	05:48	35m	06:23	32m	06:56	11h 29m	18:26	32m	18:58	35m	19:34	36m	20:10	12h 31m	9h 03m				Fr, 4. Okt
Sa, 5. Okt	MESZ	20:08 – 05:15*	9h 07m	AN <sub>+</sub> bis AN <sub>-</sub>		09:44	19:07	05:13	36m	05:50	35m	06:25	32m	06:58	11h 26m	18:24	32m	18:56	35m	19:32	36m	20:08	12h 35m	9h 07m				Sa, 5. Okt
So, 6. Okt	MESZ	20:06 – 05:16*	9h 10m	AN <sub>+</sub> bis AN <sub>-</sub>		10:54	19:29	05:15	36m	05:51	35m	06:26	32m	06:59	11h 22m	18:22	32m	18:54	35m	19:30	36m	20:06	12h 38m	9h 10m				So, 6. Okt
Mo, 7. Okt	MESZ	20:04 – 05:18*	9h 14m	AN <sub>+</sub> bis AN <sub>-</sub>		12:05	19:59	05:16	36m	05:52	35m	06:28	32m	07:00	11h 19m	18:20	32m	18:53	35m	19:28	36m	20:04	12h 42m	9h 14m				Mo, 7. Okt
Di, 8. Okt	MESZ	20:39 – 05:19*	8h 39m	M <sub>\</sub> bis AN <sub>-</sub>		13:13	20:39	05:18	36m	05:54	35m	06:29	32m	07:02	11h 15m	18:18	32m	18:51	35m	19:26	36m	20:02	12h 45m	9h 17m				Di, 8. Okt
Mi, 9. Okt	MESZ	21:33 – 05:21*	7h 47m	M <sub>\</sub> bis AN <sub>-</sub>		14:14	21:33	05:19	36m	05:55	35m	06:30	32m	07:03	11h 12m	18:16	32m	18:49	35m	19:24	35m	20:00	12h 48m	9h 21m				Mi, 9. Okt
Do, 10. Okt	MESZ	22:39 – 05:22*	6h 42m	M <sub>\</sub> bis AN <sub>-</sub>	☾	15:04	22:39	05:21	36m	05:57	35m	06:32	32m	07:05	11h 09m	18:14	32m	18:47	35m	19:22	35m	19:58	12h 52m	9h 24m				Do, 10. Okt
Fr, 11. Okt	MESZ	23:56 – 05:24*	5h 27m	M <sub>\</sub> bis AN <sub>-</sub>		15:43	23:56	05:22	35m	05:58	35m	06:33	32m	07:06	11h 05m	18:12	32m	18:45	35m	19:20	35m	19:56	12h 55m	9h 27m				Fr, 11. Okt
Sa, 12. Okt	MESZ	01:19* – 05:25*	4h 05m	M <sub>\</sub> bis AN <sub>-</sub>		16:13	—:—	05:24	35m	05:59	35m	06:35	33m	07:08	11h 02m	18:10	32m	18:43	35m	19:18	35m	19:54	12h 59m	9h 31m				Sa, 12. Okt
So, 13. Okt	MESZ	02:44* – 05:26*	2h 42m	M <sub>\</sub> bis AN <sub>-</sub>		16:36	01:19	05:25	35m	06:01	35m	06:36	33m	07:09	10h 58m	18:08	33m	18:41	35m	19:16	35m	19:52	13h 02m	9h 34m				So, 13. Okt
Mo, 14. Okt	MESZ	04:09* – 05:28*	1h 18m	M <sub>\</sub> bis AN <sub>-</sub>		16:56	02:44	05:26	35m	06:02	35m	06:37	33m	07:11	10h 55m	18:06	33m	18:39	35m	19:14	35m	19:50	13h 05m	9h 37m				Mo, 14. Okt
Di, 15. Okt	MESZ	—:~:~:~	–	Mond stört		17:14	04:09	05:28	35m	06:04	35m	06:39	33m	07:12	10h 52m	18:04	33m	18:37	35m	19:12	35m	19:48	13h 09m	9h 41m				Di, 15. Okt
Mi, 16. Okt	MESZ	—:~:~:~	–	Mond stört		17:31	05:35	05:29	35m	06:05	35m	06:40	33m	07:13	10h 48m	18:02	33m	18:35	35m	19:11	35m	19:46	13h 12m	9h 44m				Mi, 16. Okt
