

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 01/01/2016 | F | 6:01mt | 5:22t | | 4:28r | 1:35r | 4:48t | 5:12r |
| 01/01/2016 | F | 7:28r | 11:27s | 8:41r | 9:15t | 7:00t | 11:05s | 9:50t |
| 01/01/2016 | F | 11:57t | | 13:18t | 14:02s | 12:25s | | 14:28s |
| 01/01/2016 | F | 16:25s | | | | | | |
| 01/01/2016 | F | 17:52et | 22:30LQ | 17:56s | | | 22:27r | |
| 01/02/2016 | Sat | 6:01mt | 0:08r | | 4:30r | 1:34r | 4:44t | 5:08r |
| 01/02/2016 | Sat | 7:28r | 6:05t | 8:38r | 9:16t | 6:58t | 11:01s | 9:46t |
| 01/02/2016 | Sat | 11:57t | 11:54s | 13:16t | 14:02s | 12:22s | | 14:24s |
| 01/02/2016 | Sat | 16:26s | | | | | | |
| 01/02/2016 | Sat | 17:53et | | 17:55s | | | 22:23r | |
| 01/03/2016 | Sun | 6:01mt | 1:06r | | 4:33r | 1:33r | 4:40t | 5:05r |
| 01/03/2016 | Sun | 7:28r | 6:47t | 8:34r | 9:17t | 6:56t | 10:57s | 9:43t |
| 01/03/2016 | Sun | 11:58t | 12:23s | 13:14t | 14:01s | 12:19s | | 14:21s |
| 01/03/2016 | Sun | 16:27s | | | | | | |
| 01/03/2016 | Sun | 17:54et | | 17:54s | | | 22:19r | |
| 01/04/2016 | M | 6:01mt | 2:04r | | 4:35r | 1:32r | 4:36t | 5:01r |
| 01/04/2016 | M | 7:28r | 7:31t | 8:29r | 9:18t | 6:55t | 10:53s | 9:39t |
| 01/04/2016 | M | 11:58t | 12:53s | 13:10t | 14:01s | 12:17s | | 14:17s |
| 01/04/2016 | M | 16:28s | | 17:52s | | | | |
| 01/04/2016 | M | 17:55et | | | | | 22:15r | |
| 01/05/2016 | Tu | 6:02mt | 3:02r | | 4:37r | 1:31r | 4:32t | 4:58r |
| 01/05/2016 | Tu | 7:28r | 8:17t | 8:24r | 9:20t | 6:53t | 10:49s | 9:36t |
| 01/05/2016 | Tu | 11:58t | 13:28s | 13:06t | 14:02s | 12:14s | | 14:13s |
| 01/05/2016 | Tu | 16:29s | | 17:49s | | | | |
| 01/05/2016 | Tu | 17:56et | | | | | 22:11r | |
| 01/06/2016 | W | 6:02mt | 4:00r | | 4:39r | 1:30r | 4:28t | 4:55r |
| 01/06/2016 | W | 7:28r | 9:05t | 8:18r | 9:21t | 6:51t | 10:46s | 9:32t |
| 01/06/2016 | W | 11:59t | 14:07s | 13:01t | 14:02s | 12:12s | | 14:10s |
| 01/06/2016 | W | 16:30s | | 17:46s | | | | |
| 01/06/2016 | W | 17:57et | | | | | 22:07r | |
| 01/07/2016 | Th | 6:01mt | 4:58r | | 4:41r | 1:29r | 4:24t | 4:51r |
| 01/07/2016 | Th | 7:28r | 9:56t | 8:11r | 9:22t | 6:49t | 10:42s | 9:29t |
| 01/07/2016 | Th | 11:59t | 14:52s | 12:56t | 14:02s | 12:09s | | 14:06s |
| 01/07/2016 | Th | 16:31s | | 17:41s | | | | |
| 01/07/2016 | Th | 17:58et | | | | | 22:03r | |
| 01/08/2016 | F | 6:01mt | 5:54r | | 4:44r | 1:28r | 4:21t | 4:48r |
| 01/08/2016 | F | 7:28r | 10:49t | 8:04r | 9:23t | 6:47t | 10:38s | 9:25t |
| 01/08/2016 | F | 12:00t | 15:43s | 12:49t | 14:02s | 12:06s | | 14:03s |
| 01/08/2016 | F | 16:32s | | 17:35s | | | | |
| 01/08/2016 | F | 17:58et | | | | | 21:59r | |
| 01/09/2016 | Sat | 6:01mt | | | 4:46r | 1:26r | 4:17t | 4:44r |
| 01/09/2016 | Sat | 7:27r | 6:46r | 7:56r | 9:24t | 6:45t | 10:34s | 9:22t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 01/09/2016 | Sat | 12:00t | 11:43t | 12:42t | 14:02s | 12:04s | 13:59s |
| 01/09/2016 | Sat | 16:33s | 16:41s | 17:28s | | | |
| 01/09/2016 | Sat | 17:59et | 18:31NM | | | 21:55r | |
| 01/10/2016 | Sun | 6:01mt | | 4:48r | 1:25r | 4:13t | 4:41r |
| 01/10/2016 | Sun | 7:27r | 7:35r | 7:48r | 9:25t | 6:43t | 10:30s |
| 01/10/2016 | Sun | 12:01t | 12:37t | 12:34t | 14:03s | 12:01s | 13:56s |
| 01/10/2016 | Sun | 16:34s | 17:44s | 17:21s | | | |
| 01/10/2016 | Sun | 18:00et | | | | 21:51r | |
| 01/11/2016 | M | 6:01mt | | 4:50r | 1:24r | 4:09t | 4:37r |
| 01/11/2016 | M | 7:27r | 8:18r | 7:39r | 9:27t | 6:42t | 10:26s |
| 01/11/2016 | M | 12:01t | 13:32t | 12:26t | 14:03s | 11:59s | 13:52s |
| 01/11/2016 | M | 16:35s | | 17:12s | | | |
| 01/11/2016 | M | 18:01et | 18:52s | | | 21:47r | |
| 01/12/2016 | Tu | 6:01mt | | 4:52r | 1:23r | 4:05t | 4:34r |
| 01/12/2016 | Tu | 7:27r | 8:57r | 7:30r | 9:28t | 6:40t | 10:22s |
| 01/12/2016 | Tu | 12:01t | 14:26t | 12:17t | 14:04s | 11:56s | 13:49s |
| 01/12/2016 | Tu | 16:37s | | 17:03s | | | |
| 01/12/2016 | Tu | 18:02et | 20:01s | | | 21:43r | |
| 01/13/2016 | W | 6:00mt | | 4:54r | 1:22r | 4:01t | 4:31r |
| 01/13/2016 | W | 7:26r | 9:34r | 7:21r | 9:29t | 6:38t | 10:18s |
| 01/13/2016 | W | 12:02t | 15:18t | 12:07t | 14:04s | 11:53s | 13:45s |
| 01/13/2016 | W | 16:38s | | 16:54s | | | |
| 01/13/2016 | W | 18:03et | 21:12s | | | 21:39r | |
| 01/14/2016 | Th | 6:00mt | | 4:56r | 1:21r | 3:57t | 4:27r |
| 01/14/2016 | Th | 7:26r | 10:08r | 7:11r | 9:30t | 6:36t | 10:14s |
| 01/14/2016 | Th | 12:02t | 16:11t | 11:58t | 14:05s | 11:51s | 13:41s |
| 01/14/2016 | Th | 16:39s | | 16:44s | | | |
| 01/14/2016 | Th | 18:04et | 22:22s | | | 21:35r | |
| 01/15/2016 | F | 6:00mt | | 4:58r | 1:20r | 3:53t | 4:24r |
| 01/15/2016 | F | 7:25r | 10:41r | 7:02r | 9:32t | 6:34t | 10:10s |
| 01/15/2016 | F | 12:03t | | 11:48t | 14:05s | 11:48s | 13:38s |
| 01/15/2016 | F | 16:40s | 17:02t | 16:35s | | | |
| 01/15/2016 | F | 18:06et | 23:33s | | | 21:31r | |
| 01/16/2016 | Sat | 6:00mt | | 5:00r | 1:18r | 3:49t | 4:20r |
| 01/16/2016 | Sat | 7:25r | 11:15r | 6:53r | 9:33t | 6:32t | 10:06s |
| 01/16/2016 | Sat | 12:03t | | 11:39t | 14:06s | 11:46s | 13:34s |
| 01/16/2016 | Sat | 16:41s | 16:26FQ | 16:25s | | | |
| 01/16/2016 | Sat | 18:07et | 17:54t | | | 21:27r | |
| 01/17/2016 | Sun | 5:59mt | 0:43s | | 5:02r | 1:17r | 3:45t |
| 01/17/2016 | Sun | 7:24r | | 6:44r | 9:34t | 6:30t | 10:02s |
| 01/17/2016 | Sun | 12:03t | 11:51r | 11:30t | 14:07s | 11:43s | 13:31s |
| 01/17/2016 | Sun | 16:43s | | 16:16s | | | |

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| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 01/17/2016 Sun | 18:08et | 18:47t | | | | 21:23r | |
| 01/18/2016 M | 5:59mt | 1:52s | | 5:04r | 1:16r | 3:41t | 4:13r |
| 01/18/2016 M | 7:23r | | 6:36r | 9:36t | 6:28t | 9:58s | 8:50t |
| 01/18/2016 M | 12:04t | 12:30r | 11:22t | 14:08s | 11:40s | | 13:27s |
| 01/18/2016 M | 16:44s | | 16:07s | | | | |
| 01/18/2016 M | 18:09et | 19:41t | | | | 21:19r | |
| 01/19/2016 Tu | 5:58mt | 3:00s | | 5:06r | 1:15r | 3:37t | 4:10r |
| 01/19/2016 Tu | 7:23r | | 6:29r | 9:37t | 6:27t | 9:54s | 8:47t |
| 01/19/2016 Tu | 12:04t | 13:14r | 11:14t | 14:08s | 11:38s | | 13:24s |
| 01/19/2016 Tu | 16:45s | | 15:58s | | | | |
| 01/19/2016 Tu | 18:10et | 20:36t | | | | 21:15r | |
| 01/20/2016 W | 5:58mt | 4:04s | 6:22r | 5:07r | 1:14r | 3:33t | 4:06r |
| 01/20/2016 W | 7:22r | | 11:06t | 9:38t | 6:25t | 9:50s | 8:43t |
| 01/20/2016 W | 12:04t | 14:03r | 15:50s | 14:09s | 11:35s | | 13:20s |
| 01/20/2016 W | 16:47s | | | | | | |
| 01/20/2016 W | 18:11et | 21:32t | | | | 21:11r | |
| 01/21/2016 Th | 5:57mt | 5:03s | 6:16r | 5:09r | 1:13r | 3:28t | 4:03r |
| 01/21/2016 Th | 7:21r | | 10:59t | 9:40t | 6:23t | 9:46s | 8:40t |
| 01/21/2016 Th | 12:04t | 14:56r | 15:43s | 14:10s | 11:33s | | 13:16s |
| 01/21/2016 Th | 16:48s | | | | | | |
| 01/21/2016 Th | 18:12et | 22:27t | | | | 21:07r | |
| 01/22/2016 F | 5:57mt | 5:56s | 6:10r | 5:11r | 1:11r | 3:24t | 3:59r |
| 01/22/2016 F | 7:21r | | 10:53t | 9:41t | 6:21t | 9:42s | 8:36t |
| 01/22/2016 F | 12:05t | 15:54r | 15:36s | 14:11s | 11:30s | | 13:13s |
| 01/22/2016 F | 16:49s | | | | | | |
| 01/22/2016 F | 18:13et | 23:21t | | | | 21:02r | |
| 01/23/2016 Sat | 5:56mt | | 6:05r | 5:12r | 1:10r | 3:20t | 3:56r |
| 01/23/2016 Sat | 7:20r | 6:43s | 10:48t | 9:43t | 6:19t | 9:38s | 8:32t |
| 01/23/2016 Sat | 12:05t | | 15:30s | 14:13s | 11:27s | | 13:09s |
| 01/23/2016 Sat | 16:50s | 16:55r | | | | | |
| 01/23/2016 Sat | 18:14et | 18:46FM | | | | 20:58r | |
| 01/24/2016 Sun | 5:55mt | 0:12t | 6:01r | 5:14r | 1:09r | 3:16t | 3:52r |
| 01/24/2016 Sun | 7:19r | 7:24s | 10:43t | 9:44t | 6:17t | 9:34s | 8:29t |
| 01/24/2016 Sun | 12:05t | | 15:25s | 14:14s | 11:25s | | 13:06s |
| 01/24/2016 Sun | 16:52s | 17:56r | | | | | |
| 01/24/2016 Sun | 18:16et | | | | | 20:54r | |
| 01/25/2016 M | 5:55mt | 1:02t | 5:57r | 5:16r | 1:08r | 3:12t | 3:49r |
| 01/25/2016 M | 7:18r | 7:59s | 10:39t | 9:45t | 6:15t | 9:30s | 8:25t |
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| 01/25/2016 M | 16:53s | | | | | | |
| 01/25/2016 M | 18:17et | 18:58r | | | | 20:50r | |
| 01/26/2016 Tu | 5:54mt | 1:49t | 5:54r | 5:17r | 1:06r | 3:08t | 3:45r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 01/26/2016 | Tu | 7:17r | 8:31s | 10:35t | 9:47t | 6:13t | 9:26s | 8:22t |
| 01/26/2016 | Tu | 12:06t | | 15:16s | 14:16s | 11:20s | | 12:58s |
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| 01/26/2016 | Tu | 18:18et | 19:58r | | | | 20:45r | |
| 01/27/2016 | W | 5:53mt | 2:33t | 5:52r | 5:18r | 1:05r | 3:04t | 3:42r |
| 01/27/2016 | W | 7:16r | 9:01s | 10:32t | 9:48t | 6:11t | 9:22s | 8:18t |
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| 01/27/2016 | W | 16:56s | | | | | | |
| 01/27/2016 | W | 18:19et | 20:57r | | | | 20:41r | |
| 01/28/2016 | Th | 5:52mt | 3:17t | 5:50r | 5:20r | 1:04r | 3:00t | 3:38r |
| 01/28/2016 | Th | 7:15r | 9:29s | 10:29t | 9:49t | 6:09t | 9:18s | 8:15t |
| 01/28/2016 | Th | 12:06t | | 15:09s | 14:19s | 11:14s | | 12:51s |
| 01/28/2016 | Th | 16:57s | | | | | | |
| 01/28/2016 | Th | 18:20et | 21:56r | | | | 20:37r | |
| 01/29/2016 | F | 5:52mt | 3:59t | 5:48r | 5:21r | 1:02r | 2:56t | 3:35r |
| 01/29/2016 | F | 7:14r | 9:56s | 10:27t | 9:51t | 6:07t | 9:14s | 8:11t |
| 01/29/2016 | F | 12:06t | | 15:06s | 14:20s | 11:12s | | 12:48s |
| 01/29/2016 | F | 16:59s | | | | | | |
| 01/29/2016 | F | 18:22et | 22:53r | | | | 20:33r | |
| 01/30/2016 | Sat | 5:51mt | 4:42t | 5:47r | 5:22r | 1:01r | 2:51t | 3:31r |
| 01/30/2016 | Sat | 7:13r | 10:24s | 10:25t | 9:52t | 6:05t | 9:10s | 8:07t |
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| 01/30/2016 | Sat | 17:00s | | | | | | |
| 01/30/2016 | Sat | 18:23et | 23:51r | | | | 20:28r | |
| 01/31/2016 | Sun | 5:50mt | 5:25t | 5:46r | 5:24r | 1:00r | 2:47t | 3:28r |
| 01/31/2016 | Sun | 7:12r | 10:53s | 10:24t | 9:54t | 6:03t | 9:06s | 8:04t |
| 01/31/2016 | Sun | 12:07t | | 15:02s | 14:24s | 11:07s | | 12:40s |
| 01/31/2016 | Sun | 17:01s | | | | | | |
| 01/31/2016 | Sun | 18:24et | 20:28LQ | | | | 20:24r | |
| 02/01/2016 | M | 5:49mt | 0:48r | 5:45r | 5:25r | 0:58r | 2:43t | 3:24r |
| 02/01/2016 | M | 7:11r | 6:10t | 10:23t | 9:55t | 6:01t | 9:02s | 8:00t |
| 02/01/2016 | M | 12:07t | 11:26s | 15:00s | 14:25s | 11:04s | | 12:37s |
| 02/01/2016 | M | 17:03s | | | | | | |
| 02/01/2016 | M | 18:25et | | | | | 20:20r | |
| 02/02/2016 | Tu | 5:48mt | 1:46r | 5:45r | 5:26r | 0:57r | 2:39t | 3:20r |
| 02/02/2016 | Tu | 7:10r | 6:56t | 10:22t | 9:56t | 5:59t | 8:58s | 7:57t |
| 02/02/2016 | Tu | 12:07t | 12:02s | 14:59s | 14:27s | 11:01s | | 12:33s |
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| 02/03/2016 | W | 5:47mt | 2:43r | 5:44r | 5:27r | 0:56r | 2:35t | 3:17r |
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| 02/03/2016 | W | 17:06s | | | | | |
| 02/03/2016 | W | 18:28et | | | | 20:11r | |
| 02/04/2016 | Th | 5:46mt | 3:39r | 5:45r | 5:28r | 0:54r | 2:30t 3:13r |
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| 02/05/2016 | F | 5:45mt | 4:33r | 5:45r | 5:29r | 0:53r | 2:26t 3:10r |
| 02/05/2016 | F | 7:07r | 9:29t | 10:22t | 10:01t | 5:53t | 8:46s 7:46t |
| 02/05/2016 | F | 12:07t | 14:25s | 14:58s | 14:32s | 10:54s | 12:22s |
| 02/05/2016 | F | 17:08s | | | | | |
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| 02/06/2016 | Sat | 5:44mt | 5:24r | 5:45r | 5:30r | 0:51r | 2:22t 3:06r |
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| 02/08/2016 | M | 18:34et | 17:42s | | | 19:49r | |
| 02/09/2016 | Tu | 5:40mt | | | 5:32r | 0:47r | 2:09t 2:55r |
| 02/09/2016 | Tu | 7:01r | 7:31r | 5:47r | 10:06t | 5:45t | 8:29s 7:31t |
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| 02/10/2016 | W | 7:00r | 8:07r | 5:47r | 10:07t | 5:43t | 8:25s 7:28t |
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| 02/12/2016 | F | 18:39et | 22:33s | | | | 19:31r | |
| 02/13/2016 | Sat | 5:35mt | | | 5:35r | 0:41r | 1:52t | 2:41r |
| 02/13/2016 | Sat | 6:56r | 9:53r | 5:50r | 10:11t | 5:37t | 8:13s | 7:17t |
| 02/13/2016 | Sat | 12:07t | | 10:28t | 14:48s | 10:33s | | 11:53s |
| 02/13/2016 | Sat | 17:19s | 16:44t | 15:07s | | | | |
| 02/13/2016 | Sat | 18:40et | 23:43s | | | | 19:27r | |
| 02/14/2016 | Sun | 5:34mt | | | | 0:40r | 1:48t | 2:37r |
| 02/14/2016 | Sun | 6:55r | | 5:51r | 5:35r | 5:35t | 8:09s | 7:13t |
| 02/14/2016 | Sun | 12:07t | 10:32r | 10:30t | 10:13t | 10:30s | | 11:49s |
| 02/14/2016 | Sun | 17:21s | 17:38t | 15:09s | 14:50s | | | |
| 02/14/2016 | Sun | 18:41et | | | | | 19:22r | |
| 02/15/2016 | M | | 0:46FQ | | | 0:38r | | |
| 02/15/2016 | M | 5:33mt | 0:52s | 5:51r | 5:35r | 5:33t | 1:43t | 2:34r |
| 02/15/2016 | M | 6:53r | 11:14r | 10:31t | 10:14t | 10:27s | 8:04s | 7:10t |
| 02/15/2016 | M | 12:07t | | 15:12s | 14:53s | | | 11:45s |
| 02/15/2016 | M | 17:22s | 18:33t | | | | | |
| 02/15/2016 | M | 18:43et | | | | | 19:18r | |
| 02/16/2016 | Tu | | 1:57s | | | 0:36r | 1:39t | 2:30r |
| 02/16/2016 | Tu | 5:31mt | | 5:52r | 5:36r | 5:31t | | |
| 02/16/2016 | Tu | 6:52r | | 10:33t | 10:15t | 10:25s | 8:00s | 7:06t |
| 02/16/2016 | Tu | 12:07t | 12:00r | 15:14s | 14:55s | | | 11:42s |
| 02/16/2016 | Tu | 17:24s | | | | | | |
| 02/16/2016 | Tu | 18:44et | 19:27t | | | | 19:13r | |
| 02/17/2016 | W | | 2:57s | | | 0:35r | 1:35t | 2:26r |
| 02/17/2016 | W | 5:30mt | | 5:53r | 5:36r | 5:28t | | |
| 02/17/2016 | W | 6:50r | | 10:35t | 10:16t | 10:22s | 7:56s | 7:02t |
| 02/17/2016 | W | 12:07t | 12:52r | 15:17s | 14:57s | | | 11:38s |
| 02/17/2016 | W | 17:25s | | | | | | |
| 02/17/2016 | W | 18:45et | 20:22t | | | | 19:09r | |
| 02/18/2016 | Th | | 3:51s | | | 0:33r | 1:30t | 2:23r |
| 02/18/2016 | Th | 5:29mt | | 5:54r | 5:36r | 5:26t | | |
| 02/18/2016 | Th | 6:49r | | 10:36t | 10:18t | 10:19s | 7:52s | 6:58t |
| 02/18/2016 | Th | 12:07t | 13:47r | 15:19s | 14:59s | | | 11:34s |
| 02/18/2016 | Th | 17:26s | | | | | | |
| 02/18/2016 | Th | 18:46et | 21:15t | | | | 19:04r | |
| 02/19/2016 | F | | 4:39s | | | 0:31r | 1:26t | 2:19r |
| 02/19/2016 | F | 5:27mt | | 5:54r | 5:36r | 5:24t | | |
| 02/19/2016 | F | 6:47r | | 10:38t | 10:19t | 10:17s | 7:48s | 6:55t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 02/19/2016 | F | 12:07t | 14:45r | 15:22s | 15:02s | | | 11:31s |
| 02/19/2016 | F | 17:28s | | | | | | |
| 02/19/2016 | F | 18:48et | 22:06t | | | | 19:00r | |
| 02/20/2016 | Sat | | 5:21s | | | 0:30r | 1:22t | 2:15r |
| 02/20/2016 | Sat | 5:26mt | | 5:55r | 5:36r | 5:22t | | |
| 02/20/2016 | Sat | 6:46r | | 10:40t | 10:20t | 10:14s | 7:44s | 6:51t |
| 02/20/2016 | Sat | 12:07t | 15:45r | 15:25s | 15:04s | | | 11:27s |
| 02/20/2016 | Sat | 17:29s | | | | | | |
| 02/20/2016 | Sat | 18:49et | 22:55t | | | | 18:55r | |
| 02/21/2016 | Sun | | | | | 0:28r | 1:17t | 2:12r |
| 02/21/2016 | Sun | 5:24mt | 5:58s | 5:56r | 5:36r | 5:20t | | |
| 02/21/2016 | Sun | 6:44r | | 10:42t | 10:21t | 10:11s | 7:39s | 6:47t |
| 02/21/2016 | Sun | 12:07t | 16:46r | 15:29s | 15:06s | | | 11:23s |
| 02/21/2016 | Sun | 17:30s | | | | | | |
| 02/21/2016 | Sun | 18:50et | 23:43t | | | | 18:51r | |
| 02/22/2016 | M | | | | | 0:26r | 1:13t | 2:08r |
| 02/22/2016 | M | 5:23mt | 6:32s | 5:56r | 5:36r | 5:18t | | |
| 02/22/2016 | M | 6:42r | | 10:44t | 10:22t | 10:09s | 7:35s | 6:44t |
| 02/22/2016 | M | 12:07t | 11:20FM | 15:32s | 15:09s | | | 11:19s |
| 02/22/2016 | M | 17:32s | 17:46r | | | | 18:46r | |
| 02/22/2016 | M | 18:51et | | | | | | |
| 02/23/2016 | Tu | | 0:28t | | | 0:25r | 1:08t | 2:04r |
| 02/23/2016 | Tu | 5:21mt | | 5:57r | 5:36r | 5:15t | | 6:40t |
| 02/23/2016 | Tu | 6:41r | 7:02s | 10:46t | 10:23t | 10:06s | 7:31s | 11:16s |
| 02/23/2016 | Tu | 12:07t | | 15:36s | 15:11s | | | |
| 02/23/2016 | Tu | 17:33s | 18:46r | | | | 18:41r | |
| 02/23/2016 | Tu | 18:53et | | | | | | |
| 02/24/2016 | W | | 1:12t | | | 0:23r | 1:04t | 2:01r |
| 02/24/2016 | W | 5:20mt | | 5:58r | 5:36r | 5:13t | | 6:36t |
| 02/24/2016 | W | 6:39r | 7:30s | 10:48t | 10:25t | 10:03s | 7:27s | 11:12s |
| 02/24/2016 | W | 12:06t | | 15:39s | 15:14s | | | |
| 02/24/2016 | W | 17:34s | | | | | 18:37r | |
| 02/24/2016 | W | 18:54et | 19:45r | | | | | |
| 02/25/2016 | Th | | 1:55t | | | 0:21r | 1:00t | 1:57r |
| 02/25/2016 | Th | 5:18mt | | 5:58r | 5:36r | 5:11t | | 6:33t |
| 02/25/2016 | Th | 6:38r | 7:58s | 10:50t | 10:26t | 10:01s | 7:23s | 11:08s |
| 02/25/2016 | Th | 12:06t | | 15:43s | 15:16s | | | |
| 02/25/2016 | Th | 17:36s | | | | | 18:32r | |
| 02/25/2016 | Th | 18:55et | 20:43r | | | | | |
| 02/26/2016 | F | | 2:38t | | | 0:19r | 0:55t | 1:53r |
| 02/26/2016 | F | 5:17mt | | 5:59r | 5:36r | 5:09t | | 6:29t |
| 02/26/2016 | F | 6:36r | 8:26s | 10:52t | 10:27t | 9:58s | 7:19s | 11:04s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 02/26/2016 | F | 12:06t | | 15:47s | 15:19s | | |
| 02/26/2016 | F | 17:37s | | | | 18:28r | |
| 02/26/2016 | F | 18:56et | 21:40r | | | | |
| 02/27/2016 | Sat | | 3:21t | | 0:18r | 0:51t | 1:49r |
| 02/27/2016 | Sat | 5:15mt | | 5:59r | 5:35r | 5:06t | 6:25t |
| 02/27/2016 | Sat | 6:34r | 8:55s | 10:55t | 10:28t | 9:55s | 7:14s |
| 02/27/2016 | Sat | 12:06t | | 15:51s | 15:21s | | |
| 02/27/2016 | Sat | 17:38s | | | | 18:23r | |
| 02/27/2016 | Sat | 18:58et | 22:38r | | | | |
| 02/28/2016 | Sun | | 4:04t | | 0:16r | 0:47t | 1:46r |
| 02/28/2016 | Sun | 5:13mt | | 5:59r | 5:35r | 5:04t | 6:21t |
| 02/28/2016 | Sun | 6:33r | 9:25s | 10:57t | 10:29t | 9:52s | 7:10s |
| 02/28/2016 | Sun | 12:06t | | 15:55s | 15:23s | | |
| 02/28/2016 | Sun | 17:40s | | | | 18:18r | |
| 02/28/2016 | Sun | 18:59et | 23:35r | | | | |
| 02/29/2016 | M | | 4:49t | | 0:14r | 0:42t | 1:42r |
| 02/29/2016 | M | 5:12mt | | 6:00r | 5:35r | 5:02t | 6:18t |
| 02/29/2016 | M | 6:31r | 9:59s | 10:59t | 10:30t | 9:50s | 7:06s |
| 02/29/2016 | M | 12:06t | | 15:59s | 15:26s | | |
| 02/29/2016 | M | 17:41s | | | | 18:14r | |
| 02/29/2016 | M | 19:00et | | | | | |
| 03/01/2016 | Tu | | 0:31r | | 0:12r | 0:38t | 1:38r |
| 03/01/2016 | Tu | 5:10mt | 5:36t | 6:00r | 5:34r | 5:00t | 6:14t |
| 03/01/2016 | Tu | 6:29r | 10:38s | 11:01t | 10:31t | 9:47s | 7:02s |
| 03/01/2016 | Tu | 12:05t | 16:11LQ | 16:04s | 15:28s | | |
| 03/01/2016 | Tu | 17:42s | | | | 18:09r | |
| 03/01/2016 | Tu | 19:01et | | | | | |
| 03/02/2016 | W | | 1:27r | | 0:10r | 0:33t | 1:34r |
| 03/02/2016 | W | 5:08mt | 6:25t | 6:00r | 5:34r | 4:57t | 6:10t |
| 03/02/2016 | W | 6:27r | 11:21s | 11:04t | 10:32t | 9:44s | 6:58s |
| 03/02/2016 | W | 12:05t | | 16:08s | 15:31s | | |
| 03/02/2016 | W | 17:44s | | | | 18:05r | |
| 03/02/2016 | W | 19:03et | | | | | |
| 03/03/2016 | Th | | 2:20r | | 0:08r | 0:29t | 1:31r |
| 03/03/2016 | Th | 5:07mt | | 6:00r | 5:33r | 4:55t | 6:06t |
| 03/03/2016 | Th | 6:26r | 7:16t | 11:06t | 10:33t | 9:41s | 6:53s |
| 03/03/2016 | Th | 12:05t | 12:11s | 16:13s | 15:33s | | |
| 03/03/2016 | Th | 17:45s | | | | 18:00r | |
| 03/03/2016 | Th | 19:04et | | | | | |
| 03/04/2016 | F | | 3:11r | | 0:06r | 0:25t | 1:27r |
| 03/04/2016 | F | 5:05mt | | 6:01r | 5:33r | 4:52t | 6:02t |
| 03/04/2016 | F | 6:24r | 8:08t | 11:09t | 10:34t | 9:39s | 6:49s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------------|
| 03/04/2016 | F | 12:05t | 13:07s | 16:18s | 15:36s | | |
| 03/04/2016 | F | 17:46s | | | | 17:55r | |
| 03/04/2016 | F | 19:05et | | | | | |
| 03/05/2016 | Sat | | 3:59r | | 0:04r | 0:20t | 1:23r |
| 03/05/2016 | Sat | 5:03mt | | 6:01r | 5:32r | 4:50t | 5:59t |
| 03/05/2016 | Sat | 6:22r | 9:02t | 11:11t | 10:35t | 9:36s | 6:45s 10:34s |
| 03/05/2016 | Sat | 12:05t | 14:10s | 16:22s | 15:39s | | |
| 03/05/2016 | Sat | 17:47s | | | | 17:51r | |
| 03/05/2016 | Sat | 19:07et | | | | | |
| 03/06/2016 | Sun | | 4:43r | | 0:02r | 0:16t | 1:19r |
| 03/06/2016 | Sun | 5:02mt | | 6:01r | 5:32r | 4:48t | 5:55t |
| 03/06/2016 | Sun | 6:20r | 9:57t | 11:14t | 10:36t | 9:33s | 6:41s 10:30s |
| 03/06/2016 | Sun | 12:04t | 15:17s | 16:27s | 15:41s | | 17:46r |
| 03/06/2016 | Sun | 17:49s | | | | | |
| 03/06/2016 | Sun | 19:08et | | | | | |
| 03/07/2016 | M | | | | 0:00r | 0:11t | 1:15r |
| 03/07/2016 | M | 5:00mt | 5:23r | 6:01r | 5:31r | 4:45t | 5:51t |
| 03/07/2016 | M | 6:19r | 10:52t | 11:16t | 10:37t | 9:30s | 6:37s 10:27s |
| 03/07/2016 | M | 12:04t | 16:29s | 16:32s | 15:44s | | 17:42r |
| 03/07/2016 | M | 17:50s | | | | | |
| 03/07/2016 | M | 19:09et | | | 23:58r | | |
| 03/08/2016 | Tu | 4:58mt | | 5:30r | 4:43t | 0:07t | 1:12r |
| 03/08/2016 | Tu | 6:17r | 6:01r | 6:01r | 9:27s | 6:32s | 5:47t |
| 03/08/2016 | Tu | 12:04t | 11:48t | 11:19t | 10:38t | | 10:23s |
| 03/08/2016 | Tu | 17:51s | 17:43s | 16:38s | 15:46s | | 17:37r |
| 03/08/2016 | Tu | 19:10et | 18:54NM | | 23:56r | | |
| 03/09/2016 | W | 4:56mt | | 5:30r | 4:40t | 0:02t | 1:08r |
| 03/09/2016 | W | 6:15r | 6:37r | 6:01r | 9:24s | 6:28s | 5:43t |
| 03/09/2016 | W | 12:04t | 12:43t | 11:21t | 10:39t | | 10:19s |
| 03/09/2016 | W | 17:53s | 18:58s | 16:43s | 15:49s | | 17:32r |
| 03/09/2016 | W | 19:12et | | | 23:54r | 23:58t | |
| 03/10/2016 | Th | 4:54mt | | 5:29r | 4:38t | | 1:04r |
| 03/10/2016 | Th | 6:13r | 7:14r | 6:01r | 9:22s | 6:24s | 5:40t |
| 03/10/2016 | Th | 12:03t | 13:38t | 11:24t | 10:40t | | 10:15s |
| 03/10/2016 | Th | 17:54s | | 16:48s | 15:51s | | 17:28r |
| 03/10/2016 | Th | 19:13et | 20:13s | | 23:52r | 23:54t | |
| 03/11/2016 | F | 4:53mt | | 5:28r | 4:35t | | 1:00r |
| 03/11/2016 | F | 6:12r | 7:50r | 6:01r | 9:19s | 6:20s | 5:36t |
| 03/11/2016 | F | 12:03t | 14:34t | 11:26t | 10:41t | | 10:11s |
| 03/11/2016 | F | 17:55s | | 16:54s | 15:54s | | 17:23r |
| 03/11/2016 | F | 19:14et | 21:27s | | 23:49r | 23:49t | |
| 03/12/2016 | Sat | 4:51mt | | 5:27r | 4:33t | | 0:56r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 03/12/2016 | Sat | 6:10r | 8:29r | 6:00r | 9:16s | 6:15s | 5:32t |
| 03/12/2016 | Sat | 12:03t | 15:30t | 11:29t | 10:41t | | 10:07s |
| 03/12/2016 | Sat | 17:56s | | 16:59s | 15:56s | 17:19r | |
| 03/12/2016 | Sat | 19:16et | 22:40s | | 23:47r | 23:45t | |
| 03/13/2016 | Sun | 4:49mt | | 5:26r | 4:30t | | 0:53r |
| 03/13/2016 | Sun | 6:08r | 9:12r | 6:00r | 9:13s | 6:11s | 5:28t |
| 03/13/2016 | Sun | 12:02t | | 11:32t | 10:42t | | 10:04s |
| 03/13/2016 | Sun | 17:58s | 16:26t | 17:05s | 15:59s | 17:14r | |
| 03/13/2016 | Sun | 19:17et | 23:48s | | 23:45r | 23:40t | |
| 03/14/2016 | M | 4:47mt | | | 4:27t | | 0:49r |
| 03/14/2016 | M | 6:06r | 9:58r | 6:00r | 5:25r | 9:10s | 6:07s |
| 03/14/2016 | M | 12:02t | | 11:35t | 10:43t | | 10:00s |
| 03/14/2016 | M | 17:59s | 17:23t | 17:11s | 16:01s | 17:09r | |
| 03/14/2016 | M | 19:18et | | | 23:43r | 23:36t | |
| 03/15/2016 | Tu | 4:45mt | 0:51s | | 4:25t | | 0:45r |
| 03/15/2016 | Tu | 6:04r | | 6:00r | 5:25r | 9:07s | 6:03s |
| 03/15/2016 | Tu | | 10:03FQ | | 10:44t | | 9:56s |
| 03/15/2016 | Tu | 12:02t | 10:48r | 11:37t | 16:04s | 17:05r | |
| 03/15/2016 | Tu | 18:00s | 18:18t | 17:16s | | | |
| 03/15/2016 | Tu | 19:20et | | | 23:40r | 23:32t | |
| 03/16/2016 | W | 4:43mt | 1:48s | | 4:22t | | 0:41r |
| 03/16/2016 | W | 6:03r | | 6:00r | 5:24r | 9:04s | 5:59s |
| 03/16/2016 | W | 12:02t | 11:43r | 11:40t | 10:45t | | 9:52s |
| 03/16/2016 | W | 18:01s | 19:11t | 17:22s | 16:06s | 17:00r | |
| 03/16/2016 | W | 19:21et | | | 23:38r | 23:27t | |
| 03/17/2016 | Th | 4:41mt | 2:38s | | 4:19t | | 0:37r |
| 03/17/2016 | Th | 6:01r | | 5:59r | 5:23r | 9:01s | 5:54s |
| 03/17/2016 | Th | 12:01t | 12:40r | 11:43t | 10:45t | | 9:48s |
| 03/17/2016 | Th | 18:03s | | 17:28s | 16:09s | 16:56r | |
| 03/17/2016 | Th | 19:22et | 20:03t | | 23:36r | 23:23t | |
| 03/18/2016 | F | 4:39mt | 3:21s | | 4:17t | | 0:33r |
| 03/18/2016 | F | 5:59r | | 5:59r | 5:22r | 8:58s | 5:50s |
| 03/18/2016 | F | 12:01t | 13:39r | 11:46t | 10:46t | | 9:44s |
| 03/18/2016 | F | 18:04s | | 17:35s | 16:11s | 16:51r | |
| 03/18/2016 | F | 19:24et | 20:53t | | 23:33r | 23:18t | |
| 03/19/2016 | Sat | 4:37mt | 4:00s | | 4:14t | | 0:29r |
| 03/19/2016 | Sat | 5:57r | | 5:59r | 5:21r | 8:55s | 5:46s |
| 03/19/2016 | Sat | 12:01t | 14:39r | 11:49t | 10:47t | | 9:40s |
| 03/19/2016 | Sat | 18:05s | | 17:41s | 16:14s | 16:46r | |
| 03/19/2016 | Sat | 19:25et | | | | | |
| 03/19/2016 | Sat | 21:30ME | 21:40t | | 23:31r | 23:14t | |
| 03/20/2016 | Sun | 4:36mt | 4:33s | | 4:11t | | 0:25r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|--------|---------|--------|--------|---------|--------|
| 03/20/2016 | Sun 5:55r | | 5:58r | 5:19r | 8:52s | 5:42s | 5:01t |
| 03/20/2016 | Sun 12:00t | 15:39r | 11:52t | 10:48t | | | 9:37s |
| 03/20/2016 | Sun 18:06s | | 17:47s | 16:16s | | 16:42r | |
| 03/20/2016 | Sun 19:26et | 22:25t | | | 23:28r | 23:10t | |
| 03/21/2016 | M 4:34mt | | | | 4:08t | | 0:22r |
| 03/21/2016 | M 5:53r | 5:04s | 5:58r | 5:18r | 8:49s | 5:38s | 4:57t |
| 03/21/2016 | M 12:00t | | 11:55t | 10:48t | | | 9:33s |
| 03/21/2016 | M 18:08s | 16:38r | 17:54s | 16:19s | | 16:37r | |
| 03/21/2016 | M 19:28et | 23:09t | | | 23:26r | 23:05t | |
| 03/22/2016 | Tu 4:32mt | | | | 4:06t | | 0:18r |
| 03/22/2016 | Tu 5:52r | 5:33s | 5:58r | 5:17r | 8:45s | 5:33s | 4:53t |
| 03/22/2016 | Tu 12:00t | | 11:58t | 10:49t | | | 9:29s |
| 03/22/2016 | Tu 18:09s | 17:36r | 18:00s | 16:22s | | 16:33r | |
| 03/22/2016 | Tu 19:29et | 23:52t | | | 23:23r | 23:01t | |
| 03/23/2016 | W 4:30mt | | | | 4:03t | | 0:14r |
| 03/23/2016 | W 5:50r | 5:01FM | 5:57r | 5:16r | | 5:29s | 4:49t |
| 03/23/2016 | W 12:00t | 6:01s | 12:01t | 10:50t | 8:42s | | 9:25s |
| 03/23/2016 | W 18:10s | 18:35r | 18:07s | 16:24s | | 16:28r | |
| 03/23/2016 | W 19:30et | | | | 23:21r | 22:57t | |
| 03/24/2016 | Th 4:28mt | 0:35t | | | 4:00t | | 0:10r |
| 03/24/2016 | Th 5:48r | 6:28s | 5:57r | 5:15r | 8:39s | 5:25s | 4:45t |
| 03/24/2016 | Th 11:59t | | 12:05t | 10:50t | | 16:24r | 9:21s |
| 03/24/2016 | Th 18:11s | | 18:14s | 16:27s | | | |
| 03/24/2016 | Th 19:32et | 19:32r | | | 23:18r | 22:52t | |
| 03/25/2016 | F 4:26mt | 1:18t | | | 3:57t | | 0:06r |
| 03/25/2016 | F 5:46r | 6:57s | 5:57r | 5:14r | 8:36s | 5:21s | 4:41t |
| 03/25/2016 | F 11:59t | | 12:08t | 10:51t | | 16:19r | 9:17s |
| 03/25/2016 | F 18:13s | | 18:21s | 16:29s | | | |
| 03/25/2016 | F 19:33et | 20:30r | | | 23:15r | 22:48t | |
| 03/26/2016 | Sat 4:24mt | 2:01t | | | 3:54t | | 0:02r |
| 03/26/2016 | Sat 5:44r | 7:27s | 5:56r | 5:13r | 8:33s | 5:17s | 4:38t |
| 03/26/2016 | Sat 11:59t | | 12:11t | 10:52t | | 16:14r | 9:13s |
| 03/26/2016 | Sat 18:14s | | 18:28s | 16:32s | | | |
| 03/26/2016 | Sat 19:35et | 21:27r | | | 23:12r | 22:43t | 23:58r |
| 03/27/2016 | Sun 4:22mt | 2:46t | | 5:12r | 3:51t | 5:12s | 4:34t |
| 03/27/2016 | Sun 5:43r | 7:59s | 5:56r | 10:52t | 8:29s | | 9:09s |
| 03/27/2016 | Sun 11:58t | | 12:15t | 16:34s | | 16:10r | |
| 03/27/2016 | Sun 18:15s | | 18:35s | | | | |
| 03/27/2016 | Sun 19:36et | 22:23r | | | 23:10r | 22:39t | 23:54r |
| 03/28/2016 | M 4:20mt | 3:31t | | 5:10r | 3:48t | 5:08s | 4:30t |
| 03/28/2016 | M 5:41r | 8:35s | 5:56r | 10:53t | 8:26s | | 9:05s |
| 03/28/2016 | M 11:58t | | 12:18t | 16:37s | | 16:05r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|--------|---------|--------|--------|---------|--------|
| 03/28/2016 M | 18:16s | | 18:42s | | | | |
| 03/28/2016 M | 19:37et | 23:19r | | | 23:07r | 22:35t | 23:50r |
| 03/29/2016 Tu | 4:18mt | 4:19t | | 5:09r | 3:45t | 5:04s | 4:26t |
| 03/29/2016 Tu | 5:39r | 9:16s | 5:55r | 10:54t | 8:23s | | 9:01s |
| 03/29/2016 Tu | 11:58t | | 12:21t | 16:39s | | 16:01r | |
| 03/29/2016 Tu | 18:17s | | 18:49s | | | | |
| 03/29/2016 Tu | 19:39et | | | | 23:04r | 22:30t | 23:46r |
| 03/30/2016 W | 4:16mt | 0:12r | | | 3:42t | 5:00s | 4:22t |
| 03/30/2016 W | 5:37r | 5:08t | 5:55r | 5:08r | 8:19s | | 8:57s |
| 03/30/2016 W | 11:57t | 10:03s | 12:25t | 10:54t | | 15:56r | |
| 03/30/2016 W | 18:19s | | 18:56s | 16:42s | | | |
| 03/30/2016 W | 19:40et | | | | 23:01r | 22:26t | 23:42r |
| 03/31/2016 Th | 4:14mt | 1:03r | | 5:07r | 3:39t | 4:56s | 4:18t |
| 03/31/2016 Th | 5:35r | 5:58t | 5:55r | | 8:16s | | |
| 03/31/2016 Th | | 8:17LQ | | | | | 8:53s |
| 03/31/2016 Th | 11:57t | 10:55s | 12:28t | 10:55t | | 15:52r | |
| 03/31/2016 Th | 18:20s | | 19:03s | 16:44s | | | |
| 03/31/2016 Th | 19:42et | | | | 22:58r | 22:22t | 23:38r |
| 04/01/2016 F | 4:12mt | 1:50r | | 5:05r | 3:35t | 4:52s | 4:14t |
| 04/01/2016 F | 5:33r | 6:50t | 5:54r | 10:56t | 8:13s | | 8:49s |
| 04/01/2016 F | 11:57t | 11:53s | 12:31t | 16:47s | | 15:47r | |
| 04/01/2016 F | 18:21s | | 19:11s | | | | |
| 04/01/2016 F | 19:43et | | | | 22:55r | 22:17t | 23:34r |
| 04/02/2016 Sat | 4:10mt | 2:34r | | 5:04r | 3:32t | 4:47s | 4:10t |
| 04/02/2016 Sat | 5:32r | 7:43t | 5:54r | 10:56t | 8:09s | | 8:45s |
| 04/02/2016 Sat | 11:57t | 12:56s | 12:35t | 16:49s | | 15:43r | |
| 04/02/2016 Sat | 18:22s | | 19:18s | | | | |
| 04/02/2016 Sat | 19:45et | | | | 22:52r | 22:13t | 23:30r |
| 04/03/2016 Sun | 4:08mt | 3:15r | | 5:03r | 3:29t | 4:43s | 4:06t |
| 04/03/2016 Sun | 5:30r | 8:36t | 5:54r | 10:57t | 8:06s | | 8:41s |
| 04/03/2016 Sun | 11:56t | 14:04s | 12:38t | 16:52s | | 15:38r | |
| 04/03/2016 Sun | 18:23s | | 19:25s | | | | |
| 04/03/2016 Sun | 19:46et | | | | 22:49r | 22:09t | 23:26r |
| 04/04/2016 M | 4:06mt | 3:53r | | 5:02r | 3:26t | 4:39s | 4:02t |
| 04/04/2016 M | 5:28r | 9:30t | 5:53r | 10:57t | 8:02s | | 8:37s |
| 04/04/2016 M | 11:56t | 15:15s | 12:41t | 16:54s | | 15:34r | |
| 04/04/2016 M | 18:25s | | 19:31s | | | | |
| 04/04/2016 M | 19:47et | | | | 22:46r | 22:04t | 23:22r |
| 04/05/2016 Tu | 4:04mt | 4:30r | | 5:00r | 3:22t | 4:35s | 3:58t |
| 04/05/2016 Tu | 5:26r | 10:25t | 5:53r | 10:58t | 7:58s | | 8:33s |
| 04/05/2016 Tu | 11:56t | 16:29s | 12:44t | 16:57s | | 15:30r | |
| 04/05/2016 Tu | 18:26s | | 19:38s | | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 04/05/2016 | Tu | 19:49et | | | | 22:43r | 22:00t | 23:18r |
| 04/06/2016 | W | 4:02mt | 5:06r | | 4:59r | 3:19t | 4:31s | 3:54t |
| 04/06/2016 | W | 5:24r | 11:20t | 5:52r | 10:59t | 7:55s | | 8:29s |
| 04/06/2016 | W | 11:55t | 17:45s | 12:47t | 16:59s | | 15:25r | |
| 04/06/2016 | W | 18:27s | | 19:45s | | | | |
| 04/06/2016 | W | 19:50et | | | | 22:40r | 21:56t | 23:14r |
| 04/07/2016 | Th | 4:00mt | 4:24NM | | 4:58r | 3:15t | 4:27s | 3:50t |
| 04/07/2016 | Th | 5:23r | 5:43r | 5:52r | 10:59t | 7:51s | | 8:25s |
| 04/07/2016 | Th | 11:55t | 12:17t | 12:50t | 17:02s | | 15:21r | |
| 04/07/2016 | Th | 18:28s | 19:01s | 19:51s | | | | |
| 04/07/2016 | Th | 19:52et | | | | 22:36r | 21:52t | 23:10r |
| 04/08/2016 | F | 3:57mt | | | 4:56r | 3:12t | 4:23s | 3:46t |
| 04/08/2016 | F | 5:21r | 6:21r | 5:51r | 11:00t | 7:47s | | 8:21s |
| 04/08/2016 | F | 11:55t | 13:14t | 12:53t | 17:04s | | 15:16r | |
| 04/08/2016 | F | 18:30s | | | | | | |
| 04/08/2016 | F | 19:53et | 20:17s | 19:57s | | 22:33r | 21:47t | 23:06r |
| 04/09/2016 | Sat | 3:55mt | | | 4:55r | 3:08t | 4:18s | 3:42t |
| 04/09/2016 | Sat | 5:19r | 7:03r | 5:50r | 11:00t | 7:44s | | 8:17s |
| 04/09/2016 | Sat | 11:55t | 14:13t | 12:55t | 17:06s | | 15:12r | |
| 04/09/2016 | Sat | 18:31s | | | | | | |
| 04/09/2016 | Sat | 19:55et | 21:30s | 20:02s | | 22:30r | 21:43t | 23:02r |
| 04/10/2016 | Sun | 3:53mt | | | 4:54r | 3:05t | 4:14s | 3:38t |
| 04/10/2016 | Sun | 5:17r | 7:49r | 5:50r | 11:01t | 7:40s | | 8:13s |
| 04/10/2016 | Sun | 11:54t | 15:11t | 12:58t | 17:09s | | 15:08r | |
| 04/10/2016 | Sun | 18:32s | | | | | | |
| 04/10/2016 | Sun | 19:56et | 22:38s | 20:08s | | 22:26r | 21:39t | 22:58r |
| 04/11/2016 | M | 3:51mt | | | 4:52r | 3:01t | 4:10s | 3:34t |
| 04/11/2016 | M | 5:16r | 8:40r | 5:49r | 11:01t | 7:36s | | 8:09s |
| 04/11/2016 | M | 11:54t | 16:09t | 13:00t | 17:11s | | 15:03r | |
| 04/11/2016 | M | 18:33s | | | | | | |
| 04/11/2016 | M | 19:58et | 23:40s | 20:13s | | 22:23r | 21:35t | 22:54r |
| 04/12/2016 | Tu | 3:49mt | | | 4:51r | 2:58t | 4:06s | 3:30t |
| 04/12/2016 | Tu | 5:14r | 9:35r | 5:48r | 11:02t | 7:32s | | 8:05s |
| 04/12/2016 | Tu | 11:54t | 17:05t | 13:02t | 17:14s | | 14:59r | |
| 04/12/2016 | Tu | 18:34s | | | | | | |
| 04/12/2016 | Tu | 19:59et | | 20:17s | | 22:19r | 21:30t | 22:50r |
| 04/13/2016 | W | 3:47mt | 0:34s | | 4:50r | 2:54t | 4:02s | 3:25t |
| 04/13/2016 | W | 5:12r | 10:33r | 5:47r | 11:03t | 7:28s | | 8:01s |
| 04/13/2016 | W | 11:54t | 17:59t | 13:03t | 17:16s | | 14:55r | |
| 04/13/2016 | W | 18:36s | | | | | | |
| 04/13/2016 | W | 20:01et | 20:59FQ | 20:21s | | 22:16r | 21:26t | 22:46r |
| 04/14/2016 | Th | 3:45mt | 1:21s | | 4:49r | 2:50t | 3:58s | 3:21t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 04/14/2016 | Th | 5:11r | 11:32r | 5:46r | 11:03t | 7:24s | | 7:57s |
| 04/14/2016 | Th | 11:53t | | 13:04t | 17:19s | | 14:50r | |
| 04/14/2016 | Th | 18:37s | 18:50t | | | | | |
| 04/14/2016 | Th | 20:03et | | 20:25s | | 22:12r | 21:22t | 22:41r |
| 04/15/2016 | F | 3:43mt | 2:01s | | 4:47r | 2:46t | 3:54s | 3:17t |
| 04/15/2016 | F | 5:09r | | 5:44r | 11:04t | 7:20s | | 7:53s |
| 04/15/2016 | F | 11:53t | 12:33r | 13:05t | 17:21s | | 14:46r | |
| 04/15/2016 | F | 18:38s | 19:38t | | | | | |
| 04/15/2016 | F | 20:04et | | 20:28s | | 22:08r | 21:18t | 22:37r |
| 04/16/2016 | Sat | 3:41mt | 2:36s | | 4:46r | 2:42t | 3:50s | 3:13t |
| 04/16/2016 | Sat | 5:07r | | 5:43r | 11:04t | 7:16s | | 7:49s |
| 04/16/2016 | Sat | 11:53t | 13:32r | 13:06t | 17:24s | | 14:42r | |
| 04/16/2016 | Sat | 18:39s | | | | | | |
| 04/16/2016 | Sat | 20:06et | 20:24t | 20:30s | | 22:05r | 21:14t | 22:33r |
| 04/17/2016 | Sun | 3:39mt | 3:08s | | 4:45r | 2:38t | 3:46s | 3:09t |
| 04/17/2016 | Sun | 5:05r | | 5:42r | 11:05t | 7:12s | | 7:45s |
| 04/17/2016 | Sun | 11:53t | 14:32r | 13:06t | 17:26s | | 14:37r | |
| 04/17/2016 | Sun | 18:41s | | | | | | |
| 04/17/2016 | Sun | 20:07et | 21:08t | 20:32s | | 22:01r | 21:09t | 22:29r |
| 04/18/2016 | M | 3:37mt | 3:37s | | 4:43r | 2:34t | 3:41s | 3:05t |
| 04/18/2016 | M | 5:04r | | 5:40r | 11:06t | 7:08s | | 7:41s |
| 04/18/2016 | M | 11:52t | 15:30r | 13:06t | 17:29s | | 14:33r | |
| 04/18/2016 | M | 18:42s | | | | | | |
| 04/18/2016 | M | 20:09et | 21:51t | 20:34s | | 21:57r | 21:05t | 22:25r |
| 04/19/2016 | Tu | 3:35mt | 4:04s | | 4:42r | 2:30t | 3:37s | 3:01t |
| 04/19/2016 | Tu | 5:02r | | 5:38r | 11:06t | 7:04s | | 7:37s |
| 04/19/2016 | Tu | 11:52t | 16:28r | 13:06t | 17:32s | | 14:29r | |
| 04/19/2016 | Tu | 18:43s | | | | | | |
| 04/19/2016 | Tu | 20:10et | 22:34t | 20:35s | | 21:53r | 21:01t | 22:21r |
| 04/20/2016 | W | 3:33mt | 4:32s | | 4:41r | 2:26t | 3:33s | 2:57t |
| 04/20/2016 | W | 5:01r | | 5:37r | 11:07t | 7:00s | | 7:33s |
| 04/20/2016 | W | 11:52t | 17:26r | 13:05t | 17:34s | | 14:25r | |
| 04/20/2016 | W | 18:44s | | | | | | |
| 04/20/2016 | W | 20:12et | 23:16t | 20:35s | | 21:49r | 20:57t | 22:17r |
| 04/21/2016 | Th | 3:31mt | | | 4:40r | 2:22t | 3:29s | 2:53t |
| 04/21/2016 | Th | 4:59r | 4:59s | 5:35r | 11:08t | 6:55s | | 7:29s |
| 04/21/2016 | Th | 11:52t | 18:24r | 13:04t | 17:37s | | 14:20r | |
| 04/21/2016 | Th | 18:45s | | | | | | |
| 04/21/2016 | Th | 20:14et | 22:24FM | 20:35s | | 21:45r | 20:53t | 22:13r |
| 04/21/2016 | Th | | 23:59t | | | | | |
| 04/22/2016 | F | 3:29mt | | | 4:38r | 2:18t | 3:25s | 2:49t |
| 04/22/2016 | F | 4:57r | 5:29s | 5:32r | 11:08t | 6:51s | | 7:25s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 04/22/2016 | F | 11:52t | | 13:03t | 17:39s | | 14:16r | |
| 04/22/2016 | F | 18:47s | 19:21r | | | | | |
| 04/22/2016 | F | 20:15et | | 20:34s | | 21:41r | 20:49t | 22:09r |
| 04/23/2016 | Sat | 3:27mt | 0:43t | | 4:37r | 2:14t | 3:21s | 2:45t |
| 04/23/2016 | Sat | 4:56r | 6:00s | 5:30r | 11:09t | 6:47s | | 7:21s |
| 04/23/2016 | Sat | 11:51t | | 13:01t | 17:42s | | 14:12r | |
| 04/23/2016 | Sat | 18:48s | | | | | | |
