

Mond- und Dämmerungstabelle 2024

für die visuelle Deep-Sky-Beobachtung

Grieskirchen 48.2350° N 13.8319° 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), M₇

(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), M₇ (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		18:16–21:58	3h 42m	AN ₊ bis M ₇		21:58	11:04	05:59	37m	06:37	38m	07:16	38m	07:55	8h 25m	16:21	38m	16:59	38m	17:38	37m	18:16	15h 34m	11h 43m				Mo, 1. Jan
Di, 2. Jan		18:17–23:04	4h 47m	AN ₊ bis M ₇		23:04	11:18	05:59	37m	06:37	38m	07:16	38m	07:55	8h 26m	16:22	38m	17:00	38m	17:39	37m	18:17	15h 32m	11h 42m				Di, 2. Jan
Mi, 3. Jan		18:18–00:10*	5h 52m	AN ₊ bis M ₇		—:—	11:31	05:59	37m	06:37	38m	07:16	38m	07:54	8h 28m	16:23	38m	17:01	38m	17:40	37m	18:18	15h 31m	11h 41m				Mi, 3. Jan
Do, 4. Jan		18:18–01:18*	6h 59m	AN ₊ bis M ₇	☾	00:10	11:44	06:00	37m	06:37	38m	07:16	38m	07:54	8h 29m	16:24	38m	17:02	38m	17:41	37m	18:18	15h 30m	11h 41m				Do, 4. Jan
Fr, 5. Jan		18:19–02:29*	8h 09m	AN ₊ bis M ₇		01:18	11:59	05:59	37m	06:37	38m	07:16	38m	07:54	8h 30m	16:25	38m	17:03	38m	17:42	37m	18:19	15h 29m	11h 40m				Fr, 5. Jan
Sa, 6. Jan		18:20–03:44*	9h 23m	AN ₊ bis M ₇		02:29	12:16	05:59	37m	06:37	38m	07:16	38m	07:54	8h 31m	16:26	38m	17:04	38m	17:43	37m	18:20	15h 27m	11h 39m				Sa, 6. Jan
So, 7. Jan		18:21–05:02*	10h 40m	AN ₊ bis M ₇		03:44	12:39	05:59	37m	06:37	38m	07:16	38m	07:54	8h 33m	16:27	38m	17:05	38m	17:44	37m	18:21	15h 26m	11h 37m				So, 7. Jan
Mo, 8. Jan		18:22–05:59*	11h 36m	AN ₊ bis AN ₋		05:02	13:09	05:59	37m	06:37	38m	07:15	38m	07:53	8h 34m	16:28	38m	17:06	38m	17:45	37m	18:22	15h 25m	11h 36m				Mo, 8. Jan
Di, 9. Jan		18:23–05:59*	11h 35m	AN ₊ bis AN ₋		06:19	13:52	05:59	37m	06:37	38m	07:15	38m	07:53	8h 36m	16:29	38m	17:07	38m	17:46	37m	18:23	15h 23m	11h 35m				Di, 9. Jan
Mi, 10. Jan		18:24–05:59*	11h 34m	AN ₊ bis AN ₋		07:28	14:51	05:59	37m	06:36	38m	07:15	37m	07:53	8h 37m	16:31	37m	17:08	38m	17:47	37m	18:24	15h 21m	11h 34m				Mi, 10. Jan
Do, 11. Jan		18:25–05:58*	11h 32m	AN ₊ bis AN ₋	☉	08:25	16:07	05:59	37m	06:36	38m	07:14	37m	07:52	8h 39m	16:32	37m	17:10	38m	17:48	37m	18:25	15h 19m	11h 32m				Do, 11. Jan
Fr, 12. Jan		18:27–05:58*	11h 31m	AN ₊ bis AN ₋		09:07	17:33	05:58	37m	06:36	38m	07:14	37m	07:52	8h 41m	16:33	37m	17:11	38m	17:49	37m	18:27	15h 18m	11h 31m				Fr, 12. Jan
Sa, 13. Jan		19:02–05:58*	10h 55m	M _\ bis AN ₋		09:38	19:02	05:58	37m	06:35	38m	07:14	37m	07:51	8h 43m	16:34	37m	17:12	38m	17:50	37m	18:28	15h 16m	11h 29m				Sa, 13. Jan