Do, 17. Okt	MESZ	—:~:~:~	–	Mond stört	☉	17:50	07:02	05:31	35m	06:06	35m	06:42	33m	07:15	10h 45m	18:00	33m	18:34	35m	19:09	35m	19:45	13h 15m	9h 47m				Do, 17. Okt
Fr, 18. Okt	MESZ	—:~:~:~	–	Mond stört		18:13	08:32	05:32	35m	06:08	35m	06:43	33m	07:16	10h 42m	17:59	33m	18:32	35m	19:07	35m	19:43	13h 19m	9h 50m				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		18:28–02:08*	7h 40m	AN <sub>+</sub> bis M <sub>J</sub>		01:01	15:03	04:44	35m	05:20	35m	05:56	33m	06:30	10h 12m	16:43	33m	17:17	35m	17:52	35m	18:28	13h 48m	10h 17m				So, 27. Okt
Mo, 28. Okt		18:26–03:14*	8h 47m	AN <sub>+</sub> bis M <sub>J</sub>		02:08	15:16	04:46	35m	05:22	35m	05:57	34m	06:31	10h 09m	16:41	34m	17:15	35m	17:51	35m	18:26	13h 51m	10h 20m				Mo, 28. Okt
Di, 29. Okt		18:25–04:19*	9h 54m	AN <sub>+</sub> bis M <sub>J</sub>		03:14	15:29	04:47	35m	05:23	35m	05:59	34m	06:33	10h 06m	16:39	34m	17:14	35m	17:49	35m	18:25	13h 54m	10h 23m				Di, 29. Okt
Mi, 30. Okt		18:23–04:50*	10h 26m	AN <sub>+</sub> bis AN <sub>-</sub>		04:19	15:42	04:49	35m	05:24	35m	06:00	34m	06:34	10h 03m	16:38	34m	17:12	35m	17:48	35m	18:23	13h 58m	10h 26m				Mi, 30. Okt
Do, 31. Okt		18:22–04:51*	10h 29m	AN <sub>+</sub> bis AN <sub>-</sub>		05:26	15:56	04:50	35m	05:26	35m	06:02	34m	06:36	10h 00m	16:36	34m	17:11	35m	17:46	35m	18:22	14h 01m	10h 29m				Do, 31. Okt
Fr, 1. Nov		18:21–04:53*	10h 31m	AN <sub>+</sub> bis AN <sub>-</sub>	●	06:34	16:13	04:51	35m	05:27	35m	06:03	34m	06:37	9h 57m	16:35	34m	17:09	35m	17:45	35m	18:21	14h 04m	10h 31m				Fr, 1. Nov
Sa, 2. Nov		18:19–04:54*	10h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		07:44	16:34	04:53	35m	05:29	35m	06:04	34m	06:39	9h 54m	16:33	34m	17:08	35m	17:43	35m	18:19	14h 07m	10h 34m				Sa, 2. Nov
So, 3. Nov		18:18–04:55*	10h 37m	AN <sub>+</sub> bis AN <sub>-</sub>		08:55	17:02	04:54	35m	05:30	35m	06:06	34m	06:40	9h 51m	16:32	34m	17:06	35m	17:42	35m	18:18	14h 10m	10h 37m				So, 3. Nov
Mo, 4. Nov		18:17–04:57*	10h 39m	AN <sub>+</sub> bis AN <sub>-</sub>		10:04	17:39	04:55	36m	05:31	36m	06:07	34m	06:42	9h 48m	16:30	34m	17:05	35m	17:41	35m	18:17	14h 13m	10h 39m				Mo, 4. Nov
Di, 5. Nov		18:28–04:58*	10h 29m	M <sub>\</sub> bis AN <sub>-</sub>		11:08	18:28	04:57	36m	05:33	36m	06:09	34m	06:44	9h 45m	16:29	34m	17:03	36m	17:39	35m	18:15	14h 16m	10h 42m				Di, 5. Nov
