

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=			2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m
Decl.=			42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m
Offset=			10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m
Date		Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
01/01/2020	W	23:56:34	19:13:14	20:17:24	21:44:45	22:23:05	22:25:45	23:03:44	23:08:28	23:53:22	00:10:39	00:51:28	00:57:38
01/02/2020	Th	23:57:02	19:09:18	20:13:28	21:40:50	22:19:09	22:21:49	22:59:48	23:04:32	23:49:26	00:06:43	00:47:32	00:53:43
01/03/2020	F	23:57:30	19:05:22	20:09:32	21:36:54	22:15:13	22:17:53	22:55:52	23:00:36	23:45:30	00:02:47	00:43:36	00:49:47
01/03/2020	F										23:58:52		
01/04/2020	Sa	23:57:57	19:01:26	20:05:36	21:32:58	22:11:17	22:13:57	22:51:56	22:56:40	23:41:34	23:54:56	00:39:41	00:45:51
01/05/2020	Su	23:58:24	18:57:30	20:01:40	21:29:02	22:07:21	22:10:01	22:48:00	22:52:44	23:37:38	23:51:00	00:35:45	00:41:55
01/06/2020	M	23:58:50	18:53:34	19:57:44	21:25:06	22:03:26	22:06:05	22:44:04	22:48:48	23:33:42	23:47:04	00:31:49	00:37:59
01/07/2020	Tu	23:59:16	18:49:38	19:53:48	21:21:10	21:59:30	22:02:10	22:40:08	22:44:52	23:29:46	23:43:08	00:27:53	00:34:03
01/08/2020	W	23:59:41	18:45:42	19:49:53	21:17:14	21:55:34	21:58:14	22:36:12	22:40:56	23:25:50	23:39:12	00:23:57	00:30:07
01/09/2020	Th		18:41:46	19:45:57	21:13:18	21:51:38	21:54:18	22:32:16	22:37:00	23:21:55	23:35:16	00:20:01	00:26:11
01/10/2020	F	00:00:06	18:37:50	19:42:01	21:09:22	21:47:42	21:50:22	22:28:21	22:33:04	23:17:59	23:31:20	00:16:05	00:22:15
01/11/2020	Sa	00:00:30	18:33:54	19:38:05	21:05:26	21:43:46	21:46:26	22:24:25	22:29:09	23:14:03	23:27:24	00:12:09	00:18:19
01/12/2020	Su	00:00:54	18:29:58	19:34:09	21:01:30	21:39:50	21:42:30	22:20:29	22:25:13	23:10:07	23:23:28	00:08:13	00:14:24
01/13/2020	M	00:01:17	18:26:03	19:30:13	20:57:34	21:35:54	21:38:34	22:16:33	22:21:17	23:06:11	23:19:32	00:04:18	00:10:28
01/14/2020	Tu	00:01:39	18:22:07	19:26:17	20:53:39	21:31:58	21:34:38	22:12:37	22:17:21	23:02:15	23:15:37	00:00:22	00:06:32
01/14/2020	Tu											23:56:26	
01/15/2020	W	00:02:01	18:18:11	19:22:21	20:49:43	21:28:02	21:30:42	22:08:41	22:13:25	22:58:19	23:11:41	23:52:30	00:02:36
01/15/2020	W												23:58:40
01/16/2020	Th	00:02:23	18:14:15	19:18:25	20:45:47	21:24:06	21:26:46	22:04:45	22:09:29	22:54:23	23:07:45	23:48:34	23:54:44
01/17/2020	F	00:02:43	18:10:19	19:14:29	20:41:51	21:20:11	21:22:50	22:00:49	22:05:33	22:50:27	23:03:49	23:44:38	23:50:48
01/18/2020	Sa	00:03:03	18:06:23	19:10:33	20:37:55	21:16:15	21:18:54	21:56:53	22:01:37	22:46:32	22:59:53	23:40:42	23:46:52
01/19/2020	Su	00:03:22	18:02:27	19:06:37	20:33:59	21:12:19	21:14:58	21:52:57	21:57:41	22:42:35	22:55:57	23:36:46	23:42:56
01/20/2020	M	00:03:40	17:58:31	19:02:41	20:30:03	21:08:23	21:11:03	21:49:01	21:53:45	22:38:40	22:52:01	23:32:50	23:39:00
01/21/2020	Tu	00:03:58		18:58:46	20:26:07	21:04:27	21:07:07	21:45:05	21:49:50	22:34:44	22:48:05	23:28:54	23:35:05
01/22/2020	W	00:04:15		18:54:50	20:22:11	21:00:31	21:03:11	21:41:10	21:45:53	22:30:48	22:44:09	23:24:59	23:31:09
01/23/2020	Th	00:04:31		18:50:54	20:18:15	20:56:35	20:59:15	21:37:14	21:41:58	22:26:52	22:40:13	23:21:03	23:27:13
01/24/2020	F	00:04:47		18:46:58	20:14:19	20:52:39	20:55:19	21:33:18	21:38:02	22:22:56	22:36:17	23:17:07	23:23:17
01/25/2020	Sa	00:05:01		18:43:02	20:10:23	20:48:43	20:51:23	21:29:22	21:34:06	22:19:00	22:32:21	23:13:11	23:19:21
01/26/2020	Su	00:05:15		18:39:06	20:06:28	20:44:47	20:47:27	21:25:26	21:30:10	22:15:04	22:28:26	23:09:15	23:15:25
01/27/2020	M	00:05:28		18:35:10	20:02:32	20:40:51	20:43:31	21:21:30	21:26:14	22:11:08	22:24:30	23:05:19	23:11:29
01/28/2020	Tu	00:05:41		18:31:14	19:58:36	20:36:56	20:39:35	21:17:34	21:22:18	22:07:12	22:20:34	23:01:23	23:07:33
01/29/2020	W	00:05:52		18:27:18	19:54:40	20:32:59	20:35:39	21:13:38	21:18:22	22:03:16	22:16:38	22:57:27	23:03:37
01/30/2020	Th	00:06:03		18:23:22	19:50:44	20:29:04	20:31:43	21:09:42	21:14:26	21:59:20	22:12:42	22:53:31	22:59:41
01/31/2020	F	00:06:12		18:19:26	19:46:48	20:25:08	20:27:47	21:05:46	21:10:30	21:55:25	22:08:46	22:49:35	22:55:45
02/01/2020	Sa	00:06:21		18:15:30	19:42:52	20:21:12	20:23:51	21:01:50	21:06:34	21:51:29	22:04:50	22:45:39	22:51:50
02/02/2020	Su	00:06:29		18:11:34	19:38:56	20:17:16	20:19:56	20:57:55	21:02:38	21:47:33	22:00:54	22:41:43	22:47:54
02/03/2020	M	00:06:37			19:35:00	20:13:20	20:16:00	20:53:59	20:58:43	21:43:37	21:56:58	22:37:48	22:43:58

Transit times (MST) for selected μ setting time.

R.A.=			10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=			11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=			6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date		Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
01/01/2020	W	23:56:34	03:20:08								
01/02/2020	Th	23:57:02	03:16:13								
01/03/2020	F	23:57:30	03:12:17								
01/03/2020	F										
01/04/2020	Sa	23:57:57	03:08:21								
01/05/2020	Su	23:58:24	03:04:25								
01/06/2020	M	23:58:50	03:00:29	06:16:45							
01/07/2020	Tu	23:59:16	02:56:33	06:12:49							
01/08/2020	W	23:59:41	02:52:37	06:08:53							
01/09/2020	Th		02:48:41	06:04:57							
01/10/2020	F	00:00:06	02:44:45	06:01:01							
01/11/2020	Sa	00:00:30	02:40:50	05:57:05							
01/12/2020	Su	00:00:54	02:36:54	05:53:09							
01/13/2020	M	00:01:17	02:32:58	05:49:13							
01/14/2020	Tu	00:01:39	02:29:02	05:45:18							
01/14/2020	Tu										
01/15/2020	W	00:02:01	02:25:06	05:41:22							
01/15/2020	W										
01/16/2020	Th	00:02:23	02:21:10	05:37:26							
01/17/2020	F	00:02:43	02:17:14	05:33:30							
01/18/2020	Sa	00:03:03	02:13:18	05:29:34							
01/19/2020	Su	00:03:22	02:09:23	05:25:38							
01/20/2020	M	00:03:40	02:05:27	05:21:42	06:11:53						
01/21/2020	Tu	00:03:58	02:01:31	05:17:46	06:07:57						
01/22/2020	W	00:04:15	01:57:35	05:13:51	06:04:01						
01/23/2020	Th	00:04:31	01:53:39	05:09:55	06:00:06						
01/24/2020	F	00:04:47	01:49:43	05:05:59	05:56:10						
01/25/2020	Sa	00:05:01	01:45:47	05:02:03	05:52:14						
01/26/2020	Su	00:05:15	01:41:51	04:58:07	05:48:18						
01/27/2020	M	00:05:28	01:37:55	04:54:11	05:44:22						
01/28/2020	Tu	00:05:41	01:33:59	04:50:15	05:40:26						
01/29/2020	W	00:05:52	01:30:04	04:46:19	05:36:30						
01/30/2020	Th	00:06:03	01:26:08	04:42:24	05:32:34						
01/31/2020	F	00:06:12	01:22:12	04:38:28	05:28:39						
02/01/2020	Sa	00:06:21	01:18:16	04:34:32	05:24:43						
02/02/2020	Su	00:06:29	01:14:20	04:30:36	05:20:47						
02/03/2020	M	00:06:37	01:10:24	04:26:40	05:16:51						

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
02/04/2020	Tu	00:06:43		19:31:04	20:09:24	20:12:04	20:50:03	20:54:47	21:39:41	21:53:02	22:33:52	22:40:02
02/05/2020	W	00:06:49		19:27:08	20:05:28	20:08:08	20:46:07	20:50:51	21:35:45	21:49:06	22:29:56	22:36:06
02/06/2020	Th	00:06:53		19:23:12	20:01:32	20:04:12	20:42:11	20:46:55	21:31:49	21:45:10	22:26:00	22:32:10
02/07/2020	F	00:06:57		19:19:17	19:57:36	20:00:16	20:38:15	20:42:59	21:27:53	21:41:15	22:22:04	22:28:14
02/08/2020	Sa	00:07:01		19:15:21	19:53:40	19:56:20	20:34:19	20:39:03	21:23:57	21:37:19	22:18:08	22:24:18
02/09/2020	Su	00:07:03		19:11:25	19:49:44	19:52:24	20:30:23	20:35:07	21:20:01	21:33:23	22:14:12	22:20:22
02/10/2020	M	00:07:04		19:07:29	19:45:48	19:48:28	20:26:27	20:31:11	21:16:05	21:29:27	22:10:16	22:16:26
02/11/2020	Tu	00:07:05		19:03:33	19:41:53	19:44:32	20:22:31	20:27:15	21:12:09	21:25:31	22:06:20	22:12:30
02/12/2020	W	00:07:05		18:59:37	19:37:57	19:40:36	20:18:35	20:23:19	21:08:14	21:21:35	22:02:24	22:08:35
02/13/2020	Th	00:07:04		18:55:41	19:34:01	19:36:40	20:14:39	20:19:23	21:04:18	21:17:39	21:58:29	22:04:39
02/14/2020	F	00:07:03		18:51:45	19:30:05	19:32:45	20:10:43	20:15:27	21:00:22	21:13:43	21:54:33	22:00:43
02/15/2020	Sa	00:07:01		18:47:49	19:26:09	19:28:48	20:06:48	20:11:31	20:56:26	21:09:47	21:50:37	21:56:47
02/16/2020	Su	00:06:58		18:43:53	19:22:13	19:24:53	20:02:52	20:07:35	20:52:30	21:05:51	21:46:41	21:52:51
02/17/2020	M	00:06:55		18:39:57	19:18:17	19:20:57	19:58:56	20:03:40	20:48:34	21:01:55	21:42:45	21:48:55
02/18/2020	Tu	00:06:50		18:36:01	19:14:21	19:17:01	19:55:00	19:59:44	20:44:38	20:58:00	21:38:49	21:44:59
02/19/2020	W	00:06:45		18:32:05	19:10:25	19:13:05	19:51:04	19:55:48	20:40:42	20:54:04	21:34:53	21:41:03
02/20/2020	Th	00:06:40			19:06:29	19:09:09	19:47:08	19:51:52	20:36:46	20:50:08	21:30:57	21:37:07
02/20/2020	Th											
02/21/2020	F	00:06:33			19:02:33	19:05:13	19:43:12	19:47:56	20:32:50	20:46:12	21:27:01	21:33:11
02/22/2020	Sa	00:06:26			18:58:37	19:01:17	19:39:16	19:44:00	20:28:54	20:42:16	21:23:05	21:29:15
02/23/2020	Su	00:06:19			18:54:41	18:57:21	19:35:20	19:40:04	20:24:59	20:38:20	21:19:09	21:25:20
02/24/2020	M	00:06:11			18:50:46	18:53:25	19:31:24	19:36:08	20:21:02	20:34:24	21:15:13	21:21:24
02/25/2020	Tu	00:06:02			18:46:50	18:49:29	19:27:28	19:32:12	20:17:07	20:30:28	21:11:17	21:17:28
02/26/2020	W	00:05:53			18:42:54	18:45:33	19:23:32	19:28:16	20:13:11	20:26:32	21:07:22	21:13:32
02/27/2020	Th	00:05:43				18:41:37	19:19:36	19:24:20	20:09:15	20:22:36	21:03:26	21:09:36
02/28/2020	F	00:05:32					19:15:41	19:20:24	20:05:19	20:18:40	20:59:30	21:05:40
02/29/2020	Sa	00:05:21					19:11:45	19:16:28	20:01:23	20:14:44	20:55:34	21:01:44
03/01/2020	Su	00:05:10					19:07:49	19:12:33	19:57:27	20:10:48	20:51:38	20:57:48
03/02/2020	M	00:04:58					19:03:53	19:08:37	19:53:31	20:06:52	20:47:42	20:53:52
03/03/2020	Tu	00:04:45					18:59:57	19:04:41	19:49:35	20:02:57	20:43:46	20:49:56
03/04/2020	W	00:04:32					18:56:01	19:00:45	19:45:39	19:59:01	20:39:50	20:46:00
03/05/2020	Th	00:04:19					18:52:05	18:56:49	19:41:43	19:55:05	20:35:54	20:42:05
03/06/2020	F	00:04:05						18:52:53	19:37:47	19:51:09	20:31:58	20:38:08
03/07/2020	Sa	00:03:50							19:33:52	19:47:13	20:28:02	20:34:13
03/08/2020	Su	00:03:36							19:29:55	19:43:17	20:24:06	20:30:17
03/09/2020	M	00:03:21							19:26:00	19:39:21	20:20:11	20:26:21
03/10/2020	Tu	00:03:05							19:22:04	19:35:25	20:16:15	20:22:25

Transit times (MST) for selected μ setting time.

R.A.=			10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=			11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=			6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date		Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
02/04/2020	Tu	00:06:43	01:06:28	04:22:44	05:12:55						
02/05/2020	W	00:06:49	01:02:32	04:18:48	05:08:59						
02/06/2020	Th	00:06:53	00:58:36	04:14:52	05:05:03						
02/07/2020	F	00:06:57	00:54:41	04:10:56	05:01:07						
02/08/2020	Sa	00:07:01	00:50:45	04:07:01	04:57:11						
02/09/2020	Su	00:07:03	00:46:49	04:03:05	04:53:16						
02/10/2020	M	00:07:04	00:42:53	03:59:09	04:49:20						
02/11/2020	Tu	00:07:05	00:38:57	03:55:13	04:45:24						
02/12/2020	W	00:07:05	00:35:01	03:51:17	04:41:28						
02/13/2020	Th	00:07:04	00:31:05	03:47:21	04:37:32						
02/14/2020	F	00:07:03	00:27:09	03:43:25	04:33:36						
02/15/2020	Sa	00:07:01	00:23:13	03:39:29	04:29:40						
02/16/2020	Su	00:06:58	00:19:18	03:35:33	04:25:45						
02/17/2020	M	00:06:55	00:15:22	03:31:38	04:21:49						
02/18/2020	Tu	00:06:50	00:11:26	03:27:42	04:17:53						
02/19/2020	W	00:06:45	00:07:30	03:23:46	04:13:57						
02/20/2020	Th	00:06:40	00:03:34	03:19:50	04:10:01						
02/20/2020	Th		23:59:38								
02/21/2020	F	00:06:33	23:55:42	03:15:54	04:06:05						
02/22/2020	Sa	00:06:26	23:51:46	03:11:58	04:02:09						
02/23/2020	Su	00:06:19	23:47:50	03:08:02	03:58:13						
02/24/2020	M	00:06:11	23:43:54	03:04:06	03:54:18						
02/25/2020	Tu	00:06:02	23:39:59	03:00:11	03:50:22						
02/26/2020	W	00:05:53	23:36:03	02:56:15	03:46:26						
02/27/2020	Th	00:05:43	23:32:07	02:52:19	03:42:30						
02/28/2020	F	00:05:32	23:28:11	02:48:23	03:38:34						
02/29/2020	Sa	00:05:21	23:24:15	02:44:27	03:34:38						
03/01/2020	Su	00:05:10	23:20:19	02:40:31	03:30:42						
03/02/2020	M	00:04:58	23:16:23	02:36:35	03:26:46						
03/03/2020	Tu	00:04:45	23:12:27	02:32:39	03:22:50						
03/04/2020	W	00:04:32	23:08:31	02:28:43	03:18:55						
03/05/2020	Th	00:04:19	23:04:35	02:24:48	03:14:59						
03/06/2020	F	00:04:05	23:00:39	02:20:52	03:11:03						
03/07/2020	Sa	00:03:50	22:56:43	02:16:56	03:07:07						
03/08/2020	Su	00:03:36	22:52:48	02:13:00	03:03:11						
03/09/2020	M	00:03:21	22:48:52	02:09:04	02:59:15						
03/10/2020	Tu	00:03:05	22:44:56	02:05:08	02:55:19	05:09:00					

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m	
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m	
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m	
Date		Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
03/11/2020	W	00:02:49	22:41:00	02:01:12	02:51:23	05:05:04					
03/12/2020	Th	00:02:33	22:37:04	01:57:16	02:47:28	05:01:09					
03/13/2020	F	00:02:17	22:33:08	01:53:21	02:43:32	04:57:13					
03/14/2020	Sa	00:02:00	22:29:12	01:49:25	02:39:36	04:53:17					
03/15/2020	Su	00:01:43	22:25:16	01:45:29	02:35:40	04:49:21					
03/16/2020	M	00:01:26	22:21:20	01:41:33	02:31:44	04:45:25					
03/17/2020	Tu	00:01:09	22:17:24	01:37:37	02:27:48	04:41:29					
03/18/2020	W	00:00:52	22:13:28	01:33:41	02:23:52	04:37:33					
03/19/2020	Th	00:00:34	22:09:33	01:29:45	02:19:56	04:33:38					
03/20/2020	F	00:00:17	22:05:37	01:25:49	02:16:00	04:29:42					
03/20/2020	F	23:59:59									
03/21/2020	Sa	23:59:41	22:01:41	01:21:53	02:12:04	04:25:46					
03/22/2020	Su	23:59:23	21:57:45	01:17:58	02:08:09	04:21:50					
03/23/2020	M	23:59:05	21:53:49	01:14:02	02:04:13	04:17:54					
03/24/2020	Tu	23:58:47	21:49:53	01:10:06	02:00:17	04:13:58					
03/25/2020	W	23:58:29	21:45:57	01:06:10	01:56:21	04:10:02					
03/26/2020	Th	23:58:11	21:42:01	01:02:14	01:52:25	04:06:06					
03/27/2020	F	23:57:53	21:38:05	00:58:18	01:48:29	04:02:11					
03/28/2020	Sa	23:57:35	21:34:09	00:54:22	01:44:33	03:58:15					
03/29/2020	Su	23:57:17	21:30:13	00:50:26	01:40:37	03:54:19					
03/30/2020	M	23:56:59	21:26:17	00:46:30	01:36:42	03:50:23					
03/31/2020	Tu	23:56:41	21:22:22	00:42:34	01:32:46	03:46:27					
04/01/2020	W	23:56:23	21:18:26	00:38:38	01:28:50	03:42:31					
04/02/2020	Th	23:56:06	21:14:30	00:34:43	01:24:54	03:38:35					
04/03/2020	F	23:55:48	21:10:34	00:30:47	01:20:58	03:34:39					
04/04/2020	Sa	23:55:31	21:06:38	00:26:51	01:17:02	03:30:44					
04/05/2020	Su	23:55:14	21:02:42	00:22:55	01:13:06	03:26:48					
04/06/2020	M	23:54:57	20:58:46	00:18:59	01:09:10	03:22:52					
04/07/2020	Tu	23:54:40	20:54:50	00:15:03	01:05:14	03:18:56					
04/08/2020	W	23:54:24	20:50:54	00:11:07	01:01:19	03:15:00					
04/09/2020	Th	23:54:08	20:46:58	00:07:11	00:57:23	03:11:04					
04/10/2020	F	23:53:52	20:43:02	00:03:16	00:53:27	03:07:08					
04/10/2020	F			23:59:20							
04/11/2020	Sa	23:53:36	20:39:06	23:55:24	00:49:31	03:03:12					
04/12/2020	Su	23:53:21	20:35:11	23:51:28	00:45:35	02:59:16					
04/13/2020	M	23:53:06	20:31:15	23:47:32	00:41:39	02:55:20					
04/14/2020	Tu	23:52:52	20:27:19	23:43:36	00:37:43	02:51:25					

Transit times (MST) for selected μ setting time.

R.A.=			10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=			11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=			6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date		Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
04/15/2020	W	23:52:38	20:23:23	23:39:40	00:33:47	02:47:29					
04/16/2020	Th	23:52:24	20:19:27	23:35:44	00:29:51	02:43:33					
04/17/2020	F	23:52:10	20:15:31	23:31:48	00:25:55	02:39:37					
04/18/2020	Sa	23:51:57	20:11:35	23:27:52	00:22:00	02:35:41					
04/19/2020	Su	23:51:45	20:07:39	23:23:56	00:18:04	02:31:45					
04/20/2020	M	23:51:33	20:03:43	23:20:00	00:14:08	02:27:49					
04/21/2020	Tu	23:51:21	19:59:47	23:16:05	00:10:12	02:23:54					
04/22/2020	W	23:51:10	19:55:51	23:12:09	00:06:16	02:19:58					
04/23/2020	Th	23:50:59		23:08:13	00:02:20	02:16:02					
04/23/2020	Th				23:58:24						
04/24/2020	F	23:50:49		23:04:17	23:54:28	02:12:06					
04/25/2020	Sa	23:50:39		23:00:21	23:50:32	02:08:10					
04/26/2020	Su	23:50:30		22:56:25	23:46:36	02:04:14					
04/27/2020	M	23:50:21		22:52:29	23:42:40	02:00:18					
04/28/2020	Tu	23:50:13		22:48:33	23:38:45	01:56:22					
04/29/2020	W	23:50:05		22:44:37	23:34:49	01:52:26					
04/30/2020	Th	23:49:58		22:40:41	23:30:53	01:48:31					
05/01/2020	F	23:49:51		22:36:46	23:26:57	01:44:35					
05/02/2020	Sa	23:49:45		22:32:50	23:23:01	01:40:39					
05/03/2020	Su	23:49:39		22:28:54	23:19:05	01:36:43					
05/04/2020	M	23:49:34		22:24:58	23:15:09	01:32:47					
05/05/2020	Tu	23:49:30		22:21:02	23:11:13	01:28:51					
05/06/2020	W	23:49:26		22:17:06	23:07:17	01:24:55					
05/07/2020	Th	23:49:22		22:13:10	23:03:21	01:20:59					
05/08/2020	F	23:49:19		22:09:14	22:59:26	01:17:03					
05/09/2020	Sa	23:49:17		22:05:18	22:55:30	01:13:08					
05/10/2020	Su	23:49:15		22:01:22	22:51:34	01:09:12	03:15:49				
05/11/2020	M	23:49:14		21:57:26	22:47:38	01:05:16	03:11:53				
05/12/2020	Tu	23:49:14		21:53:31	22:43:42	01:01:20	03:07:57				
05/13/2020	W	23:49:14		21:49:35	22:39:46	00:57:24	03:04:02				
05/14/2020	Th	23:49:14		21:45:39	22:35:50	00:53:28	03:00:06				
05/15/2020	F	23:49:16		21:41:43	22:31:54	00:49:32	02:56:10				
05/16/2020	Sa	23:49:17		21:37:47	22:27:58	00:45:36	02:52:14				
05/17/2020	Su	23:49:20		21:33:51	22:24:02	00:41:40	02:48:18				
05/18/2020	M	23:49:23		21:29:55	22:20:06	00:37:45	02:44:22				
05/19/2020	Tu	23:49:26		21:25:59	22:16:11	00:33:49	02:40:26				
05/20/2020	W	23:49:30		21:22:03	22:12:15	00:29:53	02:36:31				

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
05/21/2020	Th	23:49:35		21:18:07	22:08:19	00:25:57	02:32:35			
05/22/2020	F	23:49:40		21:14:11	22:04:23	00:22:01	02:28:39			
05/23/2020	Sa	23:49:45		21:10:15	22:00:27	00:18:05	02:24:43			
05/24/2020	Su	23:49:51		21:06:20	21:56:31	00:14:09	02:20:47			
05/25/2020	M	23:49:58		21:02:24	21:52:35	00:10:13	02:16:51			
05/26/2020	Tu	23:50:05		20:58:28	21:48:39	00:06:17	02:12:55			
05/27/2020	W	23:50:13		20:54:32	21:44:43	00:02:21	02:08:59			
05/27/2020	W					23:58:25				
05/28/2020	Th	23:50:20	20:50:36	21:40:47	23:54:30	02:05:03				
05/29/2020	F	23:50:29		21:36:51	23:50:34	02:01:07				
05/30/2020	Sa	23:50:38		21:32:56	23:46:38	01:57:12				
05/31/2020	Su	23:50:47		21:29:00	23:42:42	01:53:16				
06/01/2020	M	23:50:56		21:25:04	23:38:46	01:49:20				
06/02/2020	Tu	23:51:06		21:21:08	23:34:50	01:45:24				
06/03/2020	W	23:51:16		21:17:12	23:30:54	01:41:28				
06/04/2020	Th	23:51:27		21:13:16	23:26:58	01:37:32				
06/05/2020	F	23:51:37		21:09:20	23:23:02	01:33:36	02:47:32			
06/06/2020	Sa	23:51:49		21:05:24	23:19:06	01:29:40	02:43:36			
06/07/2020	Su	23:52:00		21:01:28	23:15:11	01:25:44	02:39:40			
06/08/2020	M	23:52:11			23:11:15	01:21:48	02:35:44			
06/09/2020	Tu	23:52:23			23:07:19	01:17:53	02:31:49			
06/10/2020	W	23:52:35			23:03:23	01:13:57	02:27:53			
06/11/2020	Th	23:52:48			22:59:27	01:10:01	02:23:57			
06/12/2020	F	23:53:00			22:55:31	01:06:05	02:20:01			
06/13/2020	Sa	23:53:13			22:51:35	01:02:09	02:16:05			
06/14/2020	Su	23:53:26			22:47:39	00:58:13	02:12:09	02:43:15		
06/15/2020	M	23:53:39			22:43:43	00:54:17	02:08:13	02:39:20		
06/16/2020	Tu	23:53:52			22:39:48	00:50:21	02:04:17	02:35:24		
06/17/2020	W	23:54:05			22:35:52	00:46:25	02:00:21	02:31:28		
06/18/2020	Th	23:54:18			22:31:56	00:42:30	01:56:26	02:27:32		
06/19/2020	F	23:54:31			22:28:00	00:38:34	01:52:30	02:23:36	02:42:43	
06/20/2020	Sa	23:54:44			22:24:04	00:34:38	01:48:34	02:19:40	02:38:47	
06/21/2020	Su	23:54:58			22:20:08	00:30:42	01:44:38	02:15:44	02:34:51	
06/22/2020	M	23:55:11			22:16:12	00:26:46	01:40:42	02:11:48	02:30:55	
06/23/2020	Tu	23:55:23			22:12:16	00:22:50	01:36:46	02:07:53	02:26:59	
06/24/2020	W	23:55:36			22:08:20	00:18:54	01:32:50	02:03:57	02:23:04	
06/25/2020	Th	23:55:49			22:04:24	00:14:58	01:28:54	02:00:01	02:19:08	

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
06/26/2020	F	23:56:01			22:00:28	00:11:02	01:24:58	01:56:05	02:15:12	
06/27/2020	Sa	23:56:14			21:56:33	00:07:06	01:21:03	01:52:09	02:11:16	
06/28/2020	Su	23:56:26			21:52:37	00:03:11	01:17:07	01:48:13	02:07:20	
06/28/2020	Su					23:59:15				
06/29/2020	M	23:56:38			21:48:41	23:55:19	01:13:11	01:44:17	02:03:24	
06/30/2020	Tu	23:56:49			21:44:45	23:51:23	01:09:15	01:40:21	01:59:28	
07/01/2020	W	23:57:01			21:40:49	23:47:27	01:05:19	01:36:25	01:55:32	
07/02/2020	Th	23:57:11			21:36:53	23:43:31	01:01:23	01:32:29	01:51:36	
07/03/2020	F	23:57:22			21:32:57	23:39:35	00:57:27	01:28:34	01:47:40	
07/04/2020	Sa	23:57:32			21:29:01	23:35:39	00:53:31	01:24:38	01:43:45	
07/05/2020	Su	23:57:42			21:25:05	23:31:43	00:49:35	01:20:42	01:39:49	
07/06/2020	M	23:57:52			21:21:09	23:27:47	00:45:39	01:16:46	01:35:53	
07/07/2020	Tu	23:58:01			21:17:13	23:23:51	00:41:44	01:12:50	01:31:57	
07/08/2020	W	23:58:10			21:13:17	23:19:56	00:37:48	01:08:54	01:28:01	
07/09/2020	Th	23:58:18			21:09:21	23:16:00	00:33:52	01:04:58	01:24:05	
07/10/2020	F	23:58:26			21:05:26	23:12:04	00:29:56	01:01:02	01:20:09	
07/11/2020	Sa	23:58:34			21:01:30	23:08:08	00:26:00	00:57:06	01:16:13	
07/12/2020	Su	23:58:41			20:57:34	23:04:12	00:22:04	00:53:11	01:12:17	
07/13/2020	M	23:58:48				23:00:16	00:18:08	00:49:15	01:08:22	
07/14/2020	Tu	23:58:54				22:56:20	00:14:12	00:45:19	01:04:26	
07/15/2020	W	23:58:59				22:52:24	00:10:16	00:41:23	01:00:30	
07/16/2020	Th	23:59:04				22:48:28	00:06:20	00:37:27	00:56:34	
07/17/2020	F					22:44:32	00:02:25	00:33:31	00:52:38	
07/17/2020	F	23:59:09					23:58:29			
07/18/2020	Sa	23:59:13				22:40:36	23:54:33	00:29:35	00:48:42	03:04:57
07/19/2020	Su	23:59:17				22:36:40	23:50:37	00:25:39	00:44:46	03:01:01
07/20/2020	M	23:59:20				22:32:45	23:46:41	00:21:43	00:40:50	02:57:05
07/21/2020	Tu	23:59:22				22:28:49	23:42:45	00:17:47	00:36:54	02:53:10
07/22/2020	W	23:59:24				22:24:53	23:38:49	00:13:51	00:32:58	02:49:14
07/23/2020	Th	23:59:25				22:20:57	23:34:53	00:09:56	00:29:02	02:45:18
07/24/2020	F	23:59:26				22:17:01	23:30:57	00:06:00	00:25:07	02:41:22
07/25/2020	Sa					22:13:05	23:27:01	00:02:04	00:21:11	02:37:26
07/25/2020	Sa	23:59:26						23:58:08		
07/26/2020	Su	23:59:25				22:09:09	23:23:05	23:54:12	00:17:15	02:33:30
07/27/2020	M	23:59:24				22:05:13	23:19:10	23:50:16	00:13:19	02:29:34
07/28/2020	Tu	23:59:22				22:01:17	23:15:14	23:46:20	00:09:23	02:25:38
07/29/2020	W	23:59:19				21:57:21	23:11:18	23:42:24	00:05:27	02:21:43

Transit times (MST) for selected μ setting time.

