

# Mond- und Dämmerungstabelle 2023

für die visuelle Deep-Sky-Beobachtung

Hollabrunn 48.5627° N 16.0807° E

Berechnung: pyEphem  
Textsatz: L<sup>A</sup>T<sub>E</sub>X

## 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  $-18^\circ$ ) 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<sub>+</sub> (Einbruch der astronomischen Nacht = Ende der astr. Abenddämmerung), M<sub>v</sub> (Monduntergang), AN<sub>-</sub> (Ende der astronomischen Nacht = Beginn der astr. Morgendämmerung), M<sub>7</sub>

(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 =  $-18^\circ$ ).

**Spalte 10** Dauer der astr. Morgendämmerung.

**Spalte 11** Beginn der naut. Morgendämmerung (Sonnenhöhe =  $-12^\circ$ ).

**Spalte 12** Dauer der naut. Morgendämmerung.

**Spalte 13** Beginn der bürg. Morgendämmerung (Sonnenhöhe =  $-6^\circ$ ).

**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 =  $-6^\circ$ ).

**Spalte 20** Dauer der naut. Abenddämmerung.

**Spalte 21** Ende der naut. Abenddämmerung (Sonnenhöhe =  $-12^\circ$ ).

**Spalte 22** Dauer der astr. Abenddämmerung.

**Spalte 23** Ende der astr. Abenddämmerung (Sonnenhöhe =  $-18^\circ$ ).

**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  $-12^\circ$ ) und kein Mond stört.

**Spalte 27** Dauer der in Spalte 26 angegebenen Zeitspanne.

**Spalte 28** Ereignisse, die die nutzbare Zeitspanne begrenzen: ND<sub>+</sub> (Beginn der »naut. Dunkelheit« = Ende der naut. Abenddämmerung), M<sub>v</sub> (Monduntergang), ND<sub>-</sub> (Ende der »naut. Dunkelheit« = Beginn der naut. Morgendämmerung), M<sub>7</sub> (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	Zeitzone	Astr. dunkel und kein Mond	Δt		Ph.	↑	↘	Astr.	Δt	Naut.	Δt	Bürg.	Δt	↑	Δt	↘	Δt	Bürg.	Δt	Naut.	Δt	Astr.	Δt	Δt	Astr. N.	Naut. dunkel und kein Mond	Δt	2023
Do, 20. Jul	MESZ	23:36–02:28*	2h 51m	AN <sub>+</sub> bis AN <sub>-</sub>		07:32	22:32	02:24	1h 15m	03:39	52m	04:32	41m	05:14	15h 34m	20:49	41m	21:30	51m	22:22	1h 13m	23:36	8h 26m	2h 51m				Do, 20. Jul
Fr, 21. Jul	MESZ	23:33–02:31*	2h 57m	AN <sub>+</sub> bis AN <sub>-</sub>		08:40	22:48	02:28	1h 13m	03:41	51m	04:33	41m	05:15	15h 32m	20:48	41m	21:29	51m	22:21	1h 12m	23:33	8h 28m	2h 57m				Fr, 21. Jul
Sa, 22. Jul	MESZ	23:30–02:34*	3h 03m	AN <sub>+</sub> bis AN <sub>-</sub>		09:48	23:01	02:31	1h 12m	03:43	51m	04:34	41m	05:16	15h 30m	20:47	41m	21:28	51m	22:19	1h 10m	23:30	8h 30m	3h 03m				Sa, 22. Jul
