

Midway, UT (JMC) Latitude: 40°30'43" N Longitude: 111°28'40" W
Local Time = UT - 7.00 hours Elevation: 1706 meters Year 2015
Page 1

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/ 1/2015 to 12/31/2015

January 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
				SR: 7:49	SR: 7:49	SR: 7:50
				SS: 17:10	SS: 17:11	SS: 17:12
				MR: 14:46	MR: 15:33	MR: 16:23
				MS: 4:21	MS: 5:20	MS: 6:15
4	5	6	7	8	9	10
SR: 7:50	SR: 7:50	SR: 7:49	SR: 7:49	SR: 7:49	SR: 7:49	SR: 7:49
SS: 17:12	SS: 17:13	SS: 17:14	SS: 17:15	SS: 17:16	SS: 17:17	SS: 17:18
MR: 17:16	MR: 18:12	MR: 19:08	MR: 20:04	MR: 21:00	MR: 21:56	MR: 22:52
MS: 7:04	MS: 7:49	MS: 8:29	MS: 9:04	MS: 9:37	MS: 10:07	MS: 10:36
FM: 21:54						
11	12	13	14	15	16	17
SR: 7:49	SR: 7:48	SR: 7:48	SR: 7:48	SR: 7:47	SR: 7:47	SR: 7:46
SS: 17:19	SS: 17:20	SS: 17:21	SS: 17:23	SS: 17:24	SS: 17:25	SS: 17:26
MR: 23:48	MR: None	MR: 0:46	MR: 1:44	MR: 2:44	MR: 3:45	MR: 4:46
MS: 11:04	MS: 11:34	MS: 12:05	MS: 12:40	MS: 13:19	MS: 14:04	MS: 14:56
		LQ: 2:49				
18	19	20	21	22	23	24
SR: 7:46	SR: 7:45	SR: 7:45	SR: 7:44	SR: 7:44	SR: 7:43	SR: 7:42
SS: 17:27	SS: 17:28	SS: 17:29	SS: 17:31	SS: 17:32	SS: 17:33	SS: 17:34
MR: 5:45	MR: 6:40	MR: 7:31	MR: 8:17	MR: 8:58	MR: 9:36	MR: 10:13
MS: 15:55	MS: 17:01	MS: 18:11	MS: 19:24	MS: 20:37	MS: 21:48	MS: 22:58
		NM: 6:15				
25	26	27	28	29	30	31
SR: 7:42	SR: 7:41	SR: 7:40	SR: 7:39	SR: 7:38	SR: 7:37	SR: 7:37
SS: 17:35	SS: 17:37	SS: 17:38	SS: 17:39	SS: 17:40	SS: 17:41	SS: 17:43
MR: 10:49	MR: 11:26	MR: 12:05	MR: 12:46	MR: 13:31	MR: 14:20	MR: 15:11
MS: None	MS: 0:06	MS: 1:12	MS: 2:15	MS: 3:14	MS: 4:10	MS: 5:01
	FQ: 21:50					

March 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
SR: 7:00	SR: 6:58	SR: 6:57	SR: 6:55	SR: 6:54	SR: 6:52	SR: 6:51
SS: 18:17	SS: 18:18	SS: 18:19	SS: 18:21	SS: 18:22	SS: 18:23	SS: 18:24
MR: 14:55	MR: 15:51	MR: 16:46	MR: 17:42	MR: 18:38	MR: 19:34	MR: 20:30
MS: 4:27	MS: 5:05	MS: 5:40	MS: 6:12	MS: 6:42	MS: 7:11	MS: 7:40
				FM: 11:07		
8	9	10	11	12	13	14
SR: 6:49	SR: 6:47	SR: 6:46	SR: 6:44	SR: 6:43	SR: 6:41	SR: 6:39
SS: 18:25	SS: 18:26	SS: 18:27	SS: 18:28	SS: 18:29	SS: 18:30	SS: 18:31
MR: 21:27	MR: 22:25	MR: 23:22	MR: None	MR: 0:20	MR: 1:17	MR: 2:12
MS: 8:10	MS: 8:42	MS: 9:16	MS: 9:55	MS: 10:38	MS: 11:27	MS: 12:23
					LQ: 10:49	
15	16	17	18	19	20	21
SR: 6:38	SR: 6:36	SR: 6:35	SR: 6:33	SR: 6:31	SR: 6:30	SR: 6:28
SS: 18:33	SS: 18:34	SS: 18:35	SS: 18:36	SS: 18:37	SS: 18:38	SS: 18:39
MR: 3:03	MR: 3:52	MR: 4:37	MR: 5:19	MR: 5:58	MR: 6:37	MR: 7:16
MS: 13:25	MS: 14:31	MS: 15:42	MS: 16:55	MS: 18:09	MS: 19:22	MS: 20:35
					NM: 2:39	
					SE: 2:52	
					MEQ:15:44	
22	23	24	25	26	27	28
SR: 6:26	SR: 6:25	SR: 6:23	SR: 6:21	SR: 6:20	SR: 6:18	SR: 6:16
SS: 18:40	SS: 18:41	SS: 18:42	SS: 18:43	SS: 18:44	SS: 18:45	SS: 18:46
MR: 7:56	MR: 8:38	MR: 9:23	MR: 10:11	MR: 11:02	MR: 11:55	MR: 12:50
MS: 21:45	MS: 22:52	MS: 23:54	MS: None	MS: 0:50	MS: 1:41	MS: 2:25
					FQ: 0:44	
29	30	31				
SR: 6:15	SR: 6:13	SR: 6:12				
SS: 18:47	SS: 18:48	SS: 18:49				
MR: 13:45	MR: 14:41	MR: 15:36				
MS: 3:05	MS: 3:41	MS: 4:14				

