

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Montreuil (Pas-de-Calais) 50.4648° N 1.7630° 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		19:01 – 22:46	3h 44m	AN <sub>+</sub> bis M <sub>J</sub>		22:46	11:57	06:51	39m	07:31	40m	08:12	41m	08:53	8h 06m	16:59	41m	17:40	40m	18:21	39m	19:01	15h 53m	11h 50m				Mo, 1. Jan
Di, 2. Jan		19:02 – 23:54	4h 52m	AN <sub>+</sub> bis M <sub>J</sub>		23:54	12:08	06:51	39m	07:31	40m	08:12	40m	08:53	8h 07m	17:00	40m	17:41	40m	18:22	39m	19:02	15h 52m	11h 49m				Di, 2. Jan
Mi, 3. Jan		19:02 – 01:02*	5h 59m	AN <sub>+</sub> bis M <sub>J</sub>		—:—	12:19	06:51	39m	07:31	40m	08:12	40m	08:52	8h 08m	17:01	40m	17:42	40m	18:23	39m	19:02	15h 51m	11h 48m				Mi, 3. Jan
Do, 4. Jan		19:03 – 02:13*	7h 09m	AN <sub>+</sub> bis M <sub>J</sub>	☾	01:02	12:30	06:51	39m	07:31	40m	08:11	40m	08:52	8h 09m	17:02	40m	17:43	40m	18:24	39m	19:03	15h 49m	11h 47m				Do, 4. Jan
Fr, 5. Jan		19:04 – 03:26*	8h 22m	AN <sub>+</sub> bis M <sub>J</sub>		02:13	12:43	06:51	39m	07:31	40m	08:11	40m	08:52	8h 11m	17:03	40m	17:44	40m	18:25	39m	19:04	15h 48m	11h 46m				Fr, 5. Jan
Sa, 6. Jan		19:05 – 04:44*	9h 38m	AN <sub>+</sub> bis M <sub>J</sub>		03:26	12:58	06:51	39m	07:31	40m	08:11	40m	08:52	8h 12m	17:05	40m	17:45	40m	18:26	39m	19:05	15h 46m	11h 45m				Sa, 6. Jan
So, 7. Jan		19:06 – 06:05*	10h 58m	AN <sub>+</sub> bis M <sub>J</sub>		04:44	13:18	06:51	39m	07:30	40m	08:11	40m	08:51	8h 14m	17:06	40m	17:46	40m	18:27	39m	19:06	15h 45m	11h 44m				So, 7. Jan
Mo, 8. Jan		19:07 – 06:51*	11h 43m	AN <sub>+</sub> bis AN <sub>-</sub>		06:05	13:46	06:51	39m	07:30	40m	08:11	40m	08:51	8h 15m	17:07	40m	17:48	40m	18:28	39m	19:07	15h 43m	11h 43m				Mo, 8. Jan
Di, 9. Jan		19:09 – 06:50*	11h 41m	AN <sub>+</sub> bis AN <sub>-</sub>		07:24	14:27	06:51	39m	07:30	40m	08:10	40m	08:51	8h 17m	17:08	40m	17:49	40m	18:29	39m	19:09	15h 41m	11h 41m				Di, 9. Jan
Mi, 10. Jan		19:10 – 06:50*	11h 40m	AN <sub>+</sub> bis AN <sub>-</sub>		08:34	15:27	06:50	39m	07:30	40m	08:10	40m	08:50	8h 19m	17:10	40m	17:50	40m	18:30	39m	19:10	15h 39m	11h 40m				Mi, 10. Jan
Do, 11. Jan		19:11 – 06:50*	11h 38m	AN <sub>+</sub> bis AN <sub>-</sub>	☀	09:29	16:44	06:50	39m	07:29	40m	08:09	40m	08:50	8h 21m	17:11	40m	17:51	40m	18:32	39m	19:11	15h 37m	11h 38m				Do, 11. Jan
