

Mond- und Dämmerungstabelle 2023

für die visuelle Deep-Sky-Beobachtung

Kitzbüchel 47.4464° N 12.3919° E

Berechnung: pyEphem
Textsatz: L^AT_EX

Atmosphären-Einstellungen in pyEphem

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

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

Spalte 1 Kalendertag.

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

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

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

Spalte 5 Ereignisse, die die für Deep-Sky-Beobachtungen nutzbare Zeitspanne begrenzen: AN₊ (Einbruch der astronomischen Nacht = Ende der astr. Abenddämmerung), M_v (Monduntergang), AN₋ (Ende der astronomischen Nacht = Beginn der astr. Morgendämmerung), M_l

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

Spalte 6 Mondphase.

Spalte 7 Mondaufgang.

Spalte 8 Monduntergang.

Spalte 9 Beginn der astr. Morgendämmerung (Sonnenhöhe = -18°).

Spalte 10 Dauer der astr. Morgendämmerung.

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

Spalte 12 Dauer der naut. Morgendämmerung.

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

Spalte 14 Dauer der bürg. Morgendämmerung.

Spalte 15 Sonnenaufgang.

Spalte 16 Taglänge.

Spalte 17 Sonnenuntergang.

Spalte 18 Dauer der bürg. Abenddämmerung.

Spalte 19 Ende der bürg. Abenddämmerung (Sonnenhöhe = -6°).

Spalte 20 Dauer der naut. Abenddämmerung.

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

Spalte 22 Dauer der astr. Abenddämmerung.

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

Spalte 24 Länge der Nacht.

Spalte 25 Länge der astr. Nacht.

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

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

Spalte 27 Dauer der in Spalte 26 angegebenen Zeitspanne.

Spalte 28 Ereignisse, die die nutzbare Zeitspanne begrenzen: ND₊ (Beginn der »naut. Dunkelheit« = Ende der naut. Abenddämmerung), M_v (Monduntergang), ND₋ (Ende der »naut. Dunkelheit« = Beginn der naut. Morgendämmerung), M_l (Mondaufgang), Naut. MD (Nautische Mitternachtsdämmerung).

Spalte 29 Identisch zu Spalte 1.

