

Sun

Satun

Location: E 99°51'28.8", N 6°41'38.4", 0m
(Longitude referred to Greenwich meridian)

Time Zone: 7h 00m east of Greenwich

Date (Zone)			Begin Nautical Twilight	Rise	Az.	Transit	Alt.	Set	Az.	End Nautical Twilight
			h m	h m	°	h m	°	h m	°	h m
2024	Jan	01 (Mon)	05:43	06:31	113	12:24	61S	18:16	247	19:05
2024	Jan	02 (Tue)	05:43	06:32	113	12:24	61S	18:17	247	19:05
2024	Jan	03 (Wed)	05:44	06:32	113	12:25	61S	18:17	247	19:06
2024	Jan	04 (Thu)	05:44	06:33	113	12:25	61S	18:18	247	19:06
2024	Jan	05 (Fri)	05:45	06:33	113	12:26	61S	18:18	247	19:07
2024	Jan	06 (Sat)	05:45	06:34	113	12:26	61S	18:19	247	19:07
2024	Jan	07 (Sun)	05:45	06:34	113	12:27	62S	18:19	248	19:08
2024	Jan	08 (Mon)	05:46	06:34	112	12:27	62S	18:20	248	19:08
2024	Jan	09 (Tue)	05:46	06:35	112	12:27	62S	18:20	248	19:09
2024	Jan	10 (Wed)	05:47	06:35	112	12:28	62S	18:21	248	19:09
2024	Jan	11 (Thu)	05:47	06:35	112	12:28	62S	18:21	248	19:09
2024	Jan	12 (Fri)	05:47	06:36	112	12:29	62S	18:22	248	19:10
2024	Jan	13 (Sat)	05:48	06:36	112	12:29	62S	18:22	248	19:10
2024	Jan	14 (Sun)	05:48	06:36	111	12:29	63S	18:23	249	19:11
2024	Jan	15 (Mon)	05:48	06:36	111	12:30	63S	18:23	249	19:11
2024	Jan	16 (Tue)	05:49	06:37	111	12:30	63S	18:23	249	19:11
2024	Jan	17 (Wed)	05:49	06:37	111	12:30	63S	18:24	249	19:12
2024	Jan	18 (Thu)	05:49	06:37	111	12:31	63S	18:24	249	19:12
2024	Jan	19 (Fri)	05:50	06:37	111	12:31	64S	18:25	250	19:13
2024	Jan	20 (Sat)	05:50	06:38	110	12:31	64S	18:25	250	19:13
2024	Jan	21 (Sun)	05:50	06:38	110	12:32	64S	18:26	250	19:13
2024	Jan	22 (Mon)	05:50	06:38	110	12:32	64S	18:26	250	19:14
2024	Jan	23 (Tue)	05:51	06:38	110	12:32	64S	18:26	250	19:14
2024	Jan	24 (Wed)	05:51	06:38	109	12:32	65S	18:27	251	19:14
2024	Jan	25 (Thu)	05:51	06:38	109	12:33	65S	18:27	251	19:14
2024	Jan	26 (Fri)	05:51	06:39	109	12:33	65S	18:27	251	19:15
2024	Jan	27 (Sat)	05:51	06:39	109	12:33	65S	18:28	251	19:15
2024	Jan	28 (Sun)	05:51	06:39	108	12:33	66S	18:28	252	19:15
2024	Jan	29 (Mon)	05:52	06:39	108	12:34	66S	18:28	252	19:16
2024	Jan	30 (Tue)	05:52	06:39	108	12:34	66S	18:29	252	19:16
2024	Jan	31 (Wed)	05:52	06:39	108	12:34	66S	18:29	253	19:16
2024	Feb	01 (Thu)	05:52	06:39	107	12:34	67S	18:29	253	19:16
2024	Feb	02 (Fri)	05:52	06:39	107	12:34	67S	18:30	253	19:16
2024	Feb	03 (Sat)	05:52	06:39	107	12:34	67S	18:30	253	19:17
2024	Feb	04 (Sun)	05:52	06:39	106	12:34	68S	18:30	254	19:17
2024	Feb	05 (Mon)	05:52	06:39	106	12:34	68S	18:30	254	19:17
2024	Feb	06 (Tue)	05:52	06:39	106	12:35	68S	18:31	254	19:17
2024	Feb	07 (Wed)	05:52	06:39	106	12:35	69S	18:31	255	19:17
2024	Feb	08 (Thu)	05:52	06:39	105	12:35	69S	18:31	255	19:17
2024	Feb	09 (Fri)	05:52	06:38	105	12:35	69S	18:31	255	19:18
2024	Feb	10 (Sat)	05:52	06:38	105	12:35	70S	18:31	256	19:18
2024	Feb	11 (Sun)	05:52	06:38	104	12:35	70S	18:31	256	19:18
2024	Feb	12 (Mon)	05:52	06:38	104	12:35	70S	18:32	256	19:18
2024	Feb	13 (Tue)	05:52	06:38	104	12:35	70S	18:32	257	19:18
2024	Feb	14 (Wed)	05:52	06:38	103	12:35	71S	18:32	257	19:18
2024	Feb	15 (Thu)	05:51	06:37	103	12:35	71S	18:32	257	19:18
2024	Feb	16 (Fri)	05:51	06:37	103	12:35	72S	18:32	258	19:18
2024	Feb	17 (Sat)	05:51	06:37	102	12:35	72S	18:32	258	19:18
2024	Feb	18 (Sun)	05:51	06:37	102	12:35	72S	18:32	258	19:18
2024	Feb	19 (Mon)	05:51	06:37	102	12:34	73S	18:32	259	19:18
2024	Feb	20 (Tue)	05:51	06:36	101	12:34	73S	18:33	259	19:18
2024	Feb	21 (Wed)	05:50	06:36	101	12:34	73S	18:33	259	19:18
2024	Feb	22 (Thu)	05:50	06:36	100	12:34	74S	18:33	260	19:18
2024	Feb	23 (Fri)	05:50	06:35	100	12:34	74S	18:33	260	19:18
2024	Feb	24 (Sat)	05:50	06:35	100	12:34	74S	18:33	260	19:18
2024	Feb	25 (Sun)	05:49	06:35	99	12:34	75S	18:33	261	19:18
2024	Feb	26 (Mon)	05:49	06:34	99	12:34	75S	18:33	261	19:18
2024	Feb	27 (Tue)	05:49	06:34	99	12:33	75S	18:33	262	19:18
2024	Feb	28 (Wed)	05:48	06:34	98	12:33	76S	18:33	262	19:18
2024	Feb	29 (Thu)	05:48	06:33	98	12:33	76S	18:33	262	19:18

2024	Mar	01	(Fri)	05:48	06:33	97	12:33	77S	18:33	263	19:18
2024	Mar	02	(Sat)	05:47	06:33	97	12:33	77S	18:33	263	19:18
2024	Mar	03	(Sun)	05:47	06:32	97	12:32	77S	18:33	264	19:18
2024	Mar	04	(Mon)	05:47	06:32	96	12:32	78S	18:33	264	19:18
2024	Mar	05	(Tue)	05:46	06:31	96	12:32	78S	18:33	264	19:18
2024	Mar	06	(Wed)	05:46	06:31	96	12:32	79S	18:33	265	19:18
2024	Mar	07	(Thu)	05:46	06:31	95	12:32	79S	18:32	265	19:18
2024	Mar	08	(Fri)	05:45	06:30	95	12:31	79S	18:32	265	19:17
2024	Mar	09	(Sat)	05:45	06:30	94	12:31	80S	18:32	266	19:17
2024	Mar	10	(Sun)	05:44	06:29	94	12:31	80S	18:32	266	19:17
2024	Mar	11	(Mon)	05:44	06:29	94	12:31	80S	18:32	267	19:17
2024	Mar	12	(Tue)	05:43	06:28	93	12:30	81S	18:32	267	19:17
2024	Mar	13	(Wed)	05:43	06:28	93	12:30	81S	18:32	267	19:17
2024	Mar	14	(Thu)	05:43	06:28	92	12:30	82S	18:32	268	19:17
2024	Mar	15	(Fri)	05:42	06:27	92	12:29	82S	18:32	268	19:17
2024	Mar	16	(Sat)	05:42	06:27	92	12:29	82S	18:32	269	19:17
2024	Mar	17	(Sun)	05:41	06:26	91	12:29	83S	18:32	269	19:17
2024	Mar	18	(Mon)	05:41	06:26	91	12:29	83S	18:32	269	19:16
2024	Mar	19	(Tue)	05:40	06:25	90	12:28	84S	18:31	270	19:16
2024	Mar	20	(Wed)	05:40	06:25	90	12:28	84S	18:31	270	19:16
2024	Mar	21	(Thu)	05:39	06:24	90	12:28	84S	18:31	271	19:16
2024	Mar	22	(Fri)	05:39	06:24	89	12:27	85S	18:31	271	19:16
2024	Mar	23	(Sat)	05:38	06:23	89	12:27	85S	18:31	271	19:16
2024	Mar	24	(Sun)	05:38	06:23	88	12:27	86S	18:31	272	19:16
2024	Mar	25	(Mon)	05:37	06:22	88	12:26	86S	18:31	272	19:16
2024	Mar	26	(Tue)	05:37	06:22	88	12:26	86S	18:31	273	19:16
2024	Mar	27	(Wed)	05:36	06:21	87	12:26	87S	18:30	273	19:16
2024	Mar	28	(Thu)	05:36	06:21	87	12:26	87S	18:30	273	19:15
2024	Mar	29	(Fri)	05:35	06:20	86	12:25	88S	18:30	274	19:15
2024	Mar	30	(Sat)	05:35	06:20	86	12:25	88S	18:30	274	19:15
2024	Mar	31	(Sun)	05:34	06:19	86	12:25	88S	18:30	275	19:15
2024	Apr	01	(Mon)	05:34	06:19	85	12:24	89S	18:30	275	19:15
2024	Apr	02	(Tue)	05:33	06:18	85	12:24	89S	18:30	275	19:15
2024	Apr	03	(Wed)	05:33	06:18	84	12:24	90S	18:30	276	19:15
2024	Apr	04	(Thu)	05:32	06:17	84	12:23	90S	18:30	276	19:15
2024	Apr	05	(Fri)	05:32	06:17	84	12:23	90S	18:29	277	19:15
2024	Apr	06	(Sat)	05:31	06:17	83	12:23	91S	18:29	277	19:15
2024	Apr	07	(Sun)	05:31	06:16	83	12:23	90N	18:29	277	19:15
2024	Apr	08	(Mon)	05:30	06:16	83	12:22	90N	18:29	278	19:15
2024	Apr	09	(Tue)	05:30	06:15	82	12:22	90N	18:29	278	19:15
2024	Apr	10	(Wed)	05:29	06:15	82	12:22	89N	18:29	278	19:15
2024	Apr	11	(Thu)	05:29	06:14	81	12:22	89N	18:29	279	19:15
2024	Apr	12	(Fri)	05:28	06:14	81	12:21	89N	18:29	279	19:15
2024	Apr	13	(Sat)	05:28	06:13	81	12:21	88N	18:29	279	19:14
2024	Apr	14	(Sun)	05:27	06:13	80	12:21	88N	18:29	280	19:14
2024	Apr	15	(Mon)	05:27	06:13	80	12:21	87N	18:29	280	19:14
2024	Apr	16	(Tue)	05:26	06:12	80	12:20	87N	18:29	281	19:14
2024	Apr	17	(Wed)	05:26	06:12	79	12:20	87N	18:29	281	19:14
2024	Apr	18	(Thu)	05:25	06:11	79	12:20	86N	18:28	281	19:14
2024	Apr	19	(Fri)	05:25	06:11	79	12:20	86N	18:28	282	19:14
2024	Apr	20	(Sat)	05:24	06:11	78	12:19	86N	18:28	282	19:15
2024	Apr	21	(Sun)	05:24	06:10	78	12:19	85N	18:28	282	19:15
2024	Apr	22	(Mon)	05:24	06:10	78	12:19	85N	18:28	283	19:15
2024	Apr	23	(Tue)	05:23	06:09	77	12:19	85N	18:28	283	19:15
2024	Apr	24	(Wed)	05:23	06:09	77	12:19	84N	18:28	283	19:15
2024	Apr	25	(Thu)	05:22	06:09	77	12:18	84N	18:28	284	19:15
2024	Apr	26	(Fri)	05:22	06:08	76	12:18	84N	18:28	284	19:15
2024	Apr	27	(Sat)	05:22	06:08	76	12:18	83N	18:28	284	19:15
2024	Apr	28	(Sun)	05:21	06:08	76	12:18	83N	18:28	285	19:15
2024	Apr	29	(Mon)	05:21	06:07	75	12:18	83N	18:28	285	19:15
2024	Apr	30	(Tue)	05:20	06:07	75	12:18	82N	18:28	285	19:15
2024	May	01	(Wed)	05:20	06:07	75	12:18	82N	18:28	286	19:15
2024	May	02	(Thu)	05:20	06:07	74	12:18	82N	18:28	286	19:15
2024	May	03	(Fri)	05:19	06:06	74	12:17	82N	18:29	286	19:16
2024	May	04	(Sat)	05:19	06:06	74	12:17	81N	18:29	286	19:16
2024	May	05	(Sun)	05:19	06:06	73	12:17	81N	18:29	287	19:16
2024	May	06	(Mon)	05:18	06:06	73	12:17	81N	18:29	287	19:16
2024	May	07	(Tue)	05:18	06:05	73	12:17	80N	18:29	287	19:16
2024	May	08	(Wed)	05:18	06:05	73	12:17	80N	18:29	288	19:16
2024	May	09	(Thu)	05:18	06:05	72	12:17	80N	18:29	288	19:16
2024	May	10	(Fri)	05:17	06:05	72	12:17	80N	18:29	288	19:17
2024	May	11	(Sat)	05:17	06:05	72	12:17	79N	18:29	288	19:17