Fr, 12. Jan		19:12 – 06:49*	11h 37m	AN <sub>+</sub> bis AN <sub>-</sub>		10:08	18:14	06:50	39m	07:29	40m	08:09	40m	08:49	8h 23m	17:12	40m	17:52	40m	18:33	39m	19:12	15h 35m	11h 37m				Fr, 12. Jan
Sa, 13. Jan		19:46 – 06:49*	11h 02m	M <sub>\</sub> bis AN <sub>-</sub>		10:35	19:46	06:49	39m	07:28	40m	08:08	39m	08:48	8h 25m	17:14	39m	17:54	40m	18:34	39m	19:13	15h 33m	11h 35m				Sa, 13. Jan
So, 14. Jan		21:16 – 06:48*	9h 32m	M <sub>\</sub> bis AN <sub>-</sub>		10:56	21:16	06:49	39m	07:28	40m	08:08	39m	08:48	8h 27m	17:15	39m	17:55	40m	18:35	39m	19:14	15h 31m	11h 33m				So, 14. Jan
Mo, 15. Jan		22:43 – 06:48*	8h 04m	M <sub>\</sub> bis AN <sub>-</sub>		11:12	22:43	06:48	39m	07:27	39m	08:07	39m	08:47	8h 29m	17:17	39m	17:56	39m	18:36	39m	19:16	15h 29m	11h 32m				Mo, 15. Jan
Di, 16. Jan		00:07* – 06:47*	6h 40m	M <sub>\</sub> bis AN <sub>-</sub>		11:26	—:—	06:48	38m	07:27	39m	08:07	39m	08:46	8h 32m	17:18	39m	17:58	39m	18:38	39m	19:17	15h 27m	11h 30m				Di, 16. Jan
Mi, 17. Jan		01:30* – 06:47*	5h 16m	M <sub>\</sub> bis AN <sub>-</sub>		11:40	00:07	06:47	38m	07:26	39m	08:06	39m	08:45	8h 34m	17:20	39m	17:59	39m	18:39	38m	19:18	15h 24m	11h 28m				Mi, 17. Jan
Do, 18. Jan		02:52* – 06:46*	3h 53m	M <sub>\</sub> bis AN <sub>-</sub>	☾	11:55	01:30	06:47	38m	07:25	39m	08:05	39m	08:44	8h 36m	17:21	39m	18:01	39m	18:40	38m	19:19	15h 22m	11h 26m				Do, 18. Jan
Fr, 19. Jan		04:14* – 06:45*	2h 30m	M <sub>\</sub> bis AN <sub>-</sub>		12:12	02:52	06:46	38m	07:25	39m	08:04	39m	08:44	8h 39m	17:23	39m	18:02	39m	18:42	38m	19:21	15h 19m	11h 24m				Fr, 19. Jan
Sa, 20. Jan		05:34* – 06:45*	1h 10m	M <sub>\</sub> bis AN <sub>-</sub>		12:35	04:14	06:45	38m	07:24	39m	08:04	39m	08:43	8h 41m	17:25	39m	18:04	39m	18:43	38m	19:22	15h 17m	11h 22m				Sa, 20. Jan
So, 21. Jan		—:— —:— —:—	–	Mond stört		13:05	05:34	06:45	38m	07:23	39m	08:03	38m	08:42	8h 44m	17:26	38m	18:05	39m	18:45	38m	19:23	15h 14m	11h 20m				So, 21. Jan
Mo, 22. Jan		—:— —:— —:—	–	Mond stört		13:46	06:46	06:44	38m	07:22	39m	08:02	38m	08:41	8h 47m	17:28	38m	18:07	39m	18:46	38m	19:25	15h 11m	11h 18m				Mo, 22. Jan
Di, 23. Jan		—:— —:~ —:~	–	Mond stört		14:40	07:47	06:43	38m	07:22	39m	08:01	38m	08:39	8h 49m	17:29	38m	18:08	39m	18:47	38m	19:26	15h 08m	11h 16m				Di, 23. Jan
Mi, 24. Jan		—:~ —:~ —:~	–	Mond stört		15:45	08:33	06:42	38m	07:21	39m	08:00	38m	08:38	8h 52m	17:31	38m	18:10	39m	18:49	38m	19:27	15h 06m	11h 13m				Mi, 24. Jan
