

# Mond- und Dämmerungstabelle 2023

für die visuelle Deep-Sky-Beobachtung

Kronach 50.2411° N 11.3281° 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
2023	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne			Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2023		
			$\Delta t$		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, 1. Jan		03:58*–06:13*	2h 14m	M <sub>\</sub> bis AN <sub>-</sub>		12:48	02:44	06:12	39m	06:52	40m	07:33	40m	08:13	8h 08m	16:22	40m	17:03	40m	17:43	39m	18:23	15h 51m	11h 49m				So, 1. Jan
Mo, 2. Jan		05:12*–06:13*	1h 00m	M <sub>\</sub> bis AN <sub>-</sub>		13:07	03:58	06:13	39m	06:52	40m	07:33	40m	08:13	8h 09m	16:23	40m	17:04	40m	17:44	39m	18:24	15h 50m	11h 48m				Mo, 2. Jan
Di, 3. Jan		—:—:—:—	–	Mond stört		13:30	05:12	06:13	39m	06:52	40m	07:33	40m	08:13	8h 10m	16:24	40m	17:05	40m	17:45	39m	18:25	15h 48m	11h 47m				Di, 3. Jan
Mi, 4. Jan		—:—:—:—	–	Mond stört		14:01	06:24	06:13	39m	06:52	40m	07:32	40m	08:13	8h 12m	16:25	40m	17:06	40m	17:46	39m	18:26	15h 47m	11h 46m				Mi, 4. Jan
Do, 5. Jan		—:—:—:—	–	Mond stört		14:41	07:29	06:13	39m	06:52	40m	07:32	40m	08:13	8h 13m	16:26	40m	17:07	40m	17:47	39m	18:27	15h 46m	11h 45m				Do, 5. Jan
Fr, 6. Jan		—:~:~:~:~	–	Mond stört		15:32	08:24	06:12	39m	06:52	40m	07:32	40m	08:12	8h 15m	16:28	40m	17:08	40m	17:48	39m	18:28	15h 44m	11h 44m				Fr, 6. Jan
Sa, 7. Jan		—:~:~:~:~	–	Mond stört	○	16:33	09:08	06:12	39m	06:51	40m	07:32	40m	08:12	8h 16m	16:29	40m	17:09	40m	17:49	39m	18:29	15h 42m	11h 43m				Sa, 7. Jan
So, 8. Jan		—:~:~:~:~	–	Mond stört		17:40	09:41	06:12	39m	06:51	40m	07:32	40m	08:12	8h 18m	16:30	40m	17:10	40m	17:51	39m	18:30	15h 41m	11h 42m				So, 8. Jan
Mo, 9. Jan		18:31–18:50	19m	AN <sub>+</sub> bis M <sub>7</sub>		18:50	10:06	06:12	39m	06:51	40m	07:31	40m	08:11	8h 20m	16:31	40m	17:11	40m	17:52	39m	18:31	15h 39m	11h 40m				Mo, 9. Jan
Di, 10. Jan		18:32–20:01	1h 28m	AN <sub>+</sub> bis M <sub>7</sub>		20:01	10:26	06:12	39m	06:51	40m	07:31	39m	08:11	8h 21m	16:33	39m	17:13	40m	17:53	39m	18:32	15h 37m	11h 39m				Di, 10. Jan
Mi, 11. Jan		18:33–21:11	2h 37m	AN <sub>+</sub> bis M <sub>7</sub>		21:11	10:41	06:11	39m	06:50	40m	07:30	39m	08:10	8h 23m	16:34	39m	17:14	40m	17:54	39m	18:33	15h 35m	11h 37m				Mi, 11. Jan
Do, 12. Jan		18:34–22:20	3h 46m	AN <sub>+</sub> bis M <sub>7</sub>		22:20	10:55	06:11	39m	06:50	39m	07:30	39m	08:10	8h 25m	16:35	39m	17:15	39m	17:55	39m	18:34	15h 33m	11h 36m				Do, 12. Jan
Fr, 13. Jan		18:35–23:31	4h 55m	AN <sub>+</sub> bis M <sub>7</sub>		23:31	11:08	06:11	38m	06:49	39m	07:29	39m	08:09	8h 27m	16:37	39m	17:16	39m	17:56	38m	18:35	15h 31m	11h 34m				Fr, 13. Jan
Sa, 14. Jan		18:37–00:44*	6h 07m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	11:21	06:10	38m	06:49	39m	07:29	39m	08:08	8h 29m	16:38	39m	17:18	39m	17:58	38m	18:37	15h 29m	11h 33m				Sa, 14. Jan
So, 15. Jan		18:38–02:01*	7h 22m	AN <sub>+</sub> bis M <sub>7</sub>	●	00:44	11:35	06:10	38m	06:48	39m	07:28	39m	08:08	8h 32m	16:40	39m	17:19	39m	17:59	38m	18:38	15h 27m	11h 31m				So, 15. Jan
Mo, 16. Jan		18:39–03:22*	8h 42m	AN <sub>+</sub> bis M <sub>7</sub>		02:01	11:52	06:09	38m	06:48	39m	07:28	39m	08:07	8h 34m	16:41	39m	17:21	39m	18:00	38m	18:39	15h 24m	11h 29m				Mo, 16. Jan
Di, 17. Jan		18:40–04:47*	10h 06m	AN <sub>+</sub> bis M <sub>7</sub>		03:22	12:14	06:09	38m	06:47	39m	07:27	39m	08:06	8h 36m	16:43	39m	17:22	39m	18:02	38m	18:40	15h 22m	11h 27m				Di, 17. Jan
Mi, 18. Jan		18:42–06:07*	11h 25m	AN <sub>+</sub> bis AN <sub>-</sub>		04:47	12:44	06:08	38m	06:47	39m	07:26	39m	08:05	8h 39m	16:44	39m	17:23	39m	18:03	38m	18:42	15h 19m	11h 25m				Mi, 18. Jan
Do, 19. Jan		18:43–06:07*	11h 23m	AN <sub>+</sub> bis AN <sub>-</sub>		06:10	13:29	06:07	38m	06:46	39m	07:25	38m	08:04	8h 41m	16:46	38m	17:25	39m	18:04	38m	18:43	15h 17m	11h 23m				Do, 19. Jan
Fr, 20. Jan		18:44–06:06*	11h 21m	AN <sub>+</sub> bis AN <sub>-</sub>		07:24	14:33	06:07	38m	06:45	39m	07:24	38m	08:03	8h 44m	16:47	38m	17:26	39m	18:06	38m	18:44	15h 14m	11h 21m				Fr, 20. Jan
Sa, 21. Jan		18:45–06:05*	11h 19m	AN <sub>+</sub> bis AN <sub>-</sub>	●	08:21	15:54	06:06	38m	06:44	39m	07:24	38m	08:02	8h 46m	16:49	38m	17:28	39m	18:07	38m	18:45	15h 12m	11h 19m				Sa, 21. Jan
So, 22. Jan		18:47–06:04*	11h 17m	AN <sub>+</sub> bis AN <sub>-</sub>		09:02	17:26	06:05	38m	06:44	39m	07:23	38m	08:01	8h 49m	16:51	38m	17:29	39m	18:08	38m	18:47	15h 09m	11h 17m				So, 22. Jan
Mo, 23. Jan		18:59–06:03*	11h 04m	M <sub>\</sub> bis AN <sub>-</sub>		09:30	18:59	06:04	38m	06:43	39m	07:22	38m	08:00	8h 52m	16:52	38m	17:31	39m	18:10	38m	18:48	15h 06m	11h 15m				Mo, 23. Jan
Di, 24. Jan		20:28–06:02*	9h 34m	M <sub>\</sub> bis AN <sub>-</sub>		09:51	20:28	06:03	38m	06:42	38m	07:21	38m	07:59	8h 54m	16:54	38m	17:32	38m	18:11	38m	18:50	15h 03m	11h 12m				Di, 24. Jan
Mi, 25. Jan		21:52–06:02*	8h 09m	M <sub>\</sub> bis AN <sub>-</sub>		10:08	21:52	06:02	38m	06:41	38m	07:20	38m	07:58	8h 57m	16:56	38m	17:34	38m	18:13	38m	18:51	15h 01m	11h 10m				Mi, 25. Jan
Do, 26. Jan		23:13–06:01*	6h 47m	M <sub>\</sub> bis AN <sub>-</sub>		10:23	23:13	06:02	38m	06:40	38m	07:19	38m	07:57	9h 00m	16:57	38m	17:35	38m	18:14	38m	18:52	14h 58m	11h 08m				Do, 26. Jan
Fr, 27. Jan		00:31*–06:00*	5h 28m	M <sub>\</sub> bis AN <sub>-</sub>		10:38	—:—	06:01	38m	06:39	38m	07:17	37m	07:55	9h 03m	16:59	37m	17:37	38m	18:16	38m	18:54	14h 55m	11h 05m				Fr, 27. Jan
Sa, 28. Jan		01:47*–05:59*	4h 11m	M <sub>\</sub> bis AN <sub>-</sub>	●	10:53	00:31	06:00	38m	06:38	38m	07:16	37m	07:54	9h 06m	17:01	37m	17:38	38m	18:17	38m	18:55	14h 52m	11h 03m				Sa, 28. Jan
So, 29. Jan		03:03*–05:57*	2h 54m	M <sub>\</sub> bis AN <sub>-</sub>		11:11	01:47	05:59	38m	06:37	38m	07:15	37m	07:53	9h 09m	17:02	37m	17:40	38m	18:18	38m	18:57	14h 49m	11h 00m				So, 29. Jan
Mo, 30. Jan		04:15*–05:56*	1h 40m	M <sub>\</sub> bis AN <sub>-</sub>		11:33	03:03	05:57	38m	06:35	38m	07:14	37m	07:51	9h 12m	17:04	37m	17:42	38m	18:20	38m	18:58	14h 45m	10h 58m				Mo, 30. Jan
Di, 31. Jan		05:23*–05:55*	32m	M <sub>\</sub> bis AN <sub>-</sub>		12:01	04:15	05:56	37m	06:34	38m	07:13	37m	07:50	9h 15m	17:06	37m	17:43	38m	18:21	38m	19:00	14h 42m	10h 55m				Di, 31. Jan
Mi, 1. Feb		—:~:~:~:~	–	Mond stört		12:38	05:23	05:55	37m	06:33	38m	07:11	37m	07:49	9h 18m	17:07	37m	17:45	38m	18:23	38m	19:01	14h 39m	10h 52m				Mi, 1. Feb
Do, 2. Feb		—:~:~:~:~	–	Mond stört		13:26	06:21	05:54	37m	06:32	38m	07:10	37m	07:47	9h 22m	17:09	37m	17:46	38m	18:24	37m	19:02	14h 36m	10h 50m				Do, 2. Feb
Fr, 3. Feb		—:~:~:~:~	–	Mond stört		14:24	07:08	05:53	37m	06:31	38m	07:09	36m	07:46	9h 25m	17:11	37m	17:48	38m	18:26	37m	19:04	14h 33m	10h 47m				Fr, 3. Feb
Sa, 4. Feb		—:~:~:~:~	–	Mond stört		15:30	07:44	05:51	37m	06:29	37m	07:07	36m	07:44	9h 28m	17:13	36m	17:50	38m	18:28	37m	19:05	14h 29m	10h 44m				Sa, 4. Feb
So, 5. Feb		—:~:~:~:~	–	Mond stört	○	16:40	08:11	05:50	37m	06:28	37m	07:06	36m	07:43	9h 31m	17:14	36m	17:51	37m	18:29	37m	19:07	14h 26m	10h 41m				So, 5. Feb
Mo, 6. Feb		—:~:~:~:~	–	Mond stört		17:51	08:32	05:49	37m	06:26	37m	07:04	36m	07:41	9h 35m	17:16	36m	17:53	37m	18:31	37m	19:08	14h 23m	10h 38m				Mo, 6. Feb
Di, 7. Feb		—:~:~:~:~	–	Mond stört		19:01	08:48	05:47	37m	06:25	37m	07:03	36m	07:39	9h 38m	17:18	36m	17:54	37m	18:32	37m	19:10	14h 19m	10h 36m				Di, 7. Feb
Mi, 8. Feb		19:11–20:11	59m	AN <sub>+</sub> bis M <sub>7</sub>		20:11	09:02	05:46	37m	06:24	37m	07:01	36m	07:38	9h 41m	17:20	36m	17:56	37m	18:34	37m	19:11	14h 16m	10h 33m				Mi, 8. Feb
Do, 9. Feb		19:13–21:22	2h 08m	AN <sub>+</sub> bis M <sub>7</sub>		21:22	09:15	05:44	37m	06:22	37m	07:00	36m	07:36	9h 45m	17:21	36m	17:58	37m	18:35	37m	19:13	14h 13m	10h 30m				Do, 9. Feb
Fr, 10. Feb		19:15–22:33	3h 18m	AN <sub>+</sub> bis M <sub>7</sub>		22:33	09:27	05:43	37m	06:21	37m	06:58	36m	07:34	9h 48m	17:23	36m	17:59	37m	18:37	37m	19:15	14h 09m	10h 26m				Fr, 10. Feb
Sa, 11. Feb		19:16–23:47	4h 30m	AN <sub>+</sub> bis M <sub>7</sub>		23:47	09:41	05:41	37m	06:19	37m	06:57	36m	07:33	9h 52m	17:25	36m	18:01	37m	18:38	37m	19:16	14h 06m	10h 23m				Sa, 11. Feb
So, 12. Feb		19:18–01:05*	5h 46m	AN <sub>+</sub> bis M <sub>7</sub>		—:~	09:56	05:40	37m	06:18	37m	06:55	35m	07:31	9h 55m	17:27	35m	18:03	37m	18:40	37m	19:1						

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
