

# Mond- und Dämmerungstabelle 2023

für die visuelle Deep-Sky-Beobachtung

Gänserndorf 48.3406° N 16.7175° 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 angegebenen 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	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.	$\Delta t$	$\Delta t$		$\Delta t$		
Do, 20. Jul	MESZ	23:30–02:28*	2h 58m	AN <sub>+</sub> bis AN <sub>-</sub>		07:30	22:29	02:25	1h 13m	03:39	51m	04:30	41m	05:12	15h 33m	20:45	41m	21:27	51m	22:18	1h 11m	23:30	8h 27m	2h 58m				Do, 20. Jul
Fr, 21. Jul	MESZ	23:27–02:31*	3h 04m	AN <sub>+</sub> bis AN <sub>-</sub>		08:38	22:45	02:28	1h 11m	03:40	51m	04:32	41m	05:13	15h 31m	20:44	41m	21:26	51m	22:17	1h 10m	23:27	8h 30m	3h 04m				Fr, 21. Jul
Sa, 22. Jul	MESZ	23:24–02:34*	3h 10m	AN <sub>+</sub> bis AN <sub>-</sub>		09:45	22:59	02:31	1h 10m	03:42	51m	04:33	41m	05:14	15h 28m	20:43	41m	21:24	50m	22:15	1h 09m	23:24	8h 32m	3h 10m				Sa, 22. Jul
So, 23. Jul	MESZ	23:21–02:37*	3h 16m	AN <sub>+</sub> bis AN <sub>-</sub>		10:52	23:12	02:34	1h 09m	03:44	50m	04:34	41m	05:16	15h 26m	20:42	40m	21:23	50m	22:13	1h 08m	23:21	8h 34m	3h 16m				So, 23. Jul
Mo, 24. Jul	MESZ	23:26–02:40*	3h 14m	M <sub>\</sub> bis AN <sub>-</sub>		11:59	23:26	02:37	1h 08m	03:46	50m	04:36	40m	05:17	15h 24m	20:41	40m	21:22	49m	22:11	1h 07m	23:18	8h 37m	3h 21m				Mo, 24. Jul
Di, 25. Jul	MESZ	23:41–02:43*	3h 01m	M <sub>\</sub> bis AN <sub>-</sub>		13:09	23:41	02:40	1h 07m	03:47	49m	04:37	40m	05:18	15h 21m	20:40	40m	21:20	49m	22:10	1h 05m	23:16	8h 39m	3h 27m				Di, 25. Jul
Mi, 26. Jul	MESZ	00:00*–02:46*	2h 45m	M <sub>\</sub> bis AN <sub>-</sub>	☾	14:22	—:—	02:43	1h 05m	03:49	49m	04:39	40m	05:19	15h 19m	20:38	40m	21:19	49m	22:08	1h 04m	23:13	8h 42m	3h 33m				Mi, 26. Jul
Do, 27. Jul	MESZ	00:25*–02:49*	2h 24m	M <sub>\</sub> bis AN <sub>-</sub>		15:39	00:00	02:46	1h 04m	03:51	49m	04:40	40m	05:20	15h 16m	20:37	40m	21:17	48m	22:06	1h 03m	23:10	8h 44m	3h 39m				Do, 27. Jul
Fr, 28. Jul	MESZ	00:59*–02:52*	1h 52m	M <sub>\</sub> bis AN <sub>-</sub>		16:59	00:25	02:49	1h 03m	03:53	48m	04:42	40m	05:22	15h 14m	20:36	39m	21:16	48m	22:04	1h 02m	23:07	8h 47m	3h 44m				Fr, 28. Jul
Sa, 29. Jul	MESZ	01:47*–02:55*	1h 07m	M <sub>\</sub> bis AN <sub>-</sub>		18:16	00:59	02:52	1h 02m	03:55	48m	04:43	39m	05:23	15h 11m	20:35	39m	21:14	48m	22:02	1h 01m	23:04	8h 49m	3h 50m				Sa, 29. Jul
So, 30. Jul	MESZ	02:53*–02:57*	4m	M <sub>\</sub> bis AN <sub>-</sub>		19:25	01:47	02:55	1h 01m	03:56	48m	04:44	39m	05:24	15h 08m	20:33	39m	21:13	47m	22:00	1h 00m	23:01	8h 52m	3h 55m				So, 30. Jul
Mo, 31. Jul	MESZ	—:—:—:—	–	Mond stört		20:19	02:53	02:57	1h 00m	03:58	47m	04:46	39m	05:26	15h 06m	20:32	39m	21:11	47m	21:58	1h 00m	22:58	8h 55m	4h 01m				Mo, 31. Jul
Di, 1. Aug	MESZ	—:—:—:—	–	Mond stört	☾	20:58	04:14	03:00	1h 00m	04:00	47m	04:47	39m	05:27	15h 03m	20:30	39m	21:10	46m	21:56	59m	22:56	8h 57m	4h 07m				Di, 1. Aug