Do, 25. Jan		—:~ —:~ —:~	–	Mond stört	☽	16:57	09:07	06:41	38m	07:20	39m	07:59	38m	08:37	8h 55m	17:33	38m	18:11	39m	18:50	38m	19:29	15h 03m	11h 11m				Do, 25. Jan
Fr, 26. Jan		—:~ —:~ —:~	–	Mond stört		18:10	09:31	06:40	38m	07:19	38m	07:58	38m	08:36	8h 58m	17:34	38m	18:13	39m	18:52	38m	19:30	15h 00m	11h 09m				Fr, 26. Jan
Sa, 27. Jan		—:~ —:~ —:~	–	Mond stört		19:22	09:49	06:39	38m	07:18	38m	07:57	38m	08:35	9h 01m	17:36	38m	18:14	38m	18:53	38m	19:32	14h 57m	11h 06m				Sa, 27. Jan
So, 28. Jan		19:33 – 20:33	59m	AN <sub>+</sub> bis M <sub>J</sub>		20:33	10:03	06:38	38m	07:17	38m	07:55	37m	08:33	9h 04m	17:38	38m	18:16	38m	18:55	38m	19:33	14h 54m	11h 04m				So, 28. Jan
Mo, 29. Jan		19:34 – 21:41	2h 06m	AN <sub>+</sub> bis M <sub>J</sub>		21:41	10:15	06:37	38m	07:15	38m	07:54	37m	08:32	9h 07m	17:39	37m	18:17	38m	18:56	38m	19:34	14h 51m	11h 01m				Mo, 29. Jan
Di, 30. Jan		19:36 – 22:49	3h 13m	AN <sub>+</sub> bis M <sub>J</sub>		22:49	10:26	06:36	38m	07:14	38m	07:53	37m	08:31	9h 10m	17:41	37m	18:19	38m	18:58	38m	19:36	14h 48m	10h 59m				Di, 30. Jan
Mi, 31. Jan		19:37 – 23:58	4h 20m	AN <sub>+</sub> bis M <sub>J</sub>		23:58	10:37	06:35	38m	07:13	38m	07:52	37m	08:29	9h 13m	17:43	37m	18:21	38m	18:59	38m	19:37	14h 44m	10h 56m				Mi, 31. Jan
Do, 1. Feb		19:39 – 01:09*	5h 30m	AN <sub>+</sub> bis M <sub>J</sub>		—:~	10:48	06:34	38m	07:12	38m	07:50	37m	08:28	9h 16m	17:45	37m	18:22	38m	19:01	38m	19:39	14h 41m	10h 53m				Do, 1. Feb
Fr, 2. Feb		19:40 – 02:23*	6h 42m	AN <sub>+</sub> bis M <sub>J</sub>		01:09	11:02	06:33	38m	07:11	38m	07:49	37m	08:26	9h 20m	17:46	37m	18:24	38m	19:02	38m	19:40	14h 38m	10h 51m				Fr, 2. Feb
Sa, 3. Feb		19:42 – 03:41*	7h 58m	AN <sub>+</sub> bis M <sub>J</sub>	☾	02:23	11:19	06:31	38m	07:09	38m	07:48	37m	08:25	9h 23m	17:48	37m	18:25	38m	19:04	38m	19:42	14h 35m	10h 48m				Sa, 3. Feb
So, 4. Feb		19:43 – 04:59*	9h 15m	AN <sub>+</sub> bis M <sub>J</sub>		03:41	11:42	06:30	38m	07:08	38m	07:46	37m	08:23	9h 26m	17:50	37m	18:27	38m	19:05	38m	19:43	14h 31m	10h 45m				So, 4. Feb
Mo, 5. Feb		19:45 – 06:13*	10h 28m	AN <sub>+</sub> bis M <sub>J</sub>		04:59	12:15	06:29	37m	07:07	38m	07:45	36m	08:22	9h 29m	17:52	36m	18:29	38m	19:07	38m	19:45	14h 28m	10h 42m				Mo, 5. Feb
Di, 6. Feb		19:46 – 06:26*	10h 39m	AN <sub>+</sub> bis AN <sub>-</sub>		06:13	13:04	06:27	37m	07:05	38m	07:43	36m	08:20	9h 33m	17:53	36m	18:30	38m	19:08	37m	19:46	14h 25m	10h 39m				Di, 6. Feb