April 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
			SR: 6:10	SR: 6:08	SR: 6:07	SR: 6:05
			SS: 18:50	SS: 18:51	SS: 18:52	SS: 18:54
			MR: 16:32	MR: 17:28	MR: 18:24	MR: 19:21
			MS: 4:44	MS: 5:14	MS: 5:43	MS: 6:12
						FM: 5:07
						LE: 5:02
5	6	7	8	9	10	11
SR: 6:03	SR: 6:02	SR: 6:00	SR: 5:59	SR: 5:57	SR: 5:55	SR: 5:54
SS: 18:55	SS: 18:56	SS: 18:57	SS: 18:58	SS: 18:59	SS: 19:00	SS: 19:01
MR: 20:19	MR: 21:17	MR: 22:15	MR: 23:12	MR: None	MR: 0:06	MR: 0:58
MS: 6:44	MS: 7:18	MS: 7:55	MS: 8:37	MS: 9:24	MS: 10:16	MS: 11:14
						LQ: 20:45
12	13	14	15	16	17	18
SR: 5:52	SR: 5:51	SR: 5:49	SR: 5:48	SR: 5:46	SR: 5:45	SR: 5:43
SS: 19:02	SS: 19:03	SS: 19:04	SS: 19:05	SS: 19:06	SS: 19:07	SS: 19:08
MR: 1:46	MR: 2:31	MR: 3:12	MR: 3:51	MR: 4:29	MR: 5:07	MR: 5:46
MS: 12:17	MS: 13:24	MS: 14:33	MS: 15:44	MS: 16:56	MS: 18:09	MS: 19:20
						NM: 11:59
19	20	21	22	23	24	25
SR: 5:42	SR: 5:40	SR: 5:39	SR: 5:37	SR: 5:36	SR: 5:35	SR: 5:33
SS: 19:09	SS: 19:10	SS: 19:11	SS: 19:12	SS: 19:13	SS: 19:14	SS: 19:15
MR: 6:28	MR: 7:12	MR: 8:00	MR: 8:51	MR: 9:45	MR: 10:40	MR: 11:36
MS: 20:30	MS: 21:36	MS: 22:37	MS: 23:32	MS: None	MS: 0:20	MS: 1:03
						FQ: 16:57
26	27	28	29	30		
SR: 5:32	SR: 5:30	SR: 5:29	SR: 5:28	SR: 5:26		
SS: 19:16	SS: 19:17	SS: 19:18	SS: 19:19	SS: 19:21		
MR: 12:32	MR: 13:28	MR: 14:24	MR: 15:20	MR: 16:16		
MS: 1:41	MS: 2:15	MS: 2:46	MS: 3:16	MS: 3:45		

May 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 SR: 5:25 SS: 19:22 MR: 17:13 MS: 4:14	2 SR: 5:24 SS: 19:23 MR: 18:11 MS: 4:45
3 SR: 5:23 SS: 19:24 MR: 19:09 MS: 5:18 FM: 20:45	4 SR: 5:21 SS: 19:25 MR: 20:08 MS: 5:54	5 SR: 5:20 SS: 19:26 MR: 21:06 MS: 6:35	6 SR: 5:19 SS: 19:27 MR: 22:03 MS: 7:20	7 SR: 5:18 SS: 19:28 MR: 22:56 MS: 8:12	8 SR: 5:17 SS: 19:29 MR: 23:45 MS: 9:09	9 SR: 5:16 SS: 19:30 MR: None MS: 10:10
10 SR: 5:15 SS: 19:31 MR: 0:30 MS: 11:14	11 SR: 5:14 SS: 19:32 MR: 1:12 MS: 12:21 LQ: 3:37	12 SR: 5:12 SS: 19:33 MR: 1:50 MS: 13:30	13 SR: 5:11 SS: 19:34 MR: 2:27 MS: 14:39	14 SR: 5:10 SS: 19:35 MR: 3:04 MS: 15:49	15 SR: 5:10 SS: 19:36 MR: 3:41 MS: 16:59	16 SR: 5:09 SS: 19:37 MR: 4:20 MS: 18:08
17 SR: 5:08 SS: 19:37 MR: 5:02 MS: 19:16 NM: 21:16	18 SR: 5:07 SS: 19:38 MR: 5:47 MS: 20:20	19 SR: 5:06 SS: 19:39 MR: 6:37 MS: 21:19	20 SR: 5:05 SS: 19:40 MR: 7:31 MS: 22:11	21 SR: 5:04 SS: 19:41 MR: 8:26 MS: 22:57	22 SR: 5:04 SS: 19:42 MR: 9:23 MS: 23:38	23 SR: 5:03 SS: 19:43 MR: 10:21 MS: None
24 SR: 5:02 SS: 19:44 MR: 11:18 MS: 0:14	25 SR: 5:02 SS: 19:45 MR: 12:14 MS: 0:47 FQ: 10:21	26 SR: 5:01 SS: 19:46 MR: 13:10 MS: 1:17	27 SR: 5:00 SS: 19:46 MR: 14:06 MS: 1:46	28 SR: 5:00 SS: 19:47 MR: 15:02 MS: 2:15	29 SR: 4:59 SS: 19:48 MR: 16:00 MS: 2:45	30 SR: 4:59 SS: 19:49 MR: 16:58 MS: 3:17
31 SR: 4:58 SS: 19:49 MR: 17:57 MS: 3:52						

June 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 SR: 4:58 SS: 19:50 MR: 18:57 MS: 4:31	2 SR: 4:57 SS: 19:51 MR: 19:55 MS: 5:15 FM: 9:22	3 SR: 4:57 SS: 19:52 MR: 20:51 MS: 6:05	4 SR: 4:57 SS: 19:52 MR: 21:43 MS: 7:01	5 SR: 4:56 SS: 19:53 MR: 22:30 MS: 8:02	6 SR: 4:56 SS: 19:54 MR: 23:13 MS: 9:07
7 SR: 4:56 SS: 19:54 MR: 23:53 MS: 10:13	8 SR: 4:55 SS: 19:55 MR: None MS: 11:21	9 SR: 4:55 SS: 19:55 MR: 0:30 MS: 12:30 LQ: 8:43	10 SR: 4:55 SS: 19:56 MR: 1:05 MS: 13:38	11 SR: 4:55 SS: 19:56 MR: 1:41 MS: 14:46	12 SR: 4:55 SS: 19:57 MR: 2:18 MS: 15:54	13 SR: 4:55 SS: 19:57 MR: 2:57 MS: 17:01
14 SR: 4:55 SS: 19:58 MR: 3:40 MS: 18:05	15 SR: 4:55 SS: 19:58 MR: 4:27 MS: 19:06	16 SR: 4:55 SS: 19:58 MR: 5:18 MS: 20:01 NM: 7:08	17 SR: 4:55 SS: 19:59 MR: 6:13 MS: 20:50	18 SR: 4:55 SS: 19:59 MR: 7:10 MS: 21:34	19 SR: 4:55 SS: 19:59 MR: 8:08 MS: 22:12	20 SR: 4:55 SS: 20:00 MR: 9:05 MS: 22:47
21 SR: 4:56 SS: 20:00 MR: 10:03 MS: 23:18 JSO: 9:36	22 SR: 4:56 SS: 20:00 MR: 10:59 MS: 23:48	23 SR: 4:56 SS: 20:00 MR: 11:55 MS: None	24 SR: 4:56 SS: 20:00 MR: 12:51 MS: 0:17 FQ: 4:04	25 SR: 4:57 SS: 20:00 MR: 13:48 MS: 0:46	26 SR: 4:57 SS: 20:01 MR: 14:45 MS: 1:16	27 SR: 4:57 SS: 20:01 MR: 15:43 MS: 1:49
28 SR: 4:58 SS: 20:01 MR: 16:43 MS: 2:26	29 SR: 4:58 SS: 20:01 MR: 17:42 MS: 3:07	30 SR: 4:59 SS: 20:00 MR: 18:40 MS: 3:55				