Mi, 2. Aug	MESZ	—:—:~:~	–	Mond stört		21:27	05:45	03:03	59m	04:02	46m	04:49	39m	05:28	15h 00m	20:29	38m	21:08	46m	21:54	58m	22:53	9h 00m	4h 12m				Mi, 2. Aug
Do, 3. Aug	MESZ	—:~:~:~	–	Mond stört		21:49	07:16	03:05	58m	04:04	46m	04:50	39m	05:29	14h 57m	20:27	38m	21:06	46m	21:52	57m	22:50	9h 03m	4h 18m				Do, 3. Aug
Fr, 4. Aug	MESZ	—:~:~:~	–	Mond stört		22:08	08:44	03:08	57m	04:06	46m	04:52	38m	05:31	14h 55m	20:26	38m	21:05	45m	21:50	56m	22:47	9h 06m	4h 23m				Fr, 4. Aug
Sa, 5. Aug	MESZ	—:~:~:~	–	Mond stört		22:25	10:08	03:11	56m	04:08	45m	04:53	38m	05:32	14h 52m	20:24	38m	21:03	45m	21:48	55m	22:44	9h 09m	4h 29m				Sa, 5. Aug
So, 6. Aug	MESZ	22:42–22:42	0m	AN <sub>+</sub> bis M <sub>7</sub>		22:42	11:29	03:13	56m	04:09	45m	04:55	38m	05:33	14h 49m	20:23	38m	21:01	45m	21:46	55m	22:42	9h 11m	4h 34m				So, 6. Aug
Mo, 7. Aug	MESZ	22:39–23:00	21m	AN <sub>+</sub> bis M <sub>7</sub>		23:00	12:49	03:16	55m	04:11	45m	04:57	38m	05:35	14h 46m	20:21	38m	20:59	44m	21:44	54m	22:39	9h 14m	4h 39m				Mo, 7. Aug
Di, 8. Aug	MESZ	22:36–23:22	45m	AN <sub>+</sub> bis M <sub>7</sub>	☾	23:22	14:07	03:19	54m	04:13	44m	04:58	38m	05:36	14h 43m	20:20	37m	20:58	44m	21:42	53m	22:36	9h 17m	4h 45m				Di, 8. Aug
Mi, 9. Aug	MESZ	22:33–23:48	1h 15m	AN <sub>+</sub> bis M <sub>7</sub>		23:48	15:23	03:21	53m	04:15	44m	05:00	37m	05:37	14h 40m	20:18	37m	20:56	44m	21:40	53m	22:33	9h 20m	4h 50m				Mi, 9. Aug
Do, 10. Aug	MESZ	22:30–00:23*	1h 52m	AN <sub>+</sub> bis M <sub>7</sub>		—:—	16:36	03:24	53m	04:17	44m	05:01	37m	05:39	14h 37m	20:16	37m	20:54	43m	21:38	52m	22:30	9h 23m	4h 55m				Do, 10. Aug
Fr, 11. Aug	MESZ	22:28–01:07*	2h 39m	AN <sub>+</sub> bis M <sub>7</sub>		00:23	17:41	03:26	52m	04:19	43m	05:03	37m	05:40	14h 34m	20:15	37m	20:52	43m	21:36	51m	22:28	9h 26m	5h 00m				Fr, 11. Aug
Sa, 12. Aug	MESZ	22:25–02:01*	3h 36m	AN <sub>+</sub> bis M <sub>7</sub>		01:07	18:35	03:29	51m	04:21	43m	05:04	37m	05:42	14h 31m	20:13	37m	20:50	43m	21:34	51m	22:25	9h 29m	5h 06m				Sa, 12. Aug
So, 13. Aug	MESZ	22:22–03:04*	4h 41m	AN <sub>+</sub> bis M <sub>7</sub>		02:01	19:18	03:31	51m	04:22	43m	05:06	37m	05:43	14h 28m	20:11	37m	20:48	43m	21:31	50m	22:22	9h 33m	5h 11m				So, 13. Aug
Mo, 14. Aug	MESZ	22:19–03:36*	5h 16m	AN <sub>+</sub> bis AN <sub>-</sub>		03:04	19:51	03:33	50m	04:24	43m	05:07	37m	05:44	14h 25m	20:09	36m	20:46	42m	21:29	50m	22:19	9h 36m	5h 16m				Mo, 14. Aug
Di, 15. Aug	MESZ	22:17–03:38*	5h 21m	AN <sub>+</sub> bis AN <sub>-</sub>		04:11	20:16	03:36	50m	04:26	42m	05:09	36m	05:46	14h 22m	20:08	36m	20:44	42m	21:27	49m	22:17	9h 39m	5h 21m				Di, 15. Aug
Mi, 16. Aug	MESZ	22:14–03:41*	5h 26m	AN <sub>+</sub> bis AN <sub>-</sub>	☾	05:20	20:36	03:38	49m	04:28	42m	05:10	36m	05:47	14h 18m	20:06	36m	20:43	42m	21:25	49m	22:14	9h 42m	5h 26m				Mi, 16. Aug