2023	Zeitzone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne			Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2023		
			$\Delta t$		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, 20. Feb		19:30–05:25*	9h 54m	AN <sub>+</sub> bis AN <sub>-</sub>	●	07:52	17:52	05:26	37m	06:04	37m	06:41	35m	07:16	10h 24m	17:40	35m	18:16	37m	18:53	37m	19:30	13h 33m	9h 54m				Mo, 20. Feb
Di, 21. Feb		19:32–05:23*	9h 50m	AN <sub>+</sub> bis AN <sub>-</sub>		08:11	19:21	05:25	37m	06:02	36m	06:39	35m	07:14	10h 27m	17:42	35m	18:17	37m	18:54	37m	19:32	13h 30m	9h 50m				Di, 21. Feb
Mi, 22. Feb		20:46–05:21*	8h 34m	M <sub>\</sub> bis AN <sub>-</sub>		08:27	20:46	05:23	37m	06:00	36m	06:37	35m	07:12	10h 31m	17:44	35m	18:19	37m	18:56	37m	19:34	13h 26m	9h 47m				Mi, 22. Feb
Do, 23. Feb		22:08–05:19*	7h 10m	M <sub>\</sub> bis AN <sub>-</sub>		08:42	22:08	05:21	37m	05:58	36m	06:35	34m	07:10	10h 35m	17:46	35m	18:21	36m	18:58	37m	19:35	13h 22m	9h 43m				Do, 23. Feb
Fr, 24. Feb		23:28–05:17*	5h 48m	M <sub>\</sub> bis AN <sub>-</sub>		08:57	23:28	05:19	37m	05:57	36m	06:33	34m	07:08	10h 38m	17:47	34m	18:22	36m	18:59	37m	19:37	13h 19m	9h 40m				Fr, 24. Feb
Sa, 25. Feb		00:47*–05:15*	4h 28m	M <sub>\</sub> bis AN <sub>-</sub>		09:14	—:—	05:17	37m	05:55	36m	06:31	34m	07:06	10h 42m	17:49	34m	18:24	36m	19:01	37m	19:39	13h 15m	9h 36m				Sa, 25. Feb
So, 26. Feb		02:03*–05:13*	3h 10m	M <sub>\</sub> bis AN <sub>-</sub>		09:35	00:47	05:15	37m	05:53	36m	06:30	34m	07:04	10h 46m	17:51	34m	18:26	36m	19:02	37m	19:40	13h 11m	9h 32m				So, 26. Feb
Mo, 27. Feb		03:14*–05:11*	1h 57m	M <sub>\</sub> bis AN <sub>-</sub>	◐	10:01	02:03	05:13	37m	05:51	36m	06:28	34m	07:02	10h 50m	17:52	34m	18:27	36m	19:04	37m	19:42	13h 07m	9h 29m				Mo, 27. Feb
Di, 28. Feb		04:16*–05:09*	52m	M <sub>\</sub> bis AN <sub>-</sub>		10:35	03:14	05:11	37m	05:49	36m	06:26	34m	07:00	10h 53m	17:54	34m	18:29	36m	19:06	37m	19:43	13h 04m	9h 25m				Di, 28. Feb
Mi, 1. Mär		05:07*–05:07*	0m	M <sub>\</sub> bis AN <sub>-</sub>		11:19	04:16	05:09	37m	05:47	36m	06:24	34m	06:58	10h 57m	17:56	34m	18:30	36m	19:07	37m	19:45	13h 00m	9h 21m				Mi, 1. Mär
Do, 2. Mär		—:—:—:—	–	Mond stört		12:15	05:07	05:07	37m	05:45	36m	06:22	34m	06:56	11h 01m	17:57	34m	18:32	36m	19:09	37m	19:47	12h 56m	9h 18m				Do, 2. Mär
Fr, 3. Mär		—:—:—:—	–	Mond stört		13:18	05:46	05:05	37m	05:43	36m	06:20	34m	06:54	11h 05m	17:59	34m	18:34	36m	19:11	37m	19:49	12h 52m	9h 14m				Fr, 3. Mär
Sa, 4. Mär		—:—:~:~:~	–	Mond stört		14:28	06:16	05:03	37m	05:41	36m	06:17	34m	06:52	11h 08m	18:01	34m	18:35	36m	19:12	38m	19:50	12h 49m	9h 10m				Sa, 4. Mär
So, 5. Mär		—:~:~:~:~	–	Mond stört		15:39	06:38	05:01	37m	05:39	36m	06:15	34m	06:50	11h 12m	18:02	34m	18:37	36m	19:14	38m	19:52	12h 45m	9h 06m				So, 5. Mär
Mo, 6. Mär		—:~:~:~:~	–	Mond stört		16:50	06:56	04:59	38m	05:37	36m	06:13	34m	06:48	11h 16m	18:04	34m	18:39	36m	19:15	38m	19:54	12h 41m	9h 02m				Mo, 6. Mär
Di, 7. Mär		—:~:~:~:~	–	Mond stört	◑	18:01	07:10	04:56	38m	05:34	36m	06:11	34m	06:46	11h 20m	18:06	34m	18:40	36m	19:17	38m	19:55	12h 37m	8h 58m				Di, 7. Mär
Mi, 8. Mär		—:~:~:~:~	–	Mond stört		19:12	07:23	04:54	38m	05:32	36m	06:09	34m	06:44	11h 23m	18:07	34m	18:42	36m	19:19	38m	19:57	12h 34m	8h 54m				Mi, 8. Mär
Do, 9. Mär		19:59–20:24	24m	AN <sub>+</sub> bis M <sub>7</sub>		20:24	07:35	04:52	38m	05:30	36m	06:07	34m	06:41	11h 27m	18:09	34m	18:43	36m	19:20	38m	19:59	12h 30m	8h 50m				Do, 9. Mär
Fr, 10. Mär		20:01–21:37	1h 36m	AN <sub>+</sub> bis M <sub>7</sub>		21:37	07:48	04:50	38m	05:28	36m	06:05	34m	06:39	11h 31m	18:11	34m	18:45	37m	19:22	38m	20:01	12h 26m	8h 46m				Fr, 10. Mär
Sa, 11. Mär		20:02–22:54	2h 51m	AN <sub>+</sub> bis M <sub>7</sub>		22:54	08:02	04:47	38m	05:26	36m	06:03	34m	06:37	11h 35m	18:12	34m	18:47	37m	19:24	38m	20:02	12h 22m	8h 42m				Sa, 11. Mär
So, 12. Mär		20:04–00:14*	4h 09m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	08:20	04:45	38m	05:24	36m	06:01	34m	06:35	11h 38m	18:14	34m	18:48	37m	19:25	38m	20:04	12h 18m	8h 38m				So, 12. Mär
Mo, 13. Mär		20:06–01:34*	5h 28m	AN <sub>+</sub> bis M <sub>7</sub>		00:14	08:42	04:43	38m	05:21	37m	05:58	34m	06:33	11h 42m	18:16	34m	18:50	37m	19:27	38m	20:06	12h 15m	8h 34m				Mo, 13. Mär
Di, 14. Mär		20:08–02:51*	6h 43m	AN <sub>+</sub> bis M <sub>7</sub>		01:34	09:14	04:40	38m	05:19	37m	05:56	34m	06:31	11h 46m	18:17	34m	18:52	37m	19:29	38m	20:08	12h 11m	8h 30m				Di, 14. Mär
Mi, 15. Mär		20:10–03:58*	7h 48m	AN <sub>+</sub> bis M <sub>7</sub>	◒	02:51	09:59	04:38	38m	05:17	37m	05:54	34m	06:28	11h 50m	18:19	34m	18:53	37m	19:30	39m	20:10	12h 07m	8h 26m				Mi, 15. Mär
Do, 16. Mär		20:11–04:33*	8h 21m	AN <sub>+</sub> bis AN <sub>-</sub>		03:58	11:01	04:36	39m	05:15	37m	05:52	34m	06:26	11h 54m	18:20	34m	18:55	37m	19:32	39m	20:11	12h 03m	8h 21m				Do, 16. Mär
Fr, 17. Mär		20:13–04:31*	8h 17m	AN <sub>+</sub> bis AN <sub>-</sub>		04:49	12:19	04:33	39m	05:12	37m	05:50	34m	06:24	11h 57m	18:22	34m	18:56	37m	19:34	39m	20:13	11h 59m	8h 17m				Fr, 17. Mär
Sa, 18. Mär		20:15–04:29*	8h 13m	AN <sub>+</sub> bis AN <sub>-</sub>		05:26	13:47	04:31	39m	05:10	37m	05:48	34m	06:22	12h 01m	18:24	34m	18:58	37m	19:36	39m	20:15	11h 56m	8h 13m				Sa, 18. Mär
So, 19. Mär		20:17–04:26*	8h 09m	AN <sub>+</sub> bis AN <sub>-</sub>		05:53	15:18	04:29	39m	05:08	37m	05:45	34m	06:20	12h 05m	18:25	34m	19:00	37m	19:37	39m	20:17	11h 52m	8h 09m				So, 19. Mär
Mo, 20. Mär		20:19–04:24*	8h 04m	AN <sub>+</sub> bis AN <sub>-</sub>		06:13	16:47	04:26	39m	05:06	37m	05:43	34m	06:18	12h 09m	18:27	34m	19:01	37m	19:39	39m	20:19	11h 48m	8h 04m				Mo, 20. Mär
Di, 21. Mär		20:21–04:21*	8h 00m	AN <sub>+</sub> bis AN <sub>-</sub>	●	06:30	18:14	04:24	39m	05:03	37m	05:41	34m	06:15	12h 13m	18:28	34m	19:03	37m	19:41	39m	20:21	11h 44m	8h 00m				Di, 21. Mär
Mi, 22. Mär		20:23–04:19*	7h 56m	AN <sub>+</sub> bis AN <sub>-</sub>		06:45	19:38	04:21	39m	05:01	37m	05:39	34m	06:13	12h 16m	18:30	34m	19:05	37m	19:42	40m	20:23	11h 40m	7h 56m				Mi, 22. Mär
Do, 23. Mär		21:01–04:16*	7h 15m	M <sub>\</sub> bis AN <sub>-</sub>		07:00	21:01	04:19	40m	04:59	37m	05:36	34m	06:11	12h 20m	18:32	34m	19:06	37m	19:44	40m	20:25	11h 37m	7h 51m				Do, 23. Mär
Fr, 24. Mär		22:23–04:14*	5h 51m	M <sub>\</sub> bis AN <sub>-</sub>		07:16	22:23	04:16	40m	04:56	37m	05:34	34m	06:09	12h 24m	18:33	34m	19:08	38m	19:46	40m	20:26	11h 33m	7h 47m				Fr, 24. Mär
Sa, 25. Mär		23:43–04:11*	4h 28m	M <sub>\</sub> bis AN <sub>-</sub>		07:35	23:43	04:14	40m	04:54	37m	05:32	34m	06:07	12h 28m	18:35	34m	19:10	38m	19:48	40m	20:28	11h 29m	7h 42m				Sa, 25. Mär
So, 26. Mär	MESZ	01:58*–05:08*	3h 10m	M <sub>\</sub> bis AN <sub>-</sub>		08:59	00:43	05:11	40m	05:52	38m	06:30	34m	07:04	12h 32m	19:36	34m	20:11	38m	20:49	40m	21:30	11h 25m	7h 38m				So, 26. Mär
Mo, 27. Mär	MESZ	03:06*–05:06*	1h 59m	M <sub>\</sub> bis AN <sub>-</sub>		09:30	01:58	05:08	40m	05:49	38m	06:27	34m	07:02	12h 35m	19:38	34m	20:13	38m	20:51	41m	21:32	11h 21m	7h 33m				Mo, 27. Mär
Di, 28. Mär	MESZ	04:02*–05:03*	1h 00m	M <sub>\</sub> bis AN <sub>-</sub>		10:11	03:06	05:06	41m	05:47	38m	06:25	34m	07:00	12h 39m	19:40	34m	20:15	38m	20:53	41m	21:34	11h 18m	7h 28m				Di, 28. Mär
Mi, 29. Mär	MESZ	04:46*–05:01*	14m	M <sub>\</sub> bis AN <sub>-</sub>	◑	11:03	04:02	05:03	41m	05:45	38m	06:23	34m	06:58	12h 43m	19:41	34m	20:16	38m	20:55	41m	21:36	11h 14m	7h 24m				Mi, 29. Mär
Do, 30. Mär	MESZ	—:~:~:~:~	–	Mond stört		12:05	04:46	05:01	41m	05:42	38m	06:21	34m	06:56	12h 47m	19:43	35m	20:18	38m	20:57	41m	21:38	11h 10m	7h 19m				Do, 30. Mär
Fr, 31. Mär	MESZ	—:~:~:~:~	–	Mond stört		13:13	05:19	04:58	41m	05:40	38m	06:18	34m	06:53	12h 51m	19:44	35m	20:20	38m	20:58	42m	21:41	11h 06m	7h 14m				Fr, 31. Mär
Sa, 1. Apr	MESZ	—:~:~:~:~	–	Mond stört		14:24	05:43	04:55	42m	05:37	38m	06:16	35m	06:51	12h 54m	19:46	35m	20:21	39m	21:00	42m	21:43	11h 03m	7h 09m				Sa, 1. Apr
So, 2. Apr	MESZ	—:~:~:~:~	–	Mond stört		15:35	06:02	04:53	42m	05:35	38m	06:14	35m	06:49	12h 58m	19:48	35m	20:23	39m	21:02	42m	21:45	10h 59m	7h 05m				So, 2. Apr
Mo, 3. Apr	MESZ	—:~:~:~:~	–	Mond stört		16:46	06:18	04:50	42m	05:33	39m	06:12	35m	06:47														

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
2023	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne				Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2023	