Mi, 6. Nov		19:30–04:59*	9h 29m	M <sub>\</sub> bis AN <sub>-</sub>		12:01	19:30	04:58	36m	05:34	36m	06:10	34m	06:45	9h 42m	16:27	34m	17:02	36m	17:38	36m	18:14	14h 19m	10h 45m				Mi, 6. Nov
Do, 7. Nov		20:43–05:01*	8h 17m	M <sub>\</sub> bis AN <sub>-</sub>		12:43	20:43	04:59	36m	05:35	36m	06:12	35m	06:47	9h 39m	16:26	34m	17:01	36m	17:37	36m	18:13	14h 22m	10h 47m				Do, 7. Nov
Fr, 8. Nov		22:01–05:02*	7h 00m	M <sub>\</sub> bis AN <sub>-</sub>		13:14	22:01	05:01	36m	05:37	36m	06:13	35m	06:48	9h 36m	16:24	35m	17:00	36m	17:36	36m	18:12	14h 25m	10h 49m				Fr, 8. Nov
Sa, 9. Nov		23:22–05:03*	5h 40m	M <sub>\</sub> bis AN <sub>-</sub>	◐	13:39	23:22	05:02	36m	05:38	36m	06:14	35m	06:50	9h 33m	16:23	35m	16:58	36m	17:35	36m	18:11	14h 28m	10h 52m				Sa, 9. Nov
So, 10. Nov		00:44*–05:04*	4h 20m	M <sub>\</sub> bis AN <sub>-</sub>		13:59	—:—	05:03	36m	05:39	36m	06:16	35m	06:51	9h 30m	16:22	35m	16:57	36m	17:33	36m	18:10	14h 30m	10h 54m				So, 10. Nov
Mo, 11. Nov		02:06*–05:06*	2h 59m	M <sub>\</sub> bis AN <sub>-</sub>		14:17	00:44	05:04	36m	05:41	36m	06:17	35m	06:53	9h 27m	16:21	35m	16:56	36m	17:32	36m	18:09	14h 33m	10h 57m				Mo, 11. Nov
Di, 12. Nov		03:30*–05:07*	1h 37m	M <sub>\</sub> bis AN <sub>-</sub>		14:34	02:06	05:06	36m	05:42	36m	06:19	35m	06:54	9h 25m	16:19	35m	16:55	36m	17:31	36m	18:08	14h 36m	10h 59m				Di, 12. Nov
Mi, 13. Nov		04:56*–05:08*	12m	M <sub>\</sub> bis AN <sub>-</sub>		14:52	03:30	05:07	36m	05:43	36m	06:20	35m	06:56	9h 22m	16:18	35m	16:54	36m	17:30	36m	18:07	14h 39m	11h 01m				Mi, 13. Nov
Do, 14. Nov		—:—:—:—	–	Mond stört		15:12	04:56	05:08	36m	05:45	36m	06:21	35m	06:57	9h 19m	16:17	35m	16:53	36m	17:29	36m	18:06	14h 41m	11h 03m				Do, 14. Nov
Fr, 15. Nov		—:—:—:—	–	Mond stört	◑	15:37	06:25	05:10	36m	05:46	36m	06:23	35m	06:59	9h 17m	16:16	35m	16:52	36m	17:28	36m	18:05	14h 44m	11h 05m				Fr, 15. Nov
Sa, 16. Nov		—:—:—:—	–	Mond stört		16:11	07:54	05:11	36m	05:47	36m	06:24	35m	07:00	9h 14m	16:15	35m	16:51	36m	17:27	36m	18:04	14h 46m	11h 08m				Sa, 16. Nov
So, 17. Nov		—:~:~:~:~	–	Mond stört		16:56	09:18	05:12	36m	05:49	36m	06:26	36m	07:02	9h 11m	16:14	36m	16:50	36m	17:27	36m	18:03	14h 49m	11h 10m				So, 17. Nov
Mo, 18. Nov		—:~:~:~:~	–	Mond stört		17:55	10:30	05:13	36m	05:50	37m	06:27	36m	07:03	9h 09m	16:13	36m	16:49	37m	17:26	36m	18:02	14h 51m	11h 12m				Mo, 18. Nov
