

# Mond- und Dämmerungstabelle 2024

## für die visuelle Deep-Sky-Beobachtung

Würzburg 49.7944° N 9.9294° E

Berechnung: pyEphem  
Textsatz: L<sup>A</sup>T<sub>E</sub>X

### Atmosphären-Einstellungen in pyEphem

Standort.pressure = 1010.0  
Standort.horizon = '0:00:00.0'

Alle Zeitangaben beziehen sich auf den in der jeweiligen Zeile angegeben Kalendertag. Liegt ein Ereignis bereits nach Mitternacht, also schon am Folgetag, ist die Zeitangabe mit einem \* gekennzeichnet, z.B.: 00:20\*.

**Spalte 1** Kalendertag.

**Spalte 2** Bei »MESZ« sind alle Zeitangaben in dieser Zeile in Mitteleuropäischer Sommerzeit, ansonsten standardmäßig in MEZ.

**Spalte 3** Die für Deep-Sky-Beobachtungen nutzbare Zeitspanne: Es ist astronomisch dunkel (Sonne steht tiefer als  $-18^\circ$ ) und kein Mond stört.

**Spalte 4** Dauer der für Deep-Sky-Beobachtungen nutzbaren Zeitspanne.

**Spalte 5** Ereignisse, die die für Deep-Sky-Beobachtungen nutzbare Zeitspanne begrenzen: AN<sub>+</sub> (Einbruch der astronomischen Nacht = Ende der astr. Abenddämmerung), M<sub>v</sub> (Monduntergang), AN<sub>-</sub> (Ende der astronomischen Nacht = Beginn der astr. Morgendämmerung), M<sub>7</sub>

(Mondaufgang), Astr. MD (Astronomische Mitternachtsdämmerung), Naut. MD (Nautische Mitternachtsdämmerung).

**Spalte 6** Mondphase.

**Spalte 7** Mondaufgang.

**Spalte 8** Monduntergang.

**Spalte 9** Beginn der astr. Morgendämmerung (Sonnenhöhe =  $-18^\circ$ ).

**Spalte 10** Dauer der astr. Morgendämmerung.

**Spalte 11** Beginn der naut. Morgendämmerung (Sonnenhöhe =  $-12^\circ$ ).

**Spalte 12** Dauer der naut. Morgendämmerung.

**Spalte 13** Beginn der bürg. Morgendämmerung (Sonnenhöhe =  $-6^\circ$ ).

**Spalte 14** Dauer der bürg. Morgendämmerung.

**Spalte 15** Sonnenaufgang.

**Spalte 16** Taglänge.

**Spalte 17** Sonnenuntergang.

**Spalte 18** Dauer der bürg. Abenddämmerung.

**Spalte 19** Ende der bürg. Abenddämmerung (Sonnenhöhe =  $-6^\circ$ ).

**Spalte 20** Dauer der naut. Abenddämmerung.

**Spalte 21** Ende der naut. Abenddämmerung (Sonnenhöhe =  $-12^\circ$ ).

**Spalte 22** Dauer der astr. Abenddämmerung.

**Spalte 23** Ende der astr. Abenddämmerung (Sonnenhöhe =  $-18^\circ$ ).

**Spalte 24** Länge der Nacht.

**Spalte 25** Länge der astr. Nacht.

**Für Beobachter, die zu Zeiten der Mitternachtsdämmerung während der astr. Dämmerung beobachten möchten:**

**Spalte 26** Nutzbare Zeitspanne: Es ist »nautisch dunkel« (Sonne steht tiefer als  $-12^\circ$ ) und kein Mond stört.

**Spalte 27** Dauer der in Spalte 26 angegebenen Zeitspanne.

**Spalte 28** Ereignisse, die die nutzbare Zeitspanne begrenzen: ND<sub>+</sub> (Beginn der »naut. Dunkelheit« = Ende der naut. Abenddämmerung), M<sub>v</sub> (Monduntergang), ND<sub>-</sub> (Ende der »naut. Dunkelheit« = Beginn der naut. Morgendämmerung), M<sub>7</sub> (Mondaufgang), Naut. MD (Nautische Mitternachtsdämmerung).

**Spalte 29** Identisch zu Spalte 1.

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

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

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

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



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

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

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



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