			$\Delta t$		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, 11. Apr	MESZ	22:05–02:53*	4h 48m	AN <sub>+</sub> bis M <sub>7</sub>		01:43	08:55	04:28	45m	05:13	40m	05:54	35m	06:30	13h 32m	20:02	36m	20:38	40m	21:19	45m	22:05	10h 25m	6h 20m				Di, 11. Apr
Mi, 12. Apr	MESZ	22:07–03:48*	5h 40m	AN <sub>+</sub> bis M <sub>7</sub>		02:53	09:52	04:25	45m	05:11	40m	05:52	36m	06:28	13h 35m	20:03	36m	20:40	41m	21:21	46m	22:07	10h 22m	6h 15m				Mi, 12. Apr
Do, 13. Apr	MESZ	22:09–04:19*	6h 09m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	03:48	11:04	04:22	46m	05:08	41m	05:49	36m	06:26	13h 39m	20:05	36m	20:41	41m	21:23	46m	22:09	10h 18m	6h 09m				Do, 13. Apr
Fr, 14. Apr	MESZ	22:12–04:16*	6h 04m	AN <sub>+</sub> bis AN <sub>-</sub>		04:28	12:28	04:19	46m	05:06	41m	05:47	36m	06:23	13h 43m	20:07	36m	20:43	41m	21:25	47m	22:12	10h 14m	6h 04m				Fr, 14. Apr
Sa, 15. Apr	MESZ	22:14–04:13*	5h 59m	AN <sub>+</sub> bis AN <sub>-</sub>		04:57	13:55	04:16	46m	05:03	41m	05:45	36m	06:21	13h 46m	20:08	36m	20:45	41m	21:27	47m	22:14	10h 11m	5h 59m				Sa, 15. Apr
So, 16. Apr	MESZ	22:17–04:11*	5h 53m	AN <sub>+</sub> bis AN <sub>-</sub>		05:18	15:23	04:13	47m	05:01	41m	05:43	36m	06:19	13h 50m	20:10	36m	20:47	42m	21:29	47m	22:17	10h 07m	5h 53m				So, 16. Apr
Mo, 17. Apr	MESZ	22:19–04:08*	5h 48m	AN <sub>+</sub> bis AN <sub>-</sub>		05:36	16:48	04:11	47m	04:58	42m	05:40	36m	06:17	13h 54m	20:11	36m	20:48	42m	21:31	48m	22:19	10h 03m	5h 48m				Mo, 17. Apr
Di, 18. Apr	MESZ	22:22–04:05*	5h 43m	AN <sub>+</sub> bis AN <sub>-</sub>		05:51	18:11	04:08	48m	04:56	42m	05:38	36m	06:15	13h 57m	20:13	37m	20:50	42m	21:33	48m	22:22	10h 00m	5h 43m				Di, 18. Apr
Mi, 19. Apr	MESZ	22:24–04:02*	5h 37m	AN <sub>+</sub> bis AN <sub>-</sub>		06:05	19:33	04:05	48m	04:54	42m	05:36	37m	06:13	14h 01m	20:15	37m	20:52	42m	21:35	49m	22:24	9h 56m	5h 37m				Mi, 19. Apr
Do, 20. Apr	MESZ	22:27–03:59*	5h 31m	AN <sub>+</sub> bis AN <sub>-</sub>	☀	06:20	20:55	04:02	49m	04:51	42m	05:34	37m	06:11	14h 04m	20:16	37m	20:54	43m	21:37	50m	22:27	9h 53m	5h 31m				Do, 20. Apr
Fr, 21. Apr	MESZ	22:29–03:56*	5h 26m	AN <sub>+</sub> bis AN <sub>-</sub>		06:37	22:17	03:59	49m	04:49	43m	05:32	37m	06:09	14h 08m	20:18	37m	20:55	43m	21:39	50m	22:29	9h 49m	5h 26m				Fr, 21. Apr
Sa, 22. Apr	MESZ	23:36–03:53*	4h 16m	M <sub>7</sub> bis AN <sub>-</sub>		06:59	23:36	03:56	50m	04:46	43m	05:30	37m	06:07	14h 12m	20:19	37m	20:57	43m	21:41	51m	22:32	9h 45m	5h 20m				Sa, 22. Apr
So, 23. Apr	MESZ	00:49*–03:50*	3h 00m	M <sub>7</sub> bis AN <sub>-</sub>		07:27	—:—	03:53	51m	04:44	43m	05:28	37m	06:05	14h 15m	20:21	37m	20:59	44m	21:43	51m	22:35	9h 42m	5h 14m				So, 23. Apr
Mo, 24. Apr	MESZ	01:52*–03:47*	1h 54m	M <sub>7</sub> bis AN <sub>-</sub>		08:03	00:49	03:50	51m	04:41	44m	05:25	37m	06:03	14h 19m	20:22	38m	21:01	44m	21:45	52m	22:37	9h 38m	5h 09m				Mo, 24. Apr
Di, 25. Apr	MESZ	02:42*–03:43*	1h 01m	M <sub>7</sub> bis AN <sub>-</sub>		08:51	01:52	03:47	52m	04:39	44m	05:23	38m	06:01	14h 22m	20:24	38m	21:02	44m	21:47	53m	22:40	9h 35m	5h 03m				Di, 25. Apr
Mi, 26. Apr	MESZ	03:19*–03:40*	20m	M <sub>7</sub> bis AN <sub>-</sub>		09:50	02:42	03:43	53m	04:37	44m	05:21	38m	06:00	14h 26m	20:26	38m	21:04	45m	21:49	53m	22:43	9h 31m	4h 57m				Mi, 26. Apr
Do, 27. Apr	MESZ	—:—:—:—	–	Mond stört	☾	10:56	03:19	03:40	53m	04:34	44m	05:19	38m	05:58	14h 29m	20:27	38m	21:06	45m	21:51	54m	22:46	9h 28m	4h 51m				Do, 27. Apr
Fr, 28. Apr	MESZ	—:—:—:—	–	Mond stört		12:07	03:47	03:37	54m	04:32	45m	05:17	38m	05:56	14h 33m	20:29	38m	21:08	45m	21:53	55m	22:49	9h 25m	4h 45m				Fr, 28. Apr
Sa, 29. Apr	MESZ	—:~:~:~:~	–	Mond stört		13:18	04:08	03:34	55m	04:29	45m	05:15	38m	05:54	14h 36m	20:30	39m	21:09	46m	21:55	56m	22:52	9h 21m	4h 39m				Sa, 29. Apr
So, 30. Apr	MESZ	—:~:~:~:~	–	Mond stört		14:29	04:24	03:31	56m	04:27	46m	05:13	39m	05:52	14h 39m	20:32	39m	21:11	46m	21:58	56m	22:54	9h 18m	4h 33m				So, 30. Apr
Mo, 1. Mai	MESZ	—:~:~:~:~	–	Mond stört		15:40	04:38	03:28	56m	04:25	46m	05:11	39m	05:50	14h 43m	20:33	39m	21:13	46m	22:00	57m	22:57	9h 15m	4h 27m				Mo, 1. Mai
Di, 2. Mai	MESZ	—:~:~:~:~	–	Mond stört		16:51	04:50	03:25	57m	04:22	46m	05:09	39m	05:48	14h 46m	20:35	39m	21:15	47m	22:02	58m	23:00	9h 11m	4h 20m				Di, 2. Mai
Mi, 3. Mai	MESZ	—:~:~:~:~	–	Mond stört		18:05	05:03	03:21	58m	04:20	47m	05:07	39m	05:47	14h 49m	20:37	39m	21:16	47m	22:04	59m	23:04	9h 08m	4h 14m				Mi, 3. Mai
Do, 4. Mai	MESZ	—:~:~:~:~	–	Mond stört		19:21	05:16	03:18	59m	04:18	47m	05:05	39m	05:45	14h 53m	20:38	40m	21:18	47m	22:06	1h 00m	23:07	9h 05m	4h 08m				Do, 4. Mai
Fr, 5. Mai	MESZ	—:~:~:~:~	–	Mond stört	☽	20:42	05:31	03:15	1h 00m	04:15	47m	05:03	40m	05:43	14h 56m	20:40	40m	21:20	48m	22:08	1h 01m	23:10	9h 01m	4h 01m				Fr, 5. Mai
Sa, 6. Mai	MESZ	—:~:~:~:~	–	Mond stört		22:05	05:50	03:11	1h 01m	04:13	48m	05:01	40m	05:42	14h 59m	20:41	40m	21:22	48m	22:10	1h 02m	23:13	8h 58m	3h 54m				Sa, 6. Mai
So, 7. Mai	MESZ	23:16–23:28	11m	AN <sub>+</sub> bis M <sub>7</sub>		23:28	06:16	03:08	1h 02m	04:11	48m	04:59	40m	05:40	15h 02m	20:43	40m	21:23	49m	22:13	1h 03m	23:16	8h 55m	3h 48m				So, 7. Mai
Mo, 8. Mai	MESZ	23:20–00:44*	1h 24m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	06:52	03:05	1h 03m	04:08	49m	04:58	40m	05:38	15h 05m	20:44	40m	21:25	49m	22:15	1h 04m	23:20	8h 52m	3h 41m				Mo, 8. Mai
Di, 9. Mai	MESZ	23:23–01:45*	2h 22m	AN <sub>+</sub> bis M <sub>7</sub>		00:44	07:44	03:01	1h 04m	04:06	49m	04:56	40m	05:37	15h 09m	20:46	41m	21:27	50m	22:17	1h 06m	23:23	8h 49m	3h 34m				Di, 9. Mai
Mi, 10. Mai	MESZ	23:27–02:30*	3h 03m	AN <sub>+</sub> bis M <sub>7</sub>		01:45	08:53	02:58	1h 06m	04:04	50m	04:54	41m	05:35	15h 12m	20:47	41m	21:29	50m	22:19	1h 07m	23:27	8h 46m	3h 27m				Mi, 10. Mai
Do, 11. Mai	MESZ	23:30–02:51*	3h 20m	AN <sub>+</sub> bis AN <sub>-</sub>		02:30	10:15	02:54	1h 07m	04:02	50m	04:52	41m	05:33	15h 15m	20:49	41m	21:30	50m	22:21	1h 08m	23:30	8h 43m	3h 20m				Do, 11. Mai
Fr, 12. Mai	MESZ	23:34–02:47*	3h 13m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	03:02	11:42	02:51	1h 08m	03:59	50m	04:50	41m	05:32	15h 18m	20:50	41m	21:32	51m	22:23	1h 10m	23:34	8h 40m	3h 13m				Fr, 12. Mai
Sa, 13. Mai	MESZ	23:37–02:43*	3h 05m	AN <sub>+</sub> bis AN <sub>-</sub>		03:25	13:08	02:47	1h 10m	03:57	51m	04:49	41m	05:30	15h 21m	20:52	42m	21:34	51m	22:25	1h 11m	23:37	8h 37m	3h 05m				Sa, 13. Mai
So, 14. Mai	MESZ	23:41–02:39*	2h 58m	AN <sub>+</sub> bis AN <sub>-</sub>		03:43	14:32	02:43	1h 11m	03:55	51m	04:47	42m	05:29	15h 23m	20:53	42m	21:35	52m	22:28	1h 13m	23:41	8h 34m	2h 58m				So, 14. Mai
Mo, 15. Mai	MESZ	23:45–02:36*	2h 50m	AN <sub>+</sub> bis AN <sub>-</sub>		03:58	15:53	02:39	1h 13m	03:53	52m	04:45	42m	05:28	15h 26m	20:54	42m	21:37	52m	22:30	1h 15m	23:45	8h 31m	2h 50m				Mo, 15. Mai
Di, 16. Mai	MESZ	23:49–02:32*	2h 42m	AN <sub>+</sub> bis AN <sub>-</sub>		04:12	17:14	02:36	1h 15m	03:51	52m	04:44	42m	05:26	15h 29m	20:56	42m	21:39	53m	22:32	1h 17m	23:49	8h 28m	2h 42m				Di, 16. Mai
Mi, 17. Mai	MESZ	23:53–02:28*	2h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		04:26	18:34	02:32	1h 17m	03:49	53m	04:42	42m	05:25	15h 32m	20:57	42m	21:40	53m	22:34	1h 19m	23:53	8h 26m	2h 34m				Mi, 17. Mai
Do, 18. Mai	MESZ	23:57–02:23*	2h 26m	AN <sub>+</sub> bis AN <sub>-</sub>		04:42	19:54	02:28	1h 19m	03:47	53m	04:41	42m	05:23	15h 35m	20:59	43m	21:42	54m	22:36	1h 21m	23:57	8h 23m	2h 26m				Do, 18. Mai
Fr, 19. Mai	MESZ	00:02*–02:19*	2h 17m	AN <sub>+</sub> bis AN <sub>-</sub>	☀	05:01	21:14	02:23	1h 21m	03:45	54m	04:39	43m	05:22	15h 37m	21:00	43m	21:43	54m	22:38	1h 23m	00:02*	8h 20m	2h 17m				Fr, 19. Mai
Sa, 20. Mai	MESZ	00:06*–02:15*	2h 08m	AN <sub>+</sub> bis AN <sub>-</sub>		05:26	22:31	02:19	1h 23m	03:43	54m	04:37	43m	05:21	15h 40m	21:01	43m	21:45	55m	22:40	1h 26m	00:06*	8h 18m	2h 08m				Sa, 20. Mai
So, 21. Mai	MESZ	00:11*–02:10*	1h 58m	AN <sub>+</sub> bis AN <sub>-</sub>		05:59	23:39	02:15	1h 25m	03:41	55m	04:36	43m	05:20	15h 43m	21:03	43m	21:47	55m	22:42	1h 28m	00:11*	8h 15m	1h 58m				So, 21. Mai
Mo, 22. Mai	MESZ	00:34*–02:05*	1h 30m	M <sub>7</sub> bis AN <sub>-</sub>		06:42	—:—	02:10	1h 28m	03:39	55m	04:35	43m	05:19	15h 45m	21:04	44m	21:48	56m	22:45	1h 31m							

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	
2023	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne				Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2023		
