

Introduction to Reports Generated by Astronomy Lab 2

In all reports, times and dates are in standard time (not daylight savings time or summer time). Times are in 24 hour format.

Abbreviations used in reports:

AU	Astronomical Units
D	Degrees
DEC	Declination
DIST	Distance
DSO	December Solstice
E	East
FM	Full Moon
FQ	First Quarter Moon
H	Hours
ILL FR, ILLUM FRAC	Illuminated Fraction
JSO	June Solstice
KM	Kilometers
LE	Lunar Eclipse
LQ	Last Quarter Moon
M	Minutes
MEQ	March Equinox
MR	Moon Rise
MS	Moon Set
N	North
NM	New Moon
RA	Right Ascension
S	South, Seconds
SE	Solar Eclipse
SEQ	September Equinox
SR	Sunrise
SS	Sunset
UT	Universal Time
W	West
ZHR	Zenithal Hourly Rate

Calendar Report for 1/ 1/2022 to 12/31/2022

January                      2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 SR: 7:49 SS: 17:10 MR: 6:52 MS: 16:00
2 SR: 7:49 SS: 17:11 MR: 8:03 MS: 17:06 NM: 11:36	3 SR: 7:50 SS: 17:12 MR: 9:03 MS: 18:20	4 SR: 7:50 SS: 17:13 MR: 9:51 MS: 19:37	5 SR: 7:50 SS: 17:14 MR: 10:29 MS: 20:52	6 SR: 7:49 SS: 17:15 MR: 11:00 MS: 22:03	7 SR: 7:49 SS: 17:16 MR: 11:26 MS: 23:10	8 SR: 7:49 SS: 17:17 MR: 11:50 MS: None
9 SR: 7:49 SS: 17:18 MR: 12:12 MS: 0:14 FQ: 11:13	10 SR: 7:49 SS: 17:19 MR: 12:35 MS: 1:16	11 SR: 7:49 SS: 17:20 MR: 12:59 MS: 2:17	12 SR: 7:48 SS: 17:21 MR: 13:27 MS: 3:18	13 SR: 7:48 SS: 17:22 MR: 13:58 MS: 4:19	14 SR: 7:48 SS: 17:23 MR: 14:36 MS: 5:20	15 SR: 7:47 SS: 17:24 MR: 15:20 MS: 6:17
16 SR: 7:47 SS: 17:25 MR: 16:11 MS: 7:10	17 SR: 7:46 SS: 17:26 MR: 17:09 MS: 7:57 FM: 16:51	18 SR: 7:46 SS: 17:27 MR: 18:11 MS: 8:38	19 SR: 7:45 SS: 17:29 MR: 19:15 MS: 9:12	20 SR: 7:45 SS: 17:30 MR: 20:20 MS: 9:42	21 SR: 7:44 SS: 17:31 MR: 21:25 MS: 10:08	22 SR: 7:43 SS: 17:32 MR: 22:31 MS: 10:33
23 SR: 7:43 SS: 17:33 MR: 23:38 MS: 10:57	24 SR: 7:42 SS: 17:34 MR: None MS: 11:21	25 SR: 7:41 SS: 17:36 MR: 0:47 MS: 11:48 LQ: 6:43	26 SR: 7:41 SS: 17:37 MR: 1:59 MS: 12:19	27 SR: 7:40 SS: 17:38 MR: 3:13 MS: 12:57	28 SR: 7:39 SS: 17:39 MR: 4:29 MS: 13:44	29 SR: 7:38 SS: 17:41 MR: 5:41 MS: 14:43
30 SR: 7:37 SS: 17:42 MR: 6:45 MS: 15:52	31 SR: 7:36 SS: 17:43 MR: 7:39 MS: 17:08 NM: 22:49					

February                      2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 SR: 7:35 SS: 17:44 MR: 8:22 MS: 18:25	2 SR: 7:34 SS: 17:45 MR: 8:56 MS: 19:39	3 SR: 7:33 SS: 17:47 MR: 9:25 MS: 20:50	4 SR: 7:32 SS: 17:48 MR: 9:50 MS: 21:57	5 SR: 7:31 SS: 17:49 MR: 10:13 MS: 23:02
6 SR: 7:30 SS: 17:50 MR: 10:36 MS: None	7 SR: 7:29 SS: 17:52 MR: 11:01 MS: 0:05	8 SR: 7:28 SS: 17:53 MR: 11:27 MS: 1:08 FQ: 6:52	9 SR: 7:27 SS: 17:54 MR: 11:57 MS: 2:09	10 SR: 7:26 SS: 17:55 MR: 12:32 MS: 3:10	11 SR: 7:24 SS: 17:56 MR: 13:14 MS: 4:09	12 SR: 7:23 SS: 17:58 MR: 14:03 MS: 5:04
13 SR: 7:22 SS: 17:59 MR: 14:58 MS: 5:53	14 SR: 7:21 SS: 18:00 MR: 15:59 MS: 6:36	15 SR: 7:19 SS: 18:01 MR: 17:04 MS: 7:13	16 SR: 7:18 SS: 18:02 MR: 18:10 MS: 7:44 FM: 10:00	17 SR: 7:17 SS: 18:04 MR: 19:16 MS: 8:12	18 SR: 7:15 SS: 18:05 MR: 20:23 MS: 8:37	19 SR: 7:14 SS: 18:06 MR: 21:30 MS: 9:01
20 SR: 7:13 SS: 18:07 MR: 22:39 MS: 9:25	21 SR: 7:11 SS: 18:08 MR: 23:50 MS: 9:51	22 SR: 7:10 SS: 18:09 MR: None MS: 10:20	23 SR: 7:08 SS: 18:11 MR: 1:03 MS: 10:55 LQ: 15:35	24 SR: 7:07 SS: 18:12 MR: 2:17 MS: 11:38	25 SR: 7:05 SS: 18:13 MR: 3:29 MS: 12:30	26 SR: 7:04 SS: 18:14 MR: 4:34 MS: 13:34
27 SR: 7:02 SS: 18:15 MR: 5:30 MS: 14:45	28 SR: 7:01 SS: 18:16 MR: 6:15 MS: 16:00					





May                      2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 SR: 5:25 SS: 19:22 MR: 5:54 MS: 20:32	2 SR: 5:24 SS: 19:23 MR: 6:23 MS: 21:36	3 SR: 5:22 SS: 19:24 MR: 6:58 MS: 22:36	4 SR: 5:21 SS: 19:25 MR: 7:38 MS: 23:32	5 SR: 5:20 SS: 19:26 MR: 8:26 MS: None	6 SR: 5:19 SS: 19:27 MR: 9:20 MS: 0:22	7 SR: 5:18 SS: 19:28 MR: 10:19 MS: 1:05
8 SR: 5:16 SS: 19:29 MR: 11:21 MS: 1:42 FQ: 17:22	9 SR: 5:15 SS: 19:30 MR: 12:25 MS: 2:13	10 SR: 5:14 SS: 19:31 MR: 13:30 MS: 2:40	11 SR: 5:13 SS: 19:32 MR: 14:36 MS: 3:05	12 SR: 5:12 SS: 19:33 MR: 15:44 MS: 3:29	13 SR: 5:11 SS: 19:34 MR: 16:55 MS: 3:53	14 SR: 5:10 SS: 19:35 MR: 18:10 MS: 4:19
15 SR: 5:09 SS: 19:36 MR: 19:28 MS: 4:49 FM: 21:16 LE: 21:11	16 SR: 5:08 SS: 19:37 MR: 20:47 MS: 5:24	17 SR: 5:07 SS: 19:38 MR: 22:04 MS: 6:09	18 SR: 5:07 SS: 19:39 MR: 23:13 MS: 7:04	19 SR: 5:06 SS: 19:40 MR: None MS: 8:10	20 SR: 5:05 SS: 19:41 MR: 0:10 MS: 9:23	21 SR: 5:04 SS: 19:41 MR: 0:55 MS: 10:38
22 SR: 5:03 SS: 19:42 MR: 1:31 MS: 11:51 LQ: 11:45	23 SR: 5:03 SS: 19:43 MR: 2:00 MS: 13:01	24 SR: 5:02 SS: 19:44 MR: 2:25 MS: 14:08	25 SR: 5:01 SS: 19:45 MR: 2:48 MS: 15:13	26 SR: 5:01 SS: 19:46 MR: 3:10 MS: 16:16	27 SR: 5:00 SS: 19:47 MR: 3:33 MS: 17:20	28 SR: 5:00 SS: 19:47 MR: 3:57 MS: 18:23
29 SR: 4:59 SS: 19:48 MR: 4:25 MS: 19:26	30 SR: 4:58 SS: 19:49 MR: 4:58 MS: 20:27 NM: 4:32	31 SR: 4:58 SS: 19:50 MR: 5:36 MS: 21:25				