R.A.=			10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=			11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=			6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date		Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
07/30/2020	Th						21:53:25	23:07:22	23:38:28	00:01:31	02:17:47
07/30/2020	Th	23:59:16								23:57:35	
07/31/2020	F	23:59:13					21:49:30	23:03:26	23:34:32	23:53:39	02:13:51
08/01/2020	Sa	23:59:08					21:45:34	22:59:30	23:30:36	23:49:43	02:09:55
08/02/2020	Su	23:59:03					21:41:38	22:55:34	23:26:41	23:45:48	02:05:59
08/03/2020	M	23:58:58					21:37:42	22:51:38	23:22:45	23:41:52	02:02:03
08/04/2020	Tu	23:58:52					21:33:46	22:47:42	23:18:49	23:37:56	01:58:07
08/05/2020	W	23:58:45					21:29:50	22:43:46	23:14:53	23:34:00	01:54:11
08/06/2020	Th	23:58:37					21:25:54	22:39:50	23:10:57	23:30:04	01:50:15
08/07/2020	F	23:58:29					21:21:58	22:35:55	23:07:01	23:26:08	01:46:20
08/08/2020	Sa	23:58:21					21:18:02	22:31:59	23:03:05	23:22:12	01:42:24
08/09/2020	Su	23:58:12					21:14:06	22:28:03	22:59:09	23:18:16	01:38:28
08/10/2020	M	23:58:02					21:10:10	22:24:07	22:55:13	23:14:20	01:34:32
08/11/2020	Tu	23:57:52					21:06:14	22:20:11	22:51:17	23:10:24	01:30:36
08/12/2020	W	23:57:41					21:02:18	22:16:15	22:47:21	23:06:29	01:26:40
08/13/2020	Th	23:57:30					20:58:22	22:12:19	22:43:26	23:02:33	01:22:44
08/14/2020	F	23:57:18					20:54:27	22:08:23	22:39:30	22:58:37	01:18:48
08/15/2020	Sa	23:57:06					20:50:31	22:04:27	22:35:34	22:54:41	01:14:53
08/16/2020	Su	23:56:53					20:46:35	22:00:31	22:31:38	22:50:45	01:10:57
08/17/2020	M	23:56:40					20:42:39	21:56:35	22:27:42	22:46:49	01:07:01
08/18/2020	Tu	23:56:26					20:38:43	21:52:40	22:23:46	22:42:53	01:03:05
08/19/2020	W	23:56:12					20:34:47	21:48:44	22:19:50	22:38:57	00:59:09
08/20/2020	Th	23:55:57					20:30:51	21:44:48	22:15:54	22:35:01	00:55:13
08/21/2020	F	23:55:42					20:26:55	21:40:52	22:11:58	22:31:05	00:51:17
08/22/2020	Sa	23:55:27					20:22:59	21:36:56	22:08:02	22:27:09	00:47:21
08/23/2020	Su	23:55:11					20:19:03	21:33:00	22:04:06	22:23:13	00:43:25
08/24/2020	M	23:54:54					20:15:07	21:29:04	22:00:10	22:19:17	00:39:29
08/25/2020	Tu	23:54:37					20:11:11	21:25:08	21:56:15	22:15:22	00:35:33
08/26/2020	W	23:54:20					20:07:15	21:21:12	21:52:19	22:11:26	00:31:38
08/27/2020	Th	23:54:02					20:03:20	21:17:16	21:48:23	22:07:30	00:27:42
08/28/2020	F	23:53:44					19:59:24	21:13:20	21:44:27	22:03:34	00:23:46
08/29/2020	Sa	23:53:25					19:55:28	21:09:24	21:40:31	21:59:38	00:19:50
08/30/2020	Su	23:53:07					19:51:32	21:05:29	21:36:35	21:55:42	00:15:54
08/31/2020	M	23:52:48					19:47:36	21:01:33	21:32:39	21:51:46	00:11:58
09/01/2020	Tu	23:52:28					19:43:40	20:57:37	21:28:43	21:47:50	00:08:02
09/02/2020	W	23:52:09					19:39:44	20:53:41	21:24:47	21:43:54	00:04:06
09/03/2020	Th	23:51:49					19:35:48	20:49:45	21:20:51	21:39:58	00:00:11

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=		2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m
Decl.=		42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m
Offset=		10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
09/03/2020	Th											
09/04/2020	F	23:51:29	03:02:07	04:06:17								
09/05/2020	Sa	23:51:08	02:58:11	04:02:21								
09/06/2020	Su	23:50:48	02:54:15	03:58:25								
09/07/2020	M	23:50:27	02:50:19	03:54:29								
09/08/2020	Tu	23:50:06	02:46:23	03:50:33								
09/09/2020	W	23:49:45	02:42:27	03:46:37								
09/10/2020	Th	23:49:24	02:38:32	03:42:41								
09/11/2020	F	23:49:03	02:34:36	03:38:45								
09/12/2020	Sa	23:48:42	02:30:40	03:34:50								
09/13/2020	Su	23:48:20	02:26:44	03:30:54								
09/14/2020	M	23:47:59	02:22:48	03:26:58								
09/15/2020	Tu	23:47:38	02:18:52	03:23:02								
09/16/2020	W	23:47:16	02:14:56	03:19:06								
09/17/2020	Th	23:46:55	02:11:00	03:15:10								
09/18/2020	F	23:46:34	02:07:05	03:11:14								
09/19/2020	Sa	23:46:12	02:03:09	03:07:18								
09/20/2020	Su	23:45:51	01:59:13	03:03:23	04:30:43							
09/21/2020	M	23:45:30	01:55:17	02:59:27	04:26:47							
09/22/2020	Tu	23:45:09	01:51:21	02:55:31	04:22:51							
09/23/2020	W	23:44:48	01:47:25	02:51:35	04:18:55							
09/24/2020	Th	23:44:27	01:43:29	02:47:39	04:14:59							
09/25/2020	F	23:44:07	01:39:33	02:43:43	04:11:04							
09/26/2020	Sa	23:43:46	01:35:37	02:39:47	04:07:08							
09/27/2020	Su	23:43:26	01:31:42	02:35:51	04:03:12	04:41:31						
09/28/2020	M	23:43:06	01:27:46	02:31:56	03:59:16	04:37:35	04:40:15					
09/29/2020	Tu	23:42:46	01:23:50	02:28:00	03:55:20	04:33:39	04:36:20					
09/30/2020	W	23:42:27	01:19:54	02:24:04	03:51:24	04:29:43	04:32:24					
10/01/2020	Th	23:42:08	01:15:58	02:20:08	03:47:28	04:25:47	04:28:28					
10/02/2020	F	23:41:49	01:12:02	02:16:12	03:43:32	04:21:51	04:24:32					
10/03/2020	Sa	23:41:30	01:08:06	02:12:16	03:39:37	04:17:56	04:20:36					
10/04/2020	Su	23:41:12	01:04:10	02:08:20	03:35:41	04:14:00	04:16:40					
10/05/2020	M	23:40:54	01:00:14	02:04:24	03:31:45	04:10:04	04:12:44	04:50:42				
10/06/2020	Tu	23:40:37	00:56:19	02:00:28	03:27:49	04:06:08	04:08:48	04:46:46	04:51:31			
10/07/2020	W	23:40:20	00:52:23	01:56:33	03:23:53	04:02:12	04:04:53	04:42:51	04:47:35			
10/08/2020	Th	23:40:03	00:48:27	01:52:37	03:19:57	03:58:16	04:00:57	04:38:55	04:43:39			
10/09/2020	F	23:39:47	00:44:31	01:48:41	03:16:01	03:54:20	03:57:01	04:34:59	04:39:43			

Transit times (MST) for selected μ setting time.

R.A.=			10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=			11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=			6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date		Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
09/03/2020	Th										23:56:15
09/04/2020	F	23:51:29					19:31:52	20:45:49	21:16:55	21:36:02	23:52:19
09/05/2020	Sa	23:51:08					19:27:56	20:41:53	21:12:59	21:32:06	23:48:23
09/06/2020	Su	23:50:48					19:24:00	20:37:57	21:09:03	21:28:11	23:44:27
09/07/2020	M	23:50:27						20:34:01	21:05:08	21:24:15	23:40:31
09/08/2020	Tu	23:50:06						20:30:05	21:01:12	21:20:19	23:36:35
09/09/2020	W	23:49:45						20:26:09	20:57:16	21:16:23	23:32:39
09/10/2020	Th	23:49:24						20:22:13	20:53:20	21:12:27	23:28:43
09/11/2020	F	23:49:03						20:18:18	20:49:24	21:08:31	23:24:47
09/12/2020	Sa	23:48:42						20:14:22	20:45:28	21:04:35	23:20:51
09/13/2020	Su	23:48:20						20:10:26	20:41:32	21:00:39	23:16:55
09/14/2020	M	23:47:59						20:06:30	20:37:36	20:56:43	23:13:00
09/15/2020	Tu	23:47:38						20:02:34	20:33:40	20:52:47	23:09:04
09/16/2020	W	23:47:16						19:58:38	20:29:44	20:48:51	23:05:08
09/17/2020	Th	23:46:55						19:54:42	20:25:48	20:44:55	23:01:12
09/18/2020	F	23:46:34						19:50:46	20:21:52	20:40:59	22:57:16
09/19/2020	Sa	23:46:12						19:46:50	20:17:56	20:37:03	22:53:20
09/20/2020	Su	23:45:51						19:42:54	20:14:00	20:33:08	22:49:24
09/21/2020	M	23:45:30						19:38:58	20:10:05	20:29:12	22:45:28
09/22/2020	Tu	23:45:09						19:35:02	20:06:09	20:25:16	22:41:32
09/23/2020	W	23:44:48						19:31:06	20:02:13	20:21:20	22:37:36
09/24/2020	Th	23:44:27						19:27:11	19:58:17	20:17:24	22:33:41
09/25/2020	F	23:44:07						19:23:15	19:54:21	20:13:28	22:29:45
09/26/2020	Sa	23:43:46						19:19:19	19:50:25	20:09:32	22:25:49
09/27/2020	Su	23:43:26						19:15:23	19:46:29	20:05:36	22:21:53
09/28/2020	M	23:43:06						19:11:27	19:42:33	20:01:40	22:17:57
09/29/2020	Tu	23:42:46						19:07:31	19:38:37	19:57:44	22:14:01
09/30/2020	W	23:42:27						19:03:35	19:34:41	19:53:48	22:10:05
10/01/2020	Th	23:42:08						18:59:39	19:30:45	19:49:52	22:06:09
10/02/2020	F	23:41:49						18:55:43	19:26:49	19:45:56	22:02:13
10/03/2020	Sa	23:41:30						18:51:47	19:22:53	19:42:01	21:58:17
10/04/2020	Su	23:41:12						18:47:51	19:18:58	19:38:05	21:54:21
10/05/2020	M	23:40:54						18:43:55	19:15:02	19:34:09	21:50:25
10/06/2020	Tu	23:40:37						18:39:59	19:11:06	19:30:13	21:46:30
10/07/2020	W	23:40:20						18:36:04	19:07:10	19:26:17	21:42:34
10/08/2020	Th	23:40:03						18:32:08	19:03:14	19:22:21	21:38:38
10/09/2020	F	23:39:47						18:28:12	18:59:18	19:18:25	21:34:42

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=		2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=		42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=		10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date		Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
10/10/2020	Sa	23:39:32	00:40:35	01:44:45	03:12:05	03:50:24	03:53:05	04:31:03	04:35:47				
10/11/2020	Su	23:39:17	00:36:39	01:40:49	03:08:10	03:46:29	03:49:09	04:27:07	04:31:51				
10/12/2020	M	23:39:03	00:32:43	01:36:53	03:04:14	03:42:33	03:45:13	04:23:11	04:27:56				
10/13/2020	Tu	23:38:49	00:28:47	01:32:57	03:00:18	03:38:37	03:41:17	04:19:15	04:24:00				
10/14/2020	W	23:38:35	00:24:51	01:29:01	02:56:22	03:34:41	03:37:22	04:15:19	04:20:04				
10/15/2020	Th	23:38:22	00:20:56	01:25:06	02:52:26	03:30:45	03:33:26	04:11:24	04:16:08	05:01:01			
10/16/2020	F	23:38:10	00:17:00	01:21:10	02:48:30	03:26:49	03:29:30	04:07:28	04:12:12	04:57:05			
10/17/2020	Sa	23:37:59	00:13:04	01:17:14	02:44:34	03:22:53	03:25:34	04:03:32	04:08:16	04:53:09	05:06:30		
10/18/2020	Su	23:37:48	00:09:08	01:13:18	02:40:38	03:18:57	03:21:38	03:59:36	04:04:20	04:49:13	05:02:34		
10/19/2020	M	23:37:37	00:05:12	01:09:22	02:36:42	03:15:02	03:17:42	03:55:40	04:00:25	04:45:17	04:58:38		
10/20/2020	Tu	23:37:28	00:01:16	01:05:26	02:32:47	03:11:06	03:13:46	03:51:44	03:56:29	04:41:22	04:54:43		
10/20/2020	Tu		23:57:20										
10/21/2020	W	23:37:19	23:53:24	01:01:30	02:28:51	03:07:10	03:09:50	03:47:48	03:52:33	04:37:26	04:50:47		
10/22/2020	Th	23:37:10	23:49:28	00:57:34	02:24:55	03:03:14	03:05:55	03:43:52	03:48:37	04:33:30	04:46:51		
10/23/2020	F	23:37:02	23:45:32	00:53:38	02:20:59	02:59:18	03:01:59	03:39:57	03:44:41	04:29:34	04:42:55		
10/24/2020	Sa	23:36:55	23:41:37	00:49:43	02:17:03	02:55:22	02:58:03	03:36:01	03:40:45	04:25:38	04:38:59		
10/25/2020	Su	23:36:49	23:37:41	00:45:47	02:13:07	02:51:26	02:54:07	03:32:05	03:36:49	04:21:42	04:35:03	05:15:53	
10/26/2020	M	23:36:43	23:33:45	00:41:51	02:09:11	02:47:30	02:50:11	03:28:09	03:32:53	04:17:46	04:31:07	05:11:57	05:18:07
10/27/2020	Tu	23:36:38	23:29:49	00:37:55	02:05:15	02:43:34	02:46:15	03:24:13	03:28:58	04:13:50	04:27:11	05:08:01	05:14:12
10/28/2020	W	23:36:34	23:25:53	00:33:59	02:01:19	02:39:38	02:42:19	03:20:17	03:25:02	04:09:55	04:23:16	05:04:05	05:10:16
10/29/2020	Th	23:36:31	23:21:57	00:30:03	01:57:24	02:35:43	02:38:23	03:16:21	03:21:06	04:05:59	04:19:20	05:00:09	05:06:20
10/30/2020	F	23:36:29	23:18:01	00:26:07	01:53:28	02:31:47	02:34:28	03:12:25	03:17:10	04:02:03	04:15:24	04:56:13	05:02:24
10/31/2020	Sa	23:36:27	23:14:05	00:22:11	01:49:32	02:27:51	02:30:32	03:08:29	03:13:14	03:58:07	04:11:28	04:52:18	04:58:28
11/01/2020	Su	23:36:26	23:10:09	00:18:15	01:45:36	02:23:55	02:26:36	03:04:34	03:09:18	03:54:11	04:07:32	04:48:22	04:54:32
11/02/2020	M	23:36:25	23:06:14	00:14:19	01:41:40	02:19:59	02:22:40	03:00:38	03:05:22	03:50:15	04:03:36	04:44:26	04:50:36
11/03/2020	Tu	23:36:26	23:02:18	00:10:24	01:37:44	02:16:03	02:18:44	02:56:42	03:01:26	03:46:19	03:59:40	04:40:30	04:46:40
11/04/2020	W	23:36:28	22:58:22	00:06:28	01:33:48	02:12:07	02:14:48	02:52:46	02:57:31	03:42:23	03:55:44	04:36:34	04:42:45
11/05/2020	Th	23:36:30	22:54:26	00:02:32	01:29:52	02:08:11	02:10:52	02:48:50	02:53:35	03:38:27	03:51:48	04:32:38	04:38:49
11/05/2020	Th			23:58:36									
11/06/2020	F	23:36:33	22:50:30	23:54:40	01:25:57	02:04:15	02:06:56	02:44:54	02:49:39	03:34:32	03:47:53	04:28:42	04:34:53
11/07/2020	Sa	23:36:37	22:46:34	23:50:44	01:22:01	02:00:20	02:03:01	02:40:58	02:45:43	03:30:36	03:43:57	04:24:46	04:30:57
11/08/2020	Su	23:36:42	22:42:38	23:46:48	01:18:05	01:56:24	01:59:05	02:37:02	02:41:47	03:26:40	03:40:01	04:20:51	04:27:01
11/09/2020	M	23:36:48	22:38:42	23:42:52	01:14:09	01:52:28	01:55:09	02:33:07	02:37:51	03:22:44	03:36:05	04:16:55	04:23:05
11/10/2020	Tu	23:36:55	22:34:46	23:38:56	01:10:13	01:48:32	01:51:13	02:29:11	02:33:55	03:18:48	03:32:09	04:12:59	04:19:09
11/11/2020	W	23:37:02	22:30:50	23:35:00	01:06:17	01:44:36	01:47:17	02:25:15	02:30:00	03:14:52	03:28:13	04:09:03	04:15:13
11/12/2020	Th	23:37:11	22:26:54	23:31:05	01:02:21	01:40:40	01:43:21	02:21:19	02:26:04	03:10:56	03:24:17	04:05:07	04:11:18
11/13/2020	F	23:37:20	22:22:58	23:27:09	00:58:25	01:36:44	01:39:25	02:17:23	02:22:08	03:07:00	03:20:22	04:01:11	04:07:22

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=			2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m
Decl.=			42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m
Offset=			10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m
Date		Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
11/14/2020	Sa	23:37:30	22:19:03	23:23:13	00:54:29	01:32:48	01:35:29	02:13:27	02:18:12	03:03:05	03:16:26	03:57:15	04:03:26
11/15/2020	Su	23:37:41	22:15:07	23:19:17	00:50:33	01:28:52	01:31:33	02:09:31	02:14:16	02:59:09	03:12:30	03:53:19	03:59:30
11/16/2020	M	23:37:53	22:11:11	23:15:21	00:46:38	01:24:57	01:27:38	02:05:35	02:10:20	02:55:13	03:08:34	03:49:23	03:55:34
11/17/2020	Tu	23:38:05	22:07:15	23:11:25	00:42:42	01:21:01	01:23:42	02:01:39	02:06:24	02:51:17	03:04:38	03:45:28	03:51:38
11/18/2020	W	23:38:19	22:03:19	23:07:29	00:38:46	01:17:05	01:19:46	01:57:43	02:02:28	02:47:21	03:00:42	03:41:32	03:47:42
11/19/2020	Th	23:38:33	21:59:23	23:03:33	00:34:50	01:13:09	01:15:50	01:53:48	01:58:32	02:43:25	02:56:46	03:37:36	03:43:46
11/20/2020	F	23:38:48	21:55:27	22:59:37	00:30:54	01:09:13	01:11:54	01:49:52	01:54:37	02:39:29	02:52:50	03:33:40	03:39:50
11/21/2020	Sa	23:39:04	21:51:31	22:55:41	00:26:58	01:05:17	01:07:58	01:45:56	01:50:41	02:35:33	02:48:54	03:29:44	03:35:55
11/22/2020	Su	23:39:20	21:47:35	22:51:46	00:23:02	01:01:21	01:04:02	01:42:00	01:46:45	02:31:37	02:44:59	03:25:48	03:31:59
11/23/2020	M	23:39:37	21:43:39	22:47:50	00:19:06	00:57:25	01:00:07	01:38:04	01:42:49	02:27:41	02:41:03	03:21:52	03:28:03
11/24/2020	Tu	23:39:56	21:39:44	22:43:54	00:15:10	00:53:30	00:56:11	01:34:08	01:38:53	02:23:46	02:37:07	03:17:56	03:24:07
11/25/2020	W	23:40:14	21:35:48	22:39:58	00:11:15	00:49:34	00:52:15	01:30:12	01:34:57	02:19:50	02:33:11	03:14:01	03:20:11
11/26/2020	Th	23:40:34	21:31:52	22:36:02	00:07:19	00:45:38	00:48:19	01:26:16	01:31:01	02:15:54	02:29:15	03:10:05	03:16:15
11/27/2020	F	23:40:54	21:27:56	22:32:06	00:03:23	00:41:42	00:44:23	01:22:21	01:27:05	02:11:58	02:25:19	03:06:09	03:12:19
11/27/2020	F				23:59:27								
11/28/2020	Sa	23:41:15	21:24:00	22:28:10	23:55:31	00:37:46	00:40:27	01:18:25	01:23:09	02:08:02	02:21:23	03:02:13	03:08:24
11/29/2020	Su	23:41:37	21:20:04	22:24:14	23:51:35	00:33:50	00:36:31	01:14:29	01:19:14	02:04:06	02:17:27	02:58:17	03:04:28
11/30/2020	M	23:41:59	21:16:08	22:20:18	23:47:39	00:29:54	00:32:35	01:10:33	01:15:18	02:00:10	02:13:32	02:54:21	03:00:32
12/01/2020	Tu	23:42:22	21:12:12	22:16:22	23:43:43	00:25:58	00:28:39	01:06:37	01:11:22	01:56:14	02:09:36	02:50:25	02:56:36
12/02/2020	W	23:42:45	21:08:16	22:12:27	23:39:47	00:22:02	00:24:44	01:02:41	01:07:26	01:52:18	02:05:40	02:46:29	02:52:40
12/03/2020	Th	23:43:09	21:04:20	22:08:31	23:35:51	00:18:06	00:20:48	00:58:45	01:03:30	01:48:23	02:01:44	02:42:33	02:48:44
12/04/2020	F	23:43:34	21:00:24	22:04:35	23:31:56	00:14:10	00:16:52	00:54:49	00:59:34	01:44:27	01:57:48	02:38:38	02:44:48
12/05/2020	Sa	23:43:59	20:56:28	22:00:39	23:28:00	00:10:15	00:12:56	00:50:53	00:55:38	01:40:31	01:53:52	02:34:42	02:40:52
12/06/2020	Su	23:44:25	20:52:32	21:56:43	23:24:04	00:06:19	00:09:00	00:46:58	00:51:43	01:36:35	01:49:56	02:30:46	02:36:56
12/07/2020	M	23:44:51	20:48:37	21:52:47	23:20:08	00:02:23	00:05:04	00:43:02	00:47:47	01:32:39	01:46:00	02:26:50	02:33:00
12/07/2020	M					23:58:27							
12/08/2020	Tu	23:45:18	20:44:41	21:48:51	23:16:12	23:54:31	00:01:08	00:39:06	00:43:51	01:28:43	01:42:04	02:22:54	02:29:05
12/08/2020	Tu						23:57:12						
12/09/2020	W	23:45:45	20:40:45	21:44:55	23:12:16	23:50:35	23:53:16	00:35:10	00:39:55	01:24:47	01:38:08	02:18:58	02:25:09
12/10/2020	Th	23:46:13	20:36:49	21:40:59	23:08:20	23:46:39	23:49:20	00:31:14	00:35:59	01:20:51	01:34:13	02:15:02	02:21:13
12/11/2020	F	23:46:41	20:32:53	21:37:03	23:04:24	23:42:43	23:45:24	00:27:18	00:32:03	01:16:56	01:30:17	02:11:06	02:17:17
12/12/2020	Sa	23:47:09	20:28:57	21:33:07	23:00:28	23:38:47	23:41:29	00:23:22	00:28:07	01:13:00	01:26:21	02:07:11	02:13:21
12/13/2020	Su	23:47:38	20:25:01	21:29:11	22:56:32	23:34:52	23:37:33	00:19:26	00:24:11	01:09:04	01:22:25	02:03:15	02:09:25
12/14/2020	M	23:48:07	20:21:05	21:25:16	22:52:36	23:30:56	23:33:37	00:15:30	00:20:15	01:05:08	01:18:29	01:59:19	02:05:29
12/15/2020	Tu	23:48:36	20:17:09	21:21:20	22:48:41	23:27:00	23:29:41	00:11:34	00:16:19	01:01:12	01:14:33	01:55:23	02:01:34
12/16/2020	W	23:49:05	20:13:13	21:17:24	22:44:45	23:23:04	23:25:45	00:07:39	00:12:24	00:57:16	01:10:37	01:51:27	01:57:38
12/17/2020	Th	23:49:35	20:09:17	21:13:28	22:40:49	23:19:08	23:21:49	00:03:43	00:08:28	00:53:20	01:06:41	01:47:31	01:53:42