| 04/23/2016 | Sat | 20:17et | 20:18r | 20:32s | | 21:37r | 20:45t | 22:04r |
| 04/24/2016 | Sun | 3:25mt | 1:29t | | 4:36r | 2:10t | 3:17s | 2:40t |
| 04/24/2016 | Sun | 4:54r | 6:35s | 5:28r | 11:09t | 6:42s | | 7:17s |
| 04/24/2016 | Sun | 11:51t | | 12:59t | 17:44s | | 14:08r | |
| 04/24/2016 | Sun | 18:49s | | | | | | |
| 04/24/2016 | Sun | 20:18et | 21:14r | 20:30s | | 21:32r | 20:40t | 22:00r |
| 04/25/2016 | M | 3:23mt | 2:16t | | 4:35r | 2:05t | 3:13s | 2:36t |
| 04/25/2016 | M | 4:53r | 7:15s | 5:25r | 11:10t | 6:38s | | 7:12s |
| 04/25/2016 | M | 11:51t | | 12:56t | 17:47s | | 14:04r | |
| 04/25/2016 | M | 18:50s | | | | | | |
| 04/25/2016 | M | 20:20et | 22:08r | 20:28s | | 21:28r | 20:36t | 21:56r |
| 04/26/2016 | Tu | 3:21mt | 3:04t | | 4:33r | 2:01t | 3:09s | 2:32t |
| 04/26/2016 | Tu | 4:51r | 7:59s | 5:22r | 11:11t | 6:33s | | 7:08s |
| 04/26/2016 | Tu | 11:51t | | 12:54t | 17:49s | | 14:00r | |
| 04/26/2016 | Tu | 18:51s | | | | | | |
| 04/26/2016 | Tu | 20:22et | 23:00r | 20:25s | | 21:24r | 20:32t | 21:52r |
| 04/27/2016 | W | 3:19mt | 3:54t | | 4:32r | 1:56t | 3:05s | 2:28t |
| 04/27/2016 | W | 4:50r | 8:48s | 5:20r | 11:11t | 6:29s | | 7:04s |
| 04/27/2016 | W | 11:51t | | 12:50t | 17:52s | | 13:56r | |
| 04/27/2016 | W | 18:53s | | 20:21s | | | | |
| 04/27/2016 | W | 20:23et | 23:47r | | | 21:19r | 20:28t | 21:48r |
| 04/28/2016 | Th | 3:17mt | 4:44t | | 4:31r | 1:52t | 3:01s | 2:24t |
| 04/28/2016 | Th | 4:48r | 9:43s | 5:16r | 11:12t | 6:24s | | 7:00s |
| 04/28/2016 | Th | 11:51t | | 12:47t | 17:54s | | 13:51r | |
| 04/28/2016 | Th | 18:54s | | 20:16s | | | 20:24t | |
| 04/28/2016 | Th | 20:25et | | | | 21:15r | | 21:44r |
| 04/29/2016 | F | 3:15mt | 0:32r | | 4:30r | 1:47t | 2:57s | 2:20t |
| 04/29/2016 | F | 4:47r | 5:35t | 5:13r | | 6:19s | | 6:56s |
| 04/29/2016 | F | 11:50t | 10:43s | 12:43t | 11:13t | | 13:47r | |
| 04/29/2016 | F | 18:55s | | 20:11s | 17:57s | | 20:20t | |
| 04/29/2016 | F | 20:27et | 20:29LQ | | | 21:10r | | 21:39r |
| 04/30/2016 | Sat | 3:14mt | 1:12r | | 4:29r | 1:43t | 2:53s | 2:16t |
| 04/30/2016 | Sat | 4:45r | 6:27t | 5:10r | 11:14t | 6:15s | | 6:52s |
| 04/30/2016 | Sat | 11:50t | 11:47s | 12:38t | 18:00s | | 13:43r | |
| 04/30/2016 | Sat | 18:56s | | 20:06s | | | 20:16t | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 04/30/2016 Sat | 20:28et | | | | 21:06r | | 21:35r |
| 05/01/2016 Sun | 3:12mt | 1:50r | | 4:28r | 1:38t | 2:49s | 2:11t |
| 05/01/2016 Sun | 4:44r | 7:19t | 5:07r | 11:14t | 6:10s | | 6:48s |
| 05/01/2016 Sun | 11:50t | 12:55s | 12:34t | 18:02s | | 13:39r | |
| 05/01/2016 Sun | 18:57s | | 20:00s | | | 20:12t | |
| 05/01/2016 Sun | 20:30et | | | | 21:01r | | 21:31r |
| 05/02/2016 M | 3:10mt | 2:26r | | 4:27r | 1:33t | 2:45s | 2:07t |
| 05/02/2016 M | 4:42r | 8:11t | 5:03r | 11:15t | 6:05s | | 6:44s |
| 05/02/2016 M | 11:50t | 14:05s | 12:29t | 18:05s | | 13:35r | |
| 05/02/2016 M | 18:59s | | 19:54s | | | 20:08t | |
| 05/02/2016 M | 20:32et | | | | 20:57r | | 21:27r |
| 05/03/2016 Tu | 3:08mt | 3:00r | | 4:26r | 1:28t | 2:41s | 2:03t |
| 05/03/2016 Tu | 4:41r | 9:04t | 4:59r | 11:16t | 6:00s | | 6:39s |
| 05/03/2016 Tu | 11:50t | 15:18s | 12:24t | 18:07s | | 13:31r | |
| 05/03/2016 Tu | 19:00s | | 19:47s | | | 20:04t | |
| 05/03/2016 Tu | 20:33et | | | | 20:52r | | 21:23r |
| 05/04/2016 W | 3:06mt | 3:35r | | 4:24r | 1:24t | 2:37s | 1:59t |
| 05/04/2016 W | 4:40r | 9:59t | 4:55r | 11:17t | 5:55s | | 6:35s |
| 05/04/2016 W | 11:50t | 16:33s | 12:18t | 18:10s | | 13:27r | |
| 05/04/2016 W | 19:01s | | 19:40s | | | 20:00t | |
| 05/04/2016 W | 20:35et | | | | 20:47r | | 21:18r |
| 05/05/2016 Th | 3:04mt | 4:12r | | 4:23r | 1:19t | 2:33s | 1:55t |
| 05/05/2016 Th | 4:38r | 10:55t | 4:52r | 11:17t | 5:51s | | 6:31s |
| 05/05/2016 Th | 11:50t | 17:48s | 12:13t | 18:12s | | 13:23r | |
| 05/05/2016 Th | 19:02s | | 19:32s | | | 19:56t | |
| 05/05/2016 Th | 20:37et | | | | 20:42r | | 21:14r |
| 05/06/2016 F | 3:02mt | | | 4:22r | 1:14t | 2:29s | 1:51t |
| 05/06/2016 F | 4:37r | 4:52r | 4:48r | 11:18t | 5:46s | | 6:27s |
| 05/06/2016 F | 11:50t | 11:53t | 12:07t | | | | |
| 05/06/2016 F | 19:03s | 12:29NM | | 18:15s | | 13:19r | |
| 05/06/2016 F | 20:38et | 19:04s | 19:25s | | 20:37r | 19:52t | 21:10r |
| 05/07/2016 Sat | 3:01mt | | | 4:22r | 1:09t | 2:25s | 1:46t |
| 05/07/2016 Sat | 4:36r | 5:36r | 4:44r | 11:19t | 5:41s | | 6:23s |
| 05/07/2016 Sat | 11:50t | 12:53t | 12:01t | 18:18s | | 13:15r | |
| 05/07/2016 Sat | 19:05s | 20:17s | 19:17s | | 20:32r | 19:48t | |
| 05/07/2016 Sat | 20:40et | | | | | | 21:06r |
| 05/08/2016 Sun | 2:59mt | | | 4:21r | 1:04t | 2:21s | 1:42t |
| 05/08/2016 Sun | 4:34r | 6:25r | 4:40r | 11:20t | 5:35s | | 6:19s |
| 05/08/2016 Sun | 11:50t | 13:53t | 11:55t | 18:20s | | 13:11r | |
| 05/08/2016 Sun | 19:06s | | 19:09s | | 20:27r | 19:44t | |
| 05/08/2016 Sun | 20:42et | 21:24s | | | | | 21:01r |
| 05/09/2016 M | 2:57mt | | | 4:20r | 0:59t | 2:17s | 1:38t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 05/09/2016 | M | 4:33r | 7:20r | 4:36r | 11:21t | 5:30s | 6:15s |
| 05/09/2016 | M | 11:50t | 14:52t | 11:49t | 18:23s | 13:07r | |
| 05/09/2016 | M | 19:07s | | 19:01s | 20:22r | 19:40t | |
| 05/09/2016 | M | 20:43et | 22:24s | | | | 20:57r |
| 05/10/2016 | Tu | 2:55mt | | 4:32r | 4:19r | 0:54t | 2:13s |
| 05/10/2016 | Tu | 4:32r | 8:19r | 11:43t | 11:22t | 5:25s | 6:10s |
| 05/10/2016 | Tu | 11:50t | 15:49t | 18:53s | 18:25s | 13:03r | |
| 05/10/2016 | Tu | 19:08s | | | 20:17r | 19:36t | |
| 05/10/2016 | Tu | 20:45et | 23:15s | | | | 20:53r |
| 05/11/2016 | W | 2:54mt | | 4:28r | 4:18r | 0:48t | 2:09s |
| 05/11/2016 | W | 4:31r | 9:20r | 11:37t | 11:23t | 5:20s | 6:06s |
| 05/11/2016 | W | 11:50t | 16:43t | 18:45s | 18:28s | 13:00r | |
| 05/11/2016 | W | 19:09s | | | 20:12r | 19:32t | |
| 05/11/2016 | W | 20:47et | 24:00s | | | | 20:49r |
| 05/12/2016 | Th | 2:52mt | | 4:24r | 4:17r | 0:43t | 2:05s |
| 05/12/2016 | Th | 4:30r | 10:22r | 11:31t | 11:23t | 5:15s | 6:02s |
| 05/12/2016 | Th | 11:50t | 17:33t | 18:37s | 18:31s | 12:56r | |
| 05/12/2016 | Th | 19:10s | | | 20:06r | 19:29t | 20:44r |
| 05/12/2016 | Th | 20:48et | | | | | |
| 05/13/2016 | F | 2:50mt | 0:37s | 4:20r | 4:16r | 0:38t | 2:01s |
| 05/13/2016 | F | 4:28r | 10:02FQ | | | 5:10s | 5:58s |
| 05/13/2016 | F | 11:50t | 11:23r | 11:25t | 11:24t | 12:52r | |
| 05/13/2016 | F | 19:11s | 18:21t | 18:29s | 18:33s | 20:01r | 19:25t |
| 05/13/2016 | F | 20:50et | | | | | 20:40r |
| 05/14/2016 | Sat | 2:49mt | 1:11s | 4:16r | 4:16r | 0:33t | 1:57s |
| 05/14/2016 | Sat | 4:27r | | 11:19t | 11:25t | 5:04s | 5:54s |
| 05/14/2016 | Sat | 11:50t | 12:24r | 18:22s | 18:36s | 12:48r | |
| 05/14/2016 | Sat | 19:12s | 19:06t | | | 19:56r | 19:21t |
| 05/14/2016 | Sat | 20:52et | | | | | 20:36r |
| 05/15/2016 | Sun | 2:47mt | 1:41s | 4:12r | 4:15r | 0:28t | 1:53s |
| 05/15/2016 | Sun | 4:26r | | 11:14t | 11:26t | 4:59s | 5:50s |
| 05/15/2016 | Sun | 11:50t | 13:23r | 18:15s | 18:38s | 12:44r | |
| 05/15/2016 | Sun | 19:14s | 19:50t | | | 19:51r | 19:17t |
| 05/15/2016 | Sun | 20:53et | | | | | 20:32r |
| 05/16/2016 | M | 2:45mt | 2:09s | 4:08r | 4:14r | 0:22t | 1:50s |
| 05/16/2016 | M | 4:25r | | 11:08t | 11:27t | 4:54s | 5:45s |
| 05/16/2016 | M | 11:50t | 14:21r | 18:08s | 18:41s | 12:40r | |
| 05/16/2016 | M | 19:15s | 20:32t | | | 19:45r | 19:13t |
| 05/16/2016 | M | 20:55et | | | | | 20:27r |
| 05/17/2016 | Tu | 2:44mt | 2:36s | 4:04r | 4:14r | 0:17t | 1:46s |
| 05/17/2016 | Tu | 4:24r | | 11:03t | 11:28t | 4:49s | 5:41s |
| 05/17/2016 | Tu | 11:50t | 15:19r | 18:02s | 18:44s | 12:37r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 05/17/2016 | Tu | 19:16s | | | | 19:40r | 19:09t | 20:23r |
| 05/17/2016 | Tu | 20:57et | 21:15t | | | | | |
| 05/18/2016 | W | 2:42mt | 3:03s | 4:01r | 4:13r | 0:12t | 1:42s | 1:00t |
| 05/18/2016 | W | 4:23r | | 10:58t | 11:29t | 4:43s | | 5:37s |
| 05/18/2016 | W | 11:50t | 16:17r | 17:56s | 18:46s | | 12:33r | |
| 05/18/2016 | W | 19:17s | | | | 19:34r | 19:05t | 20:19r |
| 05/18/2016 | W | 20:58et | 21:57t | | | | | |
| 05/19/2016 | Th | 2:41mt | 3:32s | 3:57r | 4:13r | 0:06t | 1:38s | 0:56t |
| 05/19/2016 | Th | 4:22r | | 10:54t | 11:30t | 4:38s | | 5:33s |
| 05/19/2016 | Th | 11:50t | 17:14r | 17:50s | 18:49s | | 12:29r | |
| 05/19/2016 | Th | 19:18s | | | | 19:29r | 19:02t | 20:15r |
| 05/19/2016 | Th | 21:00et | 22:41t | | | | | |
| 05/20/2016 | F | 2:39mt | 4:02s | 3:54r | 4:12r | 0:01t | 1:34s | 0:52t |
| 05/20/2016 | F | 4:21r | | 10:49t | 11:31t | 4:33s | | 5:29s |
| 05/20/2016 | F | 11:50t | 18:12r | 17:45s | 18:51s | | 12:25r | |
| 05/20/2016 | F | 19:19s | | | | 19:23r | 18:58t | 20:10r |
| 05/20/2016 | F | 21:01et | 23:26t | | | 23:55t | | |
| 05/21/2016 | Sat | 2:38mt | | 3:50r | 4:12r | | 1:30s | 0:47t |
| 05/21/2016 | Sat | 4:20r | 4:36s | 10:45t | 11:32t | 4:27s | | 5:24s |
| 05/21/2016 | Sat | 11:50t | 14:14FM | 17:40s | | | 12:21r | |
| 05/21/2016 | Sat | 19:20s | 19:09r | | 18:54s | 19:18r | 18:54t | 20:06r |
| 05/21/2016 | Sat | 21:03et | | | | 23:50t | | |
| 05/22/2016 | Sun | 2:36mt | 0:13t | 3:47r | 4:11r | | 1:26s | 0:43t |
| 05/22/2016 | Sun | 4:19r | 5:14s | 10:42t | 11:33t | 4:22s | | 5:20s |
| 05/22/2016 | Sun | 11:50t | | 17:36s | | | 12:18r | |
| 05/22/2016 | Sun | 19:21s | 20:04r | | 18:56s | 19:12r | 18:50t | 20:02r |
| 05/22/2016 | Sun | 21:04et | | | | 23:44t | | |
| 05/23/2016 | M | 2:35mt | 1:01t | 3:44r | 4:11r | 4:17s | 1:22s | 0:39t |
| 05/23/2016 | M | 4:19r | 5:56s | 10:38t | 11:35t | | | 5:16s |
| 05/23/2016 | M | 11:50t | | 17:32s | | | 12:14r | |
| 05/23/2016 | M | 19:22s | 20:57r | | 18:59s | 19:07r | 18:46t | 19:58r |
| 05/23/2016 | M | 21:06et | | | | 23:39t | | |
| 05/24/2016 | Tu | 2:34mt | 1:51t | 3:41r | 4:11r | 4:11s | 1:19s | 0:35t |
| 05/24/2016 | Tu | 4:18r | 6:44s | 10:35t | 11:36t | | | 5:12s |
| 05/24/2016 | Tu | 11:50t | | 17:28s | | | 12:10r | |
| 05/24/2016 | Tu | 19:23s | | | 19:01s | 19:01r | 18:43t | 19:53r |
| 05/24/2016 | Tu | 21:07et | 21:47r | | | 23:34t | | |
| 05/25/2016 | W | 2:33mt | 2:41t | 3:38r | 4:10r | 4:06s | 1:15s | 0:30t |
| 05/25/2016 | W | 4:17r | 7:38s | 10:32t | 11:37t | | | 5:08s |
| 05/25/2016 | W | 11:50t | | 17:25s | | | 12:07r | |
| 05/25/2016 | W | 19:24s | | | 19:04s | 18:56r | 18:39t | 19:49r |
| 05/25/2016 | W | 21:09et | 22:32r | | | 23:28t | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 05/26/2016 | Th | 2:31mt | 3:32t | 3:35r | 4:10r | 4:01s | 1:11s | 0:26t |
| 05/26/2016 | Th | 4:16r | 8:36s | 10:29t | 11:38t | | | 5:03s |
| 05/26/2016 | Th | 11:50t | | 17:23s | | | 12:03r | |
| 05/26/2016 | Th | 19:25s | | | 19:06s | 18:50r | 18:35t | 19:45r |
| 05/26/2016 | Th | 21:10et | 23:14r | | | 23:23t | | |
| 05/27/2016 | F | 2:30mt | | 3:32r | 4:10r | 3:55s | 1:07s | 0:22t |
| 05/27/2016 | F | 4:16r | 4:23t | | | | | 4:59s |
| 05/27/2016 | F | 11:50t | 9:38s | 10:26t | 11:39t | | 11:59r | |
| 05/27/2016 | F | 19:26s | | 17:20s | 19:09s | 18:44r | 18:31t | 19:41r |
| 05/27/2016 | F | 21:12et | 23:51r | | | 23:17t | | |
| 05/28/2016 | Sat | 2:29mt | | 3:30r | 4:10r | 3:50s | 1:03s | 0:18t |
| 05/28/2016 | Sat | 4:15r | 5:14t | 10:24t | | | | 4:55s |
| 05/28/2016 | Sat | 11:51t | 10:43s | 17:19s | 11:40t | | 11:56r | |
| 05/28/2016 | Sat | 19:27s | | | 19:11s | 18:39r | 18:28t | 19:36r |
| 05/28/2016 | Sat | 21:13et | | | | 23:12t | | |
| 05/29/2016 | Sun | 2:28mt | 0:27r | 3:27r | 4:10r | 3:45s | 0:59s | 0:14t |
| 05/29/2016 | Sun | 4:14r | 5:12LQ | | | | | 4:51s |
| 05/29/2016 | Sun | | 6:05t | 10:22t | 11:42t | | | |
| 05/29/2016 | Sun | 11:51t | 11:50s | 17:17s | | | 11:52r | |
| 05/29/2016 | Sun | 19:27s | | | 19:14s | 18:33r | 18:24t | 19:32r |
| 05/29/2016 | Sun | 21:14et | | | | 23:06t | | |
| 05/30/2016 | M | 2:27mt | 1:00r | 3:25r | 4:10r | 3:40s | 0:56s | 0:09t |
| 05/30/2016 | M | 4:14r | 6:56t | 10:20t | 11:43t | | 11:48r | 4:47s |
| 05/30/2016 | M | 11:51t | 13:00s | 17:16s | 19:16s | 18:28r | 18:20t | 19:28r |
| 05/30/2016 | M | 19:28s | | | | | | |
| 05/30/2016 | M | 21:16et | | | | 23:01t | | |
| 05/31/2016 | Tu | 2:26mt | 1:34r | 3:23r | 4:10r | 3:34s | 0:52s | 0:05t |
| 05/31/2016 | Tu | 4:13r | 7:48t | 10:19t | 11:44t | | 11:45r | 4:42s |
| 05/31/2016 | Tu | 11:51t | 14:11s | 17:16s | 19:19s | 18:22r | 18:16t | 19:23r |
| 05/31/2016 | Tu | 19:29s | | | | | | |
| 05/31/2016 | Tu | 21:17et | | | | 22:56t | | |
| 06/01/2016 | W | 2:25mt | 2:08r | 3:21r | 4:10r | 3:29s | 0:48s | 0:01t |
| 06/01/2016 | W | 4:13r | 8:41t | 10:18t | 11:45t | | 11:41r | 4:38s |
| 06/01/2016 | W | 11:51t | 15:24s | 17:15s | 19:21s | 18:17r | 18:13t | 19:19r |
| 06/01/2016 | W | 19:30s | | | | | | |
| 06/01/2016 | W | 21:18et | | | | 22:50t | | 23:57t |
| 06/02/2016 | Th | 2:24mt | 2:45r | 3:19r | 4:11r | 3:24s | 0:44s | |
| 06/02/2016 | Th | 4:12r | 9:37t | 10:17t | 11:47t | | 11:38r | 4:34s |
| 06/02/2016 | Th | 11:51t | 16:38s | 17:16s | 19:23s | 18:11r | 18:09t | 19:15r |
| 06/02/2016 | Th | 19:31s | | | | | | |
| 06/02/2016 | Th | 21:19et | | | | 22:45t | | 23:52t |
| 06/03/2016 | F | 2:23mt | 3:25r | 3:17r | 4:11r | 3:19s | 0:40s | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 06/03/2016 | F | 4:12r | 10:34t | 10:16t | 11:48t | | 11:34r | 4:30s |
| 06/03/2016 | F | 11:51t | 17:52s | 17:16s | 19:26s | 18:06r | 18:05t | 19:11r |
| 06/03/2016 | F | 19:32s | | | | | | |
| 06/03/2016 | F | 21:21et | | | | 22:40t | | 23:48t |
| 06/04/2016 | Sat | 2:22mt | 4:11r | 3:15r | 4:11r | 3:13s | 0:37s | |
| 06/04/2016 | Sat | 4:11r | 11:34t | 10:15t | 11:49t | | 11:31r | 4:26s |
| 06/04/2016 | Sat | 11:52t | 19:02s | 17:17s | 19:28s | 18:01r | 18:02t | 19:06r |
| 06/04/2016 | Sat | 19:32s | 20:00NM | | | | | |
| 06/04/2016 | Sat | 21:22et | | | | 22:34t | | 23:44t |
| 06/05/2016 | Sun | 2:21mt | | 3:13r | | 3:08s | 0:33s | |
| 06/05/2016 | Sun | 4:11r | 5:03r | 10:15t | 4:12r | | 11:27r | 4:21s |
| 06/05/2016 | Sun | 11:52t | 12:34t | 17:18s | 11:51t | 17:55r | 17:58t | 19:02r |
| 06/05/2016 | Sun | 19:33s | 20:07s | | 19:30s | | | |
| 06/05/2016 | Sun | 21:23et | | | | 22:29t | | 23:40t |
| 06/06/2016 | M | 2:21mt | | 3:12r | | 3:03s | 0:29s | |
| 06/06/2016 | M | 4:11r | 6:00r | 10:15t | 4:12r | | 11:24r | 4:17s |
| 06/06/2016 | M | 11:52t | 13:33t | 17:19s | 11:52t | 17:50r | 17:54t | 18:58r |
| 06/06/2016 | M | 19:34s | 21:04s | | 19:32s | | | |
| 06/06/2016 | M | 21:24et | | | | 22:24t | | 23:35t |
| 06/07/2016 | Tu | 2:20mt | | 3:10r | | 2:58s | 0:25s | |
| 06/07/2016 | Tu | 4:10r | 7:02r | 10:15t | 4:13r | | 11:20r | 4:13s |
| 06/07/2016 | Tu | 11:52t | 14:30t | 17:21s | 11:53t | 17:45r | 17:51t | 18:53r |
| 06/07/2016 | Tu | 19:34s | | | 19:34s | | | |
| 06/07/2016 | Tu | 21:25et | 21:53s | | | 22:19t | | 23:31t |
| 06/08/2016 | W | 2:20mt | | 3:09r | | 2:53s | 0:21s | 4:09s |
| 06/08/2016 | W | 4:10r | 8:05r | 10:16t | 4:13r | | 11:17r | |
| 06/08/2016 | W | 11:52t | 15:24t | 17:23s | 11:55t | 17:39r | 17:47t | 18:49r |
| 06/08/2016 | W | 19:35s | | | 19:36s | | | |
| 06/08/2016 | W | 21:26et | 22:35s | | | 22:14t | | 23:27t |
| 06/09/2016 | Th | 2:19mt | | 3:08r | | 2:48s | 0:18s | 4:05s |
| 06/09/2016 | Th | 4:10r | 9:09r | 10:16t | 4:14r | | 11:13r | |
| 06/09/2016 | Th | 11:53t | 16:14t | 17:26s | 11:56t | 17:34r | 17:44t | 18:45r |
| 06/09/2016 | Th | 19:36s | | | 19:39s | | | |
| 06/09/2016 | Th | 21:27et | 23:11s | | | 22:09t | | 23:23t |
| 06/10/2016 | F | 2:19mt | | 3:07r | | 2:43s | 0:14s | 4:00s |
| 06/10/2016 | F | 4:10r | 10:11r | 10:17t | 4:15r | | 11:10r | |
| 06/10/2016 | F | 11:53t | 17:01t | 17:28s | 11:57t | 17:29r | 17:40t | 18:41r |
| 06/10/2016 | F | 19:36s | | | 19:41s | | | |
| 06/10/2016 | F | 21:27et | 23:43s | | | 22:04t | | 23:18t |
| 06/11/2016 | Sat | 2:18mt | | 3:06r | | 2:38s | 0:10s | 3:56s |
| 06/11/2016 | Sat | 4:10r | 11:12r | 10:18t | 4:15r | | 11:06r | |
| 06/11/2016 | Sat | 11:53t | 17:46t | 17:32s | 11:59t | 17:24r | 17:36t | 18:36r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 06/11/2016 | Sat | 19:37s | | 19:42s | | | |
| 06/11/2016 | Sat | 21:28et | | | 21:59t | | 23:14t |
| 06/12/2016 | Sun | | 0:12s | | | 0:06s | |
| 06/12/2016 | Sun | 2:18mt | 1:10FQ | 3:06r | 2:34s | | 3:52s |
| 06/12/2016 | Sun | 4:09r | | 10:20t | 4:16r | 11:03r | |
| 06/12/2016 | Sun | 11:53t | 12:12r | 17:35s | 12:00t | 17:19r | 17:33t |
| 06/12/2016 | Sun | 19:37s | 18:30t | | 19:44s | | 18:32r |
| 06/12/2016 | Sun | 21:29et | | | 21:54t | | 23:10t |
| 06/13/2016 | M | 2:18mt | 0:40s | 3:05r | 2:29s | 0:03s | 3:48s |
| 06/13/2016 | M | 4:09r | | 10:21t | 4:17r | 10:59r | |
| 06/13/2016 | M | 11:53t | 13:10r | 17:38s | 12:02t | 17:14r | 17:29t |
| 06/13/2016 | M | 19:38s | 19:12t | | 19:46s | | 18:28r |
| 06/13/2016 | M | 21:30et | | | 21:49t | 23:59s | 23:06t |
| 06/14/2016 | Tu | 2:17mt | 1:07s | 3:05r | 2:24s | | 3:44s |
| 06/14/2016 | Tu | 4:09r | | 10:23t | 4:18r | 10:56r | |
| 06/14/2016 | Tu | 11:54t | 14:08r | 17:42s | 12:03t | 17:09r | 17:26t |
| 06/14/2016 | Tu | 19:38s | 19:55t | | 19:48s | | 18:23r |
| 06/14/2016 | Tu | 21:30et | | | 21:44t | 23:55s | 23:01t |
| 06/15/2016 | W | 2:17mt | 1:35s | 3:05r | 2:19s | | 3:39s |
| 06/15/2016 | W | 4:09r | | 10:25t | 4:19r | 10:53r | |
| 06/15/2016 | W | 11:54t | 15:06r | 17:46s | 12:04t | 17:04r | 17:22t |
| 06/15/2016 | W | 19:38s | 20:38t | | 19:50s | | 18:19r |
| 06/15/2016 | W | 21:31et | | | 21:39t | 23:51s | 22:57t |
| 06/16/2016 | Th | 2:17mt | 2:04s | 3:05r | 2:15s | | 3:35s |
| 06/16/2016 | Th | 4:09r | | 10:27t | 4:20r | 10:49r | |
| 06/16/2016 | Th | 11:54t | 16:03r | 17:51s | 12:06t | 16:59r | 17:19t |
| 06/16/2016 | Th | 19:39s | 21:22t | | 19:52s | | 18:15r |
| 06/16/2016 | Th | 21:31et | | | 21:35t | 23:48s | 22:53t |
| 06/17/2016 | F | 2:17mt | 2:36s | 3:06r | 2:10s | | 3:31s |
| 06/17/2016 | F | 4:09r | | 10:30t | 4:21r | 10:46r | |
| 06/17/2016 | F | 11:54t | 17:01r | 17:55s | 12:07t | 16:55r | 17:15t |
| 06/17/2016 | F | 19:39s | | | 19:53s | 21:30t | 18:11r |
| 06/17/2016 | F | 21:32et | 22:09t | | | 23:44s | 22:49t |
| 06/18/2016 | Sat | 2:17mt | 3:12s | 3:06r | 2:05s | | 3:27s |
| 06/18/2016 | Sat | 4:10r | | 10:33t | 4:23r | 10:42r | |
| 06/18/2016 | Sat | 11:54t | 17:57r | 18:00s | 12:09t | 16:50r | 17:11t |
| 06/18/2016 | Sat | 19:39s | | | 19:55s | 21:25t | 18:06r |
| 06/18/2016 | Sat | 21:32et | 22:57t | | | 23:40s | 22:44t |
| 06/19/2016 | Sun | 2:17mt | 3:53s | 3:07r | 2:01s | | 3:23s |
| 06/19/2016 | Sun | 4:10r | | 10:36t | 4:24r | 10:39r | |
| 06/19/2016 | Sun | 11:55t | 18:52r | 18:05s | 12:10t | 16:45r | 17:08t |
| 06/19/2016 | Sun | 19:40s | | | 19:56s | 21:21t | 18:02r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 06/19/2016 Sun | 21:32et | 23:46t | | | | 23:37s | 22:40t |
| 06/20/2016 M | 2:17mt | 4:02FM | 3:08r | | 1:56s | | 3:18s |
| 06/20/2016 M | 4:10r | 4:40s | 10:39t | 4:25r | | 10:36r | |
| 06/20/2016 M | 11:55t | | | 12:12t | | | |
| 06/20/2016 M | 15:34JS | | 18:11s | | 16:41r | 17:04t | 17:58r |
| 06/20/2016 M | 19:40s | 19:44r | | 19:58s | 21:16t | | |
| 06/20/2016 M | 21:33et | | | | | 23:33s | 22:36t |
| 06/21/2016 Tu | 2:18mt | 0:37t | 3:09r | | 1:52s | | 3:14s |
| 06/21/2016 Tu | 4:10r | 5:32s | 10:42t | 4:27r | | 10:32r | |
| 06/21/2016 Tu | 11:55t | | 18:16s | 12:13t | 16:36r | 17:01t | 17:54r |
| 06/21/2016 Tu | 19:40s | 20:31r | | 19:59s | 21:12t | | |
| 06/21/2016 Tu | 21:33et | | | | | 23:29s | 22:32t |
| 06/22/2016 W | 2:18mt | 1:29t | 3:11r | | 1:47s | | 3:10s |
| 06/22/2016 W | 4:10r | 6:29s | 10:46t | 4:28r | | 10:29r | |
| 06/22/2016 W | 11:55t | | 18:22s | 12:14t | 16:32r | 16:57t | 17:49r |
| 06/22/2016 W | 19:40s | 21:15r | | 20:00s | 21:07t | | |
| 06/22/2016 W | 21:33et | | | | | 23:26s | 22:28t |
| 06/23/2016 Th | 2:18mt | 2:20t | 3:13r | | 1:43s | | 3:06s |
| 06/23/2016 Th | 4:11r | 7:31s | 10:50t | 4:30r | | 10:26r | |
| 06/23/2016 Th | 11:56t | | 18:28s | 12:16t | 16:28r | 16:54t | 17:45r |
| 06/23/2016 Th | 19:40s | | | 20:02s | 21:03t | | |
| 06/23/2016 Th | 21:33et | 21:54r | | | | 23:22s | 22:23t |
| 06/24/2016 F | 2:19mt | 3:12t | 3:15r | | 1:39s | | 3:02s |
| 06/24/2016 F | 4:11r | 8:35s | 10:54t | 4:31r | | 10:23r | |
| 06/24/2016 F | 11:56t | | 18:34s | 12:17t | 16:23r | 16:50t | 17:41r |
| 06/24/2016 F | 19:41s | | | 20:03s | 20:59t | | |
| 06/24/2016 F | 21:33et | 22:30r | | | | 23:18s | 22:19t |
| 06/25/2016 Sat | 2:19mt | 4:02t | 3:18r | | 1:34s | | 2:57s |
| 06/25/2016 Sat | 4:11r | 9:42s | 10:59t | 4:33r | | 10:19r | |
| 06/25/2016 Sat | 11:56t | | 18:40s | 12:19t | 16:19r | 16:47t | 17:37r |
| 06/25/2016 Sat | 19:41s | | | 20:04s | 20:55t | | |
| 06/25/2016 Sat | 21:33et | 23:04r | | | | 23:14s | 22:15t |
| 06/26/2016 Sun | 2:19mt | | 3:21r | | 1:30s | | 2:53s |
| 06/26/2016 Sun | 4:12r | 4:53t | | 4:35r | | 10:16r | |
| 06/26/2016 Sun | 11:56t | 10:50s | 11:03t | 12:20t | 16:15r | 16:43t | 17:32r |
| 06/26/2016 Sun | 19:41s | | 18:46s | 20:05s | 20:51t | | |
| 06/26/2016 Sun | 21:33et | 23:37r | | | | 23:11s | 22:11t |
| 06/27/2016 M | 2:20mt | | 3:24r | | 1:26s | | 2:49s |
| 06/27/2016 M | 4:12r | 5:43t | 11:08t | 4:37r | | 10:13r | |
| 06/27/2016 M | 11:56t | 11:19LQ | | | | | |
| 06/27/2016 M | 19:41s | 11:59s | 18:53s | 12:22t | 16:11r | 16:40t | 17:28r |
| 06/27/2016 M | 21:32et | | | 20:06s | 20:46t | 23:07s | 22:07t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 06/28/2016 | Tu | 2:21mt | 0:09r | 3:28r | | 1:22s | 2:45s |
| 06/28/2016 | Tu | 4:13r | 6:35t | 11:13t | 4:38r | | 10:10r |
| 06/28/2016 | Tu | 11:57t | 13:10s | 18:59s | 12:23t | 16:07r | 16:37t |
| 06/28/2016 | Tu | 19:40s | | | 20:07s | 20:42t | |
| 06/28/2016 | Tu | 21:32et | | | | 23:03s | 22:02t |
| 06/29/2016 | W | 2:21mt | 0:44r | 3:32r | | 1:18s | 2:41s |
| 06/29/2016 | W | 4:13r | 7:28t | 11:18t | 4:40r | | 10:06r |
| 06/29/2016 | W | 11:57t | 14:21s | 19:05s | 12:24t | 16:03r | 16:33t |
| 06/29/2016 | W | 19:40s | | | 20:08s | 20:38t | |
| 06/29/2016 | W | 21:32et | | | | 23:00s | 21:58t |
| 06/30/2016 | Th | 2:22mt | 1:21r | 3:36r | | 1:14s | 2:37s |
| 06/30/2016 | Th | 4:14r | 8:23t | 11:24t | 4:42r | | 10:03r |
| 06/30/2016 | Th | 11:57t | 15:33s | 19:11s | 12:26t | 15:59r | 16:30t |
| 06/30/2016 | Th | 19:40s | | | 20:09s | 20:35t | |
| 06/30/2016 | Th | 21:31et | | | | 22:56s | 21:54t |
| 07/01/2016 | F | 2:23mt | 2:03r | 3:41r | | 1:10s | 2:32s |
| 07/01/2016 | F | 4:14r | 9:20t | 11:29t | 4:44r | | 10:00r |
| 07/01/2016 | F | 11:57t | 16:43s | 19:17s | 12:27t | 15:56r | 16:26t |
| 07/01/2016 | F | 19:40s | | | 20:10s | 20:31t | |
| 07/01/2016 | F | 21:31et | | | | 22:53s | 21:50t |
| 07/02/2016 | Sat | 2:24mt | 2:51r | 3:46r | | 1:06s | 2:28s |
| 07/02/2016 | Sat | 4:15r | 10:18t | 11:34t | 4:46r | | 9:57r |
| 07/02/2016 | Sat | 11:57t | 17:49s | 19:23s | 12:29t | 15:52r | 16:23t |
| 07/02/2016 | Sat | 19:40s | | | 20:10s | 20:27t | |
| 07/02/2016 | Sat | 21:30et | | | | 22:49s | 21:46t |
| 07/03/2016 | Sun | 2:25mt | 3:44r | 3:51r | | 1:02s | 2:24s |
| 07/03/2016 | Sun | 4:15r | 11:17t | 11:40t | 4:48r | | 9:53r |
| 07/03/2016 | Sun | 11:58t | 18:50s | 19:29s | 12:30t | 15:48r | 16:19t |
| 07/03/2016 | Sun | 19:40s | | | 20:11s | 20:23t | |
| 07/03/2016 | Sun | 21:30et | | | | 22:45s | 21:41t |
| 07/04/2016 | M | 2:26mt | 4:01NM | 3:57r | | 0:58s | 2:20s |
| 07/04/2016 | M | 4:16r | 4:43r | 11:46t | 4:51r | | 9:50r |
| 07/04/2016 | M | 11:58t | 12:15t | 19:34s | 12:31t | 15:45r | 16:16t |
| 07/04/2016 | M | 19:39s | 19:43s | | 20:11s | 20:19t | |
| 07/04/2016 | M | 21:29et | | | | 22:42s | 21:37t |
| 07/05/2016 | Tu | 2:27mt | | 4:03r | | 0:54s | 2:16s |
| 07/05/2016 | Tu | 4:17r | 5:46r | 11:51t | 4:53r | | 9:47r |
| 07/05/2016 | Tu | 11:58t | 13:11t | | 12:33t | 15:41r | 16:13t |
| 07/05/2016 | Tu | 19:39s | 20:29s | 19:39s | 20:12s | 20:16t | |
| 07/05/2016 | Tu | 21:29et | | | | 22:38s | 21:33t |
| 07/06/2016 | W | 2:28mt | | 4:09r | | 0:50s | 2:12s |
| 07/06/2016 | W | 4:17r | 6:51r | 11:57t | 4:55r | | 9:44r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 07/06/2016 | W | 11:58t | 14:03t | 12:34t | 15:38r | 16:09t | 16:50r |
| 07/06/2016 | W | 19:39s | 21:08s | 19:44s | 20:12s | | |
| 07/06/2016 | W | 21:28et | | | | 22:34s | 21:29t |
| 07/07/2016 | Th | 2:29mt | 4:15r | | 0:47s | | 2:08s |
| 07/07/2016 | Th | 4:18r | 7:55r | 4:57r | | 9:41r | |
| 07/07/2016 | Th | 11:58t | 14:53t | 12:02t | 12:35t | 15:34r | 16:06t |
| 07/07/2016 | Th | 19:38s | | 19:49s | 20:13s | 20:09t | 21:25t |
| 07/07/2016 | Th | 21:27et | 21:42s | | | 22:31s | |
| 07/08/2016 | F | 2:30mt | | | 0:43s | | 2:03s |
| 07/08/2016 | F | 4:19r | 8:58r | 4:22r | 4:59r | 9:38r | |
| 07/08/2016 | F | 11:58t | 15:40t | 12:08t | 12:37t | 15:31r | 16:02t |
| 07/08/2016 | F | 19:38s | | 19:53s | 20:13s | 20:05t | 21:21t |
| 07/08/2016 | F | 21:26et | 22:13s | | | 22:27s | |
| 07/09/2016 | Sat | 2:31mt | | | 0:39s | | 1:59s |
| 07/09/2016 | Sat | 4:19r | 9:59r | 4:28r | 5:02r | 9:34r | |
| 07/09/2016 | Sat | 11:59t | 16:25t | 12:13t | 12:38t | 15:28r | 15:59t |
| 07/09/2016 | Sat | 19:37s | | 19:57s | 20:13s | 20:02t | 21:17t |
| 07/09/2016 | Sat | 21:25et | 22:42s | | | 22:23s | |
| 07/10/2016 | Sun | 2:32mt | | | 0:36s | | 1:55s |
| 07/10/2016 | Sun | 4:20r | 10:59r | 4:35r | 5:04r | 9:31r | |
| 07/10/2016 | Sun | 11:59t | 17:08t | 12:18t | 12:39t | 15:25r | 15:56t |
| 07/10/2016 | Sun | 19:37s | | 20:01s | 20:13s | 19:59t | 21:12t |
| 07/10/2016 | Sun | 21:24et | 23:09s | | | 22:20s | |
| 07/11/2016 | M | 2:33mt | | | 0:32s | | 1:51s |
| 07/11/2016 | M | 4:21r | 11:57r | 4:42r | 5:06r | 9:28r | |
| 07/11/2016 | M | 11:59t | 17:51t | 12:24t | 12:40t | 15:22r | 15:52t |
| 07/11/2016 | M | 19:36s | 17:52FQ | 20:04s | 20:13s | 19:55t | 21:08t |
| 07/11/2016 | M | 21:23et | 23:37s | | | 22:16s | |
| 07/12/2016 | Tu | 2:35mt | | | 0:29s | | 1:47s |
| 07/12/2016 | Tu | 4:22r | | 4:48r | 5:09r | 9:25r | |
| 07/12/2016 | Tu | 11:59t | 12:55r | 12:28t | 12:42t | 15:19r | 15:49t |
| 07/12/2016 | Tu | 19:36s | 18:34t | 20:07s | 20:14s | 19:52t | 21:04t |
| 07/12/2016 | Tu | 21:22et | | | | 22:13s | |
| 07/13/2016 | W | 2:36mt | 0:06s | | 0:25s | | 1:43s |
| 07/13/2016 | W | 4:23r | | 4:55r | 5:11r | 9:22r | |
| 07/13/2016 | W | 11:59t | 13:53r | 12:33t | 12:43t | 15:16r | 15:46t |
| 07/13/2016 | W | 19:35s | 19:17t | 20:10s | 20:13s | 19:49t | 21:00t |
| 07/13/2016 | W | 21:21et | | | | 22:09s | |
| 07/14/2016 | Th | 2:37mt | 0:37s | | 0:22s | | 1:39s |
| 07/14/2016 | Th | 4:24r | | 5:02r | 5:14r | 9:19r | |
| 07/14/2016 | Th | 11:59t | 14:50r | 12:38t | 12:44t | 15:13r | 15:42t |
| 07/14/2016 | Th | 19:34s | 20:03t | 20:12s | 20:13s | 19:46t | 20:56t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 07/14/2016 | Th | 21:20et | | | | | 22:05s | |
| 07/15/2016 | F | 2:39mt | 1:11s | | | 0:18s | | 1:35s |
| 07/15/2016 | F | 4:24r | | 5:09r | 5:16r | | 9:16r | |
| 07/15/2016 | F | 11:59t | 15:47r | 12:42t | 12:45t | 15:10r | 15:39t | 16:13r |
| 07/15/2016 | F | 19:34s | 20:50t | 20:15s | 20:13s | 19:42t | | 20:52t |
| 07/15/2016 | F | 21:19et | | | | | 22:02s | |
| 07/16/2016 | Sat | 2:40mt | 1:49s | | | 0:15s | | 1:30s |
| 07/16/2016 | Sat | 4:25r | | 5:15r | 5:19r | | 9:13r | |
| 07/16/2016 | Sat | 11:59t | 16:43r | 12:47t | 12:46t | 15:07r | 15:36t | 16:09r |
| 07/16/2016 | Sat | 19:33s | | 20:16s | 20:13s | 19:39t | | 20:48t |
| 07/16/2016 | Sat | 21:18et | 21:39t | | | | 21:58s | |
| 07/17/2016 | Sun | 2:42mt | 2:33s | | | 0:12s | | 1:26s |
| 07/17/2016 | Sun | 4:26r | | 5:22r | 5:21r | | 9:10r | |
| 07/17/2016 | Sun | 11:59t | 17:36r | 12:51t | 12:47t | 15:04r | 15:32t | 16:05r |
| 07/17/2016 | Sun | 19:32s | | 20:18s | 20:13s | 19:36t | | 20:44t |
| 07/17/2016 | Sun | 21:16et | 22:29t | | | | 21:55s | |
| 07/18/2016 | M | 2:43mt | 3:23s | | | 0:08s | | 1:22s |
| 07/18/2016 | M | 4:27r | | 5:28r | 5:24r | | 9:07r | |
| 07/18/2016 | M | 11:59t | 18:26r | 12:55t | 12:49t | 15:02r | 15:29t | 16:01r |
| 07/18/2016 | M | 19:31s | | 20:19s | 20:13s | 19:33t | | 20:39t |
| 07/18/2016 | M | 21:15et | 23:21t | | | | 21:51s | |
| 07/19/2016 | Tu | 2:44mt | 4:19s | | | 0:05s | | 1:18s |
| 07/19/2016 | Tu | 4:28r | | 5:35r | 5:26r | | 9:03r | |
| 07/19/2016 | Tu | 12:00t | 15:57FM | 12:58t | 12:50t | 14:59r | 15:26t | 15:57r |
| 07/19/2016 | Tu | 19:30s | 19:12r | 20:20s | 20:12s | 19:31t | | 20:35t |
| 07/19/2016 | Tu | 21:14et | | | | | 21:47s | |
| 07/20/2016 | W | 2:46mt | 0:14t | | | 0:02s | | 1:14s |
| 07/20/2016 | W | 4:29r | 5:20s | 5:41r | 5:29r | | 9:00r | |
| 07/20/2016 | W | 12:00t | | 13:02t | 12:51t | 14:57r | 15:22t | 15:52r |
| 07/20/2016 | W | 19:29s | 19:54r | 20:21s | 20:12s | 19:28t | | 20:31t |
| 07/20/2016 | W | 21:12et | | | | 23:59s | 21:44s | |
| 07/21/2016 | Th | 2:47mt | 1:07t | | | | | 1:10s |
| 07/21/2016 | Th | 4:30r | 6:25s | 5:47r | 5:31r | | 8:57r | |
| 07/21/2016 | Th | 12:00t | | 13:05t | 12:52t | 14:54r | 15:19t | 15:48r |
| 07/21/2016 | Th | 19:29s | 20:32r | 20:22s | 20:11s | 19:25t | | 20:27t |
| 07/21/2016 | Th | 21:11et | | | | 23:55s | 21:40s | |
| 07/22/2016 | F | 2:49mt | 1:59t | | | | | 1:06s |
| 07/22/2016 | F | 4:31r | 7:32s | 5:53r | 5:34r | | 8:54r | |
| 07/22/2016 | F | 12:00t | | 13:08t | 12:53t | 14:52r | 15:16t | 15:44r |
| 07/22/2016 | F | 19:28s | 21:07r | 20:22s | 20:11s | 19:22t | | 20:23t |
| 07/22/2016 | F | 21:09et | | | | 23:52s | 21:37s | |
| 07/23/2016 | Sat | 2:50mt | 2:50t | | | | | 1:02s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 07/23/2016 | Sat | 4:32r | 8:41s | 5:59r | 5:37r | 8:51r | |
| 07/23/2016 | Sat | 12:00t | | 13:11t | 12:54t | 14:49r | 15:12t |
| 07/23/2016 | Sat | 19:27s | | 20:22s | 20:10s | 19:19t | 20:19t |
| 07/23/2016 | Sat | 21:08et | 21:40r | | 23:49s | 21:33s | |
| 07/24/2016 | Sun | 2:52mt | 3:41t | | | | 0:58s |
| 07/24/2016 | Sun | 4:33r | 9:51s | 6:04r | 5:39r | 8:48r | |
| 07/24/2016 | Sun | 12:00t | | 13:14t | 12:55t | 14:47r | 15:09t |
| 07/24/2016 | Sun | 19:26s | | 20:22s | 20:10s | 19:17t | 20:15t |
| 07/24/2016 | Sun | 21:06et | 22:13r | | 23:46s | 21:30s | |
| 07/25/2016 | M | 2:54mt | 4:32t | | | | 0:54s |
| 07/25/2016 | M | 4:34r | 11:01s | 6:10r | 5:42r | 8:45r | |
| 07/25/2016 | M | 12:00t | | 13:17t | 12:56t | 14:45r | 15:06t |
| 07/25/2016 | M | 19:25s | | 20:22s | 20:09s | 19:14t | 20:11t |
| 07/25/2016 | M | 21:05et | 22:47r | | 23:43s | 21:26s | |
| 07/26/2016 | Tu | 2:55mt | | | | | 0:50s |
| 07/26/2016 | Tu | 4:35r | 5:24t | 6:15r | 5:44r | 8:42r | |
| 07/26/2016 | Tu | 12:00t | 12:11s | 13:19t | 12:57t | 14:42r | 15:02t |
| 07/26/2016 | Tu | 19:24s | 16:00LQ | 20:22s | 20:08s | 19:11t | 20:07t |
| 07/26/2016 | Tu | 21:03et | 23:23r | | 23:40s | 21:22s | |
| 07/27/2016 | W | 2:57mt | | | | | 0:46s |
| 07/27/2016 | W | 4:36r | 6:18t | 6:20r | 5:47r | 8:39r | |
| 07/27/2016 | W | 12:00t | 13:22s | 13:22t | 12:58t | 14:40r | 14:59t |
| 07/27/2016 | W | 19:22s | | 20:21s | 20:08s | 19:09t | 20:03t |
| 07/27/2016 | W | 21:01et | | | 23:37s | 21:19s | |
| 07/28/2016 | Th | 2:58mt | 0:02r | | | | 0:42s |
| 07/28/2016 | Th | 4:37r | 7:12t | 6:25r | 5:50r | 8:36r | |
| 07/28/2016 | Th | 12:00t | 14:31s | 13:24t | 12:59t | 14:38r | 14:56t |
| 07/28/2016 | Th | 19:21s | | 20:20s | 20:07s | 19:06t | 19:59t |
| 07/28/2016 | Th | 21:00et | | | 23:34s | 21:15s | |
| 07/29/2016 | F | 3:00mt | 0:46r | | | | 0:38s |
| 07/29/2016 | F | 4:38r | 8:09t | 6:30r | 5:52r | 8:33r | |
| 07/29/2016 | F | 12:00t | 15:37s | 13:26t | 13:00t | 14:36r | 14:53t |
| 07/29/2016 | F | 19:20s | | 20:20s | 20:06s | 19:04t | 19:55t |
| 07/29/2016 | F | 20:58et | | | 23:31s | 21:12s | |
| 07/30/2016 | Sat | 3:01mt | 1:36r | | | | 0:34s |
| 07/30/2016 | Sat | 4:39r | 9:06t | 6:35r | 5:55r | 8:30r | |
| 07/30/2016 | Sat | 12:00t | 16:38s | 13:28t | 13:00t | 14:34r | 14:49t |
| 07/30/2016 | Sat | 19:19s | | 20:19s | 20:05s | 19:01t | 19:51t |
| 07/30/2016 | Sat | 20:56et | | | 23:29s | 21:08s | |
| 07/31/2016 | Sun | 3:03mt | 2:31r | | | | 0:30s |
| 07/31/2016 | Sun | 4:41r | 10:03t | 6:39r | 5:57r | 8:27r | |
| 07/31/2016 | Sun | 12:00t | 17:33s | 13:29t | 13:01t | 14:32r | 14:46t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 07/31/2016 Sun | 19:18s | | 20:18s | 20:04s | 18:59t | | 19:47t |
| 07/31/2016 Sun | 20:55et | | | | 23:26s | 21:05s | |
| 08/01/2016 M | 3:05mt | 3:31r | | | | | 0:26s |
| 08/01/2016 M | 4:42r | 10:59t | 6:44r | 6:00r | | 8:24r | |
| 08/01/2016 M | 11:59t | 18:22s | 13:31t | 13:02t | 14:30r | 14:43t | 15:04r |
| 08/01/2016 M | 19:17s | | 20:16s | 20:03s | 18:56t | | 19:43t |
| 08/01/2016 M | 20:53et | | | | 23:23s | 21:01s | |
| 08/02/2016 Tu | 3:06mt | 4:34r | | | | | 0:22s |
| 08/02/2016 Tu | 4:43r | 11:52t | 6:48r | 6:03r | | 8:21r | |
| 08/02/2016 Tu | 11:59t | 13:45NM | 13:32t | 13:03t | 14:28r | 14:40t | 15:00r |
| 08/02/2016 Tu | 19:15s | 19:04s | 20:15s | 20:02s | 18:54t | | 19:39t |
| 08/02/2016 Tu | 20:51et | | | | 23:20s | 20:58s | |
| 08/03/2016 W | 3:08mt | | | | | | 0:17s |
| 08/03/2016 W | 4:44r | 5:38r | 6:52r | 6:05r | | 8:18r | |
| 08/03/2016 W | 11:59t | 12:43t | 13:34t | 13:04t | 14:26r | 14:36t | 14:56r |
| 08/03/2016 W | 19:14s | 19:40s | 20:14s | 20:01s | 18:52t | | 19:35t |
| 08/03/2016 W | 20:49et | | | | 23:18s | 20:54s | |
| 08/04/2016 Th | 3:10mt | | | | | | 0:13s |
| 08/04/2016 Th | 4:45r | 6:42r | 6:56r | 6:08r | | 8:15r | |
| 08/04/2016 Th | 11:59t | 13:32t | 13:35t | 13:05t | 14:24r | 14:33t | 14:52r |
| 08/04/2016 Th | 19:13s | 20:13s | 20:12s | 20:00s | 18:49t | | 19:31t |
| 08/04/2016 Th | 20:48et | | | | 23:15s | 20:50s | |
| 08/05/2016 F | 3:11mt | | | | | | 0:09s |
| 08/05/2016 F | 4:46r | 7:44r | 7:00r | 6:10r | | 8:12r | |
| 08/05/2016 F | 11:59t | 14:18t | 13:36t | 13:05t | 14:22r | 14:30t | 14:48r |
| 08/05/2016 F | 19:11s | 20:43s | 20:10s | 19:59s | 18:47t | | 19:27t |
| 08/05/2016 F | 20:46et | | | | 23:12s | 20:47s | |
| 08/06/2016 Sat | 3:13mt | | | | | | 0:05s |
| 08/06/2016 Sat | 4:47r | 8:45r | 7:03r | 6:13r | | 8:10r | |
| 08/06/2016 Sat | 11:59t | 15:02t | 13:37t | 13:06t | 14:20r | 14:27t | 14:44r |
| 08/06/2016 Sat | 19:10s | | 20:09s | 19:58s | 18:45t | 20:43s | 19:23t |
| 08/06/2016 Sat | 20:44et | 21:11s | | | 23:10s | | |
| 08/07/2016 Sun | 3:14mt | | | | | | 0:02s |
| 08/07/2016 Sun | 4:48r | 9:45r | 7:06r | 6:16r | | 8:07r | |
| 08/07/2016 Sun | 11:59t | 15:45t | 13:37t | 13:07t | 14:18r | 14:23t | 14:40r |
| 08/07/2016 Sun | 19:09s | | 20:07s | 19:57s | 18:43t | 20:40s | 19:19t |
| 08/07/2016 Sun | 20:42et | 21:39s | | | 23:07s | | 23:58s |
| 08/08/2016 M | 3:16mt | | | | | | |
| 08/08/2016 M | 4:49r | 10:43r | 7:10r | 6:18r | | 8:04r | |
| 08/08/2016 M | 11:59t | 16:28t | 13:38t | 13:08t | 14:17r | 14:20t | 14:36r |
| 08/08/2016 M | 19:07s | | 20:05s | 19:56s | 18:41t | 20:36s | 19:15t |
| 08/08/2016 M | 20:40et | 22:07s | | | 23:05s | | 23:54s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 08/09/2016 | Tu | 3:18mt | | | | | | |
| 08/09/2016 | Tu | 4:51r | 11:41r | 7:13r | 6:21r | 8:01r | | |
| 08/09/2016 | Tu | 11:59t | 17:12t | 13:38t | 13:08t | 14:15r | 14:17t | 14:32r |
| 08/09/2016 | Tu | 19:06s | | 20:03s | 19:55s | 18:39t | 20:33s | 19:11t |
| 08/09/2016 | Tu | 20:38et | 22:37s | | | 23:02s | | 23:50s |
| 08/10/2016 | W | 3:19mt | | | | | | |
| 08/10/2016 | W | 4:52r | 11:21FQ | 7:15r | 6:23r | 7:58r | | |
| 08/10/2016 | W | 11:58t | 12:38r | 13:39t | 13:09t | 14:13r | 14:14t | 14:28r |
| 08/10/2016 | W | 19:04s | 17:56t | 20:01s | 19:54s | 18:37t | 20:29s | 19:07t |
| 08/10/2016 | W | 20:36et | 23:09s | | | 23:00s | | 23:46s |
| 08/11/2016 | Th | 3:21mt | | | | | | |
| 08/11/2016 | Th | 4:53r | | 7:18r | 6:26r | 7:55r | | |
| 08/11/2016 | Th | 11:58t | 13:35r | 13:39t | 13:10t | 14:12r | 14:10t | 14:24r |
| 08/11/2016 | Th | 19:03s | 18:42t | 19:58s | 19:52s | 18:35t | 20:26s | 19:03t |
