

Mond- und Dämmerungstabelle 2024

für die visuelle Deep-Sky-Beobachtung

Pforzheim 48.8911° N 8.6989° E

Berechnung: pyEphem
Textsatz: L^AT_EX

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°) 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₊ (Einbruch der astronomischen Nacht = Ende der astr. Abenddämmerung), M_v (Monduntergang), AN₋ (Ende der astronomischen Nacht = Beginn der astr. Morgendämmerung), M_l

(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°).

Spalte 10 Dauer der astr. Morgendämmerung.

Spalte 11 Beginn der naut. Morgendämmerung (Sonnenhöhe = -12°).

Spalte 12 Dauer der naut. Morgendämmerung.

Spalte 13 Beginn der bürg. Morgendämmerung (Sonnenhöhe = -6°).

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°).

Spalte 20 Dauer der naut. Abenddämmerung.

Spalte 21 Ende der naut. Abenddämmerung (Sonnenhöhe = -12°).

Spalte 22 Dauer der astr. Abenddämmerung.

Spalte 23 Ende der astr. Abenddämmerung (Sonnenhöhe = -18°).

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°) und kein Mond stört.

Spalte 27 Dauer der in Spalte 26 angegebenen Zeitspanne.

Spalte 28 Ereignisse, die die nutzbare Zeitspanne begrenzen: ND₊ (Beginn der »naut. Dunkelheit« = Ende der naut. Abenddämmerung), M_v (Monduntergang), ND₋ (Ende der »naut. Dunkelheit« = Beginn der naut. Morgendämmerung), M_l (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		
			Δt		Ph.	\nearrow	\searrow	Astr.	Δt	Naut.	Δt	Bürg.	Δt	\nearrow	Δt	\searrow	Δt	Bürg.	Δt	Naut.	Δt	Astr.	Δt	Δt		Δt		
Mo, 1. Jan		18:35 – 22:19	3h 43m	AN ₊ bis M ₇		22:19	11:26	06:21	38m	06:59	39m	07:39	39m	08:18	8h 20m	16:38	39m	17:18	39m	17:57	38m	18:35	15h 39m	11h 45m				Mo, 1. Jan
Di, 2. Jan		18:36 – 23:25	4h 49m	AN ₊ bis M ₇		23:25	11:39	06:21	38m	06:59	39m	07:39	39m	08:18	8h 21m	16:39	39m	17:19	39m	17:58	38m	18:36	15h 38m	11h 44m				Di, 2. Jan
Mi, 3. Jan		18:37 – 00:32*	5h 55m	AN ₊ bis M ₇		—:—	11:51	06:21	38m	06:59	39m	07:39	39m	08:18	8h 22m	16:40	39m	17:19	39m	17:59	38m	18:37	15h 37m	11h 43m				Mi, 3. Jan
Do, 4. Jan		18:38 – 01:41*	7h 02m	AN ₊ bis M ₇	☾	00:32	12:04	06:21	38m	06:59	39m	07:39	39m	08:18	8h 23m	16:41	39m	17:20	39m	18:00	38m	18:38	15h 36m	11h 42m				Do, 4. Jan
Fr, 5. Jan		18:39 – 02:53*	8h 13m	AN ₊ bis M ₇		01:41	12:18	06:21	38m	06:59	39m	07:38	39m	08:17	8h 25m	16:42	39m	17:21	39m	18:01	38m	18:39	15h 34m	11h 41m				Fr, 5. Jan
Sa, 6. Jan		18:40 – 04:08*	9h 28m	AN ₊ bis M ₇		02:53	12:35	06:21	38m	06:59	39m	07:38	38m	08:17	8h 26m	16:44	38m	17:23	39m	18:02	38m	18:40	15h 33m	11h 40m				Sa, 6. Jan
So, 7. Jan		18:41 – 05:27*	10h 45m	AN ₊ bis M ₇		04:08	12:57	06:21	38m	06:59	39m	07:38	38m	08:17	8h 27m	16:45	38m	17:24	39m	18:03	38m	18:41	15h 31m	11h 39m				So, 7. Jan
Mo, 8. Jan		18:42 – 06:21*	11h 38m	AN ₊ bis AN ₋		05:27	13:27	06:21	38m	06:59	39m	07:38	38m	08:17	8h 29m	16:46	38m	17:25	39m	18:04	38m	18:42	15h 30m	11h 38m				Mo, 8. Jan
Di, 9. Jan		18:43 – 06:20*	11h 37m	AN ₊ bis AN ₋		06:44	14:09	06:21	38m	06:59	38m	07:38	38m	08:16	8h 30m	16:47	38m	17:26	38m	18:05	38m	18:43	15h 28m	11h 37m				Di, 9. Jan