2024	May	12	(Sun)	05:17	06:05	72	12:17	79N	18:29	289	19:17
2024	May	13	(Mon)	05:17	06:04	71	12:17	79N	18:29	289	19:17
2024	May	14	(Tue)	05:16	06:04	71	12:17	79N	18:30	289	19:17
2024	May	15	(Wed)	05:16	06:04	71	12:17	78N	18:30	289	19:18
2024	May	16	(Thu)	05:16	06:04	71	12:17	78N	18:30	290	19:18
2024	May	17	(Fri)	05:16	06:04	70	12:17	78N	18:30	290	19:18
2024	May	18	(Sat)	05:16	06:04	70	12:17	78N	18:30	290	19:18
2024	May	19	(Sun)	05:16	06:04	70	12:17	78N	18:30	290	19:19
2024	May	20	(Mon)	05:16	06:04	70	12:17	77N	18:31	290	19:19
2024	May	21	(Tue)	05:15	06:04	70	12:17	77N	18:31	291	19:19
2024	May	22	(Wed)	05:15	06:04	69	12:17	77N	18:31	291	19:19
2024	May	23	(Thu)	05:15	06:04	69	12:17	77N	18:31	291	19:20
2024	May	24	(Fri)	05:15	06:04	69	12:17	77N	18:31	291	19:20
2024	May	25	(Sat)	05:15	06:04	69	12:18	76N	18:32	291	19:20
2024	May	26	(Sun)	05:15	06:04	69	12:18	76N	18:32	292	19:20
2024	May	27	(Mon)	05:15	06:04	68	12:18	76N	18:32	292	19:21
2024	May	28	(Tue)	05:15	06:04	68	12:18	76N	18:32	292	19:21
2024	May	29	(Wed)	05:15	06:04	68	12:18	76N	18:32	292	19:21
2024	May	30	(Thu)	05:15	06:04	68	12:18	76N	18:33	292	19:21
2024	May	31	(Fri)	05:15	06:04	68	12:18	75N	18:33	292	19:22
2024	Jun	01	(Sat)	05:15	06:04	68	12:18	75N	18:33	292	19:22
2024	Jun	02	(Sun)	05:15	06:04	68	12:19	75N	18:33	293	19:22
2024	Jun	03	(Mon)	05:15	06:04	67	12:19	75N	18:34	293	19:23
2024	Jun	04	(Tue)	05:15	06:04	67	12:19	75N	18:34	293	19:23
2024	Jun	05	(Wed)	05:15	06:04	67	12:19	75N	18:34	293	19:23
2024	Jun	06	(Thu)	05:15	06:04	67	12:19	75N	18:34	293	19:23
2024	Jun	07	(Fri)	05:15	06:05	67	12:20	75N	18:34	293	19:24
2024	Jun	08	(Sat)	05:15	06:05	67	12:20	75N	18:35	293	19:24
2024	Jun	09	(Sun)	05:16	06:05	67	12:20	74N	18:35	293	19:24
2024	Jun	10	(Mon)	05:16	06:05	67	12:20	74N	18:35	293	19:25
2024	Jun	11	(Tue)	05:16	06:05	67	12:20	74N	18:35	293	19:25
2024	Jun	12	(Wed)	05:16	06:05	67	12:21	74N	18:36	293	19:25
2024	Jun	13	(Thu)	05:16	06:05	66	12:21	74N	18:36	294	19:25
2024	Jun	14	(Fri)	05:16	06:06	66	12:21	74N	18:36	294	19:26
2024	Jun	15	(Sat)	05:16	06:06	66	12:21	74N	18:36	294	19:26
2024	Jun	16	(Sun)	05:17	06:06	66	12:21	74N	18:37	294	19:26
2024	Jun	17	(Mon)	05:17	06:06	66	12:22	74N	18:37	294	19:26
2024	Jun	18	(Tue)	05:17	06:06	66	12:22	74N	18:37	294	19:27
2024	Jun	19	(Wed)	05:17	06:07	66	12:22	74N	18:37	294	19:27
2024	Jun	20	(Thu)	05:17	06:07	66	12:22	74N	18:38	294	19:27
2024	Jun	21	(Fri)	05:18	06:07	66	12:22	74N	18:38	294	19:27
2024	Jun	22	(Sat)	05:18	06:07	66	12:23	74N	18:38	294	19:28
2024	Jun	23	(Sun)	05:18	06:08	66	12:23	74N	18:38	294	19:28
2024	Jun	24	(Mon)	05:18	06:08	66	12:23	74N	18:38	294	19:28
2024	Jun	25	(Tue)	05:18	06:08	66	12:23	74N	18:39	294	19:28
2024	Jun	26	(Wed)	05:19	06:08	66	12:24	74N	18:39	294	19:28
2024	Jun	27	(Thu)	05:19	06:08	66	12:24	74N	18:39	294	19:28
2024	Jun	28	(Fri)	05:19	06:09	66	12:24	74N	18:39	294	19:29
2024	Jun	29	(Sat)	05:19	06:09	67	12:24	74N	18:39	293	19:29
2024	Jun	30	(Sun)	05:20	06:09	67	12:24	74N	18:39	293	19:29
2024	Jul	01	(Mon)	05:20	06:09	67	12:25	74N	18:40	293	19:29
2024	Jul	02	(Tue)	05:20	06:10	67	12:25	74N	18:40	293	19:29
2024	Jul	03	(Wed)	05:21	06:10	67	12:25	74N	18:40	293	19:29
2024	Jul	04	(Thu)	05:21	06:10	67	12:25	75N	18:40	293	19:29
2024	Jul	05	(Fri)	05:21	06:10	67	12:25	75N	18:40	293	19:29
2024	Jul	06	(Sat)	05:21	06:11	67	12:25	75N	18:40	293	19:29
2024	Jul	07	(Sun)	05:22	06:11	67	12:26	75N	18:40	293	19:29
2024	Jul	08	(Mon)	05:22	06:11	67	12:26	75N	18:40	293	19:30
2024	Jul	09	(Tue)	05:22	06:11	67	12:26	75N	18:41	293	19:30
2024	Jul	10	(Wed)	05:22	06:11	68	12:26	75N	18:41	292	19:30
2024	Jul	11	(Thu)	05:23	06:12	68	12:26	75N	18:41	292	19:30
2024	Jul	12	(Fri)	05:23	06:12	68	12:26	76N	18:41	292	19:30
2024	Jul	13	(Sat)	05:23	06:12	68	12:26	76N	18:41	292	19:30
2024	Jul	14	(Sun)	05:23	06:12	68	12:27	76N	18:41	292	19:30
2024	Jul	15	(Mon)	05:24	06:12	68	12:27	76N	18:41	292	19:29
2024	Jul	16	(Tue)	05:24	06:13	68	12:27	76N	18:41	291	19:29
2024	Jul	17	(Wed)	05:24	06:13	69	12:27	76N	18:41	291	19:29
2024	Jul	18	(Thu)	05:24	06:13	69	12:27	76N	18:41	291	19:29
2024	Jul	19	(Fri)	05:25	06:13	69	12:27	77N	18:41	291	19:29
2024	Jul	20	(Sat)	05:25	06:13	69	12:27	77N	18:41	291	19:29
2024	Jul	21	(Sun)	05:25	06:13	69	12:27	77N	18:41	291	19:29
2024	Jul	22	(Mon)	05:25	06:14	70	12:27	77N	18:40	290	19:29

2024	Jul	23	(Tue)	05:25	06:14	70	12:27	77N	18:40	290	19:29
2024	Jul	24	(Wed)	05:26	06:14	70	12:27	78N	18:40	290	19:28
2024	Jul	25	(Thu)	05:26	06:14	70	12:27	78N	18:40	290	19:28
2024	Jul	26	(Fri)	05:26	06:14	70	12:27	78N	18:40	290	19:28
2024	Jul	27	(Sat)	05:26	06:14	71	12:27	78N	18:40	289	19:28
2024	Jul	28	(Sun)	05:26	06:14	71	12:27	79N	18:40	289	19:28
2024	Jul	29	(Mon)	05:27	06:14	71	12:27	79N	18:40	289	19:27
2024	Jul	30	(Tue)	05:27	06:15	71	12:27	79N	18:39	289	19:27
2024	Jul	31	(Wed)	05:27	06:15	72	12:27	79N	18:39	288	19:27
2024	Aug	01	(Thu)	05:27	06:15	72	12:27	80N	18:39	288	19:27
2024	Aug	02	(Fri)	05:27	06:15	72	12:27	80N	18:39	288	19:26
2024	Aug	03	(Sat)	05:27	06:15	72	12:27	80N	18:39	288	19:26
2024	Aug	04	(Sun)	05:28	06:15	73	12:27	80N	18:38	287	19:26
2024	Aug	05	(Mon)	05:28	06:15	73	12:27	81N	18:38	287	19:25
2024	Aug	06	(Tue)	05:28	06:15	73	12:26	81N	18:38	287	19:25
2024	Aug	07	(Wed)	05:28	06:15	73	12:26	81N	18:38	286	19:25
2024	Aug	08	(Thu)	05:28	06:15	74	12:26	81N	18:37	286	19:24
2024	Aug	09	(Fri)	05:28	06:15	74	12:26	82N	18:37	286	19:24
2024	Aug	10	(Sat)	05:28	06:15	74	12:26	82N	18:37	286	19:24
2024	Aug	11	(Sun)	05:28	06:15	75	12:26	82N	18:36	285	19:23
2024	Aug	12	(Mon)	05:28	06:15	75	12:26	83N	18:36	285	19:23
2024	Aug	13	(Tue)	05:28	06:15	75	12:25	83N	18:36	285	19:22
2024	Aug	14	(Wed)	05:28	06:15	76	12:25	83N	18:35	284	19:22
2024	Aug	15	(Thu)	05:28	06:15	76	12:25	84N	18:35	284	19:22
2024	Aug	16	(Fri)	05:28	06:15	76	12:25	84N	18:35	284	19:21
2024	Aug	17	(Sat)	05:28	06:15	76	12:25	84N	18:34	283	19:21
2024	Aug	18	(Sun)	05:28	06:15	77	12:24	84N	18:34	283	19:20
2024	Aug	19	(Mon)	05:28	06:15	77	12:24	85N	18:33	283	19:20
2024	Aug	20	(Tue)	05:28	06:15	77	12:24	85N	18:33	282	19:19
2024	Aug	21	(Wed)	05:28	06:15	78	12:24	85N	18:33	282	19:19
2024	Aug	22	(Thu)	05:28	06:15	78	12:23	86N	18:32	282	19:18
2024	Aug	23	(Fri)	05:28	06:14	78	12:23	86N	18:32	281	19:18
2024	Aug	24	(Sat)	05:28	06:14	79	12:23	86N	18:31	281	19:17
2024	Aug	25	(Sun)	05:28	06:14	79	12:23	87N	18:31	281	19:17
2024	Aug	26	(Mon)	05:28	06:14	80	12:22	87N	18:30	280	19:16
2024	Aug	27	(Tue)	05:28	06:14	80	12:22	88N	18:30	280	19:16
2024	Aug	28	(Wed)	05:28	06:14	80	12:22	88N	18:30	280	19:15
2024	Aug	29	(Thu)	05:28	06:14	81	12:21	88N	18:29	279	19:15
2024	Aug	30	(Fri)	05:28	06:14	81	12:21	89N	18:29	279	19:14
2024	Aug	31	(Sat)	05:28	06:13	81	12:21	89N	18:28	279	19:14
2024	Sep	01	(Sun)	05:28	06:13	82	12:21	89N	18:28	278	19:13
2024	Sep	02	(Mon)	05:28	06:13	82	12:20	90N	18:27	278	19:13
2024	Sep	03	(Tue)	05:28	06:13	82	12:20	90N	18:27	277	19:12
2024	Sep	04	(Wed)	05:27	06:13	83	12:20	90N	18:26	277	19:11
2024	Sep	05	(Thu)	05:27	06:13	83	12:19	91S	18:26	277	19:11
2024	Sep	06	(Fri)	05:27	06:13	84	12:19	90S	18:25	276	19:10
2024	Sep	07	(Sat)	05:27	06:12	84	12:19	90S	18:25	276	19:10
2024	Sep	08	(Sun)	05:27	06:12	84	12:18	90S	18:24	276	19:09
2024	Sep	09	(Mon)	05:27	06:12	85	12:18	89S	18:23	275	19:09
2024	Sep	10	(Tue)	05:27	06:12	85	12:17	89S	18:23	275	19:08
2024	Sep	11	(Wed)	05:27	06:12	85	12:17	88S	18:22	274	19:08
2024	Sep	12	(Thu)	05:26	06:12	86	12:17	88S	18:22	274	19:07
2024	Sep	13	(Fri)	05:26	06:11	86	12:16	88S	18:21	274	19:06
2024	Sep	14	(Sat)	05:26	06:11	87	12:16	87S	18:21	273	19:06
2024	Sep	15	(Sun)	05:26	06:11	87	12:16	87S	18:20	273	19:05
2024	Sep	16	(Mon)	05:26	06:11	87	12:15	86S	18:20	272	19:05
2024	Sep	17	(Tue)	05:26	06:11	88	12:15	86S	18:19	272	19:04
2024	Sep	18	(Wed)	05:26	06:11	88	12:15	86S	18:19	272	19:04
2024	Sep	19	(Thu)	05:25	06:10	89	12:14	85S	18:18	271	19:03
2024	Sep	20	(Fri)	05:25	06:10	89	12:14	85S	18:18	271	19:03
2024	Sep	21	(Sat)	05:25	06:10	89	12:14	85S	18:17	271	19:02
2024	Sep	22	(Sun)	05:25	06:10	90	12:13	84S	18:16	270	19:01
2024	Sep	23	(Mon)	05:25	06:10	90	12:13	84S	18:16	270	19:01
2024	Sep	24	(Tue)	05:25	06:10	90	12:13	83S	18:15	269	19:00
2024	Sep	25	(Wed)	05:24	06:09	91	12:12	83S	18:15	269	19:00
2024	Sep	26	(Thu)	05:24	06:09	91	12:12	83S	18:14	269	18:59
2024	Sep	27	(Fri)	05:24	06:09	92	12:11	82S	18:14	268	18:59
2024	Sep	28	(Sat)	05:24	06:09	92	12:11	82S	18:13	268	18:58
2024	Sep	29	(Sun)	05:24	06:09	92	12:11	81S	18:13	267	18:58
2024	Sep	30	(Mon)	05:24	06:09	93	12:10	81S	18:12	267	18:57
2024	Oct	01	(Tue)	05:23	06:08	93	12:10	81S	18:12	267	18:57
2024	Oct	02	(Wed)	05:23	06:08	94	12:10	80S	18:11	266	18:56

