

Mond- und Dämmerungstabelle 2024

für die visuelle Deep-Sky-Beobachtung

Bochum 51.4825° N 7.2169° 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		18:37 – 22:21	3h 44m	AN ₊ bis M _J		22:21	11:37	06:31	40m	07:11	41m	07:53	42m	08:36	7h 56m	16:32	42m	17:15	41m	17:57	40m	18:37	16h 03m	11h 53m				Mo, 1. Jan
Di, 2. Jan		18:38 – 23:31	4h 52m	AN ₊ bis M _J		23:31	11:47	06:31	40m	07:12	41m	07:53	42m	08:36	7h 57m	16:33	42m	17:16	41m	17:58	40m	18:38	16h 02m	11h 52m				Di, 2. Jan
Mi, 3. Jan		18:39 – 00:40*	6h 01m	AN ₊ bis M _J		—:—	11:57	06:31	40m	07:11	41m	07:53	42m	08:35	7h 58m	16:34	42m	17:17	41m	17:58	40m	18:39	16h 00m	11h 51m				Mi, 3. Jan
Do, 4. Jan		18:40 – 01:52*	7h 11m	AN ₊ bis M _J	☾	00:40	12:07	06:31	40m	07:11	41m	07:53	42m	08:35	8h 00m	16:36	42m	17:18	41m	17:59	40m	18:40	15h 59m	11h 50m				Do, 4. Jan
Fr, 5. Jan		18:41 – 03:07*	8h 25m	AN ₊ bis M _J		01:52	12:18	06:31	40m	07:11	41m	07:53	41m	08:35	8h 01m	16:37	41m	17:19	41m	18:01	40m	18:41	15h 57m	11h 49m				Fr, 5. Jan
Sa, 6. Jan		18:42 – 04:25*	9h 43m	AN ₊ bis M _J		03:07	12:32	06:31	40m	07:11	41m	07:53	41m	08:35	8h 03m	16:38	41m	17:20	41m	18:02	40m	18:42	15h 56m	11h 48m				Sa, 6. Jan
So, 7. Jan		18:43 – 05:47*	11h 04m	AN ₊ bis M _J		04:25	12:51	06:31	40m	07:11	41m	07:53	41m	08:34	8h 04m	16:39	41m	17:21	41m	18:03	40m	18:43	15h 54m	11h 47m				So, 7. Jan
Mo, 8. Jan		18:44 – 06:30*	11h 46m	AN ₊ bis AN ₋		05:47	13:18	06:30	40m	07:11	41m	07:52	41m	08:34	8h 06m	16:41	41m	17:22	41m	18:04	40m	18:44	15h 52m	11h 46m				Mo, 8. Jan
Di, 9. Jan		18:45 – 06:30*	11h 44m	AN ₊ bis AN ₋		07:08	13:58	06:30	40m	07:10	41m	07:52	41m	08:33	8h 08m	16:42	41m	17:24	41m	18:05	40m	18:45	15h 50m	11h 44m				Di, 9. Jan
Mi, 10. Jan		18:46 – 06:30*	11h 43m	AN ₊ bis AN ₋		08:19	14:56	06:30	40m	07:10	41m	07:51	41m	08:33	8h 10m	16:43	41m	17:25	41m	18:06	40m	18:46	15h 49m	11h 43m				Mi, 10. Jan
Do, 11. Jan		18:48 – 06:29*	11h 41m	AN ₊ bis AN ₋	☀	09:13	16:14	06:30	40m	07:10	41m	07:51	41m	08:32	8h 12m	16:45	41m	17:26	41m	18:07	40m	18:48	15h 46m	11h 41m				Do, 11. Jan
Fr, 12. Jan		18:49 – 06:29*	11h 40m	AN ₊ bis AN ₋		09:51	17:45	06:29	40m	07:09	41m	07:50	41m	08:32	8h 14m	16:46	41m	17:27	41m	18:09	40m	18:49	15h 44m	11h 40m				Fr, 12. Jan