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=			2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m
Decl.=			42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m
Offset=			10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m
Date		Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
12/17/2020	Th							23:59:47					
12/18/2020	F	23:50:05	20:05:21	21:09:32	22:36:53	23:15:12	23:17:53	23:55:51	00:04:32	00:49:24	01:02:45	01:43:35	01:49:46
12/19/2020	Sa	23:50:35	20:01:26	21:05:36	22:32:57	23:11:16	23:13:57	23:51:55	00:00:36	00:45:28	00:58:50	01:39:39	01:45:50
12/19/2020	Sa												23:56:40
12/20/2020	Su	23:51:04	19:57:30	21:01:40	22:29:01	23:07:20	23:10:01	23:47:59	23:52:44	00:41:32	00:54:54	01:35:43	01:41:54
12/21/2020	M	23:51:34	19:53:34	20:57:44	22:25:05	23:03:24	23:06:06	23:44:03	23:48:48	00:37:37	00:50:58	01:31:48	01:37:58
12/22/2020	Tu	23:52:04	19:49:38	20:53:48	22:21:09	22:59:28	23:02:10	23:40:07	23:44:52	00:33:41	00:47:02	01:27:52	01:34:02
12/23/2020	W	23:52:34	19:45:42	20:49:52	22:17:13	22:55:32	22:58:14	23:36:11	23:40:56	00:29:45	00:43:06	01:23:56	01:30:06
12/24/2020	Th	23:53:04	19:41:46	20:45:56	22:13:17	22:51:37	22:54:18	23:32:15	23:37:00	00:25:49	00:39:10	01:20:00	01:26:11
12/25/2020	F	23:53:33	19:37:50	20:42:01	22:09:21	22:47:41	22:50:22	23:28:19	23:33:05	00:21:53	00:35:14	01:16:04	01:22:15
12/26/2020	Sa	23:54:03	19:33:54	20:38:05	22:05:26	22:43:45	22:46:26	23:24:24	23:29:09	00:17:57	00:31:18	01:12:08	01:18:19
12/27/2020	Su	23:54:32	19:29:58	20:34:09	22:01:30	22:39:49	22:42:30	23:20:28	23:25:13	00:14:01	00:27:22	01:08:12	01:14:23
12/28/2020	M	23:55:01	19:26:02	20:30:13	21:57:34	22:35:53	22:38:34	23:16:32	23:21:17	00:10:05	00:23:26	01:04:16	01:10:27
12/29/2020	Tu	23:55:30	19:22:06	20:26:17	21:53:38	22:31:57	22:34:38	23:12:36	23:17:21	00:06:09	00:19:30	01:00:20	01:06:31
12/30/2020	W	23:55:59	19:18:10	20:22:21	21:49:42	22:28:01	22:30:42	23:08:40	23:13:25	00:02:13	00:15:35	00:56:24	01:02:35
12/30/2020	W									23:58:17			
12/31/2020	Th	23:56:27	19:14:14	20:18:25	21:45:46	22:24:05	22:26:46	23:04:44	23:09:29	23:54:22	00:11:39	00:52:29	00:58:39
01/01/2021	F	23:56:55	19:10:18	20:14:29	21:41:50	22:20:09	22:22:51	23:00:48	23:05:33	23:50:26	00:07:43	00:48:33	00:54:43
01/02/2021	Sa	23:57:23	19:06:22	20:10:33	21:37:54	22:16:13	22:18:55	22:56:52	23:01:37	23:46:30	00:03:47	00:44:37	00:50:48
01/02/2021	Sa										23:59:51		
01/03/2021	Su	23:57:50	19:02:27	20:06:37	21:33:58	22:12:17	22:14:59	22:52:56	22:57:41	23:42:34	23:55:55	00:40:41	00:46:52
01/04/2021	M	23:58:17	18:58:31	20:02:41	21:30:02	22:08:22	22:11:03	22:49:00	22:53:46	23:38:38	23:51:59	00:36:45	00:42:56
01/05/2021	Tu	23:58:43	18:54:35	19:58:45	21:26:06	22:04:26	22:07:07	22:45:05	22:49:50	23:34:42	23:48:03	00:32:49	00:39:00
01/06/2021	W	23:59:09	18:50:39	19:54:49	21:22:11	22:00:30	22:03:11	22:41:09	22:45:54	23:30:46	23:44:07	00:28:53	00:35:04
01/07/2021	Th	23:59:35	18:46:43	19:50:54	21:18:15	21:56:34	21:59:15	22:37:13	22:41:58	23:26:50	23:40:11	00:24:57	00:31:08
01/08/2021	F	00:00:00	18:42:47	19:46:58	21:14:19	21:52:38	21:55:19	22:33:17	22:38:02	23:22:54	23:36:16	00:21:01	00:27:12
01/09/2021	Sa		18:38:51	19:43:02	21:10:23	21:48:42	21:51:23	22:29:21	22:34:06	23:18:58	23:32:20	00:17:05	00:23:16
01/10/2021	Su	00:00:24	18:34:55	19:39:06	21:06:27	21:44:46	21:47:27	22:25:25	22:30:10	23:15:03	23:28:24	00:13:10	00:19:20
01/11/2021	M	00:00:48	18:30:59	19:35:10	21:02:31	21:40:50	21:43:31	22:21:29	22:26:14	23:11:07	23:24:28	00:09:14	00:15:24
01/12/2021	Tu	00:01:12	18:27:03	19:31:14	20:58:35	21:36:54	21:39:36	22:17:33	22:22:18	23:07:11	23:20:32	00:05:18	00:11:28
01/13/2021	W	00:01:34	18:23:07	19:27:18	20:54:39	21:32:58	21:35:40	22:13:37	22:18:22	23:03:15	23:16:36	00:01:22	00:07:33
01/13/2021	W												23:57:26
01/14/2021	Th	00:01:57	18:19:11	19:23:22	20:50:43	21:29:02	21:31:44	22:09:41	22:14:27	22:59:19	23:12:40	23:53:30	00:03:37
01/14/2021	Th												23:59:41
01/15/2021	F	00:02:18	18:15:16	19:19:26	20:46:47	21:25:06	21:27:48	22:05:45	22:10:31	22:55:23	23:08:44	23:49:34	23:55:45
01/16/2021	Sa	00:02:39	18:11:19	19:15:30	20:42:51	21:21:11	21:23:52	22:01:49	22:06:35	22:51:27	23:04:48	23:45:38	23:51:49
01/17/2021	Su	00:02:59	18:07:24	19:11:34	20:38:55	21:17:15	21:19:56	21:57:54	22:02:39	22:47:31	23:00:52	23:41:42	23:47:53

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
12/17/2020	Th									
12/18/2020	F	23:50:05	04:12:15							
12/19/2020	Sa	23:50:35	04:08:19							
12/19/2020	Sa									
12/20/2020	Su	23:51:04	04:04:24							
12/21/2020	M	23:51:34	04:00:28							
12/22/2020	Tu	23:52:04	03:56:32							
12/23/2020	W	23:52:34	03:52:36							
12/24/2020	Th	23:53:04	03:48:40							
12/25/2020	F	23:53:33	03:44:44							
12/26/2020	Sa	23:54:03	03:40:48							
12/27/2020	Su	23:54:32	03:36:52							
12/28/2020	M	23:55:01	03:32:56							
12/29/2020	Tu	23:55:30	03:29:01							
12/30/2020	W	23:55:59	03:25:05							
12/30/2020	W									
12/31/2020	Th	23:56:27	03:21:09							
01/01/2021	F	23:56:55	03:17:13							
01/02/2021	Sa	23:57:23	03:13:17							
01/02/2021	Sa									
01/03/2021	Su	23:57:50	03:09:21							
01/04/2021	M	23:58:17	03:05:25							
01/05/2021	Tu	23:58:43	03:01:29	06:17:45						
01/06/2021	W	23:59:09	02:57:33	06:13:49						
01/07/2021	Th	23:59:35	02:53:38	06:09:53						
01/08/2021	F	00:00:00	02:49:42	06:05:57						
01/09/2021	Sa		02:45:46	06:02:01						
01/10/2021	Su	00:00:24	02:41:50	05:58:05						
01/11/2021	M	00:00:48	02:37:54	05:54:10						
01/12/2021	Tu	00:01:12	02:33:58	05:50:14						
01/13/2021	W	00:01:34	02:30:02	05:46:18						
01/13/2021	W									
01/14/2021	Th	00:01:57	02:26:06	05:42:22						
01/14/2021	Th									
01/15/2021	F	00:02:18	02:22:11	05:38:26						
01/16/2021	Sa	00:02:39	02:18:15	05:34:30						
01/17/2021	Su	00:02:59	02:14:19	05:30:34						

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=		2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=		42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=		10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux	
01/18/2021	M	00:03:18	18:03:28	19:07:38	20:35:00	21:13:19	21:16:00	21:53:58	21:58:43	22:43:35	22:56:57	23:37:46	23:43:57
01/19/2021	Tu	00:03:37	17:59:32	19:03:42	20:31:04	21:09:23	21:12:04	21:50:02	21:54:47	22:39:39	22:53:01	23:33:51	23:40:01
01/20/2021	W	00:03:55	17:55:36	18:59:46	20:27:08	21:05:27	21:08:08	21:46:06	21:50:51	22:35:43	22:49:05	23:29:55	23:36:05
01/21/2021	Th	00:04:12		18:55:50	20:23:12	21:01:31	21:04:12	21:42:10	21:46:55	22:31:48	22:45:09	23:25:59	23:32:10
01/22/2021	F	00:04:28		18:51:55	20:19:16	20:57:35	21:00:16	21:38:14	21:42:59	22:27:52	22:41:13	23:22:03	23:28:14
01/23/2021	Sa	00:04:43		18:47:59	20:15:20	20:53:39	20:56:20	21:34:18	21:39:03	22:23:56	22:37:17	23:18:07	23:24:18
01/24/2021	Su	00:04:58		18:44:03	20:11:24	20:49:43	20:52:24	21:30:22	21:35:07	22:20:00	22:33:21	23:14:11	23:20:22
01/25/2021	M	00:05:12		18:40:07	20:07:28	20:45:47	20:48:29	21:26:26	21:31:11	22:16:04	22:29:25	23:10:15	23:16:26
01/26/2021	Tu	00:05:25		18:36:11	20:03:32	20:41:51	20:44:33	21:22:30	21:27:15	22:12:08	22:25:29	23:06:19	23:12:30
01/27/2021	W	00:05:37		18:32:15	19:59:36	20:37:55	20:40:37	21:18:34	21:23:20	22:08:12	22:21:33	23:02:23	23:08:34
01/28/2021	Th	00:05:49		18:28:19	19:55:40	20:34:00	20:36:41	21:14:39	21:19:24	22:04:16	22:17:37	22:58:27	23:04:38
01/29/2021	F	00:05:59		18:24:23	19:51:44	20:30:04	20:32:45	21:10:43	21:15:28	22:00:20	22:13:41	22:54:31	23:00:42
01/30/2021	Sa	00:06:09		18:20:27	19:47:49	20:26:08	20:28:49	21:06:47	21:11:32	21:56:24	22:09:45	22:50:36	22:56:46
01/31/2021	Su	00:06:18		18:16:31	19:43:53	20:22:12	20:24:53	21:02:51	21:07:36	21:52:28	22:05:50	22:46:40	22:52:50
02/01/2021	M	00:06:26		18:12:35	19:39:57	20:18:16	20:20:57	20:58:55	21:03:40	21:48:33	22:01:54	22:42:44	22:48:55
02/02/2021	Tu	00:06:34			19:36:01	20:14:20	20:17:01	20:54:59	20:59:44	21:44:37	21:57:58	22:38:48	22:44:59
02/03/2021	W	00:06:41			19:32:05	20:10:24	20:13:05	20:51:03	20:55:48	21:40:41	21:54:02	22:34:52	22:41:03
02/04/2021	Th	00:06:46			19:28:09	20:06:28	20:09:09	20:47:07	20:51:52	21:36:45	21:50:06	22:30:56	22:37:07
02/05/2021	F	00:06:51			19:24:13	20:02:32	20:05:13	20:43:11	20:47:56	21:32:49	21:46:10	22:27:00	22:33:11
02/06/2021	Sa	00:06:56			19:20:17	19:58:36	20:01:17	20:39:15	20:44:00	21:28:53	21:42:14	22:23:04	22:29:15
02/07/2021	Su	00:06:59			19:16:21	19:54:40	19:57:22	20:35:19	20:40:04	21:24:57	21:38:18	22:19:08	22:25:19
02/08/2021	M	00:07:02			19:12:25	19:50:44	19:53:26	20:31:24	20:36:09	21:21:01	21:34:22	22:15:12	22:21:23
02/09/2021	Tu	00:07:04			19:08:29	19:46:48	19:49:30	20:27:28	20:32:13	21:17:05	21:30:26	22:11:17	22:17:27
02/10/2021	W	00:07:05			19:04:33	19:42:53	19:45:34	20:23:32	20:28:17	21:13:09	21:26:30	22:07:21	22:13:31
02/11/2021	Th	00:07:05			19:00:37	19:38:57	19:41:38	20:19:36	20:24:21	21:09:13	21:22:34	22:03:25	22:09:36
02/12/2021	F	00:07:05			18:56:42	19:35:01	19:37:42	20:15:40	20:20:25	21:05:17	21:18:39	21:59:29	22:05:40
02/13/2021	Sa	00:07:04			18:52:46	19:31:05	19:33:46	20:11:44	20:16:29	21:01:21	21:14:43	21:55:33	22:01:44
02/14/2021	Su	00:07:02			18:48:50	19:27:09	19:29:50	20:07:48	20:12:33	20:57:26	21:10:47	21:51:37	21:57:48
02/15/2021	M	00:06:59			18:44:54	19:23:13	19:25:54	20:03:52	20:08:37	20:53:30	21:06:51	21:47:41	21:53:52
02/16/2021	Tu	00:06:56			18:40:58	19:19:17	19:21:58	19:59:56	20:04:41	20:49:34	21:02:55	21:43:45	21:49:56
02/17/2021	W	00:06:52			18:37:02	19:15:21	19:18:02	19:56:00	20:00:45	20:45:38	20:58:59	21:39:49	21:46:00
02/18/2021	Th	00:06:47			18:33:06	19:11:25	19:14:06	19:52:04	19:56:49	20:41:42	20:55:03	21:35:53	21:42:04
02/19/2021	F	00:06:41				19:07:29	19:10:10	19:48:08	19:52:53	20:37:46	20:51:07	21:31:57	21:38:08
02/20/2021	Sa	00:06:35				19:03:33	19:06:14	19:44:12	19:48:57	20:33:50	20:47:11	21:28:02	21:34:12
02/20/2021	Sa												
02/21/2021	Su	00:06:28				18:59:37	19:02:19	19:40:17	19:45:02	20:29:54	20:43:15	21:24:06	21:30:16
02/22/2021	M	00:06:21				18:55:41	18:58:23	19:36:21	19:41:06	20:25:58	20:39:19	21:20:10	21:26:20

Transit times (MST) for selected μ setting time.

R.A.=			10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=			11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=			6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date		Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
01/18/2021	M	00:03:18	02:10:23	05:26:38							
01/19/2021	Tu	00:03:37	02:06:27	05:22:43	06:12:53						
01/20/2021	W	00:03:55	02:02:31	05:18:47	06:08:57						
01/21/2021	Th	00:04:12	01:58:35	05:14:51	06:05:01						
01/22/2021	F	00:04:28	01:54:39	05:10:55	06:01:05						
01/23/2021	Sa	00:04:43	01:50:43	05:06:59	05:57:10						
01/24/2021	Su	00:04:58	01:46:47	05:03:03	05:53:14						
01/25/2021	M	00:05:12	01:42:52	04:59:07	05:49:18						
01/26/2021	Tu	00:05:25	01:38:56	04:55:11	05:45:22						
01/27/2021	W	00:05:37	01:35:00	04:51:16	05:41:26						
01/28/2021	Th	00:05:49	01:31:04	04:47:20	05:37:30						
01/29/2021	F	00:05:59	01:27:08	04:43:24	05:33:34						
01/30/2021	Sa	00:06:09	01:23:12	04:39:28	05:29:39						
01/31/2021	Su	00:06:18	01:19:16	04:35:32	05:25:43						
02/01/2021	M	00:06:26	01:15:20	04:31:36	05:21:47						
02/02/2021	Tu	00:06:34	01:11:24	04:27:40	05:17:51						
02/03/2021	W	00:06:41	01:07:29	04:23:44	05:13:55						
02/04/2021	Th	00:06:46	01:03:33	04:19:49	05:09:59						
02/05/2021	F	00:06:51	00:59:37	04:15:53	05:06:03						
02/06/2021	Sa	00:06:56	00:55:41	04:11:57	05:02:07						
02/07/2021	Su	00:06:59	00:51:45	04:08:01	04:58:12						
02/08/2021	M	00:07:02	00:47:49	04:04:05	04:54:16						
02/09/2021	Tu	00:07:04	00:43:53	04:00:09	04:50:20						
02/10/2021	W	00:07:05	00:39:57	03:56:13	04:46:24						
02/11/2021	Th	00:07:05	00:36:01	03:52:17	04:42:28						
02/12/2021	F	00:07:05	00:32:06	03:48:21	04:38:32						
02/13/2021	Sa	00:07:04	00:28:10	03:44:26	04:34:36						
02/14/2021	Su	00:07:02	00:24:14	03:40:30	04:30:40						
02/15/2021	M	00:06:59	00:20:18	03:36:34	04:26:44						
02/16/2021	Tu	00:06:56	00:16:22	03:32:38	04:22:49						
02/17/2021	W	00:06:52	00:12:26	03:28:42	04:18:53						
02/18/2021	Th	00:06:47	00:08:30	03:24:46	04:14:57						
02/19/2021	F	00:06:41	00:04:34	03:20:50	04:11:01						
02/20/2021	Sa	00:06:35	00:00:38	03:16:54	04:07:05						
02/20/2021	Sa		23:56:42								
02/21/2021	Su	00:06:28	23:52:46	03:12:59	04:03:09						
02/22/2021	M	00:06:21	23:48:51	03:09:03	03:59:13						

Transit times (MST) for selected μ setting time.

R.A.=			10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=			11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=			6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date		Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
02/23/2021	Tu	00:06:13	23:44:55	03:05:07	03:55:17						
02/24/2021	W	00:06:04	23:40:59	03:01:11	03:51:22						
02/25/2021	Th	00:05:55	23:37:03	02:57:15	03:47:26						
02/26/2021	F	00:05:45	23:33:07	02:53:19	03:43:30						
02/27/2021	Sa	00:05:34	23:29:11	02:49:23	03:39:34						
02/28/2021	Su	00:05:23	23:25:15	02:45:27	03:35:38						
03/01/2021	M	00:05:12	23:21:19	02:41:31	03:31:42						
03/02/2021	Tu	00:05:00	23:17:23	02:37:35	03:27:46						
03/03/2021	W	00:04:47	23:13:27	02:33:40	03:23:50						
03/04/2021	Th	00:04:34	23:09:32	02:29:44	03:19:55						
03/05/2021	F	00:04:21	23:05:36	02:25:48	03:15:59						
03/06/2021	Sa	00:04:07	23:01:40	02:21:52	03:12:03						
03/07/2021	Su	00:03:53	22:57:44	02:17:56	03:08:07						
03/08/2021	M	00:03:38	22:53:48	02:14:00	03:04:11						
03/09/2021	Tu	00:03:23	22:49:52	02:10:04	03:00:15						
03/10/2021	W	00:03:08	22:45:56	02:06:08	02:56:19	05:10:01					
03/11/2021	Th	00:02:53	22:42:00	02:02:13	02:52:23	05:06:05					
03/12/2021	F	00:02:37	22:38:04	01:58:17	02:48:27	05:02:09					
03/13/2021	Sa	00:02:21	22:34:08	01:54:21	02:44:31	04:58:14					
03/14/2021	Su	00:02:04	22:30:13	01:50:25	02:40:36	04:54:18					
03/15/2021	M	00:01:47	22:26:17	01:46:29	02:36:40	04:50:22					
03/16/2021	Tu	00:01:31	22:22:21	01:42:33	02:32:44	04:46:26					
03/17/2021	W	00:01:14	22:18:25	01:38:37	02:28:48	04:42:30					
03/18/2021	Th	00:00:56	22:14:29	01:34:41	02:24:52	04:38:34					
03/19/2021	F	00:00:39	22:10:33	01:30:45	02:20:56	04:34:38					
03/20/2021	Sa	00:00:21	22:06:37	01:26:49	02:17:00	04:30:42					
03/21/2021	Su	00:00:03	22:02:41	01:22:54	02:13:04	04:26:47					
03/21/2021	Su	23:59:45									
03/22/2021	M	23:59:27	21:58:45	01:18:58	02:09:09	04:22:51					
03/23/2021	Tu	23:59:09	21:54:49	01:15:02	02:05:13	04:18:55					
03/24/2021	W	23:58:51	21:50:53	01:11:06	02:01:17	04:14:59					
03/25/2021	Th	23:58:33	21:46:58	01:07:10	01:57:21	04:11:03					
03/26/2021	F	23:58:15	21:43:02	01:03:14	01:53:25	04:07:07					
03/27/2021	Sa	23:57:56	21:39:06	00:59:18	01:49:29	04:03:11					
03/28/2021	Su	23:57:38	21:35:10	00:55:22	01:45:33	03:59:15					
03/29/2021	M	23:57:20	21:31:14	00:51:27	01:41:37	03:55:19					
03/30/2021	Tu	23:57:02	21:27:18	00:47:31	01:37:42	03:51:24					

Transit times (MST) for selected μ setting time.

R.A.=			10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=			11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=			6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date		Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
03/31/2021	W	23:56:44	21:23:22	00:43:35	01:33:46	03:47:28					
04/01/2021	Th	23:56:27	21:19:26	00:39:39	01:29:50	03:43:32					
04/02/2021	F	23:56:09	21:15:30	00:35:43	01:25:54	03:39:36					
04/03/2021	Sa	23:55:51	21:11:34	00:31:47	01:21:58	03:35:40					
04/04/2021	Su	23:55:34	21:07:38	00:27:51	01:18:02	03:31:44					
04/05/2021	M	23:55:17	21:03:42	00:23:55	01:14:06	03:27:48					
04/06/2021	Tu	23:55:00	20:59:46	00:19:59	01:10:10	03:23:53					
04/07/2021	W	23:54:44	20:55:51	00:16:03	01:06:14	03:19:57					
04/08/2021	Th	23:54:27	20:51:55	00:12:07	01:02:18	03:16:01					
04/09/2021	F	23:54:11	20:47:59	00:08:12	00:58:23	03:12:05					
04/10/2021	Sa	23:53:55	20:44:03	00:04:16	00:54:27	03:08:09					
04/11/2021	Su	23:53:40	20:40:07	00:00:20	00:50:31	03:04:13					
04/11/2021	Su			23:56:24							
04/12/2021	M	23:53:25	20:36:11	23:52:28	00:46:35	03:00:17					
04/13/2021	Tu	23:53:10	20:32:15	23:48:32	00:42:39	02:56:21					
04/14/2021	W	23:52:55	20:28:19	23:44:36	00:38:43	02:52:25					
04/15/2021	Th	23:52:41	20:24:23	23:40:40	00:34:47	02:48:30					
04/16/2021	F	23:52:27	20:20:27	23:36:44	00:30:51	02:44:34					
04/17/2021	Sa	23:52:14	20:16:31	23:32:48	00:26:55	02:40:38					
04/18/2021	Su	23:52:01	20:12:36	23:28:53	00:23:00	02:36:42					
04/19/2021	M	23:51:48	20:08:40	23:24:57	00:19:04	02:32:46					
04/20/2021	Tu	23:51:36	20:04:44	23:21:01	00:15:08	02:28:50					
04/21/2021	W	23:51:24	20:00:48	23:17:05	00:11:12	02:24:54					
04/22/2021	Th	23:51:12	19:56:52	23:13:09	00:07:16	02:20:58					
04/23/2021	F	23:51:01		23:09:13	00:03:20	02:17:03					
04/23/2021	F				23:59:24						
04/24/2021	Sa	23:50:51		23:05:17	23:55:28	02:13:07					
04/25/2021	Su	23:50:41		23:01:21	23:51:32	02:09:11					
04/26/2021	M	23:50:31		22:57:25	23:47:36	02:05:15					
04/27/2021	Tu	23:50:22		22:53:29	23:43:40	02:01:19					
04/28/2021	W	23:50:14		22:49:34	23:39:45	01:57:23					
04/29/2021	Th	23:50:06		22:45:38	23:35:49	01:53:27					
04/30/2021	F	23:49:58		22:41:42	23:31:53	01:49:31					
05/01/2021	Sa	23:49:51		22:37:46	23:27:57	01:45:36					
05/02/2021	Su	23:49:45		22:33:50	23:24:01	01:41:40					
05/03/2021	M	23:49:39		22:29:54	23:20:05	01:37:44					
05/04/2021	Tu	23:49:34		22:25:58	23:16:09	01:33:48					

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
05/05/2021	W	23:49:30	22:22:02	23:12:13	01:29:52					
05/06/2021	Th	23:49:26	22:18:06	23:08:17	01:25:56					
05/07/2021	F	23:49:22	22:14:10	23:04:21	01:22:00					
05/08/2021	Sa	23:49:19	22:10:15	23:00:25	01:18:04					
05/09/2021	Su	23:49:17	22:06:19	22:56:30	01:14:08					
05/10/2021	M	23:49:15	22:02:23	22:52:34	01:10:12	03:16:48				
05/11/2021	Tu	23:49:14	21:58:27	22:48:38	01:06:17	03:12:53				
05/12/2021	W	23:49:14	21:54:31	22:44:42	01:02:21	03:08:57				
05/13/2021	Th	23:49:14	21:50:35	22:40:46	00:58:25	03:05:01				
05/14/2021	F	23:49:14	21:46:39	22:36:50	00:54:29	03:01:05				
05/15/2021	Sa	23:49:16	21:42:43	22:32:54	00:50:33	02:57:09				
05/16/2021	Su	23:49:17	21:38:47	22:28:58	00:46:37	02:53:13				
05/17/2021	M	23:49:19	21:34:51	22:25:02	00:42:41	02:49:17				
05/18/2021	Tu	23:49:22	21:30:55	22:21:06	00:38:45	02:45:21				
05/19/2021	W	23:49:25	21:27:00	22:17:10	00:34:49	02:41:25				
05/20/2021	Th	23:49:29	21:23:04	22:13:15	00:30:54	02:37:30				
05/21/2021	F	23:49:33	21:19:08	22:09:19	00:26:58	02:33:34				
05/22/2021	Sa	23:49:38	21:15:12	22:05:23	00:23:02	02:29:38				
05/23/2021	Su	23:49:44	21:11:16	22:01:27	00:19:06	02:25:42				
05/24/2021	M	23:49:49	21:07:20	21:57:31	00:15:10	02:21:46				
05/25/2021	Tu	23:49:56	21:03:24	21:53:35	00:11:14	02:17:50				
05/26/2021	W	23:50:02	20:59:28	21:49:39	00:07:18	02:13:54				
05/27/2021	Th	23:50:10	20:55:32	21:45:43	00:03:22	02:09:58				
05/27/2021	Th				23:59:26					
05/28/2021	F	23:50:17	20:51:36	21:41:47	23:55:30	02:06:02				
05/29/2021	Sa	23:50:25		21:37:51	23:51:35	02:02:07				
05/30/2021	Su	23:50:34		21:33:55	23:47:39	01:58:11				
05/31/2021	M	23:50:43		21:30:00	23:43:43	01:54:15				
06/01/2021	Tu	23:50:52		21:26:04	23:39:47	01:50:19				
06/02/2021	W	23:51:02		21:22:08	23:35:51	01:46:23				
06/03/2021	Th	23:51:12		21:18:12	23:31:55	01:42:27				
06/04/2021	F	23:51:23		21:14:16	23:27:59	01:38:31				
06/05/2021	Sa	23:51:34		21:10:20	23:24:03	01:34:35				
06/06/2021	Su	23:51:45		21:06:24	23:20:07	01:30:39	02:44:36			
06/07/2021	M	23:51:57		21:02:28	23:16:11	01:26:44	02:40:40			
06/08/2021	Tu	23:52:08		20:58:32	23:12:16	01:22:48	02:36:44			
06/09/2021	W	23:52:20			23:08:20	01:18:52	02:32:49			

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
06/10/2021	Th	23:52:33			23:04:24	01:14:56	02:28:53			
06/11/2021	F	23:52:45			23:00:28	01:11:00	02:24:57			
06/12/2021	Sa	23:52:58			22:56:32	01:07:04	02:21:01			
06/13/2021	Su	23:53:10			22:52:36	01:03:08	02:17:05			
06/14/2021	M	23:53:23			22:48:40	00:59:12	02:13:09	02:44:15		
06/15/2021	Tu	23:53:36			22:44:44	00:55:16	02:09:13	02:40:19		
06/16/2021	W	23:53:49			22:40:48	00:51:21	02:05:17	02:36:23		
06/17/2021	Th	23:54:02			22:36:52	00:47:25	02:01:22	02:32:27		
06/18/2021	F	23:54:15			22:32:56	00:43:29	01:57:26	02:28:31		
06/19/2021	Sa	23:54:28			22:29:01	00:39:33	01:53:30	02:24:35	02:43:42	
06/20/2021	Su	23:54:41			22:25:05	00:35:37	01:49:34	02:20:39	02:39:46	
06/21/2021	M	23:54:54			22:21:09	00:31:41	01:45:38	02:16:44	02:35:50	
06/22/2021	Tu	23:55:07			22:17:13	00:27:45	01:41:42	02:12:48	02:31:54	
06/23/2021	W	23:55:20			22:13:17	00:23:49	01:37:46	02:08:52	02:27:59	
06/24/2021	Th	23:55:33			22:09:21	00:19:53	01:33:50	02:04:56	02:24:03	
06/25/2021	F	23:55:45			22:05:25	00:15:57	01:29:54	02:01:00	02:20:07	
06/26/2021	Sa	23:55:58			22:01:29	00:12:01	01:25:59	01:57:04	02:16:11	
06/27/2021	Su	23:56:10			21:57:33	00:08:06	01:22:03	01:53:08	02:12:15	
06/28/2021	M	23:56:22			21:53:37	00:04:10	01:18:07	01:49:12	02:08:19	
06/29/2021	Tu				21:49:41	00:00:14	01:14:11	01:45:16	02:04:23	
06/29/2021	Tu	23:56:34				23:56:18				
06/30/2021	W	23:56:45			21:45:46	23:52:22	01:10:15	01:41:20	02:00:27	
07/01/2021	Th	23:56:57			21:41:50	23:48:26	01:06:19	01:37:24	01:56:31	
07/02/2021	F	23:57:08			21:37:54	23:44:30	01:02:23	01:33:29	01:52:35	
07/03/2021	Sa	23:57:19			21:33:58	23:40:34	00:58:27	01:29:33	01:48:40	
07/04/2021	Su	23:57:29			21:30:02	23:36:38	00:54:31	01:25:37	01:44:44	
07/05/2021	M	23:57:39			21:26:06	23:32:42	00:50:35	01:21:41	01:40:48	
07/06/2021	Tu	23:57:49			21:22:10	23:28:47	00:46:40	01:17:45	01:36:52	
07/07/2021	W	23:57:59			21:18:14	23:24:51	00:42:44	01:13:49	01:32:56	
07/08/2021	Th	23:58:08			21:14:18	23:20:55	00:38:48	01:09:53	01:29:00	
07/09/2021	F	23:58:16			21:10:22	23:16:59	00:34:52	01:05:57	01:25:04	
07/10/2021	Sa	23:58:25			21:06:26	23:13:03	00:30:56	01:02:01	01:21:08	
07/11/2021	Su	23:58:33			21:02:31	23:09:07	00:27:00	00:58:06	01:17:12	
07/12/2021	M	23:58:40			20:58:35	23:05:11	00:23:04	00:54:10	01:13:16	
07/13/2021	Tu	23:58:47				23:01:15	00:19:08	00:50:14	01:09:21	
07/14/2021	W	23:58:53				22:57:19	00:15:12	00:46:18	01:05:25	
07/15/2021	Th	23:58:59				22:53:23	00:11:16	00:42:22	01:01:29	