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

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

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

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

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
2023	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne			Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2023		
			Δt		Ph.	\nearrow	\searrow	Astr.	Δt	Naut.	Δt	Bürg.	Δt	\nearrow	Δt	\searrow	Δt	Bürg.	Δt	Naut.	Δt	Astr.	Δt	Δt		Δt		
Do, 20. Jul	MESZ	23:35–02:58*	3h 23m	AN ₊ bis AN ₋		07:51	22:44	02:55	1h 07m	04:03	49m	04:52	40m	05:33	15h 26m	20:59	40m	21:39	49m	22:29	1h 06m	23:35	8h 34m	3h 23m				Do, 20. Jul
Fr, 21. Jul	MESZ	23:33–03:01*	3h 28m	AN ₊ bis AN ₋		08:58	23:01	02:58	1h 06m	04:04	49m	04:54	40m	05:34	15h 24m	20:58	40m	21:38	49m	22:27	1h 05m	23:33	8h 36m	3h 28m				Fr, 21. Jul
Sa, 22. Jul	MESZ	23:30–03:03*	3h 33m	AN ₊ bis AN ₋		10:04	23:15	03:01	1h 05m	04:06	49m	04:55	40m	05:35	15h 21m	20:57	39m	21:37	48m	22:26	1h 04m	23:30	8h 39m	3h 33m				Sa, 22. Jul
So, 23. Jul	MESZ	23:30–03:06*	3h 36m	M _{\searrow} bis AN ₋		11:10	23:30	03:03	1h 04m	04:08	48m	04:56	39m	05:36	15h 19m	20:56	39m	21:36	48m	22:24	1h 03m	23:28	8h 41m	3h 38m				So, 23. Jul
Mo, 24. Jul	MESZ	23:44–03:08*	3h 24m	M _{\searrow} bis AN ₋		12:17	23:44	03:06	1h 03m	04:09	48m	04:58	39m	05:37	15h 17m	20:55	39m	21:34	48m	22:23	1h 02m	23:25	8h 43m	3h 43m				Mo, 24. Jul
Di, 25. Jul	MESZ	00:01*–03:11*	3h 10m	M _{\searrow} bis AN ₋		13:25	—:—	03:08	1h 02m	04:11	48m	04:59	39m	05:39	15h 15m	20:54	39m	21:33	47m	22:21	1h 01m	23:22	8h 46m	3h 48m				Di, 25. Jul
Mi, 26. Jul	MESZ	00:21*–03:14*	2h 52m	M _{\searrow} bis AN ₋	☾	14:37	00:01	03:11	1h 01m	04:13	47m	05:00	39m	05:40	15h 12m	20:53	39m	21:32	47m	22:19	1h 00m	23:20	8h 48m	3h 53m				Mi, 26. Jul
Do, 27. Jul	MESZ	00:46*–03:16*	2h 29m	M _{\searrow} bis AN ₋		15:54	00:21	03:14	1h 00m	04:14	47m	05:02	39m	05:41	15h 10m	20:51	39m	21:30	47m	22:17	59m	23:17	8h 50m	3h 58m				Do, 27. Jul
Fr, 28. Jul	MESZ	01:21*–03:19*	1h 57m	M _{\searrow} bis AN ₋		17:12	00:46	03:16	59m	04:16	47m	05:03	39m	05:42	15h 07m	20:50	38m	21:29	46m	22:16	59m	23:15	8h 53m	4h 03m				Fr, 28. Jul
Sa, 29. Jul	MESZ	02:10*–03:21*	1h 10m	M _{\searrow} bis AN ₋		18:29	01:21	03:19	59m	04:18	46m	05:04	38m	05:43	15h 05m	20:49	38m	21:28	46m	22:14	58m	23:12	8h 55m	4h 08m				Sa, 29. Jul
So, 30. Jul	MESZ	03:16*–03:24*	7m	M _{\searrow} bis AN ₋		19:37	02:10	03:21	58m	04:19	46m	05:06	38m	05:45	15h 02m	20:47	38m	21:26	46m	22:12	57m	23:10	8h 58m	4h 14m				So, 30. Jul
Mo, 31. Jul	MESZ	—:—:—:—	–	Mond stört		20:32	03:16	03:24	57m	04:21	46m	05:07	38m	05:46	15h 00m	20:46	38m	21:25	45m	22:10	56m	23:07	9h 00m	4h 19m				Mo, 31. Jul
