

# Mond- und Dämmerungstabelle 2023

für die visuelle Deep-Sky-Beobachtung

Memmingen 47.9878° N 10.1811° 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.





Table with 29 columns (Days 1-29) and 26 rows of astronomical data. Columns include day number, time zone (MESZ), astronomical darkness, moon phase, dawn/dusk times, and solar times. Rows are labeled with days of the week and months (e.g., Di, 11. Apr to Di, 30. Mai).





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

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

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



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