

Mond- und Dämmerungstabelle 2024

für die visuelle Deep-Sky-Beobachtung

Herisau 47.3858° N 9.2799° E

Berechnung: pyEphem
Textsatz: L^AT_EX

Atmosphären-Einstellungen in pyEphem

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

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

Spalte 1 Kalendertag.

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

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

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

Spalte 5 Ereignisse, die die für Deep-Sky-Beobachtungen nutzbare Zeitspanne begrenzen: AN₊ (Einbruch der astronomischen Nacht = Ende der astr. Abenddämmerung), M_v (Monduntergang), AN₋ (Ende der astronomischen Nacht = Beginn der astr. Morgendämmerung), M₇

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

Spalte 6 Mondphase.

Spalte 7 Mondaufgang.

Spalte 8 Monduntergang.

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

Spalte 10 Dauer der astr. Morgendämmerung.

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

Spalte 12 Dauer der naut. Morgendämmerung.

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

Spalte 14 Dauer der bürg. Morgendämmerung.

Spalte 15 Sonnenaufgang.

Spalte 16 Taglänge.

Spalte 17 Sonnenuntergang.

Spalte 18 Dauer der bürg. Abenddämmerung.

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

Spalte 20 Dauer der naut. Abenddämmerung.

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

Spalte 22 Dauer der astr. Abenddämmerung.

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

Spalte 24 Länge der Nacht.

Spalte 25 Länge der astr. Nacht.

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

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

Spalte 27 Dauer der in Spalte 26 angegebenen Zeitspanne.

Spalte 28 Ereignisse, die die nutzbare Zeitspanne begrenzen: ND₊ (Beginn der »naut. Dunkelheit« = Ende der naut. Abenddämmerung), M_v (Monduntergang), ND₋ (Ende der »naut. Dunkelheit« = Beginn der naut. Morgendämmerung), M₇ (Mondaufgang), Naut. MD (Nautische Mitternachtsdämmerung).

Spalte 29 Identisch zu Spalte 1.

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

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

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

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