| 08/11/2016 | Th | 20:34et | 23:45s | | | 22:57s | | 23:42s |
| 08/12/2016 | F | 3:22mt | | | | | | |
| 08/12/2016 | F | 4:54r | | 7:20r | 6:29r | 7:52r | | |
| 08/12/2016 | F | 11:58t | 14:31r | 13:39t | 13:10t | 14:10r | 14:07t | 14:20r |
| 08/12/2016 | F | 19:01s | 19:30t | 19:56s | 19:51s | 18:33t | 20:22s | 18:59t |
| 08/12/2016 | F | 20:32et | | | | 22:55s | | 23:38s |
| 08/13/2016 | Sat | 3:24mt | 0:26s | | | | | |
| 08/13/2016 | Sat | 4:55r | | 7:23r | 6:31r | 7:49r | | |
| 08/13/2016 | Sat | 11:58t | 15:25r | 13:39t | 13:11t | 14:09r | 14:04t | 14:16r |
| 08/13/2016 | Sat | 19:00s | 20:19t | 19:53s | 19:50s | 18:31t | 20:19s | 18:55t |
| 08/13/2016 | Sat | 20:30et | | | | 22:52s | | 23:34s |
| 08/14/2016 | Sun | 3:26mt | 1:13s | | | | | |
| 08/14/2016 | Sun | 4:56r | | 7:25r | 6:34r | 7:46r | | |
| 08/14/2016 | Sun | 11:58t | 16:16r | 13:38t | 13:12t | 14:07r | 14:01t | 14:12r |
| 08/14/2016 | Sun | 18:58s | | 19:51s | 19:48s | 18:29t | 20:15s | 18:51t |
| 08/14/2016 | Sun | 20:29et | 21:11t | | | 22:50s | | 23:30s |
| 08/15/2016 | M | 3:27mt | 2:06s | | | | | |
| 08/15/2016 | M | 4:57r | | 7:26r | 6:36r | 7:43r | | |
| 08/15/2016 | M | 11:58t | 17:04r | 13:38t | 13:12t | 14:06r | 13:58t | 14:08r |
| 08/15/2016 | M | 18:57s | | 19:48s | 19:47s | 18:27t | 20:12s | 18:47t |
| 08/15/2016 | M | 20:27et | 22:03t | | | 22:48s | | 23:26s |
| 08/16/2016 | Tu | 3:29mt | 3:05s | | | | | |
| 08/16/2016 | Tu | 4:59r | | 7:28r | 6:39r | 7:40r | | |
| 08/16/2016 | Tu | 11:57t | 17:48r | 13:37t | 13:13t | 14:04r | 13:54t | 14:05r |
| 08/16/2016 | Tu | 18:55s | | 19:45s | 19:46s | 18:25t | 20:08s | 18:43t |
| 08/16/2016 | Tu | 20:25et | 22:56t | | | 22:45s | | 23:22s |
| 08/17/2016 | W | 3:30mt | 4:09s | | | | | |
| 08/17/2016 | W | 5:00r | | 7:29r | 6:41r | 7:37r | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 08/17/2016 | W | 11:57t | | 13:36t | 13:13t | 14:03r | 13:51t 14:01r |
| 08/17/2016 | W | 18:54s | 18:29r | 19:43s | 19:44s | 18:23t | 20:05s 18:39t |
| 08/17/2016 | W | 20:23et | 23:49t | | | 22:43s | 23:18s |
| 08/18/2016 | Th | 3:32mt | 2:27FM | | | | |
| 08/18/2016 | Th | 5:01r | 5:16s | 7:30r | 6:44r | | 7:35r |
| 08/18/2016 | Th | 11:57t | | 13:35t | 13:14t | 14:01r | 13:48t 13:57r |
| 08/18/2016 | Th | 18:52s | 19:06r | 19:40s | 19:43s | 18:21t | 20:01s 18:35t |
| 08/18/2016 | Th | 20:21et | | | | 22:41s | 23:14s |
| 08/19/2016 | F | 3:33mt | 0:42t | | | | |
| 08/19/2016 | F | 5:02r | 6:26s | 7:31r | 6:47r | | 7:32r |
| 08/19/2016 | F | 11:57t | | 13:34t | 13:15t | 14:00r | 13:45t 13:53r |
| 08/19/2016 | F | 18:50s | 19:41r | 19:37s | 19:42s | 18:19t | 19:58s 18:32t |
| 08/19/2016 | F | 20:19et | | | | 22:39s | 23:10s |
| 08/20/2016 | Sat | 3:35mt | 1:35t | | | | |
| 08/20/2016 | Sat | 5:03r | 7:38s | 7:31r | 6:49r | | 7:29r |
| 08/20/2016 | Sat | 11:56t | | 13:33t | 13:15t | 13:58r | 13:42t 13:49r |
| 08/20/2016 | Sat | 18:49s | 20:15r | 19:33s | 19:40s | 18:18t | 19:54s 18:28t |
| 08/20/2016 | Sat | 20:17et | | | | 22:37s | 23:06s |
| 08/21/2016 | Sun | 3:37mt | 2:27t | | | | |
| 08/21/2016 | Sun | 5:04r | 8:50s | 7:32r | 6:52r | | 7:26r |
| 08/21/2016 | Sun | 11:56t | | 13:31t | 13:16t | 13:57r | 13:38t 13:45r |
| 08/21/2016 | Sun | 18:47s | | 19:30s | 19:39s | 18:16t | 19:51s 18:24t |
| 08/21/2016 | Sun | 20:14et | 20:49r | | | 22:34s | 23:02s |
| 08/22/2016 | M | 3:38mt | 3:20t | | | | |
| 08/22/2016 | M | 5:05r | 10:02s | 7:32r | 6:54r | | 7:23r |
| 08/22/2016 | M | 11:56t | | 13:29t | 13:16t | 13:56r | 13:35t 13:41r |
| 08/22/2016 | M | 18:45s | | 19:27s | 19:37s | 18:14t | 19:47s 18:20t |
| 08/22/2016 | M | 20:12et | 21:25r | | | 22:32s | 22:58s |
| 08/23/2016 | Tu | 3:40mt | 4:14t | | | | |
| 08/23/2016 | Tu | 5:07r | 11:13s | 7:31r | 6:57r | | 7:20r |
| 08/23/2016 | Tu | 11:56t | | 13:27t | 13:17t | 13:54r | 13:32t 13:38r |
| 08/23/2016 | Tu | 18:44s | | 19:23s | 19:36s | 18:12t | 19:44s 18:16t |
| 08/23/2016 | Tu | 20:10et | 22:03r | | | 22:30s | 22:55s |
| 08/24/2016 | W | 3:41mt | | | | | |
| 08/24/2016 | W | 5:08r | 5:09t | 7:30r | 6:59r | | 7:17r |
| 08/24/2016 | W | 11:55t | 12:23s | 13:25t | 13:17t | 13:53r | 13:29t 13:34r |
| 08/24/2016 | W | 18:42s | | 19:19s | 19:35s | 18:11t | 19:40s 18:12t |
| 08/24/2016 | W | 20:08et | 20:41LQ | | | 22:28s | |
| 08/24/2016 | W | | 22:45r | | | | 22:51s |
| 08/25/2016 | Th | 3:43mt | | | | | |
| 08/25/2016 | Th | 5:09r | 6:04t | 7:29r | 7:02r | | 7:14r |
| 08/25/2016 | Th | 11:55t | 13:29s | 13:23t | 13:18t | 13:52r | 13:26t 13:30r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 08/25/2016 | Th | 18:40s | | 19:16s | 19:33s | 18:09t | 19:37s | 18:08t |
| 08/25/2016 | Th | 20:06et | 23:33r | | | 22:26s | | 22:47s |
| 08/26/2016 | F | 3:44mt | | | | | | |
| 08/26/2016 | F | 5:10r | 7:01t | 7:27r | 7:04r | | 7:12r | |
| 08/26/2016 | F | 11:55t | 14:31s | 13:20t | 13:18t | 13:50r | 13:22t | 13:26r |
| 08/26/2016 | F | 18:39s | | 19:12s | 19:32s | 18:07t | 19:33s | 18:05t |
| 08/26/2016 | F | 20:04et | | | | 22:24s | | 22:43s |
| 08/27/2016 | Sat | 3:46mt | 0:25r | | | | | |
| 08/27/2016 | Sat | 5:11r | 7:57t | 7:25r | 7:07r | | 7:09r | |
| 08/27/2016 | Sat | 11:54t | 15:28s | 13:17t | 13:19t | 13:49r | 13:19t | 13:22r |
| 08/27/2016 | Sat | 18:37s | | 19:07s | 19:30s | 18:06t | 19:30s | 18:01t |
| 08/27/2016 | Sat | 20:02et | | | | 22:22s | | 22:39s |
| 08/28/2016 | Sun | 3:47mt | 1:22r | | | | | |
| 08/28/2016 | Sun | 5:12r | 8:52t | 7:23r | 7:09r | | 7:06r | |
| 08/28/2016 | Sun | 11:54t | 16:17s | 13:13t | 13:20t | 13:48r | 13:16t | 13:18r |
| 08/28/2016 | Sun | 18:35s | | 19:03s | 19:29s | 18:04t | 19:26s | 17:57t |
| 08/28/2016 | Sun | 20:00et | | | | 22:20s | | 22:35s |
| 08/29/2016 | M | 3:49mt | 2:23r | | | | | |
| 08/29/2016 | M | 5:13r | 9:45t | 7:20r | 7:12r | | 7:03r | |
| 08/29/2016 | M | 11:54t | 17:01s | 13:10t | 13:20t | 13:47r | 13:13t | 13:15r |
| 08/29/2016 | M | 18:33s | | 18:59s | 19:27s | 18:03t | 19:23s | 17:53t |
| 08/29/2016 | M | 19:58et | | | | 22:18s | | 22:31s |
| 08/30/2016 | Tu | 3:50mt | 3:26r | | | | | |
| 08/30/2016 | Tu | 5:15r | 10:36t | 7:16r | 7:14r | | 7:00r | |
| 08/30/2016 | Tu | 11:54t | 17:39s | 13:06t | 13:21t | 13:46r | 13:10t | 13:11r |
| 08/30/2016 | Tu | 18:32s | | 18:54s | 19:26s | 18:01t | 19:19s | 17:49t |
| 08/30/2016 | Tu | 19:56et | | | | 22:17s | | 22:27s |
| 08/31/2016 | W | 3:51mt | 4:29r | | | | | |
| 08/31/2016 | W | 5:16r | 11:25t | 7:12r | 7:17r | | 6:57r | |
| 08/31/2016 | W | 11:53t | | 13:01t | 13:21t | 13:44r | 13:07t | 13:07r |
| 08/31/2016 | W | 18:30s | 18:12s | 18:50s | 19:24s | 18:00t | 19:16s | 17:45t |
| 08/31/2016 | W | 19:54et | | | | 22:15s | | 22:24s |
| 09/01/2016 | Th | 3:53mt | 2:03NM | | | | | |
| 09/01/2016 | Th | 5:17r | 5:31r | 7:08r | 7:19r | | 6:54r | |
| 09/01/2016 | Th | 11:53t | 12:11t | 12:56t | 13:22t | 13:43r | 13:03t | 13:03r |
| 09/01/2016 | Th | 18:28s | 18:43s | 18:45s | 19:23s | 17:58t | 19:12s | 17:42t |
| 09/01/2016 | Th | 19:52et | | | | 22:13s | | 22:20s |
| 09/02/2016 | F | 3:54mt | | | | | | |
| 09/02/2016 | F | 5:18r | 6:33r | 7:03r | 7:22r | | 6:52r | |
| 09/02/2016 | F | 11:53t | 12:56t | 12:51t | 13:22t | 13:42r | 13:00t | 13:00r |
| 09/02/2016 | F | 18:26s | 19:12s | 18:40s | 19:21s | 17:57t | 19:09s | 17:38t |
| 09/02/2016 | F | 19:50et | | | | 22:11s | | 22:16s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 09/03/2016 | Sat | 3:56mt | | | | | |
| 09/03/2016 | Sat | 5:19r | 7:33r | 6:57r | 7:24r | 6:49r | |
| 09/03/2016 | Sat | 11:52t | 13:40t | 12:46t | 13:23t | 13:41r | 12:57t 12:56r |
| 09/03/2016 | Sat | 18:25s | 19:40s | 18:35s | 19:20s | 17:55t | 19:05s 17:34t |
| 09/03/2016 | Sat | 19:48et | | | 22:10s | | 22:12s |
| 09/04/2016 | Sun | 3:57mt | | | | | |
| 09/04/2016 | Sun | 5:20r | 8:32r | 6:51r | 7:27r | 6:46r | |
| 09/04/2016 | Sun | 11:52t | 14:23t | 12:40t | 13:23t | 13:40r | 12:54t 12:52r |
| 09/04/2016 | Sun | 18:23s | | 18:30s | 19:18s | 17:54t | 19:02s 17:30t |
| 09/04/2016 | Sun | 19:46et | 20:08s | | | 22:08s | 22:08s |
| 09/05/2016 | M | 3:58mt | | | | | |
| 09/05/2016 | M | 5:21r | 9:30r | 6:44r | 7:29r | 6:43r | |
| 09/05/2016 | M | 11:52t | 15:07t | 12:34t | 13:24t | 13:39r | 12:51t 12:48r |
| 09/05/2016 | M | 18:21s | | 18:25s | 19:17s | 17:52t | 18:58s 17:26t |
| 09/05/2016 | M | 19:44et | 20:37s | | | 22:06s | 22:04s |
| 09/06/2016 | Tu | 4:00mt | | | | | |
| 09/06/2016 | Tu | 5:23r | 10:28r | 6:36r | 7:32r | 6:40r | |
| 09/06/2016 | Tu | 11:51t | 15:51t | 12:28t | 13:24t | 13:38r | 12:48t 12:45r |
| 09/06/2016 | Tu | 18:19s | | 18:20s | 19:15s | 17:51t | 18:55s 17:23t |
| 09/06/2016 | Tu | 19:42et | 21:08s | | | 22:05s | 22:01s |
| 09/07/2016 | W | 4:01mt | | | | | |
| 09/07/2016 | W | 5:24r | 11:24r | 6:28r | 7:34r | 6:37r | |
| 09/07/2016 | W | 11:51t | 16:36t | 12:21t | 13:25t | 13:36r | 12:44t 12:41r |
| 09/07/2016 | W | 18:17s | | 18:15s | 19:14s | 17:50t | 18:51s 17:19t |
| 09/07/2016 | W | 19:40et | 21:43s | | | 22:03s | 21:57s |
| 09/08/2016 | Th | 4:03mt | | | | | |
| 09/08/2016 | Th | 5:25r | | 6:20r | 7:37r | 6:35r | |
| 09/08/2016 | Th | 11:51t | 12:20r | 12:14t | 13:25t | 13:35r | 12:41t 12:37r |
| 09/08/2016 | Th | 18:16s | 17:22t | 18:09s | 19:12s | 17:48t | 18:48s 17:15t |
| 09/08/2016 | Th | 19:37et | 22:21s | | | 22:02s | 21:53s |
| 09/09/2016 | F | 4:04mt | 4:49FQ | | | | |
| 09/09/2016 | F | 5:26r | | 6:11r | 7:39r | 6:32r | |
| 09/09/2016 | F | 11:50t | 13:14r | 12:07t | 13:26t | 13:34r | 12:38t 12:33r |
| 09/09/2016 | F | 18:14s | 18:10t | 18:04s | 19:11s | 17:47t | 18:44s 17:11t |
| 09/09/2016 | F | 19:35et | 23:04s | | | 22:00s | 21:49s |
| 09/10/2016 | Sat | 4:05mt | | | | | |
| 09/10/2016 | Sat | 5:27r | | 6:02r | 7:42r | 6:29r | |
| 09/10/2016 | Sat | 11:50t | 14:06r | 12:00t | 13:26t | 13:33r | 12:35t 12:30r |
| 09/10/2016 | Sat | 18:12s | 19:00t | 17:59s | 19:09s | 17:46t | 18:41s 17:08t |
| 09/10/2016 | Sat | 19:33et | 23:54s | | | 21:58s | 21:45s |
| 09/11/2016 | Sun | 4:07mt | | | | | |
| 09/11/2016 | Sun | 5:28r | | 5:52r | 7:44r | 6:26r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|---------|---------|--------|--------|---------|--------|
| 09/11/2016 | Sun 11:50t | 14:54r | 11:53t | 13:27t | 13:32r | 12:32t | 12:26r |
| 09/11/2016 | Sun 18:10s | | 17:54s | 19:08s | 17:45t | 18:37s | 17:04t |
| 09/11/2016 | Sun 19:31et | 19:51t | | | 21:57s | | 21:42s |
| 09/12/2016 | M 4:08mt | 0:49s | | | | | |
| 09/12/2016 | M 5:29r | | 5:43r | 7:47r | | 6:23r | |
| 09/12/2016 | M 11:49t | 15:40r | 11:45t | 13:27t | 13:31r | 12:29t | 12:22r |
| 09/12/2016 | M 18:08s | | 17:49s | 19:07s | 17:43t | 18:34s | 17:00t |
| 09/12/2016 | M 19:29et | 20:43t | | | 21:56s | | 21:38s |
| 09/13/2016 | Tu 4:09mt | 1:50s | | | | | |
| 09/13/2016 | Tu 5:31r | | 5:33r | 7:49r | | 6:21r | |
| 09/13/2016 | Tu 11:49t | 16:21r | 11:38t | 13:28t | 13:30r | 12:25t | 12:19r |
| 09/13/2016 | Tu 18:06s | | 17:44s | 19:05s | 17:42t | 18:30s | 16:56t |
| 09/13/2016 | Tu 19:27et | 21:35t | | | 21:54s | | 21:34s |
| 09/14/2016 | W 4:11mt | 2:55s | 5:24r | | | | |
| 09/14/2016 | W 5:32r | | 11:31t | 7:52r | | 6:18r | |
| 09/14/2016 | W 11:48t | | | 13:28t | 13:29r | 12:22t | 12:15r |
| 09/14/2016 | W 18:04s | 17:00r | 17:40s | 19:04s | 17:41t | 18:27s | 16:53t |
| 09/14/2016 | W 19:25et | 22:29t | | | 21:53s | | 21:30s |
| 09/15/2016 | Th 4:12mt | 4:05s | 5:14r | | | | |
| 09/15/2016 | Th 5:33r | | 11:24t | 7:55r | | 6:15r | |
| 09/15/2016 | Th 11:48t | | | 13:29t | 13:28r | 12:19t | 12:11r |
| 09/15/2016 | Th 18:03s | 17:36r | 17:35s | 19:02s | 17:40t | 18:23s | 16:49t |
| 09/15/2016 | Th 19:23et | 23:22t | | | 21:52s | | 21:27s |
| 09/16/2016 | F 4:13mt | 5:16s | 5:05r | | | | |
| 09/16/2016 | F 5:34r | | 11:18t | 7:57r | | 6:12r | |
| 09/16/2016 | F 11:48t | 12:05FM | | 13:29t | 13:27r | 12:16t | 12:08r |
| 09/16/2016 | F 18:01s | 18:11r | 17:31s | 19:01s | 17:38t | 18:20s | 16:45t |
| 09/16/2016 | F 19:21et | | | | 21:50s | | 21:23s |
| 09/17/2016 | Sat 4:15mt | 0:16t | 4:57r | | | | |
| 09/17/2016 | Sat 5:35r | 6:30s | 11:12t | 8:00r | | 6:09r | |
| 09/17/2016 | Sat 11:47t | | | 13:30t | 13:26r | 12:13t | 12:04r |
| 09/17/2016 | Sat 17:59s | 18:46r | 17:28s | 18:59s | 17:37t | 18:16s | 16:42t |
| 09/17/2016 | Sat 19:19et | | | | 21:49s | | 21:19s |
| 09/18/2016 | Sun 4:16mt | 1:10t | 4:49r | | | | |
| 09/18/2016 | Sun 5:36r | 7:44s | 11:06t | 8:02r | | 6:06r | |
| 09/18/2016 | Sun 11:47t | | | 13:31t | 13:24r | 12:10t | 12:00r |
| 09/18/2016 | Sun 17:57s | | 17:24s | 18:58s | 17:36t | 18:13s | 16:38t |
| 09/18/2016 | Sun 19:17et | 19:23r | | | 21:48s | | 21:15s |
| 09/19/2016 | M 4:17mt | 2:05t | 4:42r | | | | |
| 09/19/2016 | M 5:37r | 8:58s | 11:01t | 8:05r | | 6:04r | |
| 09/19/2016 | M 11:47t | | | 13:31t | 13:23r | 12:07t | 11:57r |
| 09/19/2016 | M 17:55s | | 17:21s | 18:57s | 17:35t | 18:09s | 16:34t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|--------|---------|--------|--------|---------|--------|
| 09/19/2016 M | 19:15et | 20:01r | | | 21:46s | | 21:12s |
| 09/20/2016 Tu | 4:18mt | 3:02t | 4:35r | | | | |
| 09/20/2016 Tu | 5:39r | 10:11s | 10:56t | 8:07r | | 6:01r | |
| 09/20/2016 Tu | 11:46t | | | 13:32t | 13:22r | 12:03t | 11:53r |
| 09/20/2016 Tu | 17:53s | | 17:18s | 18:55s | 17:34t | 18:06s | 16:30t |
| 09/20/2016 Tu | 19:13et | 20:43r | | | 21:45s | | 21:08s |
| 09/21/2016 W | 4:20mt | 3:58t | 4:30r | | | | |
| 09/21/2016 W | 5:40r | 11:21s | 10:52t | 8:10r | | 5:58r | |
| 09/21/2016 W | 11:46t | | | 13:32t | 13:21r | 12:00t | 11:49r |
| 09/21/2016 W | 17:51s | | 17:16s | 18:54s | 17:33t | 18:02s | 16:27t |
| 09/21/2016 W | 19:11et | 21:30r | | | 21:44s | | 21:04s |
| 09/22/2016 Th | 4:21mt | 4:56t | 4:25r | | | | |
| 09/22/2016 Th | 5:41r | | | | | 5:55r | |
| 09/22/2016 Th | 7:21SE | | 10:49t | 8:12r | | | |
| 09/22/2016 Th | 11:46t | 12:26s | | 13:33t | 13:20r | 11:57t | 11:46r |
| 09/22/2016 Th | 17:50s | | 17:13s | 18:53s | 17:32t | 17:59s | 16:23t |
| 09/22/2016 Th | 19:09et | 22:21r | | | 21:43s | | 21:00s |
| 09/23/2016 F | 4:22mt | 2:56LQ | 4:21r | | | | |
| 09/23/2016 F | 5:42r | 5:52t | 10:46t | 8:15r | | 5:52r | 11:42r |
| 09/23/2016 F | 11:45t | 13:24s | 17:11s | 13:34t | 13:19r | 11:54t | 16:19t |
| 09/23/2016 F | 17:48s | | | 18:51s | 17:31t | 17:56s | |
| 09/23/2016 F | 19:07et | 23:17r | | | 21:42s | | 20:57s |
| 09/24/2016 Sat | 4:24mt | | 4:18r | | | | |
| 09/24/2016 Sat | 5:43r | 6:48t | 10:44t | 8:18r | | 5:50r | 11:39r |
| 09/24/2016 Sat | 11:45t | 14:16s | 17:10s | 13:34t | 13:18r | 11:51t | 16:16t |
| 09/24/2016 Sat | 17:46s | | | 18:50s | 17:29t | 17:52s | |
| 09/24/2016 Sat | 19:05et | | | | 21:41s | | 20:53s |
| 09/25/2016 Sun | 4:25mt | 0:17r | 4:16r | | | | |
| 09/25/2016 Sun | 5:44r | 7:41t | 10:42t | 8:20r | | 5:47r | 11:35r |
| 09/25/2016 Sun | 11:45t | 15:00s | 17:08s | 13:35t | 13:17r | 11:48t | 16:12t |
| 09/25/2016 Sun | 17:44s | | | 18:49s | 17:28t | 17:49s | |
| 09/25/2016 Sun | 19:03et | | | | 21:40s | | 20:49s |
| 09/26/2016 M | 4:26mt | 1:18r | 4:14r | | | 5:44r | |
| 09/26/2016 M | 5:46r | 8:33t | 10:41t | 8:23r | | | 11:31r |
| 09/26/2016 M | 11:44t | 15:39s | 17:07s | 13:36t | 13:16r | 11:45t | 16:08t |
| 09/26/2016 M | 17:42s | | | 18:48s | 17:27t | 17:45s | |
| 09/26/2016 M | 19:01et | | | | 21:39s | | 20:46s |
| 09/27/2016 Tu | 4:27mt | 2:21r | 4:14r | | | 5:41r | |
| 09/27/2016 Tu | 5:47r | 9:21t | 10:40t | 8:25r | | 11:41t | 11:28r |
| 09/27/2016 Tu | 11:44t | 16:14s | 17:06s | 13:36t | 13:15r | | 16:05t |
| 09/27/2016 Tu | 17:40s | | | 18:47s | 17:26t | 17:42s | |
| 09/27/2016 Tu | 19:00et | | | | 21:38s | | 20:42s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 09/28/2016 | W | 4:29mt | 3:22r | 4:14r | | 5:38r | |
| 09/28/2016 | W | 5:48r | 10:08t | 10:40t | 8:28r | 11:38t | 11:24r |
| 09/28/2016 | W | 11:44t | 16:45s | 17:05s | 13:37t | 13:14r | 16:01t |
| 09/28/2016 | W | 17:38s | | 18:45s | 17:25t | 17:38s | |
| 09/28/2016 | W | 18:58et | | | 21:37s | | 20:38s |
| 09/29/2016 | Th | 4:30mt | 4:23r | 4:15r | | 5:36r | |
| 09/29/2016 | Th | 5:49r | 10:53t | 10:40t | 8:31r | 11:35t | 11:21r |
| 09/29/2016 | Th | 11:43t | 17:14s | 17:04s | 13:38t | 13:12r | 15:58t |
| 09/29/2016 | Th | 17:37s | | 18:44s | 17:24t | 17:35s | |
| 09/29/2016 | Th | 18:56et | | | 21:36s | | 20:34s |
| 09/30/2016 | F | 4:31mt | 5:23r | 4:17r | | 5:33r | |
| 09/30/2016 | F | 5:50r | 11:37t | 10:41t | 8:33r | 11:32t | 11:17r |
| 09/30/2016 | F | 11:43t | 17:11NM | 17:04s | 13:39t | 13:11r | 15:54t |
| 09/30/2016 | F | 17:35s | 17:42s | | 18:43s | 17:23t | 17:31s |
| 09/30/2016 | F | 18:54et | | | 21:35s | | 20:31s |
| 10/01/2016 | Sat | 4:32mt | | 4:19r | | 5:30r | |
| 10/01/2016 | Sat | 5:52r | 6:23r | 10:41t | 8:36r | 11:29t | 11:14r |
| 10/01/2016 | Sat | 11:43t | 12:20t | 17:03s | 13:39t | 13:10r | 15:50t |
| 10/01/2016 | Sat | 17:33s | 18:10s | | 18:42s | 17:22t | 17:28s |
| 10/01/2016 | Sat | 18:52et | | | 21:34s | | 20:27s |
| 10/02/2016 | Sun | 4:33mt | | 4:22r | | 5:27r | |
| 10/02/2016 | Sun | 5:53r | 7:21r | 10:43t | 8:39r | 11:26t | 11:10r |
| 10/02/2016 | Sun | 11:42t | 13:03t | 17:03s | 13:40t | 13:09r | 15:47t |
| 10/02/2016 | Sun | 17:31s | 18:38s | | 18:41s | 17:21t | 17:24s |
| 10/02/2016 | Sun | 18:50et | | | 21:34s | | 20:23s |
| 10/03/2016 | M | 4:35mt | | 4:25r | | 5:24r | |
| 10/03/2016 | M | 5:54r | 8:19r | 10:44t | 8:41r | 11:23t | 11:06r |
| 10/03/2016 | M | 11:42t | 13:47t | 17:02s | 13:41t | 13:08r | 15:43t |
| 10/03/2016 | M | 17:29s | | 18:40s | 17:20t | 17:21s | |
| 10/03/2016 | M | 18:48et | 19:09s | | 21:33s | | 20:20s |
| 10/04/2016 | Tu | 4:36mt | | 4:29r | | 5:21r | |
| 10/04/2016 | Tu | 5:55r | 9:16r | 10:46t | 8:44r | 11:19t | 11:03r |
| 10/04/2016 | Tu | 11:42t | 14:31t | 17:02s | 13:42t | 13:07r | 17:17s |
| 10/04/2016 | Tu | 17:28s | | 18:39s | 17:19t | | |
| 10/04/2016 | Tu | 18:47et | 19:42s | | 21:32s | | 20:16s |
| 10/05/2016 | W | 4:37mt | | 4:33r | | 5:19r | |
| 10/05/2016 | W | 5:56r | 10:12r | 10:48t | 8:46r | 11:16t | 10:59r |
| 10/05/2016 | W | 11:41t | 15:17t | 17:01s | 13:43t | 13:06r | 17:14s |
| 10/05/2016 | W | 17:26s | | 18:38s | 17:18t | | |
| 10/05/2016 | W | 18:45et | 20:18s | | 21:31s | | 20:12s |
| 10/06/2016 | Th | 4:38mt | | 4:37r | | 5:16r | |
| 10/06/2016 | Th | 5:58r | 11:06r | 10:49t | 8:49r | 11:13t | 10:56r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 10/06/2016 | Th | 11:41t | 16:04t | 17:01s | 13:44t | 13:04r | 17:10s | 15:32t |
| 10/06/2016 | Th | 17:24s | | | 18:37s | 17:17t | | |
| 10/06/2016 | Th | 18:43et | 20:59s | | | 21:31s | | 20:09s |
| 10/07/2016 | F | 4:40mt | | 4:41r | | | 5:13r | |
| 10/07/2016 | F | 5:59r | | 10:52t | 8:52r | | 11:10t | 10:52r |
| 10/07/2016 | F | 11:41t | 11:58r | | 13:44t | 13:03r | | 15:29t |
| 10/07/2016 | F | 17:22s | 16:52t | 17:01s | 18:36s | 17:17t | 17:07s | |
| 10/07/2016 | F | 18:41et | 21:45s | | | 21:30s | | 20:05s |
| 10/08/2016 | Sat | 4:41mt | | 4:46r | | | 5:10r | |
| 10/08/2016 | Sat | 6:00r | | 10:54t | 8:54r | | 11:07t | 10:49r |
| 10/08/2016 | Sat | 11:41t | 12:47r | 17:00s | 13:45t | 13:02r | 17:03s | 15:25t |
| 10/08/2016 | Sat | 17:20s | 17:41t | | 18:35s | 17:16t | | |
| 10/08/2016 | Sat | 18:39et | 21:33FQ | | | 21:29s | | 20:01s |
| 10/08/2016 | Sat | | 22:36s | | | | | |
| 10/09/2016 | Sun | 4:42mt | | 4:51r | | | 5:07r | |
| 10/09/2016 | Sun | 6:01r | | 10:56t | 8:57r | | 11:04t | 10:45r |
| 10/09/2016 | Sun | 11:40t | 13:33r | 17:00s | 13:46t | 13:01r | 17:00s | 15:21t |
| 10/09/2016 | Sun | 17:19s | 18:31t | | 18:35s | 17:15t | | |
| 10/09/2016 | Sun | 18:38et | 23:33s | | | 21:29s | | 19:58s |
| 10/10/2016 | M | 4:43mt | | 4:56r | | | 5:05r | |
| 10/10/2016 | M | 6:02r | | 10:58t | 9:00r | | 11:01t | 10:42r |
| 10/10/2016 | M | 11:40t | 14:15r | 16:59s | 13:47t | 12:59r | 16:57s | 15:18t |
| 10/10/2016 | M | 17:17s | | | 18:34s | 17:14t | | |
| 10/10/2016 | M | 18:36et | 19:22t | | | 21:28s | | 19:54s |
| 10/11/2016 | Tu | 4:44mt | 0:35s | 5:01r | | | 5:02r | |
| 10/11/2016 | Tu | 6:04r | | 11:01t | 9:02r | | 10:57t | 10:38r |
| 10/11/2016 | Tu | 11:40t | 14:54r | 16:59s | 13:48t | 12:58r | 16:53s | 15:14t |
| 10/11/2016 | Tu | 17:15s | | | 18:33s | 17:13t | | |
| 10/11/2016 | Tu | 18:34et | 20:14t | | | 21:28s | | 19:50s |
| 10/12/2016 | W | 4:46mt | 1:41s | 5:06r | | | 4:59r | |
| 10/12/2016 | W | 6:05r | | 11:03t | 9:05r | | 10:54t | 10:35r |
| 10/12/2016 | W | 11:39t | 15:30r | 16:58s | 13:49t | 12:57r | 16:50s | 15:11t |
| 10/12/2016 | W | 17:13s | | | | 17:12t | | |
| 10/12/2016 | W | 18:33et | 21:06t | | 18:33s | 21:27s | | 19:47s |
| 10/13/2016 | Th | 4:47mt | 2:51s | 5:11r | | | 4:56r | |
| 10/13/2016 | Th | 6:06r | | 11:05t | 9:08r | | 10:51t | 10:31r |
| 10/13/2016 | Th | 11:39t | 16:05r | 16:58s | 13:50t | 12:56r | 16:46s | 15:07t |
| 10/13/2016 | Th | 17:12s | | | | 17:11t | | |
| 10/13/2016 | Th | 18:31et | 21:59t | | 18:32s | 21:26s | | 19:43s |
| 10/14/2016 | F | 4:48mt | 4:03s | 5:16r | | | 4:53r | |
| 10/14/2016 | F | 6:07r | | 11:08t | 9:10r | | 10:48t | 10:28r |
| 10/14/2016 | F | 11:39t | 16:40r | 16:57s | 13:51t | 12:54r | 16:43s | 15:04t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 10/14/2016 | F | 17:10s | | | | 17:10t | | |
| 10/14/2016 | F | 18:29et | 22:54t | | 18:31s | 21:26s | | 19:40s |
| 10/15/2016 | Sat | 4:49mt | 5:17s | 5:22r | | | 4:50r | |
| 10/15/2016 | Sat | 6:09r | | 11:10t | 9:13r | | 10:45t | 10:24r |
| 10/15/2016 | Sat | 11:39t | | 16:57s | 13:52t | 12:53r | 16:39s | 15:00t |
| 10/15/2016 | Sat | 17:08s | 17:16r | | | 17:09t | | |
| 10/15/2016 | Sat | 18:28et | 21:23FM | | 18:31s | 21:25s | | 19:36s |
| 10/15/2016 | Sat | | 23:49t | | | | | |
| 10/16/2016 | Sun | 4:50mt | | 5:27r | | | 4:48r | |
| 10/16/2016 | Sun | 6:10r | 6:33s | 11:12t | 9:15r | | 10:42t | 10:21r |
| 10/16/2016 | Sun | 11:39t | | 16:56s | 13:53t | 12:52r | 16:36s | 14:57t |
| 10/16/2016 | Sun | 17:07s | 17:54r | | | 17:08t | | |
| 10/16/2016 | Sun | 18:26et | | | 18:30s | 21:25s | | 19:32s |
| 10/17/2016 | M | 4:52mt | 0:47t | 5:32r | | | 4:45r | |
| 10/17/2016 | M | 6:11r | 7:49s | 11:15t | 9:18r | | 10:39t | 10:17r |
| 10/17/2016 | M | 11:38t | | 16:56s | 13:54t | 12:50r | 16:32s | 14:53t |
| 10/17/2016 | M | 17:05s | | | | 17:07t | | |
| 10/17/2016 | M | 18:24et | 18:35r | | 18:30s | 21:25s | | 19:29s |
| 10/18/2016 | Tu | 4:53mt | 1:45t | 5:38r | | | 4:42r | |
| 10/18/2016 | Tu | 6:12r | 9:04s | 11:17t | 9:20r | | 10:35t | 10:14r |
| 10/18/2016 | Tu | 11:38t | | 16:55s | 13:55t | 12:49r | 16:29s | 14:49t |
| 10/18/2016 | Tu | 17:03s | | | | 17:07t | | |
| 10/18/2016 | Tu | 18:23et | 19:21r | | 18:30s | 21:24s | | 19:25s |
| 10/19/2016 | W | 4:54mt | 2:45t | 5:43r | | | 4:39r | |
| 10/19/2016 | W | 6:14r | 10:13s | 11:20t | 9:23r | | 10:32t | 10:10r |
| 10/19/2016 | W | 11:38t | | 16:55s | 13:56t | 12:48r | 16:25s | 14:46t |
| 10/19/2016 | W | 17:02s | | | | 17:06t | | |
| 10/19/2016 | W | 18:21et | 20:13r | | 18:29s | 21:24s | | 19:21s |
| 10/20/2016 | Th | 4:55mt | 3:44t | 5:48r | | | 4:36r | |
| 10/20/2016 | Th | 6:15r | 11:17s | 11:22t | 9:25r | | 10:29t | 10:07r |
| 10/20/2016 | Th | 11:38t | | 16:54s | 13:58t | 12:46r | 16:22s | 14:42t |
| 10/20/2016 | Th | 17:00s | | | | 17:05t | | |
| 10/20/2016 | Th | 18:20et | 21:09r | | 18:29s | 21:23s | | 19:18s |
| 10/21/2016 | F | 4:56mt | 4:42t | 5:53r | | | 4:33r | |
| 10/21/2016 | F | 6:16r | | 11:24t | 9:28r | | 10:26t | 10:03r |
| 10/21/2016 | F | 11:38t | 12:13s | 16:54s | 13:59t | 12:45r | 16:18s | 14:39t |
| 10/21/2016 | F | 16:59s | | | | 17:04t | | |
| 10/21/2016 | F | 18:18et | 22:09r | | 18:29s | 21:23s | | 19:14s |
| 10/22/2016 | Sat | 4:58mt | 5:37t | 5:58r | | | 4:31r | |
| 10/22/2016 | Sat | 6:17r | | 11:26t | 9:30r | | 10:23t | 10:00r |
| 10/22/2016 | Sat | 11:38t | 12:14LQ | | | 12:44r | | |
| 10/22/2016 | Sat | 16:57s | 13:00s | 16:53s | 14:00t | 17:03t | 16:15s | 14:35t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 10/22/2016 | Sat | 18:17et | 23:11r | | 18:29s | 21:23s | 19:11s |
| 10/23/2016 | Sun | 4:59mt | | 6:03r | | 4:28r | |
| 10/23/2016 | Sun | 6:19r | 6:30t | 11:29t | 9:33r | 10:20t | 9:56r |
| 10/23/2016 | Sun | 11:37t | 13:41s | 16:53s | 14:01t | 12:42r | 16:11s |
| 10/23/2016 | Sun | 16:55s | | | | 17:02t | |
| 10/23/2016 | Sun | 18:15et | | | 18:29s | 21:23s | 19:07s |
| 10/24/2016 | M | 5:00mt | 0:14r | 6:09r | | 4:25r | |
| 10/24/2016 | M | 6:20r | 7:19t | 11:31t | 9:35r | 10:16t | 9:53r |
| 10/24/2016 | M | 11:37t | 14:17s | 16:52s | 14:02t | 12:41r | 16:08s |
| 10/24/2016 | M | 16:54s | | | | 17:01t | |
| 10/24/2016 | M | 18:14et | | | 18:29s | 21:22s | 19:04s |
| 10/25/2016 | Tu | 5:01mt | 1:16r | 6:14r | | 4:22r | |
| 10/25/2016 | Tu | 6:21r | 8:06t | 11:33t | 9:38r | 10:13t | 9:49r |
| 10/25/2016 | Tu | 11:37t | 14:49s | 16:52s | 14:03t | 12:39r | 16:04s |
| 10/25/2016 | Tu | 16:52s | | | | 17:00t | |
| 10/25/2016 | Tu | 18:13et | | | 18:29s | 21:22s | 19:00s |
| 10/26/2016 | W | 5:02mt | 2:17r | 6:19r | | 4:19r | |
| 10/26/2016 | W | 6:23r | 8:51t | 11:36t | 9:40r | 10:10t | 9:46r |
| 10/26/2016 | W | 11:37t | 15:18s | | 14:05t | 12:38r | 16:01s |
| 10/26/2016 | W | 16:51s | | 16:51s | | 17:00t | |
| 10/26/2016 | W | 18:11et | | | 18:29s | 21:22s | 18:56s |
| 10/27/2016 | Th | 5:03mt | 3:17r | 6:24r | | 4:16r | |
| 10/27/2016 | Th | 6:24r | 9:35t | | 9:42r | 10:07t | 9:43r |
| 10/27/2016 | Th | 11:37t | 15:46s | 11:38t | 14:06t | 12:36r | 15:57s |
| 10/27/2016 | Th | 16:49s | | 16:51s | | 16:59t | |
| 10/27/2016 | Th | 18:10et | | | 18:29s | 21:22s | 18:53s |
| 10/28/2016 | F | 5:05mt | 4:16r | | | 4:13r | |
| 10/28/2016 | F | 6:25r | 10:18t | 6:29r | 9:45r | 10:04t | 9:39r |
| 10/28/2016 | F | 11:37t | 16:13s | 11:40t | 14:07t | 12:35r | 15:54s |
| 10/28/2016 | F | 16:48s | | 16:50s | | 16:58t | |
| 10/28/2016 | F | 18:08et | | | 18:29s | 21:21s | 18:49s |
| 10/29/2016 | Sat | 5:06mt | 5:14r | | | 4:11r | |
| 10/29/2016 | Sat | 6:27r | 11:01t | 6:34r | 9:47r | 10:01t | 9:36r |
| 10/29/2016 | Sat | 11:37t | 16:41s | 11:42t | 14:08t | 12:33r | 15:50s |
| 10/29/2016 | Sat | 16:47s | | 16:50s | | 16:57t | |
| 10/29/2016 | Sat | 18:07et | | | 18:30s | 21:21s | 18:46s |
| 10/30/2016 | Sun | 5:07mt | 6:12r | | | 4:08r | |
| 10/30/2016 | Sun | 6:28r | 10:38NM | 6:39r | 9:49r | 9:57t | 9:32r |
| 10/30/2016 | Sun | 11:37t | 11:44t | 11:45t | 14:10t | 12:32r | 15:47s |
| 10/30/2016 | Sun | 16:45s | 17:10s | 16:50s | | 16:56t | |
| 10/30/2016 | Sun | 18:06et | | | 18:30s | 21:21s | 18:42s |
| 10/31/2016 | M | 5:08mt | | | | 4:05r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 10/31/2016 | M | 6:29r | 7:10r | 6:44r | 9:51r | 9:54t | 9:29r | |
| 10/31/2016 | M | 11:37t | 12:28t | 11:47t | 14:11t | 12:30r | 15:44s | 14:04t |
| 10/31/2016 | M | 16:44s | 17:42s | 16:49s | | 16:55t | | |
| 10/31/2016 | M | 18:05et | | 18:30s | 21:21s | | 18:39s | |
| 11/01/2016 | Tu | 5:09mt | | | | 4:02r | | |
| 11/01/2016 | Tu | 6:31r | 8:06r | 6:49r | 9:53r | 9:51t | 9:25r | |
| 11/01/2016 | Tu | 11:37t | 13:14t | 11:49t | 14:12t | 12:29r | 15:40s | 14:00t |
| 11/01/2016 | Tu | 16:42s | | 16:49s | | 16:54t | | |
| 11/01/2016 | Tu | 18:03et | 18:17s | | 18:31s | 21:21s | | 18:35s |
| 11/02/2016 | W | 5:11mt | | | | 3:59r | | |
| 11/02/2016 | W | 6:32r | 9:01r | 6:53r | 9:56r | 9:48t | 9:22r | |
| 11/02/2016 | W | 11:37t | 14:00t | 11:52t | 14:14t | 12:27r | 15:37s | 13:57t |
| 11/02/2016 | W | 16:41s | | 16:49s | | 16:54t | | |
| 11/02/2016 | W | 18:02et | 18:56s | | 18:31s | 21:21s | | 18:31s |
| 11/03/2016 | Th | 5:12mt | | | | 3:56r | | |
| 11/03/2016 | Th | 6:33r | 9:54r | 6:58r | 9:58r | 9:45t | 9:19r | |
| 11/03/2016 | Th | 11:37t | 14:48t | 11:54t | 14:15t | 12:25r | 15:33s | 13:53t |
| 11/03/2016 | Th | 16:40s | | 16:49s | | 16:53t | | |
| 11/03/2016 | Th | 18:01et | 19:40s | | 18:32s | 21:20s | | 18:28s |
| 11/04/2016 | F | 5:13mt | | | | 3:53r | | |
| 11/04/2016 | F | 6:35r | 10:44r | 7:03r | 10:00r | 9:41t | 9:15r | |
| 11/04/2016 | F | 11:37t | 15:36t | 11:56t | 14:16t | 12:24r | 15:30s | 13:50t |
| 11/04/2016 | F | 16:38s | | 16:49s | | 16:52t | | |
| 11/04/2016 | F | 18:00et | 20:29s | | 18:33s | 21:20s | | 18:24s |
| 11/05/2016 | Sat | 5:14mt | | | | 3:50r | | |
| 11/05/2016 | Sat | 6:36r | 11:30r | 7:08r | 10:02r | 9:38t | 9:12r | |
| 11/05/2016 | Sat | 11:37t | 16:25t | 11:59t | 14:18t | 12:22r | 15:26s | 13:46t |
| 11/05/2016 | Sat | 16:37s | | 16:48s | | 16:51t | | |
| 11/05/2016 | Sat | 17:59et | 21:23s | | 18:34s | 21:20s | | 18:21s |
| 11/06/2016 | Sun | 5:15mt | | | | 3:47r | | |
| 11/06/2016 | Sun | 6:37r | | 7:12r | 10:03r | 9:35t | 9:08r | |
| 11/06/2016 | Sun | 11:37t | 12:12r | 12:01t | 14:19t | 12:20r | 15:23s | 13:43t |
| 11/06/2016 | Sun | 16:36s | 17:15t | 16:48s | | 16:50t | | |
| 11/06/2016 | Sun | 17:58et | 22:21s | | 18:34s | 21:20s | | 18:17s |
| 11/07/2016 | M | 5:16mt | | | | 3:45r | | |
| 11/07/2016 | M | 6:39r | | 7:17r | 10:05r | 9:32t | 9:05r | |
| 11/07/2016 | M | 11:37t | 12:51r | 12:03t | | 12:19r | | |
| 11/07/2016 | M | 16:35s | 12:51FQ | 16:48s | 14:20t | 16:49t | 15:19s | 13:39t |
| 11/07/2016 | M | 17:57et | 18:05t | | 18:35s | 21:20s | | 18:14s |
| 11/07/2016 | M | | 23:24s | | | | | |
| 11/08/2016 | Tu | 5:18mt | | | | 3:42r | | |
| 11/08/2016 | Tu | 6:40r | | 7:22r | 10:07r | 9:29t | 9:02r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 11/08/2016 | Tu | 11:37t | 13:27r | 12:06t | 14:22t | 12:17r | 15:16s | 13:36t |
| 11/08/2016 | Tu | 16:34s | | 16:48s | | 16:48t | | |
| 11/08/2016 | Tu | 17:56et | 18:55t | | 18:36s | 21:20s | | 18:10s |
| 11/09/2016 | W | 5:19mt | 0:29s | | | | 3:39r | |
| 11/09/2016 | W | 6:41r | | 7:26r | 10:09r | | 9:25t | 8:58r |
| 11/09/2016 | W | 11:37t | 14:01r | 12:08t | 14:23t | 12:15r | 15:12s | 13:32t |
| 11/09/2016 | W | 16:32s | | 16:49s | | 16:48t | | |
| 11/09/2016 | W | 17:55et | 19:45t | | 18:37s | 21:20s | | 18:07s |
| 11/10/2016 | Th | 5:20mt | 1:38s | | | | 3:36r | |
| 11/10/2016 | Th | 6:43r | | 7:31r | 10:10r | | 9:22t | 8:55r |
| 11/10/2016 | Th | 11:37t | 14:35r | 12:10t | 14:24t | 12:14r | 15:09s | 13:29t |
| 11/10/2016 | Th | 16:31s | | 16:49s | | 16:47t | | |
| 11/10/2016 | Th | 17:54et | 20:37t | | 18:38s | 21:20s | | 18:03s |
| 11/11/2016 | F | 5:21mt | 2:50s | | | | 3:33r | |
| 11/11/2016 | F | 6:44r | | 7:36r | 10:12r | | 9:19t | 8:51r |
| 11/11/2016 | F | 11:37t | 15:09r | 12:13t | 14:26t | 12:12r | 15:05s | 13:25t |
| 11/11/2016 | F | 16:30s | | 16:49s | | 16:46t | | |
| 11/11/2016 | F | 17:53et | 21:31t | | 18:40s | 21:20s | | 18:00s |
| 11/12/2016 | Sat | 5:22mt | 4:04s | | | | 3:30r | |
| 11/12/2016 | Sat | 6:45r | | 7:40r | 10:13r | | 9:16t | 8:48r |
| 11/12/2016 | Sat | 11:37t | 15:44r | 12:15t | 14:27t | 12:10r | 15:02s | 13:22t |
| 11/12/2016 | Sat | 16:29s | | 16:50s | | 16:45t | | |
| 11/12/2016 | Sat | 17:52et | 22:27t | | 18:41s | 21:20s | | 17:56s |
| 11/13/2016 | Sun | 5:23mt | 5:20s | | | | 3:27r | |
| 11/13/2016 | Sun | 6:47r | | 7:45r | 10:15r | | 9:13t | 8:45r |
| 11/13/2016 | Sun | 11:38t | 16:24r | 12:18t | 14:28t | 12:08r | 14:58s | 13:19t |
| 11/13/2016 | Sun | 16:28s | | 16:50s | | 16:44t | | |
| 11/13/2016 | Sun | 17:51et | 23:25t | | 18:42s | 21:20s | | 17:52s |
| 11/14/2016 | M | 5:25mt | 6:36s | | | | 3:24r | |
| 11/14/2016 | M | 6:48r | 6:52FM | 7:49r | 10:16r | | 9:09t | 8:41r |
| 11/14/2016 | M | 11:38t | | 12:20t | 14:30t | 12:07r | 14:55s | 13:15t |
| 11/14/2016 | M | 16:27s | 17:08r | 16:51s | | 16:43t | | 17:49s |
| 11/14/2016 | M | 17:50et | | | 18:43s | 21:20s | | |
| 11/15/2016 | Tu | 5:26mt | 0:25t | | | | 3:21r | |
| 11/15/2016 | Tu | 6:49r | 7:50s | 7:53r | 10:18r | | 9:06t | 8:38r |
| 11/15/2016 | Tu | 11:38t | | 12:23t | 14:31t | 12:05r | 14:51s | 13:12t |
| 11/15/2016 | Tu | 16:26s | | 16:51s | | 16:42t | | 17:45s |
| 11/15/2016 | Tu | 17:50et | 17:58r | | 18:45s | 21:20s | | |
| 11/16/2016 | W | 5:27mt | 1:27t | | | | 3:18r | |
| 11/16/2016 | W | 6:50r | 9:00s | 7:57r | 10:19r | | 9:03t | 8:34r |
| 11/16/2016 | W | 11:38t | | 12:25t | 14:32t | 12:03r | 14:48s | 13:08t |
| 11/16/2016 | W | 16:25s | | 16:52s | | 16:41t | | 17:42s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 11/16/2016 | W | 17:49et | 18:54r | 18:46s | 21:20s | | |
| 11/17/2016 | Th | 5:28mt | 2:28t | | | 3:15r | |
| 11/17/2016 | Th | 6:52r | 10:02s | 8:02r | 10:20r | 9:00t | 8:31r |
| 11/17/2016 | Th | 11:38t | | 12:28t | 14:34t | 12:01r | 14:44s |
| 11/17/2016 | Th | 16:24s | | 16:53s | | 16:40t | 17:38s |
| 11/17/2016 | Th | 17:48et | 19:55r | 18:48s | 21:20s | | |
| 11/18/2016 | F | 5:29mt | 3:27t | | | 3:12r | |
| 11/18/2016 | F | 6:53r | 10:55s | 8:06r | 10:21r | 8:56t | 8:28r |
| 11/18/2016 | F | 11:39t | | 12:30t | 14:35t | 11:59r | 14:41s |
| 11/18/2016 | F | 16:24s | | 16:54s | | 16:40t | 17:35s |
| 11/18/2016 | F | 17:47et | 20:58r | 18:49s | 21:20s | | |
| 11/19/2016 | Sat | 5:30mt | 4:23t | | | 3:09r | |
| 11/19/2016 | Sat | 6:54r | | 8:10r | 10:22r | 8:53t | 8:24r |
| 11/19/2016 | Sat | 11:39t | 11:40s | 12:33t | 14:36t | 11:57r | 14:37s |
| 11/19/2016 | Sat | 16:23s | | 16:55s | | 16:39t | 17:31s |
| 11/19/2016 | Sat | 17:47et | 22:03r | 18:51s | 21:20s | | |
| 11/20/2016 | Sun | 5:31mt | 5:15t | | | 3:06r | |
| 11/20/2016 | Sun | 6:56r | | 8:14r | 10:23r | 8:50t | 8:21r |
| 11/20/2016 | Sun | 11:39t | 12:19s | 12:35t | 14:38t | 11:55r | 14:33s |
| 11/20/2016 | Sun | 16:22s | | 16:56s | | 16:38t | 17:28s |
| 11/20/2016 | Sun | 17:46et | 23:07r | 18:53s | 21:20s | | |
| 11/21/2016 | M | 5:32mt | 1:33LQ | | | 3:03r | |
| 11/21/2016 | M | 6:57r | 6:04t | 8:18r | 10:24r | 8:47t | 8:17r |
| 11/21/2016 | M | 11:39t | 12:52s | 12:38t | 14:39t | 11:54r | 14:30s |
| 11/21/2016 | M | 16:21s | | 16:57s | | 16:37t | 17:24s |
| 11/21/2016 | M | 17:46et | | 18:54s | 21:20s | | |
| 11/22/2016 | Tu | 5:33mt | 0:09r | | | 3:00r | |
| 11/22/2016 | Tu | 6:58r | 6:50t | 8:22r | 10:25r | 8:43t | 8:14r |
| 11/22/2016 | Tu | 11:40t | 13:22s | 12:40t | 14:40t | 11:52r | 14:26s |
| 11/22/2016 | Tu | 16:20s | | 16:59s | | 16:36t | 17:21s |
| 11/22/2016 | Tu | 17:45et | | 18:56s | 21:21s | | |
| 11/23/2016 | W | 5:35mt | 1:10r | | | 2:57r | |
| 11/23/2016 | W | 6:59r | 7:34t | 8:25r | 10:25r | 8:40t | 8:11r |
| 11/23/2016 | W | 11:40t | 13:50s | 12:43t | 14:42t | 11:50r | 14:23s |
| 11/23/2016 | W | 16:20s | | 17:00s | | 16:35t | 17:17s |
| 11/23/2016 | W | 17:45et | | 18:58s | 21:21s | | |
| 11/24/2016 | Th | 5:36mt | 2:09r | | | 2:54r | |
| 11/24/2016 | Th | 7:01r | 8:17t | 8:29r | 10:26r | 8:37t | 8:07r |
| 11/24/2016 | Th | 11:40t | 14:18s | 12:45t | 14:43t | 11:48r | 14:19s |
| 11/24/2016 | Th | 16:19s | | 17:01s | | 16:34t | 17:14s |
| 11/24/2016 | Th | 17:44et | | 19:00s | 21:21s | | |
| 11/25/2016 | F | 5:37mt | 3:08r | | | 2:51r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|--------|---------|--------|--------|---------|--------|
| 11/25/2016 | F 7:02r | 9:00t | 8:32r | 10:27r | | 8:34t | 8:04r |
| 11/25/2016 | F 11:40t | 14:45s | 12:48t | 14:44t | 11:46r | 14:16s | 12:37t |
| 11/25/2016 | F 16:19s | | 17:03s | | 16:33t | | 17:10s |
| 11/25/2016 | F 17:44et | | | 19:02s | 21:21s | | |
| 11/26/2016 | Sat 5:38mt | 4:06r | | | | 2:48r | |
| 11/26/2016 | Sat 7:03r | 9:43t | 8:36r | 10:27r | | 8:30t | 8:00r |
| 11/26/2016 | Sat 11:41t | 15:13s | 12:50t | 14:45t | 11:44r | 14:12s | 12:34t |
| 11/26/2016 | Sat 16:18s | | 17:05s | | 16:32t | | 17:07s |
| 11/26/2016 | Sat 17:43et | | | 19:04s | 21:21s | | |
| 11/27/2016 | Sun 5:39mt | 5:03r | | | | 2:45r | |
| 11/27/2016 | Sun 7:04r | 10:26t | 8:39r | 10:27r | | 8:27t | 7:57r |
| 11/27/2016 | Sun 11:41t | 15:44s | 12:53t | 14:46t | 11:42r | 14:09s | 12:30t |
| 11/27/2016 | Sun 16:18s | | 17:07s | | 16:31t | | 17:03s |
| 11/27/2016 | Sun 17:43et | | | 19:06s | 21:21s | | |
