

# Mond- und Dämmerungstabelle 2023

## für die visuelle Deep-Sky-Beobachtung

Bad Neustadt an der Saale 50.3219° N 10.2161° 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		04:03*–06:17*	2h 13m	M <sub>\</sub> bis AN <sub>\</sub>		12:52	02:48	06:17	39m	06:57	40m	07:37	40m	08:18	8h 07m	16:26	40m	17:07	40m	17:48	39m	18:27	15h 52m	11h 49m				So, 1. Jan
Mo, 2. Jan		05:17*–06:17*	59m	M <sub>\</sub> bis AN <sub>\</sub>		13:11	04:03	06:17	39m	06:57	40m	07:37	40m	08:18	8h 09m	16:27	40m	17:08	40m	17:49	39m	18:28	15h 50m	11h 49m				Mo, 2. Jan
Di, 3. Jan		—:—:—:—	–	Mond stört		13:34	05:17	06:17	39m	06:57	40m	07:37	40m	08:18	8h 10m	16:28	40m	17:09	40m	17:50	39m	18:29	15h 49m	11h 48m				Di, 3. Jan
Mi, 4. Jan		—:—:—:—	–	Mond stört		14:05	06:29	06:17	39m	06:57	40m	07:37	40m	08:18	8h 11m	16:29	40m	17:10	40m	17:51	39m	18:30	15h 48m	11h 47m				Mi, 4. Jan
Do, 5. Jan		—:—:—:—	–	Mond stört		14:45	07:34	06:17	39m	06:56	40m	07:37	40m	08:18	8h 12m	16:30	40m	17:11	40m	17:52	39m	18:31	15h 46m	11h 46m				Do, 5. Jan
Fr, 6. Jan		—:~:~:~:~	–	Mond stört		15:36	08:29	06:17	39m	06:56	40m	07:37	40m	08:17	8h 14m	16:32	40m	17:12	40m	17:53	39m	18:32	15h 45m	11h 44m				Fr, 6. Jan
Sa, 7. Jan		—:~:~:~:~	–	Mond stört	○	16:37	09:13	06:17	39m	06:56	40m	07:37	40m	08:17	8h 15m	16:33	40m	17:13	40m	17:54	39m	18:33	15h 43m	11h 43m				Sa, 7. Jan
So, 8. Jan		—:~:~:~:~	–	Mond stört		17:44	09:46	06:17	39m	06:56	40m	07:36	40m	08:17	8h 17m	16:34	40m	17:14	40m	17:55	39m	18:34	15h 41m	11h 42m				So, 8. Jan
Mo, 9. Jan		18:35–18:55	19m	AN <sub>+</sub> bis M <sub>7</sub>		18:55	10:11	06:16	39m	06:56	40m	07:36	40m	08:16	8h 19m	16:35	40m	17:16	40m	17:56	39m	18:35	15h 40m	11h 41m				Mo, 9. Jan
Di, 10. Jan		18:36–20:05	1h 28m	AN <sub>+</sub> bis M <sub>7</sub>		20:05	10:30	06:16	39m	06:55	40m	07:36	40m	08:16	8h 21m	16:37	40m	17:17	40m	17:57	39m	18:36	15h 38m	11h 39m				Di, 10. Jan
Mi, 11. Jan		18:37–21:15	2h 37m	AN <sub>+</sub> bis M <sub>7</sub>		21:15	10:46	06:16	39m	06:55	40m	07:35	39m	08:15	8h 23m	16:38	39m	17:18	40m	17:58	39m	18:37	15h 36m	11h 38m				Mi, 11. Jan
Do, 12. Jan		18:39–22:25	3h 46m	AN <sub>+</sub> bis M <sub>7</sub>		22:25	11:00	06:15	39m	06:55	40m	07:35	39m	08:14	8h 25m	16:40	39m	17:19	40m	17:59	39m	18:39	15h 34m	11h 36m				Do, 12. Jan
Fr, 13. Jan		18:40–23:36	4h 56m	AN <sub>+</sub> bis M <sub>7</sub>		23:36	11:12	06:15	39m	06:54	39m	07:34	39m	08:14	8h 27m	16:41	39m	17:21	39m	18:01	39m	18:40	15h 32m	11h 34m				Fr, 13. Jan
Sa, 14. Jan		18:41–00:49*	6h 07m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	11:25	06:15	38m	06:54	39m	07:33	39m	08:13	8h 29m	16:42	39m	17:22	39m	18:02	38m	18:41	15h 29m	11h 33m				Sa, 14. Jan
So, 15. Jan		18:42–02:05*	7h 23m	AN <sub>+</sub> bis M <sub>7</sub>	●	00:49	11:39	06:14	38m	06:53	39m	07:33	39m	08:12	8h 31m	16:44	39m	17:23	39m	18:03	38m	18:42	15h 27m	11h 31m				So, 15. Jan
