

Astronomical Applications Department  
 U. S. Naval Observatory  
 Washington, DC 20392-5420

Mars

BIG BEAR, CALIFORNIA  
 Location: W116°52'48.0", N34°14'24.0", 2060m  
 (Longitude referred to Greenwich meridian)

Time Zone: 7h 00m west of Greenwich

Date (Zone)	Rise Az.		Transit Alt.		Set Az.	
	h	m °	h	m °	h	m °
2018 May 01 (Tue)	00:57	117	05:53	33S	10:50	243
2018 May 02 (Wed)	00:54	117	05:51	33S	10:48	243
2018 May 03 (Thu)	00:52	117	05:49	33S	10:46	243
2018 May 04 (Fri)	00:50	117	05:47	33S	10:44	243
2018 May 05 (Sat)	00:48	117	05:45	33S	10:42	243
2018 May 06 (Sun)	00:46	117	05:43	33S	10:41	243
2018 May 07 (Mon)	00:44	117	05:41	33S	10:39	243
2018 May 08 (Tue)	00:42	117	05:39	33S	10:37	243
2018 May 09 (Wed)	00:39	117	05:37	33S	10:35	243
2018 May 10 (Thu)	00:37	117	05:35	33S	10:33	243
2018 May 11 (Fri)	00:35	117	05:33	34S	10:31	243
2018 May 12 (Sat)	00:33	117	05:31	34S	10:29	243
2018 May 13 (Sun)	00:30	117	05:29	34S	10:27	243
2018 May 14 (Mon)	00:28	117	05:26	34S	10:25	243
2018 May 15 (Tue)	00:26	117	05:24	34S	10:23	243
2018 May 16 (Wed)	00:23	117	05:22	34S	10:20	243
2018 May 17 (Thu)	00:21	117	05:20	34S	10:18	243
2018 May 18 (Fri)	00:19	117	05:17	34S	10:16	243
2018 May 19 (Sat)	00:16	117	05:15	34S	10:14	244
2018 May 20 (Sun)	00:14	116	05:13	34S	10:12	244
2018 May 21 (Mon)	00:11	116	05:10	34S	10:09	244
2018 May 22 (Tue)	00:09	116	05:08	34S	10:07	244
2018 May 23 (Wed)	00:06	116	05:06	34S	10:05	244
2018 May 24 (Thu)	00:04	116	05:03	34S	10:02	244
2018 May 25 (Fri)	00:01	116	05:01	34S	10:00	244
	23:59	116				
2018 May 26 (Sat)	23:56	116	04:58	34S	09:57	244
2018 May 27 (Sun)	23:54	116	04:56	34S	09:55	244
2018 May 28 (Mon)	23:51	116	04:53	34S	09:52	244
2018 May 29 (Tue)	23:48	116	04:50	34S	09:50	244
2018 May 30 (Wed)	23:46	116	04:48	34S	09:47	244
2018 May 31 (Thu)	23:43	116	04:45	34S	09:45	244
2018 Jun 01 (Fri)	23:40	116	04:42	34S	09:42	244
2018 Jun 02 (Sat)	23:37	116	04:40	34S	09:39	244
2018 Jun 03 (Sun)	23:34	116	04:37	34S	09:36	244
2018 Jun 04 (Mon)	23:32	116	04:34	34S	09:34	244
2018 Jun 05 (Tue)	23:29	116	04:31	34S	09:31	244
2018 Jun 06 (Wed)	23:26	116	04:28	34S	09:28	244
2018 Jun 07 (Thu)	23:23	116	04:25	34S	09:25	244
2018 Jun 08 (Fri)	23:20	116	04:22	34S	09:22	244
2018 Jun 09 (Sat)	23:17	116	04:19	34S	09:19	244