So, 14. Jan		20:29–05:57*	9h 27m	M _\ bis AN ₋		10:01	20:29	05:58	37m	06:35	38m	07:13	37m	07:51	8h 45m	16:36	37m	17:13	38m	17:51	37m	18:29	15h 14m	11h 28m				So, 14. Jan
Mo, 15. Jan		21:53–05:57*	8h 03m	M _\ bis AN ₋		10:20	21:53	05:57	37m	06:35	38m	07:13	37m	07:50	8h 47m	16:37	37m	17:15	38m	17:53	37m	18:30	15h 12m	11h 26m				Mo, 15. Jan
Di, 16. Jan		23:14–05:56*	6h 41m	M _\ bis AN ₋		10:37	23:14	05:57	37m	06:34	37m	07:12	37m	07:49	8h 49m	16:39	37m	17:16	37m	17:54	37m	18:31	15h 10m	11h 25m				Di, 16. Jan
Mi, 17. Jan		00:35*–05:56*	5h 21m	M _\ bis AN ₋		10:53	—:—	05:56	37m	06:33	37m	07:11	37m	07:49	8h 51m	16:40	37m	17:17	37m	17:55	37m	18:32	15h 07m	11h 23m				Mi, 17. Jan
Do, 18. Jan		01:54*–05:55*	4h 00m	M _\ bis AN ₋	☾	11:11	00:35	05:56	37m	06:33	37m	07:11	37m	07:48	8h 53m	16:41	37m	17:19	37m	17:56	37m	18:34	15h 05m	11h 21m				Do, 18. Jan
Fr, 19. Jan		03:14*–05:55*	2h 41m	M _\ bis AN ₋		11:31	01:54	05:55	37m	06:32	37m	07:10	37m	07:47	8h 55m	16:43	37m	17:20	37m	17:58	37m	18:35	15h 03m	11h 19m				Fr, 19. Jan
Sa, 20. Jan		04:31*–05:54*	1h 23m	M _\ bis AN ₋		11:56	03:14	05:55	37m	06:32	37m	07:09	36m	07:46	8h 58m	16:44	36m	17:21	37m	17:59	37m	18:36	15h 00m	11h 17m				Sa, 20. Jan
So, 21. Jan		05:41*–05:53*	11m	M _\ bis AN ₋		12:28	04:31	05:54	37m	06:31	37m	07:08	36m	07:45	9h 00m	16:46	36m	17:23	37m	18:00	37m	18:37	14h 58m	11h 15m				So, 21. Jan
Mo, 22. Jan		—:—:—:—	–	Mond stört		13:11	05:41	05:53	36m	06:30	37m	07:08	36m	07:44	9h 02m	16:47	36m	17:24	37m	18:02	36m	18:38	14h 56m	11h 13m				Mo, 22. Jan
Di, 23. Jan		—:—:—:—	–	Mond stört		14:04	06:42	05:52	36m	06:29	37m	07:07	36m	07:43	9h 05m	16:49	36m	17:25	37m	18:03	36m	18:40	14h 53m	11h 11m				Di, 23. Jan
Mi, 24. Jan		—:—:—:—	–	Mond stört		15:08	07:30	05:52	36m	06:29	37m	07:06	36m	07:42	9h 07m	16:50	36m	17:27	37m	18:04	36m	18:41	14h 50m	11h 09m				Mi, 24. Jan
Do, 25. Jan		—:—:~:~:~	–	Mond stört	☉	16:17	08:06	05:51	36m	06:28	37m	07:05	36m	07:41	9h 10m	16:52	36m	17:28	37m	18:06	36m	18:42	14h 48m	11h 07m				Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~	–	Mond stört		17:28	08:32	05:50	36m	06:27	37m	07:04	36m	07:40	9h 13m	16:53	36m	17:30	37m	18:07	36m	18:44	14h 45m	11h 05m				Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~	–	Mond stört		18:38	08:53	05:49	36m	06:26	37m	07:03	36m	07:39	9h 15m	16:55	36m	17:31	37m	18:08	36m	18:45	14h 42m	11h 03m				Sa, 27. Jan
So, 28. Jan		18:46–19:46	59m	AN ₊ bis M ₇		19:46	09:10	05:48	36m	06:25	36m	07:02	36m	07:38	9h 18m	16:57	36m	17:33	37m	18:10	36m	18:46	14h 40m	11h 01m				So, 28. Jan