June                      2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 SR: 4:58 SS: 19:50 MR: 6:21 MS: 22:17	2 SR: 4:57 SS: 19:51 MR: 7:12 MS: 23:03	3 SR: 4:57 SS: 19:52 MR: 8:10 MS: 23:42	4 SR: 4:56 SS: 19:53 MR: 9:10 MS: None
5 SR: 4:56 SS: 19:53 MR: 10:13 MS: 0:14	6 SR: 4:56 SS: 19:54 MR: 11:16 MS: 0:42	7 SR: 4:56 SS: 19:54 MR: 12:21 MS: 1:07 FQ: 7:49	8 SR: 4:55 SS: 19:55 MR: 13:26 MS: 1:31	9 SR: 4:55 SS: 19:56 MR: 14:33 MS: 1:54	10 SR: 4:55 SS: 19:56 MR: 15:44 MS: 2:18	11 SR: 4:55 SS: 19:57 MR: 16:59 MS: 2:45
12 SR: 4:55 SS: 19:57 MR: 18:18 MS: 3:16	13 SR: 4:55 SS: 19:57 MR: 19:37 MS: 3:56	14 SR: 4:55 SS: 19:58 MR: 20:52 MS: 4:46 FM: 4:53	15 SR: 4:55 SS: 19:58 MR: 21:57 MS: 5:48	16 SR: 4:55 SS: 19:59 MR: 22:49 MS: 7:01	17 SR: 4:55 SS: 19:59 MR: 23:29 MS: 8:19	18 SR: 4:55 SS: 19:59 MR: None MS: 9:36
19 SR: 4:55 SS: 20:00 MR: 0:02 MS: 10:49	20 SR: 4:55 SS: 20:00 MR: 0:29 MS: 11:59 LQ: 20:12	21 SR: 4:56 SS: 20:00 MR: 0:53 MS: 13:05 JSO: 2:15	22 SR: 4:56 SS: 20:00 MR: 1:15 MS: 14:10	23 SR: 4:56 SS: 20:00 MR: 1:38 MS: 15:13	24 SR: 4:56 SS: 20:00 MR: 2:02 MS: 16:16	25 SR: 4:57 SS: 20:01 MR: 2:28 MS: 17:19
26 SR: 4:57 SS: 20:01 MR: 2:59 MS: 18:20	27 SR: 4:57 SS: 20:01 MR: 3:35 MS: 19:19	28 SR: 4:58 SS: 20:01 MR: 4:18 MS: 20:13 NM: 19:53	29 SR: 4:58 SS: 20:01 MR: 5:08 MS: 21:01	30 SR: 4:59 SS: 20:00 MR: 6:03 MS: 21:42		

July                      2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 SR: 4:59 SS: 20:00 MR: 7:03 MS: 22:16	2 SR: 5:00 SS: 20:00 MR: 8:05 MS: 22:45
3 SR: 5:00 SS: 20:00 MR: 9:08 MS: 23:11	4 SR: 5:01 SS: 20:00 MR: 10:11 MS: 23:34	5 SR: 5:01 SS: 20:00 MR: 11:15 MS: 23:56	6 SR: 5:02 SS: 19:59 MR: 12:19 MS: None FQ: 19:15	7 SR: 5:03 SS: 19:59 MR: 13:26 MS: 0:19	8 SR: 5:03 SS: 19:59 MR: 14:37 MS: 0:44	9 SR: 5:04 SS: 19:58 MR: 15:51 MS: 1:12
10 SR: 5:05 SS: 19:58 MR: 17:09 MS: 1:47	11 SR: 5:05 SS: 19:57 MR: 18:26 MS: 2:30	12 SR: 5:06 SS: 19:57 MR: 19:36 MS: 3:26	13 SR: 5:07 SS: 19:56 MR: 20:35 MS: 4:34 FM: 11:38	14 SR: 5:08 SS: 19:56 MR: 21:22 MS: 5:51	15 SR: 5:08 SS: 19:55 MR: 21:59 MS: 7:11	16 SR: 5:09 SS: 19:55 MR: 22:29 MS: 8:29
17 SR: 5:10 SS: 19:54 MR: 22:55 MS: 9:43	18 SR: 5:11 SS: 19:53 MR: 23:19 MS: 10:52	19 SR: 5:12 SS: 19:53 MR: 23:41 MS: 11:59	20 SR: 5:12 SS: 19:52 MR: None MS: 13:04 LQ: 7:19	21 SR: 5:13 SS: 19:51 MR: 0:05 MS: 14:08	22 SR: 5:14 SS: 19:50 MR: 0:31 MS: 15:12	23 SR: 5:15 SS: 19:49 MR: 1:00 MS: 16:14
24 SR: 5:16 SS: 19:49 MR: 1:35 MS: 17:14	25 SR: 5:17 SS: 19:48 MR: 2:15 MS: 18:09	26 SR: 5:18 SS: 19:47 MR: 3:03 MS: 18:59	27 SR: 5:19 SS: 19:46 MR: 3:57 MS: 19:42	28 SR: 5:20 SS: 19:45 MR: 4:56 MS: 20:18 NM: 10:55	29 SR: 5:20 SS: 19:44 MR: 5:58 MS: 20:49	30 SR: 5:21 SS: 19:43 MR: 7:01 MS: 21:15
31 SR: 5:22 SS: 19:42 MR: 8:05 MS: 21:39						

August                      2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 SR: 5:23 SS: 19:41 MR: 9:08 MS: 22:01	2 SR: 5:24 SS: 19:40 MR: 10:11 MS: 22:23	3 SR: 5:25 SS: 19:38 MR: 11:17 MS: 22:47	4 SR: 5:26 SS: 19:37 MR: 12:24 MS: 23:13	5 SR: 5:27 SS: 19:36 MR: 13:35 MS: 23:43 FQ: 4:08	6 SR: 5:28 SS: 19:35 MR: 14:49 MS: None
7 SR: 5:29 SS: 19:34 MR: 16:04 MS: 0:21	8 SR: 5:30 SS: 19:33 MR: 17:16 MS: 1:10	9 SR: 5:31 SS: 19:31 MR: 18:19 MS: 2:11	10 SR: 5:32 SS: 19:30 MR: 19:11 MS: 3:23	11 SR: 5:33 SS: 19:29 MR: 19:52 MS: 4:42 FM: 18:36	12 SR: 5:34 SS: 19:27 MR: 20:26 MS: 6:01	13 SR: 5:35 SS: 19:26 MR: 20:54 MS: 7:19
14 SR: 5:36 SS: 19:25 MR: 21:19 MS: 8:32	15 SR: 5:37 SS: 19:23 MR: 21:43 MS: 9:42	16 SR: 5:38 SS: 19:22 MR: 22:07 MS: 10:50	17 SR: 5:39 SS: 19:20 MR: 22:32 MS: 11:56	18 SR: 5:40 SS: 19:19 MR: 23:00 MS: 13:01 LQ: 21:37	19 SR: 5:41 SS: 19:18 MR: 23:33 MS: 14:05	20 SR: 5:42 SS: 19:16 MR: None MS: 15:06
21 SR: 5:43 SS: 19:15 MR: 0:12 MS: 16:04	22 SR: 5:44 SS: 19:13 MR: 0:57 MS: 16:56	23 SR: 5:45 SS: 19:12 MR: 1:50 MS: 17:41	24 SR: 5:46 SS: 19:10 MR: 2:47 MS: 18:19	25 SR: 5:47 SS: 19:09 MR: 3:49 MS: 18:51	26 SR: 5:47 SS: 19:07 MR: 4:53 MS: 19:19	27 SR: 5:48 SS: 19:06 MR: 5:57 MS: 19:44 NM: 1:17
28 SR: 5:49 SS: 19:04 MR: 7:00 MS: 20:06	29 SR: 5:50 SS: 19:02 MR: 8:05 MS: 20:28	30 SR: 5:51 SS: 19:01 MR: 9:10 MS: 20:51	31 SR: 5:52 SS: 18:59 MR: 10:17 MS: 21:16			

September                      2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
				SR: 5:53	SR: 5:54	SR: 5:55
				SS: 18:58	SS: 18:56	SS: 18:54
				MR: 11:26	MR: 12:38	MR: 13:52
				MS: 21:44	MS: 22:19	MS: 23:03
						FQ: 11:09
4	5	6	7	8	9	10
SR: 5:56	SR: 5:57	SR: 5:58	SR: 5:59	SR: 6:00	SR: 6:01	SR: 6:02
SS: 18:53	SS: 18:51	SS: 18:50	SS: 18:48	SS: 18:46	SS: 18:45	SS: 18:43
MR: 15:03	MR: 16:07	MR: 17:02	MR: 17:46	MR: 18:22	MR: 18:52	MR: 19:18
MS: 23:57	MS: None	MS: 1:03	MS: 2:17	MS: 3:35	MS: 4:53	MS: 6:08
						FM: 2:59
11	12	13	14	15	16	17
SR: 6:03	SR: 6:04	SR: 6:05	SR: 6:06	SR: 6:07	SR: 6:08	SR: 6:09
SS: 18:41	SS: 18:40	SS: 18:38	SS: 18:36	SS: 18:35	SS: 18:33	SS: 18:31
MR: 19:42	MR: 20:06	MR: 20:31	MR: 20:59	MR: 21:30	MR: 22:07	MR: 22:50
MS: 7:20	MS: 8:30	MS: 9:38	MS: 10:46	MS: 11:51	MS: 12:55	MS: 13:55
						LQ: 14:52
18	19	20	21	22	23	24
SR: 6:10	SR: 6:11	SR: 6:12	SR: 6:13	SR: 6:14	SR: 6:15	SR: 6:16
SS: 18:30	SS: 18:28	SS: 18:26	SS: 18:24	SS: 18:23	SS: 18:21	SS: 18:19
MR: 23:40	MR: None	MR: 0:36	MR: 1:37	MR: 2:40	MR: 3:44	MR: 4:49
MS: 14:50	MS: 15:38	MS: 16:18	MS: 16:52	MS: 17:21	MS: 17:47	MS: 18:10
				SEQ:18:04		
25	26	27	28	29	30	
SR: 6:17	SR: 6:18	SR: 6:19	SR: 6:20	SR: 6:21	SR: 6:22	
SS: 18:18	SS: 18:16	SS: 18:14	SS: 18:13	SS: 18:11	SS: 18:09	
MR: 5:53	MR: 6:59	MR: 8:07	MR: 9:17	MR: 10:30	MR: 11:43	
MS: 18:33	MS: 18:55	MS: 19:19	MS: 19:47	MS: 20:20	MS: 21:00	
NM: 14:54						