Sa, 13. Jan		19:19 – 06:28*	11h 09m	M _\ bis AN ₋		10:17	19:19	06:29	40m	07:09	41m	07:50	41m	08:31	8h 16m	16:48	41m	17:29	41m	18:10	40m	18:50	15h 42m	11h 38m				Sa, 13. Jan
So, 14. Jan		20:51 – 06:28*	9h 36m	M _\ bis AN ₋		10:36	20:51	06:28	39m	07:08	41m	07:49	40m	08:30	8h 18m	16:49	40m	17:30	41m	18:11	39m	18:51	15h 40m	11h 36m				So, 14. Jan
Mo, 15. Jan		22:19 – 06:27*	8h 08m	M _\ bis AN ₋		10:51	22:19	06:28	39m	07:08	40m	07:49	40m	08:29	8h 21m	16:51	40m	17:31	40m	18:12	39m	18:52	15h 37m	11h 34m				Mo, 15. Jan
Di, 16. Jan		23:44 – 06:27*	6h 42m	M _\ bis AN ₋		11:04	23:44	06:27	39m	07:07	40m	07:48	40m	08:29	8h 23m	16:52	40m	17:33	40m	18:14	39m	18:54	15h 35m	11h 32m				Di, 16. Jan
Mi, 17. Jan		01:09* – 06:26*	5h 17m	M _\ bis AN ₋		11:17	—:—	06:27	39m	07:06	40m	07:47	40m	08:28	8h 26m	16:54	40m	17:34	40m	18:15	39m	18:55	15h 33m	11h 30m				Mi, 17. Jan
Do, 18. Jan		02:32* – 06:25*	3h 52m	M _\ bis AN ₋	☾	11:30	01:09	06:26	39m	07:06	40m	07:46	40m	08:27	8h 28m	16:55	40m	17:36	40m	18:17	39m	18:56	15h 30m	11h 28m				Do, 18. Jan
Fr, 19. Jan		03:56* – 06:25*	2h 28m	M _\ bis AN ₋		11:46	02:32	06:25	39m	07:05	40m	07:46	40m	08:26	8h 31m	16:57	40m	17:37	40m	18:18	39m	18:58	15h 27m	11h 26m				Fr, 19. Jan
Sa, 20. Jan		05:17* – 06:24*	1h 06m	M _\ bis AN ₋		12:07	03:56	06:25	39m	07:04	40m	07:45	40m	08:25	8h 33m	16:59	40m	17:39	40m	18:19	39m	18:59	15h 25m	11h 24m				Sa, 20. Jan
So, 21. Jan		—:— —:—	–	Mond stört		12:36	05:17	06:24	39m	07:03	40m	07:44	40m	08:24	8h 36m	17:00	40m	17:40	40m	18:21	39m	19:00	15h 22m	11h 22m				So, 21. Jan
Mo, 22. Jan		—:— —:—	–	Mond stört		13:16	06:31	06:23	39m	07:02	40m	07:43	39m	08:23	8h 39m	17:02	39m	17:42	40m	18:22	39m	19:02	15h 19m	11h 20m				Mo, 22. Jan
Di, 23. Jan		—:— —:—	–	Mond stört		14:10	07:32	06:22	39m	07:02	40m	07:42	39m	08:21	8h 42m	17:04	39m	17:43	40m	18:24	39m	19:03	15h 16m	11h 18m				Di, 23. Jan
Mi, 24. Jan		—:~ ~:~	–	Mond stört		15:15	08:18	06:21	39m	07:01	40m	07:41	39m	08:20	8h 45m	17:05	39m	17:45	40m	18:25	39m	19:05	15h 13m	11h 15m				Mi, 24. Jan