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
07/16/2021	F	23:59:04				22:49:27	00:07:20	00:38:26	00:57:33	
07/17/2021	Sa	23:59:08				22:45:31	00:03:25	00:34:30	00:53:37	
07/17/2021	Sa						23:59:29			
07/18/2021	Su	23:59:13				22:41:36	23:55:33	00:30:34	00:49:41	03:05:58
07/19/2021	M	23:59:16				22:37:40	23:51:37	00:26:38	00:45:45	03:02:02
07/20/2021	Tu	23:59:19				22:33:44	23:47:41	00:22:43	00:41:49	02:58:06
07/21/2021	W	23:59:22				22:29:48	23:43:45	00:18:47	00:37:53	02:54:10
07/22/2021	Th	23:59:23				22:25:52	23:39:49	00:14:51	00:33:58	02:50:14
07/23/2021	F	23:59:24				22:21:56	23:35:53	00:10:55	00:30:02	02:46:18
07/24/2021	Sa	23:59:25				22:18:00	23:31:57	00:06:59	00:26:06	02:42:23
07/25/2021	Su					22:14:04	23:28:02	00:03:03	00:22:10	02:38:27
07/25/2021	Su	23:59:25						23:59:07		
07/26/2021	M	23:59:24				22:10:08	23:24:06	23:55:11	00:18:14	02:34:31
07/27/2021	Tu	23:59:23				22:06:12	23:20:10	23:51:15	00:14:18	02:30:35
07/28/2021	W	23:59:22				22:02:16	23:16:14	23:47:19	00:10:22	02:26:39
07/29/2021	Th	23:59:19				21:58:21	23:12:18	23:43:23	00:06:26	02:22:43
07/30/2021	F					21:54:25	23:08:22	23:39:28	00:02:30	02:18:47
07/30/2021	F	23:59:16							23:58:34	
07/31/2021	Sa	23:59:13				21:50:29	23:04:26	23:35:32	23:54:38	02:14:51
08/01/2021	Su	23:59:09				21:46:33	23:00:30	23:31:36	23:50:43	02:10:56
08/02/2021	M	23:59:04				21:42:37	22:56:34	23:27:40	23:46:47	02:07:00
08/03/2021	Tu	23:58:59				21:38:41	22:52:38	23:23:44	23:42:51	02:03:04
08/04/2021	W	23:58:53				21:34:45	22:48:42	23:19:48	23:38:55	01:59:08
08/05/2021	Th	23:58:46				21:30:49	22:44:46	23:15:52	23:34:59	01:55:12
08/06/2021	F	23:58:39				21:26:53	22:40:51	23:11:56	23:31:03	01:51:16
08/07/2021	Sa	23:58:32				21:22:57	22:36:55	23:08:00	23:27:07	01:47:20
08/08/2021	Su	23:58:24				21:19:01	22:32:59	23:04:04	23:23:11	01:43:24
08/09/2021	M	23:58:15				21:15:05	22:29:03	23:00:08	23:19:15	01:39:28
08/10/2021	Tu	23:58:05				21:11:09	22:25:07	22:56:12	23:15:19	01:35:32
08/11/2021	W	23:57:55				21:07:14	22:21:11	22:52:17	23:11:23	01:31:37
08/12/2021	Th	23:57:45				21:03:18	22:17:15	22:48:21	23:07:28	01:27:41
08/13/2021	F	23:57:34				20:59:22	22:13:19	22:44:25	23:03:32	01:23:45
08/14/2021	Sa	23:57:22				20:55:26	22:09:23	22:40:29	22:59:36	01:19:49
08/15/2021	Su	23:57:10				20:51:30	22:05:27	22:36:33	22:55:40	01:15:53
08/16/2021	M	23:56:57				20:47:34	22:01:32	22:32:37	22:51:44	01:11:57
08/17/2021	Tu	23:56:44				20:43:38	21:57:36	22:28:41	22:47:48	01:08:01
08/18/2021	W	23:56:30				20:39:42	21:53:40	22:24:45	22:43:52	01:04:05

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
08/19/2021	Th	23:56:16										
08/20/2021	F	23:56:01										
08/21/2021	Sa	23:55:46										
08/22/2021	Su	23:55:30	03:54:14									
08/23/2021	M	23:55:14	03:50:18									
08/24/2021	Tu	23:54:58	03:46:22									
08/25/2021	W	23:54:41	03:42:26									
08/26/2021	Th	23:54:23	03:38:30									
08/27/2021	F	23:54:06	03:34:35									
08/28/2021	Sa	23:53:48	03:30:39									
08/29/2021	Su	23:53:30	03:26:43									
08/30/2021	M	23:53:11	03:22:47									
08/31/2021	Tu	23:52:52	03:18:51									
09/01/2021	W	23:52:33	03:14:55									
09/02/2021	Th	23:52:13	03:10:59									
09/03/2021	F	23:51:54	03:07:04	04:11:13								
09/03/2021	F											
09/04/2021	Sa	23:51:34	03:03:08	04:07:18								
09/05/2021	Su	23:51:14	02:59:12	04:03:22								
09/06/2021	M	23:50:53	02:55:16	03:59:26								
09/07/2021	Tu	23:50:33	02:51:20	03:55:30								
09/08/2021	W	23:50:12	02:47:24	03:51:34								
09/09/2021	Th	23:49:51	02:43:28	03:47:38								
09/10/2021	F	23:49:30	02:39:32	03:43:42								
09/11/2021	Sa	23:49:09	02:35:37	03:39:46								
09/12/2021	Su	23:48:48	02:31:41	03:35:51								
09/13/2021	M	23:48:26	02:27:45	03:31:55								
09/14/2021	Tu	23:48:05	02:23:49	03:27:59								
09/15/2021	W	23:47:44	02:19:53	03:24:03								
09/16/2021	Th	23:47:22	02:15:57	03:20:07								
09/17/2021	F	23:47:01	02:12:01	03:16:11								
09/18/2021	Sa	23:46:39	02:08:05	03:12:15								
09/19/2021	Su	23:46:18	02:04:09	03:08:19								
09/20/2021	M	23:45:56	02:00:14	03:04:24	04:31:44							
09/21/2021	Tu	23:45:35	01:56:18	03:00:28	04:27:48							
09/22/2021	W	23:45:14	01:52:22	02:56:32	04:23:52							
09/23/2021	Th	23:44:53	01:48:26	02:52:36	04:19:56							

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
08/19/2021	Th	23:56:16				20:35:46	21:49:44	22:20:49	22:39:56	01:00:09
08/20/2021	F	23:56:01				20:31:50	21:45:48	22:16:53	22:36:00	00:56:14
08/21/2021	Sa	23:55:46				20:27:54	21:41:52	22:12:58	22:32:04	00:52:18
08/22/2021	Su	23:55:30				20:23:58	21:37:56	22:09:02	22:28:08	00:48:22
08/23/2021	M	23:55:14				20:20:03	21:34:00	22:05:06	22:24:13	00:44:26
08/24/2021	Tu	23:54:58				20:16:06	21:30:04	22:01:10	22:20:17	00:40:30
08/25/2021	W	23:54:41				20:12:11	21:26:08	21:57:14	22:16:21	00:36:34
08/26/2021	Th	23:54:23				20:08:15	21:22:12	21:53:18	22:12:25	00:32:38
08/27/2021	F	23:54:06				20:04:19	21:18:17	21:49:22	22:08:29	00:28:42
08/28/2021	Sa	23:53:48				20:00:23	21:14:21	21:45:26	22:04:33	00:24:47
08/29/2021	Su	23:53:30				19:56:27	21:10:25	21:41:30	22:00:37	00:20:51
08/30/2021	M	23:53:11				19:52:31	21:06:29	21:37:34	21:56:41	00:16:55
08/31/2021	Tu	23:52:52				19:48:35	21:02:33	21:33:38	21:52:45	00:12:59
09/01/2021	W	23:52:33				19:44:39	20:58:37	21:29:42	21:48:49	00:09:03
09/02/2021	Th	23:52:13				19:40:43	20:54:41	21:25:46	21:44:53	00:05:07
09/03/2021	F	23:51:54				19:36:47	20:50:45	21:21:51	21:40:57	00:01:11
09/03/2021	F									23:57:15
09/04/2021	Sa	23:51:34				19:32:51	20:46:49	21:17:55	21:37:01	23:53:19
09/05/2021	Su	23:51:14				19:28:55	20:42:53	21:13:59	21:33:06	23:49:23
09/06/2021	M	23:50:53				19:24:59	20:38:57	21:10:03	21:29:10	23:45:27
09/07/2021	Tu	23:50:33					20:35:01	21:06:07	21:25:14	23:41:32
09/08/2021	W	23:50:12					20:31:05	21:02:11	21:21:18	23:37:36
09/09/2021	Th	23:49:51					20:27:09	20:58:15	21:17:22	23:33:40
09/10/2021	F	23:49:30					20:23:14	20:54:19	21:13:26	23:29:44
09/11/2021	Sa	23:49:09					20:19:18	20:50:23	21:09:30	23:25:48
09/12/2021	Su	23:48:48					20:15:22	20:46:27	21:05:34	23:21:52
09/13/2021	M	23:48:26					20:11:26	20:42:31	21:01:38	23:17:56
09/14/2021	Tu	23:48:05					20:07:30	20:38:35	20:57:42	23:14:00
09/15/2021	W	23:47:44					20:03:34	20:34:39	20:53:46	23:10:04
09/16/2021	Th	23:47:22					19:59:38	20:30:43	20:49:50	23:06:08
09/17/2021	F	23:47:01					19:55:42	20:26:48	20:45:54	23:02:12
09/18/2021	Sa	23:46:39					19:51:46	20:22:52	20:41:59	22:58:17
09/19/2021	Su	23:46:18					19:47:50	20:18:56	20:38:03	22:54:21
09/20/2021	M	23:45:56					19:43:54	20:15:00	20:34:07	22:50:25
09/21/2021	Tu	23:45:35					19:39:59	20:11:04	20:30:11	22:46:29
09/22/2021	W	23:45:14					19:36:03	20:07:08	20:26:15	22:42:33
09/23/2021	Th	23:44:53					19:32:07	20:03:12	20:22:19	22:38:37

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
09/24/2021 F	23:44:32	01:44:30	02:48:40	04:16:00								
09/25/2021 Sa	23:44:11	01:40:34	02:44:44	04:12:04								
09/26/2021 Su	23:43:51	01:36:38	02:40:48	04:08:08								
09/27/2021 M	23:43:31	01:32:42	02:36:52	04:04:12	04:42:31							
09/28/2021 Tu	23:43:11	01:28:46	02:32:57	04:00:17	04:38:35	04:41:17						
09/29/2021 W	23:42:51	01:24:51	02:29:01	03:56:21	04:34:39	04:37:21						
09/30/2021 Th	23:42:31	01:20:55	02:25:05	03:52:25	04:30:43	04:33:25						
10/01/2021 F	23:42:12	01:16:59	02:21:09	03:48:29	04:26:47	04:29:29						
10/02/2021 Sa	23:41:53	01:13:03	02:17:13	03:44:33	04:22:52	04:25:34						
10/03/2021 Su	23:41:35	01:09:07	02:13:17	03:40:37	04:18:56	04:21:38						
10/04/2021 M	23:41:17	01:05:11	02:09:21	03:36:41	04:15:00	04:17:42						
10/05/2021 Tu	23:40:59	01:01:15	02:05:25	03:32:45	04:11:04	04:13:46	04:51:43					
10/06/2021 W	23:40:42	00:57:19	02:01:29	03:28:50	04:07:08	04:09:50	04:47:47	04:52:32				
10/07/2021 Th	23:40:25	00:53:24	01:57:34	03:24:54	04:03:12	04:05:54	04:43:51	04:48:37				
10/08/2021 F	23:40:08	00:49:28	01:53:38	03:20:58	03:59:16	04:01:58	04:39:55	04:44:41				
10/09/2021 Sa	23:39:52	00:45:32	01:49:42	03:17:02	03:55:20	03:58:03	04:35:59	04:40:45				
10/10/2021 Su	23:39:37	00:41:36	01:45:46	03:13:06	03:51:24	03:54:07	04:32:03	04:36:49				
10/11/2021 M	23:39:22	00:37:40	01:41:50	03:09:10	03:47:29	03:50:11	04:28:08	04:32:53				
10/12/2021 Tu	23:39:07	00:33:44	01:37:54	03:05:14	03:43:33	03:46:15	04:24:12	04:28:57				
10/13/2021 W	23:38:53	00:29:48	01:33:58	03:01:18	03:39:37	03:42:19	04:20:16	04:25:01				
10/14/2021 Th	23:38:39	00:25:52	01:30:03	02:57:22	03:35:41	03:38:23	04:16:20	04:21:06				
10/15/2021 F	23:38:26	00:21:56	01:26:07	02:53:27	03:31:45	03:34:27	04:12:24	04:17:10	05:02:01			
10/16/2021 Sa	23:38:14	00:18:00	01:22:11	02:49:31	03:27:49	03:30:31	04:08:28	04:13:14	04:58:05			
10/17/2021 Su	23:38:02	00:14:05	01:18:15	02:45:35	03:23:53	03:26:36	04:04:32	04:09:18	04:54:09	05:07:30		
10/18/2021 M	23:37:50	00:10:09	01:14:19	02:41:39	03:19:58	03:22:40	04:00:36	04:05:22	04:50:13	05:03:34		
10/19/2021 Tu	23:37:40	00:06:13	01:10:23	02:37:43	03:16:02	03:18:44	03:56:41	04:01:26	04:46:17	04:59:38		
10/20/2021 W	23:37:30	00:02:17	01:06:27	02:33:47	03:12:06	03:14:48	03:52:45	03:57:30	04:42:21	04:55:42		
10/20/2021 W		23:58:21										
10/21/2021 Th	23:37:20	23:54:25	01:02:31	02:29:51	03:08:10	03:10:52	03:48:49	03:53:34	04:38:25	04:51:46		
10/22/2021 F	23:37:12	23:50:29	00:58:35	02:25:56	03:04:14	03:06:56	03:44:53	03:49:39	04:34:30	04:47:50		
10/23/2021 Sa	23:37:04	23:46:33	00:54:39	02:22:00	03:00:18	03:03:00	03:40:57	03:45:43	04:30:34	04:43:55		
10/24/2021 Su	23:36:56	23:42:37	00:50:44	02:18:04	02:56:22	02:59:04	03:37:01	03:41:47	04:26:38	04:39:59		
10/25/2021 M	23:36:50	23:38:41	00:46:48	02:14:08	02:52:26	02:55:09	03:33:05	03:37:51	04:22:42	04:36:03	05:16:53	
10/26/2021 Tu	23:36:44	23:34:46	00:42:52	02:10:12	02:48:30	02:51:13	03:29:09	03:33:55	04:18:46	04:32:07	05:12:57	
10/27/2021 W	23:36:39	23:30:50	00:38:56	02:06:16	02:44:34	02:47:17	03:25:13	03:29:59	04:14:50	04:28:11	05:09:01	05:15:12
10/28/2021 Th	23:36:35	23:26:54	00:35:00	02:02:20	02:40:39	02:43:21	03:21:18	03:26:03	04:10:54	04:24:15	05:05:06	05:11:17
10/29/2021 F	23:36:31	23:22:58	00:31:04	01:58:24	02:36:43	02:39:25	03:17:22	03:22:07	04:06:58	04:20:19	05:01:10	05:07:21

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
09/24/2021	F	23:44:32					19:28:11	19:59:16	20:18:23	22:34:41
09/25/2021	Sa	23:44:11					19:24:15	19:55:20	20:14:27	22:30:45
09/26/2021	Su	23:43:51					19:20:19	19:51:24	20:10:31	22:26:49
09/27/2021	M	23:43:31					19:16:23	19:47:28	20:06:35	22:22:53
09/28/2021	Tu	23:43:11					19:12:27	19:43:32	20:02:39	22:18:58
09/29/2021	W	23:42:51					19:08:31	19:39:36	19:58:43	22:15:02
09/30/2021	Th	23:42:31					19:04:35	19:35:41	19:54:47	22:11:06
10/01/2021	F	23:42:12					19:00:39	19:31:45	19:50:51	22:07:10
10/02/2021	Sa	23:41:53					18:56:43	19:27:49	19:46:56	22:03:14
10/03/2021	Su	23:41:35					18:52:47	19:23:53	19:43:00	21:59:18
10/04/2021	M	23:41:17					18:48:52	19:19:57	19:39:04	21:55:22
10/05/2021	Tu	23:40:59					18:44:56	19:16:01	19:35:08	21:51:26
10/06/2021	W	23:40:42					18:41:00	19:12:05	19:31:12	21:47:30
10/07/2021	Th	23:40:25					18:37:04	19:08:09	19:27:16	21:43:34
10/08/2021	F	23:40:08					18:33:08	19:04:13	19:23:20	21:39:38
10/09/2021	Sa	23:39:52					18:29:12	19:00:17	19:19:24	21:35:43
10/10/2021	Su	23:39:37					18:25:16	18:56:21	19:15:28	21:31:47
10/11/2021	M	23:39:22					18:21:20	18:52:25	19:11:32	21:27:51
10/12/2021	Tu	23:39:07					18:17:24	18:48:29	19:07:36	21:23:55
10/13/2021	W	23:38:53						18:44:33	19:03:40	21:19:59
10/14/2021	Th	23:38:39						18:40:37	18:59:44	21:16:03
10/15/2021	F	23:38:26						18:36:42	18:55:48	21:12:07
10/16/2021	Sa	23:38:14						18:32:46	18:51:52	21:08:11
10/17/2021	Su	23:38:02						18:28:50	18:47:56	21:04:15
10/18/2021	M	23:37:50						18:24:54	18:44:01	21:00:19
10/19/2021	Tu	23:37:40						18:20:58	18:40:05	20:56:23
10/20/2021	W	23:37:30						18:17:02	18:36:09	20:52:27
10/20/2021	W									
10/21/2021	Th	23:37:20						18:13:06	18:32:13	20:48:31
10/22/2021	F	23:37:12						18:09:10	18:28:17	20:44:36
10/23/2021	Sa	23:37:04						18:05:14	18:24:21	20:40:40
10/24/2021	Su	23:36:56						18:01:18	18:20:25	20:36:44
10/25/2021	M	23:36:50						17:57:22	18:16:29	20:32:48
10/26/2021	Tu	23:36:44							18:12:33	20:28:52
10/27/2021	W	23:36:39							18:08:37	20:24:56
10/28/2021	Th	23:36:35							18:04:41	20:21:00
10/29/2021	F	23:36:31							18:00:45	20:17:04

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
10/30/2021 Sa	23:36:29	23:19:02	00:27:08	01:54:28	02:32:47	02:35:29	03:13:26	03:18:12	04:03:02	04:16:23	04:57:14	05:03:25
10/31/2021 Su	23:36:27	23:15:06	00:23:12	01:50:32	02:28:51	02:31:33	03:09:30	03:14:16	03:59:07	04:12:27	04:53:18	04:59:29
11/01/2021 M	23:36:26	23:11:10	00:19:16	01:46:37	02:24:55	02:27:38	03:05:34	03:10:20	03:55:11	04:08:32	04:49:22	04:55:33
11/02/2021 Tu	23:36:26	23:07:14	00:15:21	01:42:41	02:20:59	02:23:42	03:01:38	03:06:24	03:51:15	04:04:36	04:45:26	04:51:37
11/03/2021 W	23:36:26	23:03:18	00:11:25	01:38:45	02:17:03	02:19:46	02:57:42	03:02:28	03:47:19	04:00:40	04:41:30	04:47:41
11/04/2021 Th	23:36:28	22:59:22	00:07:29	01:34:49	02:13:07	02:15:50	02:53:46	02:58:32	03:43:23	03:56:44	04:37:34	04:43:45
11/05/2021 F	23:36:30	22:55:27	00:03:33	01:30:53	02:09:11	02:11:54	02:49:51	02:54:36	03:39:27	03:52:48	04:33:38	04:39:50
11/05/2021 F			23:59:37									
11/06/2021 Sa	23:36:33	22:51:31	23:55:41	01:26:57	02:05:16	02:07:58	02:45:55	02:50:40	03:35:31	03:48:52	04:29:43	04:35:54
11/07/2021 Su	23:36:37	22:47:35	23:51:45	01:23:01	02:01:20	02:04:02	02:41:59	02:46:45	03:31:36	03:44:56	04:25:47	04:31:58
11/08/2021 M	23:36:42	22:43:39	23:47:49	01:19:05	01:57:24	02:00:06	02:38:03	02:42:49	03:27:40	03:41:00	04:21:51	04:28:02
11/09/2021 Tu	23:36:47	22:39:43	23:43:53	01:15:09	01:53:28	01:56:10	02:34:07	02:38:53	03:23:44	03:37:05	04:17:55	04:24:06
11/10/2021 W	23:36:54	22:35:47	23:39:57	01:11:14	01:49:32	01:52:15	02:30:11	02:34:57	03:19:48	03:33:09	04:13:59	04:20:10
11/11/2021 Th	23:37:01	22:31:51	23:36:02	01:07:18	01:45:36	01:48:19	02:26:15	02:31:01	03:15:52	03:29:13	04:10:03	04:16:14
11/12/2021 F	23:37:09	22:27:55	23:32:06	01:03:22	01:41:40	01:44:23	02:22:19	02:27:05	03:11:56	03:25:17	04:06:07	04:12:18
11/13/2021 Sa	23:37:18	22:23:59	23:28:10	00:59:26	01:37:44	01:40:27	02:18:23	02:23:09	03:08:00	03:21:21	04:02:12	04:08:23
11/14/2021 Su	23:37:28	22:20:03	23:24:14	00:55:30	01:33:48	01:36:31	02:14:27	02:19:13	03:04:04	03:17:25	03:58:16	04:04:27
11/15/2021 M	23:37:38	22:16:07	23:20:18	00:51:34	01:29:53	01:32:35	02:10:32	02:15:18	03:00:08	03:13:29	03:54:20	04:00:31
11/16/2021 Tu	23:37:50	22:12:12	23:16:22	00:47:38	01:25:57	01:28:39	02:06:36	02:11:22	02:56:12	03:09:33	03:50:24	03:56:35
11/17/2021 W	23:38:02	22:08:16	23:12:26	00:43:42	01:22:01	01:24:43	02:02:40	02:07:26	02:52:17	03:05:38	03:46:28	03:52:39
11/18/2021 Th	23:38:15	22:04:20	23:08:30	00:39:46	01:18:05	01:20:48	01:58:44	02:03:30	02:48:21	03:01:42	03:42:32	03:48:43
11/19/2021 F	23:38:29	22:00:24	23:04:34	00:35:51	01:14:09	01:16:52	01:54:48	01:59:34	02:44:25	02:57:46	03:38:36	03:44:47
11/20/2021 Sa	23:38:43	21:56:28	23:00:38	00:31:55	01:10:13	01:12:56	01:50:52	01:55:38	02:40:29	02:53:50	03:34:40	03:40:51
11/21/2021 Su	23:38:59	21:52:32	22:56:43	00:27:59	01:06:17	01:09:00	01:46:56	01:51:42	02:36:33	02:49:54	03:30:45	03:36:56
11/22/2021 M	23:39:15	21:48:36	22:52:47	00:24:03	01:02:21	01:05:04	01:43:00	01:47:46	02:32:37	02:45:58	03:26:49	03:33:00
11/23/2021 Tu	23:39:32	21:44:40	22:48:51	00:20:07	00:58:26	01:01:08	01:39:05	01:43:51	02:28:41	02:42:02	03:22:53	03:29:04
11/24/2021 W	23:39:50	21:40:44	22:44:55	00:16:11	00:54:30	00:57:12	01:35:09	01:39:55	02:24:45	02:38:06	03:18:57	03:25:08
11/25/2021 Th	23:40:09	21:36:48	22:40:59	00:12:15	00:50:34	00:53:16	01:31:13	01:35:59	02:20:50	02:34:10	03:15:01	03:21:12
11/26/2021 F	23:40:28	21:32:52	22:37:03	00:08:19	00:46:38	00:49:21	01:27:17	01:32:03	02:16:54	02:30:15	03:11:05	03:17:16
11/27/2021 Sa	23:40:48	21:28:57	22:33:07	00:04:23	00:42:42	00:45:25	01:23:21	01:28:07	02:12:58	02:26:19	03:07:09	03:13:20
11/28/2021 Su	23:41:09	21:25:01	22:29:11	00:00:28	00:38:46	00:41:29	01:19:25	01:24:11	02:09:02	02:22:23	03:03:13	03:09:24
11/28/2021 Su				23:56:32								
11/29/2021 M	23:41:31	21:21:05	22:25:15	23:52:36	00:34:50	00:37:33	01:15:29	01:20:15	02:05:06	02:18:27	02:59:17	03:05:29
11/30/2021 Tu	23:41:53	21:17:09	22:21:19	23:48:40	00:30:54	00:33:37	01:11:33	01:16:19	02:01:10	02:14:31	02:55:21	03:01:33
12/01/2021 W	23:42:16	21:13:13	22:17:23	23:44:44	00:26:58	00:29:41	01:07:37	01:12:24	01:57:14	02:10:35	02:51:26	02:57:37
12/02/2021 Th	23:42:39	21:09:17	22:13:28	23:40:48	00:23:03	00:25:45	01:03:42	01:08:28	01:53:18	02:06:39	02:47:30	02:53:41
12/03/2021 F	23:43:03	21:05:21	22:09:32	23:36:52	00:19:07	00:21:49	00:59:46	01:04:32	01:49:22	02:02:43	02:43:34	02:49:45

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
12/04/2021 Sa	23:43:28	21:01:25	22:05:36	23:32:56	00:15:11	00:17:53	00:55:50	01:00:36	01:45:27	01:58:47	02:39:38	02:45:49
12/05/2021 Su	23:43:53	20:57:29	22:01:40	23:29:00	00:11:15	00:13:57	00:51:54	00:56:40	01:41:31	01:54:51	02:35:42	02:41:53
12/06/2021 M	23:44:19	20:53:33	21:57:44	23:25:04	00:07:19	00:10:02	00:47:58	00:52:44	01:37:35	01:50:56	02:31:46	02:37:57
12/07/2021 Tu	23:44:45	20:49:37	21:53:48	23:21:08	00:03:23	00:06:06	00:44:02	00:48:48	01:33:39	01:47:00	02:27:50	02:34:01
12/07/2021 Tu					23:59:27							
12/08/2021 W	23:45:12	20:45:42	21:49:52	23:17:13	23:55:31	00:02:10	00:40:06	00:44:52	01:29:43	01:43:04	02:23:54	02:30:06
12/08/2021 W						23:58:14						
12/09/2021 Th	23:45:39	20:41:46	21:45:56	23:13:17	23:51:35	23:54:18	00:36:10	00:40:57	01:25:47	01:39:08	02:19:59	02:26:10
12/10/2021 F	23:46:06	20:37:50	21:42:00	23:09:21	23:47:39	23:50:22	00:32:14	00:37:01	01:21:51	01:35:12	02:16:03	02:22:14
12/11/2021 Sa	23:46:34	20:33:54	21:38:04	23:05:25	23:43:44	23:46:26	00:28:18	00:33:05	01:17:55	01:31:16	02:12:07	02:18:18
12/12/2021 Su	23:47:02	20:29:58	21:34:08	23:01:29	23:39:48	23:42:30	00:24:23	00:29:09	01:13:59	01:27:20	02:08:11	02:14:22
12/13/2021 M	23:47:31	20:26:02	21:30:13	22:57:33	23:35:52	23:38:34	00:20:27	00:25:13	01:10:04	01:23:24	02:04:15	02:10:26
12/14/2021 Tu	23:47:59	20:22:06	21:26:17	22:53:37	23:31:56	23:34:38	00:16:31	00:21:17	01:06:08	01:19:29	02:00:19	02:06:30
12/15/2021 W	23:48:28	20:18:10	21:22:21	22:49:41	23:28:00	23:30:43	00:12:35	00:17:21	01:02:12	01:15:33	01:56:23	02:02:34
12/16/2021 Th	23:48:58	20:14:14	21:18:25	22:45:45	23:24:04	23:26:47	00:08:39	00:13:25	00:58:16	01:11:37	01:52:27	01:58:39
12/17/2021 F	23:49:27	20:10:18	21:14:29	22:41:49	23:20:08	23:22:51	00:04:43	00:09:29	00:54:20	01:07:41	01:48:31	01:54:43
12/18/2021 Sa	23:49:56	20:06:22	21:10:33	22:37:54	23:16:12	23:18:55	00:00:47	00:05:33	00:50:24	01:03:45	01:44:36	01:50:47
12/18/2021 Sa							23:56:51					
12/19/2021 Su	23:50:26	20:02:26	21:06:37	22:33:58	23:12:16	23:14:59	23:52:55	00:01:38	00:46:28	00:59:49	01:40:40	01:46:51
12/19/2021 Su								23:57:42				
12/20/2021 M	23:50:56	19:58:30	21:02:41	22:30:02	23:08:20	23:11:03	23:48:59	23:53:46	00:42:32	00:55:53	01:36:44	01:42:55
12/21/2021 Tu	23:51:25	19:54:34	20:58:45	22:26:06	23:04:24	23:07:07	23:45:04	23:49:50	00:38:36	00:51:57	01:32:48	01:38:59
12/22/2021 W	23:51:55	19:50:39	20:54:49	22:22:10	23:00:29	23:03:11	23:41:08	23:45:54	00:34:40	00:48:01	01:28:52	01:35:03
12/23/2021 Th	23:52:25	19:46:43	20:50:53	22:18:14	22:56:33	22:59:15	23:37:12	23:41:58	00:30:45	00:44:05	01:24:56	01:31:07
12/24/2021 F	23:52:55	19:42:47	20:46:57	22:14:18	22:52:37	22:55:20	23:33:16	23:38:02	00:26:49	00:40:10	01:21:00	01:27:12
12/25/2021 Sa	23:53:24	19:38:51	20:43:02	22:10:22	22:48:41	22:51:24	23:29:20	23:34:06	00:22:53	00:36:14	01:17:04	01:23:16
12/26/2021 Su	23:53:54	19:34:55	20:39:06	22:06:26	22:44:45	22:47:28	23:25:24	23:30:10	00:18:57	00:32:18	01:13:08	01:19:20
12/27/2021 M	23:54:23	19:30:59	20:35:10	22:02:30	22:40:49	22:43:32	23:21:28	23:26:15	00:15:01	00:28:22	01:09:13	01:15:24
12/28/2021 Tu	23:54:53	19:27:03	20:31:14	21:58:34	22:36:53	22:39:36	23:17:32	23:22:19	00:11:05	00:24:26	01:05:17	01:11:28
12/29/2021 W	23:55:22	19:23:07	20:27:18	21:54:39	22:32:57	22:35:40	23:13:36	23:18:23	00:07:09	00:20:30	01:01:21	01:07:32
12/30/2021 Th	23:55:51	19:19:11	20:23:22	21:50:43	22:29:01	22:31:44	23:09:40	23:14:27	00:03:13	00:16:34	00:57:25	01:03:36
12/30/2021 Th									23:59:17			
12/31/2021 F	23:56:19	19:15:15	20:19:26	21:46:47	22:25:05	22:27:48	23:05:45	23:10:31	23:55:22	00:12:38	00:53:29	00:59:40
01/01/2022 Sa	23:56:47	19:11:19	20:15:30	21:42:51	22:21:09	22:23:52	23:01:49	23:06:35	23:51:25	00:08:42	00:49:33	00:55:44
01/02/2022 Su	23:57:15	19:07:23	20:11:34	21:38:55	22:17:14	22:19:56	22:57:53	23:02:39	23:47:30	00:04:46	00:45:37	00:51:48
01/03/2022 M		19:03:27	20:07:38	21:34:59	22:13:18	22:16:00	22:53:57	22:58:43	23:43:34	00:00:51	00:41:41	00:47:53
01/03/2022 M	23:57:43									23:56:55		