Mi, 7. Feb		19:48 – 06:25*	10h 36m	AN <sub>+</sub> bis AN <sub>-</sub>		07:15	14:12	06:26	37m	07:04	37m	07:42	36m	08:19	9h 36m	17:55	36m	18:32	38m	19:10	37m	19:48	14h 21m	10h 36m				Mi, 7. Feb
Do, 8. Feb		19:49 – 06:23*	10h 33m	AN <sub>+</sub> bis AN <sub>-</sub>		08:01	15:37	06:25	37m	07:02	37m	07:40	36m	08:17	9h 39m	17:57	36m	18:34	37m	19:11	37m	19:49	14h 18m	10h 33m				Do, 8. Feb
Fr, 9. Feb		19:51 – 06:22*	10h 30m	AN <sub>+</sub> bis AN <sub>-</sub>	☀	08:34	17:10	06:23	37m	07:01	37m	07:39	36m	08:15	9h 43m	17:59	36m	18:35	37m	19:13	37m	19:51	14h 14m	10h 30m				Fr, 9. Feb
Sa, 10. Feb		19:52 – 06:20*	10h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		08:57	18:44	06:22	37m	06:59	37m	07:37	36m	08:14	9h 46m	18:00	36m	18:37	37m	19:15	37m	19:52	14h 11m	10h 27m				Sa, 10. Feb
So, 11. Feb		20:16 – 06:19*	10h 02m	M <sub>\</sub> bis AN <sub>-</sub>		09:16	20:16	06:20	37m	06:58	37m	07:36	36m	08:12	9h 50m	18:02	36m	18:38	37m	19:16	37m	19:54	14h 07m	10h 24m				So, 11. Feb
Mo, 12. Feb		21:44 – 06:17*	8h 32m	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	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne			Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2024			
			Δt		Ph.	↑	↓	Astr.	Δt	Naut.	Δt	Bürg.	Δt	↑	Δt	↓	Δt	Bürg.	Δt	Naut.	Δt	Astr.	Δt	Δt		Δt			
Di, 20. Feb		—:—:—:—	—	Mond stört		13:35	06:34	06:05	37m	06:43	37m	07:20	35m	07:55	10h 22m	18:18	35m	18:53	37m	19:31	37m	20:08	13h 35m	9h 54m					Di, 20. Feb
Mi, 21. Feb		—:—:—:—	—	Mond stört		14:45	07:10	06:03	37m	06:41	37m	07:18	35m	07:53	10h 26m	18:20	35m	18:55	37m	19:32	37m	20:10	13h 31m	9h 51m					Mi, 21. Feb
Do, 22. Feb		—:—:~:~:~	—	Mond stört		15:58	07:37	06:01	37m	06:39	37m	07:16	35m	07:51	10h 30m	18:21	35m	18:57	37m	19:34	37m	20:12	13h 27m	9h 47m					Do, 22. Feb
Fr, 23. Feb		—:~:~:~:~	—	Mond stört		17:10	07:56	05:59	37m	06:37	37m	07:14	35m	07:49	10h 33m	18:23	35m	18:58	37m	19:35	37m	20:13	13h 24m	9h 44m					Fr, 23. Feb
Sa, 24. Feb		—:~:~:~:~	—	Mond stört	○	18:21	08:11	05:57	37m	06:35	37m	07:12	35m	07:47	10h 37m	18:25	35m	19:00	37m	19:37	37m	20:15	13h 20m	9h 40m					Sa, 24. Feb
So, 25. Feb		—:~:~:~:~	—	Mond stört		19:31	08:23	05:56	37m	06:33	37m	07:10	35m	07:45	10h 41m	18:27	35m	19:02	37m	19:39	37m	20:17	13h 16m	9h 36m					So, 25. Feb