October                      2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 SR: 6:23 SS: 18:08 MR: 12:55 MS: 21:51
2 SR: 6:24 SS: 18:06 MR: 14:01 MS: 22:52 FQ: 17:15	3 SR: 6:25 SS: 18:05 MR: 14:58 MS: None	4 SR: 6:26 SS: 18:03 MR: 15:44 MS: 0:02	5 SR: 6:27 SS: 18:01 MR: 16:22 MS: 1:18	6 SR: 6:28 SS: 18:00 MR: 16:53 MS: 2:34	7 SR: 6:29 SS: 17:58 MR: 17:19 MS: 3:48	8 SR: 6:30 SS: 17:56 MR: 17:43 MS: 5:00
9 SR: 6:31 SS: 17:55 MR: 18:07 MS: 6:10 FM: 13:55	10 SR: 6:32 SS: 17:53 MR: 18:31 MS: 7:19	11 SR: 6:33 SS: 17:52 MR: 18:57 MS: 8:27	12 SR: 6:34 SS: 17:50 MR: 19:27 MS: 9:34	13 SR: 6:35 SS: 17:49 MR: 20:02 MS: 10:40	14 SR: 6:36 SS: 17:47 MR: 20:42 MS: 11:43	15 SR: 6:37 SS: 17:46 MR: 21:30 MS: 12:41
16 SR: 6:38 SS: 17:44 MR: 22:24 MS: 13:32	17 SR: 6:39 SS: 17:43 MR: 23:23 MS: 14:15 LQ: 10:16	18 SR: 6:40 SS: 17:41 MR: None MS: 14:52	19 SR: 6:41 SS: 17:40 MR: 0:25 MS: 15:22	20 SR: 6:42 SS: 17:38 MR: 1:28 MS: 15:49	21 SR: 6:44 SS: 17:37 MR: 2:32 MS: 16:13	22 SR: 6:45 SS: 17:35 MR: 3:37 MS: 16:35
23 SR: 6:46 SS: 17:34 MR: 4:43 MS: 16:58	24 SR: 6:47 SS: 17:33 MR: 5:50 MS: 17:21	25 SR: 6:48 SS: 17:31 MR: 7:01 MS: 17:48 NM: 3:48 SE: 3:58	26 SR: 6:49 SS: 17:30 MR: 8:14 MS: 18:19	27 SR: 6:50 SS: 17:29 MR: 9:30 MS: 18:57	28 SR: 6:51 SS: 17:27 MR: 10:45 MS: 19:45	29 SR: 6:53 SS: 17:26 MR: 11:55 MS: 20:44
30 SR: 6:54 SS: 17:25 MR: 12:55 MS: 21:53	31 SR: 6:55 SS: 17:24 MR: 13:45 MS: 23:07 FQ: 23:39					

November                      2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 SR: 6:56 SS: 17:22 MR: 14:24 MS: None	2 SR: 6:57 SS: 17:21 MR: 14:56 MS: 0:22	3 SR: 6:58 SS: 17:20 MR: 15:23 MS: 1:36	4 SR: 7:00 SS: 17:19 MR: 15:47 MS: 2:47	5 SR: 7:01 SS: 17:18 MR: 16:10 MS: 3:55
6 SR: 7:02 SS: 17:17 MR: 16:33 MS: 5:03	7 SR: 7:03 SS: 17:16 MR: 16:58 MS: 6:11	8 SR: 7:04 SS: 17:15 MR: 17:26 MS: 7:18 FM: 4:03 LE: 4:00	9 SR: 7:05 SS: 17:14 MR: 17:58 MS: 8:25	10 SR: 7:07 SS: 17:13 MR: 18:37 MS: 9:29	11 SR: 7:08 SS: 17:12 MR: 19:22 MS: 10:30	12 SR: 7:09 SS: 17:11 MR: 20:13 MS: 11:24
13 SR: 7:10 SS: 17:10 MR: 21:11 MS: 12:11	14 SR: 7:11 SS: 17:09 MR: 22:11 MS: 12:50	15 SR: 7:12 SS: 17:08 MR: 23:14 MS: 13:22	16 SR: 7:14 SS: 17:07 MR: None MS: 13:50 LQ: 6:29	17 SR: 7:15 SS: 17:07 MR: 0:16 MS: 14:14	18 SR: 7:16 SS: 17:06 MR: 1:20 MS: 14:37	19 SR: 7:17 SS: 17:05 MR: 2:23 MS: 14:59
20 SR: 7:18 SS: 17:05 MR: 3:29 MS: 15:21	21 SR: 7:19 SS: 17:04 MR: 4:38 MS: 15:46	22 SR: 7:20 SS: 17:03 MR: 5:50 MS: 16:15	23 SR: 7:22 SS: 17:03 MR: 7:06 MS: 16:51 NM: 15:57	24 SR: 7:23 SS: 17:02 MR: 8:24 MS: 17:35	25 SR: 7:24 SS: 17:02 MR: 9:39 MS: 18:32	26 SR: 7:25 SS: 17:01 MR: 10:46 MS: 19:39
27 SR: 7:26 SS: 17:01 MR: 11:41 MS: 20:54	28 SR: 7:27 SS: 17:01 MR: 12:25 MS: 22:11	29 SR: 7:28 SS: 17:00 MR: 12:59 MS: 23:26	30 SR: 7:29 SS: 17:00 MR: 13:28 MS: None FQ: 7:39			



Midway, UT (JMC)      Latitude: 40°30'43" N    Longitude: 111°28'40" W  
Local Time = UT - 7.00 hours    Elevation: 1706 meters      Year 2022  
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#### Seasons Report for 2022

MEQ: 3/20/2022 8:33	Winter Length: 88.98 days
JSO: 6/21/2022 2:15	Spring Length: 92.74 days
SEQ: 9/22/2022 18:04	Summer Length: 93.66 days
DSO: 12/21/2022 14:47	Autumn Length: 89.86 days

#### Dates of Easter Report for 2022

4/17/2022

#### Lunar Eclipse Report for 2022

Lunar eclipse on 5/15/2022  
Moon rise: 19:28  
Moon set: 4:49  
Magnitude: 1.41  
Partial phase begins: 19:28  
Total phase begins: 20:29  
Time of maximum eclipse: 21:11  
Total phase ends: 21:53  
Partial phase ends: 22:54

Lunar eclipse on 11/ 8/2022  
Moon rise: 17:26  
Moon set: 7:18  
Magnitude: 1.36  
Partial phase begins: 2:11  
Total phase begins: 3:18  
Time of maximum eclipse: 4:00  
Total phase ends: 4:42  
Partial phase ends: 5:50

#### Solar Eclipse Report for 2022

Solar eclipse on 4/30/2022  
Sun rise: 5:26  
Sun set: 19:21  
Time of maximum eclipse: 13:46  
Eclipse is partial, maximum magnitude = 0.64  
Eclipse is visible in the southern hemisphere

Solar eclipse on 10/25/2022  
Sun rise: 6:48  
Sun set: 17:31  
Time of maximum eclipse: 3:58  
Eclipse is partial, maximum magnitude = 0.86  
Eclipse is visible in the northern hemisphere

The time of maximum eclipse (above) does not necessarily specify when the eclipse will be maximal when viewed from the specified location.

To see how the eclipse will look at the specified location, run a Planetarium movie of the eclipse.