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
01/04/2022 Tu	23:58:10	18:59:31	20:03:42	21:31:03	22:09:22	22:12:05	22:50:01	22:54:47	23:39:38	23:52:59	00:37:45	00:43:57
01/05/2022 W	23:58:37	18:55:36	19:59:46	21:27:07	22:05:26	22:08:09	22:46:05	22:50:51	23:35:42	23:49:03	00:33:50	00:40:01
01/06/2022 Th	23:59:03	18:51:40	19:55:51	21:23:11	22:01:30	22:04:13	22:42:09	22:46:56	23:31:46	23:45:07	00:29:54	00:36:05
01/07/2022 F	23:59:28	18:47:44	19:51:55	21:19:15	21:57:34	22:00:17	22:38:13	22:43:00	23:27:50	23:41:11	00:25:58	00:32:09
01/08/2022 Sa	23:59:54	18:43:48	19:47:59	21:15:19	21:53:38	21:56:21	22:34:17	22:39:04	23:23:54	23:37:15	00:22:02	00:28:13
01/09/2022 Su		18:39:52	19:44:03	21:11:23	21:49:42	21:52:25	22:30:21	22:35:08	23:19:58	23:33:19	00:18:06	00:24:17
01/10/2022 M	00:00:18	18:35:56	19:40:07	21:07:28	21:45:46	21:48:29	22:26:25	22:31:12	23:16:02	23:29:23	00:14:10	00:20:21
01/11/2022 Tu	00:00:42	18:32:00	19:36:11	21:03:32	21:41:50	21:44:33	22:22:30	22:27:16	23:12:06	23:25:27	00:10:14	00:16:25
01/12/2022 W	00:01:05	18:28:04	19:32:15	20:59:36	21:37:54	21:40:37	22:18:34	22:23:20	23:08:11	23:21:31	00:06:18	00:12:30
01/13/2022 Th	00:01:28	18:24:08	19:28:19	20:55:40	21:33:58	21:36:41	22:14:38	22:19:24	23:04:15	23:17:36	00:02:22	00:08:34
01/13/2022 Th											23:58:26	
01/14/2022 F	00:01:50	18:20:12	19:24:23	20:51:44	21:30:03	21:32:45	22:10:42	22:15:28	23:00:19	23:13:40	23:54:31	00:04:38
01/15/2022 Sa	00:02:12	18:16:16	19:20:27	20:47:48	21:26:07	21:28:49	22:06:46	22:11:32	22:56:23	23:09:44	23:50:35	00:00:42
01/15/2022 Sa												23:56:46
01/16/2022 Su	00:02:32	18:12:20	19:16:31	20:43:52	21:22:11	21:24:54	22:02:50	22:07:36	22:52:27	23:05:48	23:46:39	23:52:50
01/17/2022 M	00:02:53	18:08:24	19:12:35	20:39:56	21:18:15	21:20:58	21:58:54	22:03:41	22:48:31	23:01:52	23:42:43	23:48:54
01/18/2022 Tu	00:03:12	18:04:28	19:08:39	20:36:00	21:14:19	21:17:02	21:54:58	21:59:45	22:44:35	22:57:56	23:38:47	23:44:58
01/19/2022 W	00:03:31	18:00:33	19:04:43	20:32:04	21:10:23	21:13:06	21:51:02	21:55:49	22:40:39	22:54:00	23:34:51	23:41:02
01/20/2022 Th	00:03:48	17:56:37	19:00:48	20:28:08	21:06:27	21:09:10	21:47:06	21:51:53	22:36:43	22:50:04	23:30:55	23:37:06
01/21/2022 F	00:04:06		18:56:52	20:24:13	21:02:31	21:05:14	21:43:10	21:47:57	22:32:47	22:46:08	23:26:59	23:33:11
01/22/2022 Sa	00:04:22		18:52:56	20:20:17	20:58:35	21:01:18	21:39:15	21:44:01	22:28:52	22:42:12	23:23:03	23:29:15
01/23/2022 Su	00:04:38		18:49:00	20:16:21	20:54:39	20:57:22	21:35:19	21:40:05	22:24:56	22:38:16	23:19:07	23:25:19
01/24/2022 M	00:04:53		18:45:04	20:12:25	20:50:43	20:53:26	21:31:23	21:36:09	22:21:00	22:34:21	23:15:11	23:21:23
01/25/2022 Tu	00:05:07		18:41:08	20:08:29	20:46:47	20:49:30	21:27:27	21:32:13	22:17:04	22:30:25	23:11:15	23:17:27
01/26/2022 W	00:05:20		18:37:12	20:04:33	20:42:52	20:45:34	21:23:31	21:28:17	22:13:08	22:26:29	23:07:20	23:13:31
01/27/2022 Th	00:05:33		18:33:16	20:00:37	20:38:56	20:41:38	21:19:35	21:24:21	22:09:12	22:22:33	23:03:24	23:09:35
01/28/2022 F	00:05:44		18:29:20	19:56:41	20:35:00	20:37:43	21:15:39	21:20:25	22:05:16	22:18:37	22:59:28	23:05:39
01/29/2022 Sa	00:05:55		18:25:24	19:52:45	20:31:04	20:33:47	21:11:43	21:16:29	22:01:20	22:14:41	22:55:32	23:01:43
01/30/2022 Su	00:06:06		18:21:28	19:48:49	20:27:08	20:29:51	21:07:47	21:12:34	21:57:24	22:10:45	22:51:36	22:57:47
01/31/2022 M	00:06:15		18:17:32	19:44:53	20:23:12	20:25:55	21:03:51	21:08:38	21:53:28	22:06:49	22:47:40	22:53:51
02/01/2022 Tu	00:06:24		18:13:36	19:40:57	20:19:16	20:21:59	20:59:55	21:04:42	21:49:32	22:02:53	22:43:44	22:49:56
02/02/2022 W	00:06:31			19:37:02	20:15:20	20:18:03	20:56:00	21:00:46	21:45:36	21:58:57	22:39:48	22:46:00
02/03/2022 Th	00:06:38			19:33:06	20:11:24	20:14:07	20:52:04	20:56:50	21:41:40	21:55:01	22:35:52	22:42:04
02/04/2022 F	00:06:44			19:29:10	20:07:28	20:10:11	20:48:08	20:52:54	21:37:45	21:51:05	22:31:56	22:38:08
02/05/2022 Sa	00:06:50			19:25:14	20:03:32	20:06:15	20:44:12	20:48:58	21:33:49	21:47:10	22:28:01	22:34:12
02/06/2022 Su	00:06:54			19:21:18	19:59:36	20:02:19	20:40:16	20:45:02	21:29:53	21:43:14	22:24:05	22:30:16
02/07/2022 M	00:06:58			19:17:22	19:55:41	19:58:23	20:36:20	20:41:06	21:25:57	21:39:18	22:20:09	22:26:20

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
01/04/2022 Tu	23:58:10	03:06:26								
01/05/2022 W	23:58:37	03:02:30	06:18:45							
01/06/2022 Th	23:59:03	02:58:34	06:14:49							
01/07/2022 F	23:59:28	02:54:38	06:10:53							
01/08/2022 Sa	23:59:54	02:50:42	06:06:58							
01/09/2022 Su		02:46:46	06:03:02							
01/10/2022 M	00:00:18	02:42:50	05:59:06							
01/11/2022 Tu	00:00:42	02:38:55	05:55:10							
01/12/2022 W	00:01:05	02:34:59	05:51:14							
01/13/2022 Th	00:01:28	02:31:03	05:47:18							
01/13/2022 Th										
01/14/2022 F	00:01:50	02:27:07	05:43:22							
01/15/2022 Sa	00:02:12	02:23:11	05:39:26							
01/15/2022 Sa										
01/16/2022 Su	00:02:32	02:19:15	05:35:31							
01/17/2022 M	00:02:53	02:15:19	05:31:35							
01/18/2022 Tu	00:03:12	02:11:23	05:27:39							
01/19/2022 W	00:03:31	02:07:27	05:23:43	06:13:53						
01/20/2022 Th	00:03:48	02:03:31	05:19:47	06:09:57						
01/21/2022 F	00:04:06	01:59:36	05:15:51	06:06:01						
01/22/2022 Sa	00:04:22	01:55:40	05:11:55	06:02:05						
01/23/2022 Su	00:04:38	01:51:44	05:07:59	05:58:10						
01/24/2022 M	00:04:53	01:47:48	05:04:04	05:54:14						
01/25/2022 Tu	00:05:07	01:43:52	05:00:08	05:50:18						
01/26/2022 W	00:05:20	01:39:56	04:56:12	05:46:22						
01/27/2022 Th	00:05:33	01:36:00	04:52:16	05:42:26						
01/28/2022 F	00:05:44	01:32:04	04:48:20	05:38:30						
01/29/2022 Sa	00:05:55	01:28:09	04:44:24	05:34:34						
01/30/2022 Su	00:06:06	01:24:13	04:40:28	05:30:39						
01/31/2022 M	00:06:15	01:20:17	04:36:32	05:26:43						
02/01/2022 Tu	00:06:24	01:16:21	04:32:37	05:22:47						
02/02/2022 W	00:06:31	01:12:25	04:28:41	05:18:51						
02/03/2022 Th	00:06:38	01:08:29	04:24:45	05:14:55						
02/04/2022 F	00:06:44	01:04:33	04:20:49	05:10:59						
02/05/2022 Sa	00:06:50	01:00:37	04:16:53	05:07:03						
02/06/2022 Su	00:06:54	00:56:41	04:12:57	05:03:07						
02/07/2022 M	00:06:58	00:52:45	04:09:01	04:59:11						

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
02/08/2022 Tu	00:07:01			19:13:26	19:51:45	19:54:27	20:32:24	20:37:10	21:22:01	21:35:22	22:16:13	22:22:24
02/09/2022 W	00:07:03			19:09:30	19:47:49	19:50:31	20:28:28	20:33:14	21:18:05	21:31:26	22:12:17	22:18:28
02/10/2022 Th	00:07:04			19:05:34	19:43:53	19:46:35	20:24:32	20:29:18	21:14:09	21:27:30	22:08:21	22:14:32
02/11/2022 F	00:07:04			19:01:38	19:39:57	19:42:40	20:20:36	20:25:22	21:10:13	21:23:34	22:04:25	22:10:36
02/12/2022 Sa	00:07:04			18:57:42	19:36:01	19:38:44	20:16:40	20:21:27	21:06:17	21:19:38	22:00:29	22:06:41
02/13/2022 Su	00:07:03			18:53:46	19:32:05	19:34:48	20:12:44	20:17:31	21:02:21	21:15:42	21:56:33	22:02:45
02/14/2022 M	00:07:01			18:49:50	19:28:09	19:30:52	20:08:48	20:13:35	20:58:25	21:11:46	21:52:37	21:58:49
02/15/2022 Tu	00:06:59			18:45:54	19:24:13	19:26:56	20:04:52	20:09:39	20:54:29	21:07:50	21:48:41	21:54:53
02/16/2022 W	00:06:55			18:41:59	19:20:17	19:23:00	20:00:57	20:05:43	20:50:34	21:03:54	21:44:45	21:50:57
02/17/2022 Th	00:06:51			18:38:03	19:16:21	19:19:04	19:57:01	20:01:47	20:46:38	20:59:59	21:40:50	21:47:01
02/18/2022 F	00:06:47			18:34:07	19:12:25	19:15:08	19:53:05	19:57:51	20:42:42	20:56:03	21:36:54	21:43:05
02/19/2022 Sa	00:06:41				19:08:29	19:11:12	19:49:09	19:53:55	20:38:46	20:52:07	21:32:58	21:39:09
02/20/2022 Su	00:06:35				19:04:33	19:07:16	19:45:13	19:49:59	20:34:50	20:48:11	21:29:02	21:35:13
02/20/2022 Su												
02/21/2022 M	00:06:28				19:00:38	19:03:20	19:41:17	19:46:03	20:30:54	20:44:15	21:25:06	21:31:17
02/22/2022 Tu	00:06:21				18:56:42	18:59:24	19:37:21	19:42:07	20:26:58	20:40:19	21:21:10	21:27:21
02/23/2022 W	00:06:13				18:52:46	18:55:28	19:33:25	19:38:11	20:23:02	20:36:23	21:17:14	21:23:26
02/24/2022 Th	00:06:04				18:48:50	18:51:33	19:29:29	19:34:15	20:19:06	20:32:27	21:13:18	21:19:30
02/25/2022 F	00:05:55				18:44:54	18:47:37	19:25:33	19:30:19	20:15:10	20:28:31	21:09:22	21:15:34
02/26/2022 Sa	00:05:46				18:40:58	18:43:41	19:21:37	19:26:24	20:11:14	20:24:35	21:05:26	21:11:38
02/27/2022 Su	00:05:36						19:17:42	19:22:28	20:07:18	20:20:39	21:01:30	21:07:42
02/28/2022 M	00:05:25						19:13:46	19:18:32	20:03:22	20:16:43	20:57:34	21:03:46
03/01/2022 Tu	00:05:14						19:09:50	19:14:36	19:59:27	20:12:47	20:53:39	20:59:50
03/02/2022 W	00:05:02						19:05:54	19:10:40	19:55:31	20:08:51	20:49:43	20:55:54
03/03/2022 Th	00:04:50						19:01:58	19:06:44	19:51:35	20:04:56	20:45:47	20:51:58
03/04/2022 F	00:04:37						18:58:02	19:02:48	19:47:39	20:01:00	20:41:51	20:48:02
03/05/2022 Sa	00:04:24						18:54:06	18:58:52	19:43:43	19:57:04	20:37:55	20:44:06
03/06/2022 Su	00:04:10						18:50:10	18:54:56	19:39:47	19:53:08	20:33:59	20:40:10
03/07/2022 M	00:03:56								19:35:51	19:49:12	20:30:03	20:36:14
03/08/2022 Tu	00:03:42								19:31:55	19:45:16	20:26:07	20:32:18
03/09/2022 W	00:03:27								19:27:59	19:41:20	20:22:11	20:28:23
03/10/2022 Th	00:03:12								19:24:03	19:37:24	20:18:15	20:24:27
03/11/2022 F	00:02:56								19:20:07	19:33:28	20:14:19	20:20:31
03/12/2022 Sa	00:02:40								19:16:11	19:29:32	20:10:23	20:16:35
03/13/2022 Su	00:02:24								19:12:15	19:25:36	20:06:28	20:12:39
03/14/2022 M	00:02:08								19:08:20	19:21:40	20:02:32	20:08:43
03/15/2022 Tu	00:01:51								19:04:24	19:17:44	19:58:36	20:04:47

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
02/08/2022 Tu	00:07:01	00:48:50	04:05:05	04:55:16						
02/09/2022 W	00:07:03	00:44:54	04:01:09	04:51:20						
02/10/2022 Th	00:07:04	00:40:58	03:57:14	04:47:24						
02/11/2022 F	00:07:04	00:37:02	03:53:18	04:43:28						
02/12/2022 Sa	00:07:04	00:33:06	03:49:22	04:39:32						
02/13/2022 Su	00:07:03	00:29:10	03:45:26	04:35:36						
02/14/2022 M	00:07:01	00:25:14	03:41:30	04:31:40						
02/15/2022 Tu	00:06:59	00:21:18	03:37:34	04:27:45						
02/16/2022 W	00:06:55	00:17:22	03:33:38	04:23:49						
02/17/2022 Th	00:06:51	00:13:26	03:29:42	04:19:53						
02/18/2022 F	00:06:47	00:09:31	03:25:47	04:15:57						
02/19/2022 Sa	00:06:41	00:05:35	03:21:51	04:12:01						
02/20/2022 Su	00:06:35	00:01:39	03:17:55	04:08:05						
02/20/2022 Su		23:57:43								
02/21/2022 M	00:06:28	23:53:47	03:13:59	04:04:09						
02/22/2022 Tu	00:06:21	23:49:51	03:10:03	04:00:13						
02/23/2022 W	00:06:13	23:45:55	03:06:07	03:56:17						
02/24/2022 Th	00:06:04	23:41:59	03:02:11	03:52:22						
02/25/2022 F	00:05:55	23:38:03	02:58:15	03:48:26						
02/26/2022 Sa	00:05:46	23:34:08	02:54:19	03:44:30						
02/27/2022 Su	00:05:36	23:30:12	02:50:24	03:40:34						
02/28/2022 M	00:05:25	23:26:16	02:46:28	03:36:38						
03/01/2022 Tu	00:05:14	23:22:20	02:42:32	03:32:42						
03/02/2022 W	00:05:02	23:18:24	02:38:36	03:28:46						
03/03/2022 Th	00:04:50	23:14:28	02:34:40	03:24:50						
03/04/2022 F	00:04:37	23:10:32	02:30:44	03:20:55						
03/05/2022 Sa	00:04:24	23:06:36	02:26:48	03:16:59						
03/06/2022 Su	00:04:10	23:02:40	02:22:52	03:13:03						
03/07/2022 M	00:03:56	22:58:44	02:18:57	03:09:07						
03/08/2022 Tu	00:03:42	22:54:48	02:15:01	03:05:11						
03/09/2022 W	00:03:27	22:50:52	02:11:05	03:01:15						
03/10/2022 Th	00:03:12	22:46:57	02:07:09	02:57:19	05:11:02					
03/11/2022 F	00:02:56	22:43:01	02:03:13	02:53:23	05:07:06					
03/12/2022 Sa	00:02:40	22:39:05	01:59:17	02:49:27	05:03:10					
03/13/2022 Su	00:02:24	22:35:09	01:55:21	02:45:31	04:59:14					
03/14/2022 M	00:02:08	22:31:13	01:51:25	02:41:36	04:55:19					
03/15/2022 Tu	00:01:51	22:27:17	01:47:29	02:37:40	04:51:23					

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
03/16/2022	W	00:01:34	22:23:21	01:43:33	02:33:44	04:47:27				
03/17/2022	Th	00:01:17	22:19:25	01:39:38	02:29:48	04:43:31				
03/18/2022	F	00:00:59	22:15:29	01:35:42	02:25:52	04:39:35				
03/19/2022	Sa	00:00:42	22:11:33	01:31:46	02:21:56	04:35:39				
03/20/2022	Su	00:00:24	22:07:38	01:27:50	02:18:00	04:31:43				
03/21/2022	M	00:00:06	22:03:42	01:23:54	02:14:04	04:27:47				
03/21/2022	M	23:59:49								
03/22/2022	Tu	23:59:30	21:59:46	01:19:58	02:10:09	04:23:52				
03/23/2022	W	23:59:12	21:55:50	01:16:02	02:06:13	04:19:56				
03/24/2022	Th	23:58:54	21:51:54	01:12:06	02:02:17	04:16:00				
03/25/2022	F	23:58:36	21:47:58	01:08:10	01:58:21	04:12:04				
03/26/2022	Sa	23:58:18	21:44:02	01:04:14	01:54:25	04:08:08				
03/27/2022	Su	23:58:00	21:40:06	01:00:19	01:50:29	04:04:12				
03/28/2022	M	23:57:42	21:36:10	00:56:23	01:46:33	04:00:16				
03/29/2022	Tu	23:57:24	21:32:14	00:52:27	01:42:37	03:56:20				
03/30/2022	W	23:57:06	21:28:18	00:48:31	01:38:41	03:52:25				
03/31/2022	Th	23:56:49	21:24:23	00:44:35	01:34:46	03:48:29				
04/01/2022	F	23:56:31	21:20:26	00:40:39	01:30:50	03:44:33				
04/02/2022	Sa	23:56:13	21:16:31	00:36:43	01:26:54	03:40:37				
04/03/2022	Su	23:55:56	21:12:35	00:32:47	01:22:58	03:36:41				
04/04/2022	M	23:55:39	21:08:39	00:28:52	01:19:02	03:32:45				
04/05/2022	Tu	23:55:22	21:04:43	00:24:56	01:15:06	03:28:49				
04/06/2022	W	23:55:05	21:00:47	00:21:00	01:11:10	03:24:53				
04/07/2022	Th	23:54:48	20:56:51	00:17:04	01:07:14	03:20:58				
04/08/2022	F	23:54:32	20:52:55	00:13:08	01:03:18	03:17:02				
04/09/2022	Sa	23:54:16	20:48:59	00:09:12	00:59:23	03:13:06				
04/10/2022	Su	23:54:00	20:45:03	00:05:16	00:55:27	03:09:10				
04/11/2022	M	23:53:44	20:41:07	00:01:20	00:51:31	03:05:14				
04/11/2022	M		23:57:24							
04/12/2022	Tu	23:53:29	20:37:11	23:53:28	00:47:35	03:01:18				
04/13/2022	W	23:53:13	20:33:15	23:49:32	00:43:39	02:57:22				
04/14/2022	Th	23:52:59	20:29:20	23:45:37	00:39:43	02:53:26				
04/15/2022	F	23:52:44	20:25:24	23:41:41	00:35:47	02:49:30				
04/16/2022	Sa	23:52:30	20:21:28	23:37:45	00:31:51	02:45:35				
04/17/2022	Su	23:52:17	20:17:32	23:33:49	00:27:55	02:41:39				
04/18/2022	M	23:52:03	20:13:36	23:29:53	00:23:59	02:37:43				
04/19/2022	Tu	23:51:51	20:09:40	23:25:57	00:20:03	02:33:47				

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
04/20/2022	W	23:51:38	20:05:44	23:22:01	00:16:08	02:29:51				
04/21/2022	Th	23:51:26	20:01:48	23:18:05	00:12:12	02:25:55				
04/22/2022	F	23:51:15	19:57:52	23:14:09	00:08:16	02:21:59				
04/23/2022	Sa	23:51:04		23:10:14	00:04:20	02:18:03				
04/24/2022	Su	23:50:53		23:06:18	00:00:24	02:14:08				
04/24/2022	Su			23:56:28						
04/25/2022	M	23:50:43		23:02:22	23:52:32	02:10:12				
04/26/2022	Tu	23:50:34		22:58:26	23:48:36	02:06:16				
04/27/2022	W	23:50:25		22:54:30	23:44:40	02:02:20				
04/28/2022	Th	23:50:16		22:50:34	23:40:44	01:58:24				
04/29/2022	F	23:50:09		22:46:38	23:36:49	01:54:28				
04/30/2022	Sa	23:50:01		22:42:42	23:32:53	01:50:32				
05/01/2022	Su	23:49:54		22:38:46	23:28:57	01:46:36				
05/02/2022	M	23:49:48		22:34:50	23:25:01	01:42:40				
05/03/2022	Tu	23:49:42		22:30:54	23:21:05	01:38:45				
05/04/2022	W	23:49:37		22:26:58	23:17:09	01:34:49				
05/05/2022	Th	23:49:32		22:23:03	23:13:13	01:30:53				
05/06/2022	F	23:49:28		22:19:07	23:09:17	01:26:57				
05/07/2022	Sa	23:49:25		22:15:11	23:05:21	01:23:01				
05/08/2022	Su	23:49:22		22:11:15	23:01:26	01:19:05				
05/09/2022	M	23:49:19		22:07:19	22:57:30	01:15:09				
05/10/2022	Tu	23:49:17		22:03:23	22:53:34	01:11:13	03:17:48			
05/11/2022	W	23:49:16		21:59:27	22:49:38	01:07:17	03:13:52			
05/12/2022	Th	23:49:15		21:55:31	22:45:42	01:03:22	03:09:56			
05/13/2022	F	23:49:15		21:51:35	22:41:46	00:59:26	03:06:00			
05/14/2022	Sa	23:49:15		21:47:39	22:37:50	00:55:30	03:02:04			
05/15/2022	Su	23:49:16		21:43:44	22:33:54	00:51:34	02:58:08			
05/16/2022	M	23:49:17		21:39:48	22:29:58	00:47:38	02:54:12			
05/17/2022	Tu	23:49:19		21:35:52	22:26:02	00:43:42	02:50:16			
05/18/2022	W	23:49:22		21:31:56	22:22:06	00:39:46	02:46:20			
05/19/2022	Th	23:49:25		21:28:00	22:18:11	00:35:50	02:42:25			
05/20/2022	F	23:49:29		21:24:04	22:14:15	00:31:54	02:38:29			
05/21/2022	Sa	23:49:33		21:20:08	22:10:19	00:27:59	02:34:33			
05/22/2022	Su	23:49:38		21:16:12	22:06:23	00:24:03	02:30:37			
05/23/2022	M	23:49:43		21:12:16	22:02:27	00:20:07	02:26:41			
05/24/2022	Tu	23:49:49		21:08:20	21:58:31	00:16:11	02:22:45			
05/25/2022	W	23:49:55		21:04:24	21:54:35	00:12:15	02:18:49			

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
05/26/2022	Th	23:50:02	21:00:28	21:50:39	00:08:19	02:14:53				
05/27/2022	F	23:50:09	20:56:32	21:46:43	00:04:23	02:10:58				
05/28/2022	Sa	23:50:17	20:52:37	21:42:47	00:00:27	02:07:02				
05/28/2022	Sa				23:56:31					
05/29/2022	Su	23:50:25	20:48:41	21:38:51	23:52:35	02:03:06				
05/30/2022	M	23:50:34		21:34:55	23:48:40	01:59:10				
05/31/2022	Tu	23:50:43		21:30:59	23:44:44	01:55:14				
06/01/2022	W	23:50:52		21:27:04	23:40:48	01:51:18				
06/02/2022	Th	23:51:02		21:23:08	23:36:52	01:47:22				
06/03/2022	F	23:51:12		21:19:12	23:32:56	01:43:26				
06/04/2022	Sa	23:51:23		21:15:16	23:29:00	01:39:30				
06/05/2022	Su	23:51:34		21:11:20	23:25:04	01:35:35				
06/06/2022	M	23:51:45		21:07:24	23:21:08	01:31:39	02:45:36			
06/07/2022	Tu	23:51:56		21:03:28	23:17:12	01:27:43	02:41:40			
06/08/2022	W	23:52:08		20:59:32	23:13:16	01:23:47	02:37:45			
06/09/2022	Th	23:52:20			23:09:21	01:19:51	02:33:49			
06/10/2022	F	23:52:32			23:05:25	01:15:55	02:29:53			
06/11/2022	Sa	23:52:44			23:01:29	01:11:59	02:25:57			
06/12/2022	Su	23:52:56			22:57:33	01:08:03	02:22:01			
06/13/2022	M	23:53:09			22:53:37	01:04:07	02:18:05			
06/14/2022	Tu	23:53:21			22:49:41	01:00:12	02:14:09			
06/15/2022	W	23:53:34			22:45:45	00:56:16	02:10:13	02:41:18		
06/16/2022	Th	23:53:47			22:41:49	00:52:20	02:06:17	02:37:22		
06/17/2022	F	23:54:00			22:37:53	00:48:24	02:02:22	02:33:26		
06/18/2022	Sa	23:54:13			22:33:57	00:44:28	01:58:26	02:29:30		
06/19/2022	Su	23:54:26			22:30:01	00:40:32	01:54:30	02:25:34	02:44:41	
06/20/2022	M	23:54:39			22:26:06	00:36:36	01:50:34	02:21:39	02:40:45	
06/21/2022	Tu	23:54:52			22:22:10	00:32:40	01:46:38	02:17:43	02:36:49	
06/22/2022	W	23:55:05			22:18:14	00:28:44	01:42:42	02:13:47	02:32:53	
06/23/2022	Th	23:55:18			22:14:18	00:24:48	01:38:46	02:09:51	02:28:57	
06/24/2022	F	23:55:31			22:10:22	00:20:52	01:34:50	02:05:55	02:25:02	
06/25/2022	Sa	23:55:44			22:06:26	00:16:57	01:30:55	02:01:59	02:21:06	
06/26/2022	Su	23:55:57			22:02:30	00:13:01	01:26:59	01:58:03	02:17:10	
06/27/2022	M	23:56:09			21:58:34	00:09:05	01:23:03	01:54:07	02:13:14	
06/28/2022	Tu	23:56:21			21:54:38	00:05:09	01:19:07	01:50:12	02:09:18	
06/29/2022	W	23:56:33			21:50:42	00:01:13	01:15:11	01:46:16	02:05:22	
06/29/2022	W					23:57:17				