Mi, 10. Jan		18:44 – 06:20*	11h 35m	AN ₊ bis AN ₋		07:54	15:09	06:20	38m	06:58	38m	07:37	38m	08:16	8h 32m	16:49	38m	17:27	38m	18:06	38m	18:44	15h 26m	11h 35m				Mi, 10. Jan
Do, 11. Jan		18:45 – 06:20*	11h 34m	AN ₊ bis AN ₋	☾	08:50	16:25	06:20	37m	06:58	38m	07:37	38m	08:15	8h 34m	16:50	38m	17:28	38m	18:07	37m	18:45	15h 25m	11h 34m				Do, 11. Jan
Fr, 12. Jan		18:46 – 06:19*	11h 33m	AN ₊ bis AN ₋		09:31	17:52	06:20	37m	06:58	38m	07:36	38m	08:15	8h 36m	16:51	38m	17:30	38m	18:08	37m	18:46	15h 23m	11h 33m				Fr, 12. Jan
Sa, 13. Jan		19:22 – 06:19*	10h 57m	M ₇ bis AN ₋		10:01	19:22	06:19	37m	06:57	38m	07:36	38m	08:14	8h 38m	16:52	38m	17:31	38m	18:09	37m	18:47	15h 21m	11h 31m				Sa, 13. Jan
So, 14. Jan		20:50 – 06:19*	9h 28m	M ₇ bis AN ₋		10:24	20:50	06:19	37m	06:57	38m	07:35	38m	08:14	8h 40m	16:54	38m	17:32	38m	18:11	37m	18:49	15h 19m	11h 30m				So, 14. Jan
Mo, 15. Jan		22:14 – 06:18*	8h 03m	M ₇ bis AN ₋		10:42	22:14	06:19	37m	06:56	38m	07:35	38m	08:13	8h 42m	16:55	38m	17:33	38m	18:12	37m	18:50	15h 17m	11h 28m				Mo, 15. Jan
Di, 16. Jan		23:37 – 06:18*	6h 41m	M ₇ bis AN ₋		10:58	23:37	06:18	37m	06:56	38m	07:34	37m	08:12	8h 44m	16:57	37m	17:35	38m	18:13	37m	18:51	15h 14m	11h 26m				Di, 16. Jan
Mi, 17. Jan		00:57* – 06:17*	5h 19m	M ₇ bis AN ₋		11:14	—:—	06:18	37m	06:55	38m	07:34	37m	08:12	8h 46m	16:58	37m	17:36	38m	18:14	37m	18:52	15h 12m	11h 24m				Mi, 17. Jan
Do, 18. Jan		02:18* – 06:16*	3h 58m	M ₇ bis AN ₋	☾	11:30	00:57	06:17	37m	06:55	38m	07:33	37m	08:11	8h 48m	17:00	37m	17:37	38m	18:16	37m	18:53	15h 10m	11h 23m				Do, 18. Jan
Fr, 19. Jan		03:38* – 06:16*	2h 37m	M ₇ bis AN ₋		11:50	02:18	06:16	37m	06:54	38m	07:32	37m	08:10	8h 51m	17:01	37m	17:39	38m	18:17	37m	18:55	15h 07m	11h 21m				Fr, 19. Jan
Sa, 20. Jan		04:56* – 06:15*	1h 19m	M ₇ bis AN ₋		12:14	03:38	06:16	37m	06:53	38m	07:31	37m	08:09	8h 53m	17:03	37m	17:40	38m	18:18	37m	18:56	15h 05m	11h 19m				Sa, 20. Jan
So, 21. Jan		06:07* – 06:14*	7m	M ₇ bis AN ₋		12:46	04:56	06:15	37m	06:53	38m	07:31	37m	08:08	8h 56m	17:04	37m	17:41	38m	18:20	37m	18:57	15h 03m	11h 17m				So, 21. Jan
Mo, 22. Jan		—:—:—:—:—	–	Mond stört		13:28	06:07	06:14	37m	06:52	37m	07:30	37m	08:07	8h 58m	17:06	37m	17:43	38m	18:21	37m	18:58	15h 00m	11h 15m				Mo, 22. Jan
Di, 23. Jan		—:—:—:—:—	–	Mond stört		14:22	07:07	06:14	37m	06:51	37m	07:29	37m	08:06	9h 01m	17:07	37m	17:44	37m	18:22	37m	19:00	14h 57m	11h 13m				Di, 23. Jan
Mi, 24. Jan		—:—:—:—:—	–	Mond stört		15:26	07:55	06:13	37m	06:50	37m	07:28	37m	08:05	9h 03m	17:09	37m	17:46	37m	18:24	37m	19:01	14h 55m	11h 11m				Mi, 24. Jan
Do, 25. Jan		—:~:~:~:~:~	–	Mond stört	☾	16:36	08:30	06:12	37m	06:49	37m	07:27	36m	08:04	9h 06m	17:10	36m	17:47	37m	18:25	37m	19:02	14h 52m	11h 08m				Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~:~	–	Mond stört		17:47	08:56	06:11	37m	06:48	37m	07:26	36m	08:03	9h 09m	17:12	36m	17:49	37m	18:26	37m	19:04	14h 49m	11h 06m				Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~:~	–	Mond stört		18:58	09:16	06:10	37m	06:47	37m	07:25	36m	08:02	9h 11m	17:13	36m	17:50	37m	18:28	37m	19:05	14h 47m	11h 04m				Sa, 27. Jan