2024	Oct	03	(Thu)	05:23	06:08	94	12:10	80S	18:11	266	18:56
2024	Oct	04	(Fri)	05:23	06:08	94	12:09	79S	18:10	265	18:55
2024	Oct	05	(Sat)	05:23	06:08	95	12:09	79S	18:10	265	18:55
2024	Oct	06	(Sun)	05:23	06:08	95	12:09	79S	18:09	265	18:54
2024	Oct	07	(Mon)	05:23	06:08	96	12:08	78S	18:09	264	18:54
2024	Oct	08	(Tue)	05:22	06:08	96	12:08	78S	18:08	264	18:54
2024	Oct	09	(Wed)	05:22	06:07	96	12:08	78S	18:08	264	18:53
2024	Oct	10	(Thu)	05:22	06:07	97	12:08	77S	18:08	263	18:53
2024	Oct	11	(Fri)	05:22	06:07	97	12:07	77S	18:07	263	18:52
2024	Oct	12	(Sat)	05:22	06:07	97	12:07	76S	18:07	262	18:52
2024	Oct	13	(Sun)	05:22	06:07	98	12:07	76S	18:06	262	18:52
2024	Oct	14	(Mon)	05:22	06:07	98	12:07	76S	18:06	262	18:51
2024	Oct	15	(Tue)	05:22	06:07	99	12:06	75S	18:05	261	18:51
2024	Oct	16	(Wed)	05:22	06:07	99	12:06	75S	18:05	261	18:51
2024	Oct	17	(Thu)	05:21	06:07	99	12:06	75S	18:05	261	18:50
2024	Oct	18	(Fri)	05:21	06:07	100	12:06	74S	18:04	260	18:50
2024	Oct	19	(Sat)	05:21	06:07	100	12:05	74S	18:04	260	18:50
2024	Oct	20	(Sun)	05:21	06:07	100	12:05	74S	18:04	259	18:49
2024	Oct	21	(Mon)	05:21	06:07	101	12:05	73S	18:03	259	18:49
2024	Oct	22	(Tue)	05:21	06:07	101	12:05	73S	18:03	259	18:49
2024	Oct	23	(Wed)	05:21	06:07	101	12:05	72S	18:03	258	18:49
2024	Oct	24	(Thu)	05:21	06:07	102	12:05	72S	18:02	258	18:48
2024	Oct	25	(Fri)	05:21	06:07	102	12:05	72S	18:02	258	18:48
2024	Oct	26	(Sat)	05:21	06:07	103	12:05	71S	18:02	257	18:48
2024	Oct	27	(Sun)	05:21	06:07	103	12:04	71S	18:02	257	18:48
2024	Oct	28	(Mon)	05:21	06:07	103	12:04	71S	18:01	257	18:47
2024	Oct	29	(Tue)	05:21	06:07	104	12:04	70S	18:01	256	18:47
2024	Oct	30	(Wed)	05:21	06:07	104	12:04	70S	18:01	256	18:47
2024	Oct	31	(Thu)	05:21	06:08	104	12:04	70S	18:01	256	18:47
2024	Nov	01	(Fri)	05:21	06:08	105	12:04	69S	18:01	255	18:47
2024	Nov	02	(Sat)	05:21	06:08	105	12:04	69S	18:00	255	18:47
2024	Nov	03	(Sun)	05:21	06:08	105	12:04	69S	18:00	255	18:47
2024	Nov	04	(Mon)	05:22	06:08	105	12:04	68S	18:00	254	18:47
2024	Nov	05	(Tue)	05:22	06:08	106	12:04	68S	18:00	254	18:47
2024	Nov	06	(Wed)	05:22	06:08	106	12:04	68S	18:00	254	18:47
2024	Nov	07	(Thu)	05:22	06:09	106	12:04	68S	18:00	253	18:47
2024	Nov	08	(Fri)	05:22	06:09	107	12:04	67S	18:00	253	18:47
2024	Nov	09	(Sat)	05:22	06:09	107	12:04	67S	18:00	253	18:47
2024	Nov	10	(Sun)	05:22	06:09	107	12:05	67S	18:00	253	18:47
2024	Nov	11	(Mon)	05:23	06:10	108	12:05	66S	18:00	252	18:47
2024	Nov	12	(Tue)	05:23	06:10	108	12:05	66S	18:00	252	18:47
2024	Nov	13	(Wed)	05:23	06:10	108	12:05	66S	18:00	252	18:47
2024	Nov	14	(Thu)	05:23	06:10	108	12:05	66S	18:00	252	18:47
2024	Nov	15	(Fri)	05:23	06:11	109	12:05	65S	18:00	251	18:47
2024	Nov	16	(Sat)	05:24	06:11	109	12:05	65S	18:00	251	18:47
2024	Nov	17	(Sun)	05:24	06:11	109	12:06	65S	18:00	251	18:47
2024	Nov	18	(Mon)	05:24	06:12	109	12:06	65S	18:00	251	18:47
2024	Nov	19	(Tue)	05:24	06:12	110	12:06	64S	18:00	250	18:48
2024	Nov	20	(Wed)	05:25	06:12	110	12:06	64S	18:00	250	18:48
2024	Nov	21	(Thu)	05:25	06:13	110	12:06	64S	18:00	250	18:48
2024	Nov	22	(Fri)	05:25	06:13	110	12:07	64S	18:00	250	18:48
2024	Nov	23	(Sat)	05:26	06:13	110	12:07	64S	18:01	249	18:48
2024	Nov	24	(Sun)	05:26	06:14	111	12:07	63S	18:01	249	18:49
2024	Nov	25	(Mon)	05:26	06:14	111	12:08	63S	18:01	249	18:49
2024	Nov	26	(Tue)	05:27	06:15	111	12:08	63S	18:01	249	18:49
2024	Nov	27	(Wed)	05:27	06:15	111	12:08	63S	18:01	249	18:50
2024	Nov	28	(Thu)	05:27	06:15	111	12:09	63S	18:02	249	18:50
2024	Nov	29	(Fri)	05:28	06:16	112	12:09	62S	18:02	248	18:50
2024	Nov	30	(Sat)	05:28	06:16	112	12:09	62S	18:02	248	18:51
2024	Dec	01	(Sun)	05:28	06:17	112	12:10	62S	18:03	248	18:51
2024	Dec	02	(Mon)	05:29	06:17	112	12:10	62S	18:03	248	18:51
2024	Dec	03	(Tue)	05:29	06:18	112	12:10	62S	18:03	248	18:52
2024	Dec	04	(Wed)	05:30	06:18	112	12:11	62S	18:04	248	18:52
2024	Dec	05	(Thu)	05:30	06:19	112	12:11	62S	18:04	247	18:52
2024	Dec	06	(Fri)	05:31	06:19	113	12:12	61S	18:04	247	18:53
2024	Dec	07	(Sat)	05:31	06:20	113	12:12	61S	18:05	247	18:53
2024	Dec	08	(Sun)	05:31	06:20	113	12:13	61S	18:05	247	18:54
2024	Dec	09	(Mon)	05:32	06:21	113	12:13	61S	18:05	247	18:54
2024	Dec	10	(Tue)	05:32	06:21	113	12:13	61S	18:06	247	18:54
2024	Dec	11	(Wed)	05:33	06:22	113	12:14	61S	18:06	247	18:55
2024	Dec	12	(Thu)	05:33	06:22	113	12:14	61S	18:07	247	18:55
2024	Dec	13	(Fri)	05:34	06:23	113	12:15	61S	18:07	247	18:56

2024	Dec 14	(Sat)	05:34	06:23	113	12:15	61S	18:08	247	18:56
2024	Dec 15	(Sun)	05:35	06:24	113	12:16	61S	18:08	247	18:57
2024	Dec 16	(Mon)	05:35	06:24	113	12:16	61S	18:08	247	18:57
2024	Dec 17	(Tue)	05:36	06:25	113	12:17	61S	18:09	247	18:58
2024	Dec 18	(Wed)	05:36	06:25	113	12:17	61S	18:09	247	18:58
2024	Dec 19	(Thu)	05:37	06:26	113	12:18	61S	18:10	247	18:59
2024	Dec 20	(Fri)	05:37	06:26	113	12:18	61S	18:10	246	18:59
2024	Dec 21	(Sat)	05:38	06:27	114	12:19	61S	18:11	246	19:00
2024	Dec 22	(Sun)	05:38	06:27	114	12:19	61S	18:11	246	19:00
2024	Dec 23	(Mon)	05:39	06:28	113	12:20	61S	18:12	247	19:01
2024	Dec 24	(Tue)	05:39	06:28	113	12:20	61S	18:12	247	19:01
2024	Dec 25	(Wed)	05:40	06:29	113	12:21	61S	18:13	247	19:02
2024	Dec 26	(Thu)	05:40	06:29	113	12:21	61S	18:13	247	19:02
2024	Dec 27	(Fri)	05:41	06:30	113	12:22	61S	18:14	247	19:03
2024	Dec 28	(Sat)	05:41	06:30	113	12:22	61S	18:14	247	19:03
2024	Dec 29	(Sun)	05:42	06:30	113	12:23	61S	18:15	247	19:04
2024	Dec 30	(Mon)	05:42	06:31	113	12:23	61S	18:15	247	19:04
2024	Dec 31	(Tue)	05:43	06:31	113	12:24	61S	18:16	247	19:05

Sun

Satun

Location: E 99°51'28.8", N 6°41'38.4", 0m
(Longitude referred to Greenwich meridian)