| 11/28/2016 | M 5:40mt | 6:01r | | | | 2:42r | |
| 11/28/2016 | M 7:05r | 11:11t | 8:42r | 10:28r | 11:40r | 8:24t | 7:54r |
| 11/28/2016 | M 11:41t | | 12:55t | 14:48t | | 14:05s | 12:27t |
| 11/28/2016 | M 16:17s | 16:18s | 17:09s | | 16:30t | | 17:00s |
| 11/28/2016 | M 17:43et | | | 19:08s | 21:21s | | |
| 11/29/2016 | Tu 5:41mt | 5:18NM | | | | 2:39r | |
| 11/29/2016 | Tu 7:07r | 6:57r | 8:45r | 10:28r | 11:38r | 8:20t | 7:50r |
| 11/29/2016 | Tu 11:42t | 11:58t | 12:58t | 14:49t | | 14:02s | 12:23t |
| 11/29/2016 | Tu 16:17s | 16:55s | 17:11s | | 16:29t | | 16:56s |
| 11/29/2016 | Tu 17:42et | | | 19:10s | 21:21s | | |
| 11/30/2016 | W 5:42mt | | | | | 2:36r | |
| 11/30/2016 | W 7:08r | 7:51r | 8:47r | 10:28r | 11:36r | 8:17t | 7:47r |
| 11/30/2016 | W 11:42t | 12:45t | 13:00t | 14:50t | | 13:58s | 12:20t |
| 11/30/2016 | W 16:16s | 17:38s | 17:13s | | 16:28t | | 16:53s |
| 11/30/2016 | W 17:42et | | | 19:12s | 21:21s | | |
| 12/01/2016 | Th 5:43mt | | | | | 2:33r | |
| 12/01/2016 | Th 7:09r | 8:42r | 8:50r | 10:28r | 11:34r | 8:14t | 7:44r |
| 12/01/2016 | Th 11:43t | 13:34t | 13:02t | 14:51t | | 13:55s | 12:17t |
| 12/01/2016 | Th 16:16s | | 17:15s | | 16:27t | | 16:49s |
| 12/01/2016 | Th 17:42et | 18:25s | | 19:14s | 21:21s | | |
| 12/02/2016 | F 5:44mt | | | | | 2:30r | |
| 12/02/2016 | F 7:10r | 9:30r | 8:52r | 10:28r | 11:32r | 8:11t | 7:40r |
| 12/02/2016 | F 11:43t | 14:23t | 13:05t | 14:52t | | 13:51s | 12:13t |
| 12/02/2016 | F 16:16s | | 17:17s | | 16:26t | | 16:46s |
| 12/02/2016 | F 17:42et | 19:17s | | 19:16s | 21:21s | | |
| 12/03/2016 | Sat 5:45mt | | | | | 2:27r | |
| 12/03/2016 | Sat 7:11r | 10:13r | 8:54r | 10:28r | 11:30r | 8:07t | 7:37r |
| 12/03/2016 | Sat 11:43t | 15:12t | 13:07t | 14:53t | | 13:47s | 12:10t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|--------|---------|--------|--------|---------|--------|
| 12/03/2016 | Sat 16:15s | | 17:19s | | 16:25t | | 16:42s |
| 12/03/2016 | Sat 17:42et | 20:14s | | 19:18s | 21:22s | | |
| 12/04/2016 | Sun 5:46mt | | | | | 2:24r | |
| 12/04/2016 | Sun 7:12r | 10:53r | 8:56r | 10:28r | 11:28r | 8:04t | 7:33r |
| 12/04/2016 | Sun 11:44t | 16:01t | 13:09t | 14:54t | | 13:44s | 12:06t |
| 12/04/2016 | Sun 16:15s | | 17:21s | | 16:24t | | 16:39s |
| 12/04/2016 | Sun 17:42et | 21:14s | | 19:21s | 21:22s | | |
| 12/05/2016 | M 5:46mt | | | | | 2:21r | |
| 12/05/2016 | M 7:13r | 11:29r | 8:58r | 10:28r | 11:25r | 8:01t | 7:30r |
| 12/05/2016 | M 11:44t | | 13:11t | 14:55t | | 13:40s | 12:03t |
| 12/05/2016 | M 16:15s | 16:50t | 17:24s | | 16:23t | | 16:35s |
| 12/05/2016 | M 17:42et | 22:17s | | 19:23s | 21:22s | | |
| 12/06/2016 | Tu 5:47mt | | | | | 2:17r | |
| 12/06/2016 | Tu 7:14r | | 8:59r | 10:28r | 11:23r | 7:57t | 7:27r |
| 12/06/2016 | Tu 11:45t | 12:02r | 13:12t | 14:56t | | 13:37s | 11:59t |
| 12/06/2016 | Tu 16:15s | 17:39t | 17:26s | | 16:22t | | 16:32s |
| 12/06/2016 | Tu 17:42et | 23:23s | | 19:25s | 21:22s | | |
| 12/07/2016 | W 5:48mt | 2:03FQ | | | | 2:14r | |
| 12/07/2016 | W 7:15r | | 9:00r | 10:28r | 11:21r | 7:54t | 7:23r |
| 12/07/2016 | W 11:45t | 12:35r | 13:14t | 14:57t | | 13:33s | 11:56t |
| 12/07/2016 | W 16:15s | | 17:28s | | 16:21t | | 16:29s |
| 12/07/2016 | W 17:42et | 18:28t | | 19:27s | 21:22s | | |
| 12/08/2016 | Th 5:49mt | 0:31s | | | | 2:11r | |
| 12/08/2016 | Th 7:16r | | 9:01r | 10:27r | 11:19r | 7:51t | 7:20r |
| 12/08/2016 | Th 11:45t | 13:07r | 13:15t | 14:58t | | 13:30s | 11:53t |
| 12/08/2016 | Th 16:15s | | 17:30s | | 16:20t | | 16:25s |
| 12/08/2016 | Th 17:42et | 19:19t | | 19:29s | 21:22s | | |
| 12/09/2016 | F 5:50mt | 1:41s | | | | 2:08r | 7:17r |
| 12/09/2016 | F 7:17r | | 9:01r | 10:27r | 11:17r | 7:47t | |
| 12/09/2016 | F 11:46t | 13:40r | 13:16t | 14:59t | | 13:26s | 11:49t |
| 12/09/2016 | F 16:15s | | 17:32s | | 16:19t | | 16:22s |
| 12/09/2016 | F 17:42et | 20:11t | | 19:32s | 21:22s | | |
| 12/10/2016 | Sat 5:51mt | 2:53s | | | | 2:05r | 7:13r |
| 12/10/2016 | Sat 7:18r | | 9:01r | 10:26r | 11:15r | 7:44t | 11:46t |
| 12/10/2016 | Sat 11:46t | 14:15r | 13:17t | 15:00t | | 13:23s | |
| 12/10/2016 | Sat 16:15s | | 17:33s | | 16:18t | | 16:18s |
| 12/10/2016 | Sat 17:42et | 21:06t | | 19:34s | 21:22s | | |
| 12/11/2016 | Sun 5:51mt | 4:07s | | | | 2:02r | 7:10r |
| 12/11/2016 | Sun 7:19r | | 9:01r | 10:26r | 11:13r | 7:40t | 11:42t |
| 12/11/2016 | Sun 11:47t | 14:55r | 13:17t | 15:01t | | 13:19s | 16:15s |
| 12/11/2016 | Sun 16:15s | | 17:35s | | 16:17t | | |
| 12/11/2016 | Sun 17:42et | 22:04t | | 19:36s | 21:22s | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 12/12/2016 | M | 5:52mt | 5:22s | | | 1:59r | 7:06r | |
| 12/12/2016 | M | 7:19r | | 9:00r | 10:25r | 11:10r | 7:37t | 11:39t |
| 12/12/2016 | M | 11:47t | 15:41r | 13:18t | 15:02t | | 13:15s | 16:11s |
| 12/12/2016 | M | 16:15s | | 17:36s | | 16:16t | | |
| 12/12/2016 | M | 17:42et | 23:05t | | 19:38s | 21:23s | | |
| 12/13/2016 | Tu | 5:53mt | 6:34s | | | | 1:55r | 7:03r |
| 12/13/2016 | Tu | 7:20r | | 8:58r | 10:24r | 11:08r | 7:34t | 11:35t |
| 12/13/2016 | Tu | 11:48t | | 13:17t | 15:02t | | 13:12s | 16:08s |
| 12/13/2016 | Tu | 16:15s | 16:34r | | | 16:15t | | |
| 12/13/2016 | Tu | 17:42et | 17:06FM | 17:37s | 19:41s | 21:23s | | |
| 12/14/2016 | W | 5:54mt | 0:06t | | | | 1:52r | 7:00r |
| 12/14/2016 | W | 7:21r | 7:42s | 8:56r | 10:24r | 11:06r | 7:30t | 11:32t |
| 12/14/2016 | W | 11:48t | | 13:16t | 15:03t | 16:14t | 13:08s | 16:04s |
| 12/14/2016 | W | 16:15s | 17:33r | 17:37s | | | | |
| 12/14/2016 | W | 17:43et | | | 19:43s | 21:23s | | |
| 12/15/2016 | Th | 5:54mt | 1:08t | | | | 1:49r | 6:56r |
| 12/15/2016 | Th | 7:22r | 8:41s | 8:54r | 10:23r | 11:04r | 7:27t | 11:29t |
| 12/15/2016 | Th | 11:49t | | 13:15t | 15:04t | 16:13t | 13:05s | 16:01s |
| 12/15/2016 | Th | 16:16s | | 17:37s | | | | |
| 12/15/2016 | Th | 17:43et | 18:37r | | 19:45s | 21:23s | | |
| 12/16/2016 | F | 5:55mt | 2:07t | | | | 1:46r | 6:53r |
| 12/16/2016 | F | 7:22r | 9:32s | 8:51r | 10:22r | 11:02r | 7:23t | 11:25t |
| 12/16/2016 | F | 11:49t | | 13:13t | 15:04t | 16:12t | 13:01s | 15:57s |
| 12/16/2016 | F | 16:16s | | 17:36s | | | | |
| 12/16/2016 | F | 17:43et | 19:44r | | 19:47s | 21:23s | | |
| 12/17/2016 | Sat | 5:56mt | 3:03t | | | | 1:43r | 6:50r |
| 12/17/2016 | Sat | 7:23r | 10:16s | 8:47r | 10:21r | 10:59r | 7:20t | 11:22t |
| 12/17/2016 | Sat | 11:50t | | 13:11t | 15:05t | 16:11t | 12:57s | 15:54s |
| 12/17/2016 | Sat | 16:16s | | 17:35s | | | | |
| 12/17/2016 | Sat | 17:44et | 20:50r | | 19:50s | 21:23s | | |
| 12/18/2016 | Sun | 5:56mt | 3:56t | | | | 1:39r | 6:46r |
| 12/18/2016 | Sun | 7:24r | 10:52s | 8:43r | 10:20r | 10:57r | 7:17t | 11:18t |
| 12/18/2016 | Sun | 11:50t | | 13:08t | 15:06t | 16:10t | 12:54s | 15:50s |
| 12/18/2016 | Sun | 16:17s | | 17:33s | | | | |
| 12/18/2016 | Sun | 17:44et | 21:56r | | 19:52s | 21:23s | | |
| 12/19/2016 | M | 5:57mt | 4:45t | | | | 1:36r | 6:43r |
| 12/19/2016 | M | 7:24r | 11:25s | 8:38r | 10:19r | 10:55r | 7:13t | 11:15t |
| 12/19/2016 | M | 11:51t | | 13:04t | 15:06t | 16:09t | 12:50s | 15:47s |
| 12/19/2016 | M | 16:17s | | 17:30s | | | | |
| 12/19/2016 | M | 17:45et | 22:59r | | 19:54s | 21:23s | | |
| 12/20/2016 | Tu | 5:57mt | 5:31t | | | | 1:33r | 6:39r |
| 12/20/2016 | Tu | 7:25r | | 8:32r | 10:18r | 10:53r | 7:10t | 11:11t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 12/20/2016 | Tu | 11:51t | 11:54s | 12:59t | 15:07t | 16:08t | 12:47s | 15:43s |
| 12/20/2016 | Tu | 16:17s | | 17:27s | | | | |
| 12/20/2016 | Tu | 17:45et | 18:56LQ | | 19:56s | 21:23s | | |
| 12/20/2016 | Tu | | 24:00r | | | | | |
| 12/21/2016 | W | 3:44DS | | | | | 1:30r | |
| 12/21/2016 | W | 5:58mt | 6:15t | | | | 7:06t | 6:36r |
| 12/21/2016 | W | 7:25r | | 8:25r | 10:17r | 10:50r | | 11:08t |
| 12/21/2016 | W | 11:52t | 12:22s | 12:53t | 15:07t | 16:07t | 12:43s | 15:40s |
| 12/21/2016 | W | 16:18s | | 17:22s | | | | |
| 12/21/2016 | W | 17:45et | | | 19:59s | 21:23s | | |
| 12/22/2016 | Th | 5:58mt | 0:59r | | | | 1:26r | 6:33r |
| 12/22/2016 | Th | 7:26r | 6:58t | 8:17r | 10:16r | 10:48r | 7:03t | 11:05t |
| 12/22/2016 | Th | 11:52t | 12:49s | 12:47t | 15:08t | 16:06t | 12:39s | 15:36s |
| 12/22/2016 | Th | 16:18s | | 17:17s | | | | |
| 12/22/2016 | Th | 17:46et | | | 20:01s | 21:24s | | |
| 12/23/2016 | F | 5:59mt | 1:58r | | | | 1:23r | 6:29r |
| 12/23/2016 | F | 7:26r | 7:41t | 8:09r | 10:14r | 10:46r | 6:59t | 11:01t |
| 12/23/2016 | F | 11:53t | 13:17s | 12:40t | 15:08t | 16:05t | 12:36s | 15:33s |
| 12/23/2016 | F | 16:19s | | 17:11s | | | | |
| 12/23/2016 | F | 17:47et | | | 20:03s | 21:24s | | |
| 12/24/2016 | Sat | 5:59mt | 2:56r | | | | 1:20r | 6:26r |
| 12/24/2016 | Sat | 7:27r | 8:24t | 8:00r | 10:13r | 10:44r | 6:56t | 10:58t |
| 12/24/2016 | Sat | 11:53t | 13:46s | 12:32t | 15:09t | 16:03t | 12:32s | 15:29s |
| 12/24/2016 | Sat | 16:20s | | 17:04s | | | | |
| 12/24/2016 | Sat | 17:47et | | | 20:05s | 21:24s | | |
| 12/25/2016 | Sun | 6:00mt | 3:53r | | | | 1:17r | 6:22r |
| 12/25/2016 | Sun | 7:27r | 9:08t | 7:50r | 10:12r | 10:41r | 6:53t | 10:54t |
| 12/25/2016 | Sun | 11:54t | 14:19s | 12:23t | 15:09t | 16:02t | 12:28s | 15:26s |
| 12/25/2016 | Sun | 16:20s | | 16:56s | | | | |
| 12/25/2016 | Sun | 17:48et | | | 20:07s | 21:24s | | |
| 12/26/2016 | M | 6:00mt | 4:50r | | | | 1:13r | 6:19r |
| 12/26/2016 | M | 7:27r | 9:54t | 7:40r | 10:10r | 10:39r | 6:49t | 10:51t |
| 12/26/2016 | M | 11:54t | 14:55s | 12:14t | 15:09t | 16:01t | 12:25s | 15:22s |
| 12/26/2016 | M | 16:21s | | 16:48s | | | | |
| 12/26/2016 | M | 17:48et | | | 20:09s | 21:24s | | |
| 12/27/2016 | Tu | 6:00mt | 5:45r | | | | 1:10r | 6:16r |
| 12/27/2016 | Tu | 7:28r | 10:41t | 7:30r | 10:09r | 10:37r | 6:46t | 10:47t |
| 12/27/2016 | Tu | 11:55t | 15:35s | 12:04t | 15:10t | 16:00t | 12:21s | 15:19s |
| 12/27/2016 | Tu | 16:22s | | 16:39s | | | | |
| 12/27/2016 | Tu | 17:49et | | | 20:11s | 21:24s | | |
| 12/28/2016 | W | 6:00mt | 6:38r | | | | 1:07r | 6:12r |
| 12/28/2016 | W | 7:28r | 11:30t | 7:19r | 10:07r | 10:34r | 6:42t | 10:44t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 12/28/2016 | W | 11:55t | 16:21s | 11:54t | 15:10t | 15:59t | 12:17s | 15:15s |
| 12/28/2016 | W | 16:23s | | 16:30s | | | | |
| 12/28/2016 | W | 17:50et | 23:53NM | | 20:14s | 21:24s | | |
| 12/29/2016 | Th | 6:01mt | | | | | 1:03r | 6:09r |
| 12/29/2016 | Th | 7:28r | 7:27r | 7:09r | 10:06r | 10:32r | 6:39t | 10:40t |
| 12/29/2016 | Th | 11:56t | 12:19t | 11:45t | 15:10t | 15:58t | 12:14s | 15:12s |
| 12/29/2016 | Th | 16:23s | 17:12s | 16:21s | | | | |
| 12/29/2016 | Th | 17:51et | | | 20:16s | 21:24s | | |
| 12/30/2016 | F | 6:01mt | | | | | 1:00r | 6:05r |
| 12/30/2016 | F | 7:28r | 8:13r | 6:58r | 10:04r | 10:30r | 6:35t | 10:37t |
| 12/30/2016 | F | 11:56t | 13:09t | 11:35t | 15:10t | 15:57t | 12:10s | 15:09s |
| 12/30/2016 | F | 16:24s | | 16:12s | | | | |
| 12/30/2016 | F | 17:51et | 18:08s | | 20:18s | 21:24s | | |
| 12/31/2016 | Sat | 6:01mt | | | | | 0:57r | 6:02r |
| 12/31/2016 | Sat | 7:28r | 8:54r | 6:49r | 10:02r | 10:27r | 6:31t | 10:34t |
| 12/31/2016 | Sat | 11:57t | 13:59t | 11:26t | 15:11t | 15:56t | 12:06s | 15:05s |
| 12/31/2016 | Sat | 16:25s | | 16:03s | | | | |
| 12/31/2016 | Sat | 17:52et | 19:08s | | 20:20s | 21:24s | | |
| 01/01/2017 | Sun | 6:01mt | | | | | 0:53r | 5:59r |
| 01/01/2017 | Sun | 7:28r | 9:32r | 6:39r | 10:01r | 10:25r | 6:28t | 10:30t |
| 01/01/2017 | Sun | 11:57t | 14:48t | 11:17t | 15:11t | 15:54t | 12:03s | 15:02s |
| 01/01/2017 | Sun | 16:26s | | 15:55s | | | | |
| 01/01/2017 | Sun | 17:53et | 20:10s | | 20:22s | 21:24s | | |
| 01/02/2017 | M | 6:01mt | | | | | 0:50r | 5:55r |
| 01/02/2017 | M | 7:28r | 10:06r | 6:31r | 9:59r | 10:23r | 6:24t | 10:27t |
| 01/02/2017 | M | 11:57t | 15:37t | 11:09t | 15:11t | | 11:59s | 14:58s |
| 01/02/2017 | M | 16:27s | | 15:47s | | 15:53t | | |
| 01/02/2017 | M | 17:54et | 21:15s | | 20:24s | 21:24s | | |
| 01/03/2017 | Tu | 6:01mt | | | | | 0:46r | 5:52r |
| 01/03/2017 | Tu | 7:28r | 10:39r | 6:23r | 9:57r | 10:20r | 6:21t | 10:23t |
| 01/03/2017 | Tu | 11:58t | | 11:01t | 15:11t | | 11:55s | 14:55s |
| 01/03/2017 | Tu | 16:28s | 16:26t | 15:40s | | 15:52t | | |
| 01/03/2017 | Tu | 17:55et | 22:21s | | 20:25s | 21:24s | | |
| 01/04/2017 | W | 6:02mt | | 6:16r | | | 0:43r | 5:48r |
| 01/04/2017 | W | 7:28r | 11:10r | 10:55t | 9:55r | 10:18r | 6:17t | 10:20t |
| 01/04/2017 | W | 11:58t | | 15:33s | 15:11t | 15:51t | 11:52s | 14:51s |
| 01/04/2017 | W | 16:29s | 17:15t | | | | | |
| 01/04/2017 | W | 17:55et | 23:28s | | 20:27s | 21:24s | | |
| 01/05/2017 | Th | 6:02mt | | 6:10r | | | 0:39r | 5:45r |
| 01/05/2017 | Th | 7:28r | 11:41r | 10:49t | 9:54r | 10:16r | 6:14t | 10:16t |
| 01/05/2017 | Th | 11:59t | 12:47FQ | 15:27s | 15:11t | 15:50t | 11:48s | 14:48s |
| 01/05/2017 | Th | 16:30s | | | | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 01/05/2017 | Th | 17:56et | 18:05t | 20:29s | 21:25s | | | |
| 01/06/2017 | F | 6:01mt | 0:38s | 6:05r | | 0:36r | 5:42r | |
| 01/06/2017 | F | 7:28r | | 10:43t | 9:52r | 10:13r | 6:10t | 10:13t |
| 01/06/2017 | F | 11:59t | 12:14r | 15:22s | 15:11t | 15:49t | 11:44s | 14:44s |
| 01/06/2017 | F | 16:31s | | | | | | |
| 01/06/2017 | F | 17:57et | 18:56t | 20:31s | 21:25s | | | |
| 01/07/2017 | Sat | 6:01mt | 1:48s | 6:00r | | 0:33r | 5:38r | |
| 01/07/2017 | Sat | 7:28r | | 10:39t | 9:50r | 10:11r | 6:07t | 10:09t |
| 01/07/2017 | Sat | 12:00t | 12:51r | 15:17s | 15:11t | 15:48t | 11:41s | 14:41s |
| 01/07/2017 | Sat | 16:32s | | | | | | |
| 01/07/2017 | Sat | 17:58et | 19:51t | 20:33s | 21:25s | | | |
| 01/08/2017 | Sun | 6:01mt | 3:00s | 5:56r | | 0:29r | 5:35r | |
| 01/08/2017 | Sun | 7:28r | | 10:34t | 9:48r | 10:09r | 6:03t | 10:06t |
| 01/08/2017 | Sun | 12:00t | 13:32r | 15:12s | 15:11t | 15:46t | 11:37s | 14:37s |
| 01/08/2017 | Sun | 16:33s | | | | | | |
| 01/08/2017 | Sun | 17:59et | 20:48t | 20:35s | 21:25s | | | |
| 01/09/2017 | M | | 4:11s | 5:53r | | 0:26r | 5:31r | |
| 01/09/2017 | M | 6:01mt | | | | 5:59t | | |
| 01/09/2017 | M | 7:27r | | 10:31t | 9:46r | 10:06r | 11:33s | 10:02t |
| 01/09/2017 | M | 12:01t | 14:19r | 15:09s | 15:11t | 15:45t | | 14:34s |
| 01/09/2017 | M | 16:34s | | | | | | |
| 01/09/2017 | M | 18:00et | 21:47t | 20:36s | 21:25s | | | |
| 01/10/2017 | Tu | | 5:20s | 5:51r | | 0:22r | 5:28r | |
| 01/10/2017 | Tu | 6:01mt | | | | 5:56t | | |
| 01/10/2017 | Tu | 7:27r | | 10:28t | 9:44r | 10:04r | 11:29s | 9:59t |
| 01/10/2017 | Tu | 12:01t | 15:13r | 15:05s | 15:10t | 15:44t | | 14:30s |
| 01/10/2017 | Tu | 16:35s | | | | | | |
| 01/10/2017 | Tu | 18:01et | 22:48t | 20:38s | 21:25s | | | |
| 01/11/2017 | W | | | 5:49r | | 0:18r | 5:24r | |
| 01/11/2017 | W | 6:01mt | 6:23s | | | 5:52t | | |
| 01/11/2017 | W | 7:27r | | 10:26t | 9:42r | 10:01r | 11:26s | 9:56t |
| 01/11/2017 | W | 12:01t | 16:14r | 15:02s | 15:10t | 15:43t | | 14:27s |
| 01/11/2017 | W | 16:36s | | | | | | |
| 01/11/2017 | W | 18:02et | 23:48t | 20:40s | 21:25s | | | |
| 01/12/2017 | Th | | 4:34FM | 5:48r | | 0:15r | 5:21r | |
| 01/12/2017 | Th | 6:01mt | 7:18s | | | 5:48t | | |
| 01/12/2017 | Th | 7:26r | | 10:24t | 9:39r | 9:59r | 11:22s | 9:52t |
| 01/12/2017 | Th | 12:02t | | 15:00s | 15:10t | 15:42t | | 14:23s |
| 01/12/2017 | Th | 16:38s | 17:20r | | | | | |
| 01/12/2017 | Th | 18:03et | | 20:41s | 21:25s | | | |
| 01/13/2017 | F | | 0:46t | | | 0:11r | 5:18r | |
| 01/13/2017 | F | 6:00mt | | 5:47r | | 5:45t | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------------|
| 01/13/2017 | F | 7:26r | 8:06s | 10:22t | 9:37r | 9:57r | 11:18s 9:49t |
| 01/13/2017 | F | 12:02t | | 14:58s | 15:10t | 15:40t | 14:20s |
| 01/13/2017 | F | 16:39s | | | | | |
| 01/13/2017 | F | 18:04et | 18:28r | | 20:43s | 21:25s | |
| 01/14/2017 | Sat | | 1:42t | | | 0:08r | 5:14r |
| 01/14/2017 | Sat | 6:00mt | | 5:47r | | 5:41t | |
| 01/14/2017 | Sat | 7:25r | 8:47s | 10:21t | 9:35r | 9:54r | 11:14s 9:45t |
| 01/14/2017 | Sat | 12:02t | | 14:56s | 15:09t | 15:39t | 14:16s |
| 01/14/2017 | Sat | 16:40s | | | | | |
| 01/14/2017 | Sat | 18:05et | 19:35r | | 20:44s | 21:25s | |
| 01/15/2017 | Sun | | 2:33t | | | 0:04r | 5:11r |
| 01/15/2017 | Sun | 6:00mt | | 5:47r | | 5:37t | |
| 01/15/2017 | Sun | 7:25r | 9:23s | 10:21t | 9:33r | 9:52r | 11:11s 9:42t |
| 01/15/2017 | Sun | 12:03t | | 14:55s | 15:09t | 15:38t | 14:13s |
| 01/15/2017 | Sun | 16:41s | | | | | |
| 01/15/2017 | Sun | 18:06et | 20:41r | | 20:46s | 21:25s | |
| 01/16/2017 | M | | 3:22t | | | 0:01r | 5:07r |
| 01/16/2017 | M | 5:59mt | | 5:47r | | 5:34t | |
| 01/16/2017 | M | 7:24r | 9:54s | 10:20t | 9:31r | 9:49r | 11:07s 9:38t |
| 01/16/2017 | M | 12:03t | | 14:53s | 15:08t | 15:37t | 14:09s |
| 01/16/2017 | M | 16:42s | | | | | |
| 01/16/2017 | M | 18:07et | 21:45r | | 20:47s | 21:25s | 23:57r |
| 01/17/2017 | Tu | 5:59mt | 4:08t | 5:47r | | 5:30t | 5:04r |
| 01/17/2017 | Tu | 7:24r | 10:23s | 10:20t | 9:28r | 9:47r | 11:03s 9:35t |
| 01/17/2017 | Tu | 12:03t | | 14:53s | 15:08t | 15:36t | 14:06s |
| 01/17/2017 | Tu | 16:44s | | | | | |
| 01/17/2017 | Tu | 18:09et | 22:46r | | 20:49s | 21:25s | 23:53r |
| 01/18/2017 | W | 5:58mt | 4:53t | 5:48r | | 5:26t | 5:00r |
| 01/18/2017 | W | 7:23r | 10:51s | 10:20t | 9:26r | 9:45r | 10:59s 9:31t |
| 01/18/2017 | W | 12:04t | | 14:52s | 15:07t | 15:34t | 14:02s |
| 01/18/2017 | W | 16:45s | | | | | |
| 01/18/2017 | W | 18:10et | 23:46r | | 20:50s | 21:25s | 23:50r |
| 01/19/2017 | Th | 5:58mt | 5:36t | 5:49r | | 5:23t | 4:57r |
| 01/19/2017 | Th | 7:22r | 11:19s | 10:21t | 9:23r | 9:42r | 10:56s 9:28t |
| 01/19/2017 | Th | 12:04t | 15:13LQ | 14:52s | 15:07t | 15:33t | 13:59s |
| 01/19/2017 | Th | 16:46s | | | | | |
| 01/19/2017 | Th | 18:11et | | | 20:51s | 21:25s | 23:46r |
| 01/20/2017 | F | 5:57mt | 0:45r | 5:50r | | 5:19t | 4:53r |
| 01/20/2017 | F | 7:22r | 6:20t | 10:21t | 9:21r | 9:40r | 10:52s 9:24t |
| 01/20/2017 | F | 12:04t | 11:48s | 14:52s | 15:06t | 15:32t | 13:55s |
| 01/20/2017 | F | 16:48s | | | | | |
| 01/20/2017 | F | 18:12et | | | 20:53s | 21:25s | 23:42r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 01/21/2017 | Sat | 5:57mt | 1:43r | 5:51r | | 5:15t | 4:50r | |
| 01/21/2017 | Sat | 7:21r | 7:04t | 10:22t | 9:19r | 9:37r | 10:48s | 9:21t |
| 01/21/2017 | Sat | 12:05t | 12:19s | 14:53s | 15:06t | 15:31t | | 13:52s |
| 01/21/2017 | Sat | 16:49s | | | | | | |
| 01/21/2017 | Sat | 18:13et | | 20:54s | 21:25s | 23:39r | | |
| 01/22/2017 | Sun | 5:56mt | 2:40r | 5:53r | | 5:11t | 4:46r | |
| 01/22/2017 | Sun | 7:20r | 7:49t | 10:23t | 9:16r | 9:35r | 10:44s | 9:17t |
| 01/22/2017 | Sun | 12:05t | 12:53s | 14:53s | 15:05t | 15:30t | | 13:48s |
| 01/22/2017 | Sun | 16:50s | | | | | | |
| 01/22/2017 | Sun | 18:14et | | 20:55s | 21:25s | 23:35r | | |
| 01/23/2017 | M | 5:55mt | 3:35r | 5:54r | | 5:08t | 4:43r | |
| 01/23/2017 | M | 7:19r | 8:35t | 10:24t | 9:14r | 9:33r | 10:40s | 9:14t |
| 01/23/2017 | M | 12:05t | 13:32s | 14:54s | 15:04t | 15:28t | | 13:45s |
| 01/23/2017 | M | 16:51s | | | | | | |
| 01/23/2017 | M | 18:15et | | 20:56s | 21:25s | 23:31r | | |
| 01/24/2017 | Tu | 5:55mt | 4:29r | 5:56r | | 5:04t | 4:39r | |
| 01/24/2017 | Tu | 7:18r | 9:23t | 10:26t | 9:11r | 9:30r | 10:37s | 9:10t |
| 01/24/2017 | Tu | 12:05t | 14:15s | 14:55s | 15:04t | 15:27t | | 13:41s |
| 01/24/2017 | Tu | 16:53s | | | | | | |
| 01/24/2017 | Tu | 18:16et | | 20:57s | 21:25s | 23:28r | | |
| 01/25/2017 | W | 5:54mt | 5:21r | 5:57r | | 5:00t | 4:36r | |
| 01/25/2017 | W | 7:17r | 10:12t | 10:27t | 9:08r | 9:28r | 10:33s | 9:07t |
| 01/25/2017 | W | 12:06t | 15:04s | 14:56s | 15:03t | 15:26t | | 13:37s |
| 01/25/2017 | W | 16:54s | | | | | | |
| 01/25/2017 | W | 18:18et | | 20:58s | 21:25s | 23:24r | | |
| 01/26/2017 | Th | 5:53mt | 6:08r | 5:59r | | 4:56t | 4:32r | |
| 01/26/2017 | Th | 7:17r | 11:02t | 10:28t | 9:06r | 9:25r | 10:29s | 9:03t |
| 01/26/2017 | Th | 12:06t | 15:59s | 14:58s | 15:02t | 15:25t | | 13:34s |
| 01/26/2017 | Th | 16:56s | | | | | | |
| 01/26/2017 | Th | 18:19et | | 20:59s | 21:25s | 23:20r | | |
| 01/27/2017 | F | 5:53mt | 6:52r | 6:01r | | 4:53t | 4:29r | |
| 01/27/2017 | F | 7:16r | 11:53t | 10:30t | 9:03r | 9:23r | 10:25s | 9:00t |
| 01/27/2017 | F | 12:06t | | 14:59s | 15:01t | 15:24t | | 13:30s |
| 01/27/2017 | F | 16:57s | 16:58s | | | | | |
| 01/27/2017 | F | 18:20et | 17:07NM | | 21:00s | 21:25s | 23:16r | |
| 01/28/2017 | Sat | 5:52mt | | 6:02r | | 4:49t | 4:25r | |
| 01/28/2017 | Sat | 7:15r | 7:32r | 10:32t | 9:00r | 9:20r | 10:21s | 8:56t |
| 01/28/2017 | Sat | 12:06t | 12:43t | 15:01s | 15:00t | 15:22t | | 13:27s |
| 01/28/2017 | Sat | 16:58s | 18:01s | | | | | |
| 01/28/2017 | Sat | 18:21et | | 21:01s | 21:25s | 23:12r | | |
| 01/29/2017 | Sun | 5:51mt | | 6:04r | | 4:45t | 4:22r | |
| 01/29/2017 | Sun | 7:14r | 8:08r | 10:34t | 8:57r | 9:18r | 10:17s | 8:53t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------------|
| 01/29/2017 | Sun | 12:06t | 13:34t | 15:03s | 14:59t | 15:21t | 13:23s |
| 01/29/2017 | Sun | 17:00s | | | | | |
| 01/29/2017 | Sun | 18:22et | 19:06s | | 21:02s | 21:25s | 23:09r |
| 01/30/2017 | M | 5:50mt | | 6:06r | | | 4:41t 4:18r |
| 01/30/2017 | M | 7:13r | 8:42r | 10:36t | 8:55r | 9:16r | 10:13s 8:49t |
| 01/30/2017 | M | 12:07t | 14:23t | 15:06s | 14:58t | 15:20t | 13:20s |
| 01/30/2017 | M | 17:01s | | | | | |
| 01/30/2017 | M | 18:24et | 20:13s | | 21:03s | 21:25s | 23:05r |
| 01/31/2017 | Tu | 5:49mt | | 6:07r | | | 4:37t 4:15r |
| 01/31/2017 | Tu | 7:11r | 9:14r | 10:38t | 8:52r | 9:13r | 10:10s 8:46t |
| 01/31/2017 | Tu | 12:07t | 15:13t | 15:08s | 14:57t | 15:19t | 13:16s |
| 01/31/2017 | Tu | 17:02s | | | | | |
| 01/31/2017 | Tu | 18:25et | 21:20s | | 21:03s | 21:25s | 23:01r |
| 02/01/2017 | W | 5:48mt | | 6:09r | | | 4:33t 4:11r |
| 02/01/2017 | W | 7:10r | 9:45r | 10:40t | 8:49r | 9:11r | 10:06s 8:42t |
| 02/01/2017 | W | 12:07t | 16:02t | 15:10s | 14:56t | 15:17t | 13:13s |
| 02/01/2017 | W | 17:04s | | | | | |
| 02/01/2017 | W | 18:26et | 22:29s | | 21:04s | 21:25s | 22:57r |
| 02/02/2017 | Th | 5:47mt | | 6:11r | | | 4:29t 4:08r |
| 02/02/2017 | Th | 7:09r | 10:18r | 10:42t | 8:46r | 9:08r | 10:02s 8:38t |
| 02/02/2017 | Th | 12:07t | 16:53t | 15:13s | 14:55t | 15:16t | 13:09s |
| 02/02/2017 | Th | 17:05s | | | | | |
| 02/02/2017 | Th | 18:27et | 23:39s | | 21:04s | 21:25s | 22:53r |
| 02/03/2017 | F | 5:46mt | | 6:12r | | | 4:26t 4:04r |
| 02/03/2017 | F | 7:08r | 10:52r | 10:44t | 8:43r | 9:06r | 9:58s 8:35t |
| 02/03/2017 | F | 12:07t | | 15:16s | 14:53t | 15:15t | 13:06s |
| 02/03/2017 | F | 17:07s | 17:46t | | | | |
| 02/03/2017 | F | 18:29et | 21:19FQ | | 21:05s | 21:25s | 22:49r |
| 02/04/2017 | Sat | 5:45mt | 0:48s | 6:14r | | | 4:22t 4:01r |
| 02/04/2017 | Sat | 7:07r | 11:30r | 10:46t | 8:40r | 9:03r | 9:54s 8:31t |
| 02/04/2017 | Sat | 12:07t | | 15:19s | 14:52t | 15:14t | 13:02s |
| 02/04/2017 | Sat | 17:08s | | | | | |
| 02/04/2017 | Sat | 18:30et | 18:40t | | 21:05s | 21:25s | 22:45r |
| 02/05/2017 | Sun | 5:44mt | 1:58s | 6:15r | | | 4:18t 3:57r |
| 02/05/2017 | Sun | 7:06r | | 10:48t | 8:37r | 9:01r | 9:50s 8:28t |
| 02/05/2017 | Sun | 12:07t | 12:14r | 15:22s | 14:51t | 15:12t | 12:58s |
| 02/05/2017 | Sun | 17:09s | | | | | |
| 02/05/2017 | Sun | 18:31et | 19:37t | | 21:05s | 21:25s | 22:41r |
| 02/06/2017 | M | 5:43mt | 3:05s | 6:16r | | | 4:14t 3:54r |
| 02/06/2017 | M | 7:04r | | 10:51t | 8:34r | 8:59r | 9:46s 8:24t |
| 02/06/2017 | M | 12:07t | 13:03r | 15:25s | 14:49t | 15:11t | 12:55s |
| 02/06/2017 | M | 17:11s | | | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 02/06/2017 | M | 18:32et | 20:35t | | 21:06s | 21:25s | 22:38r | |
| 02/07/2017 | Tu | 5:42mt | 4:09s | 6:18r | | | 4:10t | 3:50r |
| 02/07/2017 | Tu | 7:03r | | 10:53t | 8:30r | 8:56r | 9:42s | 8:21t |
| 02/07/2017 | Tu | 12:07t | 13:59r | 15:29s | 14:48t | 15:10t | | 12:51s |
| 02/07/2017 | Tu | 17:12s | | | | | | |
| 02/07/2017 | Tu | 18:33et | 21:33t | | 21:06s | 21:24s | 22:34r | |
| 02/08/2017 | W | 5:41mt | 5:06s | 6:19r | | | 4:06t | 3:47r |
| 02/08/2017 | W | 7:02r | | 10:55t | 8:27r | 8:54r | 9:38s | 8:17t |
| 02/08/2017 | W | 12:07t | 15:01r | 15:32s | 14:46t | 15:09t | | 12:48s |
| 02/08/2017 | W | 17:14s | | | | | | |
| 02/08/2017 | W | 18:35et | 22:31t | | 21:06s | 21:24s | 22:30r | |
| 02/09/2017 | Th | 5:39mt | 5:56s | 6:20r | | | 4:02t | 3:43r |
| 02/09/2017 | Th | 7:00r | | 10:58t | 8:24r | 8:51r | 9:34s | 8:14t |
| 02/09/2017 | Th | 12:07t | 16:07r | 15:36s | 14:44t | 15:08t | | 12:44s |
| 02/09/2017 | Th | 17:15s | | | | | | |
| 02/09/2017 | Th | 18:36et | 23:27t | | 21:06s | 21:24s | 22:26r | |
| 02/10/2017 | F | 5:38mt | 6:40s | 6:21r | | | 3:58t | 3:39r |
| 02/10/2017 | F | 6:59r | | 11:00t | 8:21r | 8:49r | 9:31s | 8:10t |
| 02/10/2017 | F | 12:07t | 17:14r | 15:40s | 14:43t | 15:06t | | 12:40s |
| 02/10/2017 | F | 17:16s | 17:33FM | | | | | |
| 02/10/2017 | F | 18:37et | | | 21:06s | 21:24s | 22:22r | |
| 02/11/2017 | Sat | 5:37mt | 0:20t | 6:22r | | | 3:54t | 3:36r |
| 02/11/2017 | Sat | 6:58r | 7:18s | 11:03t | 8:17r | 8:46r | 9:27s | 8:06t |
| 02/11/2017 | Sat | 12:07t | | 15:44s | 14:41t | 15:05t | | 12:37s |
| 02/11/2017 | Sat | 17:18s | 18:21r | | | | | |
| 02/11/2017 | Sat | 18:38et | | | 21:05s | 21:24s | 22:18r | |
| 02/12/2017 | Sun | 5:36mt | 1:11t | 6:24r | | | 3:50t | 3:32r |
| 02/12/2017 | Sun | 6:56r | 7:52s | 11:05t | 8:14r | 8:44r | 9:23s | 8:03t |
| 02/12/2017 | Sun | 12:07t | | 15:48s | 14:39t | 15:04t | | 12:33s |
| 02/12/2017 | Sun | 17:19s | | | | | | |
| 02/12/2017 | Sun | 18:40et | 19:26r | | 21:05s | 21:24s | 22:13r | |
| 02/13/2017 | M | 5:34mt | 1:59t | 6:24r | | | 3:46t | 3:29r |
| 02/13/2017 | M | 6:55r | 8:22s | 11:08t | 8:10r | 8:42r | 9:19s | 7:59t |
| 02/13/2017 | M | 12:07t | | 15:52s | 14:37t | 15:03t | | 12:30s |
| 02/13/2017 | M | 17:20s | | | | | | |
| 02/13/2017 | M | 18:41et | 20:30r | | 21:05s | 21:24s | 22:09r | |
| 02/14/2017 | Tu | 5:33mt | 2:45t | 6:25r | | | 3:42t | 3:25r |
| 02/14/2017 | Tu | 6:53r | 8:51s | 11:10t | 8:07r | 8:39r | 9:15s | 7:56t |
| 02/14/2017 | Tu | 12:07t | | 15:56s | 14:35t | 15:01t | | 12:26s |
| 02/14/2017 | Tu | 17:22s | | | | | | |
| 02/14/2017 | Tu | 18:42et | 21:32r | | 21:04s | 21:24s | 22:05r | |
| 02/15/2017 | W | 5:32mt | 3:29t | 6:26r | | | 3:38t | 3:22r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 02/15/2017 | W | 6:52r | 9:19s | 11:13t | 8:03r | 8:37r | 9:11s | 7:52t |
| 02/15/2017 | W | 12:07t | | 16:01s | 14:33t | 15:00t | | 12:22s |
| 02/15/2017 | W | 17:23s | | | | | | |
| 02/15/2017 | W | 18:43et | 22:32r | | 21:03s | 21:24s | 22:01r | |
| 02/16/2017 | Th | 5:30mt | 4:13t | 6:27r | | | 3:34t | 3:18r |
| 02/16/2017 | Th | 6:50r | 9:48s | 11:16t | 7:59r | 8:34r | 9:07s | 7:48t |
| 02/16/2017 | Th | 12:07t | | 16:05s | 14:31t | 14:59t | | 12:19s |
| 02/16/2017 | Th | 17:25s | | | | | | |
| 02/16/2017 | Th | 18:45et | 23:31r | | 21:03s | 21:24s | 21:57r | |
| 02/17/2017 | F | 5:29mt | 4:57t | 6:28r | | | 3:30t | 3:14r |
| 02/17/2017 | F | 6:49r | 10:18s | 11:18t | 7:56r | 8:32r | 9:03s | 7:45t |
| 02/17/2017 | F | 12:07t | | 16:10s | 14:28t | 14:58t | | 12:15s |
| 02/17/2017 | F | 17:26s | | | | | | |
| 02/17/2017 | F | 18:46et | | | 21:02s | 21:24s | 21:53r | |
| 02/18/2017 | Sat | 5:28mt | 0:28r | | | | 3:26t | 3:11r |
| 02/18/2017 | Sat | 6:47r | 5:42t | 6:28r | 7:52r | 8:30r | 8:59s | 7:41t |
| 02/18/2017 | Sat | 12:07t | 10:51s | 11:21t | | | | 12:12s |
| 02/18/2017 | Sat | 17:27s | 12:33LQ | 16:15s | 14:26t | 14:56t | | |
| 02/18/2017 | Sat | 18:47et | | | 21:01s | 21:24s | 21:49r | |
| 02/19/2017 | Sun | 5:26mt | 1:24r | | | | 3:22t | 3:07r |
| 02/19/2017 | Sun | 6:46r | 6:28t | 6:29r | 7:48r | 8:27r | 8:55s | 7:38t |
| 02/19/2017 | Sun | 12:07t | 11:28s | 11:24t | 14:23t | 14:55t | | 12:08s |
| 02/19/2017 | Sun | 17:29s | | 16:19s | | | | |
| 02/19/2017 | Sun | 18:48et | | | 20:59s | 21:24s | 21:45r | |
| 02/20/2017 | M | 5:25mt | 2:19r | 6:29r | | | 3:18t | 3:03r |
| 02/20/2017 | M | 6:44r | 7:15t | 11:26t | 7:44r | 8:25r | 8:51s | 7:34t |
| 02/20/2017 | M | 12:07t | 12:09s | 16:24s | 14:21t | 14:54t | | 12:04s |
| 02/20/2017 | M | 17:30s | | | | | | |
| 02/20/2017 | M | 18:50et | | | 20:58s | 21:24s | 21:41r | |
| 02/21/2017 | Tu | 5:23mt | 3:11r | 6:30r | | | 3:14t | 3:00r |
| 02/21/2017 | Tu | 6:43r | 8:03t | 11:29t | 7:40r | 8:22r | 8:47s | 7:30t |
| 02/21/2017 | Tu | 12:07t | 12:55s | 16:29s | 14:18t | 14:53t | | 12:01s |
| 02/21/2017 | Tu | 17:31s | | | | | | |
| 02/21/2017 | Tu | 18:51et | | | 20:56s | 21:24s | 21:36r | |
| 02/22/2017 | W | 5:22mt | 4:00r | 6:30r | | | 3:09t | 2:56r |
| 02/22/2017 | W | 6:41r | 8:53t | 11:32t | 7:36r | 8:20r | 8:43s | 7:27t |
| 02/22/2017 | W | 12:07t | 13:47s | 16:35s | 14:15t | 14:51t | | 11:57s |
| 02/22/2017 | W | 17:33s | | | | | | |
| 02/22/2017 | W | 18:52et | | | 20:55s | 21:24s | 21:32r | |
| 02/23/2017 | Th | 5:20mt | 4:45r | 6:30r | | | 3:05t | 2:53r |
| 02/23/2017 | Th | 6:40r | 9:43t | 11:35t | 7:32r | 8:18r | 8:39s | 7:23t |
| 02/23/2017 | Th | 12:06t | 14:44s | 16:40s | 14:12t | 14:50t | | 11:53s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 02/23/2017 | Th | 17:34s | | | | | |
| 02/23/2017 | Th | 18:54et | | 20:53s | 21:24s | 21:28r | |
| 02/24/2017 | F | 5:19mt | 5:27r | 6:31r | | 3:01t | 2:49r |
| 02/24/2017 | F | 6:38r | 10:34t | 11:37t | 7:27r | 8:15r | 8:35s |
| 02/24/2017 | F | 12:06t | 15:45s | 16:45s | 14:09t | 14:49t | 11:50s |
| 02/24/2017 | F | 17:35s | | | | | |
| 02/24/2017 | F | 18:55et | | 20:51s | 21:23s | 21:24r | |
| 02/25/2017 | Sat | 5:17mt | 6:05r | 6:31r | | 2:57t | 2:45r |
| 02/25/2017 | Sat | 6:36r | 11:25t | 11:40t | 7:23r | 8:13r | 8:31s |
| 02/25/2017 | Sat | 12:06t | 16:51s | 16:51s | 14:06t | 14:48t | 11:46s |
| 02/25/2017 | Sat | 17:37s | | | | | |
| 02/25/2017 | Sat | 18:56et | | 20:49s | 21:23s | 21:19r | |
| 02/26/2017 | Sun | 5:15mt | | 6:31r | | 2:53t | 2:42r |
| 02/26/2017 | Sun | 6:35r | 6:41r | | 7:19r | | 7:12t |
| 02/26/2017 | Sun | 12:06t | 7:58NM | 11:43t | | 8:10r | 8:27s |
| 02/26/2017 | Sun | 17:38s | 12:15t | 16:56s | 14:02t | 14:47t | 11:42s |
| 02/26/2017 | Sun | 18:57et | 17:58s | | 20:46s | 21:23s | 21:15r |
| 02/27/2017 | M | 5:14mt | | 6:31r | | 2:49t | 2:38r |
| 02/27/2017 | M | 6:33r | 7:14r | | 7:14r | 8:08r | 8:22s |
| 02/27/2017 | M | 12:06t | 13:06t | 11:46t | 13:59t | 14:45t | 11:39s |
| 02/27/2017 | M | 17:39s | | 17:02s | | | |
| 02/27/2017 | M | 18:59et | 19:07s | | 20:44s | 21:23s | 21:11r |
| 02/28/2017 | Tu | 5:12mt | | 6:31r | | 2:45t | 2:34r |
| 02/28/2017 | Tu | 6:31r | 7:46r | | 7:10r | 8:06r | 8:18s |
| 02/28/2017 | Tu | 12:06t | 13:57t | 11:49t | 13:55t | 14:44t | 11:35s |
| 02/28/2017 | Tu | 17:41s | | 17:07s | | | |
| 02/28/2017 | Tu | 19:00et | 20:18s | | 20:41s | 21:23s | 21:07r |
| 03/01/2017 | W | 5:11mt | | | | 2:40t | 2:31r |
| 03/01/2017 | W | 6:30r | 8:19r | 6:31r | 7:05r | 8:03r | 8:14s |
| 03/01/2017 | W | 12:05t | 14:49t | 11:51t | 13:51t | 14:43t | 11:31s |
| 03/01/2017 | W | 17:42s | | 17:13s | | | |
| 03/01/2017 | W | 19:01et | 21:29s | | 20:38s | 21:23s | 21:02r |
| 03/02/2017 | Th | 5:09mt | | | | 2:36t | 2:27r |
| 03/02/2017 | Th | 6:28r | 8:54r | 6:31r | 7:01r | 8:01r | 8:10s |
| 03/02/2017 | Th | 12:05t | 15:42t | 11:54t | 13:47t | 14:42t | 11:28s |
| 03/02/2017 | Th | 17:43s | | 17:19s | | | |
| 03/02/2017 | Th | 19:02et | 22:40s | | 20:35s | 21:23s | 20:58r |
| 03/03/2017 | F | 5:07mt | | | | 2:32t | 2:23r |
| 03/03/2017 | F | 6:26r | 9:31r | 6:31r | 6:56r | 7:59r | 8:06s |
| 03/03/2017 | F | 12:05t | 16:36t | 11:57t | 13:43t | 14:40t | 11:24s |
| 03/03/2017 | F | 17:45s | | 17:25s | | | |
| 03/03/2017 | F | 19:04et | 23:50s | | 20:31s | 21:23s | 20:54r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 03/04/2017 | Sat | 5:05mt | | | | 2:28t | 2:19r | |
| 03/04/2017 | Sat | 6:24r | 10:13r | 6:31r | 6:51r | 7:56r | 8:02s | 6:50t |
| 03/04/2017 | Sat | 12:05t | | 12:00t | 13:39t | 14:39t | | 11:20s |
| 03/04/2017 | Sat | 17:46s | 17:32t | 17:31s | | | | |
| 03/04/2017 | Sat | 19:05et | | | 20:28s | 21:23s | 20:49r | |
| 03/05/2017 | Sun | | 0:58s | | | 2:24t | 2:16r | |
| 03/05/2017 | Sun | 5:04mt | 4:32FQ | | | | | |
| 03/05/2017 | Sun | 6:23r | 11:00r | 6:31r | 6:46r | 7:54r | 7:58s | 6:46t |
| 03/05/2017 | Sun | 12:05t | | 12:03t | 13:35t | 14:38t | | 11:17s |
| 03/05/2017 | Sun | 17:47s | 18:29t | 17:37s | | | | |
| 03/05/2017 | Sun | 19:06et | | | 20:24s | 21:23s | 20:45r | |
| 03/06/2017 | M | 5:02mt | 2:02s | | | 2:19t | 2:12r | |
| 03/06/2017 | M | 6:21r | | 6:30r | 6:41r | 7:52r | 7:54s | 6:42t |
| 03/06/2017 | M | 12:04t | 11:53r | 12:06t | 13:30t | 14:37t | | 11:13s |
| 03/06/2017 | M | 17:48s | | 17:44s | | | | |
| 03/06/2017 | M | 19:08et | 19:26t | | 20:20s | 21:23s | 20:41r | |
| 03/07/2017 | Tu | 5:00mt | 3:00s | | | 2:15t | 2:08r | |
| 03/07/2017 | Tu | 6:19r | | 6:30r | 6:36r | 7:49r | 7:50s | 6:39t |
| 03/07/2017 | Tu | 12:04t | 12:51r | 12:09t | 13:26t | 14:36t | | 11:09s |
| 03/07/2017 | Tu | 17:50s | | 17:50s | | | | |
| 03/07/2017 | Tu | 19:09et | 20:23t | | 20:15s | 21:23s | 20:36r | |
| 03/08/2017 | W | 4:58mt | 3:51s | | | 2:11t | 2:05r | |
| 03/08/2017 | W | 6:17r | | 6:30r | 6:31r | 7:47r | 7:46s | 6:35t |
| 03/08/2017 | W | 12:04t | 13:54r | 12:12t | 13:21t | 14:34t | | 11:05s |
| 03/08/2017 | W | 17:51s | | 17:56s | | | | |
| 03/08/2017 | W | 19:10et | 21:18t | | 20:11s | 21:22s | 20:32r | |
| 03/09/2017 | Th | 4:57mt | 4:36s | | | 2:07t | 2:01r | |
| 03/09/2017 | Th | 6:16r | | 6:30r | 6:26r | 7:45r | 7:42s | 6:31t |
| 03/09/2017 | Th | 12:04t | 14:59r | 12:15t | 13:16t | 14:33t | | 11:02s |
| 03/09/2017 | Th | 17:52s | | 18:03s | | | | |
| 03/09/2017 | Th | 19:11et | 22:11t | | 20:06s | 21:22s | 20:27r | |
| 03/10/2017 | F | 4:55mt | 5:15s | | | 2:02t | 1:57r | |
| 03/10/2017 | F | 6:14r | | 6:29r | 6:21r | 7:43r | 7:37s | 6:27t |
| 03/10/2017 | F | 12:03t | 16:05r | 12:18t | 13:11t | 14:32t | | 10:58s |
| 03/10/2017 | F | 17:54s | | 18:09s | | | | |
| 03/10/2017 | F | 19:13et | 23:02t | | 20:01s | 21:22s | 20:23r | |
| 03/11/2017 | Sat | 4:53mt | 5:50s | | | 1:58t | 1:53r | |
| 03/11/2017 | Sat | 6:12r | | 6:29r | 6:16r | 7:40r | 7:33s | 6:24t |
| 03/11/2017 | Sat | 12:03t | 17:10r | 12:21t | 13:06t | 14:31t | | 10:54s |
| 03/11/2017 | Sat | 17:55s | | 18:16s | | | | |
| 03/11/2017 | Sat | 19:14et | 23:50t | | 19:56s | 21:22s | 20:18r | |
| 03/12/2017 | Sun | 4:51mt | | | | 1:54t | 1:50r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|--------|---------|--------|--------|---------|--------|
| 03/12/2017 | Sun 6:10r | 6:21s | 6:28r | 6:11r | 7:38r | 7:29s | 6:20t |
| 03/12/2017 | Sun 12:03t | 7:54FM | 12:25t | 13:01t | 14:30t | | 10:50s |
| 03/12/2017 | Sun 17:56s | 18:14r | 18:22s | | | | |
| 03/12/2017 | Sun 19:15et | | | 19:50s | 21:22s | 20:14r | |
| 03/13/2017 | M 4:49mt | 0:37t | | 6:06r | | 1:49t | 1:46r |
| 03/13/2017 | M 6:08r | 6:50s | 6:28r | | 7:36r | 7:25s | 6:16t |
| 03/13/2017 | M 12:03t | | 12:28t | 12:55t | 14:28t | | 10:47s |
| 03/13/2017 | M 17:57s | | 18:29s | | | | |
| 03/13/2017 | M 19:17et | 19:17r | | 19:44s | 21:22s | 20:10r | |
| 03/14/2017 | Tu 4:47mt | 1:22t | | 6:01r | | 1:45t | 1:42r |
| 03/14/2017 | Tu 6:07r | 7:19s | 6:27r | | 7:33r | 7:21s | 6:12t |
| 03/14/2017 | Tu 12:02t | | 12:31t | 12:50t | 14:27t | | 10:43s |
| 03/14/2017 | Tu 17:59s | | 18:36s | | | | |
| 03/14/2017 | Tu 19:18et | 20:18r | | 19:38s | 21:22s | 20:05r | |
| 03/15/2017 | W 4:46mt | 2:07t | | 5:55r | | 1:41t | 1:38r |
| 03/15/2017 | W 6:05r | 7:48s | 6:27r | | 7:31r | 7:17s | 6:09t |
| 03/15/2017 | W 12:02t | | 12:34t | 12:44t | 14:26t | | 10:39s |