So, 28. Jan		19:06 – 20:06	59m	AN ₊ bis M ₇		20:06	09:32	06:09	37m	06:46	37m	07:24	36m	08:00	9h 14m	17:15	36m	17:52	37m	18:29	37m	19:06	14h 44m	11h 01m				So, 28. Jan
Mo, 29. Jan		19:08 – 21:13	2h 05m	AN ₊ bis M ₇		21:13	09:45	06:08	37m	06:45	37m	07:23	36m	07:59	9h 17m	17:17	36m	17:53	37m	18:31	37m	19:08	14h 41m	10h 59m				Mo, 29. Jan
Di, 30. Jan		19:09 – 22:20	3h 10m	AN ₊ bis M ₇		22:20	09:58	06:07	37m	06:44	37m	07:22	36m	07:58	9h 20m	17:18	36m	17:55	37m	18:32	37m	19:09	14h 38m	10h 57m				Di, 30. Jan
Mi, 31. Jan		19:11 – 23:27	4h 16m	AN ₊ bis M ₇		23:27	10:10	06:06	36m	06:43	37m	07:20	36m	07:57	9h 23m	17:20	36m	17:56	37m	18:33	37m	19:11	14h 35m	10h 54m				Mi, 31. Jan
Do, 1. Feb		19:12 – 00:36*	5h 24m	AN ₊ bis M ₇		—:—	10:23	06:05	36m	06:42	37m	07:19	36m	07:55	9h 26m	17:22	36m	17:58	37m	18:35	36m	19:12	14h 32m	10h 52m				Do, 1. Feb
Fr, 2. Feb		19:13 – 01:48*	6h 35m	AN ₊ bis M ₇		00:36	10:38	06:04	36m	06:41	37m	07:18	35m	07:54	9h 29m	17:23	36m	17:59	37m	18:36	36m	19:13	14h 29m	10h 49m				Fr, 2. Feb
Sa, 3. Feb		19:15 – 03:04*	7h 49m	AN ₊ bis M ₇	☾	01:48	10:57	06:03	36m	06:40	37m	07:17	35m	07:53	9h 32m	17:25	35m	18:01	37m	18:38	36m	19:15	14h 26m	10h 46m				Sa, 3. Feb
So, 4. Feb		19:16 – 04:20*	9h 04m	AN ₊ bis M ₇		03:04	11:22	06:02	36m	06:38	36m	07:15	35m	07:51	9h 35m	17:27	35m	18:02	36m	18:39	36m	19:16	14h 23m	10h 44m				So, 4. Feb
Mo, 5. Feb		19:18 – 05:33*	10h 15m	AN ₊ bis M ₇		04:20	11:57	06:00	36m	06:37	36m	07:14	35m	07:50	9h 38m	17:28	35m	18:04	36m	18:41	36m	19:18	14h 20m	10h 41m				Mo, 5. Feb
Di, 6. Feb		19:19 – 05:58*	10h 38m	AN ₊ bis AN ₋		05:33	12:46	05:59	36m	06:36	36m	07:13	35m	07:48	9h 41m	17:30	35m	18:05	36m	18:42	36m	19:19	14h 16m	10h 38m				Di, 6. Feb
Mi, 7. Feb		19:20 – 05:57*	10h 36m	AN ₊ bis AN ₋		06:35	13:54	05:58	36m	06:35	36m	07:11	35m	07:47	9h 44m	17:31	35m	18:07	36m	18:44	36m	19:20	14h 13m	10h 36m				Mi, 7. Feb
Do, 8. Feb		19:22 – 05:55*	10h 33m	AN ₊ bis AN ₋		07:23	15:16	05:57	36m	06:33	36m	07:10	35m	07:45	9h 47m	17:33	35m	18:08	36m	18:45	36m	19:22	14h 10m	10h 33m				Do, 8. Feb
Fr, 9. Feb		19:23 – 05:54*	10h 30m	AN ₊ bis AN ₋	☾	07:58	16:47	05:55	36m	06:32	36m	07:08	35m	07:44	9h 51m	17:35	35m	18:10	36m	18:47	36m	19:23	14h 07m	10h 30m				Fr, 9. Feb
Sa, 10. Feb		19:25 – 05:52*	10h 27m	AN ₊ bis AN ₋		08:24	18:19	05:54	36m	06:30	36m	07:07	35m	07:42	9h 54m	17:36	35m	18:12	36m	18:48	36m	19:25	14h 03m	10h 27m				Sa, 10. Feb
So, 11. Feb		19:48 – 05:51*	10h 02m	M ₇ bis AN ₋		08:45	19:48	05:52	36m	06:29	36m	07:05	35m	07:40	9h 57m	17:38	35m	18:13	36m	18:50	36m	19:26	14h 00m	10h 24m				So, 11. Feb
Mo, 12. Feb		2																										

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

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

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

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

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

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