			$\Delta t$		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, 31. Mai	MESZ			Astr. MD		16:58	03:21	—:—		03:23	1h 00m	04:24	45m	05:10	16h 05m	21:15	46m	22:01	1h 00m	23:02		—:—	7h 54m		—:—:—:—:—	—	Mond stört	Mi, 31. Mai	
Do, 1. Jun	MESZ			Astr. MD		18:16	03:35	—:—		03:22	1h 00m	04:23	46m	05:09	16h 06m	21:16	46m	22:02	1h 01m	23:03		—:—	7h 52m		—:—:—:—:—	—	Mond stört	Do, 1. Jun	
Fr, 2. Jun	MESZ			Astr. MD		19:39	03:52	—:—		03:20	1h 01m	04:22	46m	05:08	16h 08m	21:17	46m	22:03	1h 01m	23:05		—:—	7h 50m		—:—:—:—:—	—	Mond stört	Fr, 2. Jun	
Sa, 3. Jun	MESZ			Astr. MD		21:04	04:15	—:—		03:19	1h 01m	04:21	46m	05:07	16h 10m	21:18	46m	22:04	1h 02m	23:07		—:—	7h 49m		—:—:—:—:—	—	Mond stört	Sa, 3. Jun	
So, 4. Jun	MESZ			Astr. MD	○	22:26	04:47	—:—		03:18	1h 02m	04:20	46m	05:07	16h 11m	21:19	46m	22:06	1h 02m	23:08		—:—	7h 47m		—:—:—:—:—	—	Mond stört	So, 4. Jun	
Mo, 5. Jun	MESZ			Astr. MD		23:35	05:34	—:—		03:17	1h 02m	04:19	46m	05:06	16h 13m	21:20	46m	22:07	1h 03m	23:10		—:—	7h 46m		23:10–23:35	25m	ND <sub>+</sub> bis M <sub>7</sub>	Mo, 5. Jun	
Di, 6. Jun	MESZ			Astr. MD		—:—	06:38	—:—		03:15	1h 03m	04:19	46m	05:06	16h 14m	21:21	47m	22:08	1h 03m	23:11		—:—	7h 44m		23:11–00:27*	1h 15m	ND <sub>+</sub> bis M <sub>7</sub>	Di, 6. Jun	
Mi, 7. Jun	MESZ			Astr. MD		00:27	07:58	—:—		03:14	1h 03m	04:18	47m	05:05	16h 16m	21:21	47m	22:09	1h 04m	23:13		—:—	7h 43m		23:13–01:04*	1h 51m	ND <sub>+</sub> bis M <sub>7</sub>	Mi, 7. Jun	
Do, 8. Jun	MESZ			Astr. MD		01:04	09:26	—:—		03:13	1h 04m	04:17	47m	05:05	16h 17m	21:22	47m	22:10	1h 04m	23:14		—:—	7h 42m		23:14–01:30*	2h 15m	ND <sub>+</sub> bis M <sub>7</sub>	Do, 8. Jun	
Fr, 9. Jun	MESZ			Astr. MD		01:30	10:55	—:—		03:12	1h 04m	04:17	47m	05:04	16h 18m	21:23	47m	22:10	1h 04m	23:15		—:—	7h 41m		23:15–01:49*	2h 34m	ND <sub>+</sub> bis M <sub>7</sub>	Fr, 9. Jun	
Sa, 10. Jun	MESZ			Astr. MD	◐	01:49	12:20	—:—		03:12	1h 04m	04:16	47m	05:04	16h 19m	21:24	47m	22:11	1h 05m	23:16		—:—	7h 39m		23:16–02:05*	2h 48m	ND <sub>+</sub> bis M <sub>7</sub>	Sa, 10. Jun	
So, 11. Jun	MESZ			Astr. MD		02:05	13:42	—:—		03:11	1h 05m	04:16	47m	05:04	16h 20m	21:24	47m	22:12	1h 05m	23:18		—:—	7h 39m		23:18–02:19*	3h 01m	ND <sub>+</sub> bis M <sub>7</sub>	So, 11. Jun	
Mo, 12. Jun	MESZ			Astr. MD		02:19	15:02	—:—		03:10	1h 05m	04:16	47m	05:03	16h 21m	21:25	47m	22:13	1h 05m	23:19		—:—	7h 38m		23:19–02:33*	3h 14m	ND <sub>+</sub> bis M <sub>7</sub>	Mo, 12. Jun	
Di, 13. Jun	MESZ			Astr. MD		02:33	16:21	—:—		03:09	1h 05m	04:15	47m	05:03	16h 22m	21:26	47m	22:14	1h 06m	23:20		—:—	7h 37m		23:20–02:48*	3h 28m	ND <sub>+</sub> bis M <sub>7</sub>	Di, 13. Jun	
Mi, 14. Jun	MESZ			Astr. MD		02:48	17:40	—:—		03:09	1h 06m	04:15	47m	05:03	16h 23m	21:26	48m	22:14	1h 06m	23:20		—:—	7h 36m		23:20–03:06*	3h 45m	ND <sub>+</sub> bis M <sub>7</sub>	Mi, 14. Jun	
Do, 15. Jun	MESZ			Astr. MD		03:06	18:58	—:—		03:09	1h 06m	04:15	48m	05:03	16h 23m	21:27	48m	22:15	1h 06m	23:21		—:—	7h 36m		23:21–03:08*	3h 46m	ND <sub>+</sub> bis ND <sub>-</sub>	Do, 15. Jun	
Fr, 16. Jun	MESZ			Astr. MD		03:28	20:15	—:—		03:08	1h 06m	04:15	48m	05:03	16h 24m	21:27	48m	22:15	1h 06m	23:22		—:—	7h 35m		23:22–03:08*	3h 46m	ND <sub>+</sub> bis ND <sub>-</sub>	Fr, 16. Jun	
Sa, 17. Jun	MESZ			Astr. MD		03:58	21:26	—:—		03:08	1h 06m	04:15	48m	05:03	16h 24m	21:28	48m	22:16	1h 06m	23:23		—:—	7h 35m		23:23–03:08*	3h 45m	ND <sub>+</sub> bis ND <sub>-</sub>	Sa, 17. Jun	
So, 18. Jun	MESZ			Astr. MD	◑	04:37	22:26	—:—		03:08	1h 06m	04:15	48m	05:03	16h 25m	21:28	48m	22:16	1h 06m	23:23		—:—	7h 34m		23:23–03:08*	3h 44m	ND <sub>+</sub> bis ND <sub>-</sub>	So, 18. Jun	
Mo, 19. Jun	MESZ			Astr. MD		05:27	23:13	—:—		03:08	1h 06m	04:15	48m	05:03	16h 25m	21:28	48m	22:17	1h 06m	23:23		—:—	7h 34m		23:23–03:08*	3h 44m	ND <sub>+</sub> bis ND <sub>-</sub>	Mo, 19. Jun	
Di, 20. Jun	MESZ			Astr. MD		06:28	23:49	—:—		03:08	1h 06m	04:15	48m	05:03	16h 25m	21:29	48m	22:17	1h 06m	23:24		—:—	7h 34m		23:49–03:08*	3h 19m	M <sub>v</sub> bis ND <sub>-</sub>	Di, 20. Jun	
Mi, 21. Jun	MESZ			Astr. MD		07:36	—:—	—:—		03:08	1h 06m	04:15	48m	05:03	16h 25m	21:29	48m	22:17	1h 06m	23:24		—:—	7h 34m		00:15*–03:08*	2h 53m	M <sub>v</sub> bis ND <sub>-</sub>	Mi, 21. Jun	
Do, 22. Jun	MESZ			Astr. MD		08:47	00:15	—:—		03:08	1h 06m	04:15	48m	05:03	16h 25m	21:29	48m	22:17	1h 06m	23:24		—:—	7h 34m		00:34*–03:08*	2h 34m	M <sub>v</sub> bis ND <sub>-</sub>	Do, 22. Jun	
Fr, 23. Jun	MESZ			Astr. MD		09:58	00:34	—:—		03:08	1h 06m	04:15	48m	05:04	16h 25m	21:29	48m	22:17	1h 06m	23:24		—:—	7h 34m		00:50*–03:09*	2h 19m	M <sub>v</sub> bis ND <sub>-</sub>	Fr, 23. Jun	
Sa, 24. Jun	MESZ			Astr. MD		11:08	00:50	—:—		03:09	1h 06m	04:16	48m	05:04	16h 25m	21:29	48m	22:17	1h 06m	23:24		—:—	7h 35m		01:03*–03:09*	2h 06m	M <sub>v</sub> bis ND <sub>-</sub>	Sa, 24. Jun	
So, 25. Jun	MESZ			Astr. MD		12:17	01:03	—:—		03:09	1h 06m	04:16	48m	05:04	16h 24m	21:29	48m	22:17	1h 06m	23:24		—:—	7h 35m		01:15*–03:10*	1h 54m	M <sub>v</sub> bis ND <sub>-</sub>	So, 25. Jun	
Mo, 26. Jun	MESZ			Astr. MD	◒	13:26	01:15	—:—		03:10	1h 06m	04:17	48m	05:05	16h 24m	21:29	48m	22:17	1h 06m	23:24		—:—	7h 35m		01:27*–03:10*	1h 43m	M <sub>v</sub> bis ND <sub>-</sub>	Mo, 26. Jun	
Di, 27. Jun	MESZ			Astr. MD		14:38	01:27	—:—		03:10	1h 06m	04:17	48m	05:05	16h 23m	21:29	48m	22:17	1h 06m	23:24		—:—	7h 36m		01:40*–03:11*	1h 31m	M <sub>v</sub> bis ND <sub>-</sub>	Di, 27. Jun	
Mi, 28. Jun	MESZ			Astr. MD		15:52	01:40	—:—		03:11	1h 06m	04:18	48m	05:06	16h 23m	21:29	48m	22:17	1h 06m	23:23		—:—	7h 37m		01:55*–03:12*	1h 17m	M <sub>v</sub> bis ND <sub>-</sub>	Mi, 28. Jun	
Do, 29. Jun	MESZ			Astr. MD		17:12	01:55	—:—		03:12	1h 06m	04:18	48m	05:06	16h 22m	21:29	47m	22:17	1h 05m	23:23		—:—	7h 37m		02:14*–03:13*	58m	M <sub>v</sub> bis ND <sub>-</sub>	Do, 29. Jun	
Fr, 30. Jun	MESZ			Astr. MD		18:35	02:14	—:—		03:13	1h 05m	04:19	47m	05:07	16h 21m	21:29	47m	22:16	1h 05m	23:22		—:—	7h 38m		02:41*–03:14*	32m	M <sub>v</sub> bis ND <sub>-</sub>	Fr, 30. Jun	
Sa, 1. Jul	MESZ			Astr. MD		19:59	02:41	—:—		03:14	1h 05m	04:20	47m	05:07	16h 21m	21:28	47m	22:16	1h 05m	23:21		—:—	7h 39m		—:—:—:—:—	—	Mond stört	Sa, 1. Jul	
So, 2. Jul	MESZ			Astr. MD		21:15	03:20	—:—		03:15	1h 05m	04:20	47m	05:08	16h 20m	21:28	47m	22:16	1h 04m	23:21		—:—	7h 40m		—:—:—:—:—	—	Mond stört	So, 2. Jul	
Mo, 3. Jul	MESZ			Astr. MD	○	22:17	04:17	—:—		03:16	1h 04m	04:21	47m	05:09	16h 18m	21:28	47m	22:15	1h 04m	23:20		—:—	7h 41m		—:—:—:—:—	—	Mond stört	Mo, 3. Jul	
Di, 4. Jul	MESZ			Astr. MD		23:01	05:33	—:—		03:17	1h 04m	04:22	47m	05:09	16h 17m	21:27	47m	22:15	1h 04m	23:19		—:—	7h 42m		—:—:—:—:—	—	Mond stört	Di, 4. Jul	
Mi, 5. Jul	MESZ			Astr. MD		23:32	07:01	—:—		03:19	1h 04m	04:23	47m	05:10	16h 16m	21:27	47m	22:14	1h 03m	23:18		—:—	7h 44m		23:18–23:32	13m	ND <sub>+</sub> bis M <sub>7</sub>	Mi, 5. Jul	
Do, 6. Jul	MESZ			Astr. MD		23:54	08:33	—:—		03:20	1h 03m	04:24	47m	05:11	16h 15m	21:26	47m	22:13	1h 03m	23:17		—:—	7h 45m		23:17–23:54	37m	ND <sub>+</sub> bis M <sub>7</sub>	Do, 6. Jul	
Fr, 7. Jul	MESZ			Astr. MD		—:—	10:03	—:—		03:21	1h 03m	04:25	47m	05:12	16h 13m	21:26	46m	22:13	1h 02m	23:16		—:—	7h 46m		23:16–00:11*	55m	ND <sub>+</sub> bis M <sub>7</sub>	Fr, 7. Jul	
Sa, 8. Jul	MESZ			Astr. MD		00:11	11:28	—:—		03:23	1h 02m	04:26	46m	05:13	16h 12m	21:25	46m	22:12	1h 02m	23:14		—:—	7h 48m		23:14–00:26*	1h 11m	ND <sub>+</sub> bis M <sub>7</sub>	Sa, 8. Jul	
So, 9. Jul	MESZ			Astr. MD		00:26	12:50	—:—		03:24	1h 02m	04:27	46m	05:14	16h 10m	21:25	46m	22:11	1h 02m	23:13		—:—	7h 50m		23:13–00:40*	1h 27m	ND <sub>+</sub> bis M <sub>7</sub>	So, 9. Jul	
Mo, 10. Jul	MESZ			Astr. MD	◑	00:40	14:10	—:—		03:26	1h 02m	04:28	46m	05:15	16h 09m	21:24	46m	22:10	1h 01m	23:12		—:—	7h 51m		23:12–00:55*	1h 43m	ND <sub>+</sub> bis M <sub>7</sub>	Mo, 10. Jul	
Di, 11. Jul	MESZ			Astr. MD		00:55	15:29	—:—		03:28	1h 01m	04:29	46m	05:16	16h 07m	21:23	46m	22:09	1h 01m	23:10		—:—	7h 53m		23:10–01:12*	2h 01m	ND <sub>+</sub> bis M <sub>7</sub>	Di, 11. Jul	
Mi, 12. Jul	MESZ			Astr. MD		01:12	16:48	—:—		03:29	1h 01m	04:30	46m	05:17	16h 05m	21:22	45m	22:08	1h 00m	23:09		—:—	7h 55m		23:09–01:32*	2h 23m	ND <sub>+</sub> bis M <sub>7</sub>	Mi, 12. Jul	
Do, 13. Jul	MESZ			Astr. MD		01:32	18:05	—:—		03:31	1h 00m	04:32	45m	05:18	16h 03m	21:22	45m	22:07	1h										