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
06/30/2022	Th	23:56:44			21:46:45	23:53:20	01:11:15	01:42:20	02:01:26	
07/01/2022	F	23:56:56			21:42:50	23:49:24	01:07:18	01:38:23	01:57:29	
07/02/2022	Sa	23:57:07			21:38:54	23:45:28	01:03:22	01:34:27	01:53:33	
07/03/2022	Su	23:57:18			21:34:58	23:41:32	00:59:26	01:30:31	01:49:38	
07/04/2022	M	23:57:29			21:31:02	23:37:36	00:55:30	01:26:35	01:45:42	
07/05/2022	Tu	23:57:39			21:27:06	23:33:41	00:51:35	01:22:39	01:41:46	
07/06/2022	W	23:57:49			21:23:10	23:29:45	00:47:39	01:18:43	01:37:50	
07/07/2022	Th	23:57:58			21:19:14	23:25:49	00:43:43	01:14:47	01:33:54	
07/08/2022	F	23:58:07			21:15:18	23:21:53	00:39:47	01:10:51	01:29:58	
07/09/2022	Sa	23:58:16			21:11:22	23:17:57	00:35:51	01:06:56	01:26:02	
07/10/2022	Su	23:58:24			21:07:26	23:14:01	00:31:55	01:03:00	01:22:06	
07/11/2022	M	23:58:32			21:03:30	23:10:05	00:27:59	00:59:04	01:18:11	
07/12/2022	Tu	23:58:39			20:59:35	23:06:09	00:24:03	00:55:08	01:14:15	
07/13/2022	W	23:58:46			20:55:39	23:02:13	00:20:07	00:51:12	01:10:19	
07/14/2022	Th	23:58:52				22:58:17	00:16:12	00:47:16	01:06:23	
07/15/2022	F	23:58:58				22:54:21	00:12:16	00:43:20	01:02:27	
07/16/2022	Sa	23:59:03				22:50:26	00:08:20	00:39:24	00:58:31	
07/17/2022	Su	23:59:08				22:46:30	00:04:24	00:35:28	00:54:35	
07/18/2022	M					22:42:34	00:00:28	00:31:33	00:50:39	03:06:57
07/18/2022	M	23:59:12					23:56:32			
07/19/2022	Tu	23:59:16				22:38:38	23:52:36	00:27:37	00:46:43	03:03:02
07/20/2022	W	23:59:19				22:34:42	23:48:40	00:23:41	00:42:47	02:59:06
07/21/2022	Th	23:59:21				22:30:46	23:44:44	00:19:45	00:38:52	02:55:10
07/22/2022	F	23:59:23				22:26:50	23:40:48	00:15:49	00:34:56	02:51:14
07/23/2022	Sa	23:59:25				22:22:54	23:36:52	00:11:53	00:31:00	02:47:18
07/24/2022	Su	23:59:26				22:18:58	23:32:56	00:07:57	00:27:04	02:43:22
07/25/2022	M	23:59:26				22:15:02	23:29:01	00:04:01	00:23:08	02:39:26
07/26/2022	Tu					22:11:06	23:25:05	00:00:05	00:19:12	02:35:30
07/26/2022	Tu	23:59:26						23:56:09		
07/27/2022	W	23:59:25				22:07:11	23:21:09	23:52:13	00:15:16	02:31:35
07/28/2022	Th	23:59:23				22:03:15	23:17:13	23:48:18	00:11:20	02:27:39
07/29/2022	F	23:59:21				21:59:19	23:13:17	23:44:22	00:07:24	02:23:43
07/30/2022	Sa	23:59:19				21:55:23	23:09:21	23:40:26	00:03:28	02:19:47
07/30/2022	Sa								23:59:32	
07/31/2022	Su	23:59:15				21:51:27	23:05:25	23:36:30	23:55:37	02:15:51
08/01/2022	M	23:59:11				21:47:31	23:01:29	23:32:34	23:51:41	02:11:55
08/02/2022	Tu	23:59:07				21:43:35	22:57:33	23:28:38	23:47:45	02:07:59

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
08/03/2022	W	23:59:02				21:39:39	22:53:37	23:24:42	23:43:49	02:04:03
08/04/2022	Th	23:58:56				21:35:43	22:49:42	23:20:46	23:39:53	02:00:07
08/05/2022	F	23:58:49				21:31:47	22:45:46	23:16:50	23:35:57	01:56:12
08/06/2022	Sa	23:58:42				21:27:51	22:41:50	23:12:54	23:32:01	01:52:16
08/07/2022	Su	23:58:35				21:23:55	22:37:54	23:08:58	23:28:05	01:48:20
08/08/2022	M	23:58:26				21:19:59	22:33:58	23:05:03	23:24:09	01:44:24
08/09/2022	Tu	23:58:18				21:16:04	22:30:02	23:01:07	23:20:13	01:40:28
08/10/2022	W	23:58:08				21:12:08	22:26:06	22:57:11	23:16:17	01:36:32
08/11/2022	Th	23:57:58				21:08:12	22:22:10	22:53:15	23:12:22	01:32:36
08/12/2022	F	23:57:48				21:04:16	22:18:14	22:49:19	23:08:26	01:28:40
08/13/2022	Sa	23:57:36				21:00:20	22:14:18	22:45:23	23:04:30	01:24:45
08/14/2022	Su	23:57:25				20:56:24	22:10:22	22:41:27	23:00:34	01:20:49
08/15/2022	M	23:57:13				20:52:28	22:06:27	22:37:31	22:56:38	01:16:53
08/16/2022	Tu	23:57:00				20:48:32	22:02:31	22:33:35	22:52:42	01:12:57
08/17/2022	W	23:56:47				20:44:36	21:58:35	22:29:39	22:48:46	01:09:01
08/18/2022	Th	23:56:33				20:40:40	21:54:39	22:25:43	22:44:50	01:05:05
08/19/2022	F	23:56:19				20:36:44	21:50:43	22:21:47	22:40:54	01:01:09
08/20/2022	Sa	23:56:05				20:32:48	21:46:47	22:17:52	22:36:58	00:57:13
08/21/2022	Su	23:55:50				20:28:52	21:42:51	22:13:56	22:33:02	00:53:17
08/22/2022	M	23:55:34				20:24:57	21:38:55	22:10:00	22:29:07	00:49:21
08/23/2022	Tu	23:55:18				20:21:01	21:34:59	22:06:04	22:25:11	00:45:26
08/24/2022	W	23:55:02				20:17:05	21:31:03	22:02:08	22:21:15	00:41:30
08/25/2022	Th	23:54:45				20:13:09	21:27:07	21:58:12	22:17:19	00:37:34
08/26/2022	F	23:54:28				20:09:13	21:23:12	21:54:16	22:13:23	00:33:38
08/27/2022	Sa	23:54:11				20:05:17	21:19:16	21:50:20	22:09:27	00:29:42
08/28/2022	Su	23:53:53				20:01:21	21:15:20	21:46:24	22:05:31	00:25:46
08/29/2022	M	23:53:35				19:57:25	21:11:24	21:42:28	22:01:35	00:21:50
08/30/2022	Tu	23:53:16				19:53:29	21:07:28	21:38:32	21:57:39	00:17:54
08/31/2022	W	23:52:58				19:49:33	21:03:32	21:34:36	21:53:43	00:13:58
09/01/2022	Th	23:52:38				19:45:37	20:59:36	21:30:41	21:49:47	00:10:02
09/02/2022	F	23:52:19				19:41:41	20:55:40	21:26:45	21:45:51	00:06:07
09/03/2022	Sa	23:51:59				19:37:45	20:51:44	21:22:49	21:41:55	00:02:11
09/03/2022	Sa									23:58:15
09/04/2022	Su	23:51:39				19:33:49	20:47:48	21:18:53	21:38:00	23:54:19
09/05/2022	M	23:51:19				19:29:54	20:43:52	21:14:57	21:34:04	23:50:23
09/06/2022	Tu	23:50:59				19:25:58	20:39:56	21:11:01	21:30:08	23:46:27
09/07/2022	W	23:50:38					20:36:00	21:07:05	21:26:12	23:42:31

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=		2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m
Decl.=		42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m
Offset=		10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
09/08/2022	Th	23:50:17	02:48:24	03:52:34								
09/09/2022	F	23:49:56	02:44:28	03:48:38								
09/10/2022	Sa	23:49:35	02:40:32	03:44:42								
09/11/2022	Su	23:49:14	02:36:36	03:40:47								
09/12/2022	M	23:48:52	02:32:40	03:36:51								
09/13/2022	Tu	23:48:31	02:28:44	03:32:55								
09/14/2022	W	23:48:09	02:24:49	03:28:59								
09/15/2022	Th	23:47:48	02:20:53	03:25:03								
09/16/2022	F	23:47:27	02:16:57	03:21:07								
09/17/2022	Sa	23:47:05	02:13:01	03:17:11								
09/18/2022	Su	23:46:44	02:09:05	03:13:15								
09/19/2022	M	23:46:22	02:05:09	03:09:19								
09/20/2022	Tu	23:46:01	02:01:13	03:05:24	04:32:43							
09/21/2022	W	23:45:40	01:57:17	03:01:28	04:28:47							
09/22/2022	Th	23:45:19	01:53:22	02:57:32	04:24:52							
09/23/2022	F	23:44:58	01:49:26	02:53:36	04:20:56							
09/24/2022	Sa	23:44:37	01:45:30	02:49:40	04:17:00							
09/25/2022	Su	23:44:16	01:41:34	02:45:44	04:13:04							
09/26/2022	M	23:43:56	01:37:38	02:41:48	04:09:08							
09/27/2022	Tu	23:43:36	01:33:42	02:37:53	04:05:12	04:43:30						
09/28/2022	W	23:43:16	01:29:46	02:33:57	04:01:16	04:39:34	04:42:18					
09/29/2022	Th	23:42:56	01:25:50	02:30:01	03:57:20	04:35:38	04:38:22					
09/30/2022	F	23:42:36	01:21:55	02:26:05	03:53:25	04:31:42	04:34:26					
10/01/2022	Sa	23:42:17	01:17:59	02:22:09	03:49:29	04:27:47	04:30:30					
10/02/2022	Su	23:41:58	01:14:03	02:18:13	03:45:33	04:23:51	04:26:34					
10/03/2022	M	23:41:40	01:10:07	02:14:17	03:41:37	04:19:55	04:22:38					
10/04/2022	Tu	23:41:21	01:06:11	02:10:21	03:37:41	04:15:59	04:18:43					
10/05/2022	W	23:41:03	01:02:15	02:06:25	03:33:45	04:12:03	04:14:47	04:52:42				
10/06/2022	Th	23:40:46	00:58:19	02:02:30	03:29:49	04:08:07	04:10:51	04:48:46	04:53:33			
10/07/2022	F	23:40:29	00:54:23	01:58:34	03:25:53	04:04:11	04:06:55	04:44:51	04:49:37			
10/08/2022	Sa	23:40:12	00:50:27	01:54:38	03:21:58	04:00:15	04:02:59	04:40:55	04:45:41			
10/09/2022	Su	23:39:56	00:46:31	01:50:42	03:18:02	03:56:20	03:59:03	04:36:59	04:41:46			
10/10/2022	M	23:39:40	00:42:36	01:46:46	03:14:06	03:52:24	03:55:07	04:33:03	04:37:50			
10/11/2022	Tu	23:39:24	00:38:40	01:42:50	03:10:10	03:48:28	03:51:12	04:29:07	04:33:54			
10/12/2022	W	23:39:09	00:34:44	01:38:54	03:06:14	03:44:32	03:47:16	04:25:11	04:29:58			
10/13/2022	Th	23:38:55	00:30:48	01:34:58	03:02:18	03:40:36	03:43:20	04:21:15	04:26:02			
10/14/2022	F	23:38:41	00:26:52	01:31:03	02:58:22	03:36:40	03:39:24	04:17:19	04:22:06			

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
09/08/2022	Th	23:50:17					20:32:05	21:03:09	21:22:16	23:38:35
09/09/2022	F	23:49:56					20:28:09	20:59:13	21:18:20	23:34:39
09/10/2022	Sa	23:49:35					20:24:13	20:55:17	21:14:24	23:30:43
09/11/2022	Su	23:49:14					20:20:17	20:51:21	21:10:28	23:26:48
09/12/2022	M	23:48:52					20:16:21	20:47:25	21:06:32	23:22:52
09/13/2022	Tu	23:48:31					20:12:25	20:43:30	21:02:36	23:18:56
09/14/2022	W	23:48:09					20:08:29	20:39:34	20:58:40	23:15:00
09/15/2022	Th	23:47:48					20:04:33	20:35:38	20:54:44	23:11:04
09/16/2022	F	23:47:27					20:00:37	20:31:42	20:50:48	23:07:08
09/17/2022	Sa	23:47:05					19:56:41	20:27:46	20:46:53	23:03:12
09/18/2022	Su	23:46:44					19:52:45	20:23:50	20:42:57	22:59:16
09/19/2022	M	23:46:22					19:48:50	20:19:54	20:39:01	22:55:20
09/20/2022	Tu	23:46:01					19:44:53	20:15:58	20:35:05	22:51:24
09/21/2022	W	23:45:40					19:40:58	20:12:02	20:31:09	22:47:29
09/22/2022	Th	23:45:19					19:37:02	20:08:06	20:27:13	22:43:33
09/23/2022	F	23:44:58					19:33:06	20:04:10	20:23:17	22:39:37
09/24/2022	Sa	23:44:37					19:29:10	20:00:14	20:19:21	22:35:41
09/25/2022	Su	23:44:16					19:25:14	19:56:18	20:15:25	22:31:45
09/26/2022	M	23:43:56					19:21:18	19:52:22	20:11:29	22:27:49
09/27/2022	Tu	23:43:36					19:17:22	19:48:26	20:07:33	22:23:53
09/28/2022	W	23:43:16					19:13:26	19:44:31	20:03:37	22:19:57
09/29/2022	Th	23:42:56					19:09:30	19:40:35	19:59:41	22:16:01
09/30/2022	F	23:42:36					19:05:34	19:36:39	19:55:45	22:12:05
10/01/2022	Sa	23:42:17					19:01:38	19:32:43	19:51:50	22:08:09
10/02/2022	Su	23:41:58					18:57:43	19:28:47	19:47:54	22:04:14
10/03/2022	M	23:41:40					18:53:46	19:24:51	19:43:58	22:00:18
10/04/2022	Tu	23:41:21					18:49:51	19:20:55	19:40:02	21:56:22
10/05/2022	W	23:41:03					18:45:55	19:16:59	19:36:06	21:52:26
10/06/2022	Th	23:40:46					18:41:59	19:13:03	19:32:10	21:48:30
10/07/2022	F	23:40:29					18:38:03	19:09:07	19:28:14	21:44:34
10/08/2022	Sa	23:40:12					18:34:07	19:05:11	19:24:18	21:40:38
10/09/2022	Su	23:39:56					18:30:11	19:01:15	19:20:22	21:36:42
10/10/2022	M	23:39:40					18:26:15	18:57:20	19:16:26	21:32:46
10/11/2022	Tu	23:39:24					18:22:19	18:53:23	19:12:30	21:28:50
10/12/2022	W	23:39:09					18:18:23	18:49:28	19:08:34	21:24:54
10/13/2022	Th	23:38:55						18:45:32	19:04:38	21:20:59
10/14/2022	F	23:38:41						18:41:36	19:00:42	21:17:03

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
10/15/2022 Sa	23:38:28	00:22:56	01:27:07	02:54:26	03:32:44	03:35:28	04:13:24	04:18:10	05:03:00			
10/16/2022 Su	23:38:16	00:19:00	01:23:11	02:50:30	03:28:48	03:31:32	04:09:28	04:14:15	04:59:04			
10/17/2022 M	23:38:03	00:15:04	01:19:15	02:46:34	03:24:52	03:27:36	04:05:32	04:10:19	04:55:08			
10/18/2022 Tu	23:37:52	00:11:09	01:15:19	02:42:39	03:20:56	03:23:40	04:01:36	04:06:23	04:51:12	05:04:32		
10/19/2022 W	23:37:41	00:07:13	01:11:23	02:38:43	03:17:01	03:19:44	03:57:40	04:02:27	04:47:16	05:00:37		
10/20/2022 Th	23:37:31	00:03:17	01:07:27	02:34:47	03:13:05	03:15:49	03:53:44	03:58:31	04:43:20	04:56:41		
10/20/2022 Th		23:59:21										
10/21/2022 F	23:37:22	23:55:25	01:03:31	02:30:51	03:09:09	03:11:53	03:49:48	03:54:35	04:39:24	04:52:45		
10/22/2022 Sa	23:37:13	23:51:29	00:59:36	02:26:55	03:05:13	03:07:57	03:45:52	03:50:39	04:35:28	04:48:49		
10/23/2022 Su	23:37:05	23:47:33	00:55:40	02:22:59	03:01:17	03:04:01	03:41:56	03:46:43	04:31:32	04:44:53		
10/24/2022 M	23:36:58	23:43:37	00:51:44	02:19:03	02:57:21	03:00:05	03:38:01	03:42:48	04:27:37	04:40:57		
10/25/2022 Tu	23:36:51	23:39:41	00:47:48	02:15:07	02:53:25	02:56:09	03:34:05	03:38:52	04:23:41	04:37:01		
10/26/2022 W	23:36:45	23:35:45	00:43:52	02:11:12	02:49:30	02:52:13	03:30:09	03:34:56	04:19:45	04:33:05	05:13:57	
10/27/2022 Th	23:36:40	23:31:49	00:39:56	02:07:16	02:45:34	02:48:18	03:26:13	03:31:00	04:15:49	04:29:10	05:10:01	05:16:12
10/28/2022 F	23:36:36	23:27:54	00:36:00	02:03:20	02:41:38	02:44:22	03:22:17	03:27:04	04:11:53	04:25:14	05:06:05	05:12:17
10/29/2022 Sa	23:36:32	23:23:58	00:32:04	01:59:24	02:37:42	02:40:26	03:18:21	03:23:08	04:07:57	04:21:18	05:02:09	05:08:21
10/30/2022 Su	23:36:29	23:20:02	00:28:08	01:55:28	02:33:46	02:36:30	03:14:25	03:19:12	04:04:01	04:17:22	04:58:13	05:04:25
10/31/2022 M	23:36:27	23:16:06	00:24:12	01:51:32	02:29:50	02:32:34	03:10:29	03:15:16	04:00:05	04:13:26	04:54:17	05:00:29
11/01/2022 Tu	23:36:26	23:12:10	00:20:17	01:47:36	02:25:54	02:28:38	03:06:34	03:11:21	03:56:10	04:09:30	04:50:21	04:56:33
11/02/2022 W	23:36:25	23:08:14	00:16:21	01:43:40	02:21:58	02:24:42	03:02:38	03:07:25	03:52:14	04:05:34	04:46:26	04:52:37
11/03/2022 Th	23:36:26	23:04:18	00:12:25	01:39:45	02:18:02	02:20:46	02:58:42	03:03:29	03:48:18	04:01:38	04:42:30	04:48:41
11/04/2022 F	23:36:27	23:00:22	00:08:29	01:35:49	02:14:06	02:16:51	02:54:46	02:59:33	03:44:22	03:57:42	04:38:34	04:44:45
11/05/2022 Sa	23:36:29	22:56:26	00:04:33	01:31:53	02:10:11	02:12:55	02:50:50	02:55:37	03:40:26	03:53:47	04:34:38	04:40:50
11/06/2022 Su	23:36:31	22:52:30	00:00:37	01:27:57	02:06:15	02:08:59	02:46:54	02:51:41	03:36:30	03:49:51	04:30:42	04:36:54
11/06/2022 Su			23:56:41									
11/07/2022 M	23:36:35	22:48:35	23:52:45	01:24:01	02:02:19	02:05:03	02:42:58	02:47:45	03:32:34	03:45:55	04:26:46	04:32:58
11/08/2022 Tu	23:36:39	22:44:39	23:48:49	01:20:05	01:58:23	02:01:07	02:39:02	02:43:49	03:28:38	03:41:59	04:22:50	04:29:02
11/09/2022 W	23:36:45	22:40:43	23:44:53	01:16:09	01:54:27	01:57:11	02:35:06	02:39:54	03:24:43	03:38:03	04:18:54	04:25:06
11/10/2022 Th	23:36:51	22:36:47	23:40:58	01:12:13	01:50:31	01:53:15	02:31:10	02:35:58	03:20:47	03:34:07	04:14:59	04:21:10
11/11/2022 F	23:36:58	22:32:51	23:37:02	01:08:17	01:46:35	01:49:19	02:27:15	02:32:02	03:16:51	03:30:11	04:11:03	04:17:14
11/12/2022 Sa	23:37:05	22:28:55	23:33:06	01:04:22	01:42:39	01:45:24	02:23:19	02:28:06	03:12:55	03:26:15	04:07:07	04:13:18
11/13/2022 Su	23:37:14	22:24:59	23:29:10	01:00:26	01:38:44	01:41:28	02:19:23	02:24:10	03:08:59	03:22:20	04:03:11	04:09:23
11/14/2022 M	23:37:24	22:21:03	23:25:14	00:56:30	01:34:48	01:37:32	02:15:27	02:20:14	03:05:03	03:18:24	03:59:15	04:05:27
11/15/2022 Tu	23:37:34	22:17:07	23:21:18	00:52:34	01:30:52	01:33:36	02:11:31	02:16:18	03:01:07	03:14:28	03:55:19	04:01:31
11/16/2022 W	23:37:45	22:13:11	23:17:22	00:48:38	01:26:56	01:29:40	02:07:35	02:12:22	02:57:11	03:10:32	03:51:23	03:57:35
11/17/2022 Th	23:37:57	22:09:15	23:13:26	00:44:42	01:23:00	01:25:44	02:03:39	02:08:27	02:53:15	03:06:36	03:47:27	03:53:39
11/18/2022 F	23:38:10	22:05:20	23:09:30	00:40:46	01:19:04	01:21:48	01:59:44	02:04:31	02:49:20	03:02:40	03:43:32	03:49:43

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
11/19/2022 Sa	23:38:24	22:01:24	23:05:34	00:36:50	01:15:08	01:17:52	01:55:48	02:00:35	02:45:24	02:58:44	03:39:36	03:45:47
11/20/2022 Su	23:38:39	21:57:28	23:01:39	00:32:54	01:11:12	01:13:56	01:51:52	01:56:39	02:41:28	02:54:48	03:35:40	03:41:51
11/21/2022 M	23:38:54	21:53:32	22:57:43	00:28:59	01:07:16	01:10:01	01:47:56	01:52:43	02:37:32	02:50:52	03:31:44	03:37:55
11/22/2022 Tu	23:39:10	21:49:36	22:53:47	00:25:03	01:03:21	01:06:05	01:44:00	01:48:47	02:33:36	02:46:57	03:27:48	03:34:00
11/23/2022 W	23:39:28	21:45:40	22:49:51	00:21:07	00:59:25	01:02:09	01:40:04	01:44:51	02:29:40	02:43:01	03:23:52	03:30:04
11/24/2022 Th	23:39:45	21:41:44	22:45:55	00:17:11	00:55:29	00:58:13	01:36:08	01:40:55	02:25:44	02:39:05	03:19:56	03:26:08
11/25/2022 F	23:40:04	21:37:48	22:41:59	00:13:15	00:51:33	00:54:17	01:32:12	01:37:00	02:21:48	02:35:09	03:16:00	03:22:12
11/26/2022 Sa	23:40:23	21:33:52	22:38:03	00:09:19	00:47:37	00:50:21	01:28:16	01:33:04	02:17:52	02:31:13	03:12:04	03:18:16
11/27/2022 Su	23:40:43	21:29:56	22:34:07	00:05:23	00:43:41	00:46:25	01:24:20	01:29:08	02:13:57	02:27:17	03:08:08	03:14:20
11/28/2022 M	23:41:04	21:26:00	22:30:11	00:01:27	00:39:45	00:42:29	01:20:25	01:25:12	02:10:01	02:23:21	03:04:13	03:10:24
11/28/2022 M				23:57:31								
11/29/2022 Tu	23:41:25	21:22:05	22:26:15	23:53:35	00:35:49	00:38:34	01:16:29	01:21:16	02:06:05	02:19:25	03:00:17	03:06:29
11/30/2022 W	23:41:47	21:18:09	22:22:20	23:49:39	00:31:53	00:34:38	01:12:33	01:17:20	02:02:09	02:15:29	02:56:21	03:02:33
12/01/2022 Th	23:42:10	21:14:13	22:18:24	23:45:44	00:27:57	00:30:42	01:08:37	01:13:24	01:58:13	02:11:34	02:52:25	02:58:37
12/02/2022 F	23:42:33	21:10:17	22:14:28	23:41:48	00:24:01	00:26:46	01:04:41	01:09:28	01:54:17	02:07:38	02:48:29	02:54:41
12/03/2022 Sa	23:42:57	21:06:21	22:10:32	23:37:52	00:20:06	00:22:50	01:00:45	01:05:33	01:50:21	02:03:42	02:44:33	02:50:45
12/04/2022 Su	23:43:21	21:02:25	22:06:36	23:33:56	00:16:10	00:18:54	00:56:49	01:01:37	01:46:25	01:59:46	02:40:37	02:46:49
12/05/2022 M	23:43:46	20:58:29	22:02:40	23:30:00	00:12:14	00:14:58	00:52:53	00:57:41	01:42:29	01:55:50	02:36:41	02:42:53
12/06/2022 Tu	23:44:11	20:54:33	21:58:44	23:26:04	00:08:18	00:11:02	00:48:57	00:53:45	01:38:34	01:51:54	02:32:46	02:38:57
12/07/2022 W	23:44:37	20:50:37	21:54:48	23:22:08	00:04:22	00:07:06	00:45:01	00:49:49	01:34:38	01:47:58	02:28:50	02:35:01
12/08/2022 Th	23:45:04	20:46:41	21:50:52	23:18:12	00:00:26	00:03:11	00:41:06	00:45:53	01:30:42	01:44:02	02:24:54	02:31:06
12/08/2022 Th					23:56:30	23:59:15						
12/09/2022 F	23:45:31	20:42:45	21:46:56	23:14:16	23:52:34	23:55:19	00:37:10	00:41:57	01:26:46	01:40:07	02:20:58	02:27:10
12/10/2022 Sa	23:45:58	20:38:50	21:43:00	23:10:20	23:48:38	23:51:23	00:33:14	00:38:01	01:22:50	01:36:11	02:17:02	02:23:14
12/11/2022 Su	23:46:26	20:34:54	21:39:05	23:06:25	23:44:42	23:47:27	00:29:18	00:34:05	01:18:54	01:32:15	02:13:06	02:19:18
12/12/2022 M	23:46:53	20:30:58	21:35:09	23:02:29	23:40:47	23:43:31	00:25:22	00:30:10	01:14:58	01:28:19	02:09:10	02:15:22
12/13/2022 Tu	23:47:22	20:27:02	21:31:13	22:58:33	23:36:51	23:39:35	00:21:26	00:26:14	01:11:02	01:24:23	02:05:14	02:11:26
12/14/2022 W	23:47:50	20:23:06	21:27:17	22:54:37	23:32:55	23:35:39	00:17:30	00:22:18	01:07:06	01:20:27	02:01:18	02:07:30
12/15/2022 Th	23:48:20	20:19:10	21:23:21	22:50:41	23:28:59	23:31:43	00:13:34	00:18:22	01:03:11	01:16:31	01:57:23	02:03:34
12/16/2022 F	23:48:49	20:15:14	21:19:25	22:46:45	23:25:03	23:27:47	00:09:39	00:14:26	00:59:15	01:12:35	01:53:27	01:59:38
12/17/2022 Sa	23:49:18	20:11:18	21:15:29	22:42:49	23:21:07	23:23:52	00:05:43	00:10:30	00:55:19	01:08:39	01:49:31	01:55:43
12/18/2022 Su	23:49:48	20:07:22	21:11:33	22:38:53	23:17:11	23:19:56	00:01:47	00:06:34	00:51:23	01:04:43	01:45:35	01:51:47
12/18/2022 Su							23:57:51					
12/19/2022 M	23:50:17	20:03:26	21:07:37	22:34:57	23:13:15	23:16:00	23:53:55	00:02:38	00:47:27	01:00:48	01:41:39	01:47:51
12/19/2022 M								23:58:42				
12/20/2022 Tu	23:50:47	19:59:30	21:03:41	22:31:01	23:09:19	23:12:04	23:49:59	23:54:46	00:43:31	00:56:52	01:37:43	01:43:55
12/21/2022 W	23:51:17	19:55:34	20:59:45	22:27:05	23:05:24	23:08:08	23:46:03	23:50:51	00:39:35	00:52:56	01:33:47	01:39:59