Di, 1. Aug	MESZ	—:—:—:—	–	Mond stört	☾	21:12	04:38	03:26	56m	04:23	45m	05:09	38m	05:47	14h 57m	20:45	38m	21:23	45m	22:08	56m	23:04	9h 03m	4h 24m				Di, 1. Aug
Mi, 2. Aug	MESZ	—:—:~:~:~	–	Mond stört		21:42	06:07	03:29	56m	04:25	45m	05:10	38m	05:48	14h 55m	20:43	38m	21:21	45m	22:06	55m	23:02	9h 06m	4h 29m				Mi, 2. Aug
Do, 3. Aug	MESZ	—:~:~:~:~	–	Mond stört		22:05	07:37	03:31	55m	04:26	45m	05:12	38m	05:50	14h 52m	20:42	37m	21:20	44m	22:05	54m	22:59	9h 08m	4h 34m				Do, 3. Aug
Fr, 4. Aug	MESZ	—:~:~:~:~	–	Mond stört		22:25	09:03	03:34	54m	04:28	44m	05:13	37m	05:51	14h 49m	20:40	37m	21:18	44m	22:03	53m	22:57	9h 11m	4h 39m				Fr, 4. Aug
Sa, 5. Aug	MESZ	—:~:~:~:~	–	Mond stört		22:43	10:26	03:36	53m	04:30	44m	05:14	37m	05:52	14h 46m	20:39	37m	21:16	44m	22:01	53m	22:54	9h 14m	4h 44m				Sa, 5. Aug
So, 6. Aug	MESZ	22:51–23:01	9m	AN ₊ bis M _{\nearrow}		23:01	11:47	03:38	53m	04:32	44m	05:16	37m	05:53	14h 44m	20:37	37m	21:15	43m	21:59	52m	22:51	9h 17m	4h 49m				So, 6. Aug
Mo, 7. Aug	MESZ	22:49–23:20	31m	AN ₊ bis M _{\nearrow}		23:20	13:05	03:41	52m	04:33	43m	05:17	37m	05:55	14h 41m	20:36	37m	21:13	43m	21:57	52m	22:49	9h 20m	4h 54m				Mo, 7. Aug
Di, 8. Aug	MESZ	22:46–23:43	56m	AN ₊ bis M _{\nearrow}	☾	23:43	14:22	03:43	52m	04:35	43m	05:19	37m	05:56	14h 38m	20:34	37m	21:11	43m	21:55	51m	22:46	9h 22m	4h 59m				Di, 8. Aug
Mi, 9. Aug	MESZ	22:44–00:10*	1h 26m	AN ₊ bis M _{\nearrow}		—:—	15:38	03:45	51m	04:37	43m	05:20	37m	05:57	14h 35m	20:33	36m	21:10	43m	21:53	50m	22:44	9h 25m	5h 04m				Mi, 9. Aug
Do, 10. Aug	MESZ	22:41–00:46*	2h 04m	AN ₊ bis M _{\nearrow}		00:10	16:49	03:48	50m	04:39	43m	05:22	36m	05:59	14h 32m	20:31	36m	21:08	42m	21:51	50m	22:41	9h 28m	5h 09m				Do, 10. Aug
Fr, 11. Aug	MESZ	22:38–01:30*	2h 51m	AN ₊ bis M _{\nearrow}		00:46	17:54	03:50	50m	04:40	42m	05:23	36m	06:00	14h 29m	20:30	36m	21:06	42m	21:49	49m	22:38	9h 31m	5h 14m				Fr, 11. Aug
Sa, 12. Aug	MESZ	22:36–02:25*	3h 48m	AN ₊ bis M _{\nearrow}		01:30	18:48	03:52	49m	04:42	42m	05:25	36m	06:01	14h 26m	20:28	36m	21:04	42m	21:46	49m	22:36	9h 34m	5h 18m				Sa, 12. Aug
So, 13. Aug	MESZ	22:33–03:27*	4h 53m	AN ₊ bis M _{\nearrow}		02:25	19:31	03:55	49m	04:44	42m	05:26	36m	06:03	14h 23m	20:26	36m	21:02	41m	21:44	48m	22:33	9h 37m	5h 23m				So, 13. Aug
Mo, 14. Aug	MESZ	22:31–03:59*	5h 28m	AN ₊ bis AN ₋		03:27	20:04	03:57	48m	04:46	41m	05:28	36m	06:04	14h 20m	20:25	36m	21:01	41m	21:42	48m	22:31	9h 40m	5h 28m				Mo, 14. Aug
Di, 15. Aug	MESZ	22:28–04:01*	5h 33m	AN ₊ bis AN ₋		04:34	20:30	03:59	48m	04:47	41m	05:29	36m	06:05	14h 17m	20:23	35m	20:59	41m	21:40	47m	22:28	9h 43m	5h 33m				Di, 15. Aug
Mi, 16. Aug	MESZ	22:25–04:04*	5h 38m	AN ₊ bis AN ₋	☾	05:42	20:51	04:01	47m	04:49	41m	05:31	35m	06:07	14h 14m	20:21	35m	20:57	41m	21:38	47m	22:25	9h 46m	5h 38m				Mi, 16. Aug