Time Zone: 7h 00m east of Greenwich

Date (Zone)	Begin Civil Twilight		Rise	Az.	Transit	Alt.	Set	Az.	End Civil Twilight	
	h	m	h	m	°	h	m	°	h	m
2024	Jan 01	(Mon)	06:09	06:31	113	12:24	61S	18:16	247	18:39
2024	Jan 02	(Tue)	06:09	06:32	113	12:24	61S	18:17	247	18:39
2024	Jan 03	(Wed)	06:10	06:32	113	12:25	61S	18:17	247	18:40
2024	Jan 04	(Thu)	06:10	06:33	113	12:25	61S	18:18	247	18:40
2024	Jan 05	(Fri)	06:11	06:33	113	12:26	61S	18:18	247	18:41
2024	Jan 06	(Sat)	06:11	06:34	113	12:26	61S	18:19	247	18:41
2024	Jan 07	(Sun)	06:11	06:34	113	12:27	62S	18:19	248	18:42
2024	Jan 08	(Mon)	06:12	06:34	112	12:27	62S	18:20	248	18:42
2024	Jan 09	(Tue)	06:12	06:35	112	12:27	62S	18:20	248	18:43
2024	Jan 10	(Wed)	06:13	06:35	112	12:28	62S	18:21	248	18:43
2024	Jan 11	(Thu)	06:13	06:35	112	12:28	62S	18:21	248	18:43
2024	Jan 12	(Fri)	06:13	06:36	112	12:29	62S	18:22	248	18:44
2024	Jan 13	(Sat)	06:14	06:36	112	12:29	62S	18:22	248	18:44
2024	Jan 14	(Sun)	06:14	06:36	111	12:29	63S	18:23	249	18:45
2024	Jan 15	(Mon)	06:14	06:36	111	12:30	63S	18:23	249	18:45
2024	Jan 16	(Tue)	06:14	06:37	111	12:30	63S	18:23	249	18:46
2024	Jan 17	(Wed)	06:15	06:37	111	12:30	63S	18:24	249	18:46
2024	Jan 18	(Thu)	06:15	06:37	111	12:31	63S	18:24	249	18:46
2024	Jan 19	(Fri)	06:15	06:37	111	12:31	64S	18:25	250	18:47
2024	Jan 20	(Sat)	06:16	06:38	110	12:31	64S	18:25	250	18:47
2024	Jan 21	(Sun)	06:16	06:38	110	12:32	64S	18:26	250	18:48
2024	Jan 22	(Mon)	06:16	06:38	110	12:32	64S	18:26	250	18:48
2024	Jan 23	(Tue)	06:16	06:38	110	12:32	64S	18:26	250	18:48
2024	Jan 24	(Wed)	06:16	06:38	109	12:32	65S	18:27	251	18:49
2024	Jan 25	(Thu)	06:16	06:38	109	12:33	65S	18:27	251	18:49
2024	Jan 26	(Fri)	06:17	06:39	109	12:33	65S	18:27	251	18:49
2024	Jan 27	(Sat)	06:17	06:39	109	12:33	65S	18:28	251	18:50
2024	Jan 28	(Sun)	06:17	06:39	108	12:33	66S	18:28	252	18:50
2024	Jan 29	(Mon)	06:17	06:39	108	12:34	66S	18:28	252	18:50
2024	Jan 30	(Tue)	06:17	06:39	108	12:34	66S	18:29	252	18:50
2024	Jan 31	(Wed)	06:17	06:39	108	12:34	66S	18:29	253	18:51
2024	Feb 01	(Thu)	06:17	06:39	107	12:34	67S	18:29	253	18:51
2024	Feb 02	(Fri)	06:17	06:39	107	12:34	67S	18:30	253	18:51
2024	Feb 03	(Sat)	06:17	06:39	107	12:34	67S	18:30	253	18:51
2024	Feb 04	(Sun)	06:17	06:39	106	12:34	68S	18:30	254	18:52
2024	Feb 05	(Mon)	06:17	06:39	106	12:34	68S	18:30	254	18:52
2024	Feb 06	(Tue)	06:17	06:39	106	12:35	68S	18:31	254	18:52
2024	Feb 07	(Wed)	06:17	06:39	106	12:35	69S	18:31	255	18:52
2024	Feb 08	(Thu)	06:17	06:39	105	12:35	69S	18:31	255	18:52
2024	Feb 09	(Fri)	06:17	06:38	105	12:35	69S	18:31	255	18:53
2024	Feb 10	(Sat)	06:17	06:38	105	12:35	70S	18:31	256	18:53

2024	Feb	11	(Sun)	06:17	06:38	104	12:35	70S	18:31	256	18:53
2024	Feb	12	(Mon)	06:17	06:38	104	12:35	70S	18:32	256	18:53
2024	Feb	13	(Tue)	06:16	06:38	104	12:35	70S	18:32	257	18:53
2024	Feb	14	(Wed)	06:16	06:38	103	12:35	71S	18:32	257	18:53
2024	Feb	15	(Thu)	06:16	06:37	103	12:35	71S	18:32	257	18:53
2024	Feb	16	(Fri)	06:16	06:37	103	12:35	72S	18:32	258	18:53
2024	Feb	17	(Sat)	06:16	06:37	102	12:35	72S	18:32	258	18:54
2024	Feb	18	(Sun)	06:16	06:37	102	12:35	72S	18:32	258	18:54
2024	Feb	19	(Mon)	06:15	06:37	102	12:34	73S	18:32	259	18:54
2024	Feb	20	(Tue)	06:15	06:36	101	12:34	73S	18:33	259	18:54
2024	Feb	21	(Wed)	06:15	06:36	101	12:34	73S	18:33	259	18:54
2024	Feb	22	(Thu)	06:15	06:36	100	12:34	74S	18:33	260	18:54
2024	Feb	23	(Fri)	06:14	06:35	100	12:34	74S	18:33	260	18:54
2024	Feb	24	(Sat)	06:14	06:35	100	12:34	74S	18:33	260	18:54
2024	Feb	25	(Sun)	06:14	06:35	99	12:34	75S	18:33	261	18:54
2024	Feb	26	(Mon)	06:13	06:34	99	12:34	75S	18:33	261	18:54
2024	Feb	27	(Tue)	06:13	06:34	99	12:33	75S	18:33	262	18:54
2024	Feb	28	(Wed)	06:13	06:34	98	12:33	76S	18:33	262	18:54
2024	Feb	29	(Thu)	06:12	06:33	98	12:33	76S	18:33	262	18:54
2024	Mar	01	(Fri)	06:12	06:33	97	12:33	77S	18:33	263	18:54
2024	Mar	02	(Sat)	06:12	06:33	97	12:33	77S	18:33	263	18:54
2024	Mar	03	(Sun)	06:11	06:32	97	12:32	77S	18:33	264	18:54
2024	Mar	04	(Mon)	06:11	06:32	96	12:32	78S	18:33	264	18:54
2024	Mar	05	(Tue)	06:11	06:31	96	12:32	78S	18:33	264	18:53
2024	Mar	06	(Wed)	06:10	06:31	96	12:32	79S	18:33	265	18:53
2024	Mar	07	(Thu)	06:10	06:31	95	12:32	79S	18:32	265	18:53
2024	Mar	08	(Fri)	06:09	06:30	95	12:31	79S	18:32	265	18:53
2024	Mar	09	(Sat)	06:09	06:30	94	12:31	80S	18:32	266	18:53
2024	Mar	10	(Sun)	06:09	06:29	94	12:31	80S	18:32	266	18:53
2024	Mar	11	(Mon)	06:08	06:29	94	12:31	80S	18:32	267	18:53
2024	Mar	12	(Tue)	06:08	06:28	93	12:30	81S	18:32	267	18:53
2024	Mar	13	(Wed)	06:07	06:28	93	12:30	81S	18:32	267	18:53
2024	Mar	14	(Thu)	06:07	06:28	92	12:30	82S	18:32	268	18:53
2024	Mar	15	(Fri)	06:06	06:27	92	12:29	82S	18:32	268	18:53
2024	Mar	16	(Sat)	06:06	06:27	92	12:29	82S	18:32	269	18:53
2024	Mar	17	(Sun)	06:05	06:26	91	12:29	83S	18:32	269	18:52
2024	Mar	18	(Mon)	06:05	06:26	91	12:29	83S	18:32	269	18:52
2024	Mar	19	(Tue)	06:04	06:25	90	12:28	84S	18:31	270	18:52
2024	Mar	20	(Wed)	06:04	06:25	90	12:28	84S	18:31	270	18:52
2024	Mar	21	(Thu)	06:03	06:24	90	12:28	84S	18:31	271	18:52
2024	Mar	22	(Fri)	06:03	06:24	89	12:27	85S	18:31	271	18:52
2024	Mar	23	(Sat)	06:02	06:23	89	12:27	85S	18:31	271	18:52
2024	Mar	24	(Sun)	06:02	06:23	88	12:27	86S	18:31	272	18:52
2024	Mar	25	(Mon)	06:01	06:22	88	12:26	86S	18:31	272	18:52
2024	Mar	26	(Tue)	06:01	06:22	88	12:26	86S	18:31	273	18:51
2024	Mar	27	(Wed)	06:00	06:21	87	12:26	87S	18:30	273	18:51
2024	Mar	28	(Thu)	06:00	06:21	87	12:26	87S	18:30	273	18:51
2024	Mar	29	(Fri)	05:59	06:20	86	12:25	88S	18:30	274	18:51
2024	Mar	30	(Sat)	05:59	06:20	86	12:25	88S	18:30	274	18:51
2024	Mar	31	(Sun)	05:59	06:19	86	12:25	88S	18:30	275	18:51
2024	Apr	01	(Mon)	05:58	06:19	85	12:24	89S	18:30	275	18:51
2024	Apr	02	(Tue)	05:58	06:18	85	12:24	89S	18:30	275	18:51
2024	Apr	03	(Wed)	05:57	06:18	84	12:24	90S	18:30	276	18:51
2024	Apr	04	(Thu)	05:57	06:17	84	12:23	90S	18:30	276	18:51
2024	Apr	05	(Fri)	05:56	06:17	84	12:23	90S	18:29	277	18:50
2024	Apr	06	(Sat)	05:56	06:17	83	12:23	91S	18:29	277	18:50
2024	Apr	07	(Sun)	05:55	06:16	83	12:23	90N	18:29	277	18:50
2024	Apr	08	(Mon)	05:55	06:16	83	12:22	90N	18:29	278	18:50
2024	Apr	09	(Tue)	05:54	06:15	82	12:22	90N	18:29	278	18:50
2024	Apr	10	(Wed)	05:54	06:15	82	12:22	89N	18:29	278	18:50
2024	Apr	11	(Thu)	05:53	06:14	81	12:22	89N	18:29	279	18:50
2024	Apr	12	(Fri)	05:53	06:14	81	12:21	89N	18:29	279	18:50
2024	Apr	13	(Sat)	05:52	06:13	81	12:21	88N	18:29	279	18:50
2024	Apr	14	(Sun)	05:52	06:13	80	12:21	88N	18:29	280	18:50
2024	Apr	15	(Mon)	05:51	06:13	80	12:21	87N	18:29	280	18:50
2024	Apr	16	(Tue)	05:51	06:12	80	12:20	87N	18:29	281	18:50
2024	Apr	17	(Wed)	05:51	06:12	79	12:20	87N	18:29	281	18:50
2024	Apr	18	(Thu)	05:50	06:11	79	12:20	86N	18:28	281	18:50
2024	Apr	19	(Fri)	05:50	06:11	79	12:20	86N	18:28	282	18:50
2024	Apr	20	(Sat)	05:49	06:11	78	12:19	86N	18:28	282	18:50
2024	Apr	21	(Sun)	05:49	06:10	78	12:19	85N	18:28	282	18:50
2024	Apr	22	(Mon)	05:48	06:10	78	12:19	85N	18:28	283	18:50