Planet View Info Report for 1/ 1/2022 to 12/31/2022

Mercury

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
1/ 1/2022	9:05	18:31	20h02m45s	-22°18'23"	17°44'53"	0.782	1.14153
1/ 8/2022	8:59	18:49	20h37m51s	-19°18'34"	19°12'27"	0.565	0.97123
1/15/2022	8:30	18:38	20h49m49s	-16°37'41"	15°32'36"	0.242	0.78865
1/22/2022	7:36	17:44	20h27m04s	-16°01'07"	4°27'18"	0.015	0.67179
1/29/2022	6:41	16:40	19h53m22s	-17°19'18"	12°31'53"	0.103	0.68161
2/ 5/2022	6:12	16:01	19h43m26s	-18°46'00"	21°52'21"	0.324	0.77710
2/12/2022	6:02	15:48	19h57m40s	-19°30'25"	25°40'55"	0.507	0.89587
2/19/2022	6:03	15:51	20h25m53s	-19°17'28"	26°10'58"	0.635	1.00948
2/26/2022	6:06	16:05	21h01m29s	-18°02'16"	24°47'02"	0.726	1.10963
3/ 5/2022	6:09	16:27	21h41m08s	-15°44'01"	22°07'25"	0.797	1.19471
3/12/2022	6:11	16:55	22h23m15s	-12°23'34"	18°26'15"	0.858	1.26441
3/19/2022	6:12	17:28	23h07m24s	-8°02'44"	13°45'40"	0.914	1.31711
3/26/2022	6:13	18:06	23h53m49s	-2°44'40"	8°02'45"	0.966	1.34752
4/ 2/2022	6:13	18:49	0h43m08s	3°22'05"	1°32'21"	0.998	1.34403
4/ 9/2022	6:15	19:37	1h35m20s	9°53'08"	6°33'51"	0.966	1.28837
4/16/2022	6:18	20:24	2h27m48s	15°55'03"	13°49'32"	0.815	1.16897
4/23/2022	6:19	20:58	3h14m26s	20°23'30"	18°58'10"	0.582	1.00527
4/30/2022	6:15	21:12	3h49m02s	22°49'00"	20°35'17"	0.357	0.83749
5/ 7/2022	6:03	21:00	4h07m34s	23°15'43"	18°02'12"	0.178	0.69582
5/14/2022	5:42	20:25	4h08m46s	21°57'13"	11°11'57"	0.052	0.59725
5/21/2022	5:13	19:33	3h57m01s	19°24'31"	1°35'08"	0.001	0.55240
5/28/2022	4:42	18:44	3h43m27s	16°49'33"	9°37'59"	0.034	0.56422
6/ 4/2022	4:15	18:09	3h38m53s	15°30'37"	17°42'21"	0.129	0.62553
6/11/2022	3:56	17:55	3h47m44s	15°53'40"	22°09'43"	0.255	0.72454
6/18/2022	3:44	17:59	4h10m04s	17°38'02"	23°08'25"	0.398	0.85100
6/25/2022	3:43	18:19	4h45m17s	20°05'20"	21°04'42"	0.564	0.99543
7/ 2/2022	3:54	18:51	5h33m24s	22°27'28"	16°17'40"	0.753	1.14287
7/ 9/2022	4:22	19:29	6h33m04s	23°43'32"	9°15'03"	0.924	1.26528
7/16/2022	5:04	20:02	7h38m17s	22°59'23"	1°44'24"	0.998	1.33000
7/23/2022	5:50	20:23	8h40m17s	20°12'48"	7°15'22"	0.965	1.33015
7/30/2022	6:33	20:31	9h34m28s	16°05'55"	13°56'30"	0.887	1.28529
8/ 6/2022	7:09	20:31	10h20m39s	11°21'40"	19°19'55"	0.805	1.21535
8/13/2022	7:37	20:24	10h59m56s	6°29'21"	23°25'05"	0.724	1.13135
8/20/2022	7:58	20:13	11h33m10s	1°49'20"	26°09'22"	0.640	1.03811
8/27/2022	8:11	19:57	12h00m08s	-2°19'55"	27°18'33"	0.543	0.93782
9/ 3/2022	8:12	19:37	12h19m10s	-5°34'08"	26°17'43"	0.421	0.83340
9/10/2022	7:56	19:10	12h26m25s	-7°12'45"	21°58'56"	0.265	0.73315
9/17/2022	7:13	18:35	12h16m58s	-6°13'09"	12°53'58"	0.090	0.65923
9/24/2022	6:08	17:59	11h53m47s	-2°13'16"	3°02'22"	0.006	0.65480
10/ 1/2022	5:14	17:32	11h38m41s	1°54'11"	13°27'10"	0.160	0.75728
10/ 8/2022	4:59	17:20	11h50m27s	2°30'46"	17°56'08"	0.483	0.94019
10/15/2022	5:15	17:17	12h23m26s	-0°22'21"	16°12'35"	0.762	1.12923
10/22/2022	5:46	17:15	13h04m53s	-4°56'07"	11°51'44"	0.914	1.27528
10/29/2022	6:19	17:14	13h48m18s	-9°49'44"	7°00'03"	0.977	1.37125
11/ 5/2022	6:51	17:14	14h32m03s	-14°25'08"	2°20'15"	0.998	1.42551
11/12/2022	7:23	17:15	15h16m11s	-18°25'19"	1°59'51"	0.999	1.44616
11/19/2022	7:54	17:20	16h01m08s	-21°40'42"	6°02'01"	0.987	1.43784
11/26/2022	8:22	17:29	16h47m07s	-24°03'29"	9°50'58"	0.965	1.40197
12/ 3/2022	8:47	17:43	17h33m52s	-25°25'58"	13°28'52"	0.927	1.33741
12/10/2022	9:06	18:01	18h20m14s	-25°41'03"	16°49'52"	0.861	1.24095
12/17/2022	9:16	18:20	19h03m15s	-24°45'45"	19°26'26"	0.741	1.10862

12/24/2022	9:11	18:31	19h35m52s	-22°51'31"	19°53'25"	0.525	0.94202
12/31/2022	8:40	18:14	19h43m34s	-20°44'58"	14°50'52"	0.209	0.76982

Venus

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
1/ 1/2022	8:21	18:13	19h38m31s	-18°35'00"	13°04'54"	0.025	0.27376
1/ 8/2022	7:32	17:31	19h21m02s	-17°27'51"	4°55'14"	0.003	0.26582
1/15/2022	6:44	16:50	19h03m15s	-16°39'12"	11°16'10"	0.018	0.27224
1/22/2022	6:03	16:12	18h50m31s	-16°13'58"	20°46'42"	0.063	0.29220
1/29/2022	5:31	15:41	18h45m51s	-16°11'03"	28°42'53"	0.124	0.32312
2/ 5/2022	5:09	15:17	18h49m27s	-16°23'18"	34°45'50"	0.188	0.36205
2/12/2022	4:53	15:00	19h00m08s	-16°41'01"	39°09'45"	0.251	0.40661
2/19/2022	4:43	14:48	19h16m28s	-16°54'50"	42°14'29"	0.308	0.45508
2/26/2022	4:37	14:42	19h37m07s	-16°56'59"	44°18'17"	0.360	0.50614
3/ 5/2022	4:32	14:40	20h00m57s	-16°41'57"	45°36'08"	0.406	0.55884
3/12/2022	4:28	14:41	20h27m01s	-16°06'20"	46°19'06"	0.449	0.61261
3/19/2022	4:24	14:45	20h54m37s	-15°08'19"	46°34'50"	0.488	0.66706
3/26/2022	4:20	14:51	21h23m14s	-13°47'28"	46°29'05"	0.524	0.72181
4/ 2/2022	4:16	14:59	21h52m26s	-12°04'44"	46°06'29"	0.558	0.77653
4/ 9/2022	4:10	15:09	22h21m55s	-10°02'04"	45°30'25"	0.589	0.83101
4/16/2022	4:04	15:19	22h51m30s	-7°42'01"	44°43'07"	0.618	0.88512
4/23/2022	3:57	15:30	23h21m09s	-5°07'27"	43°46'23"	0.646	0.93871
4/30/2022	3:50	15:42	23h50m51s	-2°21'41"	42°41'53"	0.673	0.99153
5/ 7/2022	3:42	15:54	0h20m38s	0°31'42"	41°30'52"	0.698	1.04342
5/14/2022	3:34	16:06	0h50m38s	3°29'02"	40°14'07"	0.722	1.09430
5/21/2022	3:27	16:19	1h20m57s	6°26'44"	38°52'17"	0.745	1.14407
5/28/2022	3:20	16:33	1h51m46s	9°21'03"	37°26'06"	0.766	1.19250
6/ 4/2022	3:14	16:47	2h23m13s	12°08'01"	35°56'15"	0.787	1.23943
6/11/2022	3:09	17:01	2h55m25s	14°43'42"	34°23'00"	0.807	1.28476
6/18/2022	3:05	17:16	3h28m28s	17°04'10"	32°46'40"	0.826	1.32842
6/25/2022	3:04	17:30	4h02m26s	19°05'32"	31°07'41"	0.845	1.37022
7/ 2/2022	3:04	17:44	4h37m18s	20°44'01"	29°26'28"	0.862	1.40999
7/ 9/2022	3:08	17:57	5h12m58s	21°56'12"	27°43'14"	0.878	1.44762
7/16/2022	3:13	18:09	5h49m14s	22°39'19"	25°58'08"	0.894	1.48308
7/23/2022	3:22	18:18	6h25m55s	22°51'21"	24°11'29"	0.908	1.51626
7/30/2022	3:32	18:26	7h02m42s	22°31'20"	22°23'39"	0.922	1.54700
8/ 6/2022	3:45	18:30	7h39m17s	21°39'21"	20°34'48"	0.934	1.57521
8/13/2022	4:00	18:33	8h15m26s	20°16'39"	18°45'03"	0.946	1.60092
8/20/2022	4:15	18:33	8h50m57s	18°25'20"	16°54'41"	0.956	1.62409
8/27/2022	4:31	18:31	9h25m43s	16°08'17"	15°04'01"	0.965	1.64465
9/ 3/2022	4:48	18:27	9h59m44s	13°29'01"	13°13'13"	0.974	1.66254
9/10/2022	5:04	18:22	10h33m00s	10°31'21"	11°22'24"	0.981	1.67782
9/17/2022	5:21	18:15	11h05m41s	7°19'15"	9°31'49"	0.986	1.69058
9/24/2022	5:37	18:08	11h37m55s	3°56'46"	7°41'52"	0.991	1.70080
10/ 1/2022	5:54	18:00	12h09m57s	0°28'05"	5°52'54"	0.995	1.70846
10/ 8/2022	6:10	17:53	12h41m57s	-3°02'35"	4°05'36"	0.998	1.71366
10/15/2022	6:27	17:46	13h14m11s	-6°31'00"	2°22'46"	0.999	1.71653
10/22/2022	6:44	17:39	13h46m53s	-9°52'52"	1°05'51"	1.000	1.71712
10/29/2022	7:01	17:34	14h20m15s	-13°03'45"	1°47'52"	1.000	1.71544
11/ 5/2022	7:19	17:30	14h54m28s	-15°59'01"	3°24'17"	0.998	1.71155
11/12/2022	7:36	17:28	15h29m37s	-18°34'06"	5°06'43"	0.996	1.70561
11/19/2022	7:53	17:28	16h05m47s	-20°44'34"	6°49'51"	0.993	1.69769
11/26/2022	8:10	17:31	16h42m54s	-22°26'15"	8°32'38"	0.990	1.68779
12/ 3/2022	8:25	17:36	17h20m47s	-23°35'34"	10°14'49"	0.985	1.67592
12/10/2022	8:38	17:45	17h59m08s	-24°09'53"	11°56'17"	0.980	1.66221