Mo, 29. Jan		18:48–20:52	2h 04m	AN ₊ bis M ₇		20:52	09:24	05:47	36m	06:24	36m	07:01	35m	07:37	9h 21m	16:58	35m	17:34	36m	18:11	36m	18:48	14h 37m	10h 58m				Mo, 29. Jan
Di, 30. Jan		18:49–21:58	3h 09m	AN ₊ bis M ₇		21:58	09:37	05:46	36m	06:23	36m	07:00	35m	07:36	9h 24m	17:00	35m	17:36	36m	18:12	36m	18:49	14h 34m	10h 56m				Di, 30. Jan
Mi, 31. Jan		18:50–23:04	4h 14m	AN ₊ bis M ₇		23:04	09:50	05:45	36m	06:22	36m	06:59	35m	07:34	9h 27m	17:01	35m	17:37	36m	18:14	36m	18:50	14h 31m	10h 53m				Mi, 31. Jan
Do, 1. Feb		18:52–00:13*	5h 21m	AN ₊ bis M ₇		—:—	10:03	05:44	36m	06:21	36m	06:57	35m	07:33	9h 29m	17:03	35m	17:38	36m	18:15	36m	18:52	14h 28m	10h 51m				Do, 1. Feb
Fr, 2. Feb		18:53–01:24*	6h 31m	AN ₊ bis M ₇		00:13	10:19	05:43	36m	06:20	36m	06:56	35m	07:32	9h 32m	17:05	35m	17:40	36m	18:17	36m	18:53	14h 25m	10h 48m				Fr, 2. Feb
Sa, 3. Feb		18:54–02:39*	7h 44m	AN ₊ bis M ₇	☾	01:24	10:38	05:42	36m	06:18	36m	06:55	35m	07:30	9h 35m	17:06	35m	17:41	36m	18:18	36m	18:54	14h 22m	10h 46m				Sa, 3. Feb
So, 4. Feb		18:56–03:55*	8h 59m	AN ₊ bis M ₇		02:39	11:04	05:41	36m	06:17	36m	06:54	35m	07:29	9h 38m	17:08	35m	17:43	36m	18:19	36m	18:56	14h 19m	10h 43m				So, 4. Feb
Mo, 5. Feb		18:57–05:07*	10h 10m	AN ₊ bis M ₇		03:55	11:39	05:40	36m	06:16	36m	06:52	35m	07:27	9h 41m	17:09	35m	17:44	36m	18:21	36m	18:57	14h 16m	10h 41m				Mo, 5. Feb
Di, 6. Feb		18:59–05:37*	10h 38m	AN ₊ bis AN ₋		05:07	12:29	05:38	36m	06:15	36m	06:51	35m	07:26	9h 44m	17:11	35m	17:46	36m	18:22	36m	18:59	14h 13m	10h 38m				Di, 6. Feb
Mi, 7. Feb		19:00–05:36*	10h 35m	AN ₊ bis AN ₋		06:10	13:36	05:37	36m	06:13	36m	06:50	34m	07:25	9h 48m	17:13	34m	17:48	36m	18:24	36m	19:00	14h 10m	10h 35m				Mi, 7. Feb
Do, 8. Feb		19:02–05:34*	10h 32m	AN ₊ bis AN ₋		06:59	14:58	05:36	36m	06:12	36m	06:48	34m	07:23	9h 51m	17:14	34m	17:49	36m	18:25	36m	19:02	14h 07m	10h 32m				Do, 8. Feb
Fr, 9. Feb		19:03–05:33*	10h 30m	AN ₊ bis AN ₋	☉	07:35	16:28	05:34	36m	06:11	36m	06:47	34m	07:21	9h 54m	17:16	34m	17:51	36m	18:27	36m	19:03	14h 04m	10h 30m				Fr, 9. Feb
Sa, 10. Feb		19:04–05:32*	10h 27m	AN ₊ bis AN ₋		08:02	17:59	05:33	36m	06:09	36m	06:45	34m	07:20	9h 57m	17:17	34m	17:52	36m	18:28	36m	19:04	14h 00m	10h 27m				Sa, 10. Feb
So, 11. Feb		19:27–05:30*	10h 03m	M _\ bis AN ₋		08:23	19:27	05:32	36m	06:08	35m	06:44	34m	07:18	10h 00m	17:19	34m	17:54	36m	18:30	36m	19:06	13h 57m	10h 24m				So, 11. Feb
Mo, 12. Feb		20:53–05:29*	8h 35m	M _\ bis AN ₋		08:41																						

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

