

Mond- und Dämmerungstabelle 2023

für die visuelle Deep-Sky-Beobachtung

Hof (Saale) 50.3219° N 11.9189° 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
2023	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne			Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2023		
			Δt		Ph.	\nearrow	\searrow	Astr.	Δt	Naut.	Δt	Bürg.	Δt	\nearrow	Δt	\searrow	Δt	Bürg.	Δt	Naut.	Δt	Astr.	Δt	Δt		Δt		
So, 1. Jan		03:56* - 06:10*	2h 14m	M _\ bis AN ₋		12:46	02:41	06:10	39m	06:50	40m	07:31	40m	08:11	8h 07m	16:19	40m	17:00	40m	17:41	39m	18:20	15h 52m	11h 49m				So, 1. Jan
Mo, 2. Jan		05:10* - 06:10*	1h 00m	M _\ bis AN ₋		13:04	03:56	06:10	39m	06:50	40m	07:31	40m	08:11	8h 09m	16:20	40m	17:01	40m	17:42	39m	18:21	15h 50m	11h 49m				Mo, 2. Jan
Di, 3. Jan		—:—:—:—:—	—	Mond stört		13:27	05:10	06:10	39m	06:50	40m	07:30	40m	08:11	8h 10m	16:21	40m	17:02	40m	17:43	39m	18:22	15h 49m	11h 48m				Di, 3. Jan
Mi, 4. Jan		—:—:—:—:—	—	Mond stört		13:58	06:22	06:10	39m	06:50	40m	07:30	40m	08:11	8h 11m	16:22	40m	17:03	40m	17:44	39m	18:23	15h 48m	11h 47m				Mi, 4. Jan
Do, 5. Jan		—:—:—:—:—	—	Mond stört		14:38	07:27	06:10	39m	06:50	40m	07:30	40m	08:11	8h 12m	16:24	40m	17:04	40m	17:45	39m	18:24	15h 46m	11h 46m				Do, 5. Jan
Fr, 6. Jan		—:~:~:~:~:~	—	Mond stört		15:29	08:22	06:10	39m	06:50	40m	07:30	40m	08:10	8h 14m	16:25	40m	17:05	40m	17:46	39m	18:25	15h 45m	11h 44m				Fr, 6. Jan
Sa, 7. Jan		—:~:~:~:~:~	—	Mond stört	○	16:30	09:06	06:10	39m	06:49	40m	07:30	40m	08:10	8h 15m	16:26	40m	17:06	40m	17:47	39m	18:26	15h 43m	11h 43m				Sa, 7. Jan
So, 8. Jan		—:~:~:~:~:~	—	Mond stört		17:37	09:39	06:10	39m	06:49	40m	07:29	40m	08:10	8h 17m	16:27	40m	17:08	40m	17:48	39m	18:27	15h 41m	11h 42m				So, 8. Jan
Mo, 9. Jan		18:28 - 18:47	19m	AN ₊ bis M ₇		18:47	10:04	06:10	39m	06:49	40m	07:29	40m	08:09	8h 19m	16:29	40m	17:09	40m	17:49	39m	18:28	15h 40m	11h 41m				Mo, 9. Jan
Di, 10. Jan		18:29 - 19:58	1h 28m	AN ₊ bis M ₇		19:58	10:24	06:09	39m	06:48	40m	07:29	40m	08:09	8h 21m	16:30	40m	17:10	40m	17:50	39m	18:29	15h 38m	11h 39m				Di, 10. Jan
Mi, 11. Jan		18:31 - 21:08	2h 37m	AN ₊ bis M ₇		21:08	10:39	06:09	39m	06:48	40m	07:28	39m	08:08	8h 23m	16:31	39m	17:11	40m	17:51	39m	18:31	15h 36m	11h 38m				Mi, 11. Jan
Do, 12. Jan		18:32 - 22:18	3h 46m	AN ₊ bis M ₇		22:18	10:53	06:09	39m	06:48	40m	07:28	39m	08:08	8h 25m	16:33	39m	17:13	40m	17:53	39m	18:32	15h 34m	11h 36m				Do, 12. Jan
Fr, 13. Jan		18:33 - 23:29	4h 55m	AN ₊ bis M ₇		23:29	11:05	06:08	39m	06:47	39m	07:27	39m	08:07	8h 27m	16:34	39m	17:14	39m	17:54	39m	18:33	15h 32m	11h 34m				Fr, 13. Jan
Sa, 14. Jan		18:34 - 00:42*	6h 07m	AN ₊ bis M ₇		—:—	11:18	06:08	38m	06:47	39m	07:27	39m	08:06	8h 29m	16:36	39m	17:15	39m	17:55	38m	18:34	15h 30m	11h 33m				Sa, 14. Jan