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
12/22/2022 Th	23:51:47	19:51:38	20:55:49	22:23:10	23:01:28	23:04:12	23:42:07	23:46:55	00:35:39	00:49:00	01:29:51	01:36:03
12/23/2022 F	23:52:17	19:47:42	20:51:54	22:19:14	22:57:32	23:00:16	23:38:11	23:42:59	00:31:43	00:45:04	01:25:56	01:32:07
12/24/2022 Sa	23:52:47	19:43:47	20:47:58	22:15:18	22:53:36	22:56:20	23:34:15	23:39:03	00:27:48	00:41:08	01:22:00	01:28:11
12/25/2022 Su	23:53:17	19:39:51	20:44:02	22:11:22	22:49:40	22:52:24	23:30:19	23:35:07	00:23:52	00:37:12	01:18:04	01:24:15
12/26/2022 M	23:53:46	19:35:55	20:40:06	22:07:26	22:45:44	22:48:28	23:26:24	23:31:11	00:19:56	00:33:16	01:14:08	01:20:20
12/27/2022 Tu	23:54:16	19:31:59	20:36:10	22:03:30	22:41:48	22:44:32	23:22:28	23:27:15	00:16:00	00:29:20	01:10:12	01:16:24
12/28/2022 W	23:54:45	19:28:03	20:32:14	21:59:34	22:37:52	22:40:37	23:18:32	23:23:19	00:12:04	00:25:25	01:06:16	01:12:28
12/29/2022 Th	23:55:14	19:24:07	20:28:18	21:55:38	22:33:56	22:36:41	23:14:36	23:19:23	00:08:08	00:21:29	01:02:20	01:08:32
12/30/2022 F	23:55:43	19:20:11	20:24:22	21:51:42	22:30:00	22:32:45	23:10:40	23:15:27	00:04:12	00:17:33	00:58:24	01:04:36
12/31/2022 Sa	23:56:12	19:16:15	20:20:26	21:47:46	22:26:04	22:28:49	23:06:44	23:11:32	00:00:16	00:13:37	00:54:28	01:00:40
12/31/2022 Sa									23:56:20			
01/01/2023 Su	23:56:40	19:12:19	20:16:30	21:43:50	22:22:08	22:24:53	23:02:48	23:07:36	23:52:24	00:09:41	00:50:32	00:56:44
01/02/2023 M	23:57:08	19:08:23	20:12:34	21:39:55	22:18:13	22:20:57	22:58:52	23:03:40	23:48:28	00:05:45	00:46:37	00:52:48
01/03/2023 Tu	23:57:35	19:04:27	20:08:38	21:35:59	22:14:17	22:17:01	22:54:56	22:59:44	23:44:32	00:01:49	00:42:41	00:48:52
01/03/2023 Tu										23:57:53		
01/04/2023 W	23:58:02	19:00:31	20:04:42	21:32:03	22:10:21	22:13:05	22:51:00	22:55:48	23:40:37	23:53:57	00:38:45	00:44:57
01/05/2023 Th	23:58:29	18:56:35	20:00:47	21:28:07	22:06:25	22:09:09	22:47:04	22:51:52	23:36:41	23:50:01	00:34:49	00:41:01
01/06/2023 F	23:58:55	18:52:40	19:56:51	21:24:11	22:02:29	22:05:13	22:43:09	22:47:56	23:32:45	23:46:05	00:30:53	00:37:05
01/07/2023 Sa	23:59:20	18:48:44	19:52:55	21:20:15	21:58:33	22:01:18	22:39:13	22:44:00	23:28:49	23:42:09	00:26:57	00:33:09
01/08/2023 Su	23:59:45	18:44:48	19:48:59	21:16:19	21:54:37	21:57:22	22:35:17	22:40:04	23:24:53	23:38:14	00:23:01	00:29:13
01/09/2023 M		18:40:52	19:45:03	21:12:23	21:50:41	21:53:26	22:31:21	22:36:08	23:20:57	23:34:18	00:19:05	00:25:17
01/10/2023 Tu	00:00:10	18:36:56	19:41:07	21:08:27	21:46:45	21:49:30	22:27:25	22:32:12	23:17:01	23:30:22	00:15:09	00:21:21
01/11/2023 W	00:00:34	18:33:00	19:37:11	21:04:31	21:42:49	21:45:34	22:23:29	22:28:17	23:13:05	23:26:26	00:11:13	00:17:25
01/12/2023 Th	00:00:58	18:29:04	19:33:15	21:00:35	21:38:54	21:41:38	22:19:33	22:24:21	23:09:09	23:22:30	00:07:18	00:13:29
01/13/2023 F	00:01:21	18:25:08	19:29:19	20:56:40	21:34:58	21:37:42	22:15:37	22:20:25	23:05:14	23:18:34	00:03:22	00:09:33
01/13/2023 F											23:59:26	
01/14/2023 Sa	00:01:43	18:21:12	19:25:23	20:52:44	21:31:02	21:33:46	22:11:41	22:16:29	23:01:18	23:14:38	23:55:30	00:05:38
01/15/2023 Su	00:02:05	18:17:16	19:21:27	20:48:48	21:27:06	21:29:50	22:07:45	22:12:33	22:57:22	23:10:42	23:51:34	00:01:42
01/15/2023 Su												23:57:46
01/16/2023 M	00:02:25	18:13:20	19:17:31	20:44:52	21:23:10	21:25:54	22:03:50	22:08:37	22:53:26	23:06:46	23:47:38	23:53:50
01/17/2023 Tu	00:02:46	18:09:24	19:13:35	20:40:56	21:19:14	21:21:58	21:59:54	22:04:41	22:49:30	23:02:50	23:43:42	23:49:54
01/18/2023 W	00:03:06	18:05:28	19:09:40	20:37:00	21:15:18	21:18:03	21:55:58	22:00:45	22:45:34	22:58:54	23:39:46	23:45:58
01/19/2023 Th	00:03:24	18:01:32	19:05:44	20:33:04	21:11:22	21:14:07	21:52:02	21:56:49	22:41:38	22:54:59	23:35:50	23:42:02
01/20/2023 F	00:03:43	17:57:36	19:01:48	20:29:08	21:07:26	21:10:11	21:48:06	21:52:53	22:37:42	22:51:03	23:31:54	23:38:06
01/21/2023 Sa	00:04:00		18:57:52	20:25:12	21:03:30	21:06:15	21:44:10	21:48:57	22:33:46	22:47:07	23:27:58	23:34:10
01/22/2023 Su	00:04:17		18:53:56	20:21:16	20:59:34	21:02:19	21:40:14	21:45:02	22:29:50	22:43:11	23:24:03	23:30:15
01/23/2023 M	00:04:33		18:50:00	20:17:20	20:55:38	20:58:23	21:36:18	21:41:06	22:25:54	22:39:15	23:20:07	23:26:19

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
12/22/2022	Th	23:51:47	03:58:32							
12/23/2022	F	23:52:17	03:54:36							
12/24/2022	Sa	23:52:47	03:50:40							
12/25/2022	Su	23:53:17	03:46:44							
12/26/2022	M	23:53:46	03:42:48							
12/27/2022	Tu	23:54:16	03:38:52							
12/28/2022	W	23:54:45	03:34:56							
12/29/2022	Th	23:55:14	03:31:00							
12/30/2022	F	23:55:43	03:27:05							
12/31/2022	Sa	23:56:12	03:23:09							
12/31/2022	Sa									
01/01/2023	Su	23:56:40	03:19:13							
01/02/2023	M	23:57:08	03:15:17							
01/03/2023	Tu	23:57:35	03:11:21							
01/03/2023	Tu									
01/04/2023	W	23:58:02	03:07:25							
01/05/2023	Th	23:58:29	03:03:29							
01/06/2023	F	23:58:55	02:59:33	06:15:49						
01/07/2023	Sa	23:59:20	02:55:38	06:11:53						
01/08/2023	Su	23:59:45	02:51:42	06:07:57						
01/09/2023	M		02:47:46	06:04:01						
01/10/2023	Tu	00:00:10	02:43:50	06:00:05						
01/11/2023	W	00:00:34	02:39:54	05:56:09						
01/12/2023	Th	00:00:58	02:35:58	05:52:13						
01/13/2023	F	00:01:21	02:32:02	05:48:17						
01/13/2023	F									
01/14/2023	Sa	00:01:43	02:28:06	05:44:22						
01/15/2023	Su	00:02:05	02:24:10	05:40:26						
01/15/2023	Su									
01/16/2023	M	00:02:25	02:20:14	05:36:30						
01/17/2023	Tu	00:02:46	02:16:19	05:32:34						
01/18/2023	W	00:03:06	02:12:23	05:28:38						
01/19/2023	Th	00:03:24	02:08:27	05:24:42	06:14:52					
01/20/2023	F	00:03:43	02:04:31	05:20:46	06:10:56					
01/21/2023	Sa	00:04:00	02:00:35	05:16:51	06:07:00					
01/22/2023	Su	00:04:17	01:56:39	05:12:55	06:03:05					
01/23/2023	M	00:04:33	01:52:43	05:08:59	05:59:09					

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
01/24/2023 Tu	00:04:48		18:46:04	20:13:25	20:51:42	20:54:27	21:32:22	21:37:10	22:21:59	22:35:19	23:16:11	23:22:23
01/25/2023 W	00:05:03		18:42:08	20:09:28	20:47:47	20:50:31	21:28:26	21:33:14	22:18:02	22:31:23	23:12:15	23:18:27
01/26/2023 Th	00:05:16		18:38:12	20:05:33	20:43:51	20:46:35	21:24:30	21:29:18	22:14:07	22:27:27	23:08:19	23:14:31
01/27/2023 F	00:05:29		18:34:16	20:01:37	20:39:55	20:42:39	21:20:35	21:25:22	22:10:11	22:23:31	23:04:23	23:10:35
01/28/2023 Sa	00:05:41		18:30:20	19:57:41	20:35:59	20:38:43	21:16:39	21:21:26	22:06:15	22:19:35	23:00:27	23:06:39
01/29/2023 Su	00:05:52		18:26:24	19:53:45	20:32:03	20:34:47	21:12:43	21:17:30	22:02:19	22:15:39	22:56:31	23:02:43
01/30/2023 M	00:06:02		18:22:28	19:49:49	20:28:07	20:30:51	21:08:47	21:13:34	21:58:23	22:11:44	22:52:35	22:58:47
01/31/2023 Tu	00:06:12		18:18:32	19:45:53	20:24:11	20:26:55	21:04:51	21:09:38	21:54:27	22:07:48	22:48:39	22:54:51
02/01/2023 W	00:06:20		18:14:37	19:41:57	20:20:15	20:23:00	21:00:55	21:05:42	21:50:31	22:03:52	22:44:44	22:50:55
02/02/2023 Th	00:06:28		18:10:41	19:38:01	20:16:19	20:19:04	20:56:59	21:01:47	21:46:35	21:59:56	22:40:48	22:47:00
02/03/2023 F	00:06:35			19:34:05	20:12:23	20:15:08	20:53:03	20:57:51	21:42:39	21:56:00	22:36:52	22:43:04
02/04/2023 Sa	00:06:41			19:30:09	20:08:27	20:11:12	20:49:07	20:53:55	21:38:43	21:52:04	22:32:56	22:39:08
02/05/2023 Su	00:06:47			19:26:13	20:04:31	20:07:16	20:45:11	20:49:59	21:34:47	21:48:08	22:29:00	22:35:12
02/06/2023 M	00:06:51			19:22:18	20:00:35	20:03:20	20:41:15	20:46:03	21:30:52	21:44:12	22:25:04	22:31:16
02/07/2023 Tu	00:06:55			19:18:22	19:56:40	19:59:24	20:37:19	20:42:07	21:26:56	21:40:16	22:21:08	22:27:20
02/08/2023 W	00:06:58			19:14:26	19:52:44	19:55:28	20:33:23	20:38:11	21:23:00	21:36:20	22:17:12	22:23:24
02/09/2023 Th	00:07:00			19:10:30	19:48:48	19:51:32	20:29:27	20:34:15	21:19:04	21:32:24	22:13:16	22:19:28
02/10/2023 F	00:07:01			19:06:34	19:44:52	19:47:36	20:25:32	20:30:19	21:15:08	21:28:29	22:09:20	22:15:32
02/11/2023 Sa	00:07:02			19:02:38	19:40:56	19:43:40	20:21:36	20:26:23	21:11:12	21:24:33	22:05:25	22:11:36
02/12/2023 Su	00:07:02			18:58:42	19:37:00	19:39:44	20:17:40	20:22:27	21:07:16	21:20:37	22:01:29	22:07:40
02/13/2023 M	00:07:01			18:54:46	19:33:04	19:35:48	20:13:44	20:18:31	21:03:20	21:16:41	21:57:33	22:03:45
02/14/2023 Tu	00:07:00			18:50:50	19:29:08	19:31:53	20:09:48	20:14:35	20:59:24	21:12:45	21:53:37	21:59:49
02/15/2023 W	00:06:57			18:46:54	19:25:12	19:27:57	20:05:52	20:10:39	20:55:28	21:08:49	21:49:41	21:55:53
02/16/2023 Th	00:06:54			18:42:58	19:21:16	19:24:01	20:01:56	20:06:44	20:51:32	21:04:53	21:45:45	21:51:57
02/17/2023 F	00:06:50			18:39:02	19:17:20	19:20:05	19:58:00	20:02:48	20:47:36	21:00:57	21:41:49	21:48:01
02/18/2023 Sa	00:06:46			18:35:06	19:13:24	19:16:09	19:54:04	19:58:52	20:43:40	20:57:01	21:37:53	21:44:05
02/19/2023 Su	00:06:41			18:31:10	19:09:28	19:12:13	19:50:08	19:54:56	20:39:45	20:53:05	21:33:57	21:40:09
02/20/2023 M	00:06:35				19:05:33	19:08:17	19:46:12	19:51:00	20:35:49	20:49:09	21:30:01	21:36:13
02/20/2023 M												
02/21/2023 Tu	00:06:29				19:01:37	19:04:21	19:42:16	19:47:04	20:31:53	20:45:13	21:26:05	21:32:17
02/22/2023 W	00:06:22				18:57:41	19:00:25	19:38:21	19:43:08	20:27:57	20:41:17	21:22:09	21:28:21
02/23/2023 Th	00:06:14				18:53:45	18:56:29	19:34:25	19:39:12	20:24:01	20:37:21	21:18:13	21:24:25
02/24/2023 F	00:06:06				18:49:49	18:52:33	19:30:29	19:35:16	20:20:05	20:33:26	21:14:18	21:20:30
02/25/2023 Sa	00:05:57				18:45:53	18:48:37	19:26:33	19:31:20	20:16:09	20:29:30	21:10:22	21:16:34
02/26/2023 Su	00:05:47				18:41:57	18:44:41	19:22:37	19:27:24	20:12:13	20:25:34	21:06:26	21:12:38
02/27/2023 M	00:05:37						19:18:41	19:23:28	20:08:17	20:21:38	21:02:30	21:08:42
02/28/2023 Tu	00:05:27						19:14:45	19:19:32	20:04:21	20:17:42	20:58:34	21:04:46

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
01/24/2023	Tu	00:04:48	01:48:47	05:05:03	05:55:13					
01/25/2023	W	00:05:03	01:44:51	05:01:07	05:51:17					
01/26/2023	Th	00:05:16	01:40:56	04:57:11	05:47:21					
01/27/2023	F	00:05:29	01:37:00	04:53:15	05:43:25					
01/28/2023	Sa	00:05:41	01:33:04	04:49:19	05:39:29					
01/29/2023	Su	00:05:52	01:29:08	04:45:24	05:35:33					
01/30/2023	M	00:06:02	01:25:12	04:41:28	05:31:38					
01/31/2023	Tu	00:06:12	01:21:16	04:37:32	05:27:42					
02/01/2023	W	00:06:20	01:17:20	04:33:36	05:23:46					
02/02/2023	Th	00:06:28	01:13:24	04:29:40	05:19:50					
02/03/2023	F	00:06:35	01:09:29	04:25:44	05:15:54					
02/04/2023	Sa	00:06:41	01:05:33	04:21:48	05:11:58					
02/05/2023	Su	00:06:47	01:01:37	04:17:52	05:08:02					
02/06/2023	M	00:06:51	00:57:41	04:13:56	05:04:06					
02/07/2023	Tu	00:06:55	00:53:45	04:10:01	05:00:10					
02/08/2023	W	00:06:58	00:49:49	04:06:05	04:56:15					
02/09/2023	Th	00:07:00	00:45:53	04:02:09	04:52:19					
02/10/2023	F	00:07:01	00:41:57	03:58:13	04:48:23					
02/11/2023	Sa	00:07:02	00:38:01	03:54:17	04:44:27					
02/12/2023	Su	00:07:02	00:34:05	03:50:21	04:40:31					
02/13/2023	M	00:07:01	00:30:10	03:46:25	04:36:35					
02/14/2023	Tu	00:07:00	00:26:14	03:42:29	04:32:39					
02/15/2023	W	00:06:57	00:22:18	03:38:34	04:28:43					
02/16/2023	Th	00:06:54	00:18:22	03:34:38	04:24:48					
02/17/2023	F	00:06:50	00:14:26	03:30:42	04:20:52					
02/18/2023	Sa	00:06:46	00:10:30	03:26:46	04:16:56					
02/19/2023	Su	00:06:41	00:06:34	03:22:50	04:13:00					
02/20/2023	M	00:06:35	00:02:38	03:18:54	04:09:04					
02/20/2023	M		23:58:42							
02/21/2023	Tu	00:06:29	23:54:46	03:14:58	04:05:08					
02/22/2023	W	00:06:22	23:50:51	03:11:02	04:01:12					
02/23/2023	Th	00:06:14	23:46:55	03:07:06	03:57:16					
02/24/2023	F	00:06:06	23:42:59	03:03:11	03:53:21					
02/25/2023	Sa	00:05:57	23:39:03	02:59:15	03:49:25					
02/26/2023	Su	00:05:47	23:35:07	02:55:19	03:45:29					
02/27/2023	M	00:05:37	23:31:11	02:51:23	03:41:33					
02/28/2023	Tu	00:05:27	23:27:15	02:47:27	03:37:37					

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
03/01/2023	W	00:05:15	23:23:19	02:43:31	03:33:41					
03/02/2023	Th	00:05:04	23:19:23	02:39:35	03:29:45					
03/03/2023	F	00:04:51	23:15:27	02:35:39	03:25:49					
03/04/2023	Sa	00:04:39	23:11:31	02:31:44	03:21:53					
03/05/2023	Su	00:04:25	23:07:36	02:27:48	03:17:58					
03/06/2023	M	00:04:12	23:03:40	02:23:52	03:14:02					
03/07/2023	Tu	00:03:58	22:59:44	02:19:56	03:10:06					
03/08/2023	W	00:03:43	22:55:48	02:16:00	03:06:10					
03/09/2023	Th	00:03:28	22:51:52	02:12:04	03:02:14					
03/10/2023	F	00:03:13	22:47:56	02:08:08	02:58:18	05:12:02				
03/11/2023	Sa	00:02:58	22:44:00	02:04:12	02:54:22	05:08:06				
03/12/2023	Su	00:02:42	22:40:04	02:00:16	02:50:26	05:04:10				
03/13/2023	M	00:02:26	22:36:08	01:56:21	02:46:30	05:00:14				
03/14/2023	Tu	00:02:09	22:32:12	01:52:25	02:42:35	04:56:19				
03/15/2023	W	00:01:53	22:28:16	01:48:29	02:38:39	04:52:23				
03/16/2023	Th	00:01:36	22:24:21	01:44:33	02:34:43	04:48:27				
03/17/2023	F	00:01:19	22:20:25	01:40:37	02:30:47	04:44:31				
03/18/2023	Sa	00:01:02	22:16:29	01:36:41	02:26:51	04:40:35				
03/19/2023	Su	00:00:44	22:12:33	01:32:45	02:22:55	04:36:39				
03/20/2023	M	00:00:27	22:08:37	01:28:49	02:18:59	04:32:43				
03/21/2023	Tu	00:00:09	22:04:41	01:24:53	02:15:03	04:28:47				
03/21/2023	Tu	23:59:51								
03/22/2023	W	23:59:34	22:00:45	01:20:58	02:11:08	04:24:52				
03/23/2023	Th	23:59:16	21:56:49	01:17:02	02:07:12	04:20:56				
03/24/2023	F	23:58:58	21:52:53	01:13:06	02:03:16	04:17:00				
03/25/2023	Sa	23:58:40	21:48:57	01:09:10	01:59:20	04:13:04				
03/26/2023	Su	23:58:22	21:45:01	01:05:14	01:55:24	04:09:08				
03/27/2023	M	23:58:04	21:41:06	01:01:18	01:51:28	04:05:12				
03/28/2023	Tu	23:57:46	21:37:10	00:57:22	01:47:32	04:01:16				
03/29/2023	W	23:57:27	21:33:14	00:53:26	01:43:36	03:57:20				
03/30/2023	Th	23:57:10	21:29:18	00:49:30	01:39:40	03:53:25				
03/31/2023	F	23:56:52	21:25:22	00:45:34	01:35:44	03:49:29				
04/01/2023	Sa	23:56:34	21:21:26	00:41:39	01:31:49	03:45:33				
04/02/2023	Su	23:56:16	21:17:30	00:37:43	01:27:53	03:41:37				
04/03/2023	M	23:55:59	21:13:34	00:33:47	01:23:57	03:37:41				
04/04/2023	Tu	23:55:41	21:09:38	00:29:51	01:20:01	03:33:45				
04/05/2023	W	23:55:24	21:05:42	00:25:55	01:16:05	03:29:49				

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
04/06/2023	Th	23:55:07	21:01:46	00:21:59	01:12:09	03:25:53				
04/07/2023	F	23:54:50	20:57:50	00:18:03	01:08:13	03:21:58				
04/08/2023	Sa	23:54:33	20:53:55	00:14:07	01:04:17	03:18:02				
04/09/2023	Su	23:54:17	20:49:59	00:10:11	01:00:22	03:14:06				
04/10/2023	M	23:54:01	20:46:03	00:06:16	00:56:26	03:10:10				
04/11/2023	Tu	23:53:45	20:42:07	00:02:20	00:52:30	03:06:14				
04/11/2023	Tu		23:58:24							
04/12/2023	W	23:53:30	20:38:11	23:54:28	00:48:34	03:02:18				
04/13/2023	Th	23:53:15	20:34:15	23:50:32	00:44:38	02:58:22				
04/14/2023	F	23:53:00	20:30:19	23:46:36	00:40:42	02:54:26				
04/15/2023	Sa	23:52:46	20:26:23	23:42:40	00:36:46	02:50:30				
04/16/2023	Su	23:52:32	20:22:27	23:38:44	00:32:50	02:46:34				
04/17/2023	M	23:52:18	20:18:31	23:34:48	00:28:54	02:42:39				
04/18/2023	Tu	23:52:05	20:14:35	23:30:52	00:24:58	02:38:43				
04/19/2023	W	23:51:52	20:10:39	23:26:56	00:21:03	02:34:47				
04/20/2023	Th	23:51:40	20:06:43	23:23:01	00:17:07	02:30:51				
04/21/2023	F	23:51:28	20:02:48	23:19:05	00:13:11	02:26:55				
04/22/2023	Sa	23:51:17	19:58:52	23:15:09	00:09:15	02:22:59				
04/23/2023	Su	23:51:06		23:11:13	00:05:19	02:19:03				
04/24/2023	M	23:50:55		23:07:17	00:01:23	02:15:07				
04/24/2023	M			23:57:27						
04/25/2023	Tu	23:50:45		23:03:21	23:53:31	02:11:12				
04/26/2023	W	23:50:35		22:59:25	23:49:35	02:07:16				
04/27/2023	Th	23:50:26		22:55:29	23:45:39	02:03:20				
04/28/2023	F	23:50:17		22:51:33	23:41:43	01:59:24				
04/29/2023	Sa	23:50:09		22:47:37	23:37:48	01:55:28				
04/30/2023	Su	23:50:02		22:43:41	23:33:52	01:51:32				
05/01/2023	M	23:49:55		22:39:46	23:29:56	01:47:36				
05/02/2023	Tu	23:49:48		22:35:50	23:26:00	01:43:40				
05/03/2023	W	23:49:42		22:31:54	23:22:04	01:39:45				
05/04/2023	Th	23:49:36		22:27:58	23:18:08	01:35:49				
05/05/2023	F	23:49:31		22:24:02	23:14:12	01:31:53				
05/06/2023	Sa	23:49:27		22:20:06	23:10:16	01:27:57				
05/07/2023	Su	23:49:23		22:16:10	23:06:20	01:24:01				
05/08/2023	M	23:49:20		22:12:14	23:02:24	01:20:05				
05/09/2023	Tu	23:49:17		22:08:18	22:58:29	01:16:09				
05/10/2023	W	23:49:15		22:04:22	22:54:33	01:12:13				

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
05/11/2023	Th	23:49:14	22:00:27	22:50:37	01:08:17	03:14:50				
05/12/2023	F	23:49:13	21:56:31	22:46:41	01:04:22	03:10:54				
05/13/2023	Sa	23:49:13	21:52:35	22:42:45	01:00:26	03:06:58				
05/14/2023	Su	23:49:13	21:48:39	22:38:49	00:56:30	03:03:02				
05/15/2023	M	23:49:14	21:44:43	22:34:53	00:52:34	02:59:06				
05/16/2023	Tu	23:49:16	21:40:47	22:30:57	00:48:38	02:55:10				
05/17/2023	W	23:49:17	21:36:51	22:27:01	00:44:42	02:51:14				
05/18/2023	Th	23:49:20	21:32:55	22:23:05	00:40:46	02:47:19				
05/19/2023	F	23:49:23	21:28:59	22:19:09	00:36:50	02:43:23				
05/20/2023	Sa	23:49:27	21:25:03	22:15:13	00:32:54	02:39:27				
05/21/2023	Su	23:49:31	21:21:07	22:11:18	00:28:59	02:35:31				
05/22/2023	M	23:49:36	21:17:11	22:07:22	00:25:03	02:31:35				
05/23/2023	Tu	23:49:41	21:13:15	22:03:26	00:21:07	02:27:39				
05/24/2023	W	23:49:47	21:09:20	21:59:30	00:17:11	02:23:43				
05/25/2023	Th	23:49:53	21:05:24	21:55:34	00:13:15	02:19:48				
05/26/2023	F	23:50:00	21:01:28	21:51:38	00:09:19	02:15:52				
05/27/2023	Sa	23:50:07	20:57:32	21:47:42	00:05:23	02:11:56				
05/28/2023	Su	23:50:14	20:53:36	21:43:46	00:01:27	02:08:00				
05/28/2023	Su				23:57:31					
05/29/2023	M	23:50:22	20:49:40	21:39:50	23:53:35	02:04:04				
05/30/2023	Tu	23:50:31		21:35:54	23:49:39	02:00:08				
05/31/2023	W	23:50:40		21:31:59	23:45:44	01:56:12				
06/01/2023	Th	23:50:49		21:28:03	23:41:48	01:52:16				
06/02/2023	F	23:50:59		21:24:07	23:37:52	01:48:20				
06/03/2023	Sa	23:51:08		21:20:11	23:33:56	01:44:25				
06/04/2023	Su	23:51:19		21:16:15	23:30:00	01:40:29				
06/05/2023	M	23:51:29		21:12:19	23:26:04	01:36:33				
06/06/2023	Tu	23:51:40		21:08:23	23:22:08	01:32:37	02:46:36			
06/07/2023	W	23:51:52		21:04:27	23:18:12	01:28:41	02:42:40			
06/08/2023	Th	23:52:03		21:00:31	23:14:16	01:24:45	02:38:44			
06/09/2023	F	23:52:15			23:10:20	01:20:49	02:34:48			
06/10/2023	Sa	23:52:27			23:06:25	01:16:53	02:30:52			
06/11/2023	Su	23:52:39			23:02:29	01:12:57	02:26:56			
06/12/2023	M	23:52:52			22:58:33	01:09:01	02:23:00			
06/13/2023	Tu	23:53:04			22:54:37	01:05:05	02:19:04			
06/14/2023	W	23:53:17			22:50:41	01:01:10	02:15:08			
06/15/2023	Th	23:53:30			22:46:45	00:57:14	02:11:12	02:42:16		

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
06/16/2023	F	23:53:43			22:42:49	00:53:18	02:07:17	02:38:20		
06/17/2023	Sa	23:53:56			22:38:53	00:49:22	02:03:21	02:34:24		
06/18/2023	Su	23:54:09			22:34:57	00:45:26	01:59:25	02:30:29		
06/19/2023	M	23:54:23			22:31:01	00:41:30	01:55:29	02:26:33		
06/20/2023	Tu	23:54:36			22:27:05	00:37:34	01:51:33	02:22:37	02:41:43	
06/21/2023	W	23:54:49			22:23:10	00:33:38	01:47:37	02:18:41	02:37:47	
06/22/2023	Th	23:55:02			22:19:14	00:29:42	01:43:41	02:14:45	02:33:51	
06/23/2023	F	23:55:15			22:15:18	00:25:46	01:39:45	02:10:49	02:29:56	
06/24/2023	Sa	23:55:28			22:11:22	00:21:51	01:35:50	02:06:53	02:26:00	
06/25/2023	Su	23:55:41			22:07:26	00:17:55	01:31:54	02:02:57	02:22:04	
06/26/2023	M	23:55:53			22:03:30	00:13:59	01:27:58	01:59:01	02:18:08	
06/27/2023	Tu	23:56:06			21:59:34	00:10:03	01:24:02	01:55:06	02:14:12	
06/28/2023	W	23:56:18			21:55:38	00:06:07	01:20:06	01:51:10	02:10:16	
06/29/2023	Th	23:56:30			21:51:42	00:02:11	01:16:10	01:47:14	02:06:20	
06/29/2023	Th					23:58:15				
06/30/2023	F	23:56:41			21:47:46	23:54:19	01:12:14	01:43:18	02:02:24	
07/01/2023	Sa	23:56:53			21:43:50	23:50:23	01:08:18	01:39:22	01:58:28	
07/02/2023	Su	23:57:04			21:39:55	23:46:28	01:04:22	01:35:26	01:54:33	
07/03/2023	M	23:57:15			21:35:59	23:42:32	01:00:26	01:31:30	01:50:37	
07/04/2023	Tu	23:57:25			21:32:03	23:38:36	00:56:31	01:27:34	01:46:41	
07/05/2023	W	23:57:36			21:28:07	23:34:40	00:52:35	01:23:38	01:42:45	
07/06/2023	Th	23:57:45			21:24:11	23:30:44	00:48:39	01:19:43	01:38:49	
07/07/2023	F	23:57:55			21:20:15	23:26:48	00:44:43	01:15:47	01:34:53	
07/08/2023	Sa	23:58:04			21:16:19	23:22:52	00:40:47	01:11:51	01:30:57	
07/09/2023	Su	23:58:13			21:12:23	23:18:56	00:36:51	01:07:55	01:27:01	
07/10/2023	M	23:58:21			21:08:27	23:15:00	00:32:55	01:03:59	01:23:06	
07/11/2023	Tu	23:58:29			21:04:31	23:11:04	00:28:59	01:00:03	01:19:10	
07/12/2023	W	23:58:37			21:00:35	23:07:08	00:25:03	00:56:07	01:15:14	
07/13/2023	Th	23:58:44			20:56:40	23:03:12	00:21:08	00:52:11	01:11:18	
07/14/2023	F	23:58:50				22:59:17	00:17:12	00:48:15	01:07:22	
07/15/2023	Sa	23:58:56				22:55:21	00:13:16	00:44:20	01:03:26	
07/16/2023	Su	23:59:02				22:51:25	00:09:20	00:40:24	00:59:30	
07/17/2023	M	23:59:07				22:47:29	00:05:24	00:36:28	00:55:34	
07/18/2023	Tu					22:43:33	00:01:28	00:32:32	00:51:38	
07/18/2023	Tu	23:59:11					23:57:32			
07/19/2023	W	23:59:15				22:39:37	23:53:36	00:28:36	00:47:42	03:04:02
07/20/2023	Th	23:59:19				22:35:41	23:49:40	00:24:40	00:43:47	03:00:06