So, 23. Jul	MESZ	23:27–02:37*	3h 09m	AN <sub>+</sub> bis AN <sub>-</sub>		10:54	23:14	02:34	1h 10m	03:45	51m	04:36	41m	05:17	15h 28m	20:45	41m	21:27	50m	22:17	1h 09m	23:27	8h 33m	3h 09m				So, 23. Jul
Mo, 24. Jul	MESZ	23:28–02:40*	3h 11m	M <sub>↘</sub> bis AN <sub>-</sub>		12:02	23:28	02:37	1h 09m	03:47	50m	04:37	41m	05:18	15h 25m	20:44	40m	21:25	50m	22:16	1h 08m	23:24	8h 35m	3h 15m				Mo, 24. Jul
Di, 25. Jul	MESZ	23:43–02:43*	2h 59m	M <sub>↘</sub> bis AN <sub>-</sub>		13:12	23:43	02:40	1h 08m	03:48	50m	04:39	40m	05:20	15h 23m	20:43	40m	21:24	49m	22:14	1h 07m	23:21	8h 37m	3h 21m				Di, 25. Jul
Mi, 26. Jul	MESZ	00:02*–02:46*	2h 43m	M <sub>↘</sub> bis AN <sub>-</sub>	☾	14:25	—:—	02:43	1h 07m	03:50	49m	04:40	40m	05:21	15h 20m	20:42	40m	21:22	49m	22:12	1h 06m	23:18	8h 40m	3h 27m				Mi, 26. Jul
Do, 27. Jul	MESZ	00:26*–02:49*	2h 22m	M <sub>↘</sub> bis AN <sub>-</sub>		15:42	00:02	02:46	1h 06m	03:52	49m	04:42	40m	05:22	15h 18m	20:40	40m	21:21	49m	22:10	1h 04m	23:15	8h 42m	3h 33m				Do, 27. Jul
Fr, 28. Jul	MESZ	01:00*–02:52*	1h 51m	M <sub>↘</sub> bis AN <sub>-</sub>		17:02	00:26	02:49	1h 04m	03:54	49m	04:43	40m	05:23	15h 15m	20:39	40m	21:19	48m	22:08	1h 03m	23:12	8h 45m	3h 39m				Fr, 28. Jul
Sa, 29. Jul	MESZ	01:48*–02:55*	1h 06m	M <sub>↘</sub> bis AN <sub>-</sub>		18:20	01:00	02:52	1h 03m	03:56	48m	04:45	40m	05:25	15h 13m	20:38	40m	21:18	48m	22:06	1h 02m	23:09	8h 48m	3h 45m				Sa, 29. Jul
So, 30. Jul	MESZ	02:54*–02:57*	3m	M <sub>↘</sub> bis AN <sub>-</sub>		19:29	01:48	02:55	1h 02m	03:58	48m	04:46	40m	05:26	15h 10m	20:36	39m	21:16	48m	22:04	1h 01m	23:06	8h 50m	3h 51m				So, 30. Jul
Mo, 31. Jul	MESZ	—:—:—:—	–	Mond stört		20:23	02:54	02:57	1h 01m	03:59	48m	04:47	39m	05:27	15h 07m	20:35	39m	21:15	47m	22:02	1h 00m	23:03	8h 53m	3h 56m				Mo, 31. Jul
Di, 1. Aug	MESZ	—:—:—:—	–	Mond stört	☉	21:02	04:16	03:00	1h 00m	04:01	47m	04:49	39m	05:29	15h 04m	20:34	39m	21:13	47m	22:00	1h 00m	23:00	8h 56m	4h 02m				Di, 1. Aug
Mi, 2. Aug	MESZ	—:—:—:—	–	Mond stört		21:30	05:47	03:03	1h 00m	04:03	47m	04:51	39m	05:30	15h 02m	20:32	39m	21:11	46m	21:58	59m	22:58	8h 59m	4h 08m				Mi, 2. Aug
Do, 3. Aug	MESZ	—:—:~:~	–	Mond stört		21:52	07:18	03:06	59m	04:05	47m	04:52	39m	05:31	14h 59m	20:31	39m	21:10	46m	21:56	58m	22:55	9h 01m	4h 13m				Do, 3. Aug
Fr, 4. Aug	MESZ	—:~:~:~	–	Mond stört		22:11	08:46	03:09	58m	04:07	46m	04:54	39m	05:33	14h 56m	20:29	38m	21:08	46m	21:54	57m	22:52	9h 04m	4h 19m				Fr, 4. Aug
Sa, 5. Aug	MESZ	—:~:~:~	–	Mond stört		22:27	10:11	03:11	57m	04:09	46m	04:55	38m	05:34	14h 53m	20:28	38m	21:06	45m	21:52	56m	22:49	9h 07m	4h 25m				Sa, 5. Aug