Do, 17. Aug	MESZ	22:23–04:06*	5h 43m	AN ₊ bis AN ₋		06:49	21:08	04:04	47m	04:51	41m	05:32	35m	06:08	14h 11m	20:19	35m	20:55	40m	21:36	46m	22:23	9h 49m	5h 43m				Do, 17. Aug
Fr, 18. Aug	MESZ	22:20–04:08*	5h 47m	AN ₊ bis AN ₋		07:56	21:22	04:06	46m	04:53	40m	05:34	35m	06:09	14h 08m	20:18	35m	20:53	40m	21:34	46m	22:20	9h 52m	5h 47m				Fr, 18. Aug
Sa, 19. Aug	MESZ	22:18–04:10*	5h 52m	AN ₊ bis AN ₋		09:02	21:37	04:08	46m	04:54	40m	05:35	35m	06:11	14h 05m	20:16	35m	20:51	40m	21:32	45m	22:18	9h 56m	5h 52m				Sa, 19. Aug
So, 20. Aug	MESZ	22:15–04:12*	5h 57m	AN ₊ bis AN ₋		10:08	21:51	04:10	45m	04:56	40m	05:37	35m	06:12	14h 02m	20:14	35m	20:49	40m	21:29	45m	22:15	9h 59m	5h 57m				So, 20. Aug
Mo, 21. Aug	MESZ	22:12–04:14*	6h 01m	AN ₊ bis AN ₋		11:15	22:06	04:12	45m	04:58	40m	05:38	35m	06:13	13h 58m	20:12	35m	20:47	39m	21:27	45m	22:12	10h 02m	6h 01m				Mo, 21. Aug
Di, 22. Aug	MESZ	22:24–04:16*	5h 52m	M _{\searrow} bis AN ₋		12:25	22:24	04:14	45m	04:59	39m	05:39	35m	06:15	13h 55m	20:10	34m	20:45	39m	21:25	44m	22:10	10h 05m	6h 06m				Di, 22. Aug
Mi, 23. Aug	MESZ	22:46–04:18*	5h 32m	M _{\searrow} bis AN ₋		13:38	22:46	04:16	44m	05:01	39m	05:41	34m	06:16	13h 52m	20:09	34m	20:43	39m	21:23	44m	22:07	10h 08m	6h 11m				Mi, 23. Aug
Do, 24. Aug	MESZ	23:16–04:20*	5h 04m	M _{\searrow} bis AN ₋	☾	14:54	23:16	04:18	44m	05:03	39m	05:42	34m	06:17	13h 49m	20:07	34m	20:41	39m	21:21	43m	22:05	10h 11m	6h 15m				Do, 24. Aug
Fr, 25. Aug	MESZ	23:57–04:22*	4h 25m	M _{\searrow} bis AN ₋		16:10	23:57	04:20	44m	05:04	39m	05:44	34m	06:19	13h 46m	20:05	34m	20:39	39m	21:18	43m	22:02	10h 15m	6h 20m				Fr, 25. Aug
Sa, 26. Aug	MESZ	00:53*–04:24*	3h 31m	M _{\searrow} bis AN ₋		17:20	—:—	04:22	43m	05:06	39m	05:45	34m	06:20	13h 43m	20:03	34m	20:37	38m	21:16	43m	22:00	10h 18m	6h 24m				Sa, 26. Aug
So, 27. Aug	MESZ	02:06*–04:26*	2h 20m	M _{\searrow} bis AN ₋		18:19	00:53	04:24	43m	05:08	38m	05:47	34m	06:21	13h 39m	20:01	34m	20:35	38m	21:14	42m	21:57	10h 21m	6h 29m				So, 27. Aug
Mo, 28. Aug	MESZ	03:31*–04:28*	57m	M _{\searrow} bis AN ₋		19:05	02:06	04:26	42m	05:09	38m	05:48	34m	06:23	13h 36m	19:59	34m	20:33	38m	21:12	42m	21:54	10h 24m	6h 33m				Mo, 28. Aug
Di, 29. Aug	MESZ	—:~:~:~:~	–	Mond stört		19:39	03:31	04:28	42m	05:11	38m	05:50	34m	06:24	13h 33m	19:57	34m	20:31	38m	21:10	42m	21:52	10h 28m	6h 38m				Di, 29. Aug
Mi, 30. Aug	MESZ	—:~:~:~:~	–	Mond stört		20:05	05:01	04:30	42m	05:13	38m	05:51	34m	06:25	13h 30m	19:55	34m	20:29	38m	21:0								

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

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

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