| 03/15/2017 | W 18:00s | | 18:43s | | | | |
| 03/15/2017 | W 19:19et | 21:18r | | 19:32s | 21:22s | 20:01r | |
| 03/16/2017 | Th 4:44mt | 2:51t | | 5:50r | | 1:37t | 1:35r |
| 03/16/2017 | Th 6:03r | 8:17s | 6:26r | | 7:29r | 7:13s | 6:05t |
| 03/16/2017 | Th 12:02t | | 12:37t | 12:38t | 14:25t | | 10:35s |
| 03/16/2017 | Th 18:01s | | 18:49s | | | | |
| 03/16/2017 | Th 19:21et | 22:17r | | 19:26s | 21:22s | 19:56r | |
| 03/17/2017 | F 4:42mt | 3:36t | | 5:45r | | 1:32t | 1:31r |
| 03/17/2017 | F 6:01r | 8:49s | 6:25r | | 7:27r | 7:08s | 6:01t |
| 03/17/2017 | F 12:01t | | 12:40t | 12:32t | 14:24t | | 10:31s |
| 03/17/2017 | F 18:02s | | 18:56s | 19:19s | | | |
| 03/17/2017 | F 19:22et | 23:14r | | | 21:21s | 19:52r | |
| 03/18/2017 | Sat 4:40mt | 4:21t | | 5:40r | | 1:28t | 1:27r |
| 03/18/2017 | Sat 5:59r | 9:24s | 6:25r | | 7:24r | 7:04s | 5:57t |
| 03/18/2017 | Sat 12:01t | | 12:43t | 12:26t | 14:23t | | 10:28s |
| 03/18/2017 | Sat 18:04s | | 19:02s | 19:12s | | | |
| 03/18/2017 | Sat 19:23et | | | | 21:21s | 19:47r | |
| 03/19/2017 | Sun 4:38mt | 0:09r | | | | 1:24t | 1:23r |
| 03/19/2017 | Sun 5:58r | 5:07t | 6:24r | 5:35r | 7:22r | 7:00s | 5:54t |
| 03/19/2017 | Sun 12:01t | 10:03s | 12:45t | 12:20t | 14:21t | | 10:24s |
| 03/19/2017 | Sun 18:05s | | 19:09s | 19:06s | | | |
| 03/19/2017 | Sun 19:25et | | | | 21:21s | 19:43r | |
| 03/20/2017 | M 3:29ME | 1:02r | | | | 1:19t | 1:19r |
| 03/20/2017 | M 4:36mt | 5:55t | | 5:29r | | | 5:50t |
| 03/20/2017 | M 5:56r | 8:58LQ | 6:23r | | 7:20r | 6:56s | 10:20s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 03/20/2017 | M | 12:00t | 10:46s | 12:48t | 12:14t | 14:20t | | |
| 03/20/2017 | M | 18:06s | | 19:15s | 18:59s | | | |
| 03/20/2017 | M | 19:26et | | | | 21:21s | 19:38r | |
| 03/21/2017 | Tu | 4:34mt | 1:52r | | 5:24r | | 1:15t | 1:15r |
| 03/21/2017 | Tu | 5:54r | 6:43t | 6:22r | | 7:18r | 6:52s | 5:46t |
| 03/21/2017 | Tu | 12:00t | 11:35s | 12:51t | 12:08t | 14:19t | | 10:16s |
| 03/21/2017 | Tu | 18:07s | | 19:21s | 18:51s | | | |
| 03/21/2017 | Tu | 19:27et | | | | 21:21s | 19:34r | |
| 03/22/2017 | W | 4:32mt | 2:38r | | 5:19r | | 1:11t | 1:12r |
| 03/22/2017 | W | 5:52r | 7:32t | 6:21r | | 7:16r | 6:48s | 5:42t |
| 03/22/2017 | W | 12:00t | 12:29s | 12:53t | 12:02t | 14:18t | | 10:12s |
| 03/22/2017 | W | 18:08s | | 19:27s | 18:44s | | | |
| 03/22/2017 | W | 19:29et | | | | 21:21s | 19:29r | |
| 03/23/2017 | Th | 4:30mt | 3:21r | | 5:14r | | 1:06t | 1:08r |
| 03/23/2017 | Th | 5:50r | 8:22t | 6:20r | | 7:13r | 6:43s | 5:38t |
| 03/23/2017 | Th | 12:00t | 13:28s | 12:55t | 11:56t | 14:17t | | 10:09s |
| 03/23/2017 | Th | 18:10s | | | 18:37s | | 19:25r | |
| 03/23/2017 | Th | 19:30et | | 19:33s | | 21:21s | | |
| 03/24/2017 | F | 4:28mt | 4:00r | | 5:09r | | 1:02t | 1:04r |
| 03/24/2017 | F | 5:48r | 9:12t | 6:19r | | 7:11r | 6:39s | 5:34t |
| 03/24/2017 | F | 11:59t | 14:31s | 12:57t | 11:50t | 14:16t | | 10:05s |
| 03/24/2017 | F | 18:11s | | | 18:29s | | 19:20r | |
| 03/24/2017 | F | 19:31et | | 19:38s | | 21:21s | | |
| 03/25/2017 | Sat | 4:26mt | 4:36r | | 5:05r | | 0:57t | 1:00r |
| 03/25/2017 | Sat | 5:47r | | 6:17r | | 7:09r | 6:35s | 5:31t |
| 03/25/2017 | Sat | 11:59t | 10:03t | 12:59t | 11:44t | 14:14t | | 10:01s |
| 03/25/2017 | Sat | 18:12s | 15:37s | | 18:22s | | 19:15r | |
| 03/25/2017 | Sat | 19:33et | | 19:43s | | 21:20s | | |
| 03/26/2017 | Sun | 4:24mt | 5:10r | | 5:00r | | 0:53t | 0:56r |
| 03/26/2017 | Sun | 5:45r | | 6:16r | | 7:07r | 6:31s | 5:27t |
| 03/26/2017 | Sun | 11:59t | 10:54t | 13:01t | 11:38t | 14:13t | | 9:57s |
| 03/26/2017 | Sun | 18:13s | 16:46s | | 18:15s | | 19:11r | |
| 03/26/2017 | Sun | 19:34et | | 19:48s | | 21:20s | | |
| 03/27/2017 | M | 4:22mt | | | 4:55r | | 0:49t | 0:52r |
| 03/27/2017 | M | 5:43r | 5:43r | 6:14r | | 7:05r | 6:27s | 5:23t |
| 03/27/2017 | M | 11:58t | 11:46t | 13:02t | 11:32t | 14:12t | | 9:53s |
| 03/27/2017 | M | 18:15s | 17:58s | | 18:07s | | 19:06r | |
| 03/27/2017 | M | 19:36et | 19:57NM | 19:52s | | 21:20s | | |
| 03/28/2017 | Tu | 4:20mt | | | 4:51r | | 0:44t | 0:49r |
| 03/28/2017 | Tu | 5:41r | 6:17r | 6:12r | | 7:03r | 6:22s | 5:19t |
| 03/28/2017 | Tu | 11:58t | 12:38t | 13:03t | 11:26t | 14:11t | | 9:49s |
| 03/28/2017 | Tu | 18:16s | 19:10s | | 18:00s | | 19:02r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 03/28/2017 | Tu | 19:37et | | 19:55s | | 21:20s | | |
| 03/29/2017 | W | 4:18mt | | | 4:46r | | 0:40t | 0:45r |
| 03/29/2017 | W | 5:39r | 6:51r | 6:10r | | 7:01r | 6:18s | 5:15t |
| 03/29/2017 | W | 11:58t | 13:32t | 13:04t | 11:20t | 14:10t | | 9:46s |
| 03/29/2017 | W | 18:17s | | | 17:53s | | 18:57r | |
| 03/29/2017 | W | 19:38et | 20:24s | 19:59s | | 21:20s | | |
| 03/30/2017 | Th | 4:16mt | | | 4:42r | | 0:35t | 0:41r |
| 03/30/2017 | Th | 5:37r | 7:28r | 6:08r | | 6:58r | 6:14s | 5:11t |
| 03/30/2017 | Th | 11:57t | 14:28t | 13:04t | 11:14t | 14:09t | | 9:42s |
| 03/30/2017 | Th | 18:18s | | | 17:45s | | 18:53r | |
| 03/30/2017 | Th | 19:40et | 21:37s | 20:01s | | 21:20s | | |
| 03/31/2017 | F | 4:14mt | | | 4:37r | | 0:31t | 0:37r |
| 03/31/2017 | F | 5:36r | 8:10r | 6:06r | | 6:56r | 6:10s | 5:07t |
| 03/31/2017 | F | 11:57t | 15:25t | 13:04t | 11:08t | 14:08t | | 9:38s |
| 03/31/2017 | F | 18:20s | | | 17:38s | | 18:48r | |
| 03/31/2017 | F | 19:41et | 22:49s | 20:03s | | 21:20s | | |
| 04/01/2017 | Sat | 4:12mt | | | 4:33r | | 0:27t | 0:33r |
| 04/01/2017 | Sat | 5:34r | 8:56r | 6:04r | | 6:54r | 6:06s | 5:03t |
| 04/01/2017 | Sat | 11:57t | 16:24t | 13:04t | 11:03t | 14:07t | | 9:34s |
| 04/01/2017 | Sat | 18:21s | | | 17:31s | | 18:43r | |
| 04/01/2017 | Sat | 19:43et | 23:56s | 20:05s | | 21:19s | | |
| 04/02/2017 | Sun | 4:10mt | | | 4:29r | | 0:22t | 0:29r |
| 04/02/2017 | Sun | 5:32r | | 6:01r | | 6:52r | 6:01s | 5:00t |
| 04/02/2017 | Sun | 11:57t | 9:48r | 13:03t | 10:57t | 14:05t | | 9:30s |
| 04/02/2017 | Sun | 18:22s | 17:22t | | 17:24s | | 18:39r | |
| 04/02/2017 | Sun | 19:44et | | 20:06s | | 21:19s | | |
| 04/03/2017 | M | 4:08mt | 0:56s | | 4:25r | | 0:18t | 0:25r |
| 04/03/2017 | M | 5:30r | | 5:58r | | 6:50r | 5:57s | 4:56t |
| 04/03/2017 | M | | 10:45r | | 10:52t | | | 9:26s |
| 04/03/2017 | M | 11:56t | 11:39FQ | 13:02t | 17:18s | 14:04t | | |
| 04/03/2017 | M | 18:23s | 18:19t | | | | 18:34r | |
| 04/03/2017 | M | 19:46et | | 20:06s | | 21:19s | | |
| 04/04/2017 | Tu | 4:06mt | 1:50s | | 4:21r | | 0:13t | 0:21r |
| 04/04/2017 | Tu | 5:28r | | 5:56r | | 6:48r | 5:53s | 4:52t |
| 04/04/2017 | Tu | 11:56t | 11:47r | 13:00t | 10:47t | 14:03t | | 9:22s |
| 04/04/2017 | Tu | 18:24s | 19:15t | | 17:11s | | 18:30r | |
| 04/04/2017 | Tu | 19:47et | | 20:06s | | 21:19s | | |
| 04/05/2017 | W | 4:04mt | 2:36s | | 4:18r | | 0:09t | 0:17r |
| 04/05/2017 | W | 5:27r | | 5:53r | | 6:46r | 5:49s | 4:48t |
| 04/05/2017 | W | 11:56t | 12:51r | 12:58t | 10:41t | 14:02t | | 9:18s |
| 04/05/2017 | W | 18:26s | | | 17:05s | | 18:25r | |
| 04/05/2017 | W | 19:49et | 20:08t | 20:04s | | 21:19s | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 04/06/2017 | Th | 4:02mt | 3:16s | | 4:14r | | 0:05t | 0:13r |
| 04/06/2017 | Th | 5:25r | | 5:49r | | 6:44r | 5:44s | 4:44t |
| 04/06/2017 | Th | 11:55t | 13:56r | 12:56t | 10:37t | 14:01t | | 9:14s |
| 04/06/2017 | Th | 18:27s | | | 16:58s | | 18:20r | |
| 04/06/2017 | Th | 19:50et | 20:58t | 20:03s | | 21:18s | | |
| 04/07/2017 | F | 4:00mt | 3:51s | | 4:10r | | 0:00t | 0:09r |
| 04/07/2017 | F | 5:23r | | 5:46r | | 6:42r | 5:40s | 4:40t |
| 04/07/2017 | F | 11:55t | 15:00r | 12:53t | 10:32t | 14:00t | | 9:10s |
| 04/07/2017 | F | 18:28s | | | 16:52s | | 18:16r | |
| 04/07/2017 | F | 19:51et | 21:46t | 20:00s | | 21:18s | 23:56t | |
| 04/08/2017 | Sat | 3:58mt | 4:23s | | 4:07r | | | 0:06r |
| 04/08/2017 | Sat | 5:21r | | 5:42r | | 6:40r | 5:36s | 4:36t |
| 04/08/2017 | Sat | 11:55t | 16:04r | 12:50t | 10:27t | 13:59t | | 9:06s |
| 04/08/2017 | Sat | 18:29s | | | 16:47s | | 18:11r | |
| 04/08/2017 | Sat | 19:53et | 22:32t | 19:57s | | 21:18s | 23:51t | |
| 04/09/2017 | Sun | 3:56mt | | | 4:04r | | | 0:02r |
| 04/09/2017 | Sun | 5:20r | 4:52s | 5:39r | | 6:38r | 5:32s | 4:32t |
| 04/09/2017 | Sun | 11:55t | | 12:46t | 10:23t | 13:58t | | 9:02s |
| 04/09/2017 | Sun | 18:30s | 17:06r | 19:53s | 16:41s | | 18:07r | |
| 04/09/2017 | Sun | 19:54et | 23:17t | | | 21:18s | 23:47t | 23:58r |
| 04/10/2017 | M | 3:54mt | | | 4:00r | | | 4:28t |
| 04/10/2017 | M | 5:18r | 5:20s | 5:35r | 10:18t | 6:36r | 5:28s | 8:59s |
| 04/10/2017 | M | 11:54t | 18:07r | 12:42t | 16:36s | 13:57t | 18:02r | |
| 04/10/2017 | M | 18:32s | | 19:49s | | | | |
| 04/10/2017 | M | 19:56et | 23:08FM | | | 21:18s | 23:43t | 23:54r |
| 04/11/2017 | Tu | 3:52mt | 0:02t | | 3:57r | | | 4:24t |
| 04/11/2017 | Tu | 5:16r | 5:49s | 5:31r | 10:14t | 6:34r | 5:23s | 8:55s |
| 04/11/2017 | Tu | 11:54t | | 12:38t | 16:30s | 13:55t | 17:57r | |
| 04/11/2017 | Tu | 18:33s | 19:07r | 19:44s | | | | |
| 04/11/2017 | Tu | 19:58et | | | | 21:17s | 23:38t | 23:50r |
| 04/12/2017 | W | 3:50mt | 0:46t | | 3:54r | | | 4:20t |
| 04/12/2017 | W | 5:14r | 6:18s | 5:27r | 10:10t | 6:32r | 5:19s | 8:51s |
| 04/12/2017 | W | 11:54t | | 12:33t | 16:25s | 13:54t | 17:53r | |
| 04/12/2017 | W | 18:34s | | 19:38s | | | | |
| 04/12/2017 | W | 19:59et | 20:07r | | | 21:17s | 23:34t | 23:46r |
| 04/13/2017 | Th | 3:48mt | 1:30t | | 3:51r | | | 4:16t |
| 04/13/2017 | Th | 5:13r | 6:48s | 5:23r | 10:06t | 6:30r | 5:15s | 8:47s |
| 04/13/2017 | Th | 11:54t | | 12:28t | 16:21s | 13:53t | 17:48r | |
| 04/13/2017 | Th | 18:35s | | 19:32s | | | | |
| 04/13/2017 | Th | 20:01et | 21:05r | | | 21:17s | 23:29t | 23:42r |
| 04/14/2017 | F | 3:46mt | 2:16t | | 3:48r | | 5:11s | 4:12t |
| 04/14/2017 | F | 5:11r | 7:22s | 5:19r | 10:02t | 6:28r | | 8:43s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 04/14/2017 | F | 11:53t | | 12:22t | 16:16s | 13:52t | 17:44r |
| 04/14/2017 | F | 18:37s | | 19:25s | | | |
| 04/14/2017 | F | 20:02et | 22:01r | | 21:17s | 23:25t | 23:38r |
| 04/15/2017 | Sat | 3:44mt | 3:02t | 3:46r | | 5:06s | 4:08t |
| 04/15/2017 | Sat | 5:09r | 7:59s | 5:14r | 9:59t | 6:26r | 8:39s |
| 04/15/2017 | Sat | 11:53t | | 12:17t | 16:12s | 13:51t | 17:39r |
| 04/15/2017 | Sat | 18:38s | | 19:18s | | | |
| 04/15/2017 | Sat | 20:04et | 22:55r | | 21:16s | 23:21t | 23:34r |
| 04/16/2017 | Sun | 3:42mt | 3:49t | 3:43r | | 5:02s | 4:04t |
| 04/16/2017 | Sun | 5:08r | 8:41s | 5:10r | 9:55t | 6:25r | 8:35s |
| 04/16/2017 | Sun | 11:53t | | 12:11t | 16:07s | 13:50t | 17:34r |
| 04/16/2017 | Sun | 18:39s | | 19:11s | | | |
| 04/16/2017 | Sun | 20:05et | 23:46r | | 21:16s | 23:16t | 23:30r |
| 04/17/2017 | M | 3:40mt | 4:36t | 5:06r | 3:40r | 4:58s | 4:00t |
| 04/17/2017 | M | 5:06r | 9:27s | | 9:52t | 6:23r | 8:31s |
| 04/17/2017 | M | 11:53t | | 12:05t | 16:03s | 13:49t | 17:30r |
| 04/17/2017 | M | 18:40s | | 19:03s | | | |
| 04/17/2017 | M | 20:07et | | | 21:16s | 23:12t | 23:26r |
| 04/18/2017 | Tu | 3:38mt | 0:33r | 5:02r | 3:38r | 4:54s | 3:56t |
| 04/18/2017 | Tu | 5:04r | 5:25t | | 9:49t | 6:21r | 8:27s |
| 04/18/2017 | Tu | 11:52t | 10:18s | 11:59t | 16:00s | 13:48t | 17:25r |
| 04/18/2017 | Tu | 18:41s | | 18:55s | | | |
| 04/18/2017 | Tu | 20:08et | | | 21:16s | 23:07t | 23:22r |
| 04/19/2017 | W | | 1:16r | | | | |
| 04/19/2017 | W | 3:36mt | 2:57LQ | 4:57r | 3:35r | 4:50s | 3:52t |
| 04/19/2017 | W | 5:03r | 6:13t | | 9:46t | 6:19r | 8:23s |
| 04/19/2017 | W | 11:52t | 11:14s | 11:53t | 15:56s | 13:47t | 17:21r |
| 04/19/2017 | W | 18:43s | | 18:47s | | | |
| 04/19/2017 | W | 20:10et | | | 21:15s | 23:03t | 23:18r |
| 04/20/2017 | Th | 3:34mt | 1:56r | 4:53r | 3:33r | 4:45s | 3:48t |
| 04/20/2017 | Th | 5:01r | 7:02t | 11:46t | 9:43t | 6:17r | 8:19s |
| 04/20/2017 | Th | 11:52t | 12:14s | 18:39s | 15:53s | 13:46t | 17:16r |
| 04/20/2017 | Th | 18:44s | | | | | |
| 04/20/2017 | Th | 20:12et | | | 21:15s | 22:59t | 23:14r |
| 04/21/2017 | F | 3:32mt | 2:32r | 4:49r | 3:30r | 4:41s | 3:44t |
| 04/21/2017 | F | 4:59r | 7:51t | 11:40t | 9:40t | 6:15r | 8:15s |
| 04/21/2017 | F | 11:52t | 13:17s | 18:30s | 15:50s | 13:45t | 17:12r |
| 04/21/2017 | F | 18:45s | | | | | |
| 04/21/2017 | F | 20:13et | | | 21:15s | 22:54t | 23:10r |
| 04/22/2017 | Sat | 3:30mt | 3:06r | 4:45r | 3:28r | 4:37s | 3:40t |
| 04/22/2017 | Sat | 4:58r | 8:41t | 11:34t | 9:37t | 6:13r | 8:11s |
| 04/22/2017 | Sat | 11:52t | 14:24s | 18:22s | 15:47s | 13:44t | 17:07r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 04/22/2017 | Sat | 18:46s | | | | | |
| 04/22/2017 | Sat | 20:15et | | | 21:14s | 22:50t | 23:05r |
| 04/23/2017 | Sun | 3:28mt | 3:39r | 4:41r | 3:25r | 4:33s | 3:36t |
| 04/23/2017 | Sun | 4:56r | 9:32t | 11:28t | 9:35t | 6:12r | 8:06s |
| 04/23/2017 | Sun | 11:51t | 15:33s | 18:14s | 15:44s | 13:43t | 17:03r |
| 04/23/2017 | Sun | 18:47s | | | | | |
| 04/23/2017 | Sun | 20:16et | | | 21:14s | 22:46t | 23:01r |
| 04/24/2017 | M | 3:26mt | 4:12r | 4:37r | 3:23r | 4:29s | 3:32t |
| 04/24/2017 | M | 4:55r | 10:23t | 11:22t | 9:32t | 6:10r | 8:02s |
| 04/24/2017 | M | 11:51t | 16:45s | 18:06s | 15:41s | 13:42t | 16:58r |
| 04/24/2017 | M | 18:49s | | | | | |
| 04/24/2017 | M | 20:18et | | | 21:14s | 22:41t | 22:57r |
| 04/25/2017 | Tu | 3:24mt | 4:45r | 4:33r | 3:21r | 4:24s | 3:28t |
| 04/25/2017 | Tu | 4:53r | 11:17t | 11:16t | 9:30t | 6:08r | 7:58s |
| 04/25/2017 | Tu | 11:51t | 17:59s | 17:58s | 15:39s | 13:41t | 16:54r |
| 04/25/2017 | Tu | 18:50s | | | | | |
| 04/25/2017 | Tu | 20:20et | | | 21:13s | 22:37t | 22:53r |
| 04/26/2017 | W | 3:22mt | | 4:29r | 3:19r | 4:20s | 3:24t |
| 04/26/2017 | W | 4:51r | 5:16NM | | | | |
| 04/26/2017 | W | 11:51t | 5:21r | 11:11t | 9:28t | 6:06r | 7:54s |
| 04/26/2017 | W | 18:51s | 12:13t | 17:51s | 15:36s | 13:39t | 16:49r |
| 04/26/2017 | W | 20:21et | 19:15s | | | 21:13s | 22:32t |
| 04/27/2017 | Th | 3:20mt | | 4:26r | 3:17r | 4:16s | 3:20t |
| 04/27/2017 | Th | 4:50r | 6:01r | 11:05t | 9:25t | 6:05r | 7:50s |
| 04/27/2017 | Th | 11:51t | 13:11t | 17:44s | 15:34s | 13:38t | 16:45r |
| 04/27/2017 | Th | 18:52s | | | | | |
| 04/27/2017 | Th | 20:23et | 20:30s | | | 21:13s | 22:28t |
| 04/28/2017 | F | 3:18mt | | 4:22r | 3:15r | 4:12s | 3:16t |
| 04/28/2017 | F | 4:48r | 6:47r | 11:00t | 9:23t | 6:03r | 7:46s |
| 04/28/2017 | F | 11:51t | 14:11t | 17:37s | 15:32s | 13:37t | 16:40r |
| 04/28/2017 | F | 18:54s | | | | | |
| 04/28/2017 | F | 20:25et | 21:42s | | | 21:12s | 22:24t |
| 04/29/2017 | Sat | 3:16mt | | 4:19r | 3:13r | 4:08s | 3:12t |
| 04/29/2017 | Sat | 4:47r | 7:38r | 10:55t | 9:21t | 6:01r | 7:42s |
| 04/29/2017 | Sat | 11:50t | 15:12t | 17:31s | 15:30s | 13:36t | 16:36r |
| 04/29/2017 | Sat | 18:55s | | | | | |
| 04/29/2017 | Sat | 20:26et | 22:48s | | | 21:12s | 22:19t |
| 04/30/2017 | Sun | 3:14mt | | 4:15r | 3:11r | 4:03s | 3:07t |
| 04/30/2017 | Sun | 4:46r | 8:36r | 10:51t | 9:20t | 6:00r | 7:38s |
| 04/30/2017 | Sun | 11:50t | 16:12t | 17:25s | 15:29s | 13:35t | 16:31r |
| 04/30/2017 | Sun | 18:56s | | | | | |
| 04/30/2017 | Sun | 20:28et | 23:46s | | | 21:11s | 22:15t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 05/01/2017 | M | 3:12mt | | 4:12r | 3:09r | | 3:59s | 3:03t |
| 05/01/2017 | M | 4:44r | 9:38r | 10:46t | 9:18t | 5:58r | | 7:34s |
| 05/01/2017 | M | 11:50t | 17:09t | 17:20s | 15:27s | 13:34t | 16:27r | |
| 05/01/2017 | M | 18:57s | | | | | | |
| 05/01/2017 | M | 20:30et | | | | 21:11s | 22:11t | 22:29r |
| 05/02/2017 | Tu | 3:10mt | 0:36s | 4:09r | 3:07r | | 3:55s | 2:59t |
| 05/02/2017 | Tu | 4:43r | 10:43r | 10:42t | 9:16t | 5:56r | | 7:30s |
| 05/02/2017 | Tu | 11:50t | 18:04t | 17:15s | 15:26s | 13:33t | 16:22r | |
| 05/02/2017 | Tu | 18:58s | 19:47FQ | | | | | |
| 05/02/2017 | Tu | 20:31et | | | | 21:11s | 22:07t | 22:25r |
| 05/03/2017 | W | 3:08mt | 1:18s | 4:06r | 3:05r | | 3:51s | 2:55t |
| 05/03/2017 | W | 4:41r | 11:48r | 10:39t | 9:14t | 5:55r | | 7:26s |
| 05/03/2017 | W | 11:50t | 18:56t | 17:11s | 15:24s | 13:32t | 16:18r | |
| 05/03/2017 | W | 19:00s | | | | | | |
| 05/03/2017 | W | 20:33et | | | | 21:10s | 22:02t | 22:20r |
| 05/04/2017 | Th | 3:06mt | 1:55s | 4:03r | 3:03r | | 3:47s | 2:51t |
| 05/04/2017 | Th | 4:40r | | 10:35t | 9:13t | 5:53r | | 7:22s |
| 05/04/2017 | Th | 11:50t | 12:53r | 17:07s | 15:23s | 13:31t | 16:13r | |
| 05/04/2017 | Th | 19:01s | 19:45t | | | | | |
| 05/04/2017 | Th | 20:35et | | | | 21:10s | 21:58t | 22:16r |
| 05/05/2017 | F | 3:05mt | 2:27s | 4:01r | 3:01r | | 3:43s | 2:47t |
| 05/05/2017 | F | 4:39r | | 10:32t | 9:11t | 5:52r | | 7:18s |
| 05/05/2017 | F | 11:50t | 13:57r | 17:03s | 15:22s | 13:30t | 16:09r | |
| 05/05/2017 | F | 19:02s | 20:31t | | | | | |
| 05/05/2017 | F | 20:36et | | | | 21:09s | 21:54t | 22:12r |
| 05/06/2017 | Sat | 3:03mt | 2:57s | 3:58r | 2:59r | | 3:38s | 2:43t |
| 05/06/2017 | Sat | 4:37r | | 10:29t | 9:10t | 5:50r | | 7:13s |
| 05/06/2017 | Sat | 11:50t | 14:59r | 17:00s | 15:21s | 13:29t | 16:04r | |
| 05/06/2017 | Sat | 19:03s | | | | | | |
| 05/06/2017 | Sat | 20:38et | 21:16t | | | 21:09s | 21:49t | 22:08r |
| 05/07/2017 | Sun | 3:01mt | 3:25s | 3:56r | 2:57r | | 3:34s | 2:39t |
| 05/07/2017 | Sun | 4:36r | | 10:26t | 9:08t | 5:49r | | 7:09s |
| 05/07/2017 | Sun | 11:50t | 16:00r | 16:57s | 15:20s | 13:28t | 16:00r | |
| 05/07/2017 | Sun | 19:04s | | | | | | |
| 05/07/2017 | Sun | 20:40et | 22:00t | | | 21:08s | 21:45t | 22:04r |
| 05/08/2017 | M | 2:59mt | 3:52s | 3:53r | 2:55r | | 3:30s | 2:35t |
| 05/08/2017 | M | 4:35r | | 10:24t | 9:07t | 5:47r | | 7:05s |
| 05/08/2017 | M | 11:50t | 17:00r | 16:55s | 15:19s | 13:27t | 15:56r | |
| 05/08/2017 | M | 19:05s | | | | | | |
| 05/08/2017 | M | 20:41et | 22:43t | | | 21:08s | 21:41t | 22:00r |
| 05/09/2017 | Tu | 2:57mt | 4:20s | 3:51r | 2:54r | | 3:26s | 2:30t |
| 05/09/2017 | Tu | 4:33r | | 10:22t | 9:06t | 5:45r | | 7:01s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 05/09/2017 | Tu | 11:50t | 17:59r | 16:53s | 15:19s | 13:26t | 15:51r | |
| 05/09/2017 | Tu | 19:07s | | | | | | |
| 05/09/2017 | Tu | 20:43et | 23:27t | | | 21:07s | 21:37t | 21:56r |
| 05/10/2017 | W | 2:56mt | | 3:49r | 2:52r | | 3:22s | 2:26t |
| 05/10/2017 | W | 4:32r | 4:50s | 10:20t | 9:05t | 5:44r | | 6:57s |
| 05/10/2017 | W | 11:50t | 14:42FM | 16:51s | 15:18s | 13:25t | 15:47r | |
| 05/10/2017 | W | 19:08s | 18:57r | | | | | |
| 05/10/2017 | W | 20:45et | | | | 21:07s | 21:32t | 21:51r |
| 05/11/2017 | Th | 2:54mt | 0:12t | 3:46r | 2:50r | | 3:18s | 2:22t |
| 05/11/2017 | Th | 4:31r | 5:22s | 10:18t | 9:04t | 5:43r | | 6:53s |
| 05/11/2017 | Th | 11:50t | | 16:50s | 15:18s | 13:24t | 15:42r | |
| 05/11/2017 | Th | 19:09s | 19:55r | | | | | |
| 05/11/2017 | Th | 20:46et | | | | 21:06s | 21:28t | 21:47r |
| 05/12/2017 | F | 2:52mt | 0:58t | 3:44r | 2:48r | | 3:14s | 2:18t |
| 05/12/2017 | F | 4:30r | 5:58s | 10:17t | 9:03t | 5:41r | | 6:49s |
| 05/12/2017 | F | 11:50t | | 16:49s | 15:17s | 13:23t | 15:38r | |
| 05/12/2017 | F | 19:10s | | | | | | |
| 05/12/2017 | F | 20:48et | 20:50r | | | 21:05s | 21:24t | 21:43r |
| 05/13/2017 | Sat | 2:51mt | 1:45t | 3:42r | 2:47r | | 3:10s | 2:14t |
| 05/13/2017 | Sat | 4:29r | 6:37s | 10:15t | 9:01t | 5:40r | | 6:44s |
| 05/13/2017 | Sat | 11:50t | | 16:49s | 15:17s | 13:22t | 15:34r | |
| 05/13/2017 | Sat | 19:11s | | | | | | |
| 05/13/2017 | Sat | 20:50et | 21:42r | | | 21:05s | 21:20t | 21:39r |
| 05/14/2017 | Sun | 2:49mt | 2:32t | 3:40r | 2:45r | | 3:05s | 2:10t |
| 05/14/2017 | Sun | 4:28r | 7:22s | 10:14t | 9:01t | 5:38r | | 6:40s |
| 05/14/2017 | Sun | 11:50t | | 16:49s | 15:17s | 13:21t | 15:29r | |
| 05/14/2017 | Sun | 19:12s | | | | | | |
| 05/14/2017 | Sun | 20:51et | 22:30r | | | 21:04s | 21:15t | 21:35r |
| 05/15/2017 | M | 2:47mt | 3:20t | 3:39r | 2:43r | | 3:01s | 2:05t |
| 05/15/2017 | M | 4:26r | 8:11s | 10:14t | 9:00t | 5:37r | | 6:36s |
| 05/15/2017 | M | 11:50t | | 16:49s | 15:16s | 13:20t | 15:25r | |
| 05/15/2017 | M | 19:13s | | | | | | |
| 05/15/2017 | M | 20:53et | 23:15r | | | 21:04s | 21:11t | 21:31r |
| 05/16/2017 | Tu | 2:46mt | 4:08t | 3:37r | 2:41r | | 2:57s | 2:01t |
| 05/16/2017 | Tu | 4:25r | 9:04s | 10:13t | 8:59t | 5:35r | | 6:32s |
| 05/16/2017 | Tu | 11:50t | | 16:50s | 15:16s | 13:19t | 15:21r | |
| 05/16/2017 | Tu | 19:14s | | | | | | |
| 05/16/2017 | Tu | 20:55et | 23:55r | | | 21:03s | 21:07t | 21:26r |
| 05/17/2017 | W | 2:44mt | | 3:35r | 2:40r | | 2:53s | 1:57t |
| 05/17/2017 | W | 4:24r | 4:56t | | 8:58t | 5:34r | | 6:28s |
| 05/17/2017 | W | 11:50t | 10:02s | 10:13t | 15:16s | 13:18t | 15:17r | |
| 05/17/2017 | W | 19:15s | | 16:51s | | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 05/17/2017 | W | 20:56et | | | 21:02s | 21:03t | 21:22r |
| 05/18/2017 | Th | 2:43mt | 0:32r | 3:34r | 2:38r | 2:49s | 1:53t |
| 05/18/2017 | Th | 4:23r | 5:44t | 10:12t | 8:57t | 5:33r | 6:24s |
| 05/18/2017 | Th | 11:50t | 11:03s | 16:52s | 15:16s | 13:17t | 15:12r |
| 05/18/2017 | Th | 19:17s | 17:33LQ | | | | |
| 05/18/2017 | Th | 20:58et | | | 21:02s | 20:59t | 21:18r |
| 05/19/2017 | F | 2:41mt | 1:06r | 3:32r | 2:36r | 2:45s | 1:49t |
| 05/19/2017 | F | 4:22r | 6:32t | 10:12t | 8:56t | 5:31r | 6:19s |
| 05/19/2017 | F | 11:50t | 12:06s | 16:53s | 15:17s | 13:16t | 15:08r |
| 05/19/2017 | F | 19:18s | | | | 20:54t | |
| 05/19/2017 | F | 20:59et | | | 21:01s | | 21:14r |
| 05/20/2017 | Sat | 2:40mt | 1:38r | 3:31r | 2:35r | 2:41s | 1:45t |
| 05/20/2017 | Sat | 4:21r | 7:21t | 10:12t | 8:56t | 5:30r | 6:15s |
| 05/20/2017 | Sat | 11:50t | 13:12s | 16:55s | 15:17s | 13:15t | 15:04r |
| 05/20/2017 | Sat | 19:19s | | | 21:00s | 20:50t | |
| 05/20/2017 | Sat | 21:01et | | | | | 21:10r |
| 05/21/2017 | Sun | 2:38mt | 2:09r | 3:29r | 2:33r | 2:37s | 1:40t |
| 05/21/2017 | Sun | 4:21r | 8:10t | 10:13t | 8:55t | 5:29r | 6:11s |
| 05/21/2017 | Sun | 11:50t | 14:21s | 16:57s | 15:17s | 13:14t | 15:00r |
| 05/21/2017 | Sun | 19:20s | | | 21:00s | 20:46t | |
| 05/21/2017 | Sun | 21:03et | | | | | 21:05r |
| 05/22/2017 | M | 2:37mt | 2:41r | 3:28r | 2:32r | 2:33s | 1:36t |
| 05/22/2017 | M | 4:20r | 9:02t | 10:13t | 8:54t | 5:27r | 6:07s |
| 05/22/2017 | M | 11:50t | 15:33s | 17:00s | 15:18s | 13:13t | 14:55r |
| 05/22/2017 | M | 19:21s | | | 20:59s | 20:42t | 21:01r |
| 05/22/2017 | M | 21:04et | | | | | |
| 05/23/2017 | Tu | 2:35mt | 3:15r | 3:27r | 2:30r | 2:29s | 1:32t |
| 05/23/2017 | Tu | 4:19r | 9:55t | 10:14t | 8:54t | 5:26r | 6:03s |
| 05/23/2017 | Tu | 11:50t | 16:47s | 17:02s | 15:18s | 13:12t | 14:51r |
| 05/23/2017 | Tu | 19:22s | | | 20:58s | 20:38t | 20:57r |
| 05/23/2017 | Tu | 21:06et | | | | | |
| 05/24/2017 | W | 2:34mt | 3:52r | 3:26r | 2:28r | 2:25s | 1:28t |
| 05/24/2017 | W | 4:18r | 10:52t | 10:15t | 8:53t | 5:25r | 5:58s |
| 05/24/2017 | W | 11:50t | 18:03s | 17:05s | 15:18s | 13:11t | 14:47r |
| 05/24/2017 | W | 19:23s | | | 20:57s | 20:34t | 20:53r |
| 05/24/2017 | W | 21:07et | | | | | |
| 05/25/2017 | Th | 2:33mt | | 3:25r | 2:27r | 2:20s | 1:23t |
| 05/25/2017 | Th | 4:17r | 4:34r | 10:16t | 8:53t | 5:24r | 5:54s |
| 05/25/2017 | Th | 11:50t | 11:52t | | | | |
| 05/25/2017 | Th | | 12:44NM | 17:08s | 15:19s | 13:10t | 14:43r |
| 05/25/2017 | Th | 19:24s | 19:18s | | 20:56s | 20:30t | 20:49r |
| 05/25/2017 | Th | 21:09et | | | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 05/26/2017 | F | 2:32mt | | 3:24r | 2:25r | | 2:16s | 1:19t |
| 05/26/2017 | F | 4:16r | 5:23r | 10:17t | 8:52t | 5:22r | | 5:50s |
| 05/26/2017 | F | 11:50t | 12:54t | 17:11s | 15:19s | 13:09t | 14:39r | |
| 05/26/2017 | F | 19:25s | 20:29s | | | 20:56s | 20:26t | 20:44r |
| 05/26/2017 | F | 21:10et | | | | | | |
| 05/27/2017 | Sat | 2:30mt | | 3:23r | 2:24r | | 2:12s | 1:15t |
| 05/27/2017 | Sat | 4:16r | 6:19r | 10:18t | 8:52t | 5:21r | | 5:46s |
| 05/27/2017 | Sat | 11:50t | 13:56t | 17:15s | 15:20s | 13:08t | 14:35r | |
| 05/27/2017 | Sat | 19:26s | | | | 20:55s | 20:22t | 20:40r |
| 05/27/2017 | Sat | 21:11et | 21:33s | | | | | |
| 05/28/2017 | Sun | 2:29mt | | 3:23r | 2:22r | | 2:08s | 1:11t |
| 05/28/2017 | Sun | 4:15r | 7:21r | 10:20t | 8:51t | 5:20r | | 5:42s |
| 05/28/2017 | Sun | 11:51t | 14:57t | 17:19s | 15:21s | 13:07t | 14:31r | |
| 05/28/2017 | Sun | 19:26s | | | | 20:54s | 20:17t | 20:36r |
| 05/28/2017 | Sun | 21:13et | 22:29s | | | | | |
| 05/29/2017 | M | 2:28mt | | 3:22r | 2:21r | | 2:04s | 1:07t |
| 05/29/2017 | M | 4:14r | 8:28r | 10:22t | 8:51t | 5:19r | | 5:37s |
| 05/29/2017 | M | 11:51t | 15:56t | 17:23s | 15:22s | 13:06t | 14:26r | |
| 05/29/2017 | M | 19:27s | | | | 20:53s | 20:13t | 20:32r |
| 05/29/2017 | M | 21:14et | 23:16s | | | | | |
| 05/30/2017 | Tu | 2:27mt | | 3:22r | 2:19r | | 2:00s | 1:02t |
| 05/30/2017 | Tu | 4:14r | 9:36r | 10:24t | 8:50t | 5:18r | | 5:33s |
| 05/30/2017 | Tu | 11:51t | 16:50t | 17:27s | 15:22s | 13:05t | 14:22r | |
| 05/30/2017 | Tu | 19:28s | | | | 20:52s | 20:09t | 20:27r |
| 05/30/2017 | Tu | 21:15et | 23:56s | | | | | |
| 05/31/2017 | W | 2:26mt | | 3:21r | 2:18r | | 1:56s | 0:58t |
| 05/31/2017 | W | 4:13r | 10:43r | 10:26t | 8:50t | 5:17r | | 5:29s |
| 05/31/2017 | W | 11:51t | 17:41t | 17:32s | 15:23s | 13:04t | 14:18r | |
| 05/31/2017 | W | 19:29s | | | | 20:51s | 20:05t | 20:23r |
| 05/31/2017 | W | 21:17et | | | | | | |
| 06/01/2017 | Th | 2:25mt | 0:31s | 3:21r | 2:16r | | 1:52s | 0:54t |
| 06/01/2017 | Th | 4:13r | 5:42FQ | 10:28t | 8:50t | 5:16r | | 5:25s |
| 06/01/2017 | Th | 11:51t | 11:48r | 17:37s | 15:24s | 13:03t | 14:14r | |
| 06/01/2017 | Th | 19:30s | 18:29t | | | 20:50s | 20:01t | 20:19r |
| 06/01/2017 | Th | 21:18et | | | | | | |
| 06/02/2017 | F | 2:24mt | 1:01s | 3:21r | 2:15r | | 1:48s | 0:50t |
| 06/02/2017 | F | 4:12r | | 10:31t | 8:49t | 5:14r | | 5:20s |
| 06/02/2017 | F | 11:51t | 12:51r | 17:42s | 15:25s | 13:02t | 14:10r | |
| 06/02/2017 | F | 19:31s | 19:15t | | | 20:49s | 19:57t | 20:15r |
| 06/02/2017 | F | 21:19et | | | | | | |
| 06/03/2017 | Sat | 2:23mt | 1:30s | 3:21r | 2:13r | | 1:44s | 0:45t |
| 06/03/2017 | Sat | 4:12r | | 10:34t | 8:49t | 5:13r | | 5:16s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|--------|---------|--------|--------|---------|--------|
| 06/03/2017 | Sat 11:51t | 13:53r | 17:47s | 15:26s | 13:01t | 14:06r | |
| 06/03/2017 | Sat 19:31s | 19:59t | | | 20:48s | 19:53t | 20:10r |
| 06/03/2017 | Sat 21:20et | | | | | | |
| 06/04/2017 | Sun 2:22mt | 1:57s | 3:22r | 2:12r | | 1:40s | 0:41t |
| 06/04/2017 | Sun 4:11r | | 10:37t | 8:49t | 5:12r | | 5:12s |
| 06/04/2017 | Sun 11:52t | 14:53r | 17:53s | 15:27s | 13:00t | 14:02r | |
| 06/04/2017 | Sun 19:32s | 20:43t | | | 20:47s | 19:49t | 20:06r |
| 06/04/2017 | Sun 21:22et | | | | | | |
| 06/05/2017 | M 2:22mt | 2:24s | 3:22r | 2:10r | | 1:36s | 0:37t |
| 06/05/2017 | M 4:11r | | 10:40t | 8:49t | 5:11r | | 5:08s |
| 06/05/2017 | M 11:52t | 15:53r | 17:59s | 15:28s | 12:59t | 13:58r | |
| 06/05/2017 | M 19:33s | | | | 20:46s | 19:45t | 20:02r |
| 06/05/2017 | M 21:23et | 21:26t | | | | | |
| 06/06/2017 | Tu 2:21mt | 2:53s | 3:23r | 2:09r | | 1:32s | 0:33t |
| 06/06/2017 | Tu 4:11r | | 10:43t | 8:49t | 5:10r | | 5:04s |
| 06/06/2017 | Tu 11:52t | 16:51r | 18:05s | 15:29s | 12:58t | 13:54r | |
| 06/06/2017 | Tu 19:34s | | | | 20:45s | 19:41t | 19:58r |
| 06/06/2017 | Tu 21:24et | 22:10t | | | | | |
| 06/07/2017 | W 2:20mt | 3:24s | 3:24r | 2:08r | | 1:28s | 0:29t |
| 06/07/2017 | W 4:10r | | 10:47t | 8:48t | 5:09r | | 4:59s |
| 06/07/2017 | W 11:52t | 17:49r | 18:11s | 15:30s | 12:57t | 13:50r | |
| 06/07/2017 | W 19:34s | | | | 20:44s | 19:37t | 19:53r |
| 06/07/2017 | W 21:25et | 22:56t | | | | | |
| 06/08/2017 | Th 2:20mt | 3:58s | 3:25r | 2:06r | | 1:24s | 0:24t |
| 06/08/2017 | Th 4:10r | | 10:50t | 8:48t | 5:08r | | 4:55s |
| 06/08/2017 | Th 11:52t | 18:45r | 18:17s | 15:31s | 12:56t | 13:46r | |
| 06/08/2017 | Th 19:35s | | | | 20:43s | 19:33t | 19:49r |
| 06/08/2017 | Th 21:26et | 23:42t | | | | | |
| 06/09/2017 | F 2:19mt | | 3:26r | 2:05r | | 1:20s | 0:20t |
| 06/09/2017 | F 4:10r | 4:36s | | | 5:07r | | 4:51s |
| 06/09/2017 | F 11:53t | 6:10FM | 10:54t | 8:48t | 12:55t | 13:42r | |
| 06/09/2017 | F 19:35s | 19:38r | 18:24s | 15:32s | 20:42s | 19:29t | 19:45r |
| 06/09/2017 | F 21:26et | | | | | | |
| 06/10/2017 | Sat 2:19mt | 0:29t | 3:28r | 2:04r | | 1:16s | 0:16t |
| 06/10/2017 | Sat 4:10r | 5:19s | 10:59t | 8:48t | 5:06r | | 4:47s |
| 06/10/2017 | Sat 11:53t | | 18:31s | 15:33s | 12:54t | 13:39r | |
| 06/10/2017 | Sat 19:36s | 20:28r | | | 20:41s | 19:26t | 19:41r |
| 06/10/2017 | Sat 21:27et | | | | | | |
| 06/11/2017 | Sun 2:18mt | 1:17t | 3:30r | 2:02r | | 1:13s | 0:12t |
| 06/11/2017 | Sun 4:10r | 6:06s | 11:03t | 8:48t | 5:05r | | 4:42s |
| 06/11/2017 | Sun 11:53t | | 18:38s | 15:35s | 12:53t | 13:35r | |
| 06/11/2017 | Sun 19:37s | 21:14r | | | 20:40s | 19:22t | 19:36r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 06/11/2017 | Sun | 21:28et | | | | | |
| 06/12/2017 | M | 2:18mt | 2:06t | 3:32r | 2:01r | 1:09s | 0:07t |
| 06/12/2017 | M | 4:09r | 6:59s | 11:08t | 8:48t | 5:04r | 4:38s |
| 06/12/2017 | M | 11:53t | | 18:45s | 15:36s | 12:52t | 13:31r |
| 06/12/2017 | M | 19:37s | | | 20:39s | 19:18t | 19:32r |
| 06/12/2017 | M | 21:29et | 21:56r | | | | |
| 06/13/2017 | Tu | 2:18mt | 2:54t | 3:35r | 2:00r | 1:05s | 0:03t |
| 06/13/2017 | Tu | 4:09r | 7:55s | 11:13t | 8:48t | 5:03r | 4:34s |
| 06/13/2017 | Tu | 11:53t | | 18:52s | 15:37s | 12:51t | 13:27r |
| 06/13/2017 | Tu | 19:38s | | | 20:38s | 19:14t | 19:28r |
| 06/13/2017 | Tu | 21:29et | 22:34r | | | | 23:59t |
| 06/14/2017 | W | 2:17mt | 3:41t | 3:37r | 1:58r | 1:01s | |
| 06/14/2017 | W | 4:09r | 8:54s | 11:18t | 8:48t | 5:03r | 4:30s |
| 06/14/2017 | W | 11:54t | | 18:59s | 15:38s | 12:49t | 13:23r |
| 06/14/2017 | W | 19:38s | | | 20:36s | 19:10t | 19:24r |
| 06/14/2017 | W | 21:30et | 23:08r | | | | 23:55t |
| 06/15/2017 | Th | 2:17mt | | 3:41r | 1:57r | 0:57s | |
| 06/15/2017 | Th | 4:09r | 4:29t | | 8:48t | 5:02r | 4:25s |
| 06/15/2017 | Th | 11:54t | 9:56s | 11:23t | 15:40s | 12:48t | 13:19r |
| 06/15/2017 | Th | 19:38s | | 19:06s | | 20:35s | 19:06t |
| 06/15/2017 | Th | 21:31et | 23:40r | | | | 19:19r |
| 06/16/2017 | F | 2:17mt | | 3:44r | 1:56r | 0:53s | |
| 06/16/2017 | F | 4:09r | 5:16t | | 8:48t | 5:01r | 4:21s |
| 06/16/2017 | F | 11:54t | 10:59s | 11:28t | 15:41s | 12:47t | 13:15r |
| 06/16/2017 | F | 19:39s | | 19:13s | | 20:34s | 19:02t |
| 06/16/2017 | F | 21:31et | | | | | 19:15r |
| 06/17/2017 | Sat | 2:17mt | 0:11r | 3:48r | 1:55r | 0:49s | |
| 06/17/2017 | Sat | 4:09r | 4:33LQ | | | 5:00r | 4:17s |
| 06/17/2017 | Sat | 11:54t | 6:04t | 11:34t | 8:48t | | |
| 06/17/2017 | Sat | | 12:05s | | 15:43s | 12:46t | 13:12r |
| 06/17/2017 | Sat | 19:39s | | 19:20s | | 20:33s | 18:58t |
| 06/17/2017 | Sat | 21:32et | | | | | 19:11r |
| 06/18/2017 | Sun | 2:17mt | 0:41r | 3:52r | 1:54r | 0:45s | |
| 06/18/2017 | Sun | 4:09r | 6:52t | 11:39t | 8:48t | 4:59r | 4:13s |
| 06/18/2017 | Sun | 11:54t | 13:13s | | 15:44s | 12:45t | 13:08r |
| 06/18/2017 | Sun | 19:39s | | 19:27s | | 20:31s | 18:54t |
| 06/18/2017 | Sun | 21:32et | | | | | 19:07r |
| 06/19/2017 | M | 2:17mt | 1:12r | 3:56r | 1:53r | 0:41s | 4:08s |
| 06/19/2017 | M | 4:10r | 7:43t | 11:45t | 8:49t | 4:58r | |
| 06/19/2017 | M | 11:55t | 14:24s | | 15:45s | 12:44t | 13:04r |
| 06/19/2017 | M | 19:40s | | 19:34s | | 20:30s | 18:51t |
| 06/19/2017 | M | 21:32et | | | | | 19:02r |
| 06/19/2017 | M | | | | | | 23:33t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 06/20/2017 | Tu | 2:17mt | 1:46r | 4:01r | 1:51r | | 0:37s | 4:04s |
| 06/20/2017 | Tu | 4:10r | 8:36t | 11:50t | 8:49t | 4:57r | | |
| 06/20/2017 | Tu | 11:55t | 15:37s | | 15:47s | 12:43t | 13:00r | |
| 06/20/2017 | Tu | 19:40s | | 19:41s | | 20:29s | 18:47t | 18:58r |
| 06/20/2017 | Tu | 21:24JS | | | | | | |
| 06/20/2017 | Tu | 21:32et | | | | | | 23:29t |
| 06/21/2017 | W | 2:17mt | 2:25r | 4:05r | 1:50r | | 0:33s | 4:00s |
| 06/21/2017 | W | 4:10r | 9:33t | | 8:49t | 4:57r | | |
| 06/21/2017 | W | 11:55t | 16:51s | 11:56t | 15:48s | 12:42t | 12:56r | |
| 06/21/2017 | W | 19:40s | | 19:47s | | 20:27s | 18:43t | 18:54r |
| 06/21/2017 | W | 21:33et | | | | | | 23:25t |
| 06/22/2017 | Th | 2:18mt | 3:09r | | 1:49r | | 0:30s | 3:56s |
| 06/22/2017 | Th | 4:10r | 10:33t | 4:11r | 8:49t | 4:56r | | |
| 06/22/2017 | Th | 11:55t | 18:04s | 12:02t | 15:50s | 12:41t | 12:53r | |
| 06/22/2017 | Th | 19:40s | | 19:53s | | 20:26s | 18:39t | 18:50r |
| 06/22/2017 | Th | 21:33et | | | | | | 23:21t |
| 06/23/2017 | F | 2:18mt | 4:01r | | 1:48r | | 0:26s | 3:52s |
| 06/23/2017 | F | 4:11r | 11:35t | 4:16r | 8:49t | 4:55r | | |
| 06/23/2017 | F | 11:56t | | 12:08t | 15:51s | 12:40t | 12:49r | |
| 06/23/2017 | F | | 19:13s | | | | 18:35t | 18:45r |
| 06/23/2017 | F | 19:40s | 19:31NM | 19:59s | | 20:25s | | |
| 06/23/2017 | F | 21:33et | | | | | | 23:16t |
| 06/24/2017 | Sat | 2:18mt | | | 1:47r | | 0:22s | 3:47s |
| 06/24/2017 | Sat | 4:11r | 5:00r | 4:22r | 8:50t | 4:54r | | |
| 06/24/2017 | Sat | 11:56t | 12:38t | 12:13t | 15:53s | 12:39t | 12:45r | |
| 06/24/2017 | Sat | 19:41s | 20:15s | 20:05s | | 20:23s | 18:32t | 18:41r |
| 06/24/2017 | Sat | 21:33et | | | | | | 23:12t |
| 06/25/2017 | Sun | 2:19mt | | | 1:46r | | 0:18s | 3:43s |
| 06/25/2017 | Sun | 4:11r | 6:06r | 4:27r | 8:50t | 4:53r | | |
| 06/25/2017 | Sun | 11:56t | 13:40t | 12:19t | 15:55s | 12:38t | 12:42r | |
| 06/25/2017 | Sun | 19:41s | 21:08s | 20:10s | | 20:22s | 18:28t | 18:37r |
| 06/25/2017 | Sun | 21:33et | | | | | | 23:08t |
| 06/26/2017 | M | 2:19mt | | | 1:45r | | 0:14s | 3:39s |
| 06/26/2017 | M | 4:12r | 7:15r | 4:33r | 8:50t | 4:53r | | |
| 06/26/2017 | M | 11:56t | 14:38t | 12:24t | 15:56s | 12:37t | 12:38r | |
| 06/26/2017 | M | 19:41s | | 20:15s | | 20:20s | 18:24t | 18:33r |
| 06/26/2017 | M | 21:33et | 21:52s | | | | | 23:04t |
| 06/27/2017 | Tu | 2:20mt | | | 1:45r | | 0:10s | 3:35s |
| 06/27/2017 | Tu | 4:12r | 8:25r | 4:39r | 8:51t | 4:52r | | |
| 06/27/2017 | Tu | 11:56t | 15:32t | 12:30t | 15:58s | 12:36t | 12:34r | |
| 06/27/2017 | Tu | 19:41s | | 20:19s | | 20:19s | 18:20t | 18:28r |
| 06/27/2017 | Tu | 21:32et | 22:30s | | | | | 22:59t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 06/28/2017 | W | 2:21mt | | 1:44r | | 0:06s | 3:30s |
| 06/28/2017 | W | 4:12r | 9:34r | 4:45r | 8:51t | 4:51r | |
| 06/28/2017 | W | 11:57t | 16:23t | 12:35t | 15:59s | 12:34t | 12:31r |
| 06/28/2017 | W | 19:41s | | 20:24s | | 20:17s | 18:17t |
| 06/28/2017 | W | 21:32et | 23:03s | | | | 22:55t |
| 06/29/2017 | Th | 2:21mt | | 1:43r | | 0:03s | 3:26s |
| 06/29/2017 | Th | 4:13r | 10:40r | 4:51r | 8:52t | 4:50r | |
| 06/29/2017 | Th | 11:57t | 17:11t | 12:40t | 16:01s | 12:33t | 12:27r |
| 06/29/2017 | Th | 19:40s | | 20:27s | | 20:16s | 18:13t |
| 06/29/2017 | Th | 21:32et | 23:33s | | | | 23:59s |
| 06/30/2017 | F | 2:22mt | | 1:42r | | | 3:22s |
| 06/30/2017 | F | 4:13r | 11:43r | 4:58r | 8:52t | 4:50r | |
| 06/30/2017 | F | 11:57t | 17:51FQ | 12:45t | 16:03s | 12:32t | 12:23r |
| 06/30/2017 | F | 19:40s | 17:56t | 20:31s | | 20:14s | 18:09t |
| 06/30/2017 | F | 21:32et | | | | | 23:55s |
| 07/01/2017 | Sat | 2:23mt | 0:01s | 1:41r | | | 3:18s |
| 07/01/2017 | Sat | 4:14r | | 5:04r | 8:52t | 4:49r | |
| 07/01/2017 | Sat | 11:57t | 12:45r | 12:49t | 16:04s | 12:31t | 12:20r |
| 07/01/2017 | Sat | 19:40s | 18:41t | 20:34s | | 20:13s | 18:06t |
| 07/01/2017 | Sat | 21:31et | | | | | 23:51s |
| 07/02/2017 | Sun | 2:24mt | 0:29s | 1:41r | | | 3:13s |
| 07/02/2017 | Sun | 4:15r | | 5:10r | 8:53t | 4:48r | |
| 07/02/2017 | Sun | 11:57t | 13:45r | 12:54t | 16:06s | 12:30t | 12:16r |
