

Mond- und Dämmerungstabelle 2023

für die visuelle Deep-Sky-Beobachtung

Bad Kissingen 50.1994° N 10.0764° 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.

Table with 29 columns (1-29) and 50 rows (So, 1. Jan - So, 19. Feb). Columns include date, time zone, astronomical twilight, moon phase, dawn/dusk times, sunrise, and sunset. Includes celestial symbols like ☉ and ☽.

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

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

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

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

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

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