July 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
			SR: 4:59	SR: 5:00	SR: 5:00	SR: 5:01
			SS: 20:00	SS: 20:00	SS: 20:00	SS: 20:00
			MR: 19:35	MR: 20:25	MR: 21:11	MR: 21:53
			MS: 4:49	MS: 5:49	MS: 6:54	MS: 8:02
			FM: 19:22			
5	6	7	8	9	10	11
SR: 5:01	SR: 5:02	SR: 5:02	SR: 5:03	SR: 5:04	SR: 5:04	SR: 5:05
SS: 20:00	SS: 19:59	SS: 19:59	SS: 19:59	SS: 19:58	SS: 19:58	SS: 19:57
MR: 22:32	MR: 23:08	MR: 23:44	MR: None	MR: 0:20	MR: 0:58	MR: 1:39
MS: 9:11	MS: 10:21	MS: 11:30	MS: 12:38	MS: 13:46	MS: 14:52	MS: 15:56
			LQ: 13:26			
12	13	14	15	16	17	18
SR: 5:06	SR: 5:07	SR: 5:07	SR: 5:08	SR: 5:09	SR: 5:10	SR: 5:10
SS: 19:57	SS: 19:56	SS: 19:56	SS: 19:55	SS: 19:55	SS: 19:54	SS: 19:53
MR: 2:23	MR: 3:12	MR: 4:04	MR: 4:59	MR: 5:56	MR: 6:54	MR: 7:52
MS: 16:56	MS: 17:53	MS: 18:44	MS: 19:30	MS: 20:10	MS: 20:46	MS: 21:19
			NM: 18:26			
19	20	21	22	23	24	25
SR: 5:11	SR: 5:12	SR: 5:13	SR: 5:14	SR: 5:15	SR: 5:16	SR: 5:16
SS: 19:53	SS: 19:52	SS: 19:51	SS: 19:50	SS: 19:50	SS: 19:49	SS: 19:48
MR: 8:49	MR: 9:45	MR: 10:41	MR: 11:37	MR: 12:33	MR: 13:30	MR: 14:28
MS: 21:50	MS: 22:19	MS: 22:48	MS: 23:17	MS: 23:49	MS: None	MS: 0:23
				FQ: 21:05		
26	27	28	29	30	31	
SR: 5:17	SR: 5:18	SR: 5:19	SR: 5:20	SR: 5:21	SR: 5:22	
SS: 19:47	SS: 19:46	SS: 19:45	SS: 19:44	SS: 19:43	SS: 19:42	
MR: 15:26	MR: 16:24	MR: 17:21	MR: 18:14	MR: 19:03	MR: 19:48	
MS: 1:01	MS: 1:45	MS: 2:35	MS: 3:32	MS: 4:35	MS: 5:43	
					FM: 3:46	

August 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 SR: 5:23 SS: 19:41 MR: 20:29 MS: 6:53
2 SR: 5:24 SS: 19:40 MR: 21:08 MS: 8:05	3 SR: 5:25 SS: 19:39 MR: 21:45 MS: 9:17	4 SR: 5:26 SS: 19:38 MR: 22:22 MS: 10:27	5 SR: 5:27 SS: 19:36 MR: 23:00 MS: 11:37	6 SR: 5:28 SS: 19:35 MR: 23:40 MS: 12:44 LQ: 19:06	7 SR: 5:29 SS: 19:34 MR: None MS: 13:49	8 SR: 5:30 SS: 19:33 MR: 0:23 MS: 14:50
9 SR: 5:31 SS: 19:32 MR: 1:10 MS: 15:48	10 SR: 5:32 SS: 19:30 MR: 2:00 MS: 16:40	11 SR: 5:33 SS: 19:29 MR: 2:53 MS: 17:27	12 SR: 5:34 SS: 19:28 MR: 3:49 MS: 18:09	13 SR: 5:34 SS: 19:26 MR: 4:46 MS: 18:46	14 SR: 5:35 SS: 19:25 MR: 5:43 MS: 19:20 NM: 7:55	15 SR: 5:36 SS: 19:24 MR: 6:40 MS: 19:52
16 SR: 5:37 SS: 19:22 MR: 7:36 MS: 20:21	17 SR: 5:38 SS: 19:21 MR: 8:32 MS: 20:50	18 SR: 5:39 SS: 19:19 MR: 9:28 MS: 21:19	19 SR: 5:40 SS: 19:18 MR: 10:24 MS: 21:50	20 SR: 5:41 SS: 19:17 MR: 11:20 MS: 22:22	21 SR: 5:42 SS: 19:15 MR: 12:17 MS: 22:58	22 SR: 5:43 SS: 19:14 MR: 13:13 MS: 23:38 FQ: 12:32
23 SR: 5:44 SS: 19:12 MR: 14:10 MS: None	24 SR: 5:45 SS: 19:11 MR: 15:06 MS: 0:24	25 SR: 5:46 SS: 19:09 MR: 16:00 MS: 1:16	26 SR: 5:47 SS: 19:08 MR: 16:50 MS: 2:15	27 SR: 5:48 SS: 19:06 MR: 17:37 MS: 3:20	28 SR: 5:49 SS: 19:04 MR: 18:21 MS: 4:29	29 SR: 5:50 SS: 19:03 MR: 19:02 MS: 5:41 FM: 11:38
30 SR: 5:51 SS: 19:01 MR: 19:41 MS: 6:54	31 SR: 5:52 SS: 19:00 MR: 20:19 MS: 8:08					

