

Mond- und Dämmerungstabelle 2024

für die visuelle Deep-Sky-Beobachtung

Toul 48.6750° N 5.8917° 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		18:47 – 22:31	3h 43m	AN ₊ bis M ₇		22:31	11:37	06:32	38m	07:10	39m	07:49	39m	08:28	8h 22m	16:50	39m	17:30	39m	18:09	38m	18:47	15h 37m	11h 44m				Mo, 1. Jan
Di, 2. Jan		18:48 – 23:37	4h 49m	AN ₊ bis M ₇		23:37	11:50	06:32	38m	07:10	39m	07:49	38m	08:28	8h 23m	16:51	38m	17:30	39m	18:10	38m	18:48	15h 36m	11h 44m				Di, 2. Jan
Mi, 3. Jan		18:49 – 00:44*	5h 55m	AN ₊ bis M ₇		—:—	12:03	06:32	38m	07:10	39m	07:49	38m	08:28	8h 24m	16:52	38m	17:31	39m	18:11	38m	18:49	15h 35m	11h 43m				Mi, 3. Jan
Do, 4. Jan		18:50 – 01:52*	7h 02m	AN ₊ bis M ₇	☾	00:44	12:16	06:32	38m	07:10	39m	07:49	38m	08:28	8h 25m	16:54	38m	17:32	39m	18:11	38m	18:50	15h 34m	11h 42m				Do, 4. Jan
Fr, 5. Jan		18:51 – 03:04*	8h 13m	AN ₊ bis M ₇		01:52	12:30	06:32	38m	07:10	39m	07:49	38m	08:28	8h 26m	16:55	38m	17:33	39m	18:12	38m	18:51	15h 32m	11h 41m				Fr, 5. Jan
Sa, 6. Jan		18:51 – 04:19*	9h 27m	AN ₊ bis M ₇		03:04	12:47	06:32	38m	07:10	38m	07:49	38m	08:28	8h 28m	16:56	38m	17:34	38m	18:13	38m	18:51	15h 31m	11h 40m				Sa, 6. Jan
So, 7. Jan		18:52 – 05:37*	10h 44m	AN ₊ bis M ₇		04:19	13:09	06:32	37m	07:10	38m	07:49	38m	08:27	8h 29m	16:57	38m	17:36	38m	18:14	37m	18:52	15h 30m	11h 39m				So, 7. Jan
Mo, 8. Jan		18:53 – 06:31*	11h 37m	AN ₊ bis AN ₋		05:37	13:39	06:32	37m	07:10	38m	07:48	38m	08:27	8h 31m	16:58	38m	17:37	38m	18:16	37m	18:53	15h 28m	11h 37m				Mo, 8. Jan
Di, 9. Jan		18:55 – 06:31*	11h 36m	AN ₊ bis AN ₋		06:55	14:22	06:31	37m	07:09	38m	07:48	38m	08:27	8h 32m	16:59	38m	17:38	38m	18:17	37m	18:55	15h 26m	11h 36m				Di, 9. Jan
Mi, 10. Jan		18:56 – 06:31*	11h 35m	AN ₊ bis AN ₋		08:04	15:22	06:31	37m	07:09	38m	07:48	38m	08:26	8h 34m	17:01	38m	17:39	38m	18:18	37m	18:56	15h 25m	11h 35m				Mi, 10. Jan
Do, 11. Jan		18:57 – 06:31*	11h 33m	AN ₊ bis AN ₋	☾	09:00	16:38	06:31	37m	07:09	38m	07:47	38m	08:26	8h 36m	17:02	38m	17:40	38m	18:19	37m	18:57	15h 23m	11h 33m				Do, 11. Jan
Fr, 12. Jan		18:58 – 06:30*	11h 32m	AN ₊ bis AN ₋		09:42	18:05	06:31	37m	07:08	38m	07:47	38m	08:25	8h 38m	17:03	38m	17:41	38m	18:20	37m	18:58	15h 21m	11h 32m				Fr, 12. Jan
Sa, 13. Jan		19:35 – 06:30*	10h 55m	M _\ bis AN ₋		10:12	19:35	06:30	37m	07:08	38m	07:47	38m	08:25	8h 39m	17:05	38m	17:43	38m	18:21	37m	18:59	15h 19m	11h 31m				Sa, 13. Jan
So, 14. Jan		21:02 – 06:30*	9h 27m	M _\ bis AN ₋		10:35	21:02	06:30	37m	07:08	38m	07:46	37m	08:24	8h 41m	17:06	37m	17:44	38m	18:22	37m	19:00	15h 17m	11h 29m				So, 14. Jan