Mo, 16. Jan		18:43–03:27*	8h 43m	AN <sub>+</sub> bis M <sub>7</sub>		02:05	11:56	06:14	38m	06:52	39m	07:32	39m	08:12	8h 33m	16:45	39m	17:25	39m	18:04	38m	18:43	15h 25m	11h 29m				Mo, 16. Jan
Di, 17. Jan		18:45–04:52*	10h 07m	AN <sub>+</sub> bis M <sub>7</sub>		03:27	12:18	06:13	38m	06:52	39m	07:31	39m	08:11	8h 36m	16:47	39m	17:26	39m	18:06	38m	18:45	15h 23m	11h 27m				Di, 17. Jan
Mi, 18. Jan		18:46–06:12*	11h 25m	AN <sub>+</sub> bis AN <sub>\</sub>		04:52	12:48	06:12	38m	06:51	39m	07:31	39m	08:10	8h 38m	16:48	39m	17:28	39m	18:07	38m	18:46	15h 20m	11h 25m				Mi, 18. Jan
Do, 19. Jan		18:47–06:11*	11h 23m	AN <sub>+</sub> bis AN <sub>\</sub>		06:15	13:33	06:12	38m	06:50	39m	07:30	39m	08:09	8h 41m	16:50	39m	17:29	39m	18:08	38m	18:47	15h 18m	11h 23m				Do, 19. Jan
Fr, 20. Jan		18:49–06:10*	11h 21m	AN <sub>+</sub> bis AN <sub>\</sub>		07:29	14:37	06:11	38m	06:50	39m	07:29	38m	08:08	8h 43m	16:52	38m	17:30	39m	18:10	38m	18:49	15h 15m	11h 21m				Fr, 20. Jan
Sa, 21. Jan		18:50–06:10*	11h 19m	AN <sub>+</sub> bis AN <sub>\</sub>	●	08:26	15:59	06:10	38m	06:49	39m	07:28	38m	08:07	8h 46m	16:53	38m	17:32	39m	18:11	38m	18:50	15h 12m	11h 19m				Sa, 21. Jan
So, 22. Jan		18:51–06:09*	11h 17m	AN <sub>+</sub> bis AN <sub>\</sub>		09:07	17:31	06:10	38m	06:48	39m	07:27	38m	08:06	8h 48m	16:55	38m	17:33	39m	18:13	38m	18:51	15h 10m	11h 17m				So, 22. Jan
Mo, 23. Jan		19:04–06:08*	11h 04m	M <sub>\</sub> bis AN <sub>\</sub>		09:35	19:04	06:09	38m	06:47	39m	07:26	38m	08:05	8h 51m	16:56	38m	17:35	39m	18:14	38m	18:53	15h 07m	11h 15m				Mo, 23. Jan
Di, 24. Jan		20:33–06:07*	9h 34m	M <sub>\</sub> bis AN <sub>\</sub>		09:56	20:33	06:08	38m	06:46	39m	07:25	38m	08:04	8h 54m	16:58	38m	17:36	39m	18:15	38m	18:54	15h 04m	11h 13m				Di, 24. Jan
Mi, 25. Jan		21:57–06:06*	8h 09m	M <sub>\</sub> bis AN <sub>\</sub>		10:13	21:57	06:07	38m	06:45	38m	07:24	38m	08:03	8h 57m	17:00	38m	17:38	38m	18:17	38m	18:55	15h 01m	11h 10m				Mi, 25. Jan
Do, 26. Jan		23:17–06:05*	6h 47m	M <sub>\</sub> bis AN <sub>\</sub>		10:28	23:17	06:06	38m	06:44	38m	07:23	38m	08:01	9h 00m	17:01	38m	17:40	38m	18:18	38m	18:57	14h 58m	11h 08m				Do, 26. Jan
Fr, 27. Jan		00:36*–06:04*	5h 28m	M <sub>\</sub> bis AN <sub>\</sub>		10:42	—:—	06:05	38m	06:43	38m	07:22	37m	08:00	9h 03m	17:03	37m	17:41	38m	18:20	38m	18:58	14h 55m	11h 05m				Fr, 27. Jan
Sa, 28. Jan		01:52*–06:03*	4h 10m	M <sub>\</sub> bis AN <sub>\</sub>	●	10:58	00:36	06:04	38m	06:42	38m	07:21	37m	07:59	9h 06m	17:05	37m	17:43	38m	18:21	38m	19:00	14h 52m	11h 03m				Sa, 28. Jan
So, 29. Jan		03:08*–06:02*	2h 54m	M <sub>\</sub> bis AN <sub>\</sub>		11:15	01:52	06:03	38m	06:41	38m	07:20	37m	07:57	9h 09m	17:06	37m	17:44	38m	18:23	38m	19:01	14h 49m	11h 00m				So, 29. Jan