Do, 17. Aug	MESZ	22:11–03:43*	5h 31m	AN <sub>+</sub> bis AN <sub>-</sub>		06:29	20:52	03:41	49m	04:30	42m	05:12	36m	05:48	14h 15m	20:04	36m	20:41	41m	21:23	48m	22:11	9h 45m	5h 31m				Do, 17. Aug
Fr, 18. Aug	MESZ	22:08–03:45*	5h 36m	AN <sub>+</sub> bis AN <sub>-</sub>		07:36	21:06	03:43	48m	04:31	41m	05:13	36m	05:50	14h 12m	20:02	36m	20:39	41m	21:20	48m	22:08	9h 48m	5h 36m				Fr, 18. Aug
Sa, 19. Aug	MESZ	22:06–03:47*	5h 41m	AN <sub>+</sub> bis AN <sub>-</sub>		08:43	21:19	03:45	48m	04:33	41m	05:15	36m	05:51	14h 09m	20:00	36m	20:37	41m	21:18	47m	22:06	9h 52m	5h 41m				Sa, 19. Aug
So, 20. Aug	MESZ	22:03–03:50*	5h 46m	AN <sub>+</sub> bis AN <sub>-</sub>		09:50	21:32	03:47	47m	04:35	41m	05:16	36m	05:53	14h 06m	19:59	35m	20:35	41m	21:16	47m	22:03	9h 55m	5h 46m				So, 20. Aug
Mo, 21. Aug	MESZ	22:00–03:52*	5h 51m	AN <sub>+</sub> bis AN <sub>-</sub>		10:58	21:47	03:50	47m	04:37	41m	05:18	35m	05:54	14h 02m	19:57	35m	20:33	40m	21:14	46m	22:00	9h 58m	5h 51m				Mo, 21. Aug
Di, 22. Aug	MESZ	22:04–03:54*	5h 50m	M <sub>\</sub> bis AN <sub>-</sub>		12:09	22:04	03:52	46m	04:39	40m	05:20	35m	05:55	13h 59m	19:55	35m	20:31	40m	21:11	46m	21:58	10h 01m	5h 56m				Di, 22. Aug
Mi, 23. Aug	MESZ	22:25–03:56*	5h 30m	M <sub>\</sub> bis AN <sub>-</sub>		13:23	22:25	03:54	46m	04:40	40m	05:21	35m	05:57	13h 56m	19:53	35m	20:29	40m	21:09	45m	21:55	10h 05m	6h 01m				Mi, 23. Aug
Do, 24. Aug	MESZ	22:54–03:58*	5h 04m	M <sub>\</sub> bis AN <sub>-</sub>	☾	14:40	22:54	03:56	45m	04:42	40m	05:23	35m	05:58	13h 52m	19:51	35m	20:26	40m	21:07	45m	21:52	10h 08m	6h 06m				Do, 24. Aug
Fr, 25. Aug	MESZ	23:34–04:01*	4h 26m	M <sub>\</sub> bis AN <sub>-</sub>		15:57	23:34	03:58	45m	04:44	40m	05:24	35m	06:00	13h 49m	19:49	35m	20:24	40m	21:04	44m	21:49	10h 11m	6h 11m				Fr, 25. Aug
Sa, 26. Aug	MESZ	00:30*–04:03*	3h 32m	M <sub>\</sub> bis AN <sub>-</sub>		17:08	—:—	04:01	45m	04:46	40m	05:26	35m	06:01	13h 46m	19:47	35m	20:22	39m	21:02	44m	21:47	10h 15m	6h 15m				Sa, 26. Aug
So, 27. Aug	MESZ	01:43*–04:05*	2h 21m	M <sub>\</sub> bis AN <sub>-</sub>		18:07	00:30	04:03	44m	04:47	39m	05:27	35m	06:02	13h 42m	19:45	35m	20:20	39m	21:00	44m	21:44	10h 18m	6h 20m				So, 27. Aug
Mo, 28. Aug	MESZ	03:09*–04:07*	58m	M <sub>\</sub> bis AN <sub>-</sub>		18:52	01:43	04:05	44m	04:49	39m	05:29	35m	06:04	13h 39m	19:43	34m	20:18	39m	20:58	43m	21:41	10h 21m	6h 25m				Mo, 28. Aug
Di, 29. Aug	MESZ	—:~:~:~	–	Mond stört		19:25	03:09	04:07	43m	04:51	39m	05:30	34m	06:05	13h 36m	19:41	34m	20:16	39m	20:55	43m	21:39	10h 25m	6h 29m				Di, 29. Aug
Mi, 30. Aug	MESZ	—:~:~:~	–	Mond stört		19:50	04:40	04:09	43m	04:52	39m	05:32	34m	06:06	13h 32m	19:39	34m	20:14	39m	20:53	43m	21:36	10h 28m	6h 34m				

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

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



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