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
2023	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne			Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2023		
			$\Delta t$		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, 20. Jul	MESZ	00:29* - 02:13*	1h 44m	AN <sub>+</sub> bis AN <sub>-</sub>		07:46	22:56	02:07	1h 36m	03:44	57m	04:41	44m	05:26	15h 48m	21:15	44m	21:59	56m	22:55	1h 33m	00:29*	8h 12m	1h 44m				Do, 20. Jul
Fr, 21. Jul	MESZ	00:24* - 02:18*	1h 54m	AN <sub>+</sub> bis AN <sub>-</sub>		08:56	23:10	02:13	1h 33m	03:46	56m	04:43	44m	05:27	15h 46m	21:13	43m	21:57	56m	22:54	1h 29m	00:24*	8h 14m	1h 54m				Fr, 21. Jul
Sa, 22. Jul	MESZ	00:19* - 02:23*	2h 04m	AN <sub>+</sub> bis AN <sub>-</sub>		10:05	23:22	02:18	1h 29m	03:48	56m	04:44	44m	05:28	15h 44m	21:12	43m	21:56	55m	22:52	1h 27m	00:19*	8h 17m	2h 04m				Sa, 22. Jul
So, 23. Jul	MESZ	00:14* - 02:28*	2h 13m	AN <sub>+</sub> bis AN <sub>-</sub>		11:14	23:33	02:23	1h 27m	03:50	55m	04:46	43m	05:30	15h 41m	21:11	43m	21:55	55m	22:50	1h 24m	00:14*	8h 19m	2h 13m				So, 23. Jul
Mo, 24. Jul	MESZ	00:10* - 02:32*	2h 22m	AN <sub>+</sub> bis AN <sub>-</sub>		12:23	23:45	02:28	1h 24m	03:52	55m	04:47	43m	05:31	15h 38m	21:10	43m	21:53	54m	22:48	1h 22m	00:10*	8h 22m	2h 22m				Mo, 24. Jul
Di, 25. Jul	MESZ	00:06* - 02:36*	2h 30m	AN <sub>+</sub> bis AN <sub>-</sub>		13:35	23:59	02:32	1h 22m	03:54	54m	04:49	43m	05:32	15h 36m	21:09	43m	21:52	54m	22:46	1h 20m	00:06*	8h 24m	2h 30m				Di, 25. Jul
Mi, 26. Jul	MESZ	00:16* - 02:40*	2h 24m	M <sub>\</sub> bis AN <sub>-</sub>	☾	14:50	—:—	02:36	1h 20m	03:56	54m	04:50	43m	05:33	15h 33m	21:07	42m	21:50	53m	22:44	1h 17m	00:02*	8h 27m	2h 38m				Mi, 26. Jul
Do, 27. Jul	MESZ	00:38* - 02:44*	2h 06m	M <sub>\</sub> bis AN <sub>-</sub>		16:10	00:16	02:40	1h 17m	03:58	53m	04:52	42m	05:35	15h 30m	21:06	42m	21:48	53m	22:41	1h 16m	23:58	8h 30m	2h 46m				Do, 27. Jul
Fr, 28. Jul	MESZ	01:10* - 02:48*	1h 38m	M <sub>\</sub> bis AN <sub>-</sub>		17:32	00:38	02:44	1h 16m	04:00	53m	04:54	42m	05:36	15h 28m	21:04	42m	21:47	52m	22:39	1h 14m	23:54	8h 33m	2h 54m				Fr, 28. Jul
Sa, 29. Jul	MESZ	01:57* - 02:52*	55m	M <sub>\</sub> bis AN <sub>-</sub>		18:51	01:10	02:48	1h 14m	04:03	52m	04:55	42m	05:38	15h 25m	21:03	42m	21:45	52m	22:37	1h 12m	23:50	8h 36m	3h 02m				Sa, 29. Jul
So, 30. Jul	MESZ	—:—:—:—	—	Mond stört		20:00	01:57	02:52	1h 12m	04:05	52m	04:57	42m	05:39	15h 22m	21:01	41m	21:43	51m	22:35	1h 11m	23:46	8h 38m	3h 09m				So, 30. Jul
Mo, 31. Jul	MESZ	—:—:—:—	—	Mond stört		20:52	03:03	02:56	1h 11m	04:07	51m	04:58	41m	05:40	15h 19m	21:00	41m	21:42	51m	22:33	1h 09m	23:42	8h 41m	3h 16m				Mo, 31. Jul
Di, 1. Aug	MESZ	—:—:—:—	—	Mond stört	☾	21:29	04:27	02:59	1h 09m	04:09	51m	05:00	41m	05:42	15h 16m	20:58	41m	21:40	50m	22:31	1h 08m	23:39	8h 44m	3h 23m				Di, 1. Aug
Mi, 2. Aug	MESZ	—:—:~:~	—	Mond stört		21:55	06:00	03:03	1h 08m	04:11	50m	05:02	41m	05:43	15h 13m	20:57	41m	21:38	50m	22:28	1h 06m	23:35	8h 47m	3h 30m				Mi, 2. Aug
Do, 3. Aug	MESZ	—:~:~:~	—	Mond stört		22:15	07:33	03:06	1h 06m	04:13	50m	05:03	41m	05:45	15h 10m	20:55	41m	21:36	49m	22:26	1h 05m	23:32	8h 50m	3h 37m				Do, 3. Aug
Fr, 4. Aug	MESZ	—:~:~:~	—	Mond stört		22:31	09:04	03:10	1h 05m	04:15	49m	05:05	41m	05:46	15h 07m	20:54	40m	21:34	49m	22:24	1h 04m	23:28	8h 53m	3h 44m				Fr, 4. Aug
Sa, 5. Aug	MESZ	—:~:~:~	—	Mond stört		22:46	10:31	03:13	1h 04m	04:17	49m	05:07	40m	05:48	15h 04m	20:52	40m	21:33	49m	22:22	1h 03m	23:25	8h 56m	3h 51m				Sa, 5. Aug
So, 6. Aug	MESZ	—:~:~:~	—	Mond stört		23:01	11:54	03:16	1h 03m	04:19	49m	05:08	40m	05:49	15h 01m	20:50	40m	21:31	48m	22:19	1h 02m	23:21	9h 00m	3h 57m				So, 6. Aug
Mo, 7. Aug	MESZ	—:~:~:~	—	Mond stört		23:17	13:16	03:19	1h 02m	04:21	48m	05:10	40m	05:50	14h 58m	20:49	40m	21:29	48m	22:17	1h 01m	23:18	9h 03m	4h 04m				Mo, 7. Aug
Di, 8. Aug	MESZ	23:15 - 23:36	21m	AN <sub>+</sub> bis M <sub>7</sub>	☾	23:36	14:37	03:22	1h 01m	04:24	48m	05:12	40m	05:52	14h 55m	20:47	39m	21:27	47m	22:15	1h 00m	23:15	9h 06m	4h 10m				Di, 8. Aug
Mi, 9. Aug	MESZ	23:11 - 00:01*	49m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	15:55	03:25	1h 00m	04:26	47m	05:13	39m	05:53	14h 51m	20:45	39m	21:25	47m	22:12	59m	23:11	9h 09m	4h 16m				Mi, 9. Aug
Do, 10. Aug	MESZ	23:08 - 00:34*	1h 25m	AN <sub>+</sub> bis M <sub>7</sub>		00:01	17:10	03:28	59m	04:28	47m	05:15	39m	05:55	14h 48m	20:43	39m	21:23	47m	22:10	58m	23:08	9h 12m	4h 23m				Do, 10. Aug
Fr, 11. Aug	MESZ	23:05 - 01:17*	2h 11m	AN <sub>+</sub> bis M <sub>7</sub>		00:34	18:16	03:31	58m	04:30	47m	05:17	39m	05:56	14h 45m	20:42	39m	21:21	46m	22:08	57m	23:05	9h 16m	4h 29m				Fr, 11. Aug
Sa, 12. Aug	MESZ	23:02 - 02:11*	3h 09m	AN <sub>+</sub> bis M <sub>7</sub>		01:17	19:10	03:34	57m	04:32	46m	05:18	39m	05:58	14h 41m	20:40	39m	21:19	46m	22:05	56m	23:02	9h 19m	4h 35m				Sa, 12. Aug
So, 13. Aug	MESZ	22:59 - 03:15*	4h 16m	AN <sub>+</sub> bis M <sub>7</sub>		02:11	19:52	03:37	56m	04:34	46m	05:20	39m	05:59	14h 38m	20:38	38m	21:17	45m	22:03	55m	22:59	9h 22m	4h 41m				So, 13. Aug
Mo, 14. Aug	MESZ	22:55 - 03:43*	4h 47m	AN <sub>+</sub> bis AN <sub>-</sub>		03:15	20:22	03:40	55m	04:36	45m	05:22	38m	06:01	14h 35m	20:36	38m	21:15	45m	22:00	55m	22:55	9h 26m	4h 47m				Mo, 14. Aug
Di, 15. Aug	MESZ	22:52 - 03:46*	4h 53m	AN <sub>+</sub> bis AN <sub>-</sub>		04:25	20:45	03:43	55m	04:38	45m	05:24	38m	06:02	14h 31m	20:34	38m	21:13	45m	21:58	54m	22:52	9h 29m	4h 53m				Di, 15. Aug
Mi, 16. Aug	MESZ	22:49 - 03:48*	4h 59m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	05:36	21:03	03:46	54m	04:40	45m	05:25	38m	06:04	14h 28m	20:32	38m	21:11	44m	21:56	53m	22:49	9h 33m	4h 59m				Mi, 16. Aug
Do, 17. Aug	MESZ	22:46 - 03:51*	5h 05m	AN <sub>+</sub> bis AN <sub>-</sub>		06:47	21:17	03:48	53m	04:42	44m	05:27	38m	06:05	14h 25m	20:30	38m	21:09	44m	21:53	52m	22:46	9h 36m	5h 05m				Do, 17. Aug
Fr, 18. Aug	MESZ	22:43 - 03:54*	5h 10m	AN <sub>+</sub> bis AN <sub>-</sub>		07:56	21:29	03:51	52m	04:44	44m	05:29	38m	06:07	14h 21m	20:28	38m	21:06	44m	21:51	52m	22:43	9h 39m	5h 10m				Fr, 18. Aug
Sa, 19. Aug	MESZ	22:40 - 03:56*	5h 16m	AN <sub>+</sub> bis AN <sub>-</sub>		09:05	21:41	03:54	52m	04:46	44m	05:30	38m	06:08	14h 18m	20:26	37m	21:04	43m	21:48	51m	22:40	9h 43m	5h 16m				Sa, 19. Aug
So, 20. Aug	MESZ	22:37 - 03:59*	5h 22m	AN <sub>+</sub> bis AN <sub>-</sub>		10:13	21:52	03:56	51m	04:48	43m	05:32	37m	06:10	14h 14m	20:24	37m	21:02	43m	21:46	51m	22:37	9h 46m	5h 22m				So, 20. Aug
Mo, 21. Aug	MESZ	22:34 - 04:01*	5h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		11:24	22:05	03:59	51m	04:50	43m	05:34	37m	06:11	14h 11m	20:22	37m	21:00	43m	21:43	50m	22:34	9h 50m	5h 27m				Mo, 21. Aug
Di, 22. Aug	MESZ	22:31 - 04:04*	5h 33m	AN <sub>+</sub> bis AN <sub>-</sub>		12:37	22:20	04:01	50m	04:52	43m	05:35	37m	06:13	14h 07m	20:20	37m	20:58	43m	21:41	49m	22:31	9h 53m	5h 33m				Di, 22. Aug
Mi, 23. Aug	MESZ	22:39 - 04:06*	5h 27m	M <sub>\</sub> bis AN <sub>-</sub>		13:53	22:39	04:04	49m	04:54	43m	05:37	37m	06:14	14h 04m	20:18	37m	20:56	42m	21:38	49m	22:28	9h 57m	5h 38m				Mi, 23. Aug
Do, 24. Aug	MESZ	23:06 - 04:09*	5h 02m	M <sub>\</sub> bis AN <sub>-</sub>	☾	15:12	23:06	04:06	49m	04:56	42m	05:39	37m	06:16	14h 00m	20:16	37m	20:53	42m	21:36	48m	22:25	10h 00m	5h 44m				Do, 24. Aug
Fr, 25. Aug	MESZ	23:44 - 04:11*	4h 27m	M <sub>\</sub> bis AN <sub>-</sub>		16:31	23:44	04:09	48m	04:58	42m	05:40	37m	06:17	13h 56m	20:14	36m	20:51	42m	21:34	48m	22:22	10h 04m	5h 49m				Fr, 25. Aug
Sa, 26. Aug	MESZ	00:40* - 04:14*	3h 34m	M <sub>\</sub> bis AN <sub>-</sub>		17:43	—:—	04:11	48m	05:00	42m	05:42	36m	06:19	13h 53m	20:12	36m	20:49	41m	21:31	47m	22:19	10h 08m	5h 54m				Sa, 26. Aug
So, 27. Aug	MESZ	01:54* - 04:16*	2h 22m	M <sub>\</sub> bis AN <sub>-</sub>		18:41	00:40	04:14	47m	05:02	42m	05:44	36m	06:20	13h 49m	20:10	36m	20:47	41m	21:29	47m	22:16	10h 11m	6h 00m				So, 27. Aug
Mo, 28. Aug	MESZ	03:22* - 04:18*	56m	M <sub>\</sub> bis AN <sub>-</sub>		19:24	01:54	04:16	47m	05:03	41m	05:45	36m	06:22	13h 46m	20:08	36m	20:45	41m	21:26	46m	22:13	10h 15m	6h 05m				Mo, 28. Aug
Di, 29. Aug	MESZ	—:~:~:~	—	Mond stört		19:54	03:22	04:18	46m	05:05	41m	05:47	36m	06:23	13h 42m	20:06	36m	20:42	41m	21:24	46m	22:10	10h 18m	6h 10m				Di, 29. Aug