Mo, 15. Jan		22:26 – 06:29*	8h 02m	M _\ bis AN ₋		10:53	22:26	06:30	37m	07:07	38m	07:46	37m	08:23	8h 43m	17:07	37m	17:45	38m	18:24	37m	19:01	15h 15m	11h 27m				Mo, 15. Jan
Di, 16. Jan		23:48 – 06:29*	6h 40m	M _\ bis AN ₋		11:09	23:48	06:29	37m	07:07	38m	07:45	37m	08:23	8h 46m	17:09	37m	17:46	38m	18:25	37m	19:02	15h 13m	11h 26m				Di, 16. Jan
Mi, 17. Jan		01:09* – 06:28*	5h 19m	M _\ bis AN ₋		11:25	—:—	06:29	37m	07:06	38m	07:44	37m	08:22	8h 48m	17:10	37m	17:48	38m	18:26	37m	19:04	15h 10m	11h 24m				Mi, 17. Jan
Do, 18. Jan		02:29* – 06:27*	3h 58m	M _\ bis AN ₋	☾	11:42	01:09	06:28	37m	07:05	38m	07:44	37m	08:21	8h 50m	17:12	37m	17:49	38m	18:27	37m	19:05	15h 08m	11h 22m				Do, 18. Jan
Fr, 19. Jan		03:49* – 06:27*	2h 37m	M _\ bis AN ₋		12:02	02:29	06:27	37m	07:05	38m	07:43	37m	08:20	8h 52m	17:13	37m	17:51	38m	18:29	37m	19:06	15h 06m	11h 20m				Fr, 19. Jan
Sa, 20. Jan		05:06* – 06:26*	1h 19m	M _\ bis AN ₋		12:26	03:49	06:27	37m	07:04	37m	07:42	37m	08:19	8h 55m	17:15	37m	17:52	38m	18:30	37m	19:07	15h 03m	11h 18m				Sa, 20. Jan
So, 21. Jan		06:17* – 06:25*	8m	M _\ bis AN ₋		12:58	05:06	06:26	37m	07:03	37m	07:41	37m	08:19	8h 57m	17:16	37m	17:53	37m	18:31	37m	19:09	15h 01m	11h 16m				So, 21. Jan
Mo, 22. Jan		—:—:—:—:—	–	Mond stört		13:41	06:17	06:25	37m	07:03	37m	07:41	37m	08:18	9h 00m	17:18	37m	17:55	37m	18:33	37m	19:10	14h 58m	11h 14m				Mo, 22. Jan
Di, 23. Jan		—:—:—:—:—	–	Mond stört		14:35	07:18	06:25	37m	07:02	37m	07:40	36m	08:17	9h 02m	17:19	36m	17:56	37m	18:34	37m	19:11	14h 56m	11h 12m				Di, 23. Jan
Mi, 24. Jan		—:—:—:—:—	–	Mond stört		15:39	08:05	06:24	37m	07:01	37m	07:39	36m	08:16	9h 05m	17:21	36m	17:58	37m	18:35	37m	19:12	14h 53m	11h 10m				Mi, 24. Jan
Do, 25. Jan		—:—:~:~:~	–	Mond stört	☾	16:48	08:40	06:23	37m	07:00	37m	07:38	36m	08:14	9h 07m	17:22	36m	17:59	37m	18:37	37m	19:14	14h 51m	11h 08m				Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~	–	Mond stört		18:00	09:07	06:22	37m	06:59	37m	07:37	36m	08:13	9h 10m	17:24	36m	18:00	37m	18:38	37m	19:15	14h 48m	11h 06m				Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~	–	Mond stört		19:10	09:27	06:21	37m	06:58	37m	07:36	36m	08:12	9h 13m	17:25	36m	18:02	37m	18:39	37m	19:16	14h 45m	11h 03m				Sa, 27. Jan
So, 28. Jan		19:18 – 20:18	1h 00m	AN ₊ bis M ₇		20:18	09:43	06:20	36m	06:57	37m	07:35	36m	08:11	9h 15m	17:27	36m	18:03	37m	18:41	37m	19:18	14h 42m	11h 01m				So, 28. Jan
Mo, 29. Jan		19:19 – 21:25	2h 06m	AN ₊ bis M ₇		21:25	09:56	06:19	36m	06:56	37m	07:34	36m	08:10	9h 18m	17:29	36m	18:05	37m	18:42	36m	19:19	14h 39m	10h 59m				Mo, 29. Jan