September 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 SR: 5:53 SS: 18:58 MR: 20:58 MS: 9:20	2 SR: 5:54 SS: 18:57 MR: 21:39 MS: 10:31	3 SR: 5:55 SS: 18:55 MR: 22:22 MS: 11:39	4 SR: 5:56 SS: 18:53 MR: 23:08 MS: 12:43	5 SR: 5:57 SS: 18:52 MR: 23:57 MS: 13:43 LQ: 2:57
6 SR: 5:58 SS: 18:50 MR: None MS: 14:37	7 SR: 5:59 SS: 18:48 MR: 0:50 MS: 15:25	8 SR: 6:00 SS: 18:47 MR: 1:45 MS: 16:09	9 SR: 6:01 SS: 18:45 MR: 2:41 MS: 16:47	10 SR: 6:02 SS: 18:43 MR: 3:37 MS: 17:22	11 SR: 6:03 SS: 18:42 MR: 4:34 MS: 17:54	12 SR: 6:04 SS: 18:40 MR: 5:30 MS: 18:24 NM: 23:43 SE: 23:54
13 SR: 6:05 SS: 18:38 MR: 6:26 MS: 18:53	14 SR: 6:06 SS: 18:37 MR: 7:22 MS: 19:22	15 SR: 6:06 SS: 18:35 MR: 8:17 MS: 19:52	16 SR: 6:07 SS: 18:33 MR: 9:13 MS: 20:24	17 SR: 6:08 SS: 18:32 MR: 10:09 MS: 20:58	18 SR: 6:09 SS: 18:30 MR: 11:06 MS: 21:36	19 SR: 6:10 SS: 18:28 MR: 12:01 MS: 22:19
20 SR: 6:11 SS: 18:27 MR: 12:56 MS: 23:07	21 SR: 6:12 SS: 18:25 MR: 13:49 MS: None FQ: 2:00	22 SR: 6:13 SS: 18:23 MR: 14:39 MS: 0:01	23 SR: 6:14 SS: 18:22 MR: 15:26 MS: 1:01 SEQ: 1:18	24 SR: 6:15 SS: 18:20 MR: 16:10 MS: 2:06	25 SR: 6:16 SS: 18:18 MR: 16:52 MS: 3:15	26 SR: 6:17 SS: 18:17 MR: 17:32 MS: 4:27
27 SR: 6:18 SS: 18:15 MR: 18:11 MS: 5:40 FM: 19:52 LE: 19:48	28 SR: 6:19 SS: 18:13 MR: 18:50 MS: 6:54	29 SR: 6:20 SS: 18:12 MR: 19:31 MS: 8:08	30 SR: 6:21 SS: 18:10 MR: 20:14 MS: 9:20			

October 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
				SR: 6:22	SR: 6:23	SR: 6:24
				SS: 18:08	SS: 18:07	SS: 18:05
				MR: 21:01	MR: 21:51	MR: 22:44
				MS: 10:28	MS: 11:32	MS: 12:30
4	5	6	7	8	9	10
SR: 6:25	SR: 6:26	SR: 6:27	SR: 6:28	SR: 6:29	SR: 6:30	SR: 6:31
SS: 18:03	SS: 18:02	SS: 18:00	SS: 17:59	SS: 17:57	SS: 17:55	SS: 17:54
MR: 23:39	MR: None	MR: 0:35	MR: 1:32	MR: 2:28	MR: 3:25	MR: 4:20
MS: 13:22	MS: 14:08	MS: 14:48	MS: 15:24	MS: 15:56	MS: 16:27	MS: 16:56
LQ: 14:08						
11	12	13	14	15	16	17
SR: 6:32	SR: 6:34	SR: 6:35	SR: 6:36	SR: 6:37	SR: 6:38	SR: 6:39
SS: 17:52	SS: 17:51	SS: 17:49	SS: 17:48	SS: 17:46	SS: 17:45	SS: 17:43
MR: 5:16	MR: 6:12	MR: 7:08	MR: 8:04	MR: 9:01	MR: 9:56	MR: 10:51
MS: 17:25	MS: 17:55	MS: 18:26	MS: 18:59	MS: 19:36	MS: 20:17	MS: 21:03
	NM: 17:07					
18	19	20	21	22	23	24
SR: 6:40	SR: 6:41	SR: 6:42	SR: 6:43	SR: 6:44	SR: 6:45	SR: 6:47
SS: 17:42	SS: 17:40	SS: 17:39	SS: 17:37	SS: 17:36	SS: 17:34	SS: 17:33
MR: 11:44	MR: 12:34	MR: 13:21	MR: 14:04	MR: 14:45	MR: 15:24	MR: 16:02
MS: 21:54	MS: 22:50	MS: 23:51	MS: None	MS: 0:56	MS: 2:04	MS: 3:15
		FQ: 13:32				
25	26	27	28	29	30	31
SR: 6:48	SR: 6:49	SR: 6:50	SR: 6:51	SR: 6:52	SR: 6:53	SR: 6:55
SS: 17:32	SS: 17:30	SS: 17:29	SS: 17:28	SS: 17:26	SS: 17:25	SS: 17:24
MR: 16:40	MR: 17:20	MR: 18:03	MR: 18:48	MR: 19:38	MR: 20:32	MR: 21:28
MS: 4:27	MS: 5:40	MS: 6:53	MS: 8:05	MS: 9:13	MS: 10:17	MS: 11:13
		FM: 5:06				

November 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
SR: 6:56	SR: 6:57	SR: 6:58	SR: 6:59	SR: 7:00	SR: 7:02	SR: 7:03
SS: 17:23	SS: 17:22	SS: 17:20	SS: 17:19	SS: 17:18	SS: 17:17	SS: 17:16
MR: 22:25	MR: 23:23	MR: None	MR: 0:21	MR: 1:18	MR: 2:14	MR: 3:09
MS: 12:03	MS: 12:46	MS: 13:24	MS: 13:58	MS: 14:30	MS: 14:59	MS: 15:28
		LQ: 5:26				
8	9	10	11	12	13	14
SR: 7:04	SR: 7:05	SR: 7:06	SR: 7:07	SR: 7:09	SR: 7:10	SR: 7:11
SS: 17:15	SS: 17:14	SS: 17:13	SS: 17:12	SS: 17:11	SS: 17:10	SS: 17:09
MR: 4:05	MR: 5:01	MR: 5:58	MR: 6:54	MR: 7:51	MR: 8:47	MR: 9:41
MS: 15:57	MS: 16:28	MS: 17:00	MS: 17:36	MS: 18:16	MS: 19:00	MS: 19:50
			NM: 10:48			
15	16	17	18	19	20	21
SR: 7:12	SR: 7:13	SR: 7:14	SR: 7:16	SR: 7:17	SR: 7:18	SR: 7:19
SS: 17:09	SS: 17:08	SS: 17:07	SS: 17:06	SS: 17:06	SS: 17:05	SS: 17:04
MR: 10:32	MR: 11:20	MR: 12:04	MR: 12:45	MR: 13:23	MR: 13:59	MR: 14:36
MS: 20:44	MS: 21:43	MS: 22:46	MS: 23:51	MS: None	MS: 0:58	MS: 2:07
			FQ: 23:28			
22	23	24	25	26	27	28
SR: 7:20	SR: 7:21	SR: 7:22	SR: 7:23	SR: 7:25	SR: 7:26	SR: 7:27
SS: 17:04	SS: 17:03	SS: 17:03	SS: 17:02	SS: 17:02	SS: 17:01	SS: 17:01
MR: 15:13	MR: 15:53	MR: 16:36	MR: 17:23	MR: 18:15	MR: 19:11	MR: 20:09
MS: 3:17	MS: 4:29	MS: 5:40	MS: 6:50	MS: 7:56	MS: 8:58	MS: 9:52
			FM: 15:45			
29	30					
SR: 7:28	SR: 7:29					
SS: 17:00	SS: 17:00					
MR: 21:09	MR: 22:08					
MS: 10:40	MS: 11:22					