Di, 19. Nov		18:02–19:05	1h 03m	AN <sub>+</sub> bis M <sub>J</sub>		19:05	11:24	05:14	36m	05:51	37m	06:28	36m	07:05	9h 07m	16:12	36m	16:48	37m	17:25	36m	18:02	14h 54m	11h 14m				Di, 19. Nov
Mi, 20. Nov		18:01–20:21	2h 19m	AN <sub>+</sub> bis M <sub>J</sub>		20:21	12:03	05:16	36m	05:52	37m	06:30	36m	07:06	9h 04m	16:11	36m	16:47	37m	17:24	36m	18:01	14h 56m	11h 16m				Mi, 20. Nov
Do, 21. Nov		18:00–21:36	3h 35m	AN <sub>+</sub> bis M <sub>J</sub>		21:36	12:31	05:17	36m	05:54	37m	06:31	36m	07:07	9h 02m	16:10	36m	16:46	37m	17:23	36m	18:00	14h 59m	11h 17m				Do, 21. Nov
Fr, 22. Nov		17:59–22:48	4h 48m	AN <sub>+</sub> bis M <sub>J</sub>		22:48	12:52	05:18	36m	05:55	37m	06:32	36m	07:09	8h 59m	16:09	36m	16:45	37m	17:23	36m	17:59	15h 01m	11h 19m				Fr, 22. Nov
Sa, 23. Nov		17:59–23:57	5h 57m	AN <sub>+</sub> bis M <sub>J</sub>	◒	23:57	13:09	05:19	36m	05:56	37m	06:33	36m	07:10	8h 57m	16:08	36m	16:45	37m	17:22	36m	17:59	15h 03m	11h 21m				Sa, 23. Nov
So, 24. Nov		17:58–01:03*	7h 04m	AN <sub>+</sub> bis M <sub>J</sub>		—:—	13:23	05:20	36m	05:57	37m	06:35	36m	07:12	8h 55m	16:07	36m	16:44	37m	17:21	36m	17:58	15h 05m	11h 23m				So, 24. Nov
Mo, 25. Nov		17:58–02:08*	8h 10m	AN <sub>+</sub> bis M <sub>J</sub>		01:03	13:36	05:22	36m	05:58	37m	06:36	36m	07:13	8h 53m	16:06	36m	16:43	37m	17:21	36m	17:58	15h 07m	11h 24m				Mo, 25. Nov
Di, 26. Nov		17:57–03:14*	9h 16m	AN <sub>+</sub> bis M <sub>J</sub>		02:08	13:49	05:23	36m	06:00	37m	06:37	37m	07:14	8h 51m	16:06	37m	16:43	37m	17:20	36m	17:57	15h 09m	11h 26m				Di, 26. Nov
Mi, 27. Nov		17:57–04:22*	10h 24m	AN <sub>+</sub> bis M <sub>J</sub>		03:14	14:03	05:24	37m	06:01	37m	06:39	37m	07:16	8h 49m	16:05	37m	16:42	37m	17:20	37m	17:57	15h 11m	11h 27m				Mi, 27. Nov
Do, 28. Nov		17:56–05:26*	11h 29m	AN <sub>+</sub> bis AN <sub>-</sub>		04:22	14:19	05:25	37m	06:02	37m	06:40	37m	07:17	8h 47m	16:04	37m	16:42	37m	17:19	37m	17:56	15h 13m	11h 29m				Do, 28. Nov
Fr, 29. Nov		17:56–05:27*	11h 30m	AN <sub>+</sub> bis AN <sub>-</sub>		05:31	14:39	05:26	37m	06:03	37m	06:41	37m	07:18	8h 45m	16:04	37m	16:41	37m	17:19	37m	17:56	15h 15m	11h 30m				Fr, 29. Nov
Sa, 30. Nov		17:56–05:28*	11h 32m	AN <sub>+</sub> bis AN <sub>-</sub>		06:43	15:04	05:27	37m	06:04	37m	06:42	37m	07:20	8h 43m	16:03	37m	16:41	37m	17:19	37m	17:56	15h 17m	11h 32m				Sa, 30. Nov