Do, 25. Jan		—:~ ~:~	–	Mond stört	☉	16:28	08:50	06:20	39m	07:00	39m	07:40	39m	08:19	8h 48m	17:07	39m	17:47	40m	18:27	39m	19:06	15h 10m	11h 13m				Do, 25. Jan
Fr, 26. Jan		—:~ ~:~	–	Mond stört		17:43	09:13	06:19	39m	06:59	39m	07:38	39m	08:18	8h 51m	17:09	39m	17:48	39m	18:28	39m	19:07	15h 07m	11h 10m				Fr, 26. Jan
Sa, 27. Jan		—:~ ~:~	–	Mond stört		18:56	09:30	06:18	39m	06:57	39m	07:37	39m	08:16	8h 54m	17:11	39m	17:50	39m	18:30	39m	19:09	15h 04m	11h 08m				Sa, 27. Jan
So, 28. Jan		19:10 – 20:08	57m	AN ₊ bis M _J		20:08	09:43	06:17	39m	06:56	39m	07:36	38m	08:15	8h 57m	17:12	39m	17:51	39m	18:31	39m	19:10	15h 01m	11h 05m				So, 28. Jan
Mo, 29. Jan		19:12 – 21:18	2h 05m	AN ₊ bis M _J		21:18	09:54	06:16	39m	06:55	39m	07:35	38m	08:14	9h 00m	17:14	38m	17:53	39m	18:33	39m	19:12	14h 58m	11h 03m				Mo, 29. Jan
Di, 30. Jan		19:13 – 22:27	3h 13m	AN ₊ bis M _J		22:27	10:04	06:15	39m	06:54	39m	07:34	38m	08:12	9h 03m	17:16	38m	17:55	39m	18:34	39m	19:13	14h 54m	11h 00m				Di, 30. Jan
Mi, 31. Jan		19:15 – 23:37	4h 21m	AN ₊ bis M _J		23:37	10:14	06:14	39m	06:53	39m	07:32	38m	08:11	9h 06m	17:18	38m	17:56	39m	18:36	39m	19:15	14h 51m	10h 57m				Mi, 31. Jan
Do, 1. Feb		19:16 – 00:49*	5h 32m	AN ₊ bis M _J		—:—	10:24	06:13	38m	06:52	39m	07:31	38m	08:09	9h 10m	17:20	38m	17:58	39m	18:37	39m	19:16	14h 48m	10h 54m				Do, 1. Feb
Fr, 2. Feb		19:18 – 02:04*	6h 46m	AN ₊ bis M _J		00:49	10:37	06:11	38m	06:50	39m	07:29	38m	08:08	9h 13m	17:21	38m	18:00	39m	18:39	38m	19:18	14h 44m	10h 52m				Fr, 2. Feb
Sa, 3. Feb		19:19 – 03:23*	8h 03m	AN ₊ bis M _J	☾	02:04	10:52	06:10	38m	06:49	39m	07:28	38m	08:06	9h 16m	17:23	38m	18:01	39m	18:41	38m	19:19	14h 41m	10h 49m				Sa, 3. Feb
So, 4. Feb		19:21 – 04:43*	9h 21m	AN ₊ bis M _J		03:23	11:14	06:09	38m	06:48	39m	07:27	38m	08:05	9h 20m	17:25	38m	18:03	39m	18:42	38m	19:21	14h 37m	10h 46m				So, 4. Feb
Mo, 5. Feb		19:23 – 05:58*	10h 35m	AN ₊ bis M _J		04:43	11:46	06:07	38m	06:46	38m	07:25	37m	08:03	9h 23m	17:27	37m	18:05	39m	18:44	38m	19:23	14h 34m	10h 43m				Mo, 5. Feb
Di, 6. Feb		19:24 – 06:04*	10h 40m	AN ₊ bis AN ₋		05:58	12:34	06:06	38m	06:45	38m	07:24	37m	08:01	9h 27m	17:29	37m	18:06	38m	18:45	38m	19:24	14h 30m	10h 40m				Di, 6. Feb