December 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
		SR: 7:30	SR: 7:31	SR: 7:32	SR: 7:33	SR: 7:34
		SS: 17:00	SS: 17:00	SS: 16:59	SS: 16:59	SS: 16:59
		MR: 23:07	MR: None	MR: 0:04	MR: 1:00	MR: 1:56
		MS: 11:58	MS: 12:31	MS: 13:01	MS: 13:30	MS: 13:59
				LQ: 0:42		
6	7	8	9	10	11	12
SR: 7:35	SR: 7:36	SR: 7:37	SR: 7:37	SR: 7:38	SR: 7:39	SR: 7:40
SS: 16:59	SS: 16:59	SS: 16:59	SS: 16:59	SS: 16:59	SS: 16:59	SS: 16:59
MR: 2:52	MR: 3:48	MR: 4:45	MR: 5:42	MR: 6:39	MR: 7:35	MR: 8:29
MS: 14:29	MS: 15:00	MS: 15:35	MS: 16:13	MS: 16:56	MS: 17:44	MS: 18:38
					NM: 3:30	
13	14	15	16	17	18	19
SR: 7:41	SR: 7:41	SR: 7:42	SR: 7:43	SR: 7:43	SR: 7:44	SR: 7:45
SS: 17:00	SS: 17:00	SS: 17:00	SS: 17:00	SS: 17:01	SS: 17:01	SS: 17:01
MR: 9:19	MR: 10:05	MR: 10:47	MR: 11:25	MR: 12:02	MR: 12:37	MR: 13:13
MS: 19:37	MS: 20:39	MS: 21:44	MS: 22:50	MS: 23:57	MS: None	MS: 1:05
					FQ: 8:15	
20	21	22	23	24	25	26
SR: 7:45	SR: 7:46	SR: 7:46	SR: 7:47	SR: 7:47	SR: 7:48	SR: 7:48
SS: 17:02	SS: 17:02	SS: 17:03	SS: 17:03	SS: 17:04	SS: 17:05	SS: 17:05
MR: 13:50	MR: 14:30	MR: 15:13	MR: 16:02	MR: 16:55	MR: 17:52	MR: 18:51
MS: 2:14	MS: 3:22	MS: 4:31	MS: 5:38	MS: 6:41	MS: 7:39	MS: 8:30
	DSO:21:44				FM: 4:12	
27	28	29	30	31		
SR: 7:48	SR: 7:49	SR: 7:49	SR: 7:49	SR: 7:49		
SS: 17:06	SS: 17:07	SS: 17:07	SS: 17:08	SS: 17:09		
MR: 19:52	MR: 20:52	MR: 21:51	MR: 22:48	MR: 23:45		
MS: 9:15	MS: 9:55	MS: 10:30	MS: 11:02	MS: 11:32		

Midway, UT (JMC) Latitude: 40°30'43" N Longitude: 111°28'40" W
Local Time = UT - 7.00 hours Elevation: 1706 meters Year 2015
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Seasons Report for 2015

MEQ: 3/20/2015 15:44	Winter Length:	88.99 days
JSO: 6/21/2015 9:36	Spring Length:	92.74 days
SEQ: 9/23/2015 1:18	Summer Length:	93.65 days
DSO: 12/21/2015 21:44	Autumn Length:	89.85 days

Dates of Easter Report for 2015

4/ 5/2015

Lunar Eclipse Report for 2015

Lunar eclipse on 4/ 4/2015
Moon rise: 19:21
Moon set: 6:12
Magnitude: 0.99
Partial phase begins: 3:18
Time of maximum eclipse: 5:02
Partial phase ends: 6:46

Lunar eclipse on 9/27/2015
Moon rise: 18:11
Moon set: 5:40
Magnitude: 1.27
Partial phase begins: 18:08
Total phase begins: 19:12
Time of maximum eclipse: 19:48
Total phase ends: 20:23
Partial phase ends: 21:27

Solar Eclipse Report for 2015

Solar eclipse on 3/20/2015
Sun rise: 6:30
Sun set: 18:38
Time of maximum eclipse: 2:52
Eclipse is total
Eclipse is visible in the northern hemisphere

Solar eclipse on 9/12/2015
Sun rise: 6:04
Sun set: 18:40
Time of maximum eclipse: 23:54
Eclipse is partial, maximum magnitude = 0.79
Eclipse is visible in the southern 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.