So, 1. Dez		17:56–05:29*	11h 33m	AN <sub>+</sub> bis AN <sub>-</sub>	●	07:54	15:38	05:28	37m	06:05	37m	06:43	37m	07:21	8h 42m	16:03	37m	16:40	37m	17:18	37m	17:56	15h 19m	11h 33m				So, 1. Dez
Mo, 2. Dez		17:55–05:30*	11h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		09:00	16:24	05:29	37m	06:06	38m	06:44	37m	07:22	8h 40m	16:02	37m	16:40	38m	17:18	37m	17:55	15h 20m	11h 34m				Mo, 2. Dez
Di, 3. Dez		17:55–05:31*	11h 36m	AN <sub>+</sub> bis AN <sub>-</sub>		09:57	17:23	05:30	37m	06:07	38m	06:45	37m	07:23	8h 38m	16:02	37m	16:40	38m	17:18	37m	17:55	15h 22m	11h 36m				Di, 3. Dez
Mi, 4. Dez		18:34–05:32*	10h 58m	M <sub>\</sub> bis AN <sub>-</sub>		10:42	18:34	05:31	37m	06:08	38m	06:47	37m	07:24	8h 37m	16:02	37m	16:39	38m	17:18	37m	17:55	15h 23m	11h 37m				Mi, 4. Dez
Do, 5. Dez		19:51–05:33*	9h 41m	M <sub>\</sub> bis AN <sub>-</sub>		11:17	19:51	05:32	37m	06:09	38m	06:48	37m	07:25	8h 36m	16:01	37m	16:39	38m	17:17	37m	17:55	15h 25m	11h 38m				Do, 5. Dez
Fr, 6. Dez		21:11–05:34*	8h 23m	M <sub>\</sub> bis AN <sub>-</sub>		11:43	21:11	05:33	37m	06:10	38m	06:49	37m	07:27	8h 34m	16:01	37m	16:39	38m	17:17	37m	17:55	15h 26m	11h 39m				Fr, 6. Dez
Sa, 7. Dez		22:31–05:35*	7h 04m	M <sub>\</sub> bis AN <sub>-</sub>		12:04	22:31	05:34	37m	06:11	38m	06:50	37m	07:28	8h 33m	16:01	37m	16:39	38m	17:17	37m	17:55	15h 27m	11h 40m				Sa, 7. Dez
So, 8. Dez		23:50–05:36*	5h 45m	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		16:42	09:09	05:41	37m	06:19	38m	06:57	38m	07:36	8h 25m	16:01	38m	16:40	38m	17:18	37m	17:56	15h 34m	11h 45m				Mo, 16. Dez
Di, 17. Dez		17:56–17:57	0m	AN <sub>+</sub> bis M <sub>7</sub>		17:57	09:56	05:42	37m	06:19	38m	06:58	38m	07:36	8h 25m	16:02	38m	16:40	38m	17:19	37m	17:56	15h 35m	11h 45m				Di, 17. Dez
Mi, 18. Dez		17:57–19:14	1h 17m	AN <sub>+</sub> bis M <sub>7</sub>		19:14	10:30	05:42	37m	06:20	38m	06:59	38m	07:37	8h 25m	16:02	38m	16:41	38m	17:19	37m	17:57	15h 35m	11h 46m				Mi, 18. Dez
Do, 19. Dez		17:57–20:29	2h 32m	AN <sub>+</sub> bis M <sub>7</sub>		20:29	10:54	05:43	37m	06:21	38m	06:59	38m	07:38	8h 24m	16:03	38m	16:41	38m	17:20	37m	17:57	15h 35m	11h 46m				Do, 19. Dez
Fr, 20. Dez		17:58–21:41	3h 43m	AN <sub>+</sub> bis M <sub>7</sub>		21:41	11:13	05:43	37m	06:21	38m	07:00	38m	07:38	8h 24m	16:03	38m	16:41	38m	17:20	37m	17:58	15h 35m	11h 46m				Fr, 20. Dez