Mi, 7. Feb		19:26 – 06:03*	10h 37m	AN ₊ bis AN ₋		07:00	13:42	06:04	38m	06:43	38m	07:22	37m	08:00	9h 30m	17:30	37m	18:08	38m	18:47	38m	19:26	14h 27m	10h 37m				Mi, 7. Feb
Do, 8. Feb		19:27 – 06:01*	10h 34m	AN ₊ bis AN ₋		07:45	15:07	06:03	38m	06:42	38m	07:20	37m	07:58	9h 34m	17:32	37m	18:10	38m	18:49	38m	19:27	14h 23m	10h 34m				Do, 8. Feb
Fr, 9. Feb		19:29 – 06:00*	10h 30m	AN ₊ bis AN ₋	☀	08:16	16:42	06:01	38m	06:40	38m	07:19	37m	07:56	9h 37m	17:34	37m	18:12	38m	18:50	38m	19:29	14h 20m	10h 30m				Fr, 9. Feb
Sa, 10. Feb		19:31 – 05:58*	10h 27m	AN ₊ bis AN ₋		08:39	18:18	06:00	38m	06:39	38m	07:17	37m	07:54	9h 41m	17:36	37m	18:13	38m	18:52	38m	19:31	14h 16m	10h 27m				Sa, 10. Feb
So, 11. Feb		19:51 – 05:57*	10h 05m	M _\ bis AN ₋		08:55	19:51	05:58	38m	06:37	38m	07:15	37m	07:53	9h 45m	17:38	37m	18:15	38m	18:54	38m	19:32	14h 12m	10h 24m				So, 11. Feb
Mo, 12. Feb		21:21 – 05:55*	8h 33m	M _\ bis AN ₋																								

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

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

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			Astr. MD		20:57	02:31	—:—		03:48	1h 01m	04:50	46m	05:36	16h 00m	21:37	46m	22:23	1h 01m	23:24		—:—	8h 00m		03:33* – 03:50*	17m	M \searrow bis ND $_$	Fr, 19. Jul
Sa, 20. Jul	MESZ			Astr. MD		21:45	03:33	—:—		03:50	1h 01m	04:51	46m	05:38	15h 58m	21:36	46m	22:22	1h 00m	23:22		—:—	8h 03m		—:—:—:—	–	Mond stört	Sa, 20. Jul
So, 21. Jul	MESZ	—:—:—:—	–	Mond stört	○	22:17	04:52	—:—		03:52	1h 00m	04:53	46m	05:39	15h 55m	21:34	45m	22:20	59m	23:20	2h 06m	01:26*	8h 05m	21m				So, 21. Jul
Mo, 22. Jul	MESZ	—:—:—:—	–	Mond stört		22:41	06:21	01:48	2h 06m	03:55	59m	04:54	45m	05:40	15h 52m	21:33	45m	22:19	59m	23:18	1h 52m	01:10*	8h 08m	53m				Mo, 22. Jul
Di, 23. Jul	MESZ	—:—:—:—	–	Mond stört		22:58	07:53	02:04	1h 52m	03:57	59m	04:56	45m	05:42	15h 50m	21:32	45m	22:17	58m	23:16	1h 45m	01:01*	8h 11m	1h 13m				Di, 23. Jul
Mi, 24. Jul	MESZ	—:—:~:~:~	–	Mond stört		23:12	09:24	02:14	1h 45m	03:59	58m	04:58	45m	05:43	15h 47m	21:30	45m	22:16	57m	23:13	1h 39m	00:53*	8h 13m	1h 28m				Mi, 24. Jul