Venus

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
1/ 1/2015	8:59	18:25	19h56m10s	-22°08'11"	16°33'03"	0.962	1.61470
1/ 8/2015	9:00	18:42	20h32m59s	-20°19'54"	18°11'19"	0.953	1.59426
1/15/2015	8:59	18:59	21h08m46s	-18°02'45"	19°48'46"	0.944	1.57207
1/22/2015	8:56	19:17	21h43m29s	-15°20'46"	21°25'25"	0.935	1.54806
1/29/2015	8:51	19:34	22h17m10s	-12°18'25"	23°01'26"	0.924	1.52215
2/ 5/2015	8:44	19:51	22h49m56s	-9°00'13"	24°36'49"	0.912	1.49437
2/12/2015	8:36	20:08	23h21m57s	-5°30'39"	26°11'25"	0.900	1.46472
2/19/2015	8:28	20:24	23h53m27s	-1°54'01"	27°45'11"	0.886	1.43315
2/26/2015	8:19	20:40	0h24m39s	1°45'23"	29°18'09"	0.871	1.39953
3/ 5/2015	8:10	20:56	0h55m46s	5°23'16"	30°50'13"	0.855	1.36386
3/12/2015	8:01	21:12	1h27m03s	8°55'30"	32°21'02"	0.838	1.32619
3/19/2015	7:53	21:29	1h58m41s	12°18'00"	33°50'18"	0.819	1.28649
3/26/2015	7:46	21:45	2h30m51s	15°26'38"	35°17'51"	0.799	1.24470
4/ 2/2015	7:40	22:01	3h03m39s	18°17'15"	36°43'16"	0.778	1.20084
4/ 9/2015	7:36	22:17	3h37m08s	20°45'55"	38°05'51"	0.755	1.15501
4/16/2015	7:34	22:32	4h11m14s	22°49'04"	39°24'52"	0.731	1.10731
4/23/2015	7:34	22:46	4h45m50s	24°23'37"	40°39'40"	0.705	1.05779
4/30/2015	7:37	22:58	5h20m39s	25°27'14"	41°49'19"	0.678	1.00653
5/ 7/2015	7:42	23:07	5h55m20s	25°58'37"	42°52'22"	0.649	0.95374
5/14/2015	7:48	23:13	6h29m27s	25°57'44"	43°47'12"	0.618	0.89967
5/21/2015	7:57	23:15	7h02m37s	25°25'44"	44°32'07"	0.585	0.84450
5/28/2015	8:05	23:14	7h34m22s	24°25'00"	45°04'48"	0.551	0.78843
6/ 4/2015	8:14	23:09	8h04m17s	22°58'57"	45°21'59"	0.513	0.73179
6/11/2015	8:22	23:01	8h32m01s	21°11'45"	45°19'30"	0.473	0.67503
6/18/2015	8:28	22:49	8h57m14s	19°08'05"	44°52'24"	0.430	0.61854
6/25/2015	8:31	22:35	9h19m31s	16°53'15"	43°53'55"	0.383	0.56278
7/ 2/2015	8:31	22:16	9h38m19s	14°33'15"	42°14'34"	0.332	0.50843
7/ 9/2015	8:26	21:54	9h52m59s	12°14'42"	39°42'04"	0.276	0.45647
7/16/2015	8:15	21:28	10h02m39s	10°05'14"	36°01'42"	0.215	0.40808
7/23/2015	7:57	20:56	10h06m18s	8°14'12"	30°56'53"	0.152	0.36481
7/30/2015	7:30	20:20	10h02m56s	6°52'57"	24°14'49"	0.090	0.32885
8/ 6/2015	6:54	19:39	9h52m27s	6°12'26"	16°07'49"	0.039	0.30297
8/13/2015	6:10	18:56	9h36m41s	6°17'58"	8°42'22"	0.011	0.28977
8/20/2015	5:23	18:15	9h19m40s	7°03'21"	10°27'27"	0.016	0.29074
8/27/2015	4:38	17:39	9h06m10s	8°11'02"	18°40'40"	0.052	0.30557
9/ 3/2015	4:01	17:10	8h59m34s	9°20'09"	26°34'14"	0.108	0.33222
9/10/2015	3:32	16:48	9h00m47s	10°14'52"	32°54'51"	0.171	0.36784
9/17/2015	3:11	16:31	9h09m05s	10°46'40"	37°40'46"	0.234	0.40975
9/24/2015	2:57	16:18	9h23m04s	10°51'49"	41°06'48"	0.293	0.45597
10/ 1/2015	2:50	16:08	9h41m24s	10°29'00"	43°29'09"	0.347	0.50511
10/ 8/2015	2:47	15:59	10h03m00s	9°38'22"	45°01'59"	0.396	0.55609
10/15/2015	2:48	15:51	10h26m56s	8°21'30"	45°56'57"	0.441	0.60812
10/22/2015	2:52	15:43	10h52m31s	6°40'51"	46°22'39"	0.482	0.66070
10/29/2015	2:59	15:35	11h19m19s	4°39'20"	46°25'09"	0.520	0.71351
11/ 5/2015	3:07	15:27	11h47m03s	2°20'14"	46°09'08"	0.555	0.76620
11/12/2015	3:17	15:19	12h15m32s	-0°12'35"	45°38'31"	0.588	0.81847
11/19/2015	3:28	15:12	12h44m42s	-2°54'54"	44°56'14"	0.619	0.87011
11/26/2015	3:39	15:05	13h14m33s	-5°42'26"	44°04'14"	0.647	0.92104
12/ 3/2015	3:52	14:58	13h45m09s	-8°30'53"	43°04'12"	0.675	0.97111
12/10/2015	4:06	14:52	14h16m36s	-11°15'37"	41°57'42"	0.700	1.02012
12/17/2015	4:20	14:48	14h48m57s	-13°51'55"	40°45'58"	0.724	1.06794
12/24/2015	4:35	14:45	15h22m15s	-16°15'06"	39°29'46"	0.747	1.11456
12/31/2015	4:50	14:44	15h56m35s	-18°20'39"	38°09'44"	0.769	1.15993