Mo, 30. Jan		04:20*–06:01*	1h 40m	M <sub>\</sub> bis AN <sub>\</sub>		11:37	03:08	06:02	38m	06:40	38m	07:19	37m	07:56	9h 12m	17:08	37m	17:46	38m	18:24	38m	19:02	14h 46m	10h 58m				Mo, 30. Jan
Di, 31. Jan		05:28*–06:00*	31m	M <sub>\</sub> bis AN <sub>\</sub>		12:05	04:20	06:01	38m	06:39	38m	07:17	37m	07:55	9h 15m	17:10	37m	17:47	38m	18:26	38m	19:04	14h 43m	10h 55m				Di, 31. Jan
Mi, 1. Feb		—:~:~:~:~	–	Mond stört		12:42	05:28	06:00	38m	06:38	38m	07:16	37m	07:53	9h 18m	17:12	37m	17:49	38m	18:27	38m	19:05	14h 40m	10h 53m				Mi, 1. Feb
Do, 2. Feb		—:~:~:~:~	–	Mond stört		13:30	06:26	05:58	37m	06:36	38m	07:15	37m	07:52	9h 21m	17:13	37m	17:51	38m	18:29	38m	19:07	14h 36m	10h 50m				Do, 2. Feb
Fr, 3. Feb		—:~:~:~:~	–	Mond stört		14:28	07:13	05:57	37m	06:35	38m	07:13	37m	07:50	9h 24m	17:15	37m	17:52	38m	18:30	37m	19:08	14h 33m	10h 47m				Fr, 3. Feb
Sa, 4. Feb		—:~:~:~:~	–	Mond stört		15:34	07:49	05:56	37m	06:34	38m	07:12	36m	07:49	9h 28m	17:17	36m	17:54	38m	18:32	37m	19:10	14h 30m	10h 44m				Sa, 4. Feb
So, 5. Feb		—:~:~:~:~	–	Mond stört	○	16:44	08:16	05:55	37m	06:32	37m	07:10	36m	07:47	9h 31m	17:19	36m	17:55	38m	18:33	37m	19:11	14h 27m	10h 41m				So, 5. Feb
Mo, 6. Feb		—:~:~:~:~	–	Mond stört		17:55	08:37	05:53	37m	06:31	37m	07:09	36m	07:46	9h 34m	17:20	36m	17:57	37m	18:35	37m	19:13	14h 23m	10h 38m				Mo, 6. Feb
Di, 7. Feb		—:~:~:~:~	–	Mond stört		19:06	08:53	05:52	37m	06:30	37m	07:07	36m	07:44	9h 38m	17:22	36m	17:59	37m	18:37	37m	19:14	14h 20m	10h 36m				Di, 7. Feb
Mi, 8. Feb		19:16–20:16	1h 00m	AN <sub>+</sub> bis M <sub>7</sub>		20:16	09:07	05:50	37m	06:28	37m	07:06	36m	07:42	9h 41m	17:24	36m	18:00	37m	18:38	37m	19:16	14h 16m	10h 33m				Mi, 8. Feb
Do, 9. Feb		19:17–21:26	2h 08m	AN <sub>+</sub> bis M <sub>7</sub>		21:26	09:20	05:49	37m	06:27	37m	07:04	36m	07:41	9h 44m	17:26	36m	18:02	37m	18:40	37m	19:17	14h 13m	10h 30m				Do, 9. Feb
Fr, 10. Feb		19:19–22:38	3h 18m	AN <sub>+</sub> bis M <sub>7</sub>		22:38	09:32	05:47	37m	06:25	37m	07:03	36m	07:39	9h 48m	17:27	36m	18:04	37m	18:41	37m	19:19	14h 09m	10h 26m				Fr, 10. Feb
Sa, 11. Feb		19:21–23:52	4h 31m	AN <sub>+</sub> bis M <sub>7</sub>		23:52	09:45	05:46	37m	06:24	37m	07:01	36m	07:37	9h 51m	17:29	36m	18:05	37m	18:43	37m	19:21	14h 06m	10h 23m				Sa, 11. Feb
So, 12. Feb		19:22–01:10*	5h 47m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	10:00	05:44	37m	06:22	37m	07:00	36m	07:36	9h 55m	17:31	36m	18:07	37m	18:44	37m							

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

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

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



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

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



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