Sa, 21. Dez		17:58–22:49	4h 50m	AN <sub>+</sub> bis M <sub>7</sub>		22:49	11:28	05:44	37m	06:22	38m	07:00	38m	07:39	8h 24m	16:03	38m	16:42	38m	17:21	37m	17:58	15h 35m	11h 46m				Sa, 21. Dez
So, 22. Dez		17:59–23:55	5h 56m	AN <sub>+</sub> bis M <sub>7</sub>	☉	23:55	11:42	05:44	37m	06:22	38m	07:01	38m	07:39	8h 24m	16:04	38m	16:42	38m	17:21	37m	17:59	15h 35m	11h 46m				So, 22. Dez
Mo, 23. Dez		17:59–01:01*	7h 01m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	11:55	05:45	37m	06:23	38m	07:01	38m	07:40	8h 24m	16:05	38m	16:43	38m	17:22	37m	17:59	15h 35m	11h 46m				Mo, 23. Dez
Di, 24. Dez		18:00–02:07*	8h 07m	AN <sub>+</sub> bis M <sub>7</sub>		01:01	12:08	05:45	37m	06:23	38m	07:02	38m	07:40	8h 25m	16:05	38m	16:44	38m	17:22	37m	18:00	15h 35m	11h 45m				Di, 24. Dez
Mi, 25. Dez		18:00–03:16*	9h 15m	AN <sub>+</sub> bis M <sub>7</sub>		02:07	12:23	05:46	37m	06:23	38m	07:02	38m	07:40	8h 25m	16:06	38m	16:44	38m	17:23	37m	18:00	15h 34m	11h 45m				Mi, 25. Dez
Do, 26. Dez		18:01–04:27*	10h 25m	AN <sub>+</sub> bis M <sub>7</sub>		03:16	12:41	05:46	37m	06:24	38m	07:02	38m	07:41	8h 25m	16:07	38m	16:45	38m	17:24	37m	18:01	15h 34m	11h 45m				Do, 26. Dez
Fr, 27. Dez		18:02–05:38*	11h 36m	AN <sub>+</sub> bis M <sub>7</sub>		04:27	13:04	05:46	37m	06:24	38m	07:03	38m	07:41	8h 26m	16:07	38m	16:46	38m	17:24	37m	18:02	15h 33m	11h 44m				Fr, 27. Dez
Sa, 28. Dez		18:03–05:47*	11h 44m	AN <sub>+</sub> bis AN <sub>-</sub>		05:38	13:35	05:47	37m	06:24	38m	07:03	38m	07:41	8h 26m	16:08	38m	16:46	38m	17:25	37m	18:03	15h 33m	11h 44m				Sa, 28. Dez
So, 29. Dez		18:03–05:47*	11h 43m	AN <sub>+</sub> bis AN <sub>-</sub>		06:47	14:17	05:47	37m	06:24	38m	07:03	38m	07:41	8h 27m	16:09	38m	16:47	38m	17:26	37m	18:03	15h 32m	11h 43m				So, 29. Dez
Mo, 30. Dez		18:04–05:47*	11h 43m	AN <sub>+</sub> bis AN <sub>-</sub>	☉	07:49	15:12	05:47	37m	06:25	38m	07:03	38m	07:41	8h 28m	16:10	38m	16:48	38m	17:27	37m	18:04	15h 31m	11h 43m				Mo, 30. Dez
Di, 31. Dez		18:05–05:47*	11h 42m	AN <sub>+</sub> bis AN <sub>-</sub>		08:39	16:20	05:47	37m	06:25	38m	07:03	38m	07:41	8h 29m	16:11	38m	16:49	38m	17:27	37m	18:05	15h 30m	11h 42m				Di, 31. Dez
Mi, 1. Jan		18:06–05:47*	11h 41m	AN <sub>+</sub> bis AN <sub>-</sub>		09:18	17:38	05:47	37m	06:25	38m	07:03	38m	07:41	8h 30m	16:12	38m	16:50	38m	17:28	37m	18:06	15h 29m	11h 41m				Mi, 1. Jan