So, 15. Jan		18:35 - 01:58*	7h 23m	AN ₊ bis M ₇	●	00:42	11:32	06:07	38m	06:46	39m	07:26	39m	08:06	8h 31m	16:37	39m	17:17	39m	17:56	38m	18:35	15h 27m	11h 31m				So, 15. Jan
Mo, 16. Jan		18:37 - 03:20*	8h 43m	AN ₊ bis M ₇		01:58	11:49	06:07	38m	06:46	39m	07:25	39m	08:05	8h 33m	16:39	39m	17:18	39m	17:58	38m	18:37	15h 25m	11h 29m				Mo, 16. Jan
Di, 17. Jan		18:38 - 04:45*	10h 06m	AN ₊ bis M ₇		03:20	12:11	06:06	38m	06:45	39m	07:25	39m	08:04	8h 36m	16:40	39m	17:19	39m	17:59	38m	18:38	15h 23m	11h 27m				Di, 17. Jan
Mi, 18. Jan		18:39 - 06:05*	11h 25m	AN ₊ bis AN ₋		04:45	12:41	06:06	38m	06:44	39m	07:24	39m	08:03	8h 38m	16:42	39m	17:21	39m	18:00	38m	18:39	15h 20m	11h 25m				Mi, 18. Jan
Do, 19. Jan		18:40 - 06:04*	11h 23m	AN ₊ bis AN ₋		06:08	13:26	06:05	38m	06:44	39m	07:23	39m	08:02	8h 41m	16:43	39m	17:22	39m	18:02	38m	18:40	15h 18m	11h 23m				Do, 19. Jan
Fr, 20. Jan		18:42 - 06:04*	11h 21m	AN ₊ bis AN ₋		07:22	14:30	06:04	38m	06:43	39m	07:22	38m	08:01	8h 43m	16:45	38m	17:24	39m	18:03	38m	18:42	15h 15m	11h 21m				Fr, 20. Jan
Sa, 21. Jan		18:43 - 06:03*	11h 19m	AN ₊ bis AN ₋	●	08:19	15:52	06:04	38m	06:42	39m	07:21	38m	08:00	8h 46m	16:46	38m	17:25	39m	18:04	38m	18:43	15h 12m	11h 19m				Sa, 21. Jan
So, 22. Jan		18:44 - 06:02*	11h 17m	AN ₊ bis AN ₋		09:00	17:23	06:03	38m	06:41	39m	07:21	38m	07:59	8h 48m	16:48	38m	17:27	39m	18:06	38m	18:44	15h 10m	11h 17m				So, 22. Jan
Mo, 23. Jan		18:56 - 06:01*	11h 04m	M _\ bis AN ₋		09:28	18:56	06:02	38m	06:40	39m	07:20	38m	07:58	8h 51m	16:50	38m	17:28	39m	18:07	38m	18:46	15h 07m	11h 15m				Mo, 23. Jan
Di, 24. Jan		20:25 - 06:00*	9h 34m	M _\ bis AN ₋		09:49	20:25	06:01	38m	06:40	39m	07:19	38m	07:57	8h 54m	16:51	38m	17:30	39m	18:09	38m	18:47	15h 04m	11h 13m				Di, 24. Jan
Mi, 25. Jan		21:50 - 05:59*	8h 09m	M _\ bis AN ₋		10:06	21:50	06:00	38m	06:39	38m	07:17	38m	07:56	8h 57m	16:53	38m	17:31	38m	18:10	38m	18:49	15h 01m	11h 10m				Mi, 25. Jan
Do, 26. Jan		23:10 - 05:58*	6h 48m	M _\ bis AN ₋		10:21	23:10	05:59	38m	06:38	38m	07:16	38m	07:55	9h 00m	16:55	38m	17:33	38m	18:12	38m	18:50	14h 58m	11h 08m				Do, 26. Jan
Fr, 27. Jan		00:28* - 05:57*	5h 28m	M _\ bis AN ₋		10:35	—:—	05:58	38m	06:37	38m	07:15	37m	07:53	9h 03m	16:56	37m	17:34	38m	18:13	38m	18:51	14h 55m	11h 05m				Fr, 27. Jan
Sa, 28. Jan		01:45* - 05:56*	4h 11m	M _\ bis AN ₋	●	10:51	00:28	05:57	38m	06:35	38m	07:14	37m	07:52	9h 06m	16:58	37m	17:36	38m	18:14	38m	18:53	14h 52m	11h 03m				Sa, 28. Jan
So, 29. Jan		03:01* - 05:55*	2h 54m	M _\ bis AN ₋		11:09	01:45	05:56	38m	06:34	38m	07:13	37m	07:51	9h 09m	17:00	37m	17:37	38m	18:16	38m	18:54	14h 49m	11h 00m				So, 29. Jan