2024	Apr	23	(Tue)	05:48	06:09	77	12:19	85N	18:28	283	18:50
2024	Apr	24	(Wed)	05:48	06:09	77	12:19	84N	18:28	283	18:50
2024	Apr	25	(Thu)	05:47	06:09	77	12:18	84N	18:28	284	18:50
2024	Apr	26	(Fri)	05:47	06:08	76	12:18	84N	18:28	284	18:50
2024	Apr	27	(Sat)	05:47	06:08	76	12:18	83N	18:28	284	18:50
2024	Apr	28	(Sun)	05:46	06:08	76	12:18	83N	18:28	285	18:50
2024	Apr	29	(Mon)	05:46	06:07	75	12:18	83N	18:28	285	18:50
2024	Apr	30	(Tue)	05:46	06:07	75	12:18	82N	18:28	285	18:50
2024	May	01	(Wed)	05:45	06:07	75	12:18	82N	18:28	286	18:50
2024	May	02	(Thu)	05:45	06:07	74	12:18	82N	18:28	286	18:50
2024	May	03	(Fri)	05:45	06:06	74	12:17	82N	18:29	286	18:50
2024	May	04	(Sat)	05:44	06:06	74	12:17	81N	18:29	286	18:50
2024	May	05	(Sun)	05:44	06:06	73	12:17	81N	18:29	287	18:50
2024	May	06	(Mon)	05:44	06:06	73	12:17	81N	18:29	287	18:51
2024	May	07	(Tue)	05:44	06:05	73	12:17	80N	18:29	287	18:51
2024	May	08	(Wed)	05:43	06:05	73	12:17	80N	18:29	288	18:51
2024	May	09	(Thu)	05:43	06:05	72	12:17	80N	18:29	288	18:51
2024	May	10	(Fri)	05:43	06:05	72	12:17	80N	18:29	288	18:51
2024	May	11	(Sat)	05:43	06:05	72	12:17	79N	18:29	288	18:51
2024	May	12	(Sun)	05:43	06:05	72	12:17	79N	18:29	289	18:51
2024	May	13	(Mon)	05:42	06:04	71	12:17	79N	18:29	289	18:52
2024	May	14	(Tue)	05:42	06:04	71	12:17	79N	18:30	289	18:52
2024	May	15	(Wed)	05:42	06:04	71	12:17	78N	18:30	289	18:52
2024	May	16	(Thu)	05:42	06:04	71	12:17	78N	18:30	290	18:52
2024	May	17	(Fri)	05:42	06:04	70	12:17	78N	18:30	290	18:52
2024	May	18	(Sat)	05:42	06:04	70	12:17	78N	18:30	290	18:52
2024	May	19	(Sun)	05:42	06:04	70	12:17	78N	18:30	290	18:53
2024	May	20	(Mon)	05:42	06:04	70	12:17	77N	18:31	290	18:53
2024	May	21	(Tue)	05:41	06:04	70	12:17	77N	18:31	291	18:53
2024	May	22	(Wed)	05:41	06:04	69	12:17	77N	18:31	291	18:53
2024	May	23	(Thu)	05:41	06:04	69	12:17	77N	18:31	291	18:53
2024	May	24	(Fri)	05:41	06:04	69	12:17	77N	18:31	291	18:54
2024	May	25	(Sat)	05:41	06:04	69	12:18	76N	18:32	291	18:54
2024	May	26	(Sun)	05:41	06:04	69	12:18	76N	18:32	292	18:54
2024	May	27	(Mon)	05:41	06:04	68	12:18	76N	18:32	292	18:54
2024	May	28	(Tue)	05:41	06:04	68	12:18	76N	18:32	292	18:55
2024	May	29	(Wed)	05:41	06:04	68	12:18	76N	18:32	292	18:55
2024	May	30	(Thu)	05:41	06:04	68	12:18	76N	18:33	292	18:55
2024	May	31	(Fri)	05:41	06:04	68	12:18	75N	18:33	292	18:55
2024	Jun	01	(Sat)	05:41	06:04	68	12:18	75N	18:33	292	18:56
2024	Jun	02	(Sun)	05:41	06:04	68	12:19	75N	18:33	293	18:56
2024	Jun	03	(Mon)	05:41	06:04	67	12:19	75N	18:34	293	18:56
2024	Jun	04	(Tue)	05:42	06:04	67	12:19	75N	18:34	293	18:56
2024	Jun	05	(Wed)	05:42	06:04	67	12:19	75N	18:34	293	18:57
2024	Jun	06	(Thu)	05:42	06:04	67	12:19	75N	18:34	293	18:57
2024	Jun	07	(Fri)	05:42	06:05	67	12:20	75N	18:34	293	18:57
2024	Jun	08	(Sat)	05:42	06:05	67	12:20	75N	18:35	293	18:57
2024	Jun	09	(Sun)	05:42	06:05	67	12:20	74N	18:35	293	18:58
2024	Jun	10	(Mon)	05:42	06:05	67	12:20	74N	18:35	293	18:58
2024	Jun	11	(Tue)	05:42	06:05	67	12:20	74N	18:35	293	18:58
2024	Jun	12	(Wed)	05:43	06:05	67	12:21	74N	18:36	293	18:58
2024	Jun	13	(Thu)	05:43	06:05	66	12:21	74N	18:36	294	18:59
2024	Jun	14	(Fri)	05:43	06:06	66	12:21	74N	18:36	294	18:59
2024	Jun	15	(Sat)	05:43	06:06	66	12:21	74N	18:36	294	18:59
2024	Jun	16	(Sun)	05:43	06:06	66	12:21	74N	18:37	294	18:59
2024	Jun	17	(Mon)	05:43	06:06	66	12:22	74N	18:37	294	19:00
2024	Jun	18	(Tue)	05:44	06:06	66	12:22	74N	18:37	294	19:00
2024	Jun	19	(Wed)	05:44	06:07	66	12:22	74N	18:37	294	19:00
2024	Jun	20	(Thu)	05:44	06:07	66	12:22	74N	18:38	294	19:00
2024	Jun	21	(Fri)	05:44	06:07	66	12:22	74N	18:38	294	19:01
2024	Jun	22	(Sat)	05:44	06:07	66	12:23	74N	18:38	294	19:01
2024	Jun	23	(Sun)	05:45	06:08	66	12:23	74N	18:38	294	19:01
2024	Jun	24	(Mon)	05:45	06:08	66	12:23	74N	18:38	294	19:01
2024	Jun	25	(Tue)	05:45	06:08	66	12:23	74N	18:39	294	19:01
2024	Jun	26	(Wed)	05:45	06:08	66	12:24	74N	18:39	294	19:02
2024	Jun	27	(Thu)	05:46	06:08	66	12:24	74N	18:39	294	19:02
2024	Jun	28	(Fri)	05:46	06:09	66	12:24	74N	18:39	294	19:02
2024	Jun	29	(Sat)	05:46	06:09	67	12:24	74N	18:39	293	19:02
2024	Jun	30	(Sun)	05:46	06:09	67	12:24	74N	18:39	293	19:02
2024	Jul	01	(Mon)	05:47	06:09	67	12:25	74N	18:40	293	19:02
2024	Jul	02	(Tue)	05:47	06:10	67	12:25	74N	18:40	293	19:03
2024	Jul	03	(Wed)	05:47	06:10	67	12:25	74N	18:40	293	19:03

2024	Jul	04	(Thu)	05:47	06:10	67	12:25	75N	18:40	293	19:03
2024	Jul	05	(Fri)	05:48	06:10	67	12:25	75N	18:40	293	19:03
2024	Jul	06	(Sat)	05:48	06:11	67	12:25	75N	18:40	293	19:03
2024	Jul	07	(Sun)	05:48	06:11	67	12:26	75N	18:40	293	19:03
2024	Jul	08	(Mon)	05:48	06:11	67	12:26	75N	18:40	293	19:03
2024	Jul	09	(Tue)	05:49	06:11	67	12:26	75N	18:41	293	19:03
2024	Jul	10	(Wed)	05:49	06:11	68	12:26	75N	18:41	292	19:03
2024	Jul	11	(Thu)	05:49	06:12	68	12:26	75N	18:41	292	19:03
2024	Jul	12	(Fri)	05:49	06:12	68	12:26	76N	18:41	292	19:03
2024	Jul	13	(Sat)	05:49	06:12	68	12:26	76N	18:41	292	19:03
2024	Jul	14	(Sun)	05:50	06:12	68	12:27	76N	18:41	292	19:03
2024	Jul	15	(Mon)	05:50	06:12	68	12:27	76N	18:41	292	19:03
2024	Jul	16	(Tue)	05:50	06:13	68	12:27	76N	18:41	291	19:03
2024	Jul	17	(Wed)	05:50	06:13	69	12:27	76N	18:41	291	19:03
2024	Jul	18	(Thu)	05:51	06:13	69	12:27	76N	18:41	291	19:03
2024	Jul	19	(Fri)	05:51	06:13	69	12:27	77N	18:41	291	19:03
2024	Jul	20	(Sat)	05:51	06:13	69	12:27	77N	18:41	291	19:03
2024	Jul	21	(Sun)	05:51	06:13	69	12:27	77N	18:41	291	19:03
2024	Jul	22	(Mon)	05:51	06:14	70	12:27	77N	18:40	290	19:03
2024	Jul	23	(Tue)	05:51	06:14	70	12:27	77N	18:40	290	19:03
2024	Jul	24	(Wed)	05:52	06:14	70	12:27	78N	18:40	290	19:02
2024	Jul	25	(Thu)	05:52	06:14	70	12:27	78N	18:40	290	19:02
2024	Jul	26	(Fri)	05:52	06:14	70	12:27	78N	18:40	290	19:02
2024	Jul	27	(Sat)	05:52	06:14	71	12:27	78N	18:40	289	19:02
2024	Jul	28	(Sun)	05:52	06:14	71	12:27	79N	18:40	289	19:02
2024	Jul	29	(Mon)	05:52	06:14	71	12:27	79N	18:40	289	19:02
2024	Jul	30	(Tue)	05:53	06:15	71	12:27	79N	18:39	289	19:01
2024	Jul	31	(Wed)	05:53	06:15	72	12:27	79N	18:39	288	19:01
2024	Aug	01	(Thu)	05:53	06:15	72	12:27	80N	18:39	288	19:01
2024	Aug	02	(Fri)	05:53	06:15	72	12:27	80N	18:39	288	19:01
2024	Aug	03	(Sat)	05:53	06:15	72	12:27	80N	18:39	288	19:00
2024	Aug	04	(Sun)	05:53	06:15	73	12:27	80N	18:38	287	19:00
2024	Aug	05	(Mon)	05:53	06:15	73	12:27	81N	18:38	287	19:00
2024	Aug	06	(Tue)	05:53	06:15	73	12:26	81N	18:38	287	19:00
2024	Aug	07	(Wed)	05:53	06:15	73	12:26	81N	18:38	286	18:59
2024	Aug	08	(Thu)	05:53	06:15	74	12:26	81N	18:37	286	18:59
2024	Aug	09	(Fri)	05:53	06:15	74	12:26	82N	18:37	286	18:59
2024	Aug	10	(Sat)	05:53	06:15	74	12:26	82N	18:37	286	18:58
2024	Aug	11	(Sun)	05:53	06:15	75	12:26	82N	18:36	285	18:58
2024	Aug	12	(Mon)	05:53	06:15	75	12:26	83N	18:36	285	18:58
2024	Aug	13	(Tue)	05:53	06:15	75	12:25	83N	18:36	285	18:57
2024	Aug	14	(Wed)	05:53	06:15	76	12:25	83N	18:35	284	18:57
2024	Aug	15	(Thu)	05:53	06:15	76	12:25	84N	18:35	284	18:57
2024	Aug	16	(Fri)	05:53	06:15	76	12:25	84N	18:35	284	18:56
2024	Aug	17	(Sat)	05:53	06:15	76	12:25	84N	18:34	283	18:56
2024	Aug	18	(Sun)	05:53	06:15	77	12:24	84N	18:34	283	18:55
2024	Aug	19	(Mon)	05:53	06:15	77	12:24	85N	18:33	283	18:55
2024	Aug	20	(Tue)	05:53	06:15	77	12:24	85N	18:33	282	18:54
2024	Aug	21	(Wed)	05:53	06:15	78	12:24	85N	18:33	282	18:54
2024	Aug	22	(Thu)	05:53	06:15	78	12:23	86N	18:32	282	18:54
2024	Aug	23	(Fri)	05:53	06:14	78	12:23	86N	18:32	281	18:53
2024	Aug	24	(Sat)	05:53	06:14	79	12:23	86N	18:31	281	18:53
2024	Aug	25	(Sun)	05:53	06:14	79	12:23	87N	18:31	281	18:52
2024	Aug	26	(Mon)	05:53	06:14	80	12:22	87N	18:30	280	18:52
2024	Aug	27	(Tue)	05:53	06:14	80	12:22	88N	18:30	280	18:51
2024	Aug	28	(Wed)	05:53	06:14	80	12:22	88N	18:30	280	18:51
2024	Aug	29	(Thu)	05:53	06:14	81	12:21	88N	18:29	279	18:50
2024	Aug	30	(Fri)	05:53	06:14	81	12:21	89N	18:29	279	18:50
2024	Aug	31	(Sat)	05:52	06:13	81	12:21	89N	18:28	279	18:49
2024	Sep	01	(Sun)	05:52	06:13	82	12:21	89N	18:28	278	18:49
2024	Sep	02	(Mon)	05:52	06:13	82	12:20	90N	18:27	278	18:48
2024	Sep	03	(Tue)	05:52	06:13	82	12:20	90N	18:27	277	18:48
2024	Sep	04	(Wed)	05:52	06:13	83	12:20	90N	18:26	277	18:47
2024	Sep	05	(Thu)	05:52	06:13	83	12:19	91S	18:26	277	18:47
2024	Sep	06	(Fri)	05:52	06:13	84	12:19	90S	18:25	276	18:46
2024	Sep	07	(Sat)	05:51	06:12	84	12:19	90S	18:25	276	18:45
2024	Sep	08	(Sun)	05:51	06:12	84	12:18	90S	18:24	276	18:45
2024	Sep	09	(Mon)	05:51	06:12	85	12:18	89S	18:23	275	18:44
2024	Sep	10	(Tue)	05:51	06:12	85	12:17	89S	18:23	275	18:44
2024	Sep	11	(Wed)	05:51	06:12	85	12:17	88S	18:22	274	18:43
2024	Sep	12	(Thu)	05:51	06:12	86	12:17	88S	18:22	274	18:43
2024	Sep	13	(Fri)	05:51	06:11	86	12:16	88S	18:21	274	18:42