Do, 2. Jan		18:59–05:47*	10h 48m	M <sub>\</sub> bis AN <sub>-</sub>		09:47	18:59	05:47	37m	06:25	38m	07:03	38m	07:41	8h 31m	16:13	38m	16:51	38m	17:29	37m	18:07	15h 28m	11h 40m				Do, 2. Jan
Fr, 3. Jan		20:20–05:47*	9h 27m	M <sub>\</sub> bis AN <sub>-</sub>		10:10	20:20	05:47	37m	06:25	38m	07:03	38m	07:41	8h 32m	16:14	38m	16:52	38m	17:30	37m	18:08	15h 27m	11h 39m				Fr, 3. Jan
Sa, 4. Jan		21:40–05:47*	8h 07m	M <sub>\</sub> bis AN <sub>-</sub>		10:28	21:40	05:47	37m	06:25	38m	07:03	37m	07:41	8h 33m	16:15	37m	16:53	38m	17:31	37m	18:08	15h 26m	11h 39m				Sa, 4. Jan
So, 5. Jan		22:59–05:47*	6h 48m	M <sub>\</sub> bis AN <sub>-</sub>		10:45	22:59	05:47	37m	06:25	38m	07:03	37m	07:41	8h 34m	16:16	37m	16:54	38m	17:32	37m	18:09	15h 24m	11h 38m				So, 5. Jan
Mo, 6. Jan		00:19*–05:47*	5h 28m	M <sub>\</sub> bis AN <sub>-</sub>		11:01	—:—	05:47	37m	06:25	38m	07:03	37m	07:41	8h 36m	16:17	37m	16:55	38m	17:33	37m	18:10	15h 23m	11h 36m				Mo, 6. Jan
Di, 7. Jan		01:40*–05:47*	4h 06m	M <sub>\</sub> bis AN <sub>-</sub>	☉	11:18	00:19	05:47	37m	06:25	38m	07:03	37m	07:40	8h 37m	16:18	37m	16:56	38m	17:34	37m	18:11	15h 21m	11h 35m				Di, 7. Jan
Mi, 8. Jan		03:04*–05:47*	2h 42m	M <sub>\</sub> bis AN <sub>-</sub>		11:38	01:40	05:47	37m	06:24	38m	07:02	37m	07:40	8h 39m	16:19	37m	16:57	38m	17:35	37m	18:12	15h 20m	11h 34m				Mi, 8. Jan
Do, 9. Jan		04:28*–05:47*	1h 18m	M <sub>\</sub> bis AN <sub>-</sub>		12:03	03:04	05:47	37m	06:24	38m	07:02	37m	07:40	8h 40m	16:21	37m	16:58	38m	17:36	37m	18:13	15h 18m	11h 33m				Do, 9. Jan
Fr, 10. Jan		—:—:—:—	—	Mond stört		12:37	04:28	05:47	37m	06:24	37m	07:02	37m	07:39	8h 42m	16:22	37m	16:59	37m	17:37	37m	18:14	15h 17m	11h 32m				Fr, 10. Jan
Sa, 11. Jan		—:—:—:—	—	Mond stört		13:22	05:47	05:46	37m	06:24	37m	07:01	37m	07:39	8h 44m	16:23	37m	17:00	37m	17:38	37m	18:16	15h 15m	11h 30m				Sa, 11. Jan
So, 12. Jan		—:~:~:~:~	—	Mond stört		14:22	06:55	05:46	37m	06:23	37m	07:01	37m	07:38	8h 46m	16:24	37m	17:02	37m	17:39	37m	18:17	15h 13m	11h 29m				So, 12. Jan
Mo, 13. Jan		—:~:~:~:~	—	Mond stört	☉	15:33	07:48	05:46	37m	06:23	37m	07:01	37m	07:38	8h 47m	16:26	37m	17:03	37m	17:41	37m	18:18	15h 11m	11h 27m				Mo, 13. Jan
Di, 14. Jan		—:~:~:~:~	—	Mond stört		16:50	08:26	05:45	36m	06:22	37m	07:00	37m	07:37	8h 49m	16:27	37m	17:04	37m	17:42	37m	18:19	15h 09m	11h 26m				Di, 14. Jan