Di, 30. Jan		19:20 – 22:31	3h 10m	AN ₊ bis M ₇		22:31	10:09	06:18	36m	06:55	37m	07:32	36m	08:09	9h 21m	17:30	36m	18:06	37m	18:44	36m	19:20	14h 37m	10h 56m				Di, 30. Jan
Mi, 31. Jan		19:22 – 23:38	4h 16m	AN ₊ bis M ₇		23:38	10:21	06:17	36m	06:54	37m	07:31	36m	08:07	9h 24m	17:32	36m	18:08	37m	18:45	36m	19:22	14h 34m	10h 54m				Mi, 31. Jan
Do, 1. Feb		19:23 – 00:47*	5h 24m	AN ₊ bis M ₇		—:—	10:35	06:16	36m	06:53	37m	07:30	35m	08:06	9h 27m	17:33	35m	18:09	37m	18:46	36m	19:23	14h 31m	10h 51m				Do, 1. Feb
Fr, 2. Feb		19:25 – 01:59*	6h 34m	AN ₊ bis M ₇		00:47	10:50	06:15	36m	06:52	36m	07:29	35m	08:05	9h 30m	17:35	35m	18:11	36m	18:48	36m	19:25	14h 28m	10h 49m				Fr, 2. Feb
Sa, 3. Feb		19:26 – 03:15*	7h 48m	AN ₊ bis M ₇	☾	01:59	11:09	06:14	36m	06:51	36m	07:28	35m	08:03	9h 33m	17:37	35m	18:12	36m	18:49	36m	19:26	14h 25m	10h 46m				Sa, 3. Feb
So, 4. Feb		19:27 – 04:31*	9h 03m	AN ₊ bis M ₇		03:15	11:34	06:13	36m	06:49	36m	07:26	35m	08:02	9h 36m	17:38	35m	18:14	36m	18:51	36m	19:27	14h 21m	10h 44m				So, 4. Feb
Mo, 5. Feb		19:29 – 05:43*	10h 14m	AN ₊ bis M ₇		04:31	12:09	06:12	36m	06:48	36m	07:25	35m	08:00	9h 39m	17:40	35m	18:15	36m	18:52	36m	19:29	14h 18m	10h 41m				Mo, 5. Feb
Di, 6. Feb		19:30 – 06:09*	10h 38m	AN ₊ bis AN ₋		05:43	12:59	06:10	36m	06:47	36m	07:24	35m	07:59	9h 42m	17:42	35m	18:17	36m	18:54	36m	19:30	14h 15m	10h 38m				Di, 6. Feb
Mi, 7. Feb		19:32 – 06:08*	10h 35m	AN ₊ bis AN ₋		06:46	14:07	06:09	36m	06:46	36m	07:22	35m	07:57	9h 45m	17:43	35m	18:19	36m	18:55	36m	19:32	14h 12m	10h 35m				Mi, 7. Feb
Do, 8. Feb		19:33 – 06:06*	10h 33m	AN ₊ bis AN ₋		07:34	15:29	06:08	36m	06:44	36m	07:21	35m	07:56	9h 49m	17:45	35m	18:20	36m	18:57	36m	19:33	14h 09m	10h 33m				Do, 8. Feb
Fr, 9. Feb		19:35 – 06:05*	10h 30m	AN ₊ bis AN ₋	☾	08:09	17:00	06:06	36m	06:43	36m	07:19	35m	07:54	9h 52m	17:47	35m	18:22	36m	18:58	36m	19:35	14h 06m	10h 30m				Fr, 9. Feb
Sa, 10. Feb		19:36 – 06:03*	10h 27m	AN ₊ bis AN ₋		08:35	18:31	06:05	36m	06:41	36m	07:18	34m	07:53	9h 55m	17:48	34m	18:23	36m	19:00	36m	19:36	14h 02m	10h 27m				Sa, 10. Feb
So, 11. Feb		20:00 – 06:02*	10h 01m	M _\ bis AN ₋		08:56	20:00	06:03	36m	06:40	36m	07:16	34m	07:51	9h 58m	17:50	34m	18:25	36m	19:01	36m	19:38	13h 59m	10h 24m				So, 11. Feb
Mo, 12. Feb		21:27 – 06:01*																										

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

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

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

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

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