So, 6. Aug	MESZ	—:~:~:~	–	Mond stört		22:44	11:32	03:14	56m	04:11	45m	04:57	38m	05:35	14h 50m	20:26	38m	21:05	45m	21:50	55m	22:46	9h 10m	4h 30m				So, 6. Aug
Mo, 7. Aug	MESZ	22:43–23:02	18m	AN <sub>+</sub> bis M <sub>↘</sub>		23:02	12:52	03:17	55m	04:13	45m	04:58	38m	05:37	14h 47m	20:24	38m	21:03	45m	21:48	55m	22:43	9h 13m	4h 36m				Mo, 7. Aug
Di, 8. Aug	MESZ	22:40–23:23	43m	AN <sub>+</sub> bis M <sub>↘</sub>	☾	23:23	14:10	03:19	55m	04:14	45m	05:00	38m	05:38	14h 44m	20:23	38m	21:01	44m	21:46	54m	22:40	9h 16m	4h 41m				Di, 8. Aug
Mi, 9. Aug	MESZ	22:38–23:50	1h 12m	AN <sub>+</sub> bis M <sub>↘</sub>		23:50	15:27	03:22	54m	04:16	44m	05:01	38m	05:39	14h 41m	20:21	37m	20:59	44m	21:44	53m	22:38	9h 19m	4h 46m				Mi, 9. Aug
Do, 10. Aug	MESZ	22:35–00:24*	1h 49m	AN <sub>+</sub> bis M <sub>↘</sub>		—:—	16:40	03:24	53m	04:18	44m	05:03	37m	05:41	14h 38m	20:20	37m	20:57	44m	21:42	53m	22:35	9h 22m	4h 52m				Do, 10. Aug
Fr, 11. Aug	MESZ	22:32–01:08*	2h 36m	AN <sub>+</sub> bis M <sub>↘</sub>		00:24	17:45	03:27	53m	04:20	44m	05:04	37m	05:42	14h 35m	20:18	37m	20:55	43m	21:39	52m	22:32	9h 25m	4h 57m				Fr, 11. Aug
Sa, 12. Aug	MESZ	22:29–02:02*	3h 33m	AN <sub>+</sub> bis M <sub>↘</sub>		01:08	18:39	03:29	52m	04:22	44m	05:06	37m	05:44	14h 32m	20:16	37m	20:54	43m	21:37	51m	22:29	9h 28m	5h 02m				Sa, 12. Aug
So, 13. Aug	MESZ	22:26–03:05*	4h 39m	AN <sub>+</sub> bis M <sub>↘</sub>		02:02	19:22	03:32	51m	04:24	43m	05:07	37m	05:45	14h 29m	20:14	37m	20:52	43m	21:35	51m	22:26	9h 31m	5h 08m				So, 13. Aug
Mo, 14. Aug	MESZ	22:23–03:37*	5h 13m	AN <sub>+</sub> bis AN <sub>-</sub>		03:05	19:55	03:34	51m	04:26	43m	05:09	37m	05:46	14h 26m	20:13	37m	20:50	43m	21:33	50m	22:23	9h 35m	5h 13m				Mo, 14. Aug
Di, 15. Aug	MESZ	22:21–03:39*	5h 18m	AN <sub>+</sub> bis AN <sub>-</sub>		04:13	20:19	03:37	50m	04:27	43m	05:11	37m	05:48	14h 23m	20:11	36m	20:48	42m	21:31	50m	22:21	9h 38m	5h 18m				Di, 15. Aug
Mi, 16. Aug	MESZ	22:18–03:42*	5h 23m	AN <sub>+</sub> bis AN <sub>-</sub>	☿	05:22	20:39	03:39	50m	04:29	42m	05:12	36m	05:49	14h 19m	20:09	36m	20:46	42m	21:28	49m	22:18	9h 41m	5h 23m				Mi, 16. Aug
Do, 17. Aug	MESZ	22:15–03:44*	5h 28m	AN <sub>+</sub> bis AN <sub>-</sub>		06:31	20:55	03:42	49m	04:31	42m	05:14	36m	05:50	14h 16m	20:07	36m	20:44	42m	21:26	49m	22:15	9h 44m	5h 28m				Do, 17. Aug
Fr, 18. Aug	MESZ	22:12–03:46*	5h 33m	AN <sub>+</sub> bis AN <sub>-</sub>		07:39	21:09	03:44	49m	04:33	42m	05:15	36m	05:52	14h 13m	20:05	36m	20:42	41m	21:24	48m	22:12	9h 47m	5h 33m				Fr, 18. Aug