| 07/02/2017 | Sun | 19:40s | 19:24t | 20:37s | | 20:11s | 18:02t |
| 07/02/2017 | Sun | 21:31et | | | | | 23:47s |
| 07/03/2017 | M | 2:24mt | 0:57s | 1:40r | | | 3:09s |
| 07/03/2017 | M | 4:15r | | 5:16r | 8:53t | 4:48r | |
| 07/03/2017 | M | 11:58t | 14:44r | 12:58t | 16:07s | 12:29t | 12:13r |
| 07/03/2017 | M | 19:40s | 20:08t | 20:39s | | 20:10s | 17:58t |
| 07/03/2017 | M | 21:30et | | | | | 23:43s |
| 07/04/2017 | Tu | 2:25mt | 1:27s | 1:39r | | | 3:05s |
| 07/04/2017 | Tu | 4:16r | | 5:22r | 8:54t | 4:47r | |
| 07/04/2017 | Tu | 11:58t | 15:42r | 13:02t | 16:09s | 12:28t | 12:09r |
| 07/04/2017 | Tu | 19:39s | 20:53t | 20:41s | | 20:08s | 17:54t |
| 07/04/2017 | Tu | 21:29et | | | | | 23:40s |
| 07/05/2017 | W | 2:26mt | 1:59s | 1:39r | | | 3:01s |
| 07/05/2017 | W | 4:16r | | 5:28r | 8:54t | 4:46r | |
| 07/05/2017 | W | 11:58t | 16:39r | 13:06t | 16:11s | 12:27t | 12:06r |
| 07/05/2017 | W | 19:39s | | 20:43s | | 20:06s | 17:51t |
| 07/05/2017 | W | 21:29et | 21:39t | | | | 23:36s |
| 07/06/2017 | Th | 2:27mt | 2:36s | 1:38r | | | 2:57s |
| 07/06/2017 | Th | 4:17r | | 5:34r | 8:55t | 4:46r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 07/06/2017 | Th | 11:58t | 17:33r | 13:10t | 16:12s | 12:25t | 12:02r | |
| 07/06/2017 | Th | 19:39s | | 20:44s | | 20:05s | 17:47t | 17:50r |
| 07/06/2017 | Th | 21:28et | 22:26t | | | | 23:32s | 22:21t |
| 07/07/2017 | F | 2:28mt | 3:17s | | 1:38r | | | 2:52s |
| 07/07/2017 | F | 4:18r | | 5:40r | 8:56t | 4:45r | | |
| 07/07/2017 | F | 11:58t | | 13:13t | 16:14s | 12:24t | 11:59r | |
| 07/07/2017 | F | 19:38s | 18:25r | 20:46s | | 20:03s | 17:43t | 17:46r |
| 07/07/2017 | F | 21:27et | 23:14t | | | | 23:28s | 22:17t |
| 07/08/2017 | Sat | 2:30mt | 4:03s | | 1:37r | | | 2:48s |
| 07/08/2017 | Sat | 4:19r | | 5:46r | 8:56t | 4:44r | 11:55r | |
| 07/08/2017 | Sat | 11:58t | 19:13r | 13:17t | 16:16s | 12:23t | 17:40t | 17:42r |
| 07/08/2017 | Sat | 19:38s | 21:07FM | 20:46s | | 20:01s | | |
| 07/08/2017 | Sat | 21:26et | | | | | 23:25s | 22:13t |
| 07/09/2017 | Sun | 2:31mt | 0:02t | | 1:37r | | | 2:44s |
| 07/09/2017 | Sun | 4:19r | 4:54s | 5:51r | 8:57t | 4:44r | 11:52r | |
| 07/09/2017 | Sun | 11:58t | | 13:20t | 16:17s | 12:22t | 17:36t | 17:38r |
| 07/09/2017 | Sun | 19:37s | 19:56r | 20:47s | | 20:00s | | |
| 07/09/2017 | Sun | 21:25et | | | | | 23:21s | 22:09t |
| 07/10/2017 | M | 2:32mt | 0:51t | | 1:36r | | | 2:40s |
| 07/10/2017 | M | 4:20r | 5:49s | 5:57r | 8:57t | 4:43r | 11:48r | |
| 07/10/2017 | M | 11:59t | | 13:23t | 16:19s | 12:21t | 17:33t | 17:33r |
| 07/10/2017 | M | 19:37s | 20:36r | 20:48s | | 19:58s | | |
| 07/10/2017 | M | 21:24et | | | | | 23:17s | 22:05t |
| 07/11/2017 | Tu | 2:33mt | 1:39t | | 1:36r | | | 2:36s |
| 07/11/2017 | Tu | 4:21r | 6:48s | 6:02r | 8:58t | 4:42r | 11:45r | |
| 07/11/2017 | Tu | 11:59t | | 13:26t | 16:21s | 12:20t | 17:29t | 17:29r |
| 07/11/2017 | Tu | 19:36s | 21:11r | 20:48s | | 19:56s | | |
| 07/11/2017 | Tu | 21:23et | | | | | 23:13s | 22:00t |
| 07/12/2017 | W | 2:34mt | 2:27t | | 1:36r | | | 2:31s |
| 07/12/2017 | W | 4:22r | 7:49s | 6:07r | 8:59t | 4:42r | 11:41r | |
| 07/12/2017 | W | 11:59t | | 13:28t | 16:22s | 12:18t | 17:25t | 17:25r |
| 07/12/2017 | W | 19:36s | | 20:48s | | 19:55s | | |
| 07/12/2017 | W | 21:22et | 21:44r | | | | 23:10s | 21:56t |
| 07/13/2017 | Th | 2:36mt | 3:14t | | 1:35r | | | 2:27s |
| 07/13/2017 | Th | 4:22r | 8:52s | 6:12r | 8:59t | 4:41r | 11:38r | |
| 07/13/2017 | Th | 11:59t | | 13:31t | 16:24s | 12:17t | 17:22t | 17:21r |
| 07/13/2017 | Th | 19:35s | | 20:48s | | 19:53s | | |
| 07/13/2017 | Th | 21:21et | 22:15r | | | | 23:06s | 21:52t |
| 07/14/2017 | F | 2:37mt | 4:01t | | 1:35r | | | 2:23s |
| 07/14/2017 | F | 4:23r | 9:56s | 6:17r | 9:00t | 4:41r | 11:34r | |
| 07/14/2017 | F | 11:59t | | 13:33t | 16:26s | 12:16t | 17:18t | 17:17r |
| 07/14/2017 | F | 19:34s | | 20:47s | | 19:51s | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 07/14/2017 F | 21:20et | 22:44r | | | | 23:02s | 21:48t |
| 07/15/2017 Sat | 2:38mt | | | 1:35r | | | 2:19s |
| 07/15/2017 Sat | 4:24r | 4:49t | 6:22r | 9:01t | 4:40r | | |
| 07/15/2017 Sat | 11:59t | 11:02s | 13:35t | 16:27s | 12:15t | 11:31r | 17:12r |
| 07/15/2017 Sat | 19:34s | | 20:47s | | 19:49s | 17:15t | |
| 07/15/2017 Sat | 21:19et | 23:15r | | | | 22:58s | 21:44t |
| 07/16/2017 Sun | 2:40mt | | | 1:35r | | | 2:15s |
| 07/16/2017 Sun | 4:25r | 5:37t | 6:26r | 9:02t | 4:39r | 11:28r | |
| 07/16/2017 Sun | 11:59t | 12:10s | | | | 12:14t | |
| 07/16/2017 Sun | 19:33s | 12:26LQ | 13:37t | 16:29s | 19:47s | 17:11t | 17:08r |
| 07/16/2017 Sun | 21:18et | 23:46r | 20:46s | | | 22:55s | 21:39t |
| 07/17/2017 M | 2:41mt | | | 1:35r | | | 2:11s |
| 07/17/2017 M | 4:26r | 6:28t | 6:30r | 9:03t | 4:39r | 11:24r | |
| 07/17/2017 M | 11:59t | 13:20s | 13:38t | 16:31s | 12:12t | 17:08t | 17:04r |
| 07/17/2017 M | 19:32s | | 20:45s | | 19:46s | | |
| 07/17/2017 M | 21:17et | | | | | 22:51s | 21:35t |
| 07/18/2017 Tu | 2:43mt | 0:21r | | 1:35r | | | 2:06s |
| 07/18/2017 Tu | 4:27r | 7:21t | 6:34r | 9:03t | 4:38r | 11:21r | |
| 07/18/2017 Tu | 11:59t | 14:31s | 13:40t | 16:32s | 12:11t | 17:04t | 17:00r |
| 07/18/2017 Tu | 19:31s | | 20:44s | | 19:44s | | |
| 07/18/2017 Tu | 21:15et | | | | | 22:47s | 21:31t |
| 07/19/2017 W | 2:44mt | 1:01r | | 1:35r | | | 2:02s |
| 07/19/2017 W | 4:28r | 8:18t | 6:38r | 9:04t | 4:38r | 11:17r | |
| 07/19/2017 W | 12:00t | 15:42s | 13:41t | 16:34s | 12:10t | 17:00t | 16:56r |
| 07/19/2017 W | 19:31s | | 20:43s | | 19:42s | | |
| 07/19/2017 W | 21:14et | | | | | 22:43s | 21:27t |
| 07/20/2017 Th | 2:46mt | 1:48r | | 1:35r | | | 1:58s |
| 07/20/2017 Th | 4:29r | 9:17t | 6:42r | 9:05t | 4:37r | 11:14r | |
| 07/20/2017 Th | 12:00t | 16:52s | 13:42t | 16:35s | 12:09t | 16:57t | 16:52r |
| 07/20/2017 Th | 19:30s | | 20:41s | | 19:40s | | |
| 07/20/2017 Th | 21:13et | | | | | 22:40s | 21:23t |
| 07/21/2017 F | 2:47mt | 2:42r | | 1:35r | | | 1:54s |
| 07/21/2017 F | 4:30r | 10:19t | 6:46r | 9:06t | 4:36r | 11:11r | |
| 07/21/2017 F | 12:00t | 17:56s | 13:43t | 16:37s | 12:07t | 16:53t | 16:47r |
| 07/21/2017 F | 19:29s | | 20:40s | | 19:38s | | |
| 07/21/2017 F | 21:11et | | | | | 22:36s | 21:19t |
| 07/22/2017 Sat | 2:49mt | 3:44r | | 1:36r | | | 1:50s |
| 07/22/2017 Sat | 4:31r | 11:20t | 6:49r | 9:07t | 4:36r | 11:07r | |
| 07/22/2017 Sat | 12:00t | 18:54s | 13:44t | 16:39s | 12:06t | 16:50t | 16:43r |
| 07/22/2017 Sat | 19:28s | | 20:38s | | 19:36s | | |
| 07/22/2017 Sat | 21:10et | | | | | 22:32s | 21:14t |
| 07/23/2017 Sun | 2:50mt | 2:46NM | | 1:36r | | | 1:46s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|--------|---------|--------|--------|---------|--------|
| 07/23/2017 | Sun 4:32r | 4:51r | 6:52r | 9:08t | 4:35r | 11:04r | |
| 07/23/2017 | Sun 12:00t | 12:21t | 13:45t | 16:40s | 12:05t | 16:46t | 16:39r |
| 07/23/2017 | Sun 19:27s | 19:43s | 20:36s | | 19:34s | | |
| 07/23/2017 | Sun 21:08et | | | | | 22:29s | 21:10t |
| 07/24/2017 | M 2:52mt | | | 1:36r | | | 1:41s |
| 07/24/2017 | M 4:33r | 6:02r | 6:55r | 9:09t | 4:35r | 11:01r | |
| 07/24/2017 | M 12:00t | 13:18t | 13:45t | 16:42s | 12:04t | 16:43t | 16:35r |
| 07/24/2017 | M 19:26s | 20:25s | 20:34s | | 19:32s | | 21:06t |
| 07/24/2017 | M 21:07et | | | | | 22:25s | |
| 07/25/2017 | Tu 2:53mt | | | 1:37r | | | 1:37s |
| 07/25/2017 | Tu 4:34r | 7:13r | 6:58r | 9:10t | 4:34r | 10:57r | |
| 07/25/2017 | Tu 12:00t | 14:12t | 13:45t | 16:43s | 12:02t | 16:39t | 16:31r |
| 07/25/2017 | Tu 19:25s | 21:01s | 20:32s | | 19:30s | | 21:02t |
| 07/25/2017 | Tu 21:05et | | | | | 22:21s | |
| 07/26/2017 | W 2:55mt | | | 1:37r | 4:34r | | 1:33s |
| 07/26/2017 | W 4:35r | 8:22r | 7:00r | 9:11t | | 10:54r | |
| 07/26/2017 | W 12:00t | 15:02t | 13:45t | 16:44s | 12:01t | 16:36t | 16:27r |
| 07/26/2017 | W 19:24s | | 20:30s | | 19:28s | | 20:58t |
| 07/26/2017 | W 21:03et | 21:33s | | | | 22:18s | |
| 07/27/2017 | Th 2:56mt | | | 1:38r | 4:33r | | 1:29s |
| 07/27/2017 | Th 4:36r | 9:28r | 7:02r | 9:12t | | 10:51r | |
| 07/27/2017 | Th 12:00t | 15:50t | 13:45t | 16:46s | 12:00t | 16:32t | 16:23r |
| 07/27/2017 | Th 19:23s | | 20:27s | | 19:26s | | 20:54t |
| 07/27/2017 | Th 21:02et | 22:02s | | | | 22:14s | |
| 07/28/2017 | F 2:58mt | | | 1:38r | 4:32r | | 1:25s |
| 07/28/2017 | F 4:37r | 10:32r | 7:04r | 9:13t | 11:59t | 10:48r | |
| 07/28/2017 | F 12:00t | 16:35t | 13:45t | 16:47s | | 16:29t | 16:19r |
| 07/28/2017 | F 19:22s | | 20:25s | | 19:24s | | 20:50t |
| 07/28/2017 | F 21:00et | 22:31s | | | | 22:10s | |
| 07/29/2017 | Sat 3:00mt | | | 1:39r | 4:32r | | 1:21s |
| 07/29/2017 | Sat 4:38r | 11:34r | 7:06r | 9:14t | 11:57t | 10:44r | |
| 07/29/2017 | Sat 12:00t | 17:20t | 13:45t | 16:49s | | 16:26t | 16:14r |
| 07/29/2017 | Sat 19:20s | | 20:22s | | 19:22s | | 20:46t |
| 07/29/2017 | Sat 20:59et | 22:59s | | | | 22:07s | |
| 07/30/2017 | Sun 3:01mt | | | 1:39r | 4:31r | | 1:17s |
| 07/30/2017 | Sun 4:39r | 8:23FQ | 7:07r | 9:15t | 11:56t | 10:41r | |
| 07/30/2017 | Sun 12:00t | 12:34r | 13:44t | 16:50s | | 16:22t | 16:10r |
| 07/30/2017 | Sun 19:19s | 18:05t | 20:19s | | 19:20s | | 20:42t |
| 07/30/2017 | Sun 20:57et | 23:29s | | | | 22:03s | |
| 07/31/2017 | M 3:03mt | | | 1:40r | 4:31r | | 1:13s |
| 07/31/2017 | M 4:40r | | 7:09r | 9:16t | 11:55t | 10:38r | |
| 07/31/2017 | M 12:00t | 13:33r | 13:43t | 16:51s | | 16:19t | 16:06r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 07/31/2017 | M | 19:18s | 18:49t | 20:16s | | 19:18s | 20:37t |
| 07/31/2017 | M | 20:55et | | | | 21:59s | |
| 08/01/2017 | Tu | 3:04mt | 0:00s | | 1:41r | 4:30r | 1:09s |
| 08/01/2017 | Tu | 4:41r | | 7:10r | 9:17t | 11:53t | 10:35r |
| 08/01/2017 | Tu | 11:59t | 14:30r | 13:42t | 16:52s | 19:16s | 16:15t |
| 08/01/2017 | Tu | 19:17s | 19:35t | 20:13s | | | 16:02r |
| 08/01/2017 | Tu | 20:53et | | | | | 20:33t |
| 08/01/2017 | Tu | 20:53et | | | | 21:56s | |
| 08/02/2017 | W | 3:06mt | 0:35s | | 1:42r | 4:30r | 1:04s |
| 08/02/2017 | W | 4:43r | | 7:10r | 9:18t | 11:52t | 10:31r |
| 08/02/2017 | W | 11:59t | 15:26r | 13:41t | 16:54s | 19:14s | 16:12t |
| 08/02/2017 | W | 19:16s | 20:21t | 20:10s | | | 15:58r |
| 08/02/2017 | W | 20:52et | | | | | 20:29t |
| 08/02/2017 | W | 20:52et | | | | 21:52s | |
| 08/03/2017 | Th | 3:08mt | 1:14s | | 1:43r | 4:29r | 1:00s |
| 08/03/2017 | Th | 4:44r | | 7:11r | 9:19t | 11:51t | 10:28r |
| 08/03/2017 | Th | 11:59t | 16:19r | 13:39t | 16:55s | 19:12s | 16:08t |
| 08/03/2017 | Th | 19:14s | | 20:06s | | | 15:54r |
| 08/03/2017 | Th | 20:50et | 21:09t | | | | 20:25t |
| 08/03/2017 | Th | 20:50et | 21:09t | | | 21:48s | |
| 08/04/2017 | F | 3:09mt | 1:58s | | 1:44r | 4:29r | 0:56s |
| 08/04/2017 | F | 4:45r | | 7:11r | 9:20t | 11:49t | 10:25r |
| 08/04/2017 | F | 11:59t | 17:08r | 13:37t | 16:56s | 19:10s | 16:05t |
| 08/04/2017 | F | 19:13s | | 20:03s | | | 15:50r |
| 08/04/2017 | F | 20:48et | 21:57t | | | | 20:21t |
| 08/04/2017 | F | 20:48et | 21:57t | | | 21:45s | |
| 08/05/2017 | Sat | 3:11mt | 2:47s | | 1:45r | 4:28r | 0:52s |
| 08/05/2017 | Sat | 4:46r | | 7:10r | 9:21t | 11:48t | 10:22r |
| 08/05/2017 | Sat | 11:59t | 17:54r | 13:35t | 16:57s | 19:08s | 16:02t |
| 08/05/2017 | Sat | 19:12s | | 19:59s | | | 15:46r |
| 08/05/2017 | Sat | 20:46et | 22:46t | | | | 20:17t |
| 08/05/2017 | Sat | 20:46et | 22:46t | | | 21:41s | |
| 08/06/2017 | Sun | 3:12mt | 3:41s | | 1:46r | 4:28r | 0:48s |
| 08/06/2017 | Sun | 4:47r | | 7:10r | 9:22t | 11:47t | 10:19r |
| 08/06/2017 | Sun | 11:59t | 18:35r | 13:33t | 16:58s | 19:05s | 15:58t |
| 08/06/2017 | Sun | 19:10s | | 19:55s | | | 15:42r |
| 08/06/2017 | Sun | 20:44et | 23:35t | | | | 20:13t |
| 08/06/2017 | Sun | 20:44et | 23:35t | | | 21:37s | |
| 08/07/2017 | M | 3:14mt | 4:40s | | 1:47r | 4:27r | 0:44s |
| 08/07/2017 | M | 4:48r | 11:11FM | 7:09r | 9:23t | 11:45t | 10:16r |
| 08/07/2017 | M | 11:59t | | 13:30t | 16:59s | 19:03s | 15:55t |
| 08/07/2017 | M | 19:09s | 19:12r | 19:51s | | | 15:38r |
| 08/07/2017 | M | 20:42et | | | | | 20:09t |
| 08/07/2017 | M | 20:42et | | | | 21:34s | |
| 08/08/2017 | Tu | 3:16mt | 0:24t | | 1:48r | 4:26r | 0:40s |
| 08/08/2017 | Tu | 4:49r | 5:41s | 7:07r | 9:24t | 11:44t | 10:12r |
| 08/08/2017 | Tu | 11:59t | | 13:28t | 17:00s | 19:01s | 15:51t |
| 08/08/2017 | Tu | 19:08s | 19:47r | 19:47s | | | 15:34r |
| 08/08/2017 | Tu | 20:41et | | | | | 20:05t |
| 08/08/2017 | Tu | 20:41et | | | | 21:30s | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 08/09/2017 | W | 3:17mt | 1:12t | | 1:49r | 4:26r | | 0:36s |
| 08/09/2017 | W | 4:50r | 6:44s | 7:05r | 9:25t | 11:43t | 10:09r | |
| 08/09/2017 | W | 11:59t | | 13:25t | 17:01s | 18:59s | 15:48t | 15:30r |
| 08/09/2017 | W | 19:06s | 20:18r | 19:43s | | | | 20:01t |
| 08/09/2017 | W | 20:39et | | | | | 21:27s | |
| 08/10/2017 | Th | 3:19mt | 1:59t | | 1:51r | 4:25r | | 0:32s |
| 08/10/2017 | Th | 4:51r | 7:49s | 7:03r | 9:26t | 11:41t | 10:06r | |
| 08/10/2017 | Th | 11:58t | | 13:21t | 17:02s | 18:57s | 15:45t | 15:26r |
| 08/10/2017 | Th | 19:05s | | 19:39s | | | | 19:57t |
| 08/10/2017 | Th | 20:37et | 20:48r | | | | 21:23s | |
| 08/11/2017 | F | 3:20mt | 2:47t | | 1:52r | 4:25r | | 0:28s |
| 08/11/2017 | F | 4:53r | 8:55s | 7:01r | 9:27t | 11:40t | 10:03r | |
| 08/11/2017 | F | 11:58t | | 13:18t | 17:03s | 18:55s | 15:41t | 15:22r |
| 08/11/2017 | F | 19:03s | | 19:34s | | | | 19:53t |
| 08/11/2017 | F | 20:35et | 21:18r | | | | 21:19s | |
| 08/12/2017 | Sat | 3:22mt | 3:35t | | 1:53r | 4:24r | | 0:24s |
| 08/12/2017 | Sat | 4:54r | 10:02s | 6:57r | 9:28t | 11:39t | 10:00r | |
| 08/12/2017 | Sat | 11:58t | | 13:14t | 17:03s | 18:52s | 15:38t | 15:18r |
| 08/12/2017 | Sat | 19:02s | | 19:30s | | | | 19:49t |
| 08/12/2017 | Sat | 20:33et | 21:49r | | | | 21:16s | |
| 08/13/2017 | Sun | 3:24mt | 4:25t | | 1:55r | 4:24r | | 0:20s |
| 08/13/2017 | Sun | 4:55r | 11:10s | 6:54r | 9:30t | 11:37t | 9:57r | |
| 08/13/2017 | Sun | 11:58t | | 13:09t | 17:04s | 18:50s | 15:34t | 15:14r |
| 08/13/2017 | Sun | 19:00s | | 19:25s | | | | 19:45t |
| 08/13/2017 | Sun | 20:31et | 22:23r | | | | 21:12s | |
| 08/14/2017 | M | 3:25mt | | | 1:56r | 4:23r | | 0:16s |
| 08/14/2017 | M | 4:56r | 5:16t | 6:50r | 9:31t | 11:36t | 9:54r | |
| 08/14/2017 | M | 11:58t | 12:20s | 13:05t | 17:05s | | 15:31t | 15:10r |
| 08/14/2017 | M | 18:59s | 18:15LQ | 19:20s | | 18:48s | | 19:41t |
| 08/14/2017 | M | 20:29et | 23:00r | | | | 21:09s | |
| 08/15/2017 | Tu | 3:27mt | | | 1:58r | 4:23r | | 0:12s |
| 08/15/2017 | Tu | 4:57r | 6:10t | 6:45r | 9:32t | 11:34t | 9:51r | |
| 08/15/2017 | Tu | 11:58t | 13:29s | 13:00t | 17:05s | 18:46s | 15:28t | 15:06r |
| 08/15/2017 | Tu | 18:57s | | 19:15s | | | | 19:37t |
| 08/15/2017 | Tu | 20:27et | 23:42r | | | | 21:05s | |
| 08/16/2017 | W | 3:28mt | | | 1:59r | 4:22r | | 0:08s |
| 08/16/2017 | W | 4:58r | 7:07t | 6:40r | 9:33t | 11:33t | 9:47r | |
| 08/16/2017 | W | 11:57t | 14:38s | 12:55t | 17:06s | 18:43s | 15:24t | 15:02r |
| 08/16/2017 | W | 18:56s | | 19:09s | | | | 19:33t |
| 08/16/2017 | W | 20:25et | | | | | 21:01s | |
| 08/17/2017 | Th | 3:30mt | 0:32r | | 2:01r | 4:22r | | 0:04s |
| 08/17/2017 | Th | 4:59r | 8:06t | 6:34r | 9:34t | 11:32t | 9:44r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 08/17/2017 | Th | 11:57t | 15:42s | 12:49t | 17:07s | 18:41s | 15:21t | 14:58r |
| 08/17/2017 | Th | 18:54s | | 19:04s | | | | 19:29t |
| 08/17/2017 | Th | 20:23et | | | | | 20:58s | 24:00s |
| 08/18/2017 | F | 3:32mt | 1:28r | | 2:03r | 4:21r | | |
| 08/18/2017 | F | 5:01r | 9:05t | 6:28r | 9:35t | 11:30t | 9:41r | |
| 08/18/2017 | F | 11:57t | 16:41s | 12:43t | 17:07s | 18:39s | 15:18t | 14:54r |
| 08/18/2017 | F | 18:52s | | 18:59s | | | | 19:25t |
| 08/18/2017 | F | 20:21et | | | | | 20:54s | 23:56s |
| 08/19/2017 | Sat | 3:33mt | 2:32r | | 2:04r | 4:21r | | |
| 08/19/2017 | Sat | 5:02r | 10:05t | 6:22r | 9:36t | 11:29t | 9:38r | |
| 08/19/2017 | Sat | 11:57t | 17:33s | 12:37t | 17:08s | 18:37s | 15:15t | 14:50r |
| 08/19/2017 | Sat | 18:51s | | 18:53s | | | | 19:21t |
| 08/19/2017 | Sat | 20:19et | | | | | 20:51s | 23:52s |
| 08/20/2017 | Sun | 3:35mt | 3:40r | | 2:06r | 4:20r | | |
| 08/20/2017 | Sun | 5:03r | 11:03t | 6:14r | 9:37t | 11:27t | 9:35r | |
| 08/20/2017 | Sun | 11:56t | 18:17s | 12:31t | 17:08s | 18:34s | 15:11t | 14:46r |
| 08/20/2017 | Sun | 18:49s | | 18:48s | | | | 19:17t |
| 08/20/2017 | Sun | 20:17et | | | | | 20:47s | 23:48s |
| 08/21/2017 | M | 3:36mt | 4:50r | | 2:08r | 4:20r | | |
| 08/21/2017 | M | 5:04r | 11:30NM | 6:07r | 9:38t | 11:26t | 9:32r | |
| 08/21/2017 | M | 11:56t | 11:58t | 12:24t | 17:08s | 18:32s | 15:08t | 14:42r |
| 08/21/2017 | M | 18:48s | 18:56s | 18:42s | | | | 19:13t |
| 08/21/2017 | M | 20:15et | | | | | 20:44s | 23:44s |
| 08/22/2017 | Tu | 3:38mt | | | 2:10r | 4:19r | | |
| 08/22/2017 | Tu | 5:05r | 6:00r | 5:59r | 9:39t | 11:25t | 9:29r | |
| 08/22/2017 | Tu | 11:56t | 12:50t | 12:17t | 17:09s | 18:30s | 15:05t | 14:38r |
| 08/22/2017 | Tu | 18:46s | 19:30s | 18:37s | | | | 19:09t |
| 08/22/2017 | Tu | 20:13et | | | | | 20:40s | 23:40s |
| 08/23/2017 | W | 3:39mt | | | 2:12r | 4:18r | | |
| 08/23/2017 | W | 5:06r | 7:09r | 5:51r | 9:41t | 11:23t | 9:26r | |
| 08/23/2017 | W | 11:56t | 13:40t | 12:10t | 17:09s | 18:27s | 15:01t | 14:34r |
| 08/23/2017 | W | 18:44s | 20:01s | 18:31s | | | | 19:05t |
| 08/23/2017 | W | 20:11et | | | | | 20:36s | 23:36s |
| 08/24/2017 | Th | 3:41mt | | | 2:14r | 4:18r | | |
| 08/24/2017 | Th | 5:07r | 8:15r | 5:42r | 9:42t | 11:22t | 9:23r | |
| 08/24/2017 | Th | 11:55t | 14:27t | 12:03t | 17:09s | 18:25s | 14:58t | 14:30r |
| 08/24/2017 | Th | 18:43s | | 18:26s | | | | 19:01t |
| 08/24/2017 | Th | 20:09et | 20:30s | | | | 20:33s | 23:32s |
| 08/25/2017 | F | 3:42mt | | | 2:16r | 4:17r | | |
| 08/25/2017 | F | 5:09r | 9:19r | 5:33r | 9:43t | 11:20t | 9:20r | |
| 08/25/2017 | F | 11:55t | 15:13t | 11:56t | 17:09s | | 14:55t | 14:26r |
| 08/25/2017 | F | 18:41s | | 18:20s | | 18:23s | | 18:57t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 08/25/2017 | F | 20:07et | 20:59s | | | 20:29s | 23:28s |
| 08/26/2017 | Sat | 3:44mt | | 2:18r | 4:17r | | |
| 08/26/2017 | Sat | 5:10r | 10:21r | 5:24r | 9:44t | 11:19t | 9:17r |
| 08/26/2017 | Sat | 11:55t | 15:58t | 11:49t | 17:09s | | 14:51t 14:22r |
| 08/26/2017 | Sat | 18:39s | | 18:15s | | 18:20s | 18:53t |
| 08/26/2017 | Sat | 20:05et | 21:28s | | | 20:26s | 23:24s |
| 08/27/2017 | Sun | 3:45mt | | 2:20r | 4:16r | | |
| 08/27/2017 | Sun | 5:11r | 11:21r | 5:16r | 9:45t | 11:17t | 9:14r |
| 08/27/2017 | Sun | 11:55t | 16:43t | 11:42t | 17:09s | | 14:48t 14:18r |
| 08/27/2017 | Sun | 18:37s | | 18:10s | | 18:18s | 18:49t |
| 08/27/2017 | Sun | 20:03et | 21:59s | | | 20:22s | 23:20s |
| 08/28/2017 | M | 3:47mt | | 5:07r | 2:22r | 4:16r | |
| 08/28/2017 | M | 5:12r | | 11:35t | 9:46t | 11:16t | 9:11r |
| 08/28/2017 | M | 11:54t | 12:20r | | 17:09s | | 14:45t 14:14r |
| 08/28/2017 | M | 18:36s | 17:29t | 18:05s | | 18:15s | 18:45t |
| 08/28/2017 | M | 20:01et | 22:33s | | | 20:19s | 23:16s |
| 08/29/2017 | Tu | 3:48mt | 1:13FQ | 4:58r | 2:24r | 4:15r | |
| 08/29/2017 | Tu | 5:13r | | 11:29t | 9:47t | 11:14t | 9:08r |
| 08/29/2017 | Tu | 11:54t | 13:16r | 18:01s | 17:09s | 18:13s | 14:42t 14:11r |
| 08/29/2017 | Tu | 18:34s | 18:15t | | | | 18:41t |
| 08/29/2017 | Tu | 19:59et | 23:11s | | | 20:15s | 23:12s |
| 08/30/2017 | W | 3:50mt | | 4:50r | 2:26r | 4:15r | |
| 08/30/2017 | W | 5:14r | | 11:22t | 9:48t | 11:13t | 9:05r |
| 08/30/2017 | W | 11:54t | 14:10r | 17:57s | 17:09s | 18:11s | 14:38t 14:07r |
| 08/30/2017 | W | 18:32s | 19:02t | | | | 18:38t |
| 08/30/2017 | W | 19:57et | 23:53s | | | 20:12s | 23:08s |
| 08/31/2017 | Th | 3:51mt | | 4:42r | 2:28r | 4:14r | |
| 08/31/2017 | Th | 5:16r | | 11:16t | 9:49t | 11:11t | 9:02r |
| 08/31/2017 | Th | 11:53t | 15:01r | 17:53s | 17:09s | 18:08s | 14:35t 14:03r |
| 08/31/2017 | Th | 18:30s | 19:50t | | | | 18:34t |
| 08/31/2017 | Th | 19:54et | | | | 20:08s | 23:04s |
| 09/01/2017 | F | 3:53mt | 0:39s | 4:34r | 2:30r | 4:13r | |
| 09/01/2017 | F | 5:17r | | 11:11t | 9:50t | 11:10t | 8:59r |
| 09/01/2017 | F | 11:53t | 15:48r | 17:49s | 17:09s | 18:06s | 14:32t 13:59r |
| 09/01/2017 | F | 18:29s | | | | | 18:30t |
| 09/01/2017 | F | 19:52et | 20:39t | | | 20:05s | 23:01s |
| 09/02/2017 | Sat | 3:54mt | 1:31s | 4:27r | 2:33r | 4:13r | |
| 09/02/2017 | Sat | 5:18r | | 11:06t | 9:51t | 11:08t | 8:56r |
| 09/02/2017 | Sat | 11:53t | 16:31r | 17:46s | 17:09s | 18:03s | 14:29t 13:55r |
| 09/02/2017 | Sat | 18:27s | | | | | 18:26t |
| 09/02/2017 | Sat | 19:50et | 21:28t | | | 20:01s | 22:57s |
| 09/03/2017 | Sun | 3:55mt | 2:28s | 4:20r | 2:35r | 4:12r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|--------|---------|--------|--------|---------|--------|
| 09/03/2017 | Sun 5:19r | | 11:01t | 9:52t | 11:07t | 8:53r | |
| 09/03/2017 | Sun 11:52t | 17:10r | 17:43s | 17:08s | 18:01s | 14:25t | 13:51r |
| 09/03/2017 | Sun 18:25s | | | | | | 18:22t |
| 09/03/2017 | Sun 19:48et | 22:17t | | | | 19:58s | 22:53s |
| 09/04/2017 | M 3:57mt | 3:28s | 4:15r | 2:37r | 4:12r | | |
| 09/04/2017 | M 5:20r | | 10:57t | 9:53t | 11:05t | 8:50r | |
| 09/04/2017 | M 11:52t | 17:46r | 17:40s | 17:08s | 17:59s | 14:22t | 13:47r |
| 09/04/2017 | M 18:23s | | | | | | 18:18t |
| 09/04/2017 | M 19:46et | 23:05t | | | | 19:54s | 22:49s |
| 09/05/2017 | Tu 3:58mt | 4:32s | 4:09r | 2:39r | 4:11r | | |
| 09/05/2017 | Tu 5:21r | | 10:53t | 9:54t | 11:04t | 8:47r | |
| 09/05/2017 | Tu 11:52t | | 17:38s | 17:08s | 17:56s | 14:19t | 13:44r |
| 09/05/2017 | Tu 18:21s | 18:19r | | | | | 18:14t |
| 09/05/2017 | Tu 19:44et | 23:54t | | | | 19:50s | 22:45s |
| 09/06/2017 | W 4:00mt | 0:03FM | 4:05r | 2:42r | 4:11r | | |
| 09/06/2017 | W 5:22r | 5:37s | 10:50t | 9:55t | 11:02t | 8:44r | |
| 09/06/2017 | W 11:51t | | 17:36s | 17:07s | 17:54s | 14:16t | 13:40r |
| 09/06/2017 | W 18:20s | 18:50r | | | | | 18:10t |
| 09/06/2017 | W 19:42et | | | | | 19:47s | 22:41s |
| 09/07/2017 | Th 4:01mt | 0:43t | 4:02r | 2:44r | 4:10r | | |
| 09/07/2017 | Th 5:23r | 6:44s | 10:48t | 9:56t | 11:01t | 8:41r | |
| 09/07/2017 | Th 11:51t | | 17:34s | 17:07s | 17:51s | 14:12t | 13:36r |
| 09/07/2017 | Th 18:18s | 19:21r | | | | | 18:07t |
| 09/07/2017 | Th 19:40et | | | | | 19:43s | 22:37s |
| 09/08/2017 | F 4:02mt | 1:32t | 3:59r | 2:46r | 4:09r | | |
| 09/08/2017 | F 5:25r | 7:52s | 10:46t | 9:57t | 10:59t | 8:38r | |
| 09/08/2017 | F 11:51t | | 17:33s | 17:06s | 17:49s | 14:09t | 13:32r |
| 09/08/2017 | F 18:16s | | | | | | 18:03t |
| 09/08/2017 | F 19:38et | 19:52r | | | | 19:40s | 22:33s |
| 09/09/2017 | Sat 4:04mt | 2:22t | 3:57r | 2:49r | 4:09r | | |
| 09/09/2017 | Sat 5:26r | 9:02s | 10:44t | 9:58t | 10:58t | 8:36r | |
| 09/09/2017 | Sat 11:50t | | 17:32s | 17:06s | 17:46s | 14:06t | 13:28r |
| 09/09/2017 | Sat 18:14s | | | | | | 17:59t |
| 09/09/2017 | Sat 19:36et | 20:25r | | | | 19:36s | 22:30s |
| 09/10/2017 | Sun 4:05mt | 3:13t | 3:56r | 2:51r | 4:08r | | |
| 09/10/2017 | Sun 5:27r | 10:12s | 10:43t | 9:59t | 10:56t | 8:33r | |
| 09/10/2017 | Sun 11:50t | | 17:31s | 17:05s | 17:44s | 14:03t | 13:24r |
| 09/10/2017 | Sun 18:12s | | | | | 19:33s | 17:55t |
| 09/10/2017 | Sun 19:34et | 21:01r | | | | | 22:26s |
| 09/11/2017 | M 4:06mt | 4:07t | 3:55r | 2:53r | 4:08r | | |
| 09/11/2017 | M 5:28r | 11:22s | 10:43t | 9:59t | 10:55t | 8:30r | |
| 09/11/2017 | M 11:50t | | 17:31s | 17:05s | 17:41s | 14:00t | 13:21r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|---------|---------|--------|--------|---------|--------|
| 09/11/2017 | M 18:10s | | | | | 19:29s | 17:51t |
| 09/11/2017 | M 19:32et | 21:41r | | | | | 22:22s |
| 09/12/2017 | Tu 4:08mt | 5:02t | 3:56r | 2:56r | 4:07r | | |
| 09/12/2017 | Tu 5:29r | | 10:43t | 10:00t | 10:53t | 8:27r | |
| 09/12/2017 | Tu 11:49t | 12:30s | 17:30s | 17:04s | 17:39s | 13:56t | 13:17r |
| 09/12/2017 | Tu 18:09s | | | | | 19:26s | 17:47t |
| 09/12/2017 | Tu 19:30et | 22:28r | | | | | 22:18s |
| 09/12/2017 | Tu | 23:25LQ | | | | | |
| 09/13/2017 | W 4:09mt | | 3:57r | 2:58r | 4:07r | | |
| 09/13/2017 | W 5:30r | 5:59t | 10:43t | 10:01t | 10:52t | 8:24r | |
| 09/13/2017 | W 11:49t | 13:35s | 17:30s | 17:03s | 17:36s | 13:53t | 13:13r |
| 09/13/2017 | W 18:07s | | | | | 19:22s | 17:44t |
| 09/13/2017 | W 19:28et | 23:21r | | | | | 22:14s |
| 09/14/2017 | Th 4:10mt | | 3:58r | 3:00r | 4:06r | | |
| 09/14/2017 | Th 5:31r | 6:58t | 10:44t | 10:02t | 10:50t | 8:21r | |
| 09/14/2017 | Th 11:49t | 14:34s | 17:30s | 17:03s | 17:34s | 13:50t | 13:09r |
| 09/14/2017 | Th 18:05s | | | | | 19:19s | 17:40t |
| 09/14/2017 | Th 19:26et | | | | | | 22:10s |
| 09/15/2017 | F 4:12mt | 0:21r | 4:01r | 3:03r | 4:05r | | |
| 09/15/2017 | F 5:33r | 7:56t | 10:46t | 10:03t | 10:49t | 8:18r | |
| 09/15/2017 | F 11:48t | 15:27s | 17:30s | 17:02s | 17:31s | 13:47t | 13:06r |
| 09/15/2017 | F 18:03s | | | | | 19:16s | 17:36t |
| 09/15/2017 | F 19:24et | | | | | | 22:07s |
| 09/16/2017 | Sat 4:13mt | 1:26r | 4:03r | 3:05r | 4:05r | | |
| 09/16/2017 | Sat 5:34r | 8:53t | 10:47t | 10:04t | 10:47t | 8:15r | |
| 09/16/2017 | Sat 11:48t | 16:13s | 17:30s | 17:01s | 17:29s | 13:44t | 13:02r |
| 09/16/2017 | Sat 18:01s | | | | | 19:12s | 17:32t |
| 09/16/2017 | Sat 19:22et | | | | | | 22:03s |
| 09/17/2017 | Sun 4:14mt | 2:34r | 4:07r | 3:08r | 4:04r | | |
| 09/17/2017 | Sun 5:35r | 9:47t | 10:49t | 10:05t | 10:46t | 8:12r | |
| 09/17/2017 | Sun 11:48t | 16:52s | | 17:00s | 17:26s | 13:41t | 12:58r |
| 09/17/2017 | Sun 17:59s | | 17:30s | | | 19:09s | 17:29t |
| 09/17/2017 | Sun 19:20et | | | | | | 21:59s |
| 09/18/2017 | M 4:16mt | 3:42r | 4:11r | 3:10r | 4:04r | | |
| 09/18/2017 | M 5:36r | 10:40t | 10:51t | 10:05t | 10:44t | 8:09r | |
| 09/18/2017 | M 11:47t | | | 17:00s | 17:24s | 13:37t | 12:54r |
| 09/18/2017 | M 17:57s | 17:27s | 17:30s | | | 19:05s | 17:25t |
| 09/18/2017 | M 19:18et | | | | | | 21:55s |
| 09/19/2017 | Tu 4:17mt | 4:51r | 4:15r | 3:13r | 4:03r | | |
| 09/19/2017 | Tu 5:37r | 11:30t | 10:53t | 10:06t | 10:42t | 8:07r | |
| 09/19/2017 | Tu 11:47t | | | 16:59s | | 13:34t | 12:51r |
| 09/19/2017 | Tu 17:56s | 17:59s | 17:30s | | 17:21s | 19:02s | 17:21t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 09/19/2017 Tu | 19:16et | 22:30NM | | | | | 21:51s |
| 09/20/2017 W | 4:18mt | | 4:19r | 3:15r | 4:02r | | |
| 09/20/2017 W | 5:38r | 5:57r | 10:55t | 10:07t | 10:41t | 8:04r | |
| 09/20/2017 W | 11:46t | 12:18t | | 16:58s | | 13:31t | 12:47r |
| 09/20/2017 W | 17:54s | 18:29s | 17:30s | | 17:19s | 18:58s | 17:17t |
| 09/20/2017 W | 19:14et | | | | | | 21:48s |
| 09/21/2017 Th | 4:19mt | | 4:24r | 3:17r | 4:02r | | |
| 09/21/2017 Th | 5:40r | 7:03r | 10:58t | 10:08t | 10:39t | 8:01r | |
| 09/21/2017 Th | 11:46t | 13:04t | | 16:57s | | 13:28t | 12:43r |
| 09/21/2017 Th | 17:52s | 18:58s | 17:30s | | 17:16s | 18:55s | 17:14t |
| 09/21/2017 Th | 19:12et | | | | | | 21:44s |
| 09/22/2017 F | 4:21mt | | 4:29r | 3:20r | 4:01r | | |
| 09/22/2017 F | 5:41r | 8:06r | 11:01t | 10:08t | 10:38t | 7:58r | |
| 09/22/2017 F | 11:46t | | | | | | 12:39r |
| 09/22/2017 F | 13:02SE | 13:50t | 17:30s | 16:56s | 17:14s | 13:25t | 17:10t |
| 09/22/2017 F | 17:50s | | | | | 18:51s | |
| 09/22/2017 F | 19:10et | 19:27s | | | | | 21:40s |
| 09/23/2017 Sat | 4:22mt | | 4:34r | 3:22r | 4:01r | | |
| 09/23/2017 Sat | 5:42r | 9:08r | 11:03t | 10:09t | 10:36t | 7:55r | |
| 09/23/2017 Sat | 11:45t | 14:36t | | 16:55s | | 13:21t | 12:36r |
| 09/23/2017 Sat | 17:48s | | 17:31s | | 17:11s | 18:48s | 17:06t |
| 09/23/2017 Sat | 19:08et | 19:58s | | | | | 21:36s |
| 09/24/2017 Sun | 4:23mt | | 4:40r | 3:25r | 4:00r | | |
| 09/24/2017 Sun | 5:43r | 10:08r | 11:06t | 10:10t | 10:35t | 7:52r | |
| 09/24/2017 Sun | 11:45t | 15:22t | | 16:54s | | 13:18t | 12:32r |
| 09/24/2017 Sun | 17:46s | | 17:31s | | 17:09s | 18:44s | 17:02t |
| 09/24/2017 Sun | 19:06et | 20:30s | | | | | 21:33s |
| 09/25/2017 M | 4:25mt | | 4:45r | 3:27r | 3:59r | | |
| 09/25/2017 M | 5:44r | 11:06r | 11:09t | 10:11t | 10:33t | 7:49r | |
| 09/25/2017 M | 11:45t | 16:08t | | 16:53s | | 13:15t | 12:28r |
| 09/25/2017 M | 17:44s | | 17:30s | | 17:06s | 18:41s | 16:59t |
| 09/25/2017 M | 19:04et | 21:06s | | | | | 21:29s |
| 09/26/2017 Tu | 4:26mt | | 4:51r | 3:30r | 3:59r | | |
| 09/26/2017 Tu | 5:45r | | 11:11t | 10:11t | 10:31t | 7:47r | |
| 09/26/2017 Tu | 11:44t | 12:01r | | 16:52s | | 13:12t | 12:25r |
| 09/26/2017 Tu | 17:43s | 16:55t | 17:30s | | 17:04s | 18:37s | 16:55t |
| 09/26/2017 Tu | 19:02et | 21:46s | | | | | 21:25s |
| 09/27/2017 W | 4:27mt | | 4:56r | 3:32r | 3:58r | | |
| 09/27/2017 W | 5:47r | | 11:14t | 10:12t | 10:30t | 7:44r | |
| 09/27/2017 W | 11:44t | 12:54r | | 16:51s | | 13:09t | 12:21r |
| 09/27/2017 W | 17:41s | 17:43t | 17:30s | | 17:01s | 18:34s | 16:51t |
| 09/27/2017 W | 19:00et | 19:53FQ | | | | | 21:21s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 09/27/2017 | W | | 22:31s | | | | |
| 09/28/2017 | Th | 4:28mt | | 5:02r | 3:35r | 3:58r | |
| 09/28/2017 | Th | 5:48r | | 11:17t | 10:13t | 10:28t | 7:41r |
| 09/28/2017 | Th | 11:44t | 13:42r | | | | 13:06t 12:17r |
| 09/28/2017 | Th | 17:39s | 18:31t | 17:30s | 16:50s | 16:58s | 18:30s 16:47t |
| 09/28/2017 | Th | 18:58et | 23:21s | | | | 21:18s |
| 09/29/2017 | F | 4:30mt | | 5:08r | 3:37r | 3:57r | |
| 09/29/2017 | F | 5:49r | | 11:19t | 10:13t | 10:27t | 7:38r |
| 09/29/2017 | F | 11:43t | 14:26r | | | | 13:03t 12:14r |
| 09/29/2017 | F | 17:37s | | 17:30s | 16:49s | 16:56s | 18:27s 16:44t |
| 09/29/2017 | F | 18:56et | 19:19t | | | | 21:14s |
| 09/30/2017 | Sat | 4:31mt | 0:15s | 5:13r | 3:40r | 3:56r | |
| 09/30/2017 | Sat | 5:50r | | 11:22t | 10:14t | 10:25t | 7:35r |
| 09/30/2017 | Sat | 11:43t | 15:06r | | | | 12:59t 12:10r |
| 09/30/2017 | Sat | 17:35s | | 17:29s | 16:48s | 16:53s | 18:24s 16:40t |
| 09/30/2017 | Sat | 18:54et | 20:07t | | | | 21:10s |
| 10/01/2017 | Sun | 4:32mt | 1:13s | 5:19r | 3:42r | 3:56r | |
| 10/01/2017 | Sun | 5:51r | | 11:25t | 10:15t | 10:24t | 7:32r |
| 10/01/2017 | Sun | 11:43t | 15:43r | | | | 12:56t 12:06r |
| 10/01/2017 | Sun | 17:33s | | 17:29s | 16:47s | 16:51s | 18:20s 16:36t |
| 10/01/2017 | Sun | 18:52et | 20:56t | | | | 21:06s |
| 10/02/2017 | M | 4:33mt | 2:15s | 5:25r | 3:45r | 3:55r | |
| 10/02/2017 | M | 5:52r | | 11:27t | 10:16t | 10:22t | 7:30r |
| 10/02/2017 | M | 11:42t | 16:17r | | | | 12:53t 12:03r |
| 10/02/2017 | M | 17:32s | | 17:29s | 16:45s | 16:48s | 18:17s 16:33t |
| 10/02/2017 | M | 18:51et | 21:44t | | | | 21:03s |
| 10/03/2017 | Tu | 4:34mt | 3:20s | 5:30r | 3:47r | 3:55r | |
| 10/03/2017 | Tu | 5:54r | | 11:30t | 10:16t | 10:20t | 7:27r |
| 10/03/2017 | Tu | 11:42t | | | | | 12:50t 11:59r |
| 10/03/2017 | Tu | 17:30s | 16:48r | 17:28s | 16:44s | 16:46s | 18:13s 16:29t |
| 10/03/2017 | Tu | 18:49et | 22:33t | | | | 20:59s |
| 10/04/2017 | W | 4:36mt | 4:26s | 5:36r | 3:50r | 3:54r | |
| 10/04/2017 | W | 5:55r | | 11:32t | 10:17t | 10:19t | 7:24r |
| 10/04/2017 | W | 11:42t | | | | | 12:47t 11:55r |
| 10/04/2017 | W | 17:28s | 17:19r | 17:28s | 16:43s | 16:43s | 18:10s 16:25t |
| 10/04/2017 | W | 18:47et | 23:23t | | | | 20:55s |
| 10/05/2017 | Th | 4:37mt | 5:35s | 5:41r | 3:52r | 3:53r | |
| 10/05/2017 | Th | 5:56r | 11:40FM | 11:35t | 10:17t | 10:17t | 7:21r |
| 10/05/2017 | Th | 11:41t | | | | | 12:44t 11:52r |
| 10/05/2017 | Th | 17:26s | 17:51r | 17:27s | 16:42s | 16:40s | 18:06s 16:22t |
| 10/05/2017 | Th | 18:45et | | | | | 20:52s |
| 10/06/2017 | F | 4:38mt | 0:13t | 5:47r | 3:55r | 3:53r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 10/06/2017 | F | 5:57r | 6:46s | 11:37t | 10:18t | 10:16t | 7:18r | |
| 10/06/2017 | F | 11:41t | | | | | 12:41t | 11:48r |
| 10/06/2017 | F | 17:24s | 18:23r | 17:26s | 16:41s | 16:38s | 18:03s | 16:18t |
| 10/06/2017 | F | 18:43et | | | | | | 20:48s |
| 10/07/2017 | Sat | 4:39mt | 1:06t | 5:52r | 3:57r | 3:52r | | |
| 10/07/2017 | Sat | 5:58r | 7:58s | 11:40t | 10:19t | 10:14t | 7:15r | |
| 10/07/2017 | Sat | 11:41t | | | | | 12:38t | 11:44r |
| 10/07/2017 | Sat | 17:23s | | 17:26s | 16:40s | 16:35s | 18:00s | 16:14t |
| 10/07/2017 | Sat | 18:42et | 18:59r | | | | | 20:44s |
| 10/08/2017 | Sun | 4:40mt | 2:00t | 5:57r | 4:00r | 3:51r | | |
| 10/08/2017 | Sun | 6:00r | 9:10s | | 10:19t | 10:12t | 7:13r | |
| 10/08/2017 | Sun | 11:41t | | 11:42t | | | 12:34t | 11:41r |
| 10/08/2017 | Sun | 17:21s | | 17:25s | 16:38s | 16:33s | 17:56s | 16:11t |
| 10/08/2017 | Sun | 18:40et | 19:39r | | | | | 20:41s |
| 10/09/2017 | M | 4:42mt | 2:56t | | 4:02r | 3:51r | | |
| 10/09/2017 | M | 6:01r | 10:21s | 6:03r | 10:20t | 10:11t | 7:10r | 11:37r |
| 10/09/2017 | M | 11:40t | | 11:44t | 16:37s | 16:30s | 12:31t | 16:07t |
| 10/09/2017 | M | 17:19s | | 17:25s | | | 17:53s | |
| 10/09/2017 | M | 18:38et | 20:24r | | | | | 20:37s |
| 10/10/2017 | Tu | 4:43mt | 3:54t | | 4:05r | 3:50r | | |
| 10/10/2017 | Tu | 6:02r | 11:29s | 6:08r | 10:21t | 10:09t | 7:07r | 11:34r |
| 10/10/2017 | Tu | 11:40t | | 11:47t | 16:36s | 16:28s | 12:28t | 16:03t |
| 10/10/2017 | Tu | 17:17s | | 17:24s | | | 17:49s | |
| 10/10/2017 | Tu | 18:36et | 21:16r | | | | | 20:33s |
| 10/11/2017 | W | 4:44mt | 4:53t | | 4:07r | 3:49r | | |
| 10/11/2017 | W | 6:03r | | 6:13r | 10:21t | 10:07t | 7:04r | 11:30r |
| 10/11/2017 | W | 11:40t | 12:31s | 11:49t | 16:35s | 16:25s | 12:25t | 16:00t |
| 10/11/2017 | W | 17:16s | | 17:23s | | | 17:46s | |
| 10/11/2017 | W | 18:35et | 22:14r | | | | | 20:30s |
| 10/12/2017 | Th | 4:45mt | 5:25LQ | | 4:10r | 3:49r | | |
| 10/12/2017 | Th | 6:05r | 5:51t | 6:18r | 10:22t | 10:06t | 7:01r | 11:26r |
| 10/12/2017 | Th | 11:40t | 13:25s | 11:51t | 16:33s | 16:22s | 12:22t | 15:56t |
| 10/12/2017 | Th | 17:14s | | 17:23s | | | 17:42s | |
| 10/12/2017 | Th | 18:33et | 23:17r | | | | | 20:26s |
| 10/13/2017 | F | 4:47mt | | | 4:12r | 3:48r | | |
| 10/13/2017 | F | 6:06r | 6:48t | 6:24r | 10:23t | 10:04t | 6:59r | 11:23r |
| 10/13/2017 | F | 11:39t | 14:12s | 11:53t | 16:32s | 16:20s | 12:19t | 15:53t |
| 10/13/2017 | F | 17:12s | | 17:22s | | | 17:39s | |
| 10/13/2017 | F | 18:31et | | | | | | 20:22s |
| 10/14/2017 | Sat | 4:48mt | 0:24r | | 4:15r | 3:48r | | |
| 10/14/2017 | Sat | 6:07r | 7:43t | 6:29r | 10:23t | 10:03t | 6:56r | 11:19r |
| 10/14/2017 | Sat | 11:39t | 14:53s | 11:56t | 16:31s | 16:17s | 12:16t | 15:49t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 10/14/2017 Sat | 17:10s | | 17:21s | | | 17:36s | |
| 10/14/2017 Sat | 18:30et | | | | | | 20:19s |
| 10/15/2017 Sun | 4:49mt | 1:31r | | 4:17r | 3:47r | | |
| 10/15/2017 Sun | 6:08r | 8:35t | 6:34r | 10:24t | 10:01t | 6:53r | 11:16r |
| 10/15/2017 Sun | 11:39t | 15:29s | 11:58t | 16:30s | 16:15s | 12:13t | 15:45t |
| 10/15/2017 Sun | 17:09s | | 17:21s | | | 17:32s | |
| 10/15/2017 Sun | 18:28et | | | | | | 20:15s |
| 10/16/2017 M | 4:50mt | 2:38r | | 4:20r | 3:46r | | |
| 10/16/2017 M | 6:10r | 9:24t | 6:39r | 10:24t | 9:59t | 6:50r | 11:12r |
| 10/16/2017 M | 11:39t | 16:00s | 12:00t | 16:28s | 16:12s | 12:09t | 15:42t |
| 10/16/2017 M | 17:07s | | 17:20s | | | 17:29s | |
| 10/16/2017 M | 18:26et | | | | | | 20:11s |
| 10/17/2017 Tu | 4:51mt | 3:44r | | 4:22r | 3:46r | | |
| 10/17/2017 Tu | 6:11r | 10:12t | 6:44r | 10:25t | 9:58t | 6:47r | 11:09r |
| 10/17/2017 Tu | 11:38t | 16:30s | 12:02t | 16:27s | 16:09s | 12:06t | 15:38t |
| 10/17/2017 Tu | 17:05s | | 17:19s | | | 17:25s | |
| 10/17/2017 Tu | 18:25et | | | | | | 20:08s |
| 10/18/2017 W | 4:52mt | 4:49r | | 4:25r | 3:45r | | |
| 10/18/2017 W | 6:12r | 10:58t | 6:48r | 10:26t | 9:56t | 6:45r | 11:05r |