2018 Jun 10 (Sun)	23:14 116	04:16 34S	09:16 244
2018 Jun 11 (Mon)	23:11 116	04:13 34S	09:13 244
2018 Jun 12 (Tue)	23:08 116	04:10 34S	09:09 244
2018 Jun 13 (Wed)	23:05 116	04:07 34S	09:06 244
2018 Jun 14 (Thu)	23:02 116	04:04 34S	09:03 244
2018 Jun 15 (Fri)	22:58 116	04:01 34S	08:59 244
2018 Jun 16 (Sat)	22:55 116	03:57 34S	08:56 244
2018 Jun 17 (Sun)	22:52 116	03:54 34S	08:53 244
2018 Jun 18 (Mon)	22:49 117	03:50 34S	08:49 243
2018 Jun 19 (Tue)	22:45 117	03:47 34S	08:45 243
2018 Jun 20 (Wed)	22:42 117	03:44 34S	08:42 243
2018 Jun 21 (Thu)	22:38 117	03:40 34S	08:38 243
2018 Jun 22 (Fri)	22:35 117	03:36 34S	08:34 243
2018 Jun 23 (Sat)	22:32 117	03:33 34S	08:30 243
2018 Jun 24 (Sun)	22:28 117	03:29 33S	08:26 243
2018 Jun 25 (Mon)	22:24 117	03:25 33S	08:22 243
2018 Jun 26 (Tue)	22:21 117	03:21 33S	08:18 243
2018 Jun 27 (Wed)	22:17 117	03:18 33S	08:14 243
2018 Jun 28 (Thu)	22:14 117	03:14 33S	08:10 243
2018 Jun 29 (Fri)	22:10 117	03:10 33S	08:06 243
2018 Jun 30 (Sat)	22:06 118	03:06 33S	08:02 243
2018 Jul 01 (Sun)	22:02 118	03:02 33S	07:57 242
2018 Jul 02 (Mon)	21:58 118	02:58 33S	07:53 242
2018 Jul 03 (Tue)	21:54 118	02:53 33S	07:48 242
2018 Jul 04 (Wed)	21:51 118	02:49 33S	07:44 242
2018 Jul 05 (Thu)	21:47 118	02:45 33S	07:39 242
2018 Jul 06 (Fri)	21:43 118	02:41 32S	07:35 242
2018 Jul 07 (Sat)	21:38 118	02:36 32S	07:30 242
2018 Jul 08 (Sun)	21:34 119	02:32 32S	07:25 242
2018 Jul 09 (Mon)	21:30 119	02:27 32S	07:20 241
2018 Jul 10 (Tue)	21:26 119	02:23 32S	07:15 241
2018 Jul 11 (Wed)	21:22 119	02:18 32S	07:10 241
2018 Jul 12 (Thu)	21:17 119	02:14 32S	07:05 241
2018 Jul 13 (Fri)	21:13 119	02:09 32S	07:00 241
2018 Jul 14 (Sat)	21:09 119	02:04 32S	06:55 241
2018 Jul 15 (Sun)	21:04 119	02:00 32S	06:50 241
2018 Jul 16 (Mon)	21:00 120	01:55 31S	06:45 240
2018 Jul 17 (Tue)	20:55 120	01:50 31S	06:40 240
2018 Jul 18 (Wed)	20:51 120	01:45 31S	06:35 240
2018 Jul 19 (Thu)	20:46 120	01:40 31S	06:29 240
2018 Jul 20 (Fri)	20:42 120	01:35 31S	06:24 240
2018 Jul 21 (Sat)	20:37 120	01:30 31S	06:19 240
2018 Jul 22 (Sun)	20:33 120	01:25 31S	06:13 240
2018 Jul 23 (Mon)	20:28 121	01:20 31S	06:08 240
2018 Jul 24 (Tue)	20:23 121	01:15 31S	06:03 239
2018 Jul 25 (Wed)	20:19 121	01:10 30S	05:57 239
2018 Jul 26 (Thu)	20:14 121	01:05 30S	05:52 239
2018 Jul 27 (Fri)	20:09 121	01:00 30S	05:47 239
2018 Jul 28 (Sat)	20:04 121	00:55 30S	05:41 239
2018 Jul 29 (Sun)	20:00 121	00:50 30S	05:36 239
2018 Jul 30 (Mon)	19:55 121	00:45 30S	05:30 239
2018 Jul 31 (Tue)	19:50 121	00:40 30S	05:25 239
2018 Aug 01 (Wed)	19:45 122	00:35 30S	05:20 239
2018 Aug 02 (Thu)	19:40 122	00:30 30S	05:14 238
2018 Aug 03 (Fri)	19:36 122	00:25 30S	05:09 238
2018 Aug 04 (Sat)	19:31 122	00:20 30S	05:04 238
2018 Aug 05 (Sun)	19:26 122	00:15 30S	04:59 238

2018 Aug 06 (Mon)	19:21 122	00:10 30S	04:54 238
2018 Aug 07 (Tue)	19:16 122	00:05 29S	04:48 238
		24:00 29S	
2018 Aug 08 (Wed)	19:11 122	23:55 29S	04:43 238
2018 Aug 09 (Thu)	19:07 122	23:50 29S	04:38 238
2018 Aug 10 (Fri)	19:02 122	23:45 29S	04:33 238
2018 Aug 11 (Sat)	18:57 122	23:40 29S	04:28 238
2018 Aug 12 (Sun)	18:53 122	23:36 29S	04:23 238
2018 Aug 13 (Mon)	18:48 122	23:31 29S	04:19 238
2018 Aug 14 (Tue)	18:43 122	23:26 29S	04:14 238
2018 Aug 15 (Wed)	18:39 122	23:22 29S	04:09 238
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2018 Aug 17 (Fri)	18:29 122	23:12 29S	04:00 238
2018 Aug 18 (Sat)	18:25 122	23:08 29S	03:56 238
2018 Aug 19 (Sun)	18:20 122	23:04 29S	03:51 238
2018 Aug 20 (Mon)	18:16 122	22:59 29S	03:47 238
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2018 Aug 26 (Sun)	17:50 122	22:34 30S	03:22 238
2018 Aug 27 (Mon)	17:46 122	22:30 30S	03:18 238
2018 Aug 28 (Tue)	17:42 122	22:26 30S	03:14 238