Mars

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
1/ 1/2015	10:10	20:28	21h35m17s	-15°33'04"	40°50'08"	0.943	1.96955
1/ 8/2015	9:57	20:29	21h56m34s	-13°40'15"	39°10'59"	0.947	2.00153
1/15/2015	9:43	20:29	22h17m30s	-11°41'07"	37°31'47"	0.951	2.03351
1/22/2015	9:29	20:30	22h38m07s	-9°36'49"	35°52'27"	0.955	2.06543
1/29/2015	9:14	20:30	22h58m28s	-7°28'34"	34°13'06"	0.959	2.09717
2/ 5/2015	8:59	20:30	23h18m33s	-5°17'34"	32°33'38"	0.963	2.12873
2/12/2015	8:44	20:30	23h38m25s	-3°04'56"	30°53'49"	0.966	2.16011
2/19/2015	8:28	20:30	23h58m08s	-0°51'44"	29°13'33"	0.970	2.19121
2/26/2015	8:13	20:29	0h17m44s	1°20'58"	27°32'58"	0.973	2.22188
3/ 5/2015	7:57	20:28	0h37m16s	3°32'05"	25°52'02"	0.976	2.25204
3/12/2015	7:42	20:28	0h56m46s	5°40'39"	24°10'37"	0.979	2.28169
3/19/2015	7:26	20:27	1h16m18s	7°45'48"	22°28'31"	0.982	2.31069
3/26/2015	7:11	20:26	1h35m53s	9°46'37"	20°45'50"	0.985	2.33887
4/ 2/2015	6:56	20:25	1h55m33s	11°42'12"	19°02'38"	0.987	2.36611
4/ 9/2015	6:42	20:24	2h15m21s	13°31'46"	17°18'46"	0.990	2.39237
4/16/2015	6:28	20:23	2h35m17s	15°14'35"	15°34'03"	0.992	2.41755
4/23/2015	6:14	20:21	2h55m22s	16°49'56"	13°48'28"	0.993	2.44143
4/30/2015	6:01	20:20	3h15m37s	18°17'08"	12°02'07"	0.995	2.46388
5/ 7/2015	5:49	20:18	3h36m01s	19°35'36"	10°14'55"	0.996	2.48487
5/14/2015	5:37	20:15	3h56m35s	20°44'51"	8°26'39"	0.998	2.50428
5/21/2015	5:26	20:13	4h17m16s	21°44'25"	6°37'19"	0.999	2.52193
5/28/2015	5:16	20:09	4h38m03s	22°33'57"	4°47'09"	0.999	2.53765
6/ 4/2015	5:06	20:05	4h58m53s	23°13'10"	2°56'37"	1.000	2.55141
6/11/2015	4:57	20:00	5h19m44s	23°41'57"	1°09'52"	1.000	2.56313
6/18/2015	4:49	19:55	5h40m34s	24°00'14"	1°07'08"	1.000	2.57263
6/25/2015	4:42	19:48	6h01m19s	24°08'04"	2°56'34"	1.000	2.57974
7/ 2/2015	4:35	19:41	6h21m55s	24°05'37"	4°53'14"	0.999	2.58445
7/ 9/2015	4:29	19:33	6h42m21s	23°53'09"	6°52'36"	0.999	2.58669
7/16/2015	4:23	19:24	7h02m34s	23°30'58"	8°54'18"	0.998	2.58630
7/23/2015	4:18	19:14	7h22m32s	22°59'32"	10°58'10"	0.996	2.58315
7/30/2015	4:13	19:03	7h42m11s	22°19'19"	13°04'07"	0.995	2.57721
8/ 6/2015	4:08	18:51	8h01m31s	21°30'54"	15°12'17"	0.993	2.56845
8/13/2015	4:03	18:38	8h20m32s	20°34'47"	17°22'54"	0.991	2.55675
8/20/2015	3:59	18:25	8h39m12s	19°31'39"	19°36'01"	0.989	2.54200
8/27/2015	3:54	18:11	8h57m32s	18°22'06"	21°51'34"	0.987	2.52417
9/ 3/2015	3:50	17:56	9h15m30s	17°06'47"	24°09'38"	0.984	2.50331
9/10/2015	3:45	17:41	9h33m09s	15°46'18"	26°30'28"	0.981	2.47932
9/17/2015	3:40	17:25	9h50m30s	14°21'17"	28°54'11"	0.978	2.45211
9/24/2015	3:35	17:09	10h07m32s	12°52'24"	31°20'40"	0.974	2.42172
10/ 1/2015	3:30	16:53	10h24m17s	11°20'15"	33°49'56"	0.971	2.38821
10/ 8/2015	3:24	16:36	10h40m47s	9°45'23"	36°22'12"	0.967	2.35158
10/15/2015	3:19	16:19	10h57m04s	8°08'24"	38°57'36"	0.963	2.31177
10/22/2015	3:13	16:02	11h13m07s	6°29'55"	41°36'03"	0.959	2.26886
10/29/2015	3:07	15:44	11h28m59s	4°50'29"	44°17'27"	0.954	2.22299
11/ 5/2015	3:01	15:26	11h44m42s	3°10'35"	47°01'58"	0.950	2.17422
11/12/2015	2:54	15:09	12h00m16s	1°30'47"	49°49'47"	0.945	2.12257
11/19/2015	2:48	14:51	12h15m43s	-0°08'20"	52°40'53"	0.941	2.06816
11/26/2015	2:41	14:33	12h31m02s	-1°46'17"	55°35'07"	0.936	2.01121
12/ 3/2015	2:34	14:15	12h46m16s	-3°22'36"	58°32'35"	0.932	1.95186
12/10/2015	2:27	13:58	13h01m24s	-4°56'48"	61°33'35"	0.927	1.89021
12/17/2015	2:20	13:40	13h16m26s	-6°28'20"	64°38'14"	0.922	1.82643
12/24/2015	2:12	13:22	13h31m22s	-7°56'46"	67°46'27"	0.918	1.76082
12/31/2015	2:05	13:04	13h46m12s	-9°21'43"	70°58'23"	0.914	1.69360

Midway, UT (JMC) Latitude: 40°30'43" N Longitude: 111°28'40" W
 Local Time = UT - 7.00 hours Elevation: 1706 meters Year 2015
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12/ 4/2015 11:32 Ascending 0.39
 12/18/2015 8:12 Descending 0.47

Meteor Showers Report for 1/ 1/2015 to 12/31/2015

Date	Meteor Shower	ZHR	RA	DEC	Illum. Frac.	Longitude
1/ 3/2015	Quadrantids	80	15h28m	50°	0.98	283°
4/11/2015	Virginids	5	14h04m	-9°	0.55	22°
4/22/2015	Lyrids	12	18h08m	32°	0.19	32°
4/28/2015	alpha-Scorpiids	5	16h32m	-24°	0.75	38°
5/ 5/2015	eta-Aquarids	35	22h20m	-1°	0.97	45°
5/12/2015	alpha-Scorpiids	5	16h04m	-24°	0.36	52°
6/ 9/2015	Ophiuchids	5	17h56m	-23°	0.49	79°
6/20/2015	Ophiuchids	5	17h20m	-20°	0.17	89°
7/ 8/2015	Capricornids	5			0.52	106°
7/15/2015	Capricornids	5	20h44m	-15°	0.00	113°
7/20/2015	alpha-Cygnids	5	21h00m	48°	0.20	118°
7/25/2015	Capricornids	5	21h00m	-15°	0.65	123°
7/29/2015	delta-Aquarids	20	22h36m	-17°	0.96	126°
7/31/2015	Piscis Australids	5	22h40m	-30°	1.00	128°
8/ 2/2015	alpha-Capricornids	5	20h36m	-10°	0.93	130°
8/ 6/2015	iota-Aquarids	8	22h10m	-15°	0.54	134°
8/12/2015	Perseids	75	3h04m	58°	0.04	140°
8/21/2015	alpha-Cygnids	5	21h00m	48°	0.39	148°
9/ 8/2015	Piscids	10	0h36m	7°	0.19	166°
9/21/2015	Piscids	5	0h24m	0°	0.54	178°
10/13/2015	Piscids	??	1h44m	14°	0.00	200°
10/22/2015	Orionids	25	6h24m	15°	0.70	209°
11/ 3/2015	Taurids	8	3h44m	14°	0.48	221°
11/17/2015	Leonids	10	10h08m	22°	0.33	235°
12/ 9/2015	Puppids-Velids	15	9h00m	-48°	0.03	257°
12/14/2015	Geminids	75	7h28m	32°	0.12	262°
12/22/2015	Ursids	5	14h28m	78°	0.90	271°
12/25/2015	Puppids-Velids	15	9h20m	-65°	1.00	274°