2024	Sep	14	(Sat)	05:50	06:11	87	12:16	87S	18:21	273	18:42
2024	Sep	15	(Sun)	05:50	06:11	87	12:16	87S	18:20	273	18:41
2024	Sep	16	(Mon)	05:50	06:11	87	12:15	86S	18:20	272	18:41
2024	Sep	17	(Tue)	05:50	06:11	88	12:15	86S	18:19	272	18:40
2024	Sep	18	(Wed)	05:50	06:11	88	12:15	86S	18:19	272	18:39
2024	Sep	19	(Thu)	05:50	06:10	89	12:14	85S	18:18	271	18:39
2024	Sep	20	(Fri)	05:49	06:10	89	12:14	85S	18:18	271	18:38
2024	Sep	21	(Sat)	05:49	06:10	89	12:14	85S	18:17	271	18:38
2024	Sep	22	(Sun)	05:49	06:10	90	12:13	84S	18:16	270	18:37
2024	Sep	23	(Mon)	05:49	06:10	90	12:13	84S	18:16	270	18:37
2024	Sep	24	(Tue)	05:49	06:10	90	12:13	83S	18:15	269	18:36
2024	Sep	25	(Wed)	05:49	06:09	91	12:12	83S	18:15	269	18:36
2024	Sep	26	(Thu)	05:48	06:09	91	12:12	83S	18:14	269	18:35
2024	Sep	27	(Fri)	05:48	06:09	92	12:11	82S	18:14	268	18:35
2024	Sep	28	(Sat)	05:48	06:09	92	12:11	82S	18:13	268	18:34
2024	Sep	29	(Sun)	05:48	06:09	92	12:11	81S	18:13	267	18:34
2024	Sep	30	(Mon)	05:48	06:09	93	12:10	81S	18:12	267	18:33
2024	Oct	01	(Tue)	05:48	06:08	93	12:10	81S	18:12	267	18:33
2024	Oct	02	(Wed)	05:47	06:08	94	12:10	80S	18:11	266	18:32
2024	Oct	03	(Thu)	05:47	06:08	94	12:10	80S	18:11	266	18:32
2024	Oct	04	(Fri)	05:47	06:08	94	12:09	79S	18:10	265	18:31
2024	Oct	05	(Sat)	05:47	06:08	95	12:09	79S	18:10	265	18:31
2024	Oct	06	(Sun)	05:47	06:08	95	12:09	79S	18:09	265	18:30
2024	Oct	07	(Mon)	05:47	06:08	96	12:08	78S	18:09	264	18:30
2024	Oct	08	(Tue)	05:47	06:08	96	12:08	78S	18:08	264	18:29
2024	Oct	09	(Wed)	05:47	06:07	96	12:08	78S	18:08	264	18:29
2024	Oct	10	(Thu)	05:46	06:07	97	12:08	77S	18:08	263	18:28
2024	Oct	11	(Fri)	05:46	06:07	97	12:07	77S	18:07	263	18:28
2024	Oct	12	(Sat)	05:46	06:07	97	12:07	76S	18:07	262	18:28
2024	Oct	13	(Sun)	05:46	06:07	98	12:07	76S	18:06	262	18:27
2024	Oct	14	(Mon)	05:46	06:07	98	12:07	76S	18:06	262	18:27
2024	Oct	15	(Tue)	05:46	06:07	99	12:06	75S	18:05	261	18:27
2024	Oct	16	(Wed)	05:46	06:07	99	12:06	75S	18:05	261	18:26
2024	Oct	17	(Thu)	05:46	06:07	99	12:06	75S	18:05	261	18:26
2024	Oct	18	(Fri)	05:46	06:07	100	12:06	74S	18:04	260	18:25
2024	Oct	19	(Sat)	05:46	06:07	100	12:05	74S	18:04	260	18:25
2024	Oct	20	(Sun)	05:46	06:07	100	12:05	74S	18:04	259	18:25
2024	Oct	21	(Mon)	05:46	06:07	101	12:05	73S	18:03	259	18:24
2024	Oct	22	(Tue)	05:46	06:07	101	12:05	73S	18:03	259	18:24
2024	Oct	23	(Wed)	05:46	06:07	101	12:05	72S	18:03	258	18:24
2024	Oct	24	(Thu)	05:46	06:07	102	12:05	72S	18:02	258	18:24
2024	Oct	25	(Fri)	05:46	06:07	102	12:05	72S	18:02	258	18:23
2024	Oct	26	(Sat)	05:46	06:07	103	12:05	71S	18:02	257	18:23
2024	Oct	27	(Sun)	05:46	06:07	103	12:04	71S	18:02	257	18:23
2024	Oct	28	(Mon)	05:46	06:07	103	12:04	71S	18:01	257	18:23
2024	Oct	29	(Tue)	05:46	06:07	104	12:04	70S	18:01	256	18:23
2024	Oct	30	(Wed)	05:46	06:07	104	12:04	70S	18:01	256	18:22
2024	Oct	31	(Thu)	05:46	06:08	104	12:04	70S	18:01	256	18:22
2024	Nov	01	(Fri)	05:46	06:08	105	12:04	69S	18:01	255	18:22
2024	Nov	02	(Sat)	05:46	06:08	105	12:04	69S	18:00	255	18:22
2024	Nov	03	(Sun)	05:46	06:08	105	12:04	69S	18:00	255	18:22
2024	Nov	04	(Mon)	05:47	06:08	105	12:04	68S	18:00	254	18:22
2024	Nov	05	(Tue)	05:47	06:08	106	12:04	68S	18:00	254	18:22
2024	Nov	06	(Wed)	05:47	06:08	106	12:04	68S	18:00	254	18:22
2024	Nov	07	(Thu)	05:47	06:09	106	12:04	68S	18:00	253	18:21
2024	Nov	08	(Fri)	05:47	06:09	107	12:04	67S	18:00	253	18:21
2024	Nov	09	(Sat)	05:47	06:09	107	12:04	67S	18:00	253	18:21
2024	Nov	10	(Sun)	05:48	06:09	107	12:05	67S	18:00	253	18:21
2024	Nov	11	(Mon)	05:48	06:10	108	12:05	66S	18:00	252	18:21
2024	Nov	12	(Tue)	05:48	06:10	108	12:05	66S	18:00	252	18:21
2024	Nov	13	(Wed)	05:48	06:10	108	12:05	66S	18:00	252	18:21
2024	Nov	14	(Thu)	05:48	06:10	108	12:05	66S	18:00	252	18:22
2024	Nov	15	(Fri)	05:49	06:11	109	12:05	65S	18:00	251	18:22
2024	Nov	16	(Sat)	05:49	06:11	109	12:05	65S	18:00	251	18:22
2024	Nov	17	(Sun)	05:49	06:11	109	12:06	65S	18:00	251	18:22
2024	Nov	18	(Mon)	05:50	06:12	109	12:06	65S	18:00	251	18:22
2024	Nov	19	(Tue)	05:50	06:12	110	12:06	64S	18:00	250	18:22
2024	Nov	20	(Wed)	05:50	06:12	110	12:06	64S	18:00	250	18:22
2024	Nov	21	(Thu)	05:51	06:13	110	12:06	64S	18:00	250	18:22
2024	Nov	22	(Fri)	05:51	06:13	110	12:07	64S	18:00	250	18:23
2024	Nov	23	(Sat)	05:51	06:13	110	12:07	64S	18:01	249	18:23
2024	Nov	24	(Sun)	05:52	06:14	111	12:07	63S	18:01	249	18:23

2024	Nov	25	(Mon)	05:52	06:14	111	12:08	63S	18:01	249	18:23
2024	Nov	26	(Tue)	05:52	06:15	111	12:08	63S	18:01	249	18:23
2024	Nov	27	(Wed)	05:53	06:15	111	12:08	63S	18:01	249	18:24
2024	Nov	28	(Thu)	05:53	06:15	111	12:09	63S	18:02	249	18:24
2024	Nov	29	(Fri)	05:54	06:16	112	12:09	62S	18:02	248	18:24
2024	Nov	30	(Sat)	05:54	06:16	112	12:09	62S	18:02	248	18:25
2024	Dec	01	(Sun)	05:54	06:17	112	12:10	62S	18:03	248	18:25
2024	Dec	02	(Mon)	05:55	06:17	112	12:10	62S	18:03	248	18:25
2024	Dec	03	(Tue)	05:55	06:18	112	12:10	62S	18:03	248	18:26
2024	Dec	04	(Wed)	05:56	06:18	112	12:11	62S	18:04	248	18:26
2024	Dec	05	(Thu)	05:56	06:19	112	12:11	62S	18:04	247	18:26
2024	Dec	06	(Fri)	05:57	06:19	113	12:12	61S	18:04	247	18:27
2024	Dec	07	(Sat)	05:57	06:20	113	12:12	61S	18:05	247	18:27
2024	Dec	08	(Sun)	05:58	06:20	113	12:13	61S	18:05	247	18:28
2024	Dec	09	(Mon)	05:58	06:21	113	12:13	61S	18:05	247	18:28
2024	Dec	10	(Tue)	05:59	06:21	113	12:13	61S	18:06	247	18:28
2024	Dec	11	(Wed)	05:59	06:22	113	12:14	61S	18:06	247	18:29
2024	Dec	12	(Thu)	05:59	06:22	113	12:14	61S	18:07	247	18:29
2024	Dec	13	(Fri)	06:00	06:23	113	12:15	61S	18:07	247	18:30
2024	Dec	14	(Sat)	06:00	06:23	113	12:15	61S	18:08	247	18:30
2024	Dec	15	(Sun)	06:01	06:24	113	12:16	61S	18:08	247	18:31
2024	Dec	16	(Mon)	06:01	06:24	113	12:16	61S	18:08	247	18:31
2024	Dec	17	(Tue)	06:02	06:25	113	12:17	61S	18:09	247	18:32
2024	Dec	18	(Wed)	06:02	06:25	113	12:17	61S	18:09	247	18:32
2024	Dec	19	(Thu)	06:03	06:26	113	12:18	61S	18:10	247	18:33
2024	Dec	20	(Fri)	06:03	06:26	113	12:18	61S	18:10	246	18:33
2024	Dec	21	(Sat)	06:04	06:27	114	12:19	61S	18:11	246	18:33
2024	Dec	22	(Sun)	06:04	06:27	114	12:19	61S	18:11	246	18:34
2024	Dec	23	(Mon)	06:05	06:28	113	12:20	61S	18:12	247	18:34
2024	Dec	24	(Tue)	06:05	06:28	113	12:20	61S	18:12	247	18:35
2024	Dec	25	(Wed)	06:06	06:29	113	12:21	61S	18:13	247	18:36
2024	Dec	26	(Thu)	06:06	06:29	113	12:21	61S	18:13	247	18:36
2024	Dec	27	(Fri)	06:07	06:30	113	12:22	61S	18:14	247	18:37
2024	Dec	28	(Sat)	06:07	06:30	113	12:22	61S	18:14	247	18:37
2024	Dec	29	(Sun)	06:08	06:30	113	12:23	61S	18:15	247	18:38
2024	Dec	30	(Mon)	06:08	06:31	113	12:23	61S	18:15	247	18:38
2024	Dec	31	(Tue)	06:09	06:31	113	12:24	61S	18:16	247	18:39

Moon

Saturn

Location: E 99°51'28.8", N 6°41'38.4", 0m
(Longitude referred to Greenwich meridian)

Time Zone: 7h 00m east of Greenwich

Date (Zone)	Rise Az.			Transit Alt.			Set Az.		
	h	m	°	h	m	°	h	m	°
2024 Jan 01 (Mon)	22:38	81		04:12	84N		10:27	282	
2024 Jan 02 (Tue)	23:20	86		04:52	90N		11:05	276	
2024 Jan 03 (Wed)				05:31	86S		11:41	271	
2024 Jan 04 (Thu)	00:02	92		06:10	80S		12:17	265	
2024 Jan 05 (Fri)	00:45	98		06:51	74S		12:56	259	
2024 Jan 06 (Sat)	01:30	104		07:34	69S		13:36	254	
2024 Jan 07 (Sun)	02:18	109		08:20	64S		14:22	249	
2024 Jan 08 (Mon)	03:11	113		09:12	60S		15:12	245	
2024 Jan 09 (Tue)	04:09	117		10:09	57S		16:09	242	
2024 Jan 10 (Wed)	05:11	118		11:11	55S		17:11	242	
2024 Jan 11 (Thu)	06:14	118		12:15	56S		18:16	243	
2024 Jan 12 (Fri)	07:16	116		13:17	59S		19:20	246	
2024 Jan 13 (Sat)	08:14	111		14:17	64S		20:21	251	
2024 Jan 14 (Sun)	09:07	106		15:12	70S		21:19	258	
2024 Jan 15 (Mon)	09:56	99		16:04	77S		22:13	265	
2024 Jan 16 (Tue)	10:42	92		16:53	84S		23:05	272	
2024 Jan 17 (Wed)	11:27	85		17:40	91N		23:56	278	
2024 Jan 18 (Thu)	12:11	78		18:28	84N				
2024 Jan 19 (Fri)	12:57	73		19:18	78N		00:47	285	
2024 Jan 20 (Sat)	13:45	68		20:09	74N		01:40	290	
2024 Jan 21 (Sun)	14:37	64		21:03	71N		02:35	294	
2024 Jan 22 (Mon)	15:30	62		21:58	69N		03:30	297	
2024 Jan 23 (Tue)	16:25	62		22:53	69N		04:27	298	