Mi, 30. Aug	MESZ	—:~:~:~	—	Mond stört		20:17	04:56	04:21	46m	05:07	41m	05:48	36m	06:25	13h 39m	20:04	36m	20:40	41m									

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
2023	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne				Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2023	
			$\Delta t$		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, 8. Sep	MESZ	21:42–00:04*	2h 21m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	17:08	04:40	43m	05:23	39m	06:03	35m	06:38	13h 06m	19:44	35m	20:20	39m	20:59	42m	21:42	10h 55m	7h 00m				Fr, 8. Sep
Sa, 9. Sep	MESZ	21:39–01:05*	3h 26m	AN <sub>+</sub> bis M <sub>7</sub>		00:04	17:53	04:42	42m	05:25	39m	06:05	35m	06:40	13h 02m	19:42	35m	20:17	39m	20:57	42m	21:39	10h 59m	7h 05m				Sa, 9. Sep
So, 10. Sep	MESZ	21:37–02:14*	4h 37m	AN <sub>+</sub> bis M <sub>7</sub>		01:05	18:27	04:44	42m	05:27	39m	06:06	35m	06:41	12h 58m	19:40	35m	20:15	38m	20:54	42m	21:37	11h 02m	7h 09m				So, 10. Sep
Mo, 11. Sep	MESZ	21:34–03:25*	5h 51m	AN <sub>+</sub> bis M <sub>7</sub>		02:14	18:52	04:46	42m	05:29	39m	06:08	35m	06:43	12h 54m	19:38	35m	20:13	38m	20:52	42m	21:34	11h 06m	7h 14m				Mo, 11. Sep
Di, 12. Sep	MESZ	21:31–04:36*	7h 04m	AN <sub>+</sub> bis M <sub>7</sub>		03:25	19:11	04:48	42m	05:30	38m	06:09	35m	06:44	12h 51m	19:36	34m	20:11	38m	20:49	41m	21:31	11h 10m	7h 19m				Di, 12. Sep
Mi, 13. Sep	MESZ	21:29–04:52*	7h 23m	AN <sub>+</sub> bis AN <sub>-</sub>		04:36	19:25	04:50	41m	05:32	38m	06:11	35m	06:46	12h 47m	19:33	34m	20:08	38m	20:47	41m	21:29	11h 13m	7h 23m				Mi, 13. Sep
Do, 14. Sep	MESZ	21:26–04:54*	7h 28m	AN <sub>+</sub> bis AN <sub>-</sub>		05:46	19:38	04:52	41m	05:34	38m	06:13	34m	06:47	12h 43m	19:31	34m	20:06	38m	20:45	41m	21:26	11h 17m	7h 28m				Do, 14. Sep
Fr, 15. Sep	MESZ	21:23–04:56*	7h 32m	AN <sub>+</sub> bis AN <sub>-</sub>	●	06:55	19:50	04:54	41m	05:36	38m	06:14	34m	06:49	12h 40m	19:29	34m	20:04	38m	20:42	41m	21:23	11h 21m	7h 32m				Fr, 15. Sep
Sa, 16. Sep	MESZ	21:21–04:58*	7h 37m	AN <sub>+</sub> bis AN <sub>-</sub>		08:04	20:01	04:56	41m	05:37	38m	06:16	34m	06:50	12h 36m	19:27	34m	20:02	38m	20:40	40m	21:21	11h 25m	7h 37m				Sa, 16. Sep
So, 17. Sep	MESZ	21:18–05:00*	7h 41m	AN <sub>+</sub> bis AN <sub>-</sub>		09:15	20:13	04:58	40m	05:39	38m	06:17	34m	06:52	12h 32m	19:25	34m	19:59	38m	20:37	40m	21:18	11h 28m	7h 41m				So, 17. Sep
Mo, 18. Sep	MESZ	21:15–05:02*	7h 46m	AN <sub>+</sub> bis AN <sub>-</sub>		10:27	20:27	05:00	40m	05:41	38m	06:19	34m	06:53	12h 28m	19:22	34m	19:57	37m	20:35	40m	21:15	11h 32m	7h 46m				Mo, 18. Sep
Di, 19. Sep	MESZ	21:13–05:04*	7h 50m	AN <sub>+</sub> bis AN <sub>-</sub>		11:42	20:44	05:02	40m	05:42	38m	06:20	34m	06:55	12h 25m	19:20	34m	19:55	37m	20:33	40m	21:13	11h 36m	7h 50m				Di, 19. Sep
Mi, 20. Sep	MESZ	21:10–05:05*	7h 55m	AN <sub>+</sub> bis AN <sub>-</sub>		13:00	21:08	05:04	40m	05:44	37m	06:22	34m	06:57	12h 21m	19:18	34m	19:52	37m	20:30	40m	21:10	11h 40m	7h 55m				Mi, 20. Sep
Do, 21. Sep	MESZ	21:40–05:07*	7h 26m	M <sub>\</sub> bis AN <sub>-</sub>		14:18	21:40	05:05	40m	05:46	37m	06:23	34m	06:58	12h 17m	19:16	34m	19:50	37m	20:28	39m	21:08	11h 43m	7h 59m				Do, 21. Sep
Fr, 22. Sep	MESZ	22:28–05:09*	6h 41m	M <sub>\</sub> bis AN <sub>-</sub>	☾	15:32	22:28	05:07	40m	05:47	37m	06:25	34m	07:00	12h 13m	19:14	34m	19:48	37m	20:26	39m	21:05	11h 47m	8h 03m				Fr, 22. Sep
Sa, 23. Sep	MESZ	23:32–05:11*	5h 38m	M <sub>\</sub> bis AN <sub>-</sub>		16:33	23:32	05:09	39m	05:49	37m	06:27	34m	07:01	12h 10m	19:11	34m	19:46	37m	20:23	39m	21:03	11h 51m	8h 08m				Sa, 23. Sep
So, 24. Sep	MESZ	00:53*–05:13*	4h 20m	M <sub>\</sub> bis AN <sub>-</sub>		17:20	—:—	05:11	39m	05:51	37m	06:28	34m	07:03	12h 06m	19:09	34m	19:43	37m	20:21	39m	21:00	11h 55m	8h 12m				So, 24. Sep
Mo, 25. Sep	MESZ	02:22*–05:14*	2h 52m	M <sub>\</sub> bis AN <sub>-</sub>		17:54	00:53	05:13	39m	05:52	37m	06:30	34m	07:04	12h 02m	19:07	34m	19:41	37m	20:19	39m	20:58	11h 58m	8h 16m				Mo, 25. Sep
Di, 26. Sep	MESZ	03:54*–05:16*	1h 22m	M <sub>\</sub> bis AN <sub>-</sub>		18:19	02:22	05:14	39m	05:54	37m	06:31	34m	07:06	11h 58m	19:05	34m	19:39	37m	20:16	39m	20:55	12h 02m	8h 20m				Di, 26. Sep
Mi, 27. Sep	MESZ	—:—:—:—	–	Mond stört		18:38	03:54	05:16	39m	05:55	37m	06:33	34m	07:07	11h 55m	19:02	34m	19:37	37m	20:14	39m	20:53	12h 06m	8h 24m				Mi, 27. Sep
Do, 28. Sep	MESZ	—:—:—:—	–	Mond stört		18:54	05:24	05:18	39m	05:57	37m	06:34	34m	07:09	11h 51m	19:00	34m	19:35	37m	20:12	38m	20:51	12h 10m	8h 29m				Do, 28. Sep
Fr, 29. Sep	MESZ	—:—:—:—	–	Mond stört	☉	19:08	06:53	05:20	38m	05:59	37m	06:36	34m	07:10	11h 47m	18:58	34m	19:32	37m	20:09	38m	20:48	12h 13m	8h 33m				Fr, 29. Sep
Sa, 30. Sep	MESZ	—:—:—:—	–	Mond stört		19:24	08:20	05:21	38m	06:00	37m	06:37	34m	07:12	11h 44m	18:56	34m	19:30	37m	20:07	38m	20:46	12h 17m	8h 37m				Sa, 30. Sep
So, 1. Okt	MESZ	—:—:—:—	–	Mond stört		19:41	09:47	05:23	38m	06:02	37m	06:39	34m	07:13	11h 40m	18:54	34m	19:28	36m	20:05	38m	20:44	12h 21m	8h 41m				So, 1. Okt
Mo, 2. Okt	MESZ	—:—:~:~:~	–	Mond stört		20:02	11:13	05:25	38m	06:03	37m	06:40	34m	07:15	11h 36m	18:51	34m	19:26	36m	20:03	38m	20:41	12h 24m	8h 45m				Mo, 2. Okt
Di, 3. Okt	MESZ	—:~:~:~:~	–	Mond stört		20:29	12:37	05:26	38m	06:05	37m	06:42	34m	07:16	11h 32m	18:49	34m	19:24	36m	20:01	38m	20:39	12h 28m	8h 49m				Di, 3. Okt
Mi, 4. Okt	MESZ	20:37–21:06	29m	AN <sub>+</sub> bis M <sub>7</sub>		21:06	13:54	05:28	38m	06:07	37m	06:44	34m	07:18	11h 29m	18:47	34m	19:21	36m	19:58	38m	20:37	12h 32m	8h 53m				Mi, 4. Okt
Do, 5. Okt	MESZ	20:34–21:54	1h 19m	AN <sub>+</sub> bis M <sub>7</sub>		21:54	15:00	05:30	38m	06:08	36m	06:45	34m	07:20	11h 25m	18:45	34m	19:19	36m	19:56	38m	20:34	12h 36m	8h 57m				Do, 5. Okt
Fr, 6. Okt	MESZ	20:32–22:53	2h 21m	AN <sub>+</sub> bis M <sub>7</sub>	☾	22:53	15:51	05:31	38m	06:10	36m	06:47	34m	07:21	11h 21m	18:43	34m	19:17	36m	19:54	38m	20:32	12h 39m	9h 00m				Fr, 6. Okt
Sa, 7. Okt	MESZ	20:30–00:01*	3h 30m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	16:29	05:33	38m	06:11	36m	06:48	34m	07:23	11h 17m	18:41	34m	19:15	36m	19:52	38m	20:30	12h 43m	9h 04m				Sa, 7. Okt
So, 8. Okt	MESZ	20:28–01:12*	4h 43m	AN <sub>+</sub> bis M <sub>7</sub>		00:01	16:57	05:35	38m	06:13	36m	06:50	34m	07:24	11h 14m	18:38	34m	19:13	36m	19:50	37m	20:28	12h 47m	9h 08m				So, 8. Okt
Mo, 9. Okt	MESZ	20:26–02:23*	5h 57m	AN <sub>+</sub> bis M <sub>7</sub>		01:12	17:17	05:36	38m	06:14	36m	06:51	34m	07:26	11h 10m	18:36	34m	19:11	36m	19:48	37m	20:26	12h 51m	9h 12m				Mo, 9. Okt
Di, 10. Okt	MESZ	20:23–03:34*	7h 10m	AN <sub>+</sub> bis M <sub>7</sub>		02:23	17:33	05:38	37m	06:16	36m	06:53	34m	07:27	11h 06m	18:34	34m	19:09	36m	19:46	37m	20:23	12h 54m	9h 16m				Di, 10. Okt
Mi, 11. Okt	MESZ	20:21–04:43*	8h 21m	AN <sub>+</sub> bis M <sub>7</sub>		03:34	17:46	05:40	37m	06:17	36m	06:54	34m	07:29	11h 03m	18:32	34m	19:07	36m	19:43	37m	20:21	12h 58m	9h 19m				Mi, 11. Okt
Do, 12. Okt	MESZ	20:19–05:43*	9h 23m	AN <sub>+</sub> bis AN <sub>-</sub>		04:43	17:58	05:41	37m	06:19	36m	06:56	34m	07:31	10h 59m	18:30	34m	19:05	36m	19:41	37m	20:19	13h 02m	9h 23m				Do, 12. Okt
Fr, 13. Okt	MESZ	20:17–05:44*	9h 27m	AN <sub>+</sub> bis AN <sub>-</sub>		05:53	18:09	05:43	37m	06:21	36m	06:57	34m	07:32	10h 55m	18:28	34m	19:03	36m	19:39	37m	20:17	13h 05m	9h 27m				Fr, 13. Okt
Sa, 14. Okt	MESZ	20:15–05:46*	9h 30m	AN <sub>+</sub> bis AN <sub>-</sub>	●	07:03	18:21	05:44	37m	06:22	36m	06:59	34m	07:34	10h 52m	18:26	34m	19:01	36m	19:37	37m	20:15	13h 09m	9h 30m				Sa, 14. Okt
So, 15. Okt	MESZ	20:13–05:48*	9h 34m	AN <sub>+</sub> bis AN <sub>-</sub>		08:15	18:34	05:46	37m	06:24	36m	07:01	34m	07:35	10h 48m	18:24	34m	18:59	36m	19:35	37m	20:13	13h 13m	9h 34m				So, 15. Okt
Mo, 16. Okt	MESZ	20:11–05:49*	9h 38m	AN <sub>+</sub> bis AN <sub>-</sub>		09:31	18:51	05:48	37m	06:25	36m	07:02	34m	07:37	10h 44m	18:22	34m	18:57	36m	19:33	37m	20:11	13h 16m	9h 38m				Mo, 16. Okt
Di, 17. Okt	MESZ	20:09–05:51*	9h 41m	AN <sub>+</sub> bis AN <sub>-</sub>		10:49	19:12	05:49	37m	06:27	36m	07:04	34m	07:39	10h 41m	18:20	34m	18:55	36m	19:31	37m	20:09	13h 20m	9h 41m				Di, 17. Okt
Mi, 18. Okt	MESZ	20:07–05:52*	9h 45m	AN <sub>+</sub> bis AN <sub>-</sub>		12:08	19:42	05:51	37m	06:28	36m	07:05	35m	07:40	10h 37m	18:18	34m	18:53	36m	19:30	37m	20:07	13h 24m	9h 45m				Mi, 18. Okt