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
07/21/2023	F	23:59:21				22:31:45	23:45:44	00:20:44	00:39:51	02:56:10
07/22/2023	Sa	23:59:23				22:27:49	23:41:48	00:16:48	00:35:55	02:52:15
07/23/2023	Su	23:59:25				22:23:53	23:37:53	00:12:52	00:31:59	02:48:19
07/24/2023	M	23:59:26				22:19:57	23:33:57	00:08:56	00:28:03	02:44:23
07/25/2023	Tu	23:59:26				22:16:02	23:30:01	00:05:00	00:24:07	02:40:27
07/26/2023	W					22:12:06	23:26:05	00:01:04	00:20:11	02:36:31
07/26/2023	W	23:59:26						23:57:09		
07/27/2023	Th	23:59:25				22:08:10	23:22:09	23:53:13	00:16:15	02:32:35
07/28/2023	F	23:59:24				22:04:14	23:18:13	23:49:17	00:12:19	02:28:39
07/29/2023	Sa	23:59:22				22:00:18	23:14:17	23:45:21	00:08:23	02:24:43
07/30/2023	Su	23:59:19				21:56:22	23:10:21	23:41:25	00:04:28	02:20:48
07/31/2023	M					21:52:26	23:06:25	23:37:29	00:00:32	02:16:52
07/31/2023	M	23:59:16							23:56:36	
08/01/2023	Tu	23:59:12				21:48:30	23:02:29	23:33:33	23:52:40	02:12:56
08/02/2023	W	23:59:07				21:44:34	22:58:33	23:29:37	23:48:44	02:09:00
08/03/2023	Th	23:59:02				21:40:38	22:54:38	23:25:41	23:44:48	02:05:04
08/04/2023	F	23:58:56				21:36:42	22:50:42	23:21:45	23:40:52	02:01:08
08/05/2023	Sa	23:58:50				21:32:46	22:46:46	23:17:50	23:36:56	01:57:12
08/06/2023	Su	23:58:43				21:28:50	22:42:50	23:13:54	23:33:00	01:53:16
08/07/2023	M	23:58:36				21:24:55	22:38:54	23:09:58	23:29:04	01:49:20
08/08/2023	Tu	23:58:28				21:20:59	22:34:58	23:06:02	23:25:08	01:45:24
08/09/2023	W	23:58:19				21:17:03	22:31:02	23:02:06	23:21:12	01:41:29
08/10/2023	Th	23:58:10				21:13:07	22:27:06	22:58:10	23:17:17	01:37:33
08/11/2023	F	23:58:00				21:09:11	22:23:10	22:54:14	23:13:21	01:33:37
08/12/2023	Sa	23:57:50				21:05:15	22:19:14	22:50:18	23:09:25	01:29:41
08/13/2023	Su	23:57:39				21:01:19	22:15:18	22:46:22	23:05:29	01:25:45
08/14/2023	M	23:57:28				20:57:23	22:11:23	22:42:26	23:01:33	01:21:49
08/15/2023	Tu	23:57:16				20:53:27	22:07:27	22:38:30	22:57:37	01:17:53
08/16/2023	W	23:57:03				20:49:31	22:03:31	22:34:35	22:53:41	01:13:57
08/17/2023	Th	23:56:50				20:45:35	21:59:35	22:30:39	22:49:45	01:10:01
08/18/2023	F	23:56:37				20:41:39	21:55:39	22:26:43	22:45:49	01:06:06
08/19/2023	Sa	23:56:23				20:37:43	21:51:43	22:22:47	22:41:53	01:02:10
08/20/2023	Su	23:56:09				20:33:48	21:47:47	22:18:51	22:37:57	00:58:14
08/21/2023	M	23:55:54				20:29:52	21:43:51	22:14:55	22:34:02	00:54:18
08/22/2023	Tu	23:55:38				20:25:56	21:39:55	22:10:59	22:30:06	00:50:22
08/23/2023	W	23:55:23				20:22:00	21:35:59	22:07:03	22:26:10	00:46:26
08/24/2023	Th	23:55:06				20:18:04	21:32:03	22:03:07	22:22:14	00:42:30

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
08/25/2023 F	23:54:50	03:44:27										
08/26/2023 Sa	23:54:33	03:40:31										
08/27/2023 Su	23:54:15	03:36:35										
08/28/2023 M	23:53:57	03:32:40										
08/29/2023 Tu	23:53:39	03:28:44										
08/30/2023 W	23:53:20	03:24:48										
08/31/2023 Th	23:53:01	03:20:52										
09/01/2023 F	23:52:42	03:16:56										
09/02/2023 Sa	23:52:23	03:13:00										
09/03/2023 Su	23:52:03	03:09:04										
09/03/2023 Su												
09/04/2023 M	23:51:43	03:05:08	04:09:19									
09/05/2023 Tu	23:51:23	03:01:12	04:05:23									
09/06/2023 W	23:51:03	02:57:17	04:01:27									
09/07/2023 Th	23:50:42	02:53:21	03:57:31									
09/08/2023 F	23:50:21	02:49:25	03:53:35									
09/09/2023 Sa	23:50:00	02:45:29	03:49:39									
09/10/2023 Su	23:49:39	02:41:33	03:45:44									
09/11/2023 M	23:49:18	02:37:37	03:41:48									
09/12/2023 Tu	23:48:57	02:33:41	03:37:52									
09/13/2023 W	23:48:36	02:29:45	03:33:56									
09/14/2023 Th	23:48:15	02:25:50	03:30:00									
09/15/2023 F	23:47:53	02:21:54	03:26:04									
09/16/2023 Sa	23:47:32	02:17:58	03:22:08									
09/17/2023 Su	23:47:11	02:14:02	03:18:12									
09/18/2023 M	23:46:49	02:10:06	03:14:16									
09/19/2023 Tu	23:46:28	02:06:10	03:10:21									
09/20/2023 W	23:46:07	02:02:14	03:06:25	04:33:44								
09/21/2023 Th	23:45:45	01:58:18	03:02:29	04:29:48								
09/22/2023 F	23:45:24	01:54:22	02:58:33	04:25:52								
09/23/2023 Sa	23:45:03	01:50:27	02:54:37	04:21:56								
09/24/2023 Su	23:44:42	01:46:31	02:50:41	04:18:01								
09/25/2023 M	23:44:21	01:42:35	02:46:45	04:14:05								
09/26/2023 Tu	23:44:01	01:38:39	02:42:50	04:10:09								
09/27/2023 W	23:43:40	01:34:43	02:38:54	04:06:13								
09/28/2023 Th	23:43:20	01:30:47	02:34:58	04:02:17	04:40:34	04:43:20						
09/29/2023 F	23:43:00	01:26:51	02:31:02	03:58:21	04:36:38	04:39:24						

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
08/25/2023	F	23:54:50				20:14:08	21:28:07	21:59:11	22:18:18	00:38:34
08/26/2023	Sa	23:54:33				20:10:12	21:24:12	21:55:15	22:14:22	00:34:38
08/27/2023	Su	23:54:15				20:06:16	21:20:16	21:51:19	22:10:26	00:30:42
08/28/2023	M	23:53:57				20:02:20	21:16:20	21:47:23	22:06:30	00:26:47
08/29/2023	Tu	23:53:39				19:58:24	21:12:24	21:43:28	22:02:34	00:22:51
08/30/2023	W	23:53:20				19:54:28	21:08:28	21:39:32	21:58:38	00:18:55
08/31/2023	Th	23:53:01				19:50:32	21:04:32	21:35:36	21:54:42	00:14:59
09/01/2023	F	23:52:42				19:46:36	21:00:36	21:31:40	21:50:46	00:11:03
09/02/2023	Sa	23:52:23				19:42:40	20:56:40	21:27:44	21:46:51	00:07:07
09/03/2023	Su	23:52:03				19:38:45	20:52:44	21:23:48	21:42:55	00:03:11
09/03/2023	Su									23:59:15
09/04/2023	M	23:51:43				19:34:49	20:48:48	21:19:52	21:38:59	23:55:19
09/05/2023	Tu	23:51:23				19:30:53	20:44:52	21:15:56	21:35:03	23:51:24
09/06/2023	W	23:51:03				19:26:57	20:40:56	21:12:00	21:31:07	23:47:28
09/07/2023	Th	23:50:42				19:23:01	20:37:01	21:08:04	21:27:11	23:43:32
09/08/2023	F	23:50:21					20:33:05	21:04:08	21:23:15	23:39:36
09/09/2023	Sa	23:50:00					20:29:09	21:00:13	21:19:19	23:35:40
09/10/2023	Su	23:49:39					20:25:13	20:56:16	21:15:23	23:31:44
09/11/2023	M	23:49:18					20:21:17	20:52:21	21:11:27	23:27:48
09/12/2023	Tu	23:48:57					20:17:21	20:48:25	21:07:31	23:23:52
09/13/2023	W	23:48:36					20:13:25	20:44:29	21:03:35	23:19:56
09/14/2023	Th	23:48:15					20:09:29	20:40:33	20:59:39	23:16:01
09/15/2023	F	23:47:53					20:05:33	20:36:37	20:55:43	23:12:05
09/16/2023	Sa	23:47:32					20:01:37	20:32:41	20:51:48	23:08:09
09/17/2023	Su	23:47:11					19:57:41	20:28:45	20:47:52	23:04:13
09/18/2023	M	23:46:49					19:53:45	20:24:49	20:43:56	23:00:17
09/19/2023	Tu	23:46:28					19:49:50	20:20:53	20:40:00	22:56:21
09/20/2023	W	23:46:07					19:45:54	20:16:57	20:36:04	22:52:25
09/21/2023	Th	23:45:45					19:41:58	20:13:01	20:32:08	22:48:29
09/22/2023	F	23:45:24					19:38:02	20:09:05	20:28:12	22:44:33
09/23/2023	Sa	23:45:03					19:34:06	20:05:09	20:24:16	22:40:37
09/24/2023	Su	23:44:42					19:30:10	20:01:14	20:20:20	22:36:41
09/25/2023	M	23:44:21					19:26:14	19:57:18	20:16:24	22:32:45
09/26/2023	Tu	23:44:01					19:22:18	19:53:22	20:12:28	22:28:50
09/27/2023	W	23:43:40					19:18:22	19:49:26	20:08:32	22:24:54
09/28/2023	Th	23:43:20					19:14:26	19:45:30	20:04:36	22:20:58
09/29/2023	F	23:43:00					19:10:30	19:41:34	20:00:40	22:17:02

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
09/30/2023 Sa	23:42:40	01:22:55	02:27:06	03:54:25	04:32:43	04:35:28						
10/01/2023 Su	23:42:21	01:19:00	02:23:10	03:50:29	04:28:47	04:31:32						
10/02/2023 M	23:42:02	01:15:04	02:19:14	03:46:33	04:24:51	04:27:36						
10/03/2023 Tu	23:41:43	01:11:08	02:15:18	03:42:38	04:20:55	04:23:40						
10/04/2023 W	23:41:25	01:07:12	02:11:22	03:38:42	04:16:59	04:19:44						
10/05/2023 Th	23:41:07	01:03:16	02:07:27	03:34:46	04:13:03	04:15:48						
10/06/2023 F	23:40:49	00:59:20	02:03:31	03:30:50	04:09:07	04:11:53	04:49:47					
10/07/2023 Sa	23:40:32	00:55:24	01:59:35	03:26:54	04:05:11	04:07:57	04:45:51	04:50:39				
10/08/2023 Su	23:40:15	00:51:28	01:55:39	03:22:58	04:01:15	04:04:01	04:41:55	04:46:43				
10/09/2023 M	23:39:59	00:47:32	01:51:43	03:19:02	03:57:20	04:00:05	04:37:59	04:42:47				
10/10/2023 Tu	23:39:43	00:43:36	01:47:47	03:15:06	03:53:24	03:56:09	04:34:03	04:38:51				
10/11/2023 W	23:39:28	00:39:41	01:43:51	03:11:10	03:49:28	03:52:13	04:30:07	04:34:56				
10/12/2023 Th	23:39:13	00:35:45	01:39:56	03:07:15	03:45:32	03:48:17	04:26:12	04:31:00				
10/13/2023 F	23:38:59	00:31:49	01:36:00	03:03:19	03:41:36	03:44:22	04:22:16	04:27:04				
10/14/2023 Sa	23:38:45	00:27:53	01:32:04	02:59:23	03:37:40	03:40:26	04:18:20	04:23:08				
10/15/2023 Su	23:38:31	00:23:57	01:28:08	02:55:27	03:33:44	03:36:30	04:14:24	04:19:12	05:03:59			
10/16/2023 M	23:38:19	00:20:01	01:24:12	02:51:31	03:29:48	03:32:34	04:10:28	04:15:16	05:00:03			
10/17/2023 Tu	23:38:07	00:16:05	01:20:16	02:47:35	03:25:53	03:28:38	04:06:32	04:11:20	04:56:08			
10/18/2023 W	23:37:55	00:12:09	01:16:20	02:43:39	03:21:57	03:24:42	04:02:36	04:07:24	04:52:12	05:05:32		
10/19/2023 Th	23:37:44	00:08:13	01:12:24	02:39:44	03:18:01	03:20:46	03:58:40	04:03:29	04:48:16	05:01:36		
10/20/2023 F	23:37:34	00:04:18	01:08:28	02:35:48	03:14:05	03:16:50	03:54:45	03:59:33	04:44:20	04:57:40		
10/21/2023 Sa	23:37:25	00:00:22	01:04:33	02:31:52	03:10:09	03:12:54	03:50:49	03:55:37	04:40:24	04:53:44		
10/21/2023 Sa		23:56:26										
10/22/2023 Su	23:37:16	23:52:30	01:00:37	02:27:56	03:06:13	03:08:59	03:46:53	03:51:41	04:36:28	04:49:48		
10/23/2023 M	23:37:07	23:48:34	00:56:41	02:24:00	03:02:17	03:05:03	03:42:57	03:47:45	04:32:32	04:45:52		
10/24/2023 Tu	23:37:00	23:44:38	00:52:45	02:20:04	02:58:21	03:01:07	03:39:01	03:43:49	04:28:36	04:41:57		
10/25/2023 W	23:36:53	23:40:42	00:48:49	02:16:08	02:54:25	02:57:11	03:35:05	03:39:53	04:24:41	04:38:01		
10/26/2023 Th	23:36:47	23:36:46	00:44:53	02:12:12	02:50:30	02:53:15	03:31:09	03:35:58	04:20:45	04:34:05	05:14:57	
10/27/2023 F	23:36:41	23:32:50	00:40:57	02:08:16	02:46:34	02:49:19	03:27:13	03:32:02	04:16:49	04:30:09	05:11:01	05:17:13
10/28/2023 Sa	23:36:37	23:28:54	00:37:01	02:04:21	02:42:38	02:45:23	03:23:18	03:28:06	04:12:53	04:26:13	05:07:05	05:13:18
10/29/2023 Su	23:36:33	23:24:59	00:33:05	02:00:25	02:38:42	02:41:28	03:19:22	03:24:10	04:08:57	04:22:17	05:03:09	05:09:22
10/30/2023 M	23:36:29	23:21:03	00:29:10	01:56:29	02:34:46	02:37:32	03:15:26	03:20:14	04:05:01	04:18:21	04:59:14	05:05:26
10/31/2023 Tu	23:36:27	23:17:07	00:25:14	01:52:33	02:30:50	02:33:36	03:11:30	03:16:18	04:01:05	04:14:25	04:55:18	05:01:30
11/01/2023 W	23:36:25	23:13:11	00:21:18	01:48:37	02:26:54	02:29:40	03:07:34	03:12:22	03:57:09	04:10:30	04:51:22	04:57:34
11/02/2023 Th	23:36:25	23:09:15	00:17:22	01:44:41	02:22:58	02:25:44	03:03:38	03:08:26	03:53:13	04:06:34	04:47:26	04:53:38
11/03/2023 F	23:36:25	23:05:19	00:13:26	01:40:45	02:19:02	02:21:48	02:59:42	03:04:31	03:49:18	04:02:38	04:43:30	04:49:42
11/04/2023 Sa	23:36:26	23:01:23	00:09:30	01:36:49	02:15:07	02:17:52	02:55:46	03:00:35	03:45:22	03:58:42	04:39:34	04:45:46

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
11/05/2023 Su	23:36:28	22:57:27	00:05:34	01:32:53	02:11:11	02:13:56	02:51:50	02:56:39	03:41:26	03:54:46	04:35:38	04:41:50
11/06/2023 M	23:36:30	22:53:31	00:01:38	01:28:57	02:07:15	02:10:01	02:47:55	02:52:43	03:37:30	03:50:50	04:31:42	04:37:55
11/06/2023 M			23:57:42									
11/07/2023 Tu	23:36:34	22:49:35	23:53:46	01:25:02	02:03:19	02:06:05	02:43:59	02:48:47	03:33:34	03:46:54	04:27:47	04:33:59
11/08/2023 W	23:36:38	22:45:40	23:49:51	01:21:06	01:59:23	02:02:09	02:40:03	02:44:51	03:29:38	03:42:58	04:23:51	04:30:03
11/09/2023 Th	23:36:43	22:41:44	23:45:55	01:17:10	01:55:27	01:58:13	02:36:07	02:40:55	03:25:42	03:39:03	04:19:55	04:26:07
11/10/2023 F	23:36:49	22:37:48	23:41:59	01:13:14	01:51:31	01:54:17	02:32:11	02:36:59	03:21:46	03:35:07	04:15:59	04:22:11
11/11/2023 Sa	23:36:56	22:33:52	23:38:03	01:09:18	01:47:35	01:50:21	02:28:15	02:33:04	03:17:50	03:31:11	04:12:03	04:18:15
11/12/2023 Su	23:37:04	22:29:56	23:34:07	01:05:22	01:43:40	01:46:25	02:24:19	02:29:08	03:13:55	03:27:15	04:08:07	04:14:19
11/13/2023 M	23:37:13	22:26:00	23:30:11	01:01:26	01:39:44	01:42:29	02:20:23	02:25:12	03:09:59	03:23:19	04:04:11	04:10:24
11/14/2023 Tu	23:37:22	22:22:04	23:26:15	00:57:30	01:35:48	01:38:34	02:16:27	02:21:16	03:06:03	03:19:23	04:00:15	04:06:28
11/15/2023 W	23:37:32	22:18:08	23:22:19	00:53:35	01:31:52	01:34:38	02:12:32	02:17:20	03:02:07	03:15:27	03:56:20	04:02:32
11/16/2023 Th	23:37:43	22:14:12	23:18:23	00:49:39	01:27:56	01:30:42	02:08:36	02:13:24	02:58:11	03:11:31	03:52:24	03:58:36
11/17/2023 F	23:37:55	22:10:16	23:14:27	00:45:43	01:24:00	01:26:46	02:04:40	02:09:28	02:54:15	03:07:35	03:48:28	03:54:40
11/18/2023 Sa	23:38:08	22:06:20	23:10:32	00:41:47	01:20:04	01:22:50	02:00:44	02:05:32	02:50:19	03:03:40	03:44:32	03:50:44
11/19/2023 Su	23:38:22	22:02:25	23:06:36	00:37:51	01:16:08	01:18:54	01:56:48	02:01:37	02:46:23	02:59:44	03:40:36	03:46:48
11/20/2023 M	23:38:36	21:58:29	23:02:40	00:33:55	01:12:12	01:14:58	01:52:52	01:57:41	02:42:28	02:55:48	03:36:40	03:42:52
11/21/2023 Tu	23:38:51	21:54:33	22:58:44	00:29:59	01:08:17	01:11:02	01:48:56	01:53:45	02:38:32	02:51:52	03:32:44	03:38:57
11/22/2023 W	23:39:07	21:50:37	22:54:48	00:26:03	01:04:21	01:07:07	01:45:00	01:49:49	02:34:36	02:47:56	03:28:48	03:35:01
11/23/2023 Th	23:39:24	21:46:41	22:50:52	00:22:07	01:00:25	01:03:11	01:41:04	01:45:53	02:30:40	02:44:00	03:24:52	03:31:05
11/24/2023 F	23:39:42	21:42:45	22:46:56	00:18:11	00:56:29	00:59:15	01:37:09	01:41:57	02:26:44	02:40:04	03:20:56	03:27:09
11/25/2023 Sa	23:40:00	21:38:49	22:43:00	00:14:16	00:52:33	00:55:19	01:33:13	01:38:01	02:22:48	02:36:08	03:17:01	03:23:13
11/26/2023 Su	23:40:19	21:34:53	22:39:04	00:10:20	00:48:37	00:51:23	01:29:17	01:34:05	02:18:52	02:32:13	03:13:05	03:19:17
11/27/2023 M	23:40:38	21:30:57	22:35:09	00:06:24	00:44:41	00:47:27	01:25:21	01:30:09	02:14:56	02:28:17	03:09:09	03:15:21
11/28/2023 Tu	23:40:59	21:27:01	22:31:13	00:02:28	00:40:45	00:43:31	01:21:25	01:26:14	02:11:00	02:24:21	03:05:13	03:11:25
11/28/2023 Tu				23:58:32								
11/29/2023 W	23:41:20	21:23:05	22:27:17	23:54:36	00:36:49	00:39:35	01:17:29	01:22:18	02:07:05	02:20:25	03:01:17	03:07:29
11/30/2023 Th	23:41:42	21:19:10	22:23:21	23:50:40	00:32:53	00:35:39	01:13:33	01:18:22	02:03:09	02:16:29	02:57:21	03:03:34
12/01/2023 F	23:42:04	21:15:14	22:19:25	23:46:44	00:28:57	00:31:44	01:09:37	01:14:26	01:59:13	02:12:33	02:53:25	02:59:38
12/02/2023 Sa	23:42:27	21:11:18	22:15:29	23:42:48	00:25:02	00:27:48	01:05:41	01:10:30	01:55:17	02:08:37	02:49:30	02:55:42
12/03/2023 Su	23:42:51	21:07:22	22:11:33	23:38:52	00:21:06	00:23:52	01:01:46	01:06:34	01:51:21	02:04:41	02:45:34	02:51:46
12/04/2023 M	23:43:15	21:03:26	22:07:37	23:34:57	00:17:10	00:19:56	00:57:50	01:02:38	01:47:25	02:00:45	02:41:38	02:47:50
12/05/2023 Tu	23:43:40	20:59:30	22:03:41	23:31:01	00:13:14	00:16:00	00:53:54	00:58:43	01:43:29	01:56:50	02:37:42	02:43:54
12/06/2023 W	23:44:05	20:55:34	21:59:45	23:27:05	00:09:18	00:12:04	00:49:58	00:54:47	01:39:33	01:52:54	02:33:46	02:39:58
12/07/2023 Th	23:44:31	20:51:38	21:55:49	23:23:09	00:05:22	00:08:08	00:46:02	00:50:51	01:35:37	01:48:58	02:29:50	02:36:02
12/08/2023 F	23:44:58	20:47:42	21:51:53	23:19:13	00:01:26	00:04:12	00:42:06	00:46:55	01:31:42	01:45:02	02:25:54	02:32:07
12/08/2023 F					23:57:30							

Transit times (MST) for selected stars as observed at Journey Museum but only when sun 12+ degrees below the horizon. Subtract or add the offset to obtain rising o

R.A.=	2h 05m	3h 10m	4h 37m	5h 16m	5h 18m	5h 56m	6h 01m	6h 46m	7h 00m	7h 40m	7h 47m	
Decl.=	42d 26m	41d 02m	16d 33m	-8d 11m	46d 01m	7d 25m	44d 57m	-16d 45m	-29d 00m	5d 10m	27d 58m	
Offset=	10h 08m	9h 49m	7h 07m	5h 28m		6h 29m	11h 01m	4h 52m	3h 50m	6h 20m	8h 04m	
Date	Midnight	Almach	Algol	Aldebaran	Rigel	Capella	Betelgeuse	Menkalinan	Sirius	Adhara	Procyon	Pollux
12/09/2023 Sa	23:45:25	20:43:46	21:47:57	23:15:17	23:53:34	00:00:16	00:38:10	00:42:59	01:27:46	01:41:06	02:21:58	02:28:11
12/09/2023 Sa						23:56:20						
12/10/2023 Su	23:45:52	20:39:50	21:44:02	23:11:21	23:49:38	23:52:25	00:34:14	00:39:03	01:23:50	01:37:10	02:18:02	02:24:15
12/11/2023 M	23:46:20	20:35:55	21:40:06	23:07:25	23:45:43	23:48:29	00:30:18	00:35:07	01:19:54	01:33:14	02:14:06	02:20:19
12/12/2023 Tu	23:46:48	20:31:59	21:36:10	23:03:29	23:41:47	23:44:33	00:26:22	00:31:11	01:15:58	01:29:18	02:10:11	02:16:23
12/13/2023 W	23:47:16	20:28:03	21:32:14	22:59:33	23:37:51	23:40:37	00:22:27	00:27:15	01:12:02	01:25:22	02:06:15	02:12:27
12/14/2023 Th	23:47:45	20:24:07	21:28:18	22:55:38	23:33:55	23:36:41	00:18:31	00:23:19	01:08:06	01:21:26	02:02:19	02:08:31
12/15/2023 F	23:48:14	20:20:11	21:24:22	22:51:42	23:29:59	23:32:45	00:14:35	00:19:24	01:04:10	01:17:31	01:58:23	02:04:35
12/16/2023 Sa	23:48:43	20:16:15	21:20:26	22:47:46	23:26:03	23:28:49	00:10:39	00:15:28	01:00:14	01:13:35	01:54:27	02:00:39
12/17/2023 Su	23:49:13	20:12:19	21:16:30	22:43:50	23:22:07	23:24:53	00:06:43	00:11:32	00:56:18	01:09:39	01:50:31	01:56:44
12/18/2023 M	23:49:42	20:08:23	21:12:34	22:39:54	23:18:11	23:20:57	00:02:47	00:07:36	00:52:23	01:05:43	01:46:35	01:52:48
12/18/2023 M							23:58:51					
12/19/2023 Tu	23:50:12	20:04:27	21:08:38	22:35:58	23:14:15	23:17:01	23:54:55	00:03:40	00:48:27	01:01:47	01:42:39	01:48:52
12/19/2023 Tu								23:59:44				
12/20/2023 W	23:50:42	20:00:31	21:04:42	22:32:02	23:10:19	23:13:06	23:50:59	23:55:48	00:44:31	00:57:51	01:38:44	01:44:56
12/21/2023 Th	23:51:11	19:56:35	21:00:47	22:28:06	23:06:24	23:09:10	23:47:04	23:51:52	00:40:35	00:53:55	01:34:48	01:41:00
12/22/2023 F	23:51:41	19:52:39	20:56:51	22:24:10	23:02:28	23:05:14	23:43:08	23:47:56	00:36:39	00:49:59	01:30:52	01:37:04
12/23/2023 Sa	23:52:11	19:48:43	20:52:55	22:20:14	22:58:32	23:01:18	23:39:12	23:44:00	00:32:43	00:46:03	01:26:56	01:33:08
12/24/2023 Su	23:52:41	19:44:48	20:48:59	22:16:18	22:54:36	22:57:22	23:35:16	23:40:05	00:28:47	00:42:07	01:23:00	01:29:12
12/25/2023 M	23:53:10	19:40:52	20:45:03	22:12:23	22:50:40	22:53:26	23:31:20	23:36:09	00:24:51	00:38:12	01:19:04	01:25:16
12/26/2023 Tu	23:53:40	19:36:56	20:41:07	22:08:27	22:46:44	22:49:30	23:27:24	23:32:13	00:20:55	00:34:16	01:15:08	01:21:21
12/27/2023 W	23:54:09	19:33:00	20:37:11	22:04:31	22:42:48	22:45:34	23:23:28	23:28:17	00:17:00	00:30:20	01:11:12	01:17:25
12/28/2023 Th	23:54:39	19:29:04	20:33:15	22:00:35	22:38:52	22:41:38	23:19:32	23:24:21	00:13:04	00:26:24	01:07:16	01:13:29
12/29/2023 F	23:55:08	19:25:08	20:29:19	21:56:39	22:34:56	22:37:42	23:15:36	23:20:25	00:09:08	00:22:28	01:03:21	01:09:33
12/30/2023 Sa	23:55:37	19:21:12	20:25:23	21:52:43	22:31:00	22:33:47	23:11:40	23:16:29	00:05:12	00:18:32	00:59:25	01:05:37
12/31/2023 Su	23:56:05								00:01:16	00:14:36	00:55:29	01:01:41

Program starview3.py ver 191006b + glib version 200422a delta-T data dated 05/01/2020

Transit times (MST) for selected μ setting time.

R.A.=		10h 10m	13h 26m	14h 17m	16h 31m	18h 38m	19h 52m	20h 23m	20h 42m	22h 59m
Decl.=		11d 52m	-11d 16m	19d 04m	-26d 29m	38d 48m	8d 56m	40d 20m	45d 22m	-29d 31m
Offset=		6h 47m	5h 16m	7h 19m	4h 05m	9h 24m	6h 35m	9h 40m	11h 12m	3h 46m
Date	Midnight	Regulus	Spica	Arcturus	Antares	Vega	Altair	Sadr	Deneb	Fomalhaut
12/09/2023 Sa	23:45:25	04:50:39								17:37:51
12/09/2023 Sa										
12/10/2023 Su	23:45:52	04:46:43								17:33:55
12/11/2023 M	23:46:20	04:42:47								17:30:00
12/12/2023 Tu	23:46:48	04:38:51								17:26:04
12/13/2023 W	23:47:16	04:34:55								
12/14/2023 Th	23:47:45	04:30:59								
12/15/2023 F	23:48:14	04:27:03								
12/16/2023 Sa	23:48:43	04:23:07								
12/17/2023 Su	23:49:13	04:19:11								
12/18/2023 M	23:49:42	04:15:16								
12/18/2023 M										
12/19/2023 Tu	23:50:12	04:11:20								
12/19/2023 Tu										
12/20/2023 W	23:50:42	04:07:24								
12/21/2023 Th	23:51:11	04:03:28								
12/22/2023 F	23:51:41	03:59:32								
12/23/2023 Sa	23:52:11	03:55:36								
12/24/2023 Su	23:52:41	03:51:40								
12/25/2023 M	23:53:10	03:47:44								
12/26/2023 Tu	23:53:40	03:43:49								
12/27/2023 W	23:54:09	03:39:53								
12/28/2023 Th	23:54:39	03:35:57								
12/29/2023 F	23:55:08	03:32:01								
12/30/2023 Sa	23:55:37	03:28:05								
12/31/2023 Su	23:56:05	03:24:09								

Program starview3.py ver 191006