Do, 25. Jul	MESZ	—:~:~:~:~	–	Mond stört		23:24	10:52	02:22	1h 39m	04:01	57m	04:59	45m	05:44	15h 44m	21:29	44m	22:14	57m	23:11	1h 34m	00:46*	8h 16m	1h 42m				Do, 25. Jul
Fr, 26. Jul	MESZ	—:~:~:~:~	–	Mond stört		23:37	12:18	02:29	1h 35m	04:04	57m	05:01	44m	05:46	15h 41m	21:28	44m	22:12	56m	23:09	1h 31m	00:40*	8h 19m	1h 54m				Fr, 26. Jul
Sa, 27. Jul	MESZ	—:~:~:~:~	–	Mond stört		23:51	13:45	02:35	1h 31m	04:06	56m	05:03	44m	05:47	15h 38m	21:26	44m	22:10	56m	23:07	1h 27m	00:34*	8h 22m	2h 06m				Sa, 27. Jul
So, 28. Jul	MESZ	—:~:~:~:~	–	Mond stört	◐	—:—	15:12	02:40	1h 27m	04:08	56m	05:04	44m	05:49	15h 35m	21:25	44m	22:09	55m	23:04	1h 24m	00:29*	8h 25m	2h 16m				So, 28. Jul
Mo, 29. Jul	MESZ	00:24* – 00:32*	7m	AN $_+$ bis M $_7$		00:08	16:39	02:46	1h 24m	04:11	55m	05:06	44m	05:50	15h 32m	21:23	43m	22:07	54m	23:02	1h 22m	00:24*	8h 28m	2h 26m				Mo, 29. Jul
Di, 30. Jul	MESZ	00:19* – 01:05*	45m	AN $_+$ bis M $_7$		00:32	18:02	02:51	1h 22m	04:13	55m	05:08	43m	05:52	15h 29m	21:21	43m	22:05	54m	22:59	1h 19m	00:19*	8h 31m	2h 36m				Di, 30. Jul
Mi, 31. Jul	MESZ	00:15* – 01:51*	1h 36m	AN $_+$ bis M $_7$		01:05	19:15	02:55	1h 19m	04:15	54m	05:10	43m	05:53	15h 26m	21:20	43m	22:03	53m	22:57	1h 17m	00:15*	8h 34m	2h 45m				Mi, 31. Jul
Do, 1. Aug	MESZ	00:10* – 02:52*	2h 42m	AN $_+$ bis M $_7$		01:51	20:13	03:00	1h 17m	04:17	53m	05:11	43m	05:55	15h 23m	21:18	42m	22:01	53m	22:55	1h 15m	00:10*	8h 37m	2h 53m				Do, 1. Aug
Fr, 2. Aug	MESZ	00:06* – 03:08*	3h 02m	AN $_+$ bis AN $_$		02:52	20:55	03:04	1h 15m	04:20	53m	05:13	43m	05:56	15h 20m	21:17	42m	21:59	52m	22:52	1h 13m	00:06*	8h 41m	3h 02m				Fr, 2. Aug
Sa, 3. Aug	MESZ	00:02* – 03:12*	3h 10m	AN $_+$ bis AN $_$		04:05	21:23	03:08	1h 13m	04:22	52m	05:15	42m	05:58	15h 17m	21:15	42m	21:57	52m	22:50	1h 12m	00:02*	8h 44m	3h 10m				Sa, 3. Aug
So, 4. Aug	MESZ	23:58 – 03:16*	3h 18m	AN $_+$ bis AN $_$	●	05:22	21:43	03:12	1h 12m	04:24	52m	05:17	42m	05:59	15h 13m	21:13	42m	21:55	51m	22:47	1h 10m	23:58	8h 47m	3h 18m				So, 4. Aug
Mo, 5. Aug	MESZ	23:54 – 03:20*	3h 26m	AN $_+$ bis AN $_$		06:40	21:58	03:16	1h 10m	04:27	51m	05:19	42m	06:01	15h 10m	21:11	42m	21:53	51m	22:45	1h 08m	23:54	8h 50m	3h 26m				Mo, 5. Aug