Mo, 26. Feb		20:18–20:39	20m	AN <sub>+</sub> bis M <sub>J</sub>		20:39	08:34	05:54	37m	06:31	37m	07:08	34m	07:43	10h 44m	18:28	35m	19:03	37m	19:40	37m	20:18	13h 13m	9h 33m					Mo, 26. Feb
Di, 27. Feb		20:20–21:47	1h 27m	AN <sub>+</sub> bis M <sub>J</sub>		21:47	08:45	05:52	37m	06:29	36m	07:06	34m	07:41	10h 48m	18:30	34m	19:05	37m	19:42	37m	20:20	13h 09m	9h 29m					Di, 27. Feb
Mi, 28. Feb		20:22–22:57	2h 35m	AN <sub>+</sub> bis M <sub>J</sub>		22:57	08:55	05:50	37m	06:27	36m	07:04	34m	07:39	10h 52m	18:32	34m	19:07	37m	19:44	37m	20:22	13h 05m	9h 25m					Mi, 28. Feb
Do, 29. Feb		20:23–00:10*	3h 46m	AN <sub>+</sub> bis M <sub>J</sub>		—:—	09:08	05:48	37m	06:25	36m	07:02	34m	07:37	10h 56m	18:33	34m	19:08	37m	19:45	38m	20:23	13h 01m	9h 22m					Do, 29. Feb
Fr, 1. Mrz		20:25–01:25*	4h 59m	AN <sub>+</sub> bis M <sub>J</sub>		00:10	09:23	05:45	37m	06:23	36m	07:00	34m	07:35	10h 59m	18:35	34m	19:10	37m	19:47	38m	20:25	12h 57m	9h 18m					Fr, 1. Mrz
Sa, 2. Mrz		20:27–02:42*	6h 14m	AN <sub>+</sub> bis M <sub>J</sub>		01:25	09:43	05:43	38m	06:21	36m	06:58	34m	07:33	11h 03m	18:37	34m	19:12	37m	19:49	38m	20:27	12h 54m	9h 14m					Sa, 2. Mrz
So, 3. Mrz		20:28–03:56*	7h 27m	AN <sub>+</sub> bis M <sub>J</sub>	●	02:42	10:11	05:41	38m	06:19	36m	06:56	34m	07:31	11h 07m	18:38	34m	19:13	37m	19:50	38m	20:28	12h 50m	9h 10m					So, 3. Mrz
Mo, 4. Mrz		20:30–05:01*	8h 31m	AN <sub>+</sub> bis M <sub>J</sub>		03:56	10:51	05:39	38m	06:17	36m	06:54	34m	07:29	11h 11m	18:40	34m	19:15	37m	19:52	38m	20:30	12h 46m	9h 06m					Mo, 4. Mrz
Di, 5. Mrz		20:32–05:35*	9h 02m	AN <sub>+</sub> bis AN <sub>-</sub>		05:01	11:48	05:37	38m	06:15	36m	06:52	34m	07:27	11h 15m	18:42	34m	19:16	37m	19:54	38m	20:32	12h 42m	9h 02m					Di, 5. Mrz
Mi, 6. Mrz		20:34–05:32*	8h 58m	AN <sub>+</sub> bis AN <sub>-</sub>		05:53	13:04	05:35	38m	06:13	37m	06:50	34m	07:25	11h 18m	18:43	34m	19:18	37m	19:55	38m	20:34	12h 38m	8h 58m					Mi, 6. Mrz
Do, 7. Mrz		20:35–05:30*	8h 54m	AN <sub>+</sub> bis AN <sub>-</sub>		06:31	14:31	05:33	38m	06:11	37m	06:48	34m	07:22	11h 22m	18:45	34m	19:20	37m	19:57	38m	20:35	12h 35m	8h 54m					Do, 7. Mrz
Fr, 8. Mrz		20:37–05:28*	8h 50m	AN <sub>+</sub> bis AN <sub>-</sub>		06:58	16:04	05:30	38m	06:09	37m	06:46	34m	07:20	11h 26m	18:47	34m	19:21	37m	19:59	38m	20:37	12h 31m	8h 50m					Fr, 8. Mrz