Midway, UT (JMC) Latitude: 40°30'43" N Longitude: 111°28'40" W  
 Local Time = UT - 7.00 hours Elevation: 1706 meters Year 2022  
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12/17/2022	8:49	17:57	18h37m39s	-24°07'48"	13°36'53"	0.974	1.64673
12/24/2022	8:56	18:10	19h15m56s	-23°29'14"	15°16'33"	0.967	1.62944
12/31/2022	9:01	18:26	19h53m40s	-22°15'31"	16°55'27"	0.960	1.61032

Mars

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
1/ 1/2022	5:49	15:09	16h46m40s	-22°30'07"	27°25'41"	0.978	2.34113
1/ 8/2022	5:46	15:01	17h08m10s	-23°06'54"	29°34'28"	0.974	2.30365
1/15/2022	5:42	14:53	17h29m57s	-23°32'58"	31°41'11"	0.970	2.26482
1/22/2022	5:37	14:47	17h51m59s	-23°47'51"	33°45'38"	0.966	2.22489
1/29/2022	5:32	14:41	18h14m13s	-23°51'12"	35°47'49"	0.962	2.18398
2/ 5/2022	5:26	14:37	18h36m33s	-23°42'48"	37°47'40"	0.957	2.14222
2/12/2022	5:19	14:33	18h58m55s	-23°22'34"	39°44'53"	0.952	2.09984
2/19/2022	5:12	14:30	19h21m15s	-22°50'39"	41°39'17"	0.948	2.05706
2/26/2022	5:03	14:28	19h43m30s	-22°07'14"	43°30'58"	0.943	2.01403
3/ 5/2022	4:54	14:26	20h05m36s	-21°12'46"	45°20'02"	0.937	1.97081
3/12/2022	4:44	14:25	20h27m28s	-20°07'47"	47°06'24"	0.932	1.92759
3/19/2022	4:33	14:24	20h49m07s	-18°52'59"	48°49'56"	0.927	1.88457
3/26/2022	4:21	14:23	21h10m29s	-17°29'05"	50°30'52"	0.922	1.84185
4/ 2/2022	4:09	14:23	21h31m35s	-15°56'56"	52°09'32"	0.916	1.79943
4/ 9/2022	3:56	14:22	21h52m23s	-14°17'30"	53°46'04"	0.911	1.75742
4/16/2022	3:42	14:22	22h12m54s	-12°31'46"	55°20'31"	0.906	1.71596
4/23/2022	3:28	14:21	22h33m08s	-10°40'40"	56°53'12"	0.900	1.67508
4/30/2022	3:14	14:20	22h53m08s	-8°45'14"	58°24'40"	0.895	1.63473
5/ 7/2022	2:59	14:19	23h12m54s	-6°46'34"	59°55'19"	0.890	1.59490
5/14/2022	2:44	14:18	23h32m27s	-4°45'44"	61°25'22"	0.885	1.55568
5/21/2022	2:29	14:17	23h51m49s	-2°43'41"	62°55'13"	0.880	1.51702
5/28/2022	2:13	14:15	0h11m03s	-0°41'26"	64°25'37"	0.876	1.47881
6/ 4/2022	1:58	14:14	0h30m09s	1°19'56"	65°57'12"	0.871	1.44097
6/11/2022	1:43	14:12	0h49m08s	3°19'26"	67°30'21"	0.867	1.40349
6/18/2022	1:27	14:10	1h08m01s	5°16'11"	69°05'32"	0.863	1.36633
6/25/2022	1:12	14:08	1h26m50s	7°09'20"	70°43'38"	0.860	1.32930
7/ 2/2022	0:57	14:05	1h45m34s	8°57'58"	72°25'32"	0.856	1.29228
7/ 9/2022	0:42	14:02	2h04m11s	10°41'16"	74°11'50"	0.854	1.25524
7/16/2022	0:27	13:59	2h22m42s	12°18'37"	76°03'05"	0.851	1.21810
7/23/2022	0:12	13:55	2h41m04s	13°49'29"	78°00'19"	0.849	1.18072
7/30/2022	23:55	13:51	2h59m14s	15°13'17"	80°04'45"	0.848	1.14294
8/ 6/2022	23:41	13:46	3h17m08s	16°29'38"	82°17'19"	0.847	1.10476
8/13/2022	23:26	13:41	3h34m41s	17°38'24"	84°38'53"	0.847	1.06617
8/20/2022	23:11	13:34	3h51m48s	18°39'33"	87°10'45"	0.848	1.02706
8/27/2022	22:57	13:26	4h08m22s	19°33'10"	89°54'46"	0.849	0.98738
9/ 3/2022	22:42	13:18	4h24m13s	20°19'31"	92°52'37"	0.852	0.94720
9/10/2022	22:26	13:08	4h39m13s	20°59'10"	96°05'53"	0.856	0.90666
9/17/2022	22:10	12:56	4h53m10s	21°32'48"	99°36'45"	0.861	0.86584
9/24/2022	21:53	12:43	5h05m52s	22°01'18"	103°28'16"	0.868	0.82488
10/ 1/2022	21:35	12:28	5h17m03s	22°25'39"	107°43'44"	0.876	0.78411
10/ 8/2022	21:15	12:11	5h26m26s	22°47'03"	112°26'14"	0.886	0.74401
10/15/2022	20:53	11:52	5h33m45s	23°06'39"	117°39'30"	0.899	0.70506
10/22/2022	20:28	11:31	5h38m38s	23°25'31"	123°28'19"	0.913	0.66789
10/29/2022	20:01	11:06	5h40m46s	23°44'24"	129°57'11"	0.929	0.63343
11/ 5/2022	19:31	10:39	5h39m51s	24°03'30"	137°08'56"	0.946	0.60285
11/12/2022	18:57	10:09	5h35m48s	24°22'15"	145°04'31"	0.963	0.57735
11/19/2022	18:21	9:35	5h28m42s	24°39'08"	153°42'23"	0.978	0.55825
11/26/2022	17:43	8:59	5h18m58s	24°52'01"	162°55'11"	0.991	0.54701
12/ 3/2022	17:03	8:20	5h07m31s	24°58'59"	172°23'14"	0.998	0.54484

Midway, UT (JMC) Latitude: 40°30'43" N Longitude: 111°28'40" W  
 Local Time = UT - 7.00 hours Elevation: 1706 meters Year 2022  
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12/10/2022	16:24	7:41	4h55m35s	24°59'17"	176°35'05"	1.000	0.55242
12/17/2022	15:46	7:02	4h44m25s	24°53'55"	167°37'06"	0.995	0.56986
12/24/2022	15:10	6:24	4h35m04s	24°45'18"	158°28'09"	0.986	0.59688
12/31/2022	14:37	5:50	4h28m19s	24°36'33"	149°50'29"	0.974	0.63266