Di, 6. Aug	MESZ	23:50 – 03:24*	3h 34m	AN $_+$ bis AN $_$		07:54	22:10	03:20	1h 08m	04:29	51m	05:20	42m	06:02	15h 07m	21:10	41m	21:51	50m	22:42	1h 07m	23:50	8h 54m	3h 34m				Di, 6. Aug
Mi, 7. Aug	MESZ	23:46 – 03:27*	3h 41m	AN $_+$ bis AN $_$		09:06	22:20	03:24	1h 07m	04:31	50m	05:22	41m	06:04	15h 03m	21:08	41m	21:49	50m	22:40	1h 06m	23:46	8h 57m	3h 41m				Mi, 7. Aug
Do, 8. Aug	MESZ	23:42 – 03:31*	3h 49m	AN $_+$ bis AN $_$		10:16	22:29	03:27	1h 06m	04:34	50m	05:24	41m	06:05	15h 00m	21:06	41m	21:47	49m	22:37	1h 04m	23:42	9h 01m	3h 49m				Do, 8. Aug
Fr, 9. Aug	MESZ	23:38 – 03:34*	3h 56m	AN $_+$ bis AN $_$		11:25	22:39	03:31	1h 04m	04:36	49m	05:26	41m	06:07	14h 57m	21:04	41m	21:45	49m	22:35	1h 03m	23:38	9h 04m	3h 56m				Fr, 9. Aug
Sa, 10. Aug	MESZ	23:34 – 03:38*	4h 03m	AN $_+$ bis AN $_$		12:35	22:50	03:34	1h 03m	04:38	49m	05:27	41m	06:09	14h 53m	21:02	40m	21:43	49m	22:32	1h 02m	23:34	9h 07m	4h 03m				Sa, 10. Aug
So, 11. Aug	MESZ	23:31 – 03:41*	4h 10m	AN $_+$ bis AN $_$		13:48	23:03	03:38	1h 02m	04:40	49m	05:29	40m	06:10	14h 50m	21:00	40m	21:41	48m	22:30	1h 01m	23:31	9h 11m	4h 10m				So, 11. Aug
Mo, 12. Aug	MESZ	23:27 – 03:44*	4h 17m	AN $_+$ bis AN $_$	◐	15:03	23:20	03:41	1h 01m	04:42	48m	05:31	40m	06:12	14h 46m	20:58	40m	21:39	48m	22:27	1h 00m	23:27	9h 14m	4h 17m				Mo, 12. Aug
Di, 13. Aug	MESZ	23:44 – 03:48*	4h 03m	M $_7$ bis AN $_$		16:20	23:44	03:44	1h 00m	04:45	48m	05:33	40m	06:13	14h 43m	20:56	40m	21:37	47m	22:24	59m	23:24	9h 18m	4h 23m				Di, 13. Aug
Mi, 14. Aug	MESZ	00:19* – 03:51*	3h 31m	M $_7$ bis AN $_$		17:35	—:—	03:48	59m	04:47	47m	05:35	40m	06:15	14h 39m	20:54	39m	21:34	47m	22:22	58m	23:20	9h 21m	4h 30m				Mi, 14. Aug
Do, 15. Aug	MESZ	01:12* – 03:54*	2h 42m	M $_7$ bis AN $_$		18:43	00:19	03:51	58m	04:49	47m	05:36	40m	06:16	14h 36m	20:53	39m	21:32	46m	22:19	57m	23:17	9h 25m	4h 36m				Do, 15. Aug
Fr, 16. Aug	MESZ	02:23* – 03:57*	1h 34m	M $_7$ bis AN $_$		19:36	01:12	03:54	57m	04:51	47m	05:38	39m	06:18	14h 32m	20:51	39m	21:30	46m	22:17	56m	23:13	9h 29m	4h 43m				Fr, 16. Aug
Sa, 17. Aug	MESZ	03:48* – 04:00*	11m	M $_7$ bis AN $_$		20:15	02:23	03:57	56m	04:53	46m	05:40	39m	06:20	14h 28m	20:48	39m	21:28	46m	22:14	55m	23:10	9h 32m	4h 49m				Sa, 17. Aug