Do, 19. Okt	MESZ	20:24–05:54*	9h 30m	M <sub>\</sub> bis AN <sub>-</sub>		13:23	20:24	05:52	37m	06:30	36m	07:07	35m	07:42	10h 33m	18:16	35m	18:51	36m	19:28	37m	20:05	13h 27m	9h 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
2023	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne			Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2023		
			$\Delta t$		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.	$\Delta t$	$\Delta t$		$\Delta t$		
Sa, 28. Okt	MESZ	—:—:—:—	—	Mond stört	○	17:44	07:15	06:06	37m	06:44	37m	07:21	35m	07:57	10h 01m	17:59	35m	18:34	37m	19:12	37m	19:49	13h 59m	10h 18m				Sa, 28. Okt
So, 29. Okt		—:—:—:—	—	Mond stört		17:02	07:42	05:07	37m	05:45	37m	06:22	35m	06:58	9h 58m	16:57	35m	17:33	37m	18:10	37m	18:47	14h 03m	10h 21m				So, 29. Okt
Mo, 30. Okt		—:—:—:—	—	Mond stört		17:27	09:08	05:09	37m	05:47	37m	06:24	36m	07:00	9h 54m	16:55	35m	17:31	37m	18:08	37m	18:46	14h 06m	10h 24m				Mo, 30. Okt
Di, 31. Okt		—:—:~:~:~	—	Mond stört		17:59	10:30	05:10	37m	05:48	37m	06:26	36m	07:02	9h 51m	16:53	36m	17:29	37m	18:07	37m	18:44	14h 10m	10h 27m				Di, 31. Okt
Mi, 1. Nov		—:~:~:~:~	—	Mond stört		18:43	11:43	05:12	37m	05:50	37m	06:27	36m	07:03	9h 47m	16:51	36m	17:28	37m	18:05	37m	18:43	14h 13m	10h 30m				Mi, 1. Nov
Do, 2. Nov		18:41–19:39	57m	AN <sub>+</sub> bis M <sub>7</sub>		19:39	12:43	05:13	37m	05:51	37m	06:29	36m	07:05	9h 44m	16:50	36m	17:26	37m	18:04	37m	18:41	14h 17m	10h 33m				Do, 2. Nov
Fr, 3. Nov		18:40–20:44	2h 04m	AN <sub>+</sub> bis M <sub>7</sub>		20:44	13:27	05:15	37m	05:53	37m	06:30	36m	07:07	9h 41m	16:48	36m	17:24	37m	18:02	37m	18:40	14h 20m	10h 36m				Fr, 3. Nov
Sa, 4. Nov		18:38–21:55	3h 17m	AN <sub>+</sub> bis M <sub>7</sub>		21:55	13:59	05:16	37m	05:54	37m	06:32	36m	07:08	9h 37m	16:46	36m	17:23	37m	18:01	37m	18:38	14h 23m	10h 39m				Sa, 4. Nov
So, 5. Nov		18:37–23:07	4h 30m	AN <sub>+</sub> bis M <sub>7</sub>	●	23:07	14:22	05:18	37m	05:56	37m	06:33	36m	07:10	9h 34m	16:45	36m	17:21	37m	17:59	37m	18:37	14h 27m	10h 42m				So, 5. Nov
Mo, 6. Nov		18:36–00:18*	5h 42m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	14:40	05:19	37m	05:57	37m	06:35	36m	07:12	9h 31m	16:43	36m	17:20	37m	17:58	37m	18:36	14h 30m	10h 45m				Mo, 6. Nov
Di, 7. Nov		18:34–01:28*	6h 53m	AN <sub>+</sub> bis M <sub>7</sub>		00:18	14:54	05:21	37m	05:59	38m	06:37	36m	07:13	9h 28m	16:42	36m	17:18	38m	17:56	37m	18:34	14h 33m	10h 47m				Di, 7. Nov
Mi, 8. Nov		18:33–02:37*	8h 04m	AN <sub>+</sub> bis M <sub>7</sub>		01:28	15:06	05:22	37m	06:00	38m	06:38	37m	07:15	9h 24m	16:40	37m	17:17	38m	17:55	37m	18:33	14h 36m	10h 50m				Mi, 8. Nov
Do, 9. Nov		18:32–03:47*	9h 15m	AN <sub>+</sub> bis M <sub>7</sub>		02:37	15:17	05:24	37m	06:01	38m	06:40	37m	07:17	9h 21m	16:38	37m	17:16	38m	17:54	37m	18:32	14h 40m	10h 53m				Do, 9. Nov
Fr, 10. Nov		18:30–04:59*	10h 28m	AN <sub>+</sub> bis M <sub>7</sub>		03:47	15:29	05:25	38m	06:03	38m	06:41	37m	07:18	9h 18m	16:37	37m	17:14	38m	17:53	37m	18:30	14h 43m	10h 55m				Fr, 10. Nov
Sa, 11. Nov		18:29–05:28*	10h 58m	AN <sub>+</sub> bis AN <sub>-</sub>		04:59	15:41	05:26	38m	06:04	38m	06:43	37m	07:20	9h 15m	16:36	37m	17:13	38m	17:51	38m	18:29	14h 46m	10h 58m				Sa, 11. Nov
So, 12. Nov		18:28–05:29*	11h 01m	AN <sub>+</sub> bis AN <sub>-</sub>		06:13	15:56	05:28	38m	06:06	38m	06:44	37m	07:22	9h 12m	16:34	37m	17:12	38m	17:50	38m	18:28	14h 49m	11h 01m				So, 12. Nov
Mo, 13. Nov		18:27–05:31*	11h 03m	AN <sub>+</sub> bis AN <sub>-</sub>	●	07:32	16:16	05:29	38m	06:07	38m	06:46	37m	07:23	9h 09m	16:33	37m	17:10	38m	17:49	38m	18:27	14h 52m	11h 03m				Mo, 13. Nov
Di, 14. Nov		18:26–05:32*	11h 05m	AN <sub>+</sub> bis AN <sub>-</sub>		08:52	16:43	05:31	38m	06:09	38m	06:47	37m	07:25	9h 06m	16:31	37m	17:09	38m	17:48	38m	18:26	14h 55m	11h 05m				Di, 14. Nov
Mi, 15. Nov		18:25–05:33*	11h 08m	AN <sub>+</sub> bis AN <sub>-</sub>		10:11	17:21	05:32	38m	06:10	38m	06:49	37m	07:27	9h 03m	16:30	37m	17:08	38m	17:47	38m	18:25	14h 58m	11h 08m				Mi, 15. Nov
Do, 16. Nov		18:24–05:35*	11h 10m	AN <sub>+</sub> bis AN <sub>-</sub>		11:22	18:15	05:33	38m	06:12	38m	06:50	38m	07:28	9h 00m	16:29	38m	17:07	38m	17:46	38m	18:24	15h 01m	11h 10m				Do, 16. Nov
Fr, 17. Nov		19:26–05:36*	10h 10m	M <sub>\</sub> bis AN <sub>-</sub>		12:17	19:26	05:35	38m	06:13	38m	06:52	38m	07:30	8h 57m	16:28	38m	17:06	38m	17:45	38m	18:23	15h 03m	11h 13m				Fr, 17. Nov
Sa, 18. Nov		20:48–05:37*	8h 49m	M <sub>\</sub> bis AN <sub>-</sub>		12:58	20:48	05:36	38m	06:14	38m	06:53	38m	07:32	8h 54m	16:26	38m	17:05	38m	17:44	38m	18:22	15h 06m	11h 15m				Sa, 18. Nov
So, 19. Nov		22:15–05:39*	7h 24m	M <sub>\</sub> bis AN <sub>-</sub>		13:27	22:15	05:37	38m	06:16	39m	06:55	38m	07:33	8h 52m	16:25	38m	17:04	39m	17:43	38m	18:21	15h 09m	11h 17m				So, 19. Nov
Mo, 20. Nov		23:41–05:40*	5h 59m	M <sub>\</sub> bis AN <sub>-</sub>	●	13:48	23:41	05:39	38m	06:17	39m	06:56	38m	07:35	8h 49m	16:24	38m	17:03	39m	17:42	38m	18:20	15h 12m	11h 19m				Mo, 20. Nov
Di, 21. Nov		01:05*–05:41*	4h 35m	M <sub>\</sub> bis AN <sub>-</sub>		14:05	—:—	05:40	38m	06:18	39m	06:58	38m	07:36	8h 46m	16:23	38m	17:02	39m	17:41	38m	18:20	15h 14m	11h 21m				Di, 21. Nov
Mi, 22. Nov		02:28*–05:42*	3h 14m	M <sub>\</sub> bis AN <sub>-</sub>		14:20	01:05	05:41	38m	06:20	39m	06:59	38m	07:38	8h 44m	16:22	38m	17:01	39m	17:40	38m	18:19	15h 17m	11h 23m				Mi, 22. Nov
Do, 23. Nov		03:51*–05:44*	1h 52m	M <sub>\</sub> bis AN <sub>-</sub>		14:34	02:28	05:42	38m	06:21	39m	07:01	38m	07:39	8h 41m	16:21	38m	17:00	39m	17:39	38m	18:18	15h 19m	11h 25m				Do, 23. Nov
Fr, 24. Nov		05:15*–05:45*	29m	M <sub>\</sub> bis AN <sub>-</sub>		14:48	03:51	05:44	38m	06:22	39m	07:02	39m	07:41	8h 39m	16:20	39m	16:59	39m	17:39	38m	18:17	15h 22m	11h 27m				Fr, 24. Nov
Sa, 25. Nov		—:~:~:~:~	—	Mond stört		15:05	05:15	05:45	38m	06:24	39m	07:03	39m	07:42	8h 36m	16:19	39m	16:58	39m	17:38	38m	18:17	15h 24m	11h 29m				Sa, 25. Nov
So, 26. Nov		—:~:~:~:~	—	Mond stört		15:27	06:40	05:46	38m	06:25	39m	07:05	39m	07:44	8h 34m	16:18	39m	16:58	39m	17:37	38m	18:16	15h 27m	11h 31m				So, 26. Nov
Mo, 27. Nov		—:~:~:~:~	—	Mond stört	○	15:55	08:03	05:47	38m	06:26	39m	07:06	39m	07:45	8h 32m	16:18	39m	16:57	39m	17:37	38m	18:16	15h 29m	11h 32m				Mo, 27. Nov
Di, 28. Nov		—:~:~:~:~	—	Mond stört		16:33	09:22	05:49	38m	06:27	39m	07:07	39m	07:47	8h 30m	16:17	39m	16:56	39m	17:36	38m	18:15	15h 31m	11h 34m				Di, 28. Nov
Mi, 29. Nov		—:~:~:~:~	—	Mond stört		17:24	10:28	05:50	38m	06:29	39m	07:09	39m	07:48	8h 27m	16:16	39m	16:56	39m	17:36	38m	18:15	15h 33m	11h 36m				Mi, 29. Nov
Do, 30. Nov		18:14–18:27	12m	AN <sub>+</sub> bis M <sub>7</sub>		18:27	11:20	05:51	39m	06:30	39m	07:10	39m	07:50	8h 25m	16:15	39m	16:55	39m	17:35	38m	18:14	15h 35m	11h 37m				Do, 30. Nov
Fr, 1. Dez		18:14–19:37	1h 23m	AN <sub>+</sub> bis M <sub>7</sub>		19:37	11:57	05:52	39m	06:31	40m	07:11	39m	07:51	8h 23m	16:15	39m	16:55	40m	17:35	39m	18:14	15h 37m	11h 39m				Fr, 1. Dez
Sa, 2. Dez		18:13–20:50	2h 36m	AN <sub>+</sub> bis M <sub>7</sub>		20:50	12:24	05:53	39m	06:32	40m	07:12	39m	07:52	8h 21m	16:14	39m	16:54	40m	17:34	39m	18:13	15h 39m	11h 40m				Sa, 2. Dez
So, 3. Dez		18:13–22:02	3h 48m	AN <sub>+</sub> bis M <sub>7</sub>		22:02	12:44	05:54	39m	06:33	40m	07:14	40m	07:54	8h 20m	16:14	40m	16:54	40m	17:34	39m	18:13	15h 41m	11h 42m				So, 3. Dez
Mo, 4. Dez		18:13–23:12	4h 59m	AN <sub>+</sub> bis M <sub>7</sub>		23:12	12:59	05:55	39m	06:34	40m	07:15	40m	07:55	8h 18m	16:13	40m	16:53	40m	17:34	39m	18:13	15h 42m	11h 43m				Mo, 4. Dez
Di, 5. Dez		18:13–00:21*	6h 08m	AN <sub>+</sub> bis M <sub>7</sub>	●	—:—	13:12	05:56	39m	06:35	40m	07:16	40m	07:56	8h 16m	16:13	40m	16:53	40m	17:34	39m	18:13	15h 44m	11h 44m				Di, 5. Dez
Mi, 6. Dez		18:13–01:29*	7h 16m	AN <sub>+</sub> bis M <sub>7</sub>		00:21	13:24	05:57	39m	06:37	40m	07:17	40m	07:57	8h 15m	16:13	40m	16:53	40m	17:33	39m	18:13	15h 45m	11h 45m				Mi, 6. Dez
Do, 7. Dez		18:12–02:39*	8h 26m	AN <sub>+</sub> bis M <sub>7</sub>		01:29	13:35	05:58	39m	06:38	40m	07:18	40m	07:58	8h 13m	16:12	40m	16:53	40m	17:33	39m	18:12	15h 47m	11h 46m				Do, 7. Dez
Fr, 8. Dez		18:12–03:52*	9h 39m	AN <sub>+</sub> bis M <sub>7</sub>		02:39	13:47	05:59	39m	06:39	40m	07:19	40m	08:00	8h 12m	16:12	40m	16:53	40m	17:33	39m	18:12	15h 48m	11h 47m				Fr, 8. Dez