Jupiter

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
1/ 1/2022	10:32	21:12	22h11m45s	-12°13'23"	49°59'02"	0.994	5.56815
1/ 8/2022	10:08	20:52	22h17m06s	-11°42'55"	44°15'13"	0.995	5.64845
1/15/2022	9:44	20:32	22h22m41s	-11°10'45"	38°35'41"	0.996	5.72094
1/22/2022	9:21	20:12	22h28m28s	-10°37'04"	33°00'01"	0.997	5.78509
1/29/2022	8:57	19:53	22h34m25s	-10°02'03"	27°27'41"	0.998	5.84042
2/ 5/2022	8:33	19:33	22h40m30s	-9°25'51"	21°58'28"	0.999	5.88643
2/12/2022	8:10	19:14	22h46m41s	-8°48'41"	16°32'20"	0.999	5.92275
2/19/2022	7:46	18:55	22h52m56s	-8°10'46"	11°09'13"	1.000	5.94921
2/26/2022	7:23	18:36	22h59m13s	-7°32'15"	5°49'43"	1.000	5.96569
3/ 5/2022	6:59	18:17	23h05m31s	-6°53'21"	1°03'37"	1.000	5.97204
3/12/2022	6:36	17:58	23h11m49s	-6°14'16"	4°59'48"	1.000	5.96823
3/19/2022	6:12	17:39	23h18m04s	-5°35'13"	10°14'06"	1.000	5.95442
3/26/2022	5:49	17:20	23h24m15s	-4°56'22"	15°29'42"	0.999	5.93080
4/ 2/2022	5:25	17:00	23h30m21s	-4°17'56"	20°45'33"	0.999	5.89752
4/ 9/2022	5:01	16:41	23h36m21s	-3°40'08"	26°01'37"	0.998	5.85485
4/16/2022	4:37	16:21	23h42m12s	-3°03'11"	31°18'08"	0.997	5.80322
4/23/2022	4:14	16:02	23h47m54s	-2°27'16"	36°35'38"	0.996	5.74310
4/30/2022	3:50	15:41	23h53m25s	-1°52'36"	41°54'49"	0.995	5.67489
5/ 7/2022	3:25	15:21	23h58m42s	-1°19'23"	47°16'08"	0.994	5.59911
5/14/2022	3:01	15:00	0h03m45s	-0°47'52"	52°39'56"	0.993	5.51648
5/21/2022	2:37	14:39	0h08m32s	-0°18'14"	58°06'55"	0.992	5.42769
5/28/2022	2:12	14:18	0h13m01s	0°09'18"	63°37'56"	0.992	5.33341
6/ 4/2022	1:47	13:56	0h17m10s	0°34'29"	69°13'42"	0.991	5.23443
6/11/2022	1:22	13:33	0h20m56s	0°57'07"	74°54'38"	0.990	5.13173
6/18/2022	0:57	13:10	0h24m18s	1°16'59"	80°41'28"	0.990	5.02630
6/25/2022	0:31	12:46	0h27m14s	1°33'53"	86°35'12"	0.989	4.91908
7/ 2/2022	0:05	12:22	0h29m41s	1°47'35"	92°36'38"	0.989	4.81118
7/ 9/2022	23:35	11:57	0h31m37s	1°57'53"	98°46'15"	0.990	4.70389
7/16/2022	23:09	11:31	0h33m01s	2°04'40"	105°04'35"	0.990	4.59850
7/23/2022	22:42	11:04	0h33m51s	2°07'47"	111°32'28"	0.991	4.49626
7/30/2022	22:15	10:37	0h34m06s	2°07'09"	118°10'32"	0.992	4.39858
8/ 6/2022	21:47	10:09	0h33m46s	2°02'43"	124°58'51"	0.993	4.30702
8/13/2022	21:19	9:40	0h32m50s	1°54'37"	131°57'14"	0.994	4.22304
8/20/2022	20:50	9:10	0h31m20s	1°43'00"	139°05'44"	0.996	4.14803
8/27/2022	20:22	8:39	0h29m18s	1°28'08"	146°24'02"	0.997	4.08340
9/ 3/2022	19:53	8:08	0h26m47s	1°10'27"	153°50'58"	0.998	4.03054
9/10/2022	19:23	7:37	0h23m53s	0°50'31"	161°24'47"	0.999	3.99059
9/17/2022	18:54	7:05	0h20m41s	0°29'00"	169°02'55"	1.000	3.96438
9/24/2022	18:24	6:33	0h17m19s	0°06'39"	176°31'48"	1.000	3.95260
10/ 1/2022	17:54	6:01	0h13m53s	-0°15'42"	174°59'45"	1.000	3.95569
10/ 8/2022	17:25	5:28	0h10m31s	-0°37'12"	167°21'21"	1.000	3.97363
10/15/2022	16:55	4:57	0h07m21s	-0°57'01"	159°37'14"	0.999	4.00602
10/22/2022	16:26	4:25	0h04m29s	-1°14'30"	151°55'11"	0.998	4.05226
10/29/2022	15:57	3:55	0h02m03s	-1°28'59"	144°17'48"	0.997	4.11151
11/ 5/2022	17:46	5:33	0h00m06s	-1°39'57"	136°47'01"	0.995	4.18253
11/12/2022	15:00	2:55	23h58m43s	-1°47'07"	129°23'57"	0.994	4.26388
11/19/2022	14:32	2:27	23h57m55s	-1°50'17"	122°09'03"	0.993	4.35414
11/26/2022	14:04	1:59	23h57m44s	-1°49'21"	115°02'49"	0.992	4.45179





Midway, UT (JMC) Latitude: 40°30'43" N Longitude: 111°28'40" W  
 Local Time = UT - 7.00 hours Elevation: 1706 meters Year 2022  
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11/19/2022	16:25	6:30	2h56m36s	16°25'07"	169°52'08"	1.000	18.70439
11/26/2022	15:57	6:01	2h55m29s	16°20'25"	162°31'11"	1.000	18.73343
12/ 3/2022	15:28	5:32	2h54m26s	16°15'58"	155°10'00"	1.000	18.77706
12/10/2022	15:00	5:03	2h53m27s	16°11'52"	147°49'15"	1.000	18.83451
12/17/2022	14:32	4:35	2h52m35s	16°08'13"	140°29'14"	1.000	18.90481
12/24/2022	14:04	4:06	2h51m50s	16°05'05"	133°10'16"	1.000	18.98690
12/31/2022	13:36	3:38	2h51m13s	16°02'34"	125°53'04"	1.000	19.07940

Neptune

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
1/ 1/2022	11:21	22:53	23h27m32s	-4°44'17"	70°08'44"	1.000	30.24008
1/ 8/2022	10:54	22:26	23h28m01s	-4°40'57"	63°08'39"	1.000	30.35163
1/15/2022	10:27	21:59	23h28m36s	-4°37'04"	56°10'20"	1.000	30.45653
1/22/2022	10:00	21:33	23h29m15s	-4°32'40"	49°13'49"	1.000	30.55335
1/29/2022	9:33	21:06	23h29m59s	-4°27'49"	42°18'56"	1.000	30.64079
2/ 5/2022	9:06	20:40	23h30m47s	-4°22'33"	35°25'47"	1.000	30.71758
2/12/2022	8:39	20:14	23h31m38s	-4°16'58"	28°34'41"	1.000	30.78262
2/19/2022	8:12	19:47	23h32m33s	-4°11'06"	21°45'45"	1.000	30.83514
2/26/2022	7:45	19:21	23h33m29s	-4°05'03"	14°58'53"	1.000	30.87453
3/ 5/2022	7:18	18:55	23h34m27s	-3°58'51"	8°14'56"	1.000	30.90025
3/12/2022	6:51	18:29	23h35m25s	-3°52'35"	1°49'13"	1.000	30.91196
3/19/2022	6:24	18:02	23h36m24s	-3°46'21"	5°23'25"	1.000	30.90967
3/26/2022	5:57	17:36	23h37m22s	-3°40'11"	12°00'31"	1.000	30.89353
4/ 2/2022	5:30	17:10	23h38m19s	-3°34'09"	18°39'15"	1.000	30.86375
4/ 9/2022	5:03	16:44	23h39m15s	-3°28'20"	25°17'23"	1.000	30.82076
4/16/2022	4:36	16:17	23h40m08s	-3°22'49"	31°54'32"	1.000	30.76529
4/23/2022	4:09	15:51	23h40m58s	-3°17'36"	38°30'58"	1.000	30.69815
4/30/2022	3:42	15:24	23h41m45s	-3°12'48"	45°07'02"	1.000	30.62019
5/ 7/2022	3:15	14:58	23h42m28s	-3°08'26"	51°42'48"	1.000	30.53246
5/14/2022	2:48	14:31	23h43m07s	-3°04'34"	58°18'14"	1.000	30.43625
5/21/2022	2:21	14:04	23h43m41s	-3°01'13"	64°53'41"	1.000	30.33286
5/28/2022	1:54	13:38	23h44m10s	-2°58'26"	71°29'35"	1.000	30.22359
6/ 4/2022	1:26	13:10	23h44m33s	-2°56'14"	78°06'07"	1.000	30.10991
6/11/2022	0:59	12:43	23h44m51s	-2°54'40"	84°43'14"	1.000	29.99342
6/18/2022	0:32	12:16	23h45m03s	-2°53'43"	91°21'10"	1.000	29.87571
6/25/2022	0:04	11:49	23h45m10s	-2°53'25"	98°00'22"	1.000	29.75828
7/ 2/2022	23:33	11:21	23h45m10s	-2°53'44"	104°41'03"	1.000	29.64275
7/ 9/2022	23:05	10:53	23h45m04s	-2°54'42"	111°23'06"	1.000	29.53080
7/16/2022	22:38	10:26	23h44m53s	-2°56'14"	118°06'35"	1.000	29.42401
7/23/2022	22:10	9:58	23h44m37s	-2°58'22"	124°51'54"	1.000	29.32379
7/30/2022	21:42	9:30	23h44m15s	-3°01'01"	131°39'13"	1.000	29.23162
8/ 6/2022	21:14	9:01	23h43m49s	-3°04'10"	138°28'20"	1.000	29.14894
8/13/2022	20:47	8:33	23h43m18s	-3°07'44"	145°19'09"	1.000	29.07697
8/20/2022	20:19	8:05	23h42m43s	-3°11'41"	152°11'49"	1.000	29.01672
8/27/2022	19:51	7:37	23h42m06s	-3°15'55"	159°06'24"	1.000	28.96918
9/ 3/2022	19:23	7:08	23h41m26s	-3°20'23"	166°02'19"	1.000	28.93521
9/10/2022	18:55	6:40	23h40m45s	-3°24'59"	172°57'41"	1.000	28.91537
9/17/2022	18:27	6:11	23h40m02s	-3°29'38"	178°46'24"	1.000	28.90993
9/24/2022	17:59	5:43	23h39m20s	-3°34'15"	172°47'26"	1.000	28.91912
10/ 1/2022	17:31	5:14	23h38m38s	-3°38'44"	165°47'09"	1.000	28.94294
10/ 8/2022	17:03	4:46	23h37m58s	-3°43'01"	158°43'47"	1.000	28.98106
10/15/2022	16:35	4:17	23h37m20s	-3°47'01"	151°39'00"	1.000	29.03289
10/22/2022	16:07	3:49	23h36m45s	-3°50'38"	144°33'01"	1.000	29.09775
10/29/2022	15:40	3:21	23h36m14s	-3°53'50"	137°26'13"	1.000	29.17475
11/ 5/2022	15:12	2:53	23h35m48s	-3°56'30"	130°19'10"	1.000	29.26269