Sa, 19. Aug	MESZ	22:10–03:49*	5h 39m	AN <sub>+</sub> bis AN <sub>-</sub>		08:46	21:22	03:46	48m	04:35	42m	05:17	36m	05:53	14h 10m	20:04	36m	20:40	41m	21:22	47m	22:10	9h 51m	5h 39m				Sa, 19. Aug
So, 20. Aug	MESZ	22:07–03:51*	5h 44m	AN <sub>+</sub> bis AN <sub>-</sub>		09:53	21:35	03:49	48m	04:37	41m	05:18	36m	05:55	14h 06m	20:02	36m	20:38	41m	21:19	47m	22:07	9h 54m	5h 44m				So, 20. Aug
Mo, 21. Aug	MESZ	22:04–03:53*	5h 49m	AN <sub>+</sub> bis AN <sub>-</sub>		11:01	21:49	03:51	47m	04:38	41m	05:20	36m	05:56	14h 03m	20:00	36m	20:36	41m	21:17	47m	22:04	9h 57m	5h 49m				Mo, 21. Aug
Di, 22. Aug	MESZ	22:06–03:55*	5h 49m	M <sub>↘</sub> bis AN <sub>-</sub>		12:12	22:06	03:53	47m	04:40	41m	05:21	36m	05:57	14h 00m	19:58	35m	20:34	40m	21:15	46m	22:01	10h 00m	5h 54m				Di, 22. Aug
Mi, 23. Aug	MESZ	22:27–03:58*	5h 30m	M <sub>↘</sub> bis AN <sub>-</sub>		13:26	22:27	03:55	46m	04:42	41m	05:23	35m	05:59	13h 57m	19:56	35m	20:32	40m	21:12	46m	21:59	10h 04m	5h 58m				Mi, 23. Aug
Do, 24. Aug	MESZ	22:55–04:00*	5h 04m	M <sub>↘</sub> bis AN <sub>-</sub>	☾	14:44	22:55	03:58	46m	04:44	40m	05:25	35m	06:00	13h 53m	19:54	35m	20:30	40m	21:10	45m	21:56	10h 07m	6h 03m				Do, 24. Aug
Fr, 25. Aug	MESZ	23:35–04:02*	4h 26m	M <sub>↘</sub> bis AN <sub>-</sub>		16:01	23:35	04:00	45m	04:46	40m	05:26	35m	06:02	13h 50m	19:52	35m	20:28	40m	21:08	45m	21:53	10h 10m	6h 08m				Fr, 25. Aug
Sa, 26. Aug	MESZ	00:31*–04:04*	3h 32m	M <sub>↘</sub> bis AN <sub>-</sub>		17:12	—:—	04:02	45m	04:47	40m	05:28	35m	06:03	13h 47m	19:50	35m	20:25	40m	21:06	44m	21:50	10h 14m	6h 13m				Sa, 26. Aug
So, 27. Aug	MESZ	01:44*–04:06*	2h 21m	M <sub>↘</sub> bis AN <sub>-</sub>		18:11	00:31	04:04	44m	04:49	40m	05:29	35m	06:04	13h 43m	19:48	35m	20:23	39m	21:03	44m	21:48	10h 17m	6h 18m				So, 27. Aug
Mo, 28. Aug	MESZ	03:10*–04:08*	57m	M <sub>↘</sub> bis AN <sub>-</sub>		18:55	01:44	04:06	44m	04:51	39m	05:31	35m	06:06	13h 40m	19:46	35m	20:21	39m	21:01	44m	21:45	10h 21m	6h 23m				Mo, 28. Aug
Di, 29. Aug	MESZ	—:~:~:~	–	Mond stört		19:28	03:10	04:08	44m	04:52	39m	05:32	35m	06:07	13h 36m	19:44	34m	20:19	39m	20:59	43m	21:42	10h 24m	6h 27m				Di, 29. Aug
Mi, 30. Aug	MESZ	—:~:~:~	–	Mond stört		19:53	04:42	04:10	43m	04:54	39m	05:34	35m	06:09	13h 33m	19:42	34m	20:17	39m	20:56	43m	21:40	10h 27m	6h 32m				Mi, 30. Aug
Do, 31. Aug	MESZ	—:~:~:~	–	Mond stört	☉	20:13	06:13	04:12	43m																			

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

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



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