Sa, 9. Dez		18:12–05:09*	10h 56m	AN <sub>+</sub> bis M <sub>7</sub>		03:52	14:01	06:00	39m	06:40	40m	07:20	40m	08:01	8h													



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
2023/24	Zeitzone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne				Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2023/24	
		$\Delta t$			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, 17. Dez		21:28 – 06:07*	8h 38m	M <sub>\</sub> bis AN <sub>\</sub>		11:54	21:28	06:07	39m	06:46	40m	07:27	41m	08:08	8h 04m	16:12	41m	16:53	40m	17:34	39m	18:14	15h 56m	11h 53m				So, 17. Dez
Mo, 18. Dez		22:54 – 06:08*	7h 14m	M <sub>\</sub> bis AN <sub>\</sub>		12:12	22:54	06:07	39m	06:47	40m	07:28	41m	08:09	8h 03m	16:12	41m	16:54	40m	17:34	39m	18:14	15h 56m	11h 53m				Mo, 18. Dez
Di, 19. Dez		00:17* – 06:08*	5h 51m	M <sub>\</sub> bis AN <sub>\</sub>	☾	12:27	—:—	06:08	39m	06:47	40m	07:28	41m	08:09	8h 03m	16:13	41m	16:54	40m	17:35	39m	18:14	15h 57m	11h 54m				Di, 19. Dez
Mi, 20. Dez		01:38* – 06:09*	4h 30m	M <sub>\</sub> bis AN <sub>\</sub>		12:41	00:17	06:08	39m	06:48	40m	07:29	41m	08:10	8h 03m	16:13	41m	16:54	40m	17:35	39m	18:15	15h 57m	11h 54m				Mi, 20. Dez
Do, 21. Dez		03:00* – 06:09*	3h 09m	M <sub>\</sub> bis AN <sub>\</sub>		12:55	01:38	06:09	39m	06:49	40m	07:29	41m	08:11	8h 03m	16:14	41m	16:55	40m	17:36	39m	18:15	15h 57m	11h 54m				Do, 21. Dez
Fr, 22. Dez		04:22* – 06:10*	1h 48m	M <sub>\</sub> bis AN <sub>\</sub>		13:10	03:00	06:09	39m	06:49	40m	07:30	41m	08:11	8h 03m	16:14	41m	16:55	40m	17:36	39m	18:16	15h 57m	11h 54m				Fr, 22. Dez
Sa, 23. Dez		05:44* – 06:10*	26m	M <sub>\</sub> bis AN <sub>\</sub>		13:30	04:22	06:10	39m	06:50	40m	07:30	41m	08:12	8h 03m	16:15	41m	16:56	40m	17:37	39m	18:16	15h 57m	11h 54m				Sa, 23. Dez
So, 24. Dez		—:—:—:—	–	Mond stört		13:54	05:44	06:10	39m	06:50	40m	07:31	41m	08:12	8h 03m	16:15	41m	16:56	40m	17:37	39m	18:17	15h 57m	11h 53m				So, 24. Dez
Mo, 25. Dez		—:—:—:—	–	Mond stört		14:28	07:03	06:11	39m	06:50	40m	07:31	41m	08:12	8h 03m	16:16	41m	16:57	40m	17:38	39m	18:17	15h 56m	11h 53m				Mo, 25. Dez
Di, 26. Dez		—:—:—:—	–	Mond stört		15:14	08:14	06:11	39m	06:51	40m	07:32	41m	08:13	8h 03m	16:17	41m	16:58	40m	17:39	39m	18:18	15h 56m	11h 53m				Di, 26. Dez
Mi, 27. Dez		—:—:~:~	–	Mond stört	☾	16:12	09:11	06:11	39m	06:51	40m	07:32	41m	08:13	8h 04m	16:17	41m	16:58	40m	17:39	39m	18:19	15h 55m	11h 52m				Mi, 27. Dez
Do, 28. Dez		—:~:~:~	–	Mond stört		17:20	09:54	06:12	39m	06:51	40m	07:32	40m	08:13	8h 05m	16:18	40m	16:59	40m	17:40	39m	18:20	15h 55m	11h 52m				Do, 28. Dez
Fr, 29. Dez		18:20 – 18:33	12m	AN <sub>+</sub> bis M <sub>7</sub>		18:33	10:25	06:12	39m	06:52	40m	07:32	40m	08:13	8h 05m	16:19	40m	17:00	40m	17:41	39m	18:20	15h 54m	11h 51m				Fr, 29. Dez
Sa, 30. Dez		18:21 – 19:45	1h 24m	AN <sub>+</sub> bis M <sub>7</sub>		19:45	10:47	06:12	39m	06:52	40m	07:32	40m	08:13	8h 06m	16:20	40m	17:01	40m	17:42	39m	18:21	15h 53m	11h 51m				Sa, 30. Dez
So, 31. Dez		18:22 – 20:57	2h 34m	AN <sub>+</sub> bis M <sub>7</sub>		20:57	11:04	06:12	39m	06:52	40m	07:33	40m	08:13	8h 07m	16:21	40m	17:02	40m	17:42	39m	18:22	15h 52m	11h 50m				So, 31. Dez
Mo, 1. Jan		18:23 – 22:06	3h 43m	AN <sub>+</sub> bis M <sub>7</sub>		22:06	11:18	06:12	39m	06:52	40m	07:33	40m	08:13	8h 08m	16:22	40m	17:03	40m	17:43	39m	18:23	15h 51m	11h 49m				Mo, 1. Jan
Di, 2. Jan		18:24 – 23:14	4h 50m	AN <sub>+</sub> bis M <sub>7</sub>		23:14	11:30	06:13	39m	06:52	40m	07:33	40m	08:13	8h 09m	16:23	40m	17:04	40m	17:44	39m	18:24	15h 50m	11h 48m				Di, 2. Jan
Mi, 3. Jan		18:24 – 00:22*	5h 57m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	11:41	06:13	39m	06:52	40m	07:33	40m	08:13	8h 10m	16:24	40m	17:05	40m	17:45	39m	18:24	15h 49m	11h 48m				Mi, 3. Jan
Do, 4. Jan		18:25 – 01:32*	7h 06m	AN <sub>+</sub> bis M <sub>7</sub>	☾	00:22	11:52	06:13	39m	06:52	40m	07:32	40m	08:13	8h 11m	16:25	40m	17:06	40m	17:46	39m	18:25	15h 47m	11h 47m				Do, 4. Jan
Fr, 5. Jan		18:26 – 02:45*	8h 19m	AN <sub>+</sub> bis M <sub>7</sub>		01:32	12:05	06:13	39m	06:52	40m	07:32	40m	08:13	8h 13m	16:26	40m	17:07	40m	17:47	39m	18:26	15h 46m	11h 46m				Fr, 5. Jan
Sa, 6. Jan		18:27 – 04:03*	9h 35m	AN <sub>+</sub> bis M <sub>7</sub>		02:45	12:20	06:12	39m	06:52	40m	07:32	40m	08:13	8h 14m	16:27	40m	17:08	40m	17:48	39m	18:27	15h 44m	11h 44m				Sa, 6. Jan
So, 7. Jan		18:28 – 05:23*	10h 54m	AN <sub>+</sub> bis M <sub>7</sub>		04:03	12:40	06:12	39m	06:52	40m	07:32	40m	08:12	8h 16m	16:28	40m	17:09	40m	17:49	39m	18:28	15h 43m	11h 43m				So, 7. Jan
Mo, 8. Jan		18:29 – 06:12*	11h 42m	AN <sub>+</sub> bis AN <sub>\</sub>		05:23	13:08	06:12	39m	06:51	40m	07:32	40m	08:12	8h 17m	16:30	40m	17:10	40m	17:50	39m	18:29	15h 41m	11h 42m				Mo, 8. Jan
Di, 9. Jan		18:31 – 06:12*	11h 41m	AN <sub>+</sub> bis AN <sub>\</sub>		06:42	13:49	06:12	39m	06:51	40m	07:31	40m	08:11	8h 19m	16:31	40m	17:11	40m	17:51	39m	18:31	15h 39m	11h 41m				Di, 9. Jan
Mi, 10. Jan		18:32 – 06:11*	11h 39m	AN <sub>+</sub> bis AN <sub>\</sub>		07:52	14:48	06:12	39m	06:51	40m	07:31	40m	08:11	8h 21m	16:32	40m	17:12	40m	17:53	39m	18:32	15h 38m	11h 39m				Mi, 10. Jan
Do, 11. Jan		18:33 – 06:11*	11h 38m	AN <sub>+</sub> bis AN <sub>\</sub>	☾	08:48	16:05	06:11	39m	06:50	40m	07:31	39m	08:10	8h 23m	16:34	39m	17:14	40m	17:54	39m	18:33	15h 36m	11h 38m				Do, 11. Jan
Fr, 12. Jan		18:34 – 06:11*	11h 36m	AN <sub>+</sub> bis AN <sub>\</sub>		09:28	17:34	06:11	39m	06:50	39m	07:30	39m	08:10	8h 25m	16:35	39m	17:15	40m	17:55	39m	18:34	15h 34m	11h 36m				Fr, 12. Jan
Sa, 13. Jan		19:06 – 06:10*	11h 04m	M <sub>\</sub> bis AN <sub>\</sub>		09:56	19:06	06:11	38m	06:50	39m	07:30	39m	08:09	8h 27m	16:37	39m	17:16	39m	17:56	38m	18:35	15h 32m	11h 35m				Sa, 13. Jan
So, 14. Jan		20:36 – 06:10*	9h 33m	M <sub>\</sub> bis AN <sub>\</sub>		10:16	20:36	06:10	38m	06:49	39m	07:29	39m	08:09	8h 29m	16:38	39m	17:18	39m	17:57	38m	18:36	15h 29m	11h 33m				So, 14. Jan
Mo, 15. Jan		22:02 – 06:09*	8h 06m	M <sub>\</sub> bis AN <sub>\</sub>		10:33	22:02	06:10	38m	06:49	39m	07:28	39m	08:08	8h 31m	16:39	39m	17:19	39m	17:59	38m	18:38	15h 27m	11h 31m				Mo, 15. Jan
Di, 16. Jan		23:26 – 06:09*	6h 42m	M <sub>\</sub> bis AN <sub>\</sub>		10:47	23:26	06:09	38m	06:48	39m	07:28	39m	08:07	8h 33m	16:41	39m	17:20	39m	18:00	38m	18:39	15h 25m	11h 29m				Di, 16. Jan
Mi, 17. Jan		00:49* – 06:08*	5h 19m	M <sub>\</sub> bis AN <sub>\</sub>		11:01	—:—	06:09	38m	06:47	39m	07:27	39m	08:06	8h 36m	16:42	39m	17:22	39m	18:01	38m	18:40	15h 22m	11h 28m				Mi, 17. Jan
Do, 18. Jan		02:11* – 06:07*	3h 56m	M <sub>\</sub> bis AN <sub>\</sub>	☾	11:17	00:49	06:08	38m	06:47	39m	07:26	39m	08:05	8h 38m	16:44	39m	17:23	39m	18:03	38m	18:41	15h 20m	11h 26m				Do, 18. Jan
Fr, 19. Jan		03:33* – 06:07*	2h 33m	M <sub>\</sub> bis AN <sub>\</sub>		11:34	02:11	06:07	38m	06:46	39m	07:25	38m	08:04	8h 41m	16:45	38m	17:24	39m	18:04	38m	18:43	15h 17m	11h 24m				Fr, 19. Jan
Sa, 20. Jan		04:52* – 06:06*	1h 13m	M <sub>\</sub> bis AN <sub>\</sub>		11:57	03:33	06:07	38m	06:45	39m	07:25	38m	08:03	8h 43m	16:47	38m	17:26	39m	18:05	38m	18:44	15h 15m	11h 22m				Sa, 20. Jan
So, 21. Jan		06:05* – 06:05*	0m	M <sub>\</sub> bis AN <sub>\</sub>		12:27	04:52	06:06	38m	06:45	39m	07:24	38m	08:02	8h 46m	16:49	38m	17:27	39m	18:07	38m	18:45	15h 12m	11h 20m				So, 21. Jan
Mo, 22. Jan		—:~:~:~	–	Mond stört		13:08	06:05	06:05	38m	06:44	39m	07:23	38m	08:01	8h 48m	16:50	38m	17:29	39m	18:08	38m	18:47	15h 10m	11h 17m				Mo, 22. Jan
Di, 23. Jan		—:~:~:~	–	Mond stört		14:02	07:06	06:04	38m	06:43	39m	07:22	38m	08:00	8h 51m	16:52	38m	17:30	39m	18:09	38m	18:48	15h 07m	11h 15m				Di, 23. Jan
Mi, 24. Jan		—:~:~:~	–	Mond stört		15:06	07:52	06:04	38m	06:42	38m	07:21	38m	07:59	8h 54m	16:54	38m	17:32	38m	18:11	38m	18:49	15h 04m	11h 13m				Mi, 24. Jan
Do, 25. Jan		—:~:~:~	–	Mond stört	☾	16:18	08:26	06:03	38m	06:41	38m	07:20	38m	07:58	8h 57m	16:55	38m	17:33	38m	18:12	38m	18:51	15h 01m	11h 11m				Do, 25. Jan
Fr, 26. Jan		—:~:~:~	–	Mond stört		17:31	08:51	06:02	38m	06:40	38m	07:19	38m	07:57	8h 59m	16:57	38m	17:35	38m	18:14	38m	18:52	14h 58m	11h 08m				Fr, 26. Jan
Sa, 27. Jan		—:~:~:~	–	Mond stört		18:43	09:10	06:01	38m	06:39	38m	07:18	37m	07:56	9h 02m	16:59	37m	17:36	38m	18:15	38m	18:53	14h 55m	11h 06m				Sa, 27. Jan
So, 28. Jan		18:55 – 19:53	58m	AN <sub>+</sub> bis M <sub>7</sub>		19:53	09:24	06:00	38m	06:38	38m	07																