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		
Mi, 10. Apr	MESZ	22:33–04:25*	5h 52m	M _\ bis AN _\		06:59	22:33	04:28	42m	05:10	38m	05:49	34m	06:23	13h 25m	19:48	34m	20:23	38m	21:02	42m	21:44	10h 32m	6h 40m				Mi, 10. Apr
Do, 11. Apr	MESZ	23:58–04:23*	4h 24m	M _\ bis AN _\		07:24	23:58	04:25	42m	05:08	38m	05:47	34m	06:21	13h 28m	19:50	34m	20:25	38m	21:03	43m	21:46	10h 29m	6h 36m				Do, 11. Apr
Fr, 12. Apr	MESZ	01:15*–04:20*	3h 04m	M _\ bis AN _\		07:58	—:—	04:23	43m	05:06	38m	05:45	34m	06:19	13h 32m	19:51	34m	20:26	39m	21:05	43m	21:49	10h 25m	6h 31m				Fr, 12. Apr
Sa, 13. Apr	MESZ	02:19*–04:18*	1h 58m	M _\ bis AN _\		08:42	01:15	04:20	43m	05:04	39m	05:43	34m	06:17	13h 35m	19:53	34m	20:28	39m	21:07	43m	21:51	10h 22m	6h 26m				Sa, 13. Apr
So, 14. Apr	MESZ	03:09*–04:15*	1h 06m	M _\ bis AN _\		09:38	02:19	04:18	43m	05:01	39m	05:41	34m	06:15	13h 38m	19:54	34m	20:29	39m	21:09	44m	21:53	10h 19m	6h 22m				So, 14. Apr
Mo, 15. Apr	MESZ	03:44*–04:12*	27m	M _\ bis AN _\	☾	10:43	03:09	04:15	44m	04:59	39m	05:39	34m	06:13	13h 42m	19:56	35m	20:31	39m	21:11	44m	21:55	10h 15m	6h 17m				Mo, 15. Apr
Di, 16. Apr	MESZ	—:—:—:—	–	Mond stört		11:53	03:44	04:12	44m	04:57	39m	05:36	35m	06:12	13h 45m	19:57	35m	20:32	39m	21:12	44m	21:57	10h 12m	6h 12m				Di, 16. Apr
Mi, 17. Apr	MESZ	—:—:—:—	–	Mond stört		13:05	04:11	04:10	44m	04:55	39m	05:34	35m	06:10	13h 49m	19:59	35m	20:34	40m	21:14	45m	21:59	10h 09m	6h 07m				Mi, 17. Apr
Do, 18. Apr	MESZ	—:—:~:~:~	–	Mond stört		14:14	04:31	04:07	45m	04:52	40m	05:32	35m	06:08	13h 52m	20:00	35m	20:36	40m	21:16	45m	22:02	10h 05m	6h 02m				Do, 18. Apr
Fr, 19. Apr	MESZ	—:~:~:~:~	–	Mond stört		15:22	04:47	04:04	45m	04:50	40m	05:30	35m	06:06	13h 55m	20:02	35m	20:37	40m	21:18	46m	22:04	10h 02m	5h 57m				Fr, 19. Apr
Sa, 20. Apr	MESZ	—:~:~:~:~	–	Mond stört		16:29	05:01	04:02	46m	04:48	40m	05:28	35m	06:04	13h 59m	20:03	35m	20:39	40m	21:20	46m	22:06	9h 59m	5h 53m				Sa, 20. Apr
So, 21. Apr	MESZ	—:~:~:~:~	–	Mond stört		17:35	05:13	03:59	46m	04:46	40m	05:26	35m	06:02	14h 02m	20:04	35m	20:40	41m	21:21	46m	22:08	9h 55m	5h 48m				So, 21. Apr
Mo, 22. Apr	MESZ	—:~:~:~:~	–	Mond stört		18:42	05:26	03:56	46m	04:43	41m	05:24	35m	06:00	14h 05m	20:06	36m	20:42	41m	21:23	47m	22:11	9h 52m	5h 43m				Mo, 22. Apr
Di, 23. Apr	MESZ	—:~:~:~:~	–	Mond stört		19:51	05:39	03:54	47m	04:41	41m	05:22	36m	05:58	14h 08m	20:07	36m	20:43	41m	21:25	47m	22:13	9h 49m	5h 38m				Di, 23. Apr
Mi, 24. Apr	MESZ	—:~:~:~:~	–	Mond stört	☾	21:03	05:55	03:51	47m	04:39	41m	05:20	36m	05:57	14h 12m	20:09	36m	20:45	41m	21:27	48m	22:15	9h 46m	5h 32m				Mi, 24. Apr