Mi, 15. Jan		—:~:~:~:~	—	Mond stört		18:07	08:54	05:45	36m	06:22	37m	07:00	36m	07:37	8h 51m	16:28	36m	17:05	37m	17:43	36m	18:20	15h 07m	11h 24m				Mi, 15. Jan
Do, 16. Jan		18:21–19:21	1h 00m	AN <sub>+</sub> bis M <sub>7</sub>		19:21	09:15	05:44	36m	06:21	37m	06:59	36m	07:36	8h 53m	16:30	36m	17:07	37m	17:44	36m	18:21	15h 05m	11h 22m				Do, 16. Jan
Fr, 17. Jan		18:22–20:32	2h 09m	AN <sub>+</sub> bis M <sub>7</sub>		20:32	09:32	05:44	36m	06:21	37m	06:58	36m	07:35	8h 56m	16:31	36m	17:08	37m	17:45	36m	18:22	15h 03m	11h 21m				Fr, 17. Jan
Sa, 18. Jan		18:24–21:40	3h 16m	AN <sub>+</sub> bis M <sub>7</sub>		21:40	09:47	05:43	36m	06:20	37m	06:58	36m	07:34	8h 58m	16:33	36m	17:09	37m	17:47	36m	18:24	15h 00m	11h 19m				Sa, 18. Jan
So, 19. Jan		18:25–22:46	4h 21m	AN <sub>+</sub> bis M <sub>7</sub>		22:46	10:00	05:43	36m	06:20	37m	06:57	36m	07:33	9h 00m	16:34	36m	17:11	37m	17:48	36m	18:25	14h 58m	11h 17m				So, 19. Jan
Mo, 20. Jan		18:26–23:53	5h 26m	AN <sub>+</sub> bis M <sub>7</sub>		23:53	10:13	05:42	36m	06:19	37m	06:56	36m	07:33	9h 02m	16:36	36m	17:12	37m	17:49	36m	18:26	14h 56m	11h 15m				Mo, 20. Jan
Di, 21. Jan		18:27–01:00*	6h 32m	AN <sub>+</sub> bis M <sub>7</sub>	☉	—:—	10:27	05:42	36m	06:18	37m	06:55	36m	07:32	9h 05m	16:37	36m	17:13	37m	17:51	36m	18:27	14h 53m	11h 13m				Di, 21. Jan
Mi, 22. Jan		18:28–02:09*	7h 40m	AN <sub>+</sub> bis M <sub>7</sub>		01:00	10:44	05:41	36m	06:17	37m	06:55	36m	07:31	9h 07m	16:38	36m	17:15	37m	17:52	36m	18:28	14h 51m	11h 11m				Mi, 22. Jan
Do, 23. Jan		18:30–03:20*	8h 50m	AN <sub>+</sub> bis M <sub>7</sub>		02:09	11:04	05:40	36m	06:17	37m	06:54	36m	07:30	9h 10m	16:40	36m	17:16	37m	17:53	36m	18:30	14h 48m	11h 09m				Do, 23. Jan
Fr, 24. Jan		18:31–04:30*	9h 58m	AN <sub>+</sub> bis M <sub>7</sub>		03:20	11:31	05:39	36m	06:16	36m	06:53	36m	07:29	9h 12m	16:41	36m	17:18	36m	17:54	36m	18:31	14h 46m	11h 07m				Fr, 24. Jan
Sa, 25. Jan		18:32–05:35*	11h 02m	AN <sub>+</sub> bis M <sub>7</sub>		04:30	12:07	05:39	36m	06:15	36m	06:52	35m	07:28	9h 15m	16:43	35m	17:19	36m	17:56	36m	18:32	14h 43m	11h 05m				Sa, 25. Jan
So, 26. Jan		18:34–05:37*	11h 03m	AN <sub>+</sub> bis AN <sub>-</sub>		05:35	12:56	05:38	36m	06:14	36m	06:51	35m	07:27	9h 17m	16:45	35m	17:20	36m	17:57	36m	18:34	14h 40m	11h 03m				So, 26. Jan
Mo, 27. Jan		18:35–05:36*	11h 00m	AN <sub>+</sub> bis AN <sub>-</sub>																								