So, 18. Aug	MESZ	—:~:~:~:~	–	Mond stört		20:42	03:48	04:00	55m	04:56	46m	05:42	39m	06:21	14h 25m	20:46	39m	21:26	45m	22:12	55m	23:07	9h 36m	4h 56m				So, 18. Aug
Mo, 19. Aug	MESZ	—:~:~:~:~	–	Mond stört	○	21:02	05:21	04:03	55m	04:58	45m	05:44	39m	06:23	14h 21m	20:44	38m	21:23	45m	22:09	54m	23:03	9h 40m	5h 02m				Mo, 19. Aug
Di, 20. Aug	MESZ	—:~:~:~:~	–	Mond stört		21:17	06:54	04:05	54m	05:00	45m	05:45	39m	06:24	14h 17m	20:42	38m	21:21	45m	22:06	53m	23:00	9h 43m	5h 08m				Di, 20. Aug
Mi, 21. Aug	MESZ	—:~:~:~:~	–	Mond stört		21:30	08:26	04:08	53m	05:02	45m	05:47	38m	06:26	14h 14m	20:40	38m	21:19	44m	22:04	52m	22:57	9h 47m	5h 14m				Mi, 21. Aug
Do, 22. Aug	MESZ	—:~:~:~:~	–	Mond stört		21:43	09:56	04:11	52m	05:04	44m	05:49	38m	06:28	14h 10m	20:38	38m	21:17	44m	22:01	52m	22:53	9h 51m	5h 20m				Do, 22. Aug
Fr, 23. Aug	MESZ	—:~:~:~:~	–	Mond stört		21:57	11:26	04:14	52m	05:06	44m	05:51	38m	06:29	14h 06m	20:36	38m	21:14	44m	21:59	51m	22:50	9h 54m	5h 26m				Fr, 23. Aug
Sa, 24. Aug	MESZ	—:~:~:~:~	–	Mond stört		22:13	12:56	04:16	51m	05:08	44m	05:52	38m	06:31	14h 03m	20:34	38m	21:12	43m	21:56	51m	22:47	9h 58m	5h 32m				Sa, 24. Aug
So, 25. Aug	MESZ	—:~:~:~:~	–	Mond stört		22:35	14:25	04:19	51m	05:10	43m	05:54	38m	06:32	13h 59m	20:32	37m	21:10	43m	21:53	50m	22:44	10h 02m	5h 37m				So, 25. Aug
Mo, 26. Aug	MESZ	22:41 – 23:05	23m	AN $_+$ bis M $_7$	◐	23:05	15:51	04:22	50m	05:12	43m	05:56	38m	06:34	13h 55m	20:30	37m	21:07	43m	21:51	49m	22:41	10h 06m	5h 43m				Mo, 26. Aug
Di, 27. Aug	MESZ	22:38 – 23:47	1h 09m	AN $_+$ bis M $_7$		23:47	17:09	04:24	49m	05:14	43m	05:58	37m	06:36	13h 51m	20:27	37m	21:05	43m	21:48	49m	22:38	10h 09m	5h 49m				Di, 27. Aug
Mi, 28. Aug	MESZ	22:34 – 00:44*	2h 09m	AN $_+$ bis M $_7$		—:—	18:11	04:27	49m	05:16	43m	05:59	37m	06:37	13h 48m	20:25	37m	21:03	42m	21:46	48m	22:34	10h 13m	5h 54m				Mi, 28. Aug
Do, 29. Aug	MESZ	22:31 – 01:53*	3h 21m	AN $_+$ bis M $_7$		00:44	18:57	04:29	48m	05:18	42m	06:01	3															

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

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

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