2024	Jan	24	(Wed)	17:20	63	23:47	71N	05:21	298
2024	Jan	25	(Thu)	18:13	65			06:13	296
2024	Jan	26	(Fri)	19:03	69	00:37	73N	07:01	293
2024	Jan	27	(Sat)	19:50	74	01:24	77N	07:44	289
2024	Jan	28	(Sun)	20:34	79	02:08	82N	08:25	284
2024	Jan	29	(Mon)	21:16	84	02:49	88N	09:03	278
2024	Jan	30	(Tue)	21:58	90	03:29	88S	09:39	273
2024	Jan	31	(Wed)	22:40	96	04:07	82S	10:15	267
2024	Feb	01	(Thu)	23:23	102	04:47	76S	10:52	261
2024	Feb	02	(Fri)			05:28	71S	11:31	256
2024	Feb	03	(Sat)	00:09	107	06:12	66S	12:13	251
2024	Feb	04	(Sun)	00:59	112	07:00	61S	13:00	246
2024	Feb	05	(Mon)	01:53	115	07:53	58S	13:52	243
2024	Feb	06	(Tue)	02:51	118	08:51	55S	14:50	242
2024	Feb	07	(Wed)	03:53	119	09:53	55S	15:53	242
2024	Feb	08	(Thu)	04:55	117	10:56	57S	16:58	244
2024	Feb	09	(Fri)	05:56	114	11:58	61S	18:01	249
2024	Feb	10	(Sat)	06:52	109	12:56	67S	19:02	254
2024	Feb	11	(Sun)	07:44	102	13:51	73S	19:59	261
2024	Feb	12	(Mon)	08:33	95	14:43	81S	20:54	269
2024	Feb	13	(Tue)	09:20	88	15:33	88S	21:48	276
2024	Feb	14	(Wed)	10:06	81	16:23	86N	22:41	283
2024	Feb	15	(Thu)	10:53	74	17:13	80N	23:35	289
2024	Feb	16	(Fri)	11:42	69	18:05	75N		
2024	Feb	17	(Sat)	12:33	65	18:59	71N	00:30	293
2024	Feb	18	(Sun)	13:26	62	19:54	69N	01:26	297
2024	Feb	19	(Mon)	14:21	61	20:49	69N	02:22	298
2024	Feb	20	(Tue)	15:15	62	21:43	70N	03:17	298
2024	Feb	21	(Wed)	16:08	64	22:34	72N	04:09	297
2024	Feb	22	(Thu)	16:59	68	23:21	76N	04:58	294
2024	Feb	23	(Fri)	17:47	72			05:43	290
2024	Feb	24	(Sat)	18:31	77	00:06	81N	06:24	286
2024	Feb	25	(Sun)	19:14	83	00:48	86N	07:02	280
2024	Feb	26	(Mon)	19:56	88	01:27	90S	07:39	275
2024	Feb	27	(Tue)	20:38	94	02:06	84S	08:15	269
2024	Feb	28	(Wed)	21:20	100	02:45	78S	08:51	263
2024	Feb	29	(Thu)	22:05	105	03:25	73S	09:29	257
2024	Mar	01	(Fri)	22:52	110	04:08	67S	10:10	252
2024	Mar	02	(Sat)	23:43	114	04:53	62S	10:54	248
2024	Mar	03	(Sun)			05:43	59S	11:42	244
2024	Mar	04	(Mon)	00:38	117	06:38	56S	12:37	242
2024	Mar	05	(Tue)	01:37	119	07:36	55S	13:35	241
2024	Mar	06	(Wed)	02:37	118	08:37	56S	14:37	243
2024	Mar	07	(Thu)	03:37	116	09:38	59S	15:40	246
2024	Mar	08	(Fri)	04:34	112	10:37	63S	16:41	251
2024	Mar	09	(Sat)	05:28	106	11:33	70S	17:40	258
2024	Mar	10	(Sun)	06:19	99	12:27	77S	18:37	265
2024	Mar	11	(Mon)	07:07	91	13:19	84S	19:32	272
2024	Mar	12	(Tue)	07:55	84	14:10	89N	20:27	280
2024	Mar	13	(Wed)	08:43	77	15:02	83N	21:22	286
2024	Mar	14	(Thu)	09:33	71	15:55	77N	22:19	292
2024	Mar	15	(Fri)	10:25	66	16:50	72N	23:17	296
2024	Mar	16	(Sat)	11:19	63	17:47	70N		
2024	Mar	17	(Sun)	12:15	61	18:43	69N	00:15	298
2024	Mar	18	(Mon)	13:10	62	19:38	69N	01:12	299
2024	Mar	19	(Tue)	14:04	63	20:31	71N	02:06	298
2024	Mar	20	(Wed)	14:56	66	21:19	75N	02:56	295
2024	Mar	21	(Thu)	15:44	70	22:04	79N	03:41	292
2024	Mar	22	(Fri)	16:30	75	22:47	84N	04:23	287
2024	Mar	23	(Sat)	17:13	81	23:27	90N	05:02	282
2024	Mar	24	(Sun)	17:55	86			05:40	276
2024	Mar	25	(Mon)	18:37	92	00:06	86S	06:16	271
2024	Mar	26	(Tue)	19:19	98	00:45	80S	06:52	265
2024	Mar	27	(Wed)	20:03	104	01:25	74S	07:29	259
2024	Mar	28	(Thu)	20:49	109	02:06	69S	08:09	254
2024	Mar	29	(Fri)	21:39	113	02:51	64S	08:52	249
2024	Mar	30	(Sat)	22:32	116	03:39	60S	09:39	245
2024	Mar	31	(Sun)	23:29	118	04:31	57S	10:30	242
2024	Apr	01	(Mon)			05:28	55S	11:26	241
2024	Apr	02	(Tue)	00:27	119	06:26	55S	12:25	242
2024	Apr	03	(Wed)	01:25	117	07:25	57S	13:26	244
2024	Apr	04	(Thu)	02:21	114	08:23	61S	14:25	248

2024 Apr 05 (Fri)	03:15 109	09:18 66S	15:23 254
2024 Apr 06 (Sat)	04:05 103	10:11 73S	16:19 261
2024 Apr 07 (Sun)	04:53 95	11:03 80S	17:14 268
2024 Apr 08 (Mon)	05:41 88	11:54 88S	18:09 276
2024 Apr 09 (Tue)	06:29 81	12:46 86N	19:04 283
2024 Apr 10 (Wed)	07:18 74	13:39 80N	20:02 289
2024 Apr 11 (Thu)	08:11 68	14:35 74N	21:01 294
2024 Apr 12 (Fri)	09:06 64	15:33 71N	22:01 297
2024 Apr 13 (Sat)	10:03 62	16:32 69N	23:01 299
2024 Apr 14 (Sun)	11:01 61	17:29 69N	23:58 298
2024 Apr 15 (Mon)	11:57 62	18:24 70N	
2024 Apr 16 (Tue)	12:50 65	19:15 73N	00:50 296
2024 Apr 17 (Wed)	13:40 69	20:02 77N	01:38 293
2024 Apr 18 (Thu)	14:27 74	20:45 82N	02:22 289
2024 Apr 19 (Fri)	15:11 79	21:26 88N	03:02 284
2024 Apr 20 (Sat)	15:53 84	22:05 88S	03:39 278
2024 Apr 21 (Sun)	16:35 90	22:44 82S	04:16 273
2024 Apr 22 (Mon)	17:17 96	23:23 76S	04:52 267
2024 Apr 23 (Tue)	18:00 102		05:29 261
2024 Apr 24 (Wed)	18:46 107	00:05 71S	06:08 255
2024 Apr 25 (Thu)	19:35 112	00:49 65S	06:50 250
2024 Apr 26 (Fri)	20:28 116	01:36 61S	07:36 246
2024 Apr 27 (Sat)	21:24 118	02:28 57S	08:26 243
2024 Apr 28 (Sun)	22:22 119	03:23 55S	09:21 241
2024 Apr 29 (Mon)	23:19 118	04:20 55S	10:19 241
2024 Apr 30 (Tue)		05:19 56S	11:19 243
2024 May 01 (Wed)	00:15 115	06:16 60S	12:17 247
2024 May 02 (Thu)	01:08 111	07:10 64S	13:14 252
2024 May 03 (Fri)	01:58 105	08:02 70S	14:09 258
2024 May 04 (Sat)	02:45 98	08:53 77S	15:02 265
2024 May 05 (Sun)	03:31 91	09:42 84S	15:55 272
2024 May 06 (Mon)	04:17 84	10:32 90N	16:48 280
2024 May 07 (Tue)	05:05 77	11:24 83N	17:44 286
2024 May 08 (Wed)	05:55 71	12:18 77N	18:43 292
2024 May 09 (Thu)	06:49 66	13:16 72N	19:43 296
2024 May 10 (Fri)	07:47 63	14:15 69N	20:44 298
2024 May 11 (Sat)	08:46 61	15:15 69N	21:44 299
2024 May 12 (Sun)	09:44 62	16:12 69N	22:40 297
2024 May 13 (Mon)	10:40 64	17:06 72N	23:31 294
2024 May 14 (Tue)	11:33 67	17:56 76N	
2024 May 15 (Wed)	12:21 72	18:41 80N	00:17 290
2024 May 16 (Thu)	13:06 77	19:23 86N	00:59 286
2024 May 17 (Fri)	13:49 82	20:03 90S	01:38 280
2024 May 18 (Sat)	14:31 88	20:42 84S	02:14 275
2024 May 19 (Sun)	15:13 94	21:21 78S	02:50 269
2024 May 20 (Mon)	15:56 100	22:01 73S	03:27 263
2024 May 21 (Tue)	16:41 105	22:44 67S	04:05 257
2024 May 22 (Wed)	17:29 110	23:31 62S	04:46 252
2024 May 23 (Thu)	18:21 114		05:31 248
2024 May 24 (Fri)	19:17 117	00:21 59S	06:21 244
2024 May 25 (Sat)	20:15 119	01:16 56S	07:15 242
2024 May 26 (Sun)	21:14 118	02:14 55S	08:13 241
2024 May 27 (Mon)	22:11 116	03:13 56S	09:13 243
2024 May 28 (Tue)	23:05 112	04:11 59S	10:12 246
2024 May 29 (Wed)	23:55 107	05:07 63S	11:09 250
2024 May 30 (Thu)		05:59 68S	12:04 256
2024 May 31 (Fri)	00:42 101	06:48 75S	12:56 263
2024 Jun 01 (Sat)	01:27 94	07:37 82S	13:48 270
2024 Jun 02 (Sun)	02:12 87	08:25 89S	14:39 277
2024 Jun 03 (Mon)	02:57 80	09:14 85N	15:33 284
2024 Jun 04 (Tue)	03:45 73	10:06 79N	16:28 289
2024 Jun 05 (Wed)	04:36 68	11:01 74N	17:27 294
2024 Jun 06 (Thu)	05:31 64	11:59 71N	18:28 297
2024 Jun 07 (Fri)	06:30 62	12:59 69N	19:28 299
2024 Jun 08 (Sat)	07:29 62	13:58 69N	20:27 298
2024 Jun 09 (Sun)	08:27 63	14:54 71N	21:21 296
2024 Jun 10 (Mon)	09:22 66	15:46 74N	22:10 292
2024 Jun 11 (Tue)	10:13 70	16:34 78N	22:54 288
2024 Jun 12 (Wed)	11:00 75	17:18 84N	23:34 282
2024 Jun 13 (Thu)	11:44 80	17:59 89N	
2024 Jun 14 (Fri)	12:27 86	18:38 87S	00:12 277
2024 Jun 15 (Sat)	13:08 92	19:17 81S	00:48 271

2024 Jun 16 (Sun)	13:50 98	19:56 75S	01:24 265
2024 Jun 17 (Mon)	14:34 103	20:38 69S	02:01 260
2024 Jun 18 (Tue)	15:21 108	21:23 64S	02:41 254
2024 Jun 19 (Wed)	16:12 113	22:12 60S	03:24 249
2024 Jun 20 (Thu)	17:06 116	23:06 57S	04:12 245
2024 Jun 21 (Fri)	18:04 118		05:05 243
2024 Jun 22 (Sat)	19:04 118	00:04 55S	06:03 241
2024 Jun 23 (Sun)	20:03 117	01:04 55S	07:03 242
2024 Jun 24 (Mon)	21:00 113	02:03 58S	08:04 245
2024 Jun 25 (Tue)	21:52 108	03:01 61S	09:04 249
2024 Jun 26 (Wed)	22:40 102	03:55 67S	10:00 255
2024 Jun 27 (Thu)	23:26 96	04:46 73S	10:53 261
2024 Jun 28 (Fri)		05:35 80S	11:45 268
2024 Jun 29 (Sat)	00:10 89	06:22 87S	12:36 275
2024 Jun 30 (Sun)	00:55 82	07:10 87N	13:28 282
2024 Jul 01 (Mon)	01:41 75	08:00 81N	14:21 288
2024 Jul 02 (Tue)	02:30 70	08:53 76N	15:17 293
2024 Jul 03 (Wed)	03:22 65	09:49 72N	16:16 296
2024 Jul 04 (Thu)	04:18 62	10:47 69N	17:16 298
2024 Jul 05 (Fri)	05:17 61	11:46 69N	18:15 298
2024 Jul 06 (Sat)	06:15 62	12:43 70N	19:10 297
2024 Jul 07 (Sun)	07:11 65	13:37 73N	20:01 294
2024 Jul 08 (Mon)	08:04 68	14:26 77N	20:47 289
2024 Jul 09 (Tue)	08:53 73	15:12 82N	21:29 284
2024 Jul 10 (Wed)	09:38 78	15:54 87N	22:08 279
2024 Jul 11 (Thu)	10:22 84	16:34 89S	22:45 273
2024 Jul 12 (Fri)	11:03 90	17:13 83S	23:21 267
2024 Jul 13 (Sat)	11:45 95	17:52 77S	23:57 262
2024 Jul 14 (Sun)	12:28 101	18:32 71S	
2024 Jul 15 (Mon)	13:13 106	19:15 66S	00:36 256
2024 Jul 16 (Tue)	14:01 111	20:02 62S	01:17 251
2024 Jul 17 (Wed)	14:53 115	20:53 58S	02:02 247
2024 Jul 18 (Thu)	15:50 118	21:49 56S	02:52 244
2024 Jul 19 (Fri)	16:49 119	22:48 55S	03:48 242
2024 Jul 20 (Sat)	17:49 118	23:49 56S	04:48 242
2024 Jul 21 (Sun)	18:48 115		05:50 243
2024 Jul 22 (Mon)	19:43 110	00:49 60S	06:51 247
2024 Jul 23 (Tue)	20:34 105	01:46 65S	07:50 252
2024 Jul 24 (Wed)	21:22 98	02:40 71S	08:46 259
2024 Jul 25 (Thu)	22:08 91	03:30 78S	09:40 266
2024 Jul 26 (Fri)	22:53 84	04:19 85S	10:32 273
2024 Jul 27 (Sat)	23:39 77	05:08 89N	11:24 280
2024 Jul 28 (Sun)		05:57 83N	12:17 286
2024 Jul 29 (Mon)	00:27 71	06:49 77N	13:13 292
2024 Jul 30 (Tue)	01:18 66	07:43 73N	14:10 296
2024 Jul 31 (Wed)	02:12 63	08:40 70N	15:09 298
2024 Aug 01 (Thu)	03:09 61	09:38 69N	16:07 299
2024 Aug 02 (Fri)	04:07 62	10:35 69N	17:03 298
2024 Aug 03 (Sat)	05:03 64	11:30 72N	17:55 295
2024 Aug 04 (Sun)	05:57 67	12:20 75N	18:43 291
2024 Aug 05 (Mon)	06:47 71	13:07 80N	19:26 286
2024 Aug 06 (Tue)	07:33 76	13:50 85N	20:06 281
2024 Aug 07 (Wed)	08:17 82	14:31 91N	20:43 275
2024 Aug 08 (Thu)	09:00 88	15:10 85S	21:19 269
2024 Aug 09 (Fri)	09:41 93	15:49 79S	21:55 264
2024 Aug 10 (Sat)	10:23 99	16:28 73S	22:32 258
2024 Aug 11 (Sun)	11:07 105	17:10 68S	23:11 253
2024 Aug 12 (Mon)	11:53 110	17:54 63S	23:54 248
2024 Aug 13 (Tue)	12:42 114	18:42 59S	
2024 Aug 14 (Wed)	13:36 117	19:35 56S	00:41 245
2024 Aug 15 (Thu)	14:33 119	20:32 55S	01:34 242
2024 Aug 16 (Fri)	15:32 119	21:32 55S	02:31 241
2024 Aug 17 (Sat)	16:32 117	22:32 58S	03:31 242
2024 Aug 18 (Sun)	17:29 113	23:31 62S	04:33 245
2024 Aug 19 (Mon)	18:22 107		05:34 250
2024 Aug 20 (Tue)	19:13 101	00:27 68S	06:32 256
2024 Aug 21 (Wed)	20:01 94	01:20 75S	07:28 263
2024 Aug 22 (Thu)	20:47 86	02:11 82S	08:23 270
2024 Aug 23 (Fri)	21:34 79	03:01 90S	09:17 277
2024 Aug 24 (Sat)	22:23 73	03:52 85N	10:11 284
2024 Aug 25 (Sun)	23:14 67	04:44 79N	11:07 290
2024 Aug 26 (Mon)		05:39 74N	12:05 295