| 10/18/2017 W | 11:38t | 16:58s | 12:04t | 16:26s | 16:07s | 12:03t | 15:35t |
| 10/18/2017 W | 17:04s | | 17:19s | | | 17:22s | |
| 10/18/2017 W | 18:23et | | | | | | 20:04s |
| 10/19/2017 Th | 4:54mt | 5:53r | | 4:27r | 3:44r | | |
| 10/19/2017 Th | 6:13r | | 6:53r | 10:26t | 9:55t | 6:42r | 11:01r |
| 10/19/2017 Th | 11:38t | 11:44t | 12:06t | | | 12:00t | |
| 10/19/2017 Th | 17:02s | 12:12NM | 17:18s | 16:25s | 16:04s | 17:18s | 15:31t |
| 10/19/2017 Th | 18:22et | 17:27s | | | | | 20:01s |
| 10/20/2017 F | 4:55mt | | | 4:30r | 3:44r | | |
| 10/20/2017 F | 6:15r | 6:55r | 6:58r | 10:27t | 9:53t | 6:39r | 10:58r |
| 10/20/2017 F | 11:38t | 12:29t | 12:08t | 16:23s | 16:02s | 11:57t | 15:27t |
| 10/20/2017 F | 17:01s | 17:56s | 17:18s | | | 17:15s | |
| 10/20/2017 F | 18:20et | | | | | | 19:57s |
| 10/21/2017 Sat | 4:56mt | | | 4:32r | 3:43r | | |
| 10/21/2017 Sat | 6:16r | 7:56r | 7:03r | 10:28t | 9:51t | 6:36r | 10:54r |
| 10/21/2017 Sat | 11:38t | 13:15t | 12:10t | 16:22s | 15:59s | 11:54t | 15:24t |
| 10/21/2017 Sat | 16:59s | | 17:17s | | | 17:12s | |
| 10/21/2017 Sat | 18:19et | 18:28s | | | | | 19:53s |
| 10/22/2017 Sun | 4:57mt | | | 4:35r | 3:42r | | |
| 10/22/2017 Sun | 6:17r | 8:56r | 7:08r | 10:28t | 9:50t | 6:33r | 10:51r |
| 10/22/2017 Sun | 11:38t | 14:01t | 12:13t | 16:21s | 15:56s | 11:51t | 15:20t |
| 10/22/2017 Sun | 16:57s | | 17:16s | | | 17:08s | |
| 10/22/2017 Sun | 18:17et | 19:03s | | | | | 19:50s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 10/23/2017 M | 4:58mt | | | 4:37r | 3:42r | | |
| 10/23/2017 M | 6:18r | 9:53r | 7:12r | 10:29t | 9:48t | 6:31r | 10:47r |
| 10/23/2017 M | 11:37t | 14:48t | 12:15t | 16:20s | 15:54s | 11:48t | 15:17t |
| 10/23/2017 M | 16:56s | | 17:16s | | | 17:05s | |
| 10/23/2017 M | 18:16et | 19:41s | | | | | 19:46s |
| 10/24/2017 Tu | 5:00mt | | | 4:40r | 3:41r | | |
| 10/24/2017 Tu | 6:20r | 10:46r | 7:17r | 10:30t | 9:46t | 6:28r | 10:44r |
| 10/24/2017 Tu | 11:37t | 15:36t | 12:17t | 16:18s | 15:51s | 11:45t | 15:13t |
| 10/24/2017 Tu | 16:54s | | 17:15s | | | 17:01s | |
| 10/24/2017 Tu | 18:14et | 20:24s | | | | | 19:43s |
| 10/25/2017 W | 5:01mt | | | 4:42r | 3:41r | | |
| 10/25/2017 W | 6:21r | 11:36r | 7:22r | 10:30t | 9:45t | 6:25r | 10:40r |
| 10/25/2017 W | 11:37t | 16:24t | 12:19t | 16:17s | 15:49s | 11:42t | 15:10t |
| 10/25/2017 W | 16:53s | | 17:15s | | | 16:58s | |
| 10/25/2017 W | 18:13et | 21:11s | | | | | 19:39s |
| 10/26/2017 Th | 5:02mt | | | 4:45r | 3:40r | 6:22r | |
| 10/26/2017 Th | 6:22r | | 7:26r | 10:31t | 9:43t | | 10:37r |
| 10/26/2017 Th | 11:37t | 12:22r | 12:21t | 16:16s | 15:46s | 11:38t | 15:06t |
| 10/26/2017 Th | 16:51s | 17:11t | 17:15s | | | 16:55s | |
| 10/26/2017 Th | 18:12et | 22:03s | | | | | 19:35s |
| 10/27/2017 F | 5:03mt | | | 4:48r | 3:39r | 6:19r | |
| 10/27/2017 F | 6:24r | | 7:31r | 10:32t | 9:42t | 11:35t | 10:33r |
| 10/27/2017 F | 11:37t | 13:03r | 12:23t | | | | 15:02t |
| 10/27/2017 F | 16:50s | 15:22FQ | 17:14s | 16:15s | 15:43s | 16:51s | |
| 10/27/2017 F | 18:10et | 17:59t | | | | | 19:32s |
| 10/27/2017 F | | 22:59s | | | | | |
| 10/28/2017 Sat | 5:04mt | | | 4:50r | 3:39r | 6:17r | |
| 10/28/2017 Sat | 6:25r | | 7:35r | 10:32t | 9:40t | 11:32t | 10:30r |
| 10/28/2017 Sat | 11:37t | 13:40r | 12:25t | 16:13s | 15:41s | 16:48s | 14:59t |
| 10/28/2017 Sat | 16:48s | | 17:14s | | | | |
| 10/28/2017 Sat | 18:09et | 18:47t | | | | | 19:28s |
| 10/28/2017 Sat | | 23:58s | | | | | |
| 10/29/2017 Sun | 5:06mt | | | 4:53r | 3:38r | 6:14r | |
| 10/29/2017 Sun | 6:26r | | 7:40r | 10:33t | 9:38t | 11:29t | 10:26r |
| 10/29/2017 Sun | 11:37t | 14:14r | 12:27t | 16:12s | 15:38s | 16:44s | 14:55t |
| 10/29/2017 Sun | 16:47s | | 17:14s | | | | |
| 10/29/2017 Sun | 18:08et | 19:34t | | | | | 19:25s |
| 10/30/2017 M | 5:07mt | 1:00s | | 4:55r | 3:37r | 6:11r | |
| 10/30/2017 M | 6:28r | | 7:44r | 10:34t | 9:37t | 11:26t | 10:23r |
| 10/30/2017 M | 11:37t | 14:46r | 12:29t | 16:11s | 15:36s | 16:41s | 14:52t |
| 10/30/2017 M | 16:45s | | 17:14s | | | | |
| 10/30/2017 M | 18:06et | 20:22t | | | | | 19:21s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------------|--------|---------|--------|
| 10/31/2017 | Tu | 5:08mt | 2:05s | 4:58r | 3:37r | 6:08r | |
| 10/31/2017 | Tu | 6:29r | | 7:49r 10:34t | 9:35t | 11:23t | 10:19r |
| 10/31/2017 | Tu | 11:37t | 15:17r | 12:31t 16:10s | 15:33s | 16:38s | 14:48t |
| 10/31/2017 | Tu | 16:44s | | 17:13s | | | |
| 10/31/2017 | Tu | 18:05et | 21:10t | | | | 19:18s |
| 11/01/2017 | W | 5:09mt | 3:13s | 5:00r | 3:36r | 6:05r | |
| 11/01/2017 | W | 6:30r | | 7:53r 10:35t | 9:33t | 11:20t | 10:16r |
| 11/01/2017 | W | 11:37t | 15:47r | 12:34t 16:09s | 15:30s | 16:34s | 14:45t |
| 11/01/2017 | W | 16:43s | | 17:13s | | | |
| 11/01/2017 | W | 18:04et | 22:00t | | | | 19:14s |
| 11/02/2017 | Th | 5:10mt | 4:23s | 5:03r | 3:35r | 6:03r | |
| 11/02/2017 | Th | 6:32r | | 7:57r 10:36t | 9:32t | 11:17t | 10:12r |
| 11/02/2017 | Th | 11:37t | 16:19r | 12:36t 16:08s | 15:28s | 16:31s | 14:41t |
| 11/02/2017 | Th | 16:41s | | 17:13s | | | |
| 11/02/2017 | Th | 18:03et | 22:52t | | | | 19:10s |
| 11/03/2017 | F | 5:12mt | 5:35s | 5:06r | 3:35r | 6:00r | |
| 11/03/2017 | F | 6:33r | | 8:01r 10:36t | 9:30t | 11:14t | 10:09r |
| 11/03/2017 | F | 11:37t | | 12:38t 16:06s | 15:25s | 16:27s | 14:38t |
| 11/03/2017 | F | 16:40s | 16:53r | 17:13s | | | |
| 11/03/2017 | F | 18:01et | 22:23FM | | | | 19:07s |
| 11/03/2017 | F | | 23:46t | | | | |
| 11/04/2017 | Sat | 5:13mt | | 5:08r | 3:34r | 5:57r | |
| 11/04/2017 | Sat | 6:34r | 6:49s | 8:05r 10:37t | 9:29t | 11:11t | 10:05r |
| 11/04/2017 | Sat | 11:37t | | 12:40t 16:05s | 15:23s | 16:24s | 14:34t |
| 11/04/2017 | Sat | 16:39s | 17:32r | 17:13s | | | |
| 11/04/2017 | Sat | 18:00et | | | | | 19:03s |
| 11/05/2017 | Sun | 5:14mt | 0:43t | 5:11r | 3:33r | 5:54r | |
| 11/05/2017 | Sun | 6:36r | 8:04s | 8:10r 10:38t | 9:27t | 11:08t | 10:02r |
| 11/05/2017 | Sun | 11:37t | | 12:42t 16:04s | 15:20s | 16:21s | 14:31t |
| 11/05/2017 | Sun | 16:37s | | 17:14s | | | |
| 11/05/2017 | Sun | 17:59et | 18:16r | | | | 19:00s |
| 11/06/2017 | M | 5:15mt | 1:43t | 5:14r | 3:33r | 5:51r | |
| 11/06/2017 | M | 6:37r | 9:16s | 8:14r 10:39t | 9:25t | 11:04t | 9:58r |
| 11/06/2017 | M | 11:37t | | 12:44t 16:03s | 15:17s | 16:17s | 14:27t |
| 11/06/2017 | M | 16:36s | | 17:14s | | | |
| 11/06/2017 | M | 17:58et | 19:07r | | | | 18:56s |
| 11/07/2017 | Tu | 5:16mt | 2:43t | 5:16r | 3:32r | 5:49r | |
| 11/07/2017 | Tu | 6:38r | 10:23s | 8:18r 10:40t | 9:24t | 11:01t | 9:55r |
| 11/07/2017 | Tu | 11:37t | | 12:46t 16:02s | 15:15s | 16:14s | 14:24t |
| 11/07/2017 | Tu | 16:35s | | 17:14s | | | |
| 11/07/2017 | Tu | 17:57et | 20:05r | | | | 18:53s |
| 11/08/2017 | W | 5:17mt | 3:44t | 5:19r | 3:31r | 5:46r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 11/08/2017 | W | 6:40r | 11:22s | 8:21r | 10:40t | 9:22t | 10:58t | 9:51r |
| 11/08/2017 | W | 11:37t | | 12:48t | 16:01s | 15:12s | 16:10s | 14:20t |
| 11/08/2017 | W | 16:34s | | 17:15s | | | | |
| 11/08/2017 | W | 17:56et | 21:08r | | | | | 18:49s |
| 11/09/2017 | Th | 5:19mt | 4:43t | | 5:21r | 3:31r | 5:43r | |
| 11/09/2017 | Th | 6:41r | | 8:25r | 10:41t | 9:20t | 10:55t | 9:48r |
| 11/09/2017 | Th | 11:37t | 12:13s | 12:50t | 16:00s | 15:10s | 16:07s | 14:17t |
| 11/09/2017 | Th | 16:33s | | 17:15s | | | | |
| 11/09/2017 | Th | 17:55et | 22:15r | | | | | 18:46s |
| 11/10/2017 | F | 5:20mt | 5:39t | | 5:24r | 3:30r | 5:40r | |
| 11/10/2017 | F | 6:42r | | 8:29r | 10:42t | 9:19t | 10:52t | 9:44r |
| 11/10/2017 | F | 11:37t | 12:56s | 12:52t | | | | |
| 11/10/2017 | F | 16:32s | 13:36LQ | 17:16s | 15:59s | 15:07s | 16:04s | 14:13t |
| 11/10/2017 | F | 17:54et | 23:23r | | | | | 18:42s |
| 11/11/2017 | Sat | 5:21mt | 6:32t | | 5:27r | 3:29r | 5:37r | |
| 11/11/2017 | Sat | 6:44r | | 8:32r | 10:43t | 9:17t | 10:49t | 9:41r |
| 11/11/2017 | Sat | 11:37t | 13:32s | 12:54t | 15:58s | 15:04s | 16:00s | 14:10t |
| 11/11/2017 | Sat | 16:30s | | 17:16s | | | | |
| 11/11/2017 | Sat | 17:53et | | | | | | 18:39s |
| 11/12/2017 | Sun | 5:22mt | 0:30r | | 5:29r | 3:29r | 5:35r | |
| 11/12/2017 | Sun | 6:45r | 7:22t | 8:36r | 10:44t | 9:16t | 10:46t | 9:37r |
| 11/12/2017 | Sun | 11:37t | 14:05s | 12:56t | 15:57s | 15:02s | 15:57s | 14:06t |
| 11/12/2017 | Sun | 16:29s | | 17:17s | | | | |
| 11/12/2017 | Sun | 17:52et | | | | | | 18:35s |
| 11/13/2017 | M | 5:23mt | 1:36r | | 5:32r | 3:28r | 5:32r | |
| 11/13/2017 | M | 6:46r | 8:10t | 8:39r | 10:45t | 9:14t | 10:43t | 9:34r |
| 11/13/2017 | M | 11:38t | 14:34s | 12:58t | 15:56s | 14:59s | 15:54s | 14:03t |
| 11/13/2017 | M | 16:28s | | 17:17s | | | | |
| 11/13/2017 | M | 17:51et | | | | | | 18:32s |
| 11/14/2017 | Tu | 5:24mt | 2:40r | | 5:35r | 3:27r | 5:29r | |
| 11/14/2017 | Tu | 6:48r | 8:56t | 8:42r | 10:46t | 9:12t | 10:40t | 9:30r |
| 11/14/2017 | Tu | 11:38t | 15:02s | 13:00t | 15:56s | 14:57s | 15:50s | 13:59t |
| 11/14/2017 | Tu | 16:27s | | 17:18s | | | | |
| 11/14/2017 | Tu | 17:51et | | | | | | 18:28s |
| 11/15/2017 | W | 5:25mt | 3:44r | | 5:37r | 3:27r | 5:26r | |
| 11/15/2017 | W | 6:49r | 9:41t | 8:45r | 10:46t | 9:11t | 10:37t | 9:27r |
| 11/15/2017 | W | 11:38t | 15:30s | 13:02t | 15:55s | 14:54s | 15:47s | 13:56t |
| 11/15/2017 | W | 16:26s | | 17:19s | | | | |
| 11/15/2017 | W | 17:50et | | | | | | 18:25s |
| 11/16/2017 | Th | 5:27mt | 4:46r | | 5:40r | 3:26r | 5:23r | |
| 11/16/2017 | Th | 6:50r | 10:26t | 8:48r | 10:47t | 9:09t | 10:33t | 9:23r |
| 11/16/2017 | Th | 11:38t | 15:58s | 13:04t | 15:54s | 14:52s | 15:43s | 13:52t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 11/16/2017 | Th | 16:26s | | 17:20s | | | | |
| 11/16/2017 | Th | 17:49et | | | | | 18:21s | |
| 11/17/2017 | F | 5:28mt | 5:47r | | 5:43r | 3:26r | 5:21r | |
| 11/17/2017 | F | 6:51r | 11:11t | 8:50r | 10:48t | 9:08t | 10:30t | 9:20r |
| 11/17/2017 | F | 11:38t | | 13:06t | 15:53s | 14:49s | 15:40s | 13:49t |
| 11/17/2017 | F | 16:25s | 16:29s | 17:21s | | | | |
| 11/17/2017 | F | 17:48et | | | | | 18:18s | |
| 11/18/2017 | Sat | 5:29mt | 4:42NM | | 5:46r | 3:25r | 5:18r | |
| 11/18/2017 | Sat | 6:53r | 6:47r | 8:53r | 10:49t | 9:06t | 10:27t | 9:17r |
| 11/18/2017 | Sat | 11:38t | 11:57t | 13:07t | 15:52s | 14:46s | 15:37s | 13:45t |
| 11/18/2017 | Sat | 16:24s | 17:02s | 17:21s | | | | |
| 11/18/2017 | Sat | 17:48et | | | | | 18:14s | |
| 11/19/2017 | Sun | 5:30mt | | | 5:48r | 3:24r | 5:15r | |
| 11/19/2017 | Sun | 6:54r | 7:45r | 8:55r | 10:50t | 9:04t | 10:24t | 9:13r |
| 11/19/2017 | Sun | 11:39t | 12:43t | 13:09t | 15:52s | 14:44s | 15:33s | 13:42t |
| 11/19/2017 | Sun | 16:23s | 17:38s | 17:22s | | | | |
| 11/19/2017 | Sun | 17:47et | | | | | 18:11s | |
| 11/20/2017 | M | 5:31mt | | | 5:51r | 3:24r | 5:12r | |
| 11/20/2017 | M | 6:55r | 8:40r | 8:57r | 10:51t | 9:03t | 10:21t | 9:10r |
| 11/20/2017 | M | 11:39t | 13:31t | 13:10t | 15:51s | 14:41s | 15:30s | 13:38t |
| 11/20/2017 | M | 16:22s | | 17:23s | | | | |
| 11/20/2017 | M | 17:46et | 18:19s | | | | 18:07s | |
| 11/21/2017 | Tu | 5:32mt | | | 5:54r | 3:23r | 5:09r | |
| 11/21/2017 | Tu | 6:57r | 9:32r | 8:58r | 10:52t | 9:01t | 10:18t | 9:06r |
| 11/21/2017 | Tu | 11:39t | 14:18t | 13:11t | 15:51s | 14:39s | 15:26s | 13:35t |
| 11/21/2017 | Tu | 16:21s | | 17:24s | | | | |
| 11/21/2017 | Tu | 17:46et | 19:05s | | | | 18:04s | |
| 11/22/2017 | W | 5:33mt | | | 5:56r | 3:22r | 5:06r | |
| 11/22/2017 | W | 6:58r | 10:19r | 8:59r | 10:53t | 9:00t | 10:15t | 9:03r |
| 11/22/2017 | W | 11:39t | 15:06t | 13:12t | 15:50s | 14:36s | 15:23s | 13:32t |
| 11/22/2017 | W | 16:21s | | 17:25s | | | | |
| 11/22/2017 | W | 17:45et | 19:55s | | | | 18:00s | |
| 11/23/2017 | Th | 5:34mt | | | 5:59r | 3:22r | 5:04r | |
| 11/23/2017 | Th | 6:59r | 11:02r | 9:00r | 10:55t | 8:58t | 10:12t | 8:59r |
| 11/23/2017 | Th | 11:40t | 15:54t | 13:13t | 15:49s | 14:34s | 15:20s | 13:28t |
| 11/23/2017 | Th | 16:20s | | 17:25s | | | | |
| 11/23/2017 | Th | 17:45et | 20:49s | | | | 17:57s | |
| 11/24/2017 | F | 5:35mt | | | 6:02r | 3:21r | 5:01r | |
| 11/24/2017 | F | 7:00r | 11:40r | 9:01r | 10:56t | 8:56t | 10:09t | 8:56r |
| 11/24/2017 | F | 11:40t | | 13:13t | 15:49s | 14:31s | 15:16s | 13:25t |
| 11/24/2017 | F | 16:19s | 16:41t | 17:26s | | | | |
| 11/24/2017 | F | 17:44et | 21:46s | | | | 17:53s | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 11/25/2017 | Sat | 5:36mt | | 6:04r | 3:20r | 4:58r | |
| 11/25/2017 | Sat | 7:02r | | 9:01r | 10:57t | 8:55t | 10:05t |
| 11/25/2017 | Sat | 11:40t | 12:14r | 13:13t | 15:49s | 14:29s | 15:13s |
| 11/25/2017 | Sat | 16:19s | 17:27t | 17:26s | | | |
| 11/25/2017 | Sat | 17:44et | 22:46s | | | | 17:50s |
| 11/26/2017 | Sun | 5:37mt | | 6:07r | 3:20r | 4:55r | |
| 11/26/2017 | Sun | 7:03r | 10:03FQ | 9:01r | 10:58t | 8:53t | 10:02t |
| 11/26/2017 | Sun | 11:41t | 12:46r | 13:13t | 15:48s | 14:26s | 15:09s |
| 11/26/2017 | Sun | 16:18s | | 17:26s | | | |
| 11/26/2017 | Sun | 17:43et | 18:13t | | | | 17:46s |
| 11/26/2017 | Sun | | 23:48s | | | | |
| 11/27/2017 | M | 5:39mt | | 6:10r | 3:19r | 4:52r | |
| 11/27/2017 | M | 7:04r | | 9:00r | 10:59t | 8:52t | 9:59t |
| 11/27/2017 | M | 11:41t | 13:16r | 13:13t | 15:48s | 14:24s | 15:06s |
| 11/27/2017 | M | 16:18s | | 17:26s | | | 17:43s |
| 11/27/2017 | M | 17:43et | 19:00t | | | | |
| 11/28/2017 | Tu | 5:40mt | 0:52s | 6:12r | 3:18r | 4:49r | |
| 11/28/2017 | Tu | 7:05r | | 8:58r | 11:00t | 8:50t | 9:56t |
| 11/28/2017 | Tu | 11:41t | 13:45r | 13:12t | 15:48s | 14:21s | 15:03s |
| 11/28/2017 | Tu | 16:17s | | 17:26s | | | 17:39s |
| 11/28/2017 | Tu | 17:43et | 19:47t | | | | |
| 11/29/2017 | W | 5:41mt | 1:59s | 6:15r | 3:18r | 4:47r | |
| 11/29/2017 | W | 7:06r | | 8:56r | 11:01t | 8:48t | 9:53t |
| 11/29/2017 | W | 11:42t | 14:15r | 13:10t | 15:47s | 14:19s | 14:59s |
| 11/29/2017 | W | 16:17s | | 17:25s | | | 17:36s |
| 11/29/2017 | W | 17:42et | 20:37t | | | | |
| 11/30/2017 | Th | 5:42mt | 3:09s | 6:18r | 3:17r | 4:44r | |
| 11/30/2017 | Th | 7:07r | | 8:54r | 11:03t | 8:47t | 9:50t |
| 11/30/2017 | Th | 11:42t | 14:47r | 13:08t | 15:47s | 14:16s | 14:56s |
| 11/30/2017 | Th | 16:16s | | 17:24s | | | 17:32s |
| 11/30/2017 | Th | 17:42et | 21:29t | | | | |
| 12/01/2017 | F | 5:42mt | 4:21s | 6:20r | 3:16r | 4:41r | |
| 12/01/2017 | F | 7:09r | | 8:50r | 11:04t | 8:45t | 9:47t |
| 12/01/2017 | F | 11:42t | 15:23r | 13:06t | 15:47s | 14:14s | 14:53s |
| 12/01/2017 | F | 16:16s | | 17:22s | | | 17:29s |
| 12/01/2017 | F | 17:42et | 22:24t | | | | |
| 12/02/2017 | Sat | 5:43mt | 5:36s | 6:23r | 3:16r | 4:38r | |
| 12/02/2017 | Sat | 7:10r | | 8:46r | 11:05t | 8:44t | 9:44t |
| 12/02/2017 | Sat | 11:43t | 16:04r | 13:03t | 15:47s | 14:11s | 14:49s |
| 12/02/2017 | Sat | 16:16s | | 17:20s | | | 17:26s |
| 12/02/2017 | Sat | 17:42et | 23:23t | | | | |
| 12/03/2017 | Sun | 5:44mt | 6:51s | 6:26r | 3:15r | 4:35r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|--------|---------|--------|--------|---------|--------|
| 12/03/2017 | Sun 7:11r | 8:47FM | 8:41r | 11:06t | 8:42t | 9:40t | 8:25r |
| 12/03/2017 | Sun 11:43t | | 12:59t | 15:47s | 14:09s | 14:46s | 12:54t |
| 12/03/2017 | Sun 16:15s | 16:51r | 17:17s | | | | 17:22s |
| 12/03/2017 | Sun 17:42et | | | | | | |
| 12/04/2017 | M 5:45mt | 0:25t | | 6:28r | 3:14r | 4:32r | |
| 12/04/2017 | M 7:12r | 8:03s | 8:35r | 11:08t | 8:40t | 9:37t | 8:22r |
| 12/04/2017 | M 11:44t | | 12:54t | 15:47s | 14:06s | 14:42s | 12:50t |
| 12/04/2017 | M 16:15s | | 17:13s | | | | 17:19s |
| 12/04/2017 | M 17:42et | 17:47r | | | | | |
| 12/05/2017 | Tu 5:46mt | 1:28t | | 6:31r | 3:14r | 4:29r | |
| 12/05/2017 | Tu 7:13r | 9:09s | 8:28r | 11:09t | 8:39t | 9:34t | 8:18r |
| 12/05/2017 | Tu 11:44t | | 12:49t | 15:47s | 14:04s | 14:39s | 12:47t |
| 12/05/2017 | Tu 16:15s | | 17:09s | | | | 17:15s |
| 12/05/2017 | Tu 17:42et | 18:51r | | | | | |
| 12/06/2017 | W 5:47mt | 2:30t | | 6:33r | 3:13r | 4:26r | |
| 12/06/2017 | W 7:14r | 10:06s | 8:21r | 11:10t | 8:37t | 9:31t | 8:15r |
| 12/06/2017 | W 11:44t | | 12:42t | 15:47s | 14:01s | 14:36s | 12:43t |
| 12/06/2017 | W 16:15s | | 17:04s | | | | 17:12s |
| 12/06/2017 | W 17:42et | 19:59r | | | | | |
| 12/07/2017 | Th 5:48mt | 3:30t | | 6:36r | 3:13r | 4:24r | |
| 12/07/2017 | Th 7:15r | 10:54s | 8:12r | 11:12t | 8:36t | 9:28t | 8:11r |
| 12/07/2017 | Th 11:45t | | 12:35t | 15:47s | 13:59s | 14:32s | 12:40t |
| 12/07/2017 | Th 16:15s | | 16:59s | | | | 17:08s |
| 12/07/2017 | Th 17:42et | 21:10r | | | | | |
| 12/08/2017 | F 5:49mt | 4:27t | | 6:38r | 3:12r | 4:21r | |
| 12/08/2017 | F 7:16r | 11:34s | 8:03r | 11:13t | 8:34t | 9:25t | 8:08r |
| 12/08/2017 | F 11:45t | | 12:27t | 15:48s | 13:56s | 14:29s | 12:36t |
| 12/08/2017 | F 16:15s | | 16:52s | | | | 17:05s |
| 12/08/2017 | F 17:42et | 22:20r | | | | | |
| 12/09/2017 | Sat 5:50mt | 5:19t | | 6:41r | 3:11r | 4:18r | |
| 12/09/2017 | Sat 7:17r | | 7:53r | 11:14t | 8:33t | 9:22t | 8:05r |
| 12/09/2017 | Sat 11:46t | 12:08s | 12:19t | 15:48s | 13:54s | 14:25s | 12:33t |
| 12/09/2017 | Sat 16:15s | | 16:46s | | | | 17:01s |
| 12/09/2017 | Sat 17:42et | 23:27r | | | | | |
| 12/10/2017 | Sun 5:50mt | 0:51LQ | | | 3:11r | 4:15r | |
| 12/10/2017 | Sun 7:18r | 6:08t | 7:42r | 6:43r | 8:31t | 9:18t | 8:01r |
| 12/10/2017 | Sun 11:46t | 12:39s | 12:10t | 11:16t | 13:51s | 14:22s | 12:30t |
| 12/10/2017 | Sun 16:15s | | 16:38s | 15:48s | | | 16:58s |
| 12/10/2017 | Sun 17:42et | | | | | | |
| 12/11/2017 | M 5:51mt | 0:33r | | 6:45r | 3:10r | 4:12r | |
| 12/11/2017 | M 7:18r | 6:55t | 7:31r | 11:17t | 8:30t | 9:15t | 7:58r |
| 12/11/2017 | M 11:47t | 13:07s | 12:00t | 15:49s | 13:49s | 14:19s | 12:26t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 12/11/2017 M | 16:15s | | 16:31s | | | | 16:55s |
| 12/11/2017 M | 17:42et | | | | | | |
| 12/12/2017 Tu | 5:52mt | 1:37r | 7:19r | 6:48r | 3:09r | 4:09r | |
| 12/12/2017 Tu | 7:19r | 7:40t | | 11:19t | 8:28t | 9:12t | 7:54r |
| 12/12/2017 Tu | 11:47t | 13:35s | 11:51t | 15:49s | 13:46s | 14:15s | 12:23t |
| 12/12/2017 Tu | 16:15s | | 16:23s | | | | 16:51s |
| 12/12/2017 Tu | 17:42et | | | | | | |
| 12/13/2017 W | 5:53mt | 2:39r | 7:08r | 6:50r | 3:09r | 4:06r | |
| 12/13/2017 W | 7:20r | 8:25t | 11:41t | 11:20t | 8:27t | 9:09t | 7:51r |
| 12/13/2017 W | 11:48t | 14:03s | 16:15s | 15:50s | 13:44s | 14:12s | 12:19t |
| 12/13/2017 W | 16:15s | | | | | | 16:48s |
| 12/13/2017 W | 17:42et | | | | | | |
| 12/14/2017 Th | 5:53mt | 3:40r | 6:56r | 6:52r | 3:08r | 4:03r | |
| 12/14/2017 Th | 7:21r | 9:09t | 11:31t | 11:22t | 8:25t | 9:06t | 7:47r |
| 12/14/2017 Th | 11:48t | 14:32s | 16:07s | 15:50s | 13:42s | 14:08s | 12:16t |
| 12/14/2017 Th | 16:15s | | | | | | 16:44s |
| 12/14/2017 Th | 17:43et | | | | | | |
| 12/15/2017 F | 5:54mt | 4:40r | 6:45r | 6:55r | 3:07r | 4:00r | |
| 12/15/2017 F | 7:22r | 9:54t | 11:22t | 11:23t | 8:23t | 9:03t | 7:44r |
| 12/15/2017 F | 11:49t | 15:03s | 15:59s | 15:51s | 13:39s | 14:05s | 12:12t |
| 12/15/2017 F | 16:16s | | | | | | 16:41s |
| 12/15/2017 F | 17:43et | | | | | | |
| 12/16/2017 Sat | 5:55mt | 5:38r | 6:35r | 6:57r | 3:07r | 3:57r | |
| 12/16/2017 Sat | 7:22r | 10:40t | 11:13t | 11:25t | 8:22t | 8:59t | 7:41r |
| 12/16/2017 Sat | 11:49t | 15:38s | 15:52s | 15:52s | 13:37s | 14:01s | 12:09t |
| 12/16/2017 Sat | 16:16s | | | | | | 16:37s |
| 12/16/2017 Sat | 17:43et | | | | | | |
| 12/17/2017 Sun | 5:55mt | 6:34r | 6:26r | 6:59r | 3:06r | 3:54r | |
| 12/17/2017 Sun | 7:23r | 11:27t | 11:05t | 11:26t | 8:20t | 8:56t | 7:37r |
| 12/17/2017 Sun | 11:50t | | 15:45s | 15:53s | 13:34s | 13:58s | 12:06t |
| 12/17/2017 Sun | 16:16s | 16:17s | | | | | 16:34s |
| 12/17/2017 Sun | 17:44et | 23:30NM | | | | | |
| 12/18/2017 M | 5:56mt | | 6:17r | 7:01r | 3:05r | 3:51r | |
| 12/18/2017 M | 7:24r | 7:28r | 10:58t | 11:28t | 8:19t | 8:53t | 7:34r |
| 12/18/2017 M | 11:50t | 12:15t | 15:39s | 15:54s | 13:32s | 13:55s | 12:02t |
| 12/18/2017 M | 16:16s | 17:01s | | | | | 16:30s |
| 12/18/2017 M | 17:44et | | | | | | |
| 12/19/2017 Tu | 5:57mt | | 6:09r | 7:03r | 3:05r | 3:48r | |
| 12/19/2017 Tu | 7:24r | 8:17r | 10:51t | 11:29t | 8:17t | 8:50t | 7:30r |
| 12/19/2017 Tu | 11:51t | 13:03t | 15:33s | 15:55s | 13:29s | 13:51s | 11:59t |
| 12/19/2017 Tu | 16:17s | | | | | | 16:27s |
| 12/19/2017 Tu | 17:44et | 17:49s | | | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 12/20/2017 | W | 5:57mt | | 6:03r | 7:05r | 3:04r | 3:45r | |
| 12/20/2017 | W | 7:25r | 9:01r | 10:45t | 11:31t | 8:16t | 8:47t | 7:27r |
| 12/20/2017 | W | 11:51t | 13:50t | 15:27s | 15:56s | 13:27s | 13:48s | 11:55t |
| 12/20/2017 | W | 16:17s | | | | | | 16:24s |
| 12/20/2017 | W | 17:45et | 18:42s | | | | | |
| 12/21/2017 | Th | 5:58mt | | 5:57r | 7:07r | 3:03r | 3:42r | 7:24r |
| 12/21/2017 | Th | 7:25r | | | | 8:14t | 8:43t | |
| 12/21/2017 | Th | 9:28DS | 9:41r | 10:40t | 11:32t | | | |
| 12/21/2017 | Th | 11:52t | 14:38t | 15:22s | 15:57s | 13:25s | 13:44s | 11:52t |
| 12/21/2017 | Th | 16:18s | | | | | | 16:20s |
| 12/21/2017 | Th | 17:45et | 19:38s | | | | | |
| 12/22/2017 | F | 5:58mt | | 5:52r | 7:09r | 3:03r | 3:39r | 7:20r |
| 12/22/2017 | F | 7:26r | 10:17r | 10:35t | 11:34t | 8:13t | 8:40t | 11:48t |
| 12/22/2017 | F | 11:52t | 15:24t | 15:18s | 15:58s | 13:22s | 13:41s | 16:17s |
| 12/22/2017 | F | 16:18s | | | | | | |
| 12/22/2017 | F | 17:46et | 20:37s | | | | | |
| 12/23/2017 | Sat | 5:59mt | | 5:49r | 7:11r | 3:02r | 3:36r | 7:17r |
| 12/23/2017 | Sat | 7:26r | 10:49r | 10:31t | 11:35t | 8:11t | 8:37t | 11:45t |
| 12/23/2017 | Sat | 11:53t | 16:10t | 15:14s | 15:59s | 13:20s | 13:37s | 16:13s |
| 12/23/2017 | Sat | 16:19s | | | | | | |
| 12/23/2017 | Sat | 17:46et | 21:37s | | | | | |
| 12/24/2017 | Sun | 5:59mt | | 5:46r | 7:13r | 3:02r | 3:33r | 7:13r |
| 12/24/2017 | Sun | 7:27r | 11:19r | 10:28t | 11:37t | 8:10t | 8:34t | 11:42t |
| 12/24/2017 | Sun | 11:53t | | 15:11s | 16:01s | 13:18s | 13:34s | 16:10s |
| 12/24/2017 | Sun | 16:20s | 16:55t | | | | | |
| 12/24/2017 | Sun | 17:47et | 22:39s | | | | | |
| 12/25/2017 | M | 5:59mt | | 5:43r | 7:15r | 3:01r | 3:30r | 7:10r |
| 12/25/2017 | M | 7:27r | 11:47r | 10:26t | 11:38t | 8:08t | 8:31t | 11:38t |
| 12/25/2017 | M | 11:54t | | 15:07s | 16:02s | 13:15s | 13:31s | 16:06s |
| 12/25/2017 | M | 16:20s | 17:41t | | | | | |
| 12/25/2017 | M | 17:48et | 23:43s | | | | | |
| 12/26/2017 | Tu | 6:00mt | 2:20FQ | 5:42r | 7:16r | 3:00r | 3:27r | 7:06r |
| 12/26/2017 | Tu | 7:27r | | 10:23t | 11:40t | 8:07t | 8:27t | 11:35t |
| 12/26/2017 | Tu | 11:54t | 12:16r | 15:05s | 16:03s | 13:13s | 13:27s | 16:03s |
| 12/26/2017 | Tu | 16:21s | | | | | | |
| 12/26/2017 | Tu | 17:48et | 18:27t | | | | | |
| 12/27/2017 | W | 6:00mt | 0:49s | 5:41r | 7:18r | 3:00r | 3:24r | 7:03r |
| 12/27/2017 | W | 7:28r | | 10:22t | 11:41t | 8:05t | 8:24t | 11:31t |
| 12/27/2017 | W | 11:54t | 12:45r | 15:02s | 16:05s | 13:11s | 13:24s | 16:00s |
| 12/27/2017 | W | 16:22s | | | | | | |
| 12/27/2017 | W | 17:49et | 19:16t | | | | | |
| 12/28/2017 | Th | 6:00mt | 1:57s | 5:41r | 7:20r | 2:59r | 3:21r | 7:00r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 12/28/2017 | Th | 7:28r | | 10:21t | 11:43t | 8:04t | 8:21t | 11:28t |
| 12/28/2017 | Th | 11:55t | 13:17r | 15:00s | 16:06s | 13:08s | 13:20s | 15:56s |
| 12/28/2017 | Th | 16:22s | | | | | | |
| 12/28/2017 | Th | 17:50et | 20:07t | | | | | |
| 12/29/2017 | F | 6:01mt | 3:08s | 5:41r | 7:21r | 2:58r | 3:18r | 6:56r |
| 12/29/2017 | F | 7:28r | | 10:20t | 11:45t | 8:02t | 8:18t | 11:24t |
| 12/29/2017 | F | 11:55t | 13:53r | 14:59s | 16:08s | 13:06s | 13:17s | 15:53s |
| 12/29/2017 | F | 16:23s | | | | | | |
| 12/29/2017 | F | 17:50et | 21:03t | | | | | |
| 12/30/2017 | Sat | 6:01mt | 4:22s | 5:41r | 7:23r | 2:58r | 3:15r | 6:53r |
| 12/30/2017 | Sat | 7:28r | | 10:19t | 11:46t | 8:01t | 8:14t | 11:21t |
| 12/30/2017 | Sat | 11:56t | 14:36r | 14:57s | 16:10s | 13:04s | 13:13s | 15:49s |
| 12/30/2017 | Sat | 16:24s | | | | | | |
| 12/30/2017 | Sat | 17:51et | 22:02t | | | | | |
| 12/31/2017 | Sun | 6:01mt | 5:35s | 5:42r | 7:24r | 2:57r | 3:12r | 6:49r |
| 12/31/2017 | Sun | 7:28r | | 10:19t | 11:48t | 7:59t | 8:11t | 11:18t |
| 12/31/2017 | Sun | 11:56t | 15:27r | 14:56s | 16:11s | 13:01s | 13:10s | 15:46s |
| 12/31/2017 | Sun | 16:25s | | | | | | |
| 12/31/2017 | Sun | 17:52et | 23:04t | | | | | |
| 01/01/2018 | M | 6:01mt | 6:45s | 5:43r | 7:25r | 2:56r | 3:09r | 6:46r |
| 01/01/2018 | M | 7:28r | | 10:19t | 11:49t | 7:58t | 8:08t | 11:14t |
| 01/01/2018 | M | 11:57t | | 14:55s | 16:13s | 12:59s | 13:06s | 15:43s |
| 01/01/2018 | M | 16:26s | 16:27r | | | | | |
| 01/01/2018 | M | 17:53et | 19:24FM | | | | | |
| 01/02/2018 | Tu | 6:01mt | 0:08t | 5:44r | 7:27r | 2:56r | 3:06r | 6:42r |
| 01/02/2018 | Tu | 7:28r | 7:48s | 10:20t | 11:51t | 7:56t | 8:05t | 11:11t |
| 01/02/2018 | Tu | 11:57t | | 14:55s | 16:15s | 12:57s | 13:03s | 15:39s |
| 01/02/2018 | Tu | 16:27s | 17:34r | | | | | |
| 01/02/2018 | Tu | 17:54et | | | | | | |
| 01/03/2018 | W | 6:01mt | 1:11t | 5:46r | 7:28r | 2:55r | 3:03r | 6:39r |
| 01/03/2018 | W | 7:28r | 8:43s | 10:20t | 11:52t | 7:55t | 8:01t | 11:07t |
| 01/03/2018 | W | 11:58t | | 14:54s | 16:17s | 12:55s | 13:00s | 15:36s |
| 01/03/2018 | W | 16:28s | | | | | | |
| 01/03/2018 | W | 17:54et | 18:46r | | | | | |
| 01/04/2018 | Th | 6:02mt | 2:12t | 5:48r | | 2:54r | 3:00r | 6:36r |
| 01/04/2018 | Th | 7:28r | 9:28s | 10:21t | 7:29r | 7:53t | 7:58t | 11:04t |
| 01/04/2018 | Th | 11:58t | | 14:54s | 11:54t | 12:52s | 12:56s | 15:32s |
| 01/04/2018 | Th | 16:29s | | | 16:19s | | | |
| 01/04/2018 | Th | 17:55et | 19:59r | | | | | |
| 01/05/2018 | F | 6:02mt | 3:08t | 5:50r | | 2:54r | 2:57r | 6:32r |
| 01/05/2018 | F | 7:28r | 10:07s | 10:22t | 7:30r | 7:52t | 7:55t | 11:00t |
| 01/05/2018 | F | 11:59t | | 14:54s | 11:55t | 12:50s | 12:53s | 15:29s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 01/05/2018 | F | 16:30s | | 16:21s | | | |
| 01/05/2018 | F | 17:56et | 21:11r | | | | |
| 01/06/2018 | Sat | 6:01mt | 4:01t | 5:52r | 2:53r | 2:54r | 6:29r |
| 01/06/2018 | Sat | 7:28r | 10:40s | 10:23t | 7:31r | 7:50t | 7:51t |
| 01/06/2018 | Sat | 11:59t | | 14:54s | 11:57t | 12:48s | 12:49s |
| 01/06/2018 | Sat | 16:31s | | 16:23s | | | |
| 01/06/2018 | Sat | 17:57et | 22:20r | | | | |
| 01/07/2018 | Sun | 6:01mt | 4:50t | 5:54r | 2:52r | 2:51r | 6:25r |
| 01/07/2018 | Sun | 7:28r | 11:11s | 10:25t | 7:32r | 7:49t | 7:48t |
| 01/07/2018 | Sun | 12:00t | | 14:55s | 11:58t | 12:46s | 12:46s |
| 01/07/2018 | Sun | 16:32s | | 16:25s | | | |
| 01/07/2018 | Sun | 17:58et | 23:26r | | | | |
| 01/08/2018 | M | 6:01mt | 5:37t | 5:57r | 2:52r | 2:48r | 6:22r |
| 01/08/2018 | M | 7:28r | 11:39s | 10:26t | 7:33r | 7:48t | 7:45t |
| 01/08/2018 | M | 12:00t | 15:25LQ | 14:55s | 12:00t | 12:43s | 12:42s |
| 01/08/2018 | M | 16:33s | | 16:27s | | | |
| 01/08/2018 | M | 17:59et | | | | | |
| 01/09/2018 | Tu | 6:01mt | 0:30r | 5:59r | 2:51r | 2:44r | 6:18r |
| 01/09/2018 | Tu | 7:27r | 6:23t | 10:28t | 7:34r | 7:46t | 7:42t |
| 01/09/2018 | Tu | 12:00t | 12:07s | 14:56s | 12:01t | 12:41s | 12:39s |
| 01/09/2018 | Tu | 16:34s | | 16:30s | | | |
| 01/09/2018 | Tu | 18:00et | | | | | |
| 01/10/2018 | W | 6:01mt | 1:32r | 6:02r | 2:50r | 2:41r | 6:15r |
| 01/10/2018 | W | 7:27r | 7:07t | 10:30t | 7:34r | 7:45t | 7:38t |
| 01/10/2018 | W | 12:01t | 12:35s | 14:57s | 12:03t | 12:39s | 12:35s |
| 01/10/2018 | W | 16:35s | | 16:32s | | | |
| 01/10/2018 | W | 18:01et | | | | | |
| 01/11/2018 | Th | 6:01mt | 2:33r | 6:04r | 2:49r | 2:38r | 6:12r |
| 01/11/2018 | Th | 7:27r | 7:52t | 10:31t | 7:35r | 7:43t | 7:35t |
| 01/11/2018 | Th | 12:01t | 13:06s | 14:58s | 12:04t | 12:37s | 12:32s |
| 01/11/2018 | Th | 16:36s | | 16:34s | | | |
| 01/11/2018 | Th | 18:02et | | | | | |
| 01/12/2018 | F | 6:01mt | 3:32r | 6:07r | 2:49r | 2:35r | 6:08r |
| 01/12/2018 | F | 7:26r | 8:38t | 10:33t | 7:36r | 7:42t | 7:32t |
| 01/12/2018 | F | 12:02t | 13:39s | 15:00s | 12:06t | 12:34s | 12:28s |
| 01/12/2018 | F | 16:37s | | 16:36s | | | |
| 01/12/2018 | F | 18:03et | | | | | |
| 01/13/2018 | Sat | 6:00mt | 4:29r | 6:09r | 2:48r | 2:32r | 6:05r |
| 01/13/2018 | Sat | 7:26r | 9:24t | 10:35t | 7:36r | 7:40t | 7:28t |
| 01/13/2018 | Sat | 12:02t | 14:17s | 15:01s | 12:07t | 12:32s | 12:25s |
| 01/13/2018 | Sat | 16:38s | | 16:39s | | | |
| 01/13/2018 | Sat | 18:04et | | | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 01/14/2018 | Sun | 6:00mt | 5:23r | 6:12r | | 2:47r | 2:29r | 6:01r |
| 01/14/2018 | Sun | 7:25r | 10:11t | 10:38t | 7:37r | 7:39t | 7:25t | 10:30t |
| 01/14/2018 | Sun | 12:02t | 14:59s | 15:03s | 12:09t | 12:30s | 12:21s | 14:58s |
| 01/14/2018 | Sun | 16:40s | | | 16:41s | | | |
| 01/14/2018 | Sun | 18:05et | | | | | | |
| 01/15/2018 | M | 6:00mt | 6:13r | 6:15r | | 2:47r | 2:25r | 5:58r |
| 01/15/2018 | M | 7:25r | 10:59t | 10:40t | 7:37r | 7:37t | 7:22t | 10:26t |
| 01/15/2018 | M | 12:03t | 15:45s | 15:05s | 12:10t | 12:28s | 12:18s | 14:54s |
| 01/15/2018 | M | 16:41s | | | 16:44s | | | |
| 01/15/2018 | M | 18:06et | | | | | | |
| 01/16/2018 | Tu | 5:59mt | 7:00r | 6:17r | | 2:46r | 2:22r | 5:54r |
| 01/16/2018 | Tu | 7:24r | 11:47t | 10:42t | 7:37r | 7:36t | 7:18t | 10:23t |
| 01/16/2018 | Tu | 12:03t | 16:37s | 15:07s | 12:11t | 12:26s | 12:14s | 14:51s |
| 01/16/2018 | Tu | 16:42s | | | 16:46s | | | |
| 01/16/2018 | Tu | 18:07et | 19:17NM | | | | | |
| 01/17/2018 | W | 5:59mt | | 6:20r | | 2:45r | 2:19r | 5:51r |
| 01/17/2018 | W | 7:24r | 7:41r | 10:44t | 7:38r | 7:35t | 7:15t | 10:19t |
| 01/17/2018 | W | 12:03t | 12:35t | 15:09s | 12:13t | 12:24s | 12:11s | 14:48s |
| 01/17/2018 | W | 16:43s | 17:32s | | 16:48s | | | |
| 01/17/2018 | W | 18:08et | | | | | | |
| 01/18/2018 | Th | 5:58mt | | 6:22r | | 2:45r | 2:16r | 5:47r |
| 01/18/2018 | Th | 7:23r | 8:19r | 10:47t | 7:38r | 7:33t | 7:11t | 10:16t |
| 01/18/2018 | Th | 12:04t | 13:22t | 15:11s | 12:14t | 12:22s | 12:07s | 14:44s |
| 01/18/2018 | Th | 16:45s | | | 16:51s | | | |
| 01/18/2018 | Th | 18:09et | 18:30s | | | | | |
| 01/19/2018 | F | 5:58mt | | 6:24r | | 2:44r | 2:12r | 5:44r |
| 01/19/2018 | F | 7:22r | 8:52r | 10:49t | 7:38r | 7:32t | 7:08t | 10:12t |
| 01/19/2018 | F | 12:04t | 14:08t | 15:14s | 12:15t | 12:19s | 12:03s | 14:41s |
| 01/19/2018 | F | 16:46s | | | 16:54s | | | |
| 01/19/2018 | F | 18:10et | 19:30s | | | | | |
| 01/20/2018 | Sat | 5:57mt | | 6:27r | | 2:43r | 2:09r | 5:40r |
| 01/20/2018 | Sat | 7:22r | 9:23r | 10:52t | 7:38r | 7:30t | 7:05t | 10:09t |
| 01/20/2018 | Sat | 12:04t | 14:54t | 15:16s | 12:17t | 12:17s | 12:00s | 14:37s |
| 01/20/2018 | Sat | 16:47s | | | 16:56s | | | |
| 01/20/2018 | Sat | 18:12et | 20:32s | | | | | |
| 01/21/2018 | Sun | 5:57mt | | 6:29r | | 2:42r | 2:06r | 5:37r |
| 01/21/2018 | Sun | 7:21r | 9:51r | 10:54t | 7:38r | 7:29t | 7:01t | 10:05t |
| 01/21/2018 | Sun | 12:05t | 15:39t | 15:19s | 12:18t | 12:15s | 11:56s | 14:34s |
| 01/21/2018 | Sun | 16:49s | | | 16:59s | | | |
| 01/21/2018 | Sun | 18:13et | 21:34s | | | | | |
| 01/22/2018 | M | 5:56mt | | 6:31r | | 2:42r | 2:03r | 5:33r |
| 01/22/2018 | M | 7:20r | 10:19r | 10:57t | 7:38r | 7:28t | 6:58t | 10:02t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 01/22/2018 | M | 12:05t | 16:24t | 15:22s | 12:19t | 12:13s | 11:53s | 14:30s |
| 01/22/2018 | M | 16:50s | | | 17:01s | | | |
| 01/22/2018 | M | 18:14et | 22:38s | | | | | |
| 01/23/2018 | Tu | 5:56mt | | 6:33r | | 2:41r | 1:59r | 5:30r |
| 01/23/2018 | Tu | 7:19r | 10:47r | 10:59t | 7:38r | 7:26t | 6:54t | 9:58t |
| 01/23/2018 | Tu | 12:05t | | 15:25s | 12:21t | 12:11s | 11:49s | 14:27s |
| 01/23/2018 | Tu | 16:51s | 17:11t | | 17:04s | | | |
| 01/23/2018 | Tu | 18:15et | 23:44s | | | | | |
| 01/24/2018 | W | 5:55mt | | 6:36r | | 2:40r | 1:56r | 5:26r |
| 01/24/2018 | W | 7:19r | 11:17r | 11:02t | 7:38r | 7:25t | 6:51t | 9:55t |
| 01/24/2018 | W | 12:05t | 15:20FQ | 15:28s | 12:22t | 12:09s | 11:46s | 14:23s |
| 01/24/2018 | W | 16:53s | 17:59t | | 17:07s | | | |
| 01/24/2018 | W | 18:16et | | | | | | |
| 01/25/2018 | Th | 5:54mt | 0:51s | 6:38r | | 2:39r | 1:53r | 5:23r |
| 01/25/2018 | Th | 7:18r | | 11:05t | 7:38r | 7:23t | 6:47t | 9:52t |
| 01/25/2018 | Th | 12:06t | 11:50r | 15:32s | 12:23t | 12:07s | 11:42s | 14:20s |
| 01/25/2018 | Th | 16:54s | | | 17:09s | | | |
| 01/25/2018 | Th | 18:17et | 18:51t | | | | | |
| 01/26/2018 | F | 5:54mt | 2:01s | 6:40r | | 2:39r | 1:50r | 5:20r |
| 01/26/2018 | F | 7:17r | | 11:07t | 7:37r | 7:22t | 6:44t | 9:48t |
| 01/26/2018 | F | 12:06t | 12:28r | 15:35s | 12:24t | 12:05s | 11:39s | 14:17s |
| 01/26/2018 | F | 16:55s | | | 17:12s | | | |
| 01/26/2018 | F | 18:19et | 19:46t | | | | | |
| 01/27/2018 | Sat | 5:53mt | 3:11s | | | 2:38r | 1:46r | 5:16r |
| 01/27/2018 | Sat | 7:16r | | 6:41r | 7:37r | 7:21t | 6:41t | 9:45t |
| 01/27/2018 | Sat | 12:06t | 13:13r | 11:10t | 12:25t | 12:03s | 11:35s | 14:13s |
| 01/27/2018 | Sat | 16:57s | | 15:39s | 17:14s | | | |
| 01/27/2018 | Sat | 18:20et | 20:44t | | | | | |
| 01/28/2018 | Sun | 5:52mt | 4:21s | | | 2:37r | 1:43r | 5:13r |
| 01/28/2018 | Sun | 7:15r | | 6:43r | 7:37r | 7:19t | 6:37t | 9:41t |
| 01/28/2018 | Sun | 12:06t | 14:06r | 11:13t | 12:27t | 12:01s | 11:31s | 14:10s |
| 01/28/2018 | Sun | 16:58s | | 15:43s | 17:17s | | | |
| 01/28/2018 | Sun | 18:21et | 21:46t | | | | | |
| 01/29/2018 | M | 5:51mt | 5:26s | | | 2:36r | 1:39r | 5:09r |
| 01/29/2018 | M | 7:14r | | 6:45r | 7:36r | 7:18t | 6:34t | 9:38t |
| 01/29/2018 | M | 12:06t | 15:08r | 11:15t | 12:28t | 11:59s | 11:28s | 14:06s |
| 01/29/2018 | M | 16:59s | | 15:47s | 17:20s | | | |
| 01/29/2018 | M | 18:22et | 22:48t | | | | | |
| 01/30/2018 | Tu | 5:50mt | 6:25s | | | 2:36r | 1:36r | 5:06r |
| 01/30/2018 | Tu | 7:13r | | 6:47r | 7:36r | 7:16t | 6:30t | 9:34t |
| 01/30/2018 | Tu | 12:07t | | 11:18t | 12:29t | 11:57s | 11:24s | 14:03s |
| 01/30/2018 | Tu | 17:01s | 16:17r | 15:51s | 17:23s | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 01/30/2018 | Tu | 18:23et | 23:50t | | | | |
| 01/31/2018 | W | 5:49mt | | | 2:35r | 1:33r | 5:02r |
| 01/31/2018 | W | 7:12r | 6:27FM | 6:48r | 7:15t | 6:27t | |
| 01/31/2018 | W | 12:07t | 7:16s | 11:21t | 7:35r | 11:55s | 11:21s |
| 01/31/2018 | W | 17:02s | | 15:55s | 12:30t | | 13:59s |
| 01/31/2018 | W | 18:25et | 17:31r | 17:25s | | | |
| 02/01/2018 | Th | 5:48mt | 0:50t | | 2:34r | 1:29r | 4:59r |
| 02/01/2018 | Th | 7:11r | 7:59s | 6:49r | 7:35r | 7:14t | 6:23t |
| 02/01/2018 | Th | 12:07t | | 11:24t | 12:31t | 11:53s | 11:17s |
| 02/01/2018 | Th | 17:03s | | 15:59s | 17:28s | | 13:56s |
| 02/01/2018 | Th | 18:26et | 18:45r | | | | |
| 02/02/2018 | F | 5:47mt | 1:46t | | 2:33r | 1:26r | 4:55r |
| 02/02/2018 | F | 7:09r | 8:36s | 6:51r | 7:34r | 7:12t | 6:20t |
| 02/02/2018 | F | 12:07t | | 11:27t | 12:32t | 11:51s | 11:13s |
| 02/02/2018 | F | 17:05s | | 16:03s | 17:31s | | 13:52s |
| 02/02/2018 | F | 18:27et | 19:58r | | | | |
| 02/03/2018 | Sat | 5:46mt | 2:38t | | 2:32r | 1:22r | 4:51r |
| 02/03/2018 | Sat | 7:08r | 9:09s | 6:52r | 7:33r | 7:11t | 6:16t |
| 02/03/2018 | Sat | 12:07t | | 11:30t | 12:33t | 11:49s | 11:10s |
| 02/03/2018 | Sat | 17:06s | | 16:08s | 17:33s | | 13:49s |
| 02/03/2018 | Sat | 18:28et | 21:08r | | | | |
| 02/04/2018 | Sun | 5:45mt | 3:28t | | 2:32r | 1:19r | 4:48r |
| 02/04/2018 | Sun | 7:07r | 9:39s | 6:53r | 7:33r | 7:09t | 6:13t |
| 02/04/2018 | Sun | 12:07t | | 11:33t | 12:34t | 11:47s | 11:06s |
| 02/04/2018 | Sun | 17:08s | | 16:12s | 17:36s | | 13:45s |
| 02/04/2018 | Sun | 18:29et | 22:15r | | | | |
| 02/05/2018 | M | 5:44mt | 4:16t | | 2:31r | 1:16r | 4:44r |
| 02/05/2018 | M | 7:06r | 10:08s | 6:54r | 7:32r | 7:08t | 6:09t |