Do, 25. Apr	MESZ	—:~:~:~:~	–	Mond stört		22:17	06:14	03:48	48m	04:37	41m	05:19	36m	05:55	14h 15m	20:10	36m	20:47	42m	21:29	48m	22:18	9h 42m	5h 27m				Do, 25. Apr
Fr, 26. Apr	MESZ	22:20–23:30	1h 10m	AN ₊ bis M ₇		23:30	06:39	03:46	48m	04:35	42m	05:17	36m	05:53	14h 18m	20:12	36m	20:48	42m	21:31	49m	22:20	9h 39m	5h 22m				Fr, 26. Apr
Sa, 27. Apr	MESZ	22:23–00:40*	2h 17m	AN ₊ bis M ₇		—:—	07:13	03:43	49m	04:32	42m	05:15	36m	05:51	14h 21m	20:13	36m	20:50	42m	21:33	49m	22:23	9h 36m	5h 17m				Sa, 27. Apr
So, 28. Apr	MESZ	22:25–01:39*	3h 14m	AN ₊ bis M ₇		00:40	07:59	03:40	49m	04:30	42m	05:13	36m	05:50	14h 24m	20:15	36m	20:51	42m	21:34	50m	22:25	9h 33m	5h 12m				So, 28. Apr
Mo, 29. Apr	MESZ	22:27–02:26*	3h 58m	AN ₊ bis M ₇		01:39	08:59	03:37	50m	04:28	42m	05:11	36m	05:48	14h 28m	20:16	37m	20:53	43m	21:36	51m	22:27	9h 30m	5h 07m				Mo, 29. Apr
Di, 30. Apr	MESZ	22:30–03:01*	4h 31m	AN ₊ bis M ₇		02:26	10:12	03:35	51m	04:26	43m	05:09	37m	05:46	14h 31m	20:17	37m	20:55	43m	21:38	51m	22:30	9h 27m	5h 02m				Di, 30. Apr
Mi, 1. Mai	MESZ	22:32–03:28*	4h 55m	AN ₊ bis M ₇	☾	03:01	11:33	03:32	51m	04:24	43m	05:07	37m	05:45	14h 34m	20:19	37m	20:56	43m	21:40	52m	22:32	9h 24m	4h 56m				Mi, 1. Mai
Do, 2. Mai	MESZ	22:35–03:27*	4h 51m	AN ₊ bis AN _\		03:28	12:57	03:29	52m	04:22	43m	05:05	37m	05:43	14h 37m	20:20	37m	20:58	44m	21:42	52m	22:35	9h 21m	4h 51m				Do, 2. Mai
Fr, 3. Mai	MESZ	22:38–03:24*	4h 46m	AN ₊ bis AN _\		03:49	14:21	03:27	52m	04:19	44m	05:04	37m	05:41	14h 40m	20:22	37m	20:59	44m	21:44	53m	22:38	9h 18m	4h 46m				Fr, 3. Mai
Sa, 4. Mai	MESZ	22:40–03:21*	4h 40m	AN ₊ bis AN _\		04:07	15:44	03:24	53m	04:17	44m	05:02	37m	05:40	14h 43m	20:23	38m	21:01	44m	21:46	54m	22:40	9h 15m	4h 40m				Sa, 4. Mai
So, 5. Mai	MESZ	22:43–03:18*	4h 35m	AN ₊ bis AN _\		04:24	17:08	03:21	54m	04:15	44m	05:00	37m	05:38	14h 46m	20:24	38m	21:03	45m	21:48	55m	22:43	9h 12m	4h 35m				So, 5. Mai
Mo, 6. Mai	MESZ	22:45–03:15*	4h 29m	AN ₊ bis AN _\		04:41	18:33	03:18	55m	04:13	45m	04:58	38m	05:37	14h 49m	20:26	38m	21:04	45m	21:50	55m	22:45	9h 09m	4h 29m				Mo, 6. Mai
Di, 7. Mai	MESZ	22:48–03:13*	4h 24m	AN ₊ bis AN _\		05:00	20:00	03:15	55m	04:11	45m	04:57	38m	05:35	14h 52m	20:27	38m	21:06	45m	21:52	56m	22:48	9h 06m	4h 24m				Di, 7. Mai
Mi, 8. Mai	MESZ	22:51–03:10*	4h 19m	AN ₊ bis AN _\	☾	05:22	21:27	03:13	56m	04:09	45m	04:55	38m	05:34	14h 55m	20:29	38m	21:07	46m	21:53	57m	22:51	9h 03m	4h 19m				Mi, 8. Mai