2024 Aug 27 (Tue)	00:08 64	06:35 70N	13:04 298
2024 Aug 28 (Wed)	01:04 62	07:33 69N	14:02 299
2024 Aug 29 (Thu)	02:02 61	08:31 69N	14:59 298
2024 Aug 30 (Fri)	02:58 63	09:25 71N	15:52 296
2024 Aug 31 (Sat)	03:52 66	10:17 74N	16:40 293
2024 Sep 01 (Sun)	04:43 70	11:04 78N	17:24 288
2024 Sep 02 (Mon)	05:30 74	11:48 83N	18:04 283
2024 Sep 03 (Tue)	06:15 80	12:29 89N	18:42 277
2024 Sep 04 (Wed)	06:57 86	13:09 87S	19:19 271
2024 Sep 05 (Thu)	07:39 91	13:47 81S	19:55 266
2024 Sep 06 (Fri)	08:20 97	14:26 75S	20:31 260
2024 Sep 07 (Sat)	09:03 103	15:07 70S	21:09 255
2024 Sep 08 (Sun)	09:48 108	15:50 65S	21:50 250
2024 Sep 09 (Mon)	10:36 112	16:36 60S	22:35 246
2024 Sep 10 (Tue)	11:27 116	17:26 57S	23:24 243
2024 Sep 11 (Wed)	12:21 118	18:19 55S	
2024 Sep 12 (Thu)	13:18 119	19:17 55S	00:18 241
2024 Sep 13 (Fri)	14:16 118	20:15 56S	01:15 241
2024 Sep 14 (Sat)	15:13 115	21:13 60S	02:15 243
2024 Sep 15 (Sun)	16:07 110	22:10 65S	03:15 247
2024 Sep 16 (Mon)	16:58 104	23:04 71S	04:14 252
2024 Sep 17 (Tue)	17:48 97	23:56 78S	05:11 259
2024 Sep 18 (Wed)	18:36 90		06:07 266
2024 Sep 19 (Thu)	19:24 82	00:48 86S	07:02 274
2024 Sep 20 (Fri)	20:13 75	01:40 88N	07:58 281
2024 Sep 21 (Sat)	21:05 69	02:33 81N	08:55 288
2024 Sep 22 (Sun)	22:00 65	03:29 75N	09:54 293
2024 Sep 23 (Mon)	22:57 62	04:27 71N	10:55 297
2024 Sep 24 (Tue)	23:56 61	05:26 69N	11:55 299
2024 Sep 25 (Wed)		06:25 68N	12:54 299
2024 Sep 26 (Thu)	00:53 62	07:21 70N	13:48 297
2024 Sep 27 (Fri)	01:48 64	08:14 73N	14:38 294
2024 Sep 28 (Sat)	02:40 68	09:02 77N	15:23 290
2024 Sep 29 (Sun)	03:28 73	09:47 81N	16:04 285
2024 Sep 30 (Mon)	04:13 78	10:29 87N	16:43 279
2024 Oct 01 (Tue)	04:56 84	11:08 89S	17:19 273
2024 Oct 02 (Wed)	05:38 90	11:47 83S	17:55 268
2024 Oct 03 (Thu)	06:19 95	12:26 77S	18:31 262
2024 Oct 04 (Fri)	07:01 101	13:06 71S	19:09 256
2024 Oct 05 (Sat)	07:46 106	13:48 66S	19:49 251
2024 Oct 06 (Sun)	08:32 111	14:33 62S	20:32 247
2024 Oct 07 (Mon)	09:22 115	15:21 58S	21:19 244
2024 Oct 08 (Tue)	10:14 118	16:13 56S	22:11 242
2024 Oct 09 (Wed)	11:10 119	17:08 55S	23:06 241
2024 Oct 10 (Thu)	12:06 119	18:04 56S	
2024 Oct 11 (Fri)	13:01 116	19:01 58S	00:03 242
2024 Oct 12 (Sat)	13:55 113	19:56 62S	01:01 245
2024 Oct 13 (Sun)	14:46 108	20:49 68S	01:58 250
2024 Oct 14 (Mon)	15:34 101	21:41 74S	02:54 255
2024 Oct 15 (Tue)	16:22 94	22:32 82S	03:49 262
2024 Oct 16 (Wed)	17:09 86	23:23 89S	04:44 270
2024 Oct 17 (Thu)	17:58 79		05:39 277
2024 Oct 18 (Fri)	18:49 72	00:16 85N	06:36 284
2024 Oct 19 (Sat)	19:44 67	01:12 78N	07:36 291
2024 Oct 20 (Sun)	20:43 63	02:11 73N	08:38 295
2024 Oct 21 (Mon)	21:43 61	03:12 70N	09:41 298
2024 Oct 22 (Tue)	22:44 61	04:13 68N	10:43 299
2024 Oct 23 (Wed)	23:41 63	05:13 69N	11:41 298
2024 Oct 24 (Thu)		06:08 71N	12:34 295
2024 Oct 25 (Fri)	00:35 67	06:59 75N	13:21 291
2024 Oct 26 (Sat)	01:25 71	07:45 80N	14:04 286
2024 Oct 27 (Sun)	02:11 76	08:28 85N	14:43 281
2024 Oct 28 (Mon)	02:55 82	09:08 91N	15:20 275
2024 Oct 29 (Tue)	03:36 88	09:47 85S	15:56 269
2024 Oct 30 (Wed)	04:18 93	10:25 79S	16:32 264
2024 Oct 31 (Thu)	05:00 99	11:05 73S	17:09 258
2024 Nov 01 (Fri)	05:43 105	11:46 68S	17:48 253
2024 Nov 02 (Sat)	06:29 110	12:31 63S	18:31 248
2024 Nov 03 (Sun)	07:18 114	13:18 59S	19:17 245
2024 Nov 04 (Mon)	08:10 117	14:09 56S	20:07 242
2024 Nov 05 (Tue)	09:05 119	15:03 55S	21:01 241
2024 Nov 06 (Wed)	10:01 119	15:59 55S	21:57 242

2024 Nov 07 (Thu)	10:55 117	16:55 57S	22:54 244
2024 Nov 08 (Fri)	11:48 114	17:49 61S	23:50 248
2024 Nov 09 (Sat)	12:39 110	18:41 65S	
2024 Nov 10 (Sun)	13:26 104	19:31 72S	00:45 253
2024 Nov 11 (Mon)	14:12 97	20:20 78S	01:38 259
2024 Nov 12 (Tue)	14:58 90	21:09 86S	02:30 266
2024 Nov 13 (Wed)	15:44 83	22:00 88N	03:23 274
2024 Nov 14 (Thu)	16:33 76	22:53 81N	04:17 281
2024 Nov 15 (Fri)	17:26 70	23:50 76N	05:15 287
2024 Nov 16 (Sat)	18:23 65		06:16 293
2024 Nov 17 (Sun)	19:24 62	00:51 71N	07:20 297
2024 Nov 18 (Mon)	20:27 61	01:54 69N	08:24 299
2024 Nov 19 (Tue)	21:28 62	02:57 69N	09:26 298
2024 Nov 20 (Wed)	22:25 65	03:56 70N	10:23 296
2024 Nov 21 (Thu)	23:18 69	04:50 74N	11:14 293
2024 Nov 22 (Fri)		05:39 78N	12:00 288
2024 Nov 23 (Sat)	00:06 74	06:24 83N	12:41 283
2024 Nov 24 (Sun)	00:51 80	07:06 89N	13:19 277
2024 Nov 25 (Mon)	01:34 86	07:45 87S	13:55 271
2024 Nov 26 (Tue)	02:15 91	08:24 81S	14:31 266
2024 Nov 27 (Wed)	02:57 97	09:03 75S	15:08 260
2024 Nov 28 (Thu)	03:40 103	09:44 70S	15:46 255
2024 Nov 29 (Fri)	04:25 108	10:27 65S	16:28 250
2024 Nov 30 (Sat)	05:13 112	11:13 60S	17:13 246
2024 Dec 01 (Sun)	06:05 116	12:04 57S	18:02 243
2024 Dec 02 (Mon)	06:59 118	12:58 55S	18:56 241
2024 Dec 03 (Tue)	07:55 119	13:54 55S	19:52 242
2024 Dec 04 (Wed)	08:51 118	14:50 57S	20:50 243
2024 Dec 05 (Thu)	09:45 115	15:45 60S	21:46 247
2024 Dec 06 (Fri)	10:36 111	16:38 64S	22:41 252
2024 Dec 07 (Sat)	11:24 106	17:28 70S	23:33 257
2024 Dec 08 (Sun)	12:09 99	18:16 76S	
2024 Dec 09 (Mon)	12:53 92	19:03 83S	00:24 264
2024 Dec 10 (Tue)	13:37 85	19:51 90S	01:15 271
2024 Dec 11 (Wed)	14:23 79	20:41 84N	02:06 278
2024 Dec 12 (Thu)	15:12 72	21:34 78N	03:00 285
2024 Dec 13 (Fri)	16:06 67	22:32 73N	03:58 291
2024 Dec 14 (Sat)	17:05 63	23:33 70N	04:59 295
2024 Dec 15 (Sun)	18:06 62		06:03 298
2024 Dec 16 (Mon)	19:09 62	00:36 69N	07:07 299
2024 Dec 17 (Tue)	20:09 64	01:38 69N	08:07 297
2024 Dec 18 (Wed)	21:05 68	02:36 72N	09:02 294
2024 Dec 19 (Thu)	21:57 72	03:29 76N	09:51 290
2024 Dec 20 (Fri)	22:44 78	04:17 81N	10:35 285
2024 Dec 21 (Sat)	23:28 83	05:00 87N	11:15 279
2024 Dec 22 (Sun)		05:41 89S	11:52 274
2024 Dec 23 (Mon)	00:11 89	06:20 83S	12:28 268
2024 Dec 24 (Tue)	00:52 95	06:59 77S	13:05 262
2024 Dec 25 (Wed)	01:35 101	07:39 72S	13:42 257
2024 Dec 26 (Thu)	02:19 106	08:21 66S	14:22 252
2024 Dec 27 (Fri)	03:06 111	09:06 62S	15:06 247
2024 Dec 28 (Sat)	03:56 115	09:55 58S	15:54 244
2024 Dec 29 (Sun)	04:50 117	10:48 56S	16:47 242
2024 Dec 30 (Mon)	05:46 119	11:44 55S	17:43 241
2024 Dec 31 (Tue)	06:43 118	12:42 56S	18:41 243