Sa, 9. Mrz		20:39–05:26*	8h 46m	AN <sub>+</sub> bis AN <sub>-</sub>		07:18	17:38	05:28	38m	06:07	37m	06:44	34m	07:18	11h 30m	18:48	34m	19:23	37m	20:00	38m	20:39	12h 27m	8h 46m					Sa, 9. Mrz
So, 10. Mrz		20:41–05:23*	8h 42m	AN <sub>+</sub> bis AN <sub>-</sub>	●	07:34	19:09	05:26	38m	06:04	37m	06:41	34m	07:16	11h 34m	18:50	34m	19:25	37m	20:02	38m	20:41	12h 23m	8h 42m					So, 10. Mrz
Mo, 11. Mrz		20:42–05:21*	8h 38m	AN <sub>+</sub> bis AN <sub>-</sub>		07:49	20:39	05:23	38m	06:02	37m	06:39	34m	07:14	11h 37m	18:52	34m	19:26	37m	20:04	38m	20:42	12h 19m	8h 38m					Mo, 11. Mrz
Di, 12. Mrz		22:09–05:19*	7h 10m	M <sub>↓</sub> bis AN <sub>-</sub>		08:04	22:09	05:21	38m	06:00	37m	06:37	34m	07:12	11h 41m	18:53	34m	19:28	37m	20:05	39m	20:44	12h 16m	8h 34m					Di, 12. Mrz
Mi, 13. Mrz		23:38–05:16*	5h 38m	M <sub>↓</sub> bis AN <sub>-</sub>		08:20	23:38	05:19	38m	05:58	37m	06:35	34m	07:09	11h 45m	18:55	34m	19:30	37m	20:07	39m	20:46	12h 12m	8h 30m					Mi, 13. Mrz
Do, 14. Mrz		01:05*–05:14*	4h 09m	M <sub>↓</sub> bis AN <sub>-</sub>		08:39	—:—	05:16	39m	05:55	37m	06:33	34m	07:07	11h 49m	18:57	34m	19:31	37m	20:09	39m	20:48	12h 08m	8h 26m					Do, 14. Mrz
Fr, 15. Mrz		02:27*–05:12*	2h 44m	M <sub>↓</sub> bis AN <sub>-</sub>		09:05	01:05	05:14	39m	05:53	37m	06:31	34m	07:05	11h 53m	18:58	34m	19:33	37m	20:10	39m	20:50	12h 04m	8h 21m					Fr, 15. Mrz
Sa, 16. Mrz		03:37*–05:09*	1h 31m	M <sub>↓</sub> bis AN <sub>-</sub>		09:40	02:27	05:12	39m	05:51	37m	06:28	34m	07:03	11h 57m	19:00	34m	19:35	37m	20:12	39m	20:52	12h 00m	8h 17m					Sa, 16. Mrz
So, 17. Mrz		04:33*–05:07*	33m	M <sub>↓</sub> bis AN <sub>-</sub>	◐	10:26	03:37	05:09	39m	05:49	37m	06:26	34m	07:01	12h 00m	19:02	34m	19:36	37m	20:14	39m	20:54	11h 56m	8h 13m					So, 17. Mrz
Mo, 18. Mrz		—:~:~:~:~	—	Mond stört		11:25	04:33	05:07	39m	05:46	37m	06:24	34m	06:58	12h 04m	19:03	34m	19:38	37m	20:16	39m	20:55	11h 53m	8h 08m					Mo, 18. Mrz
Di, 19. Mrz		—:~:~:~:~	—	Mond stört		12:34	05:14	05:04	39m	05:44	37m	06:22	34m	06:56	12h 08m	19:05	34m	19:39	37m	20:17	40m	20:57	11h 49m	8h 04m					Di, 19. Mrz
Mi, 20. Mrz		—:~:~:~:~	—	Mond stört		13:46	05:42	05:02	39m	05:42	37m	06:19	34m	06:54	12h 12m	19:06	34m	19:41	37m	20:19	40m	20:59	11h 45m	8h 00m					Mi, 20. Mrz
Do, 21. Mrz		—:~:~:~:~	—	Mond stört		14:59	06:03	04:59	40m	05:39	37m	06:17	34m	06:52	12h 16m	19:08	34m	19:43	37m	20:21	40m	21:01	11h 41m	7h 55m					Do, 21. Mrz