Do, 9. Mai	MESZ	22:54–03:07*	4h 13m	AN ₊ bis AN _\		05:52	22:50	03:10	57m	04:07	46m	04:53	38m	05:32	14h 57m	20:30	38m	21:09	46m	21:55	58m	22:54	9h 00m	4h 13m				Do, 9. Mai
Fr, 10. Mai	MESZ	00:02*–03:04*	3h 02m	M _\ bis AN _\		06:31	—:—	03:07	58m	04:05	46m	04:52	38m	05:31	15h 00m	20:31	39m	21:10	46m	21:57	58m	22:56	8h 57m	4h 08m				Fr, 10. Mai
Sa, 11. Mai	MESZ	01:00*–03:02*	2h 02m	M _\ bis AN _\		07:23	00:02	03:04	58m	04:03	46m	04:50	39m	05:29	15h 03m	20:33	39m	21:12	47m	21:59	59m	22:59	8h 55m	4h 02m				Sa, 11. Mai
So, 12. Mai	MESZ	01:42*–02:59*	1h 16m	M _\ bis AN _\		08:26	01:00	03:02	59m	04:01	47m	04:49	39m	05:28	15h 06m	20:34	39m	21:14	47m	22:01	1h 00m	23:02	8h 52m	3h 56m				So, 12. Mai
Mo, 13. Mai	MESZ	02:12*–02:56*	43m	M _\ bis AN _\		09:37	01:42	02:59	1h 00m	03:59	47m	04:47	39m	05:27	15h 08m	20:35	39m	21:15	47m	22:03	1h 01m	23:05	8h 49m	3h 51m				Mo, 13. Mai
Di, 14. Mai	MESZ	02:35*–02:53*	18m	M _\ bis AN _\		10:49	02:12	02:56	1h 01m	03:58	47m	04:46	39m	05:25	15h 11m	20:37	39m	21:17	48m	22:05	1h 02m	23:07	8h 47m	3h 45m				Di, 14. Mai
Mi, 15. Mai	MESZ	—:~:~:~:~	–	Mond stört	☾	12:00	02:35	02:53	1h 02m	03:56	48m	04:44	39m	05:24	15h 14m	20:38	40m	21:18	48m	22:07	1h 03m	23:10	8h 44m	3h 39m				Mi, 15. Mai
Do, 16. Mai	MESZ	—:~:~:~:~	–	Mond stört		13:09	02:53	02:50	1h 03m	03:54	48m	04:43	40m	05:23	15h 16m	20:39	40m	21:20	49m	22:09	1h 04m	23:13	8h 42m	3h 34m				Do, 16. Mai
Fr, 17. Mai	MESZ	—:~:~:~:~	–	Mond stört		14:16	03:07	02:48	1h 04m	03:52	49m	04:41	40m	05:21	15h 19m	20:41	40m	21:21	49m	22:10	1h 05m	23:16	8h 39m	3h 28m				Fr, 17. Mai
Sa, 18. Mai	MESZ	—:~:~:~:~	–	Mond stört		15:23	03:20	02:45	1h 05m	03:50	49m	04:40	40m	05:20	15h 21m	20:42	40m	21:22	49m	22:12	1h 06m	23:19	8h 37m	3h 22m				Sa, 18. Mai
So, 19. Mai	MESZ	—:~:~:~:~	–	Mond stört		16:29	03:33	02:42	1h 06m	03:49	49m	04:38	40m	05:19	15h 24m	20:43	40m	21:24	50m	22:14	1h 07m	23:22	8h 34m	3h 17m				So, 19. Mai
Mo, 20. Mai	MESZ	—:~:~:~:~	–	Mond stört		17:37	03:46	02:39	1h 07m	03:47	50m	04:37	40m	05:18	15h 26m	20:44	41m	21:25	50m	22:16	1h 09m	23:25	8h 32m	3h 11m				Mo, 20. Mai
Di, 21. Mai	MESZ	—:~:~:~:~	–	Mond stört		18:48	04:01	02:36	1h 09m	03:45	50m	04:36	41m	05:17	15h 28m	20:46	41m	21:27	50m	22:18	1h 10m	23:28	8h 30m	3h 05m				Di, 21. Mai
Mi, 22. Mai	MESZ	—:~:~:~:~	–	Mond stört		20:02	04:19	02:33	1h 10m	03:44	50m	04:35	41m	0														

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

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

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

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