Midway, UT (JMC) Latitude: 40°30'43" N Longitude: 111°28'40" W  
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11/12/2022	14:44	2:25	23h35m26s	-3°58'37"	123°12'05"	1.000	29.36018
11/19/2022	14:16	1:57	23h35m10s	-4°00'09"	116°04'57"	1.000	29.46581
11/26/2022	13:49	1:29	23h34m59s	-4°01'01"	108°57'58"	1.000	29.57804
12/ 3/2022	13:21	1:02	23h34m55s	-4°01'14"	101°51'36"	1.000	29.69508
12/10/2022	12:54	0:34	23h34m57s	-4°00'47"	94°46'11"	1.000	29.81510
12/17/2022	12:26	0:07	23h35m05s	-3°59'39"	87°41'38"	1.000	29.93637
12/24/2022	11:59	23:36	23h35m20s	-3°57'52"	80°38'02"	1.000	30.05712
12/31/2022	11:31	23:09	23h35m40s	-3°55'25"	73°35'47"	1.000	30.17545

Pluto

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
1/ 1/2022	8:54	18:12	19h53m06s	-22°39'26"	15°29'47"	1.000	35.38093
1/ 8/2022	8:27	17:46	19h54m04s	-22°37'23"	8°40'01"	1.000	35.41080
1/15/2022	8:01	17:20	19h55m04s	-22°35'18"	2°21'44"	1.000	35.42638
1/22/2022	7:34	16:53	19h56m03s	-22°33'15"	5°35'06"	1.000	35.42762
1/29/2022	7:07	16:27	19h57m02s	-22°31'14"	12°19'00"	1.000	35.41457
2/ 5/2022	6:41	16:00	19h58m00s	-22°29'18"	19°09'14"	1.000	35.38742
2/12/2022	6:14	15:34	19h58m56s	-22°27'28"	26°00'16"	1.000	35.34668
2/19/2022	5:47	15:07	19h59m49s	-22°25'47"	32°51'10"	1.000	35.29310
2/26/2022	5:20	14:41	20h00m39s	-22°24'16"	39°41'55"	1.000	35.22752
3/ 5/2022	4:54	14:14	20h01m26s	-22°22'57"	46°32'27"	1.000	35.15088
3/12/2022	4:27	13:47	20h02m08s	-22°21'51"	53°22'30"	1.000	35.06439
3/19/2022	4:00	13:20	20h02m46s	-22°21'00"	60°11'58"	1.000	34.96945
3/26/2022	3:33	12:54	20h03m18s	-22°20'25"	67°01'04"	1.000	34.86745
4/ 2/2022	3:06	12:26	20h03m45s	-22°20'06"	73°50'00"	1.000	34.75982
4/ 9/2022	2:38	11:59	20h04m07s	-22°20'05"	80°38'37"	1.000	34.64822
4/16/2022	2:11	11:32	20h04m23s	-22°20'21"	87°26'46"	1.000	34.53438
4/23/2022	1:44	11:05	20h04m32s	-22°20'55"	94°14'43"	1.000	34.41992
4/30/2022	1:16	10:37	20h04m36s	-22°21'48"	101°02'43"	1.000	34.30645
5/ 7/2022	0:49	10:09	20h04m34s	-22°22'57"	107°50'42"	1.000	34.19570
5/14/2022	0:21	9:42	20h04m26s	-22°24'22"	114°38'28"	1.000	34.08937
5/21/2022	23:50	9:14	20h04m12s	-22°26'03"	121°26'12"	1.000	33.98897
5/28/2022	23:22	8:46	20h03m53s	-22°27'58"	128°14'11"	1.000	33.89592
6/ 4/2022	22:54	8:18	20h03m30s	-22°30'06"	135°02'23"	1.000	33.81168
6/11/2022	22:26	7:50	20h03m01s	-22°32'24"	141°50'32"	1.000	33.73756
6/18/2022	21:59	7:21	20h02m29s	-22°34'51"	148°38'35"	1.000	33.67463
6/25/2022	21:31	6:53	20h01m54s	-22°37'24"	155°26'40"	1.000	33.62381
7/ 2/2022	21:03	6:25	20h01m15s	-22°40'02"	162°14'19"	1.000	33.58596
7/ 9/2022	20:35	5:56	20h00m35s	-22°42'42"	168°59'32"	1.000	33.56176
7/16/2022	20:07	5:28	19h59m53s	-22°45'21"	175°30'00"	1.000	33.55157
7/23/2022	19:39	4:59	19h59m11s	-22°47'59"	176°24'47"	1.000	33.55556
7/30/2022	19:10	4:31	19h58m29s	-22°50'31"	170°01'54"	1.000	33.57385
8/ 6/2022	18:42	4:03	19h57m49s	-22°52'57"	163°16'00"	1.000	33.60631
8/13/2022	18:14	3:34	19h57m10s	-22°55'13"	156°26'39"	1.000	33.65246
8/20/2022	17:46	3:06	19h56m33s	-22°57'20"	149°35'51"	1.000	33.71170
8/27/2022	17:19	2:38	19h55m59s	-22°59'14"	142°44'02"	1.000	33.78336
9/ 3/2022	16:51	2:10	19h55m30s	-23°00'55"	135°51'37"	1.000	33.86651
9/10/2022	16:23	1:42	19h55m04s	-23°02'20"	128°58'56"	1.000	33.95993
9/17/2022	15:55	1:14	19h54m44s	-23°03'31"	122°05'53"	1.000	34.06236
9/24/2022	15:27	0:46	19h54m29s	-23°04'25"	115°12'18"	1.000	34.17249
10/ 1/2022	15:00	0:18	19h54m19s	-23°05'02"	108°18'19"	1.000	34.28880
10/ 8/2022	14:32	23:47	19h54m16s	-23°05'22"	101°24'15"	1.000	34.40959
10/15/2022	14:05	23:19	19h54m18s	-23°05'26"	94°30'00"	1.000	34.53320
10/22/2022	13:37	22:52	19h54m27s	-23°05'12"	87°35'22"	1.000	34.65799
10/29/2022	13:10	22:25	19h54m41s	-23°04'42"	80°40'26"	1.000	34.78222





Midway, UT (JMC)      Latitude: 40°30'43" N    Longitude: 111°28'40" W  
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Mars	1.52	687	days	1.9°	6794
Jupiter	5.20	11.86	years	1.3°	143200
Saturn	9.54	29.46	years	2.5°	120000
Uranus	19.18	84	years	0.8°	52290
Neptune	30.06	165	years	1.8°	50450
Pluto	39.44	248	years	17.2°	2200-2300

Moon Apisides Report for 1/ 1/2022 to 12/31/2022

Date	Hour	Apsis	Distance (km)	Diameter
1/ 1/2022	16	Perigee	358041	0.5562°
1/14/2022	3	Apogee	405805	0.4908°
1/30/2022	0	Perigee	362247	0.5498°
2/10/2022	20	Apogee	404914	0.4918°
2/26/2022	16	Perigee	367795	0.5415°
3/10/2022	16	Apogee	404276	0.4926°
3/23/2022	16	Perigee	369768	0.5386°
4/ 7/2022	12	Apogee	404430	0.4924°
4/19/2022	8	Perigee	365137	0.5454°
5/ 5/2022	6	Apogee	405302	0.4914°
5/17/2022	8	Perigee	360302	0.5527°
6/ 1/2022	19	Apogee	406212	0.4903°
6/14/2022	16	Perigee	357452	0.5572°
6/28/2022	23	Apogee	406559	0.4899°
7/13/2022	2	Perigee	357287	0.5574°
7/26/2022	3	Apogee	406278	0.4902°
8/10/2022	10	Perigee	359842	0.5535°
8/22/2022	15	Apogee	405433	0.4912°
9/ 7/2022	11	Perigee	364494	0.5464°
9/19/2022	8	Apogee	404551	0.4923°
10/ 4/2022	10	Perigee	369326	0.5392°
10/17/2022	3	Apogee	404339	0.4925°
10/29/2022	7	Perigee	368293	0.5408°
11/14/2022	0	Apogee	404953	0.4918°
11/25/2022	19	Perigee	362815	0.5489°
12/11/2022	17	Apogee	405884	0.4907°
12/24/2022	2	Perigee	358282	0.5559°