Fr, 22. Mrz		—:~:~:~:~	—	Mond stört		16:11	06:19	04:57	40m	05:37	37m	06:15	34m	06:50	12h 20m	19:10	34m	19:44	38m	20:23	40m	21:03	11h 37m	7h 51m					Fr, 22. Mrz
Sa, 23. Mrz		—:~:~:~:~	—	Mond stört		17:20	06:32	04:54	40m	05:35	38m	06:13	34m	06:47	12h 23m	19:11	34m	19:46	38m	20:24	40m	21:05	11h 33m	7h 46m					Sa, 23. Mrz
So, 24. Mrz		—:~:~:~:~	—	Mond stört		18:29	06:43	04:52	40m	05:32	38m	06:10	34m	06:45	12h 27m	19:13	34m	19:48	38m	20:26	40m	21:07	11h 30m	7h 42m					So, 24. Mrz
Mo, 25. Mrz		—:~:~:~:~	—	Mond stört	○	19:37	06:54	04:49	40m	05:30	38m	06:08	34m	06:43	12h 31m	19:15	34m	19:49	38m	20:28	41m	21:09	11h 26m	7h 37m					Mo, 25. Mrz
Di, 26. Mrz		—:~:~:~:~	—	Mond stört		20:47	07:04	04:46	41m	05:28	38m	06:06	34m	06:41	12h 35m	19:16	34m	19:51	38m	20:30	41m	21:11	11h 22m	7h 32m					Di, 26. Mrz
Mi, 27. Mrz		21:13–21:59	46m	AN <sub>+</sub> bis M <sub>J</sub>		21:59	07:16	04:44	41m	05:25	38m	06:04	34m	06:39	12h 39m	19:18	35m	19:53	38m	20:31	41m	21:13	11h 18m	7h 28m					Mi, 27. Mrz
Do, 28. Mrz		21:15–23:14	1h 58m	AN <sub>+</sub> bis M <sub>J</sub>		23:14	07:30	04:41	41m	05:23	38m	06:01	34m	06:36	12h 42m	19:19	35m	19:54	38m	20:33	41m	21:15	11h 14m	7h 23m					Do, 28. Mrz
Fr, 29. Mrz		21:17–00:30*	3h 12m	AN <sub>+</sub> bis M <sub>J</sub>		—:—	07:48	04:39	41m	05:20	38m	05:59	35m	06:34	12h 46m	19:21	35m	19:56	38m	20:35	42m	21:17	11h 11m	7h 18m					Fr, 29. Mrz
Sa, 30. Mrz		21:19–01:45*	4h 25m	AN <sub>+</sub> bis M <sub>J</sub>		00:30	08:12	04:36	42m	05:18	38m	05:57	35m	06:32	12h 50m	19:23	35m	19:58	39m	20:37	42m	21:19	11h 07m	7h 14m					Sa, 30. Mrz
So, 31. Mrz	MESZ	22:21–03:53*	5h 31m	AN <sub>+</sub> bis M <sub>J</sub>		02:45	09:47	05:33	42m	06:16	39m	06:55	35m	07:30	12h 54m	20:24	35m	20:59	39m	21:39	42m	22:21	11h 03m	7h 09m					So, 31. Mrz
Mo, 1. Apr	MESZ	22:23–04:48*	6h 24m	AN <sub>+</sub> bis M <sub>J</sub>		03:53	10:37	05:31	42m	06:13	39m	06:52	35m	07:28	12h 58m	20:26	35m	21:01	39m	21:41	42m	22:23	10h 59m	7h 04m					Mo, 1. Apr
Di, 2. Apr	MESZ	22:26–05:25*	6h 59m	AN																									

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

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



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

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

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



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