Mo, 30. Jan		04:13* - 05:54*	1h 40m	M _\ bis AN ₋		11:30	03:01	05:55	38m	06:33	38m	07:12	37m	07:49	9h 12m	17:01	37m	17:39	38m	18:17	38m	18:56	14h 46m	10h 58m				Mo, 30. Jan
Di, 31. Jan		05:21* - 05:53*	32m	M _\ bis AN ₋		11:58	04:13	05:54	38m	06:32	38m	07:10	37m	07:48	9h 15m	17:03	37m	17:41	38m	18:19	38m	18:57	14h 43m	10h 55m				Di, 31. Jan
Mi, 1. Feb		—:~:~:~:~:~	—	Mond stört		12:35	05:21	05:53	38m	06:31	38m	07:09	37m	07:46	9h 18m	17:05	37m	17:42	38m	18:20	38m	18:59	14h 40m	10h 53m				Mi, 1. Feb
Do, 2. Feb		—:~:~:~:~:~	—	Mond stört		13:23	06:19	05:52	37m	06:30	38m	07:08	37m	07:45	9h 21m	17:07	37m	17:44	38m	18:22	38m	19:00	14h 36m	10h 50m				Do, 2. Feb
Fr, 3. Feb		—:~:~:~:~:~	—	Mond stört		14:21	07:06	05:50	37m	06:28	38m	07:06	37m	07:43	9h 24m	17:08	37m	17:45	38m	18:24	37m	19:02	14h 33m	10h 47m				Fr, 3. Feb
Sa, 4. Feb		—:~:~:~:~:~	—	Mond stört		15:27	07:42	05:49	37m	06:27	38m	07:05	36m	07:42	9h 28m	17:10	36m	17:47	38m	18:25	37m	19:03	14h 30m	10h 44m				Sa, 4. Feb
So, 5. Feb		—:~:~:~:~:~	—	Mond stört	○	16:37	08:09	05:48	37m	06:26	37m	07:04	36m	07:40	9h 31m	17:12	36m	17:49	38m	18:27	37m	19:05	14h 27m	10h 41m				So, 5. Feb
Mo, 6. Feb		—:~:~:~:~:~	—	Mond stört		17:48	08:30	05:46	37m	06:24	37m	07:02	36m	07:39	9h 34m	17:14	36m	17:50	37m	18:28	37m	19:06	14h 23m	10h 38m				Mo, 6. Feb
Di, 7. Feb		—:~:~:~:~:~	—	Mond stört		18:59	08:46	05:45	37m	06:23	37m	07:01	36m	07:37	9h 38m	17:15	36m	17:52	37m	18:30	37m	19:08	14h 20m	10h 36m				Di, 7. Feb
Mi, 8. Feb		19:09 - 20:09	59m	AN ₊ bis M ₇		20:09	09:00	05:44	37m	06:21	37m	06:59	36m	07:36	9h 41m	17:17	36m	17:53	37m	18:31	37m	19:09	14h 16m	10h 33m				Mi, 8. Feb
Do, 9. Feb		19:11 - 21:19	2h 08m	AN ₊ bis M ₇		21:19	09:13	05:42	37m	06:20	37m	06:58	36m	07:34	9h 44m	17:19	36m	17:55	37m	18:33	37m	19:11	14h 13m	10h 30m				Do, 9. Feb
Fr, 10. Feb		19:12 - 22:31	3h 18m	AN ₊ bis M ₇		22:31	09:25	05:41	37m	06:18	37m	06:56	36m	07:32	9h 48m	17:20	36m	17:57	37m	18:34	37m	19:12	14h 09m	10h 26m				Fr, 10. Feb
Sa, 11. Feb		19:14 - 23:45	4h 30m	AN ₊ bis M ₇		23:45	09:38	05:39	37m	06:17	37m	06:54	36m	07:30	9h 51m	17:22	36m	17:58	37m	18:36	37m	19:14	14h 06m	10h 23m				Sa, 11. Feb
So, 12. Feb		19:15 - 01:02*	5h 47m	AN ₊ bis M ₇		—:—	09:53	05:38	37m	06:15	37m	06:53	36m															

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

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

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

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

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

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

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