Twilight Report for 1/ 1/2015 to 12/31/2015

Date	Sun		Astronomical		Nautical		Civil	
	Rise	Set	Begin	End	Begin	End	Begin	End
1/ 1/2015	7:49	17:10	6:06	18:53	6:40	18:20	7:14	17:46
1/ 8/2015	7:49	17:16	6:07	18:58	6:40	18:25	7:14	17:52
1/15/2015	7:47	17:24	6:06	19:05	6:39	18:32	7:12	17:59
1/22/2015	7:44	17:32	6:04	19:12	6:36	18:39	7:09	18:06
1/29/2015	7:38	17:40	6:00	19:19	6:32	18:47	7:05	18:14
2/ 5/2015	7:32	17:49	5:54	19:26	6:26	18:54	6:58	18:22
2/12/2015	7:23	17:57	5:47	19:34	6:19	19:02	6:51	18:30
2/19/2015	7:14	18:06	5:39	19:41	6:10	19:10	6:42	18:38
2/26/2015	7:04	18:14	5:29	19:49	6:01	19:17	6:33	18:46
3/ 5/2015	6:54	18:22	5:19	19:56	5:51	19:25	6:22	18:53
3/12/2015	6:43	18:29	5:08	20:04	5:40	19:32	6:11	19:01
3/19/2015	6:31	18:37	4:56	20:12	5:28	19:40	6:00	19:08
3/26/2015	6:20	18:44	4:43	20:21	5:16	19:48	5:48	19:16
4/ 2/2015	6:08	18:51	4:30	20:29	5:04	19:56	5:36	19:23
4/ 9/2015	5:57	18:59	4:17	20:39	4:52	20:04	5:25	19:31
4/16/2015	5:46	19:06	4:04	20:48	4:40	20:13	5:13	19:39
4/23/2015	5:36	19:13	3:51	20:58	4:28	20:21	5:03	19:47
4/30/2015	5:26	19:21	3:38	21:09	4:17	20:30	4:52	19:55
5/ 7/2015	5:18	19:28	3:26	21:20	4:06	20:39	4:43	20:02

Midway, UT (JMC) Latitude: 40°30'43" N Longitude: 111°28'40" W
Local Time = UT - 7.00 hours Elevation: 1706 meters Year 2015

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5/14/2015	5:10	19:35	3:15	21:31	3:57	20:48	4:35	20:10
5/21/2015	5:04	19:41	3:05	21:41	3:49	20:57	4:28	20:18
5/28/2015	5:00	19:47	2:56	21:51	3:42	21:05	4:23	20:24
6/ 4/2015	4:57	19:52	2:50	21:59	3:38	21:11	4:19	20:30
6/11/2015	4:55	19:56	2:46	22:05	3:35	21:16	4:17	20:34
6/18/2015	4:55	19:59	2:45	22:09	3:34	21:20	4:17	20:37
6/25/2015	4:57	20:00	2:46	22:11	3:36	21:21	4:18	20:39
7/ 2/2015	5:00	20:00	2:51	22:09	3:40	21:20	4:22	20:38
7/ 9/2015	5:04	19:58	2:57	22:05	3:45	21:17	4:26	20:36
7/16/2015	5:09	19:55	3:06	21:58	3:52	21:12	4:32	20:32
7/23/2015	5:15	19:50	3:15	21:49	3:59	21:05	4:38	20:26
7/30/2015	5:21	19:43	3:25	21:39	4:07	20:57	4:46	20:19
8/ 6/2015	5:28	19:35	3:36	21:27	4:16	20:47	4:53	20:10
8/13/2015	5:34	19:26	3:46	21:15	4:25	20:36	5:00	20:00
8/20/2015	5:41	19:17	3:56	21:02	4:33	20:25	5:08	19:50
8/27/2015	5:48	19:06	4:06	20:48	4:41	20:13	5:15	19:39
9/ 3/2015	5:55	18:55	4:15	20:35	4:49	20:00	5:23	19:27
9/10/2015	6:02	18:43	4:24	20:21	4:57	19:48	5:30	19:15
9/17/2015	6:08	18:32	4:32	20:08	5:05	19:35	5:37	19:03
9/24/2015	6:15	18:20	4:40	19:55	5:12	19:23	5:44	18:51
10/ 1/2015	6:22	18:08	4:47	19:43	5:19	19:11	5:51	18:40
10/ 8/2015	6:29	17:57	4:55	19:32	5:26	19:00	5:58	18:29
10/15/2015	6:37	17:46	5:02	19:21	5:33	18:49	6:05	18:18
10/22/2015	6:44	17:36	5:09	19:11	5:40	18:40	6:12	18:08
10/29/2015	6:52	17:26	5:16	19:03	5:48	18:31	6:20	17:59
11/ 5/2015	7:00	17:18	5:23	18:55	5:55	18:24	6:27	17:51
11/12/2015	7:09	17:11	5:30	18:50	6:02	18:18	6:35	17:45
11/19/2015	7:17	17:06	5:37	18:45	6:09	18:13	6:42	17:40
11/26/2015	7:25	17:02	5:44	18:42	6:16	18:10	6:50	17:36
12/ 3/2015	7:32	16:59	5:50	18:41	6:23	18:09	6:57	17:35
12/10/2015	7:38	16:59	5:55	18:42	6:28	18:09	7:03	17:35
12/17/2015	7:43	17:01	6:00	18:44	6:33	18:11	7:08	17:36
12/24/2015	7:47	17:04	6:04	18:47	6:37	18:14	7:11	17:40
12/31/2015	7:49	17:09	6:06	18:52	6:39	18:19	7:13	17:45