Moon Nodes Report for 1/ 1/2022 to 12/31/2022

Date	Time	Node	Illuminated Fraction
1/12/2022	21:18	Ascending	0.78
1/26/2022	23:13	Descending	0.35
2/ 8/2022	23:11	Ascending	0.54
2/22/2022	23:53	Descending	0.61
3/ 8/2022	1:21	Ascending	0.28
3/22/2022	1:11	Descending	0.83
4/ 4/2022	6:04	Ascending	0.09
4/18/2022	7:00	Descending	0.97
5/ 1/2022	12:52	Ascending	0.00
5/15/2022	16:43	Descending	1.00
5/28/2022	19:32	Ascending	0.03
6/12/2022	3:01	Descending	0.92
6/25/2022	0:09	Ascending	0.15
7/ 9/2022	10:27	Descending	0.75

Midway, UT (JMC) Latitude: 40°30'43" N Longitude: 111°28'40" W  
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7/22/2022	2:20	Ascending	0.35
8/ 5/2022	13:29	Descending	0.51
8/18/2022	3:58	Ascending	0.60
9/ 1/2022	14:11	Descending	0.27
9/14/2022	7:48	Ascending	0.83
9/28/2022	16:42	Descending	0.09
10/11/2022	14:48	Ascending	0.97
10/25/2022	23:29	Descending	0.00
11/ 7/2022	23:07	Ascending	1.00
11/22/2022	9:22	Descending	0.03
12/ 5/2022	5:38	Ascending	0.92
12/19/2022	18:35	Descending	0.17

Meteor Showers Report for 1/ 1/2022 to 12/31/2022

Date	Meteor Shower	ZHR	RA	DEC	Illum. Frac.	Longitude
1/ 3/2022	Quadrantids	80	15h28m	50°	0.01	283°
4/11/2022	Virginids	5	14h04m	-9°	0.73	22°
4/22/2022	Lyrids	12	18h08m	32°	0.59	33°
4/28/2022	alpha-Scorpiids	5	16h32m	-24°	0.05	38°
5/ 5/2022	eta-Aquarids	35	22h20m	-1°	0.21	45°
5/12/2022	alpha-Scorpiids	5	16h04m	-24°	0.85	52°
6/ 9/2022	Ophiuchids	5	17h56m	-23°	0.71	79°
6/20/2022	Ophiuchids	5	17h20m	-20°	0.55	89°
7/ 7/2022	Capricornids	5			0.57	106°
7/15/2022	Capricornids	5	20h44m	-15°	0.94	113°
7/20/2022	alpha-Cygnids	5	21h00m	48°	0.49	118°
7/25/2022	Capricornids	5	21h00m	-15°	0.08	123°
7/28/2022	delta-Aquarids	20	22h36m	-17°	0.00	126°
7/31/2022	Piscis Australids	5	22h40m	-30°	0.08	128°
8/ 2/2022	alpha-Capricornids	5	20h36m	-10°	0.23	130°
8/ 6/2022	iota-Aquarids	8	22h10m	-15°	0.64	134°
8/12/2022	Perseids	75	3h04m	58°	0.99	140°
8/20/2022	alpha-Cygnids	5	21h00m	48°	0.36	148°
9/ 8/2022	Piscids	10	0h36m	7°	0.96	166°
9/20/2022	Piscids	5	0h24m	0°	0.25	178°
10/13/2022	Piscids	??	1h44m	14°	0.85	200°
10/22/2022	Orionids	25	6h24m	15°	0.09	209°
11/ 3/2022	Taurids	8	3h44m	14°	0.76	221°
11/17/2022	Leonids	10	10h08m	22°	0.39	235°
12/ 8/2022	Puppids-Velids	15	9h00m	-48°	1.00	257°
12/13/2022	Geminids	75	7h28m	32°	0.75	262°
12/22/2022	Ursids	5	14h28m	78°	0.01	271°
12/25/2022	Puppids-Velids	15	9h20m	-65°	0.08	274°

Twilight Report for 1/ 1/2022 to 12/31/2022

Date	Sun		Astronomical		Nautical		Civil	
	Rise	Set	Begin	End	Begin	End	Begin	End
1/ 1/2022	7:49	17:10	6:07	18:53	6:40	18:20	7:14	17:46
1/ 8/2022	7:49	17:17	6:07	18:59	6:40	18:26	7:14	17:52
1/15/2022	7:47	17:24	6:06	19:05	6:39	18:32	7:12	17:59
1/22/2022	7:43	17:32	6:04	19:12	6:36	18:40	7:09	18:06
1/29/2022	7:38	17:41	6:00	19:19	6:32	18:47	7:04	18:14
2/ 5/2022	7:31	17:49	5:54	19:26	6:26	18:55	6:58	18:22

Midway, UT (JMC)      Latitude: 40°30'43" N Longitude: 111°28'40" W  
Local Time = UT - 7.00 hours      Elevation: 1706 meters      Year 2022  
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2/12/2022	7:23	17:58	5:47	19:34	6:18	19:02	6:50	18:30
2/19/2022	7:14	18:06	5:39	19:41	6:10	19:10	6:42	18:38
2/26/2022	7:04	18:14	5:29	19:49	6:01	19:18	6:32	18:46
3/ 5/2022	6:53	18:22	5:19	19:57	5:50	19:25	6:22	18:54
3/12/2022	6:42	18:30	5:07	20:05	5:39	19:33	6:11	19:01
3/19/2022	6:31	18:37	4:55	20:13	5:27	19:40	5:59	19:09
3/26/2022	6:19	18:44	4:43	20:21	5:15	19:48	5:48	19:16
4/ 2/2022	6:08	18:52	4:30	20:30	5:03	19:56	5:36	19:24
4/ 9/2022	5:57	18:59	4:17	20:39	4:51	20:04	5:24	19:31
4/16/2022	5:46	19:06	4:03	20:49	4:39	20:13	5:13	19:39
4/23/2022	5:36	19:14	3:50	20:59	4:27	20:22	5:02	19:47
4/30/2022	5:26	19:21	3:37	21:09	4:16	20:31	4:52	19:55
5/ 7/2022	5:18	19:28	3:25	21:20	4:06	20:40	4:43	20:03
5/14/2022	5:10	19:35	3:14	21:31	3:56	20:49	4:35	20:11
5/21/2022	5:04	19:41	3:04	21:41	3:48	20:57	4:28	20:18
5/28/2022	5:00	19:47	2:56	21:51	3:42	21:05	4:22	20:25
6/ 4/2022	4:56	19:53	2:50	21:59	3:37	21:12	4:19	20:30
6/11/2022	4:55	19:57	2:46	22:06	3:35	21:17	4:17	20:35
6/18/2022	4:55	19:59	2:45	22:10	3:35	21:20	4:17	20:38
6/25/2022	4:57	20:01	2:47	22:11	3:36	21:21	4:18	20:39
7/ 2/2022	5:00	20:00	2:51	22:09	3:40	21:20	4:22	20:38
7/ 9/2022	5:04	19:58	2:58	22:05	3:45	21:17	4:26	20:36
7/16/2022	5:09	19:55	3:06	21:58	3:52	21:12	4:32	20:32
7/23/2022	5:15	19:49	3:16	21:49	4:00	21:05	4:39	20:26
7/30/2022	5:21	19:43	3:26	21:38	4:08	20:56	4:46	20:18
8/ 6/2022	5:28	19:35	3:36	21:27	4:16	20:47	4:53	20:10
8/13/2022	5:35	19:26	3:47	21:14	4:25	20:36	5:01	20:00
8/20/2022	5:42	19:16	3:57	21:01	4:34	20:24	5:08	19:50
8/27/2022	5:48	19:06	4:06	20:48	4:42	20:12	5:16	19:38
9/ 3/2022	5:55	18:54	4:15	20:34	4:50	20:00	5:23	19:27
9/10/2022	6:02	18:43	4:24	20:21	4:58	19:47	5:30	19:15
9/17/2022	6:09	18:31	4:32	20:08	5:05	19:35	5:37	19:03
9/24/2022	6:16	18:19	4:40	19:55	5:12	19:23	5:44	18:51
10/ 1/2022	6:23	18:08	4:48	19:43	5:19	19:11	5:51	18:39
10/ 8/2022	6:30	17:56	4:55	19:31	5:27	19:00	5:58	18:28
10/15/2022	6:37	17:46	5:02	19:21	5:34	18:49	6:05	18:17
10/22/2022	6:45	17:35	5:09	19:11	5:41	18:39	6:12	18:08
10/29/2022	6:53	17:26	5:16	19:02	5:48	18:31	6:20	17:59
11/ 5/2022	7:01	17:18	5:23	18:55	5:55	18:23	6:28	17:51
11/12/2022	7:09	17:11	5:30	18:49	6:02	18:17	6:35	17:45
11/19/2022	7:17	17:05	5:37	18:45	6:10	18:13	6:43	17:40
11/26/2022	7:25	17:01	5:44	18:42	6:17	18:10	6:50	17:36
12/ 3/2022	7:32	16:59	5:50	18:41	6:23	18:08	6:57	17:35
12/10/2022	7:38	16:59	5:56	18:42	6:29	18:09	7:03	17:35
12/17/2022	7:44	17:01	6:00	18:44	6:33	18:11	7:08	17:37
12/24/2022	7:47	17:04	6:04	18:47	6:37	18:14	7:11	17:40
12/31/2022	7:49	17:09	6:06	18:52	6:39	18:19	7:13	17:45