| 02/05/2018 | M | 12:07t | | 11:35t | 12:35t | 11:45s | 11:02s |
| 02/05/2018 | M | 17:09s | | 16:17s | 17:39s | | 13:42s |
| 02/05/2018 | M | 18:31et | 23:20r | | | | |
| 02/06/2018 | Tu | 5:43mt | 5:02t | | 2:30r | 1:12r | 4:41r |
| 02/06/2018 | Tu | 7:05r | 10:37s | 6:55r | 7:31r | 7:07t | 6:05t |
| 02/06/2018 | Tu | 12:07t | | 11:38t | 12:36t | 11:43s | 10:59s |
| 02/06/2018 | Tu | 17:10s | | 16:22s | 17:41s | | 13:38s |
| 02/06/2018 | Tu | 18:32et | | | | | |
| 02/07/2018 | W | 5:42mt | 0:22r | | 2:29r | 1:09r | 4:37r |
| 02/07/2018 | W | 7:03r | 5:48t | 6:56r | 7:30r | 7:05t | 6:02t |
| 02/07/2018 | W | | 8:54LQ | | | 10:55s | 9:06t |
| 02/07/2018 | W | 12:07t | 11:07s | 11:41t | 12:37t | 11:41s | |
| 02/07/2018 | W | 17:12s | | 16:27s | 17:44s | | 13:35s |
| 02/07/2018 | W | 18:33et | | | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|---------|---------|--------|--------|---------|--------|
| 02/08/2018 | Th 5:41mt | 1:23r | | | 2:28r | 1:05r | 4:34r |
| 02/08/2018 | Th 7:02r | 6:34t | 6:57r | 7:30r | 7:04t | 5:58t | 9:03t |
| 02/08/2018 | Th 12:07t | 11:40s | 11:44t | 12:38t | 11:39s | 10:51s | 13:31s |
| 02/08/2018 | Th 17:13s | | 16:32s | 17:47s | | | |
| 02/08/2018 | Th 18:34et | | | | | | |
| 02/09/2018 | F 5:40mt | 2:21r | | | 2:27r | 1:02r | 4:30r |
| 02/09/2018 | F 7:01r | 7:20t | 6:58r | 7:29r | 7:03t | 5:55t | 8:59t |
| 02/09/2018 | F 12:07t | 12:16s | 11:47t | 12:39t | 11:38s | 10:48s | 13:28s |
| 02/09/2018 | F 17:15s | | 16:37s | 17:50s | | | |
| 02/09/2018 | F 18:36et | | | | | | |
| 02/10/2018 | Sat 5:39mt | 3:16r | | | 2:26r | 0:58r | 4:27r |
| 02/10/2018 | Sat 6:59r | 8:07t | 6:59r | 7:28r | 7:01t | 5:51t | 8:56t |
| 02/10/2018 | Sat 12:07t | 12:56s | 11:50t | 12:40t | 11:36s | 10:44s | 13:24s |
| 02/10/2018 | Sat 17:16s | | 16:42s | 17:52s | | | |
| 02/10/2018 | Sat 18:37et | | | | | | |
| 02/11/2018 | Sun 5:37mt | 4:08r | | | 2:26r | 0:55r | 4:23r |
| 02/11/2018 | Sun 6:58r | 8:55t | 6:59r | 7:27r | 7:00t | 5:47t | 8:52t |
| 02/11/2018 | Sun 12:07t | 13:41s | 11:53t | 12:40t | 11:34s | 10:40s | 13:21s |
| 02/11/2018 | Sun 17:17s | | 16:48s | 17:55s | | | |
| 02/11/2018 | Sun 18:38et | | | | | | |
| 02/12/2018 | M 5:36mt | 4:56r | | | 2:25r | 0:51r | 4:20r |
| 02/12/2018 | M 6:57r | 9:43t | 7:00r | 7:26r | 6:58t | 5:44t | 8:48t |
| 02/12/2018 | M 12:07t | 14:31s | 11:56t | 12:41t | 11:32s | 10:37s | 13:17s |
| 02/12/2018 | M 17:19s | | 16:53s | 17:58s | | | |
| 02/12/2018 | M 18:39et | | | | | | |
| 02/13/2018 | Tu 5:35mt | 5:40r | | | 2:24r | 0:48r | 4:16r |
| 02/13/2018 | Tu 6:55r | 10:31t | 7:00r | 7:25r | 6:57t | 5:40t | 8:45t |
| 02/13/2018 | Tu 12:07t | 15:25s | 11:59t | 12:42t | 11:30s | 10:33s | 13:14s |
| 02/13/2018 | Tu 17:20s | | 16:59s | 18:00s | | | |
| 02/13/2018 | Tu 18:41et | | | | | | |
| 02/14/2018 | W 5:33mt | | | | 2:23r | 0:44r | 4:13r |
| 02/14/2018 | W 6:54r | 6:19r | 7:01r | 7:24r | 6:56t | 5:37t | 8:41t |
| 02/14/2018 | W 12:07t | 11:18t | 12:02t | 12:43t | 11:28s | 10:29s | 13:10s |
| 02/14/2018 | W 17:22s | 16:22s | 17:04s | 18:03s | | | |
| 02/14/2018 | W 18:42et | | | | | | |
| 02/15/2018 | Th 5:32mt | | | | 2:22r | 0:40r | 4:09r |
| 02/15/2018 | Th 6:52r | 6:54r | 7:01r | 7:23r | 6:54t | 5:33t | 8:38t |
| 02/15/2018 | Th 12:07t | 12:05t | 12:05t | 12:44t | 11:27s | 10:25s | 13:07s |
| 02/15/2018 | Th | 14:05NM | 17:10s | | | | |
| 02/15/2018 | Th 17:23s | 17:22s | | 18:06s | | | |
| 02/15/2018 | Th 18:43et | | | | | | |
| 02/16/2018 | F | | | | 2:21r | 0:37r | 4:05r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 02/16/2018 | F | 5:31mt | | | | | 5:29t | |
| 02/16/2018 | F | 6:51r | 7:25r | 7:01r | 7:22r | 6:53t | 10:22s | 8:34t |
| 02/16/2018 | F | 12:07t | 12:51t | 12:08t | 12:45t | 11:25s | | 13:03s |
| 02/16/2018 | F | 17:24s | 18:24s | 17:16s | 18:08s | | | |
| 02/16/2018 | F | 18:44et | | | | | | |
| 02/17/2018 | Sat | | | | | 2:20r | 0:33r | 4:02r |
| 02/17/2018 | Sat | 5:29mt | | | | | 5:26t | |
| 02/17/2018 | Sat | 6:49r | 7:55r | 7:02r | 7:20r | 6:52t | 10:18s | 8:31t |
| 02/17/2018 | Sat | 12:07t | 13:37t | 12:11t | 12:45t | 11:23s | | 13:00s |
| 02/17/2018 | Sat | 17:26s | | 17:21s | 18:11s | | | |
| 02/17/2018 | Sat | 18:46et | 19:27s | | | | | |
| 02/18/2018 | Sun | | | | | 2:19r | 0:29r | 3:58r |
| 02/18/2018 | Sun | 5:28mt | | | | | 5:22t | |
| 02/18/2018 | Sun | 6:48r | 8:23r | 7:02r | 7:19r | 6:50t | 10:14s | 8:27t |
| 02/18/2018 | Sun | 12:07t | 14:23t | 12:14t | 12:46t | 11:21s | | 12:56s |
| 02/18/2018 | Sun | 17:27s | | 17:27s | 18:14s | | | |
| 02/18/2018 | Sun | 18:47et | 20:31s | | | | | |
| 02/19/2018 | M | | | | | 2:18r | 0:26r | 3:55r |
| 02/19/2018 | M | 5:27mt | | | | | 5:18t | |
| 02/19/2018 | M | 6:46r | 8:51r | 7:02r | 7:18r | 6:49t | 10:11s | 8:24t |
| 02/19/2018 | M | 12:07t | 15:09t | 12:17t | 12:47t | 11:19s | | 12:52s |
| 02/19/2018 | M | 17:28s | | 17:33s | 18:16s | | | |
| 02/19/2018 | M | 18:48et | 21:36s | | | | | |
| 02/20/2018 | Tu | | | | | 2:17r | 0:22r | 3:51r |
| 02/20/2018 | Tu | 5:25mt | | | | | 5:14t | |
| 02/20/2018 | Tu | 6:45r | 9:20r | 7:02r | 7:17r | 6:47t | 10:07s | 8:20t |
| 02/20/2018 | Tu | 12:07t | 15:57t | 12:20t | 12:48t | 11:18s | | 12:49s |
| 02/20/2018 | Tu | 17:30s | | 17:39s | 18:19s | | | |
| 02/20/2018 | Tu | 18:49et | 22:43s | | | | | |
| 02/21/2018 | W | | | | | 2:16r | 0:18r | 3:47r |
| 02/21/2018 | W | 5:24mt | | | | | 5:11t | |
| 02/21/2018 | W | 6:43r | 9:52r | 7:02r | 7:16r | 6:46t | 10:03s | 8:16t |
| 02/21/2018 | W | 12:07t | 16:46t | 12:23t | 12:48t | 11:16s | | 12:45s |
| 02/21/2018 | W | 17:31s | | 17:45s | 18:22s | | | |
| 02/21/2018 | W | 18:51et | 23:51s | | | | | |
| 02/22/2018 | Th | | | | | 2:15r | 0:15r | 3:44r |
| 02/22/2018 | Th | 5:22mt | | | | | 5:07t | |
| 02/22/2018 | Th | 6:42r | 10:27r | 7:01r | 7:14r | 6:45t | 9:59s | 8:13t |
| 02/22/2018 | Th | 12:07t | | 12:26t | 12:49t | 11:14s | | 12:42s |
| 02/22/2018 | Th | 17:32s | 17:39t | 17:52s | 18:24s | | | |
| 02/22/2018 | Th | 18:52et | | | | | | |
| 02/23/2018 | F | | 0:59s | | | | 0:11r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 02/23/2018 | F | 5:21mt | 1:09FQ | | | 2:14r | 5:03t | 3:40r |
| 02/23/2018 | F | 6:40r | 11:08r | 7:01r | 7:13r | 6:43t | 9:55s | 8:09t |
| 02/23/2018 | F | 12:06t | | 12:29t | 12:50t | 11:12s | | 12:38s |
| 02/23/2018 | F | 17:34s | 18:34t | 17:58s | 18:27s | | | |
| 02/23/2018 | F | 18:53et | | | | | | |
| 02/24/2018 | Sat | | 2:07s | | | 2:13r | 0:07r | 3:37r |
| 02/24/2018 | Sat | 5:19mt | | | | | 4:59t | |
| 02/24/2018 | Sat | 6:38r | | 7:01r | 7:12r | 6:42t | 9:52s | 8:06t |
| 02/24/2018 | Sat | 12:06t | 11:56r | 12:32t | 12:50t | 11:11s | | 12:35s |
| 02/24/2018 | Sat | 17:35s | | 18:04s | 18:29s | | | |
| 02/24/2018 | Sat | 18:55et | 19:32t | | | | | |
| 02/25/2018 | Sun | | 3:12s | | | 2:12r | 0:04r | 3:33r |
| 02/25/2018 | Sun | 5:17mt | | | | | 4:56t | |
| 02/25/2018 | Sun | 6:37r | | 7:00r | 7:11r | 6:41t | 9:48s | 8:02t |
| 02/25/2018 | Sun | 12:06t | 12:52r | 12:35t | 12:51t | 11:09s | | 12:31s |
| 02/25/2018 | Sun | 17:36s | | 18:10s | 18:32s | | | |
| 02/25/2018 | Sun | 18:56et | 20:32t | | | | 24:00r | |
| 02/26/2018 | M | 5:16mt | 4:11s | | | 2:11r | 4:52t | 3:29r |
| 02/26/2018 | M | 6:35r | | 7:00r | 7:09r | 6:39t | 9:44s | 7:58t |
| 02/26/2018 | M | 12:06t | 13:56r | 12:38t | 12:52t | 11:07s | | 12:28s |
| 02/26/2018 | M | 17:38s | | 18:17s | 18:35s | | | |
| 02/26/2018 | M | 18:57et | 21:32t | | | | 23:56r | |
| 02/27/2018 | Tu | 5:14mt | 5:04s | | | 2:10r | 4:48t | 3:26r |
| 02/27/2018 | Tu | 6:33r | | 6:59r | 7:08r | 6:38t | 9:40s | 7:55t |
| 02/27/2018 | Tu | 12:06t | 15:05r | 12:40t | 12:52t | 11:06s | | 12:24s |
| 02/27/2018 | Tu | 17:39s | | 18:23s | 18:37s | | | |
| 02/27/2018 | Tu | 18:58et | 22:32t | | | | 23:52r | |
| 02/28/2018 | W | 5:13mt | 5:49s | | | 2:09r | 4:44t | 3:22r |
| 02/28/2018 | W | 6:32r | | 6:59r | 7:07r | 6:36t | 9:36s | 7:51t |
| 02/28/2018 | W | 12:06t | 16:18r | 12:43t | 12:53t | 11:04s | | 12:20s |
| 02/28/2018 | W | 17:40s | | 18:29s | 18:40s | | | |
| 02/28/2018 | W | 19:00et | 23:29t | | | | 23:48r | |
| 03/01/2018 | Th | 5:11mt | 6:29s | | | 2:08r | 4:40t | 3:19r |
| 03/01/2018 | Th | 6:30r | | 6:58r | 7:05r | 6:35t | 9:32s | 7:48t |
| 03/01/2018 | Th | 12:05t | 17:32r | 12:46t | 12:53t | 11:02s | | 12:17s |
| 03/01/2018 | Th | 17:42s | 17:51FM | 18:35s | 18:43s | | | |
| 03/01/2018 | Th | 19:01et | | | | | 23:45r | |
| 03/02/2018 | F | 5:09mt | 0:23t | | | 2:07r | 4:37t | 3:15r |
| 03/02/2018 | F | 6:28r | 7:04s | 6:57r | 7:04r | 6:34t | 9:29s | 7:44t |
| 03/02/2018 | F | 12:05t | | 12:49t | 12:54t | 11:01s | | 12:13s |
| 03/02/2018 | F | 17:43s | 18:44r | 18:42s | 18:45s | | | |
| 03/02/2018 | F | 19:02et | | | | | 23:41r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 03/03/2018 | Sat | 5:08mt | 1:15t | | 2:06r | 4:33t | 3:11r | |
| 03/03/2018 | Sat | 6:27r | 7:35s | 6:57r | 7:03r | 6:32t | 9:25s | 7:40t |
| 03/03/2018 | Sat | 12:05t | | 12:51t | 12:55t | 10:59s | | 12:10s |
| 03/03/2018 | Sat | 17:44s | | 18:48s | 18:48s | | | |
| 03/03/2018 | Sat | 19:03et | 19:54r | | | | 23:37r | |
| 03/04/2018 | Sun | 5:06mt | 2:04t | | 2:04r | 4:29t | 3:08r | |
| 03/04/2018 | Sun | 6:25r | 8:05s | 6:56r | 7:01r | 6:31t | 9:21s | 7:37t |
| 03/04/2018 | Sun | 12:05t | | 12:54t | 12:55t | 10:57s | | 12:06s |
| 03/04/2018 | Sun | 17:46s | | 18:54s | 18:50s | | | |
| 03/04/2018 | Sun | 19:05et | 21:01r | | | | 23:33r | |
| 03/05/2018 | M | 5:04mt | 2:52t | | 2:03r | 4:25t | 3:04r | |
| 03/05/2018 | M | 6:23r | 8:35s | 6:54r | 7:00r | 6:30t | 9:17s | 7:33t |
| 03/05/2018 | M | 12:05t | | 12:56t | 12:56t | 10:56s | | 12:02s |
| 03/05/2018 | M | 17:47s | | 18:59s | 18:53s | | | |
| 03/05/2018 | M | 19:06et | 22:07r | | | | 23:29r | |
| 03/06/2018 | Tu | 5:02mt | 3:40t | | 2:02r | 4:21t | 3:00r | |
| 03/06/2018 | Tu | 6:21r | 9:05s | 6:53r | 6:58r | 6:28t | 9:13s | 7:29t |
| 03/06/2018 | Tu | 12:04t | | 12:58t | 12:57t | 10:54s | | 11:59s |
| 03/06/2018 | Tu | 17:48s | | 19:05s | 18:56s | | | |
| 03/06/2018 | Tu | 19:07et | 23:10r | | | | 23:25r | |
| 03/07/2018 | W | 5:01mt | 4:26t | | 2:01r | 4:17t | 2:57r | |
| 03/07/2018 | W | 6:20r | 9:37s | 6:52r | 6:57r | 6:27t | 9:09s | 7:26t |
| 03/07/2018 | W | 12:04t | | 13:00t | 12:57t | 10:52s | | 11:55s |
| 03/07/2018 | W | 17:49s | | | 18:58s | | | |
| 03/07/2018 | W | 19:09et | | 19:10s | | | 23:21r | |
| 03/08/2018 | Th | 4:59mt | 0:10r | | 2:00r | 4:13t | 2:53r | |
| 03/08/2018 | Th | 6:18r | 5:14t | 6:50r | 6:56r | 6:25t | 9:05s | 7:22t |
| 03/08/2018 | Th | 12:04t | 10:12s | 13:02t | 12:58t | 10:51s | | 11:51s |
| 03/08/2018 | Th | 17:51s | | | 19:01s | | | |
| 03/08/2018 | Th | 19:10et | | 19:15s | | | 23:17r | |
| 03/09/2018 | F | | 1:08r | | 1:59r | 4:09t | 2:49r | |
| 03/09/2018 | F | 4:57mt | 4:20LQ | | | | | |
| 03/09/2018 | F | 6:16r | 6:01t | 6:49r | 6:54r | 6:24t | 9:01s | 7:18t |
| 03/09/2018 | F | 12:04t | 10:51s | 13:03t | 12:58t | 10:49s | | 11:48s |
| 03/09/2018 | F | 17:52s | | | 19:03s | | | |
| 03/09/2018 | F | 19:11et | | 19:20s | | | 23:14r | |
| 03/10/2018 | Sat | 4:55mt | 2:01r | | 1:57r | 4:05t | 2:46r | |
| 03/10/2018 | Sat | 6:14r | 6:49t | 6:47r | 6:53r | 6:23t | 8:57s | 7:15t |
| 03/10/2018 | Sat | 12:03t | 11:35s | 13:05t | 12:59t | 10:48s | | 11:44s |
| 03/10/2018 | Sat | 17:53s | | | 19:06s | | | |
| 03/10/2018 | Sat | 19:12et | | 19:24s | | | 23:10r | |
| 03/11/2018 | Sun | 4:53mt | 2:51r | | 1:56r | 4:02t | 2:42r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|--------|---------|--------|--------|---------|--------|
| 03/11/2018 | Sun 6:12r | 7:37t | 6:45r | 6:51r | 6:21t | 8:54s | 7:11t |
| 03/11/2018 | Sun 12:03t | 12:23s | 13:06t | 12:59t | 10:46s | | 11:40s |
| 03/11/2018 | Sun 17:54s | | | 19:08s | | | |
| 03/11/2018 | Sun 19:14et | | 19:28s | | | 23:06r | |
| 03/12/2018 | M 4:52mt | 3:36r | | | 1:55r | 3:58t | 2:38r |
| 03/12/2018 | M 6:11r | 8:25t | 6:43r | 6:50r | 6:20t | 8:50s | 7:07t |
| 03/12/2018 | M 12:03t | 13:15s | 13:06t | 13:00t | 10:44s | | 11:37s |
| 03/12/2018 | M 17:56s | | | 19:11s | | | |
| 03/12/2018 | M 19:15et | | 19:31s | | | 23:02r | |
| 03/13/2018 | Tu 4:50mt | 4:17r | | | 1:54r | 3:54t | 2:34r |
| 03/13/2018 | Tu 6:09r | 9:12t | 6:40r | 6:49r | 6:18t | 8:46s | 7:04t |
| 03/13/2018 | Tu 12:03t | 14:12s | 13:06t | 13:01t | 10:43s | | 11:33s |
| 03/13/2018 | Tu 17:57s | | | 19:14s | | | |
| 03/13/2018 | Tu 19:16et | | 19:34s | | | 22:58r | |
| 03/14/2018 | W 4:48mt | 4:53r | | | 1:52r | 3:50t | 2:31r |
| 03/14/2018 | W 6:07r | 9:59t | 6:38r | 6:47r | 6:17t | 8:42s | 7:00t |
| 03/14/2018 | W 12:02t | 15:11s | 13:06t | 13:01t | 10:41s | | 11:29s |
| 03/14/2018 | W 17:58s | | | 19:16s | | | |
| 03/14/2018 | W 19:18et | | 19:36s | | | 22:54r | |
| 03/15/2018 | Th 4:46mt | 5:26r | | | 1:51r | 3:46t | 2:27r |
| 03/15/2018 | Th 6:05r | | 6:35r | 6:46r | 6:15t | 8:38s | 6:56t |
| 03/15/2018 | Th 12:02t | 10:46t | 13:06t | 13:02t | 10:40s | | 11:26s |
| 03/15/2018 | Th 18:00s | 16:13s | | 19:19s | | | |
| 03/15/2018 | Th 19:19et | | 19:38s | | | 22:49r | |
| 03/16/2018 | F 4:44mt | 5:56r | | | 1:50r | 3:42t | 2:23r |
| 03/16/2018 | F 6:03r | | 6:32r | 6:44r | 6:14t | 8:34s | 6:53t |
| 03/16/2018 | F 12:02t | 11:32t | 13:05t | 13:02t | 10:38s | | 11:22s |
| 03/16/2018 | F 18:01s | 17:16s | | | | | |
| 03/16/2018 | F 19:20et | | 19:39s | 19:21s | | 22:45r | |
| 03/17/2018 | Sat 4:42mt | | | | 1:48r | 3:38t | 2:20r |
| 03/17/2018 | Sat 6:02r | 6:12NM | | | 6:13t | | |
| 03/17/2018 | Sat | 6:25r | 6:29r | 6:43r | 10:37s | 8:30s | 6:49t |
| 03/17/2018 | Sat 12:01t | 12:19t | 13:03t | 13:03t | | | 11:18s |
| 03/17/2018 | Sat 18:02s | 18:21s | | | | | |
| 03/17/2018 | Sat 19:22et | | 19:39s | 19:24s | | 22:41r | |
| 03/18/2018 | Sun 4:40mt | | | | 1:47r | 3:34t | 2:16r |
| 03/18/2018 | Sun 6:00r | 6:54r | 6:25r | 6:42r | 6:11t | 8:26s | 6:45t |
| 03/18/2018 | Sun 12:01t | 13:05t | 13:02t | 13:04t | 10:35s | | 11:15s |
| 03/18/2018 | Sun 18:03s | | | | | | |
| 03/18/2018 | Sun 19:23et | 19:27s | 19:39s | 19:27s | | 22:37r | |
| 03/19/2018 | M 4:38mt | | | | 1:46r | 3:29t | 2:12r |
| 03/19/2018 | M 5:58r | 7:23r | 6:21r | 6:40r | 6:10t | 8:22s | 6:41t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 03/19/2018 | M | 12:01t | 13:53t | 12:59t | 13:04t | 10:34s | | 11:11s |
| 03/19/2018 | M | 18:05s | | | | | | |
| 03/19/2018 | M | 19:24et | 20:34s | 19:38s | 19:29s | | 22:33r | |
| 03/20/2018 | Tu | 4:36mt | | | | 1:44r | 3:25t | 2:08r |
| 03/20/2018 | Tu | 5:56r | 7:54r | 6:18r | 6:39r | 6:08t | 8:18s | 6:38t |
| 03/20/2018 | Tu | 9:15ME | | | | 10:32s | | 11:07s |
| 03/20/2018 | Tu | 12:01t | 14:43t | 12:56t | 13:05t | | | |
| 03/20/2018 | Tu | 18:06s | | | | | | |
| 03/20/2018 | Tu | 19:26et | 21:43s | 19:36s | 19:32s | | 22:29r | |
| 03/21/2018 | W | 4:35mt | | | | 1:43r | 3:21t | 2:05r |
| 03/21/2018 | W | 5:54r | 8:28r | 6:14r | 6:37r | 6:07t | 8:14s | 6:34t |
| 03/21/2018 | W | 12:00t | 15:35t | 12:53t | 13:05t | 10:31s | | 11:03s |
| 03/21/2018 | W | 18:07s | | | | | | |
| 03/21/2018 | W | 19:27et | 22:52s | 19:33s | 19:34s | | 22:25r | |
| 03/22/2018 | Th | 4:33mt | | | | 1:42r | 3:17t | 2:01r |
| 03/22/2018 | Th | 5:53r | 9:07r | 6:09r | 6:36r | 6:05t | 8:10s | 6:30t |
| 03/22/2018 | Th | 12:00t | 16:30t | 12:49t | 13:06t | 10:29s | | 11:00s |
| 03/22/2018 | Th | 18:08s | | | | | | |
| 03/22/2018 | Th | 19:28et | | 19:30s | 19:37s | | 22:21r | |
| 03/23/2018 | F | 4:31mt | 0:00s | | | 1:40r | 3:13t | 1:57r |
| 03/23/2018 | F | 5:51r | 9:52r | 6:05r | 6:35r | 6:04t | 8:06s | 6:27t |
| 03/23/2018 | F | 12:00t | 17:26t | 12:45t | 13:07t | 10:27s | | 10:56s |
| 03/23/2018 | F | 18:09s | | 19:25s | | | | |
| 03/23/2018 | F | 19:30et | | | 19:40s | | 22:17r | |
| 03/24/2018 | Sat | 4:29mt | 1:05s | | | 1:39r | 3:09t | 1:53r |
| 03/24/2018 | Sat | 5:49r | 8:35FQ | 6:00r | 6:33r | 6:02t | 8:01s | 6:23t |
| 03/24/2018 | Sat | 11:59t | 10:44r | 12:41t | 13:07t | 10:26s | | 10:52s |
| 03/24/2018 | Sat | 18:11s | 18:25t | 19:21s | | | | |
| 03/24/2018 | Sat | 19:31et | | | 19:42s | | 22:12r | |
| 03/25/2018 | Sun | 4:27mt | 2:05s | | | 1:37r | 3:05t | 1:50r |
| 03/25/2018 | Sun | 5:47r | | 5:56r | 6:32r | 6:01t | 7:57s | 6:19t |
| 03/25/2018 | Sun | 11:59t | 11:44r | 12:35t | 13:08t | 10:24s | | 10:48s |
| 03/25/2018 | Sun | 18:12s | 19:24t | 19:15s | | | | |
| 03/25/2018 | Sun | 19:33et | | | 19:45s | | 22:08r | |
| 03/26/2018 | M | 4:25mt | 2:59s | | | 1:36r | 3:01t | 1:46r |
| 03/26/2018 | M | 5:45r | | 5:51r | 6:31r | 5:59t | 7:53s | 6:15t |
| 03/26/2018 | M | 11:59t | 12:50r | 12:30t | 13:09t | 10:23s | | 10:45s |
| 03/26/2018 | M | 18:13s | | 19:09s | | | | |
| 03/26/2018 | M | 19:34et | 20:21t | | 19:47s | | 22:04r | |
| 03/27/2018 | Tu | 4:23mt | 3:45s | | | 1:34r | 2:57t | 1:42r |
| 03/27/2018 | Tu | 5:43r | | 5:46r | 6:29r | 5:58t | 7:49s | 6:11t |
| 03/27/2018 | Tu | 11:58t | 14:00r | 12:24t | 13:09t | 10:21s | | 10:41s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 03/27/2018 | Tu | 18:14s | | 19:02s | | | | |
| 03/27/2018 | Tu | 19:35et | 21:17t | | 19:50s | | 22:00r | |
| 03/28/2018 | W | 4:21mt | 4:25s | 5:41r | | 1:33r | 2:52t | 1:38r |
| 03/28/2018 | W | 5:42r | | | 6:28r | 5:56t | 7:45s | 6:08t |
| 03/28/2018 | W | 11:58t | 15:12r | 12:18t | 13:10t | 10:20s | | 10:37s |
| 03/28/2018 | W | 18:16s | | 18:55s | | | | |
| 03/28/2018 | W | 19:37et | 22:11t | | 19:53s | | 21:55r | |
| 03/29/2018 | Th | 4:19mt | 5:01s | 5:36r | | 1:31r | 2:48t | 1:34r |
| 03/29/2018 | Th | 5:40r | | | 6:27r | 5:55t | 7:41s | 6:04t |
| 03/29/2018 | Th | 11:58t | 16:23r | 12:12t | 13:11t | 10:18s | | 10:33s |
| 03/29/2018 | Th | 18:17s | | 18:47s | | | | |
| 03/29/2018 | Th | 19:38et | 23:03t | | 19:55s | | 21:51r | |
| 03/30/2018 | F | 4:17mt | 5:33s | 5:31r | | 1:30r | 2:44t | 1:31r |
| 03/30/2018 | F | 5:38r | | | 6:26r | 5:53t | 7:37s | 6:00t |
| 03/30/2018 | F | 11:58t | 17:33r | 12:06t | 13:11t | 10:17s | | 10:30s |
| 03/30/2018 | F | 18:18s | | 18:39s | | | | |
| 03/30/2018 | F | 19:40et | 23:53t | | 19:58s | | 21:47r | |
| 03/31/2018 | Sat | 4:15mt | | 5:27r | | 1:28r | 2:40t | 1:27r |
| 03/31/2018 | Sat | 5:36r | 5:37FM | | | 5:52t | | 5:56t |
| 03/31/2018 | Sat | 11:57t | 6:03s | 11:59t | 6:24r | 10:15s | 7:33s | 10:26s |
| 03/31/2018 | Sat | 18:19s | 18:41r | 18:30s | 13:12t | | | |
| 03/31/2018 | Sat | 19:41et | | | 20:01s | | 21:43r | |
| 04/01/2018 | Sun | 4:13mt | 0:41t | 5:22r | | 1:27r | 2:36t | 1:23r |
| 04/01/2018 | Sun | 5:34r | 6:32s | | 6:23r | 5:50t | 7:29s | 5:52t |
| 04/01/2018 | Sun | 11:57t | | 11:52t | 13:13t | 10:14s | | 10:22s |
| 04/01/2018 | Sun | 18:20s | | 18:22s | | | | |
| 04/01/2018 | Sun | 19:42et | 19:48r | | 20:03s | | 21:38r | |
| 04/02/2018 | M | 4:11mt | 1:29t | 5:17r | | 1:25r | 2:31t | 1:19r |
| 04/02/2018 | M | 5:33r | 7:02s | | 6:22r | 5:49t | 7:25s | 5:49t |
| 04/02/2018 | M | 11:57t | | 11:46t | 13:13t | 10:12s | | 10:18s |
| 04/02/2018 | M | 18:22s | | 18:13s | | | | |
| 04/02/2018 | M | 19:44et | 20:53r | | 20:06s | | 21:34r | |
| 04/03/2018 | Tu | 4:09mt | 2:17t | 5:12r | | 1:23r | 2:27t | 1:15r |
| 04/03/2018 | Tu | 5:31r | 7:34s | | 6:21r | 5:47t | 7:20s | 5:45t |
| 04/03/2018 | Tu | 11:56t | | 11:39t | 13:14t | 10:11s | | 10:14s |
| 04/03/2018 | Tu | 18:23s | | 18:04s | | | | |
| 04/03/2018 | Tu | 19:45et | 21:56r | | 20:09s | | 21:30r | |
| 04/04/2018 | W | 4:07mt | 3:05t | 5:08r | | 1:22r | 2:23t | 1:11r |
| 04/04/2018 | W | 5:29r | 8:08s | | 6:20r | 5:46t | 7:16s | 5:41t |
| 04/04/2018 | W | 11:56t | | 11:32t | 13:15t | 10:09s | | 10:11s |
| 04/04/2018 | W | 18:24s | | 17:56s | | | | |
| 04/04/2018 | W | 19:47et | 22:56r | | 20:11s | | 21:25r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 04/05/2018 | Th | 4:05mt | 3:53t | 5:04r | | 1:20r | 2:19t | 1:08r |
| 04/05/2018 | Th | 5:27r | 8:45s | | 6:18r | 5:44t | 7:12s | 5:37t |
| 04/05/2018 | Th | 11:56t | | 11:26t | 13:16t | 10:08s | | 10:07s |
| 04/05/2018 | Th | 18:25s | | 17:47s | | | | |
| 04/05/2018 | Th | 19:48et | 23:53r | | 20:14s | | 21:21r | |
| 04/06/2018 | F | 4:03mt | 4:41t | 4:59r | | 1:18r | 2:14t | 1:04r |
| 04/06/2018 | F | 5:25r | 9:27s | | 6:17r | 5:42t | 7:08s | 5:33t |
| 04/06/2018 | F | 11:56t | | 11:20t | 13:16t | 10:06s | | 10:03s |
| 04/06/2018 | F | 18:27s | | 17:39s | | | | |
| 04/06/2018 | F | 19:50et | | | 20:17s | | 21:17r | |
| 04/07/2018 | Sat | 4:01mt | 0:45r | 4:55r | | 1:17r | 2:10t | 1:00r |
| 04/07/2018 | Sat | 5:24r | 5:29t | | 6:16r | 5:41t | 7:04s | 5:29t |
| 04/07/2018 | Sat | 11:55t | 10:14s | 11:14t | 13:17t | 10:05s | | 9:59s |
| 04/07/2018 | Sat | 18:28s | | 17:31s | | | | |
| 04/07/2018 | Sat | 19:51et | | | 20:19s | | 21:12r | |
| 04/08/2018 | Sun | | 0:18LQ | | | 1:15r | | 0:56r |
| 04/08/2018 | Sun | 3:58mt | 1:32r | 4:51r | | | 2:06t | |
| 04/08/2018 | Sun | 5:22r | 6:17t | | 6:15r | 5:39t | 7:00s | 5:26t |
| 04/08/2018 | Sun | 11:55t | 11:05s | 11:08t | 13:18t | 10:03s | | 9:55s |
| 04/08/2018 | Sun | 18:29s | | 17:24s | | | | |
| 04/08/2018 | Sun | 19:53et | | | 20:22s | | 21:08r | |
| 04/09/2018 | M | 3:56mt | 2:14r | 4:48r | | 1:13r | 2:02t | 0:52r |
| 04/09/2018 | M | 5:20r | 7:05t | | 6:14r | 5:38t | 6:55s | 5:22t |
| 04/09/2018 | M | 11:55t | 11:59s | 11:03t | 13:19t | 10:02s | | 9:51s |
| 04/09/2018 | M | 18:30s | | 17:17s | | | | |
| 04/09/2018 | M | 19:54et | | | 20:25s | | 21:03r | |
| 04/10/2018 | Tu | 3:54mt | 2:51r | 4:44r | | 1:12r | 1:57t | 0:48r |
| 04/10/2018 | Tu | 5:18r | 7:52t | | 6:13r | 5:36t | 6:51s | 5:18t |
| 04/10/2018 | Tu | 11:54t | 12:57s | 10:58t | 13:20t | 10:00s | | 9:47s |
| 04/10/2018 | Tu | 18:31s | | 17:10s | | | | |
| 04/10/2018 | Tu | 19:56et | | | 20:27s | | 20:59r | |
| 04/11/2018 | W | 3:52mt | 3:25r | 4:41r | | 1:10r | 1:53t | 0:44r |
| 04/11/2018 | W | 5:17r | 8:38t | | 6:12r | 5:34t | 6:47s | 5:14t |
| 04/11/2018 | W | 11:54t | 13:58s | 10:53t | 13:21t | 9:59s | | 9:44s |
| 04/11/2018 | W | 18:33s | | 17:04s | | | | |
| 04/11/2018 | W | 19:57et | | | 20:30s | | 20:55r | |
| 04/12/2018 | Th | 3:50mt | 3:56r | 4:38r | | 1:08r | 1:49t | 0:40r |
| 04/12/2018 | Th | 5:15r | 9:25t | | 6:11r | 5:33t | 6:43s | 5:10t |
| 04/12/2018 | Th | 11:54t | 15:00s | 10:48t | 13:22t | 9:57s | | 9:40s |
| 04/12/2018 | Th | 18:34s | | 16:58s | | | | |
| 04/12/2018 | Th | 19:59et | | | 20:33s | | 20:50r | |
| 04/13/2018 | F | 3:48mt | 4:25r | 4:35r | | 1:06r | 1:44t | 0:37r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|-------|---------|--------|
| 04/13/2018 | F | 5:13r | | | 6:11r | 5:31t | 6:39s | 5:06t |
| 04/13/2018 | F | 11:54t | 10:11t | 10:44t | 13:22t | 9:56s | | 9:36s |
| 04/13/2018 | F | 18:35s | 16:05s | 16:53s | | | | |
| 04/13/2018 | F | 20:00et | | | 20:35s | | 20:46r | |
| 04/14/2018 | Sat | 3:46mt | 4:54r | 4:32r | | 1:05r | 1:40t | 0:33r |
| 04/14/2018 | Sat | 5:11r | | | 6:10r | 5:29t | 6:34s | 5:02t |
| 04/14/2018 | Sat | 11:53t | 10:58t | 10:40t | 13:23t | 9:54s | | 9:32s |
| 04/14/2018 | Sat | 18:36s | 17:11s | 16:48s | | | | |
| 04/14/2018 | Sat | 20:02et | | | 20:38s | | 20:41r | |
| 04/15/2018 | Sun | 3:44mt | | 4:29r | | 1:03r | 1:36t | 0:29r |
| 04/15/2018 | Sun | 5:10r | 5:23r | | 6:09r | 5:28t | 6:30s | 4:58t |
| 04/15/2018 | Sun | 11:53t | 11:46t | 10:36t | 13:24t | 9:53s | | 9:28s |
| 04/15/2018 | Sun | 18:37s | 18:19s | 16:44s | | | | |
| 04/15/2018 | Sun | 20:03et | 18:57NM | | 20:41s | | 20:37r | |
| 04/16/2018 | M | 3:42mt | | 4:26r | | 1:01r | 1:31t | 0:25r |
| 04/16/2018 | M | 5:08r | 5:53r | | 6:08r | 5:26t | 6:26s | 4:54t |
| 04/16/2018 | M | 11:53t | 12:36t | 10:33t | 13:25t | 9:51s | | 9:24s |
| 04/16/2018 | M | 18:39s | 19:29s | 16:40s | | | | |
| 04/16/2018 | M | 20:05et | | | 20:43s | | 20:32r | |
| 04/17/2018 | Tu | 3:40mt | | 4:24r | | 0:59r | 1:27t | 0:21r |
| 04/17/2018 | Tu | 5:06r | 6:26r | | 6:07r | 5:24t | 6:22s | 4:51t |
| 04/17/2018 | Tu | 11:53t | 13:28t | 10:30t | 13:26t | 9:50s | | 9:20s |
| 04/17/2018 | Tu | 18:40s | | 16:36s | | | | |
| 04/17/2018 | Tu | 20:06et | 20:40s | | 20:46s | | 20:28r | |
| 04/18/2018 | W | 3:38mt | | 4:21r | | 0:57r | 1:23t | 0:17r |
| 04/18/2018 | W | 5:05r | 7:04r | | 6:07r | 5:23t | 6:18s | 4:47t |
| 04/18/2018 | W | 11:52t | 14:23t | 10:27t | 13:27t | 9:48s | | 9:16s |
| 04/18/2018 | W | 18:41s | | 16:33s | | | | |
| 04/18/2018 | W | 20:08et | 21:51s | | 20:49s | | 20:23r | |
| 04/19/2018 | Th | 3:36mt | | 4:19r | | 0:55r | 1:18t | 0:13r |
| 04/19/2018 | Th | 5:03r | 7:48r | | 6:06r | 5:21t | 6:13s | 4:43t |
| 04/19/2018 | Th | 11:52t | 15:21t | 10:25t | 13:28t | 9:47s | | 9:12s |
| 04/19/2018 | Th | 18:42s | | 16:31s | | | | |
| 04/19/2018 | Th | 20:10et | 22:59s | | 20:51s | | 20:19r | |
| 04/20/2018 | F | 3:34mt | | 4:17r | | 0:53r | 1:14t | 0:09r |
| 04/20/2018 | F | 5:01r | 8:39r | | 6:06r | 5:19t | 6:09s | 4:39t |
| 04/20/2018 | F | 11:52t | 16:20t | 10:23t | 13:29t | 9:45s | | 9:08s |
| 04/20/2018 | F | 18:44s | | 16:29s | | | | |
| 04/20/2018 | F | 20:11et | | | 20:54s | | 20:14r | |
| 04/21/2018 | Sat | 3:32mt | 0:02s | 4:15r | | 0:51r | 1:10t | 0:05r |
| 04/21/2018 | Sat | 5:00r | | | 6:05r | 5:17t | 6:05s | 4:35t |
| 04/21/2018 | Sat | 11:52t | 9:37r | 10:21t | 13:30t | 9:43s | | 9:04s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|-------|---------|--------|
| 04/21/2018 Sat | 18:45s | 17:19t | 16:27s | | | 20:10r | |
| 04/21/2018 Sat | 20:13et | | | 20:56s | | | |
| 04/22/2018 Sun | 3:30mt | 0:58s | 4:13r | | 0:49r | 1:05t | 0:01r |
| 04/22/2018 Sun | 4:58r | | | 6:05r | 5:16t | 6:01s | 4:31t |
| 04/22/2018 Sun | 11:52t | 10:42r | 10:19t | 13:31t | 9:42s | | 9:00s |
| 04/22/2018 Sun | | 14:46FQ | 16:26s | | | | |
| 04/22/2018 Sun | 18:46s | 18:17t | | | | 20:05r | |
| 04/22/2018 Sun | 20:14et | | | 20:59s | | | 23:57r |
| 04/23/2018 M | 3:28mt | 1:46s | 4:11r | | 0:47r | 1:01t | 4:27t |
| 04/23/2018 M | 4:57r | | | 6:04r | 5:14t | 5:56s | 8:56s |
| 04/23/2018 M | 11:51t | 11:50r | 10:18t | 13:32t | 9:40s | | |
| 04/23/2018 M | 18:47s | 19:13t | 16:25s | | | 20:01r | |
| 04/23/2018 M | 20:16et | | | 21:02s | | | 23:53r |
| 04/24/2018 Tu | 3:26mt | 2:27s | 4:09r | | 0:45r | 0:56t | 4:23t |
| 04/24/2018 Tu | 4:55r | | | 6:04r | 5:12t | 5:52s | 8:52s |
| 04/24/2018 Tu | 11:51t | 13:00r | 10:16t | 13:34t | 9:39s | | |
| 04/24/2018 Tu | 18:48s | 20:06t | 16:24s | | | 19:56r | |
| 04/24/2018 Tu | 20:18et | | | 21:04s | | | 23:49r |
| 04/25/2018 W | 3:24mt | 3:02s | 4:07r | | 0:43r | 0:52t | 4:19t |
| 04/25/2018 W | 4:53r | | | 6:03r | 5:10t | 5:48s | 8:48s |
| 04/25/2018 W | 11:51t | 14:10r | 10:15t | 13:35t | 9:37s | | |
| 04/25/2018 W | 18:50s | | 16:24s | | | 19:52r | |
| 04/25/2018 W | 20:19et | 20:57t | | 21:07s | | | 23:45r |
| 04/26/2018 Th | 3:22mt | 3:34s | 4:06r | | 0:41r | 0:48t | 4:15t |
| 04/26/2018 Th | 4:52r | | | 6:03r | 5:08t | 5:43s | 8:44s |
| 04/26/2018 Th | 11:51t | 15:19r | 10:14t | 13:36t | 9:35s | | |
| 04/26/2018 Th | 18:51s | | 16:24s | | | 19:47r | |
| 04/26/2018 Th | 20:21et | 21:46t | | 21:09s | | | 23:41r |
| 04/27/2018 F | 3:20mt | 4:04s | 4:04r | | 0:39r | 0:43t | 4:11t |
| 04/27/2018 F | 4:50r | | | 6:03r | 5:06t | 5:39s | 8:40s |
| 04/27/2018 F | 11:51t | | 10:14t | 13:37t | 9:34s | | |
| 04/27/2018 F | 18:52s | 16:26r | 16:24s | | | 19:43r | |
| 04/27/2018 F | 20:23et | 22:34t | | 21:12s | | | 23:37r |
| 04/28/2018 Sat | 3:18mt | 4:32s | 4:03r | | 0:37r | 0:39t | 4:07t |
| 04/28/2018 Sat | 4:49r | | | 6:03r | 5:05t | 5:35s | 8:36s |
| 04/28/2018 Sat | 11:51t | | 10:13t | 13:38t | 9:32s | | |
| 04/28/2018 Sat | 18:53s | 17:33r | 16:25s | | | 19:38r | |
| 04/28/2018 Sat | 20:24et | 23:21t | | 21:14s | | | 23:33r |
| 04/29/2018 Sun | 3:16mt | | 4:01r | | 0:35r | 0:34t | 4:03t |
| 04/29/2018 Sun | 4:47r | 5:01s | | 6:03r | 5:03t | 5:31s | 8:32s |
| 04/29/2018 Sun | 11:51t | | 10:13t | 13:39t | 9:30s | | |
| 04/29/2018 Sun | | 17:58FM | 16:25s | | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|-------|---------|--------|
| 04/29/2018 Sun | 18:54s | 18:38r | | | | 19:33r | |
| 04/29/2018 Sun | 20:26et | | | 21:17s | | | 23:29r |
| 04/30/2018 M | 3:14mt | 0:09t | 4:00r | | 0:33r | 0:30t | 3:59t |
| 04/30/2018 M | 4:46r | 5:32s | | 6:02r | 5:01t | 5:26s | 8:28s |
| 04/30/2018 M | 11:50t | | 10:13t | 13:40t | 9:29s | | |
| 04/30/2018 M | 18:56s | 19:42r | 16:27s | | | 19:29r | |
| 04/30/2018 M | 20:28et | | | 21:19s | | | 23:25r |
| 05/01/2018 Tu | 3:13mt | 0:56t | 3:58r | | 0:31r | 0:25t | 3:55t |
| 05/01/2018 Tu | 4:44r | 6:04s | | 6:02r | 4:59t | 5:22s | 8:24s |
| 05/01/2018 Tu | 11:50t | | 10:13t | 13:42t | 9:27s | | |
| 05/01/2018 Tu | 18:57s | | 16:28s | | | 19:24r | |
| 05/01/2018 Tu | 20:29et | 20:44r | | 21:22s | | | 23:21r |
| 05/02/2018 W | 3:11mt | 1:44t | 3:57r | | 0:29r | 0:21t | 3:51t |
| 05/02/2018 W | 4:43r | 6:40s | | 6:03r | 4:57t | 5:18s | 8:20s |
| 05/02/2018 W | 11:50t | | 10:13t | 13:43t | 9:25s | | |
| 05/02/2018 W | 18:58s | | 16:30s | | | 19:20r | |
| 05/02/2018 W | 20:31et | 21:43r | | 21:24s | | | 23:17r |
| 05/03/2018 Th | 3:09mt | 2:33t | 3:55r | | 0:27r | 0:17t | 3:47t |
| 05/03/2018 Th | 4:42r | 7:21s | | 6:03r | 4:55t | 5:13s | 8:16s |
| 05/03/2018 Th | 11:50t | | 10:13t | 13:44t | 9:23s | | |
| 05/03/2018 Th | 18:59s | | 16:32s | | | 19:15r | |
| 05/03/2018 Th | 20:33et | 22:37r | | 21:26s | | | 23:13r |
| 05/04/2018 F | 3:07mt | 3:22t | 3:54r | | 0:25r | 0:12t | 3:43t |
| 05/04/2018 F | 4:40r | 8:05s | | 6:03r | 4:53t | 5:09s | 8:12s |
| 05/04/2018 F | 11:50t | | 10:14t | 13:45t | 9:21s | | |
| 05/04/2018 F | 19:00s | | 16:34s | | | 19:11r | |
| 05/04/2018 F | 20:34et | 23:27r | | 21:28s | | | 23:09r |
| 05/05/2018 Sat | 3:05mt | 4:10t | 3:53r | | 0:22r | 0:08t | 3:39t |
| 05/05/2018 Sat | 4:39r | 8:55s | | 6:03r | 4:51t | 5:05s | 8:08s |
| 05/05/2018 Sat | 11:50t | | 10:14t | 13:47t | 9:20s | | |
| 05/05/2018 Sat | 19:02s | | 16:36s | | | 19:06r | |
| 05/05/2018 Sat | 20:36et | | | 21:31s | | | 23:05r |
| 05/06/2018 Sun | 3:03mt | 0:11r | 3:52r | | 0:20r | 0:03t | 3:35t |
| 05/06/2018 Sun | 4:38r | 4:58t | | 6:03r | 4:49t | 5:01s | 8:04s |
| 05/06/2018 Sun | 11:50t | 9:48s | 10:15t | 13:48t | 9:18s | | |
| 05/06/2018 Sun | 19:03s | | 16:39s | | | 19:01r | |
| 05/06/2018 Sun | 20:38et | | | 21:33s | | 23:59t | 23:01r |
| 05/07/2018 M | 3:01mt | 0:50r | 3:51r | | 0:18r | | 3:31t |
| 05/07/2018 M | 4:36r | 5:45t | | 6:04r | 4:47t | 4:56s | 8:00s |
| 05/07/2018 M | 11:50t | 10:44s | 10:16t | 13:49t | 9:16s | | |
| 05/07/2018 M | 19:04s | 19:09LQ | 16:42s | | | 18:57r | |
| 05/07/2018 M | 20:39et | | | 21:35s | | 23:54t | 22:57r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 05/08/2018 | Tu | 3:00mt | 1:25r | 3:50r | | 0:16r | | 3:27t |
| 05/08/2018 | Tu | 4:35r | 6:31t | | 6:04r | 4:45t | 4:52s | 7:56s |
| 05/08/2018 | Tu | 11:50t | 11:43s | 10:17t | 13:50t | 9:14s | | |
| 05/08/2018 | Tu | 19:05s | | 16:45s | | | 18:52r | |
| 05/08/2018 | Tu | 20:41et | | | 21:37s | | 23:50t | 22:53r |
| 05/09/2018 | W | 2:58mt | 1:56r | 3:49r | | 0:13r | | 3:22t |
| 05/09/2018 | W | 4:34r | 7:17t | | 6:05r | 4:43t | 4:48s | 7:52s |
| 05/09/2018 | W | 11:50t | 12:44s | 10:18t | 13:52t | 9:12s | | |
| 05/09/2018 | W | 19:06s | | 16:49s | | | 18:48r | |
| 05/09/2018 | W | 20:43et | | | 21:39s | | 23:46t | 22:49r |
| 05/10/2018 | Th | 2:56mt | 2:26r | 3:48r | | 0:11r | | 3:18t |
| 05/10/2018 | Th | 4:32r | 8:02t | | 6:05r | 4:41t | 4:43s | 7:48s |
| 05/10/2018 | Th | 11:50t | 13:47s | 10:19t | 13:53t | 9:10s | | |
| 05/10/2018 | Th | 19:07s | | 16:52s | | | 18:43r | |
| 05/10/2018 | Th | 20:44et | | | 21:41s | | 23:41t | 22:45r |
| 05/11/2018 | F | 2:54mt | 2:54r | 3:47r | | 0:09r | | 3:14t |
| 05/11/2018 | F | 4:31r | 8:48t | | 6:06r | 4:39t | 4:39s | 7:44s |
| 05/11/2018 | F | 11:50t | 14:52s | 10:21t | 13:54t | 9:08s | | |
| 05/11/2018 | F | 19:09s | | 16:56s | | | 18:38r | |
| 05/11/2018 | F | 20:46et | | | 21:43s | | 23:37t | 22:41r |
| 05/12/2018 | Sat | 2:53mt | 3:22r | 3:46r | | 0:07r | | 3:10t |
| 05/12/2018 | Sat | 4:30r | | | 6:06r | 4:36t | 4:35s | 7:40s |
| 05/12/2018 | Sat | 11:50t | 9:35t | 10:22t | 13:56t | 9:06s | | |
| 05/12/2018 | Sat | 19:10s | 15:59s | 17:00s | | | 18:34r | |
| 05/12/2018 | Sat | 20:48et | | | 21:45s | | 23:32t | 22:37r |
| 05/13/2018 | Sun | 2:51mt | 3:51r | 3:46r | | 0:04r | | 3:06t |
| 05/13/2018 | Sun | 4:29r | | | 6:07r | 4:34t | 4:31s | 7:36s |
| 05/13/2018 | Sun | 11:50t | 10:24t | 10:24t | 13:57t | 9:05s | | |
| 05/13/2018 | Sun | 19:11s | 17:08s | 17:04s | | | 18:29r | |
| 05/13/2018 | Sun | 20:49et | | | 21:47s | | 23:28t | 22:33r |
| 05/14/2018 | M | 2:49mt | 4:23r | 3:45r | | 0:02r | 4:26s | 3:02t |
| 05/14/2018 | M | 4:28r | | | 6:08r | 4:32t | | 7:31s |
| 05/14/2018 | M | 11:50t | 11:16t | 10:26t | 13:58t | 9:02s | | |
| 05/14/2018 | M | 19:12s | 18:20s | 17:09s | | | 18:25r | |
| 05/14/2018 | M | 20:51et | | | 21:49s | 23:59r | 23:23t | 22:28r |
| 05/15/2018 | Tu | 2:48mt | | 3:44r | | | 4:22s | 2:58t |
| 05/15/2018 | Tu | 4:27r | 4:48NM | | | 4:30t | | |
| 05/15/2018 | Tu | 11:50t | 4:59r | 10:28t | 6:09r | 9:00s | | 7:27s |
| 05/15/2018 | Tu | 19:13s | 12:11t | 17:13s | 14:00t | | 18:20r | |
| 05/15/2018 | Tu | 20:53et | 19:33s | | 21:51s | 23:57r | 23:19t | 22:24r |
| 05/16/2018 | W | 2:46mt | | 3:44r | | | 4:18s | 2:54t |
| 05/16/2018 | W | 4:26r | 5:41r | | 6:10r | 4:28t | | 7:23s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 05/16/2018 | W | 11:50t | 13:09t | 10:30t | 14:01t | 8:58s | | |
| 05/16/2018 | W | 19:14s | 20:45s | 17:18s | | | 18:16r | |
| 05/16/2018 | W | 20:54et | | | 21:52s | 23:55r | 23:14t | 22:20r |
| 05/17/2018 | Th | 2:45mt | | 3:44r | | | 4:13s | 2:50t |
| 05/17/2018 | Th | 4:25r | 6:30r | | 6:11r | 4:25t | | 7:19s |
| 05/17/2018 | Th | 11:50t | 14:10t | 10:33t | 14:02t | 8:56s | | |
| 05/17/2018 | Th | 19:15s | | 17:23s | | | 18:11r | |
| 05/17/2018 | Th | 20:56et | 21:53s | | 21:54s | 23:52r | 23:10t | 22:16r |
| 05/18/2018 | F | 2:43mt | | 3:43r | | 4:23t | 4:09s | 2:46t |
| 05/18/2018 | F | 4:24r | 7:27r | 10:35t | 6:12r | 8:54s | | 7:15s |
| 05/18/2018 | F | 11:50t | 15:11t | 17:28s | 14:04t | | 18:06r | |
| 05/18/2018 | F | 19:16s | | | | | | |
| 05/18/2018 | F | 20:57et | 22:53s | | 21:56s | 23:50r | 23:06t | 22:12r |
| 05/19/2018 | Sat | 2:41mt | | 3:43r | | 4:21t | 4:05s | 2:41t |
| 05/19/2018 | Sat | 4:23r | 8:31r | 10:38t | 6:13r | 8:52s | | 7:11s |
| 05/19/2018 | Sat | 11:50t | 16:11t | 17:34s | 14:05t | | 18:02r | |
| 05/19/2018 | Sat | 19:17s | | | | | | |
| 05/19/2018 | Sat | 20:59et | 23:45s | | 21:57s | 23:47r | 23:01t | 22:08r |
| 05/20/2018 | Sun | 2:40mt | | 3:43r | | 4:18t | 4:01s | 2:37t |
| 05/20/2018 | Sun | 4:22r | 9:40r | 10:41t | 6:14r | 8:50s | | 7:07s |
| 05/20/2018 | Sun | 11:50t | 17:09t | 17:40s | 14:06t | | 17:57r | |
| 05/20/2018 | Sun | 19:18s | | | | | | |
| 05/20/2018 | Sun | 21:01et | | | 21:59s | 23:45r | 22:57t | 22:04r |
| 05/21/2018 | M | 2:39mt | 0:29s | 3:43r | | 4:16t | 3:56s | 2:33t |
| 05/21/2018 | M | 4:21r | 10:51r | 10:44t | 6:16r | 8:48s | | 7:02s |
| 05/21/2018 | M | 11:50t | 18:04t | 17:46s | 14:08t | | 17:53r | |
| 05/21/2018 | M | 19:19s | 20:49FQ | | | | | |
| 05/21/2018 | M | 21:02et | | | 22:00s | 23:42r | 22:52t | 22:00r |
| 05/22/2018 | Tu | 2:37mt | 1:06s | 3:43r | | 4:14t | 3:52s | 2:29t |
| 05/22/2018 | Tu | 4:20r | | 10:47t | 6:17r | 8:45s | | 6:58s |
| 05/22/2018 | Tu | 11:50t | 12:01r | 17:52s | 14:09t | | 17:48r | |
| 05/22/2018 | Tu | 19:20s | 18:55t | | | | | |
| 05/22/2018 | Tu | 21:04et | | | 22:01s | 23:40r | 22:48t | 21:56r |
| 05/23/2018 | W | 2:36mt | 1:39s | 3:44r | | 4:11t | 3:48s | 2:25t |
| 05/23/2018 | W | 4:19r | | 10:50t | 6:18r | 8:43s | | 6:54s |
| 05/23/2018 | W | 11:50t | 13:10r | 17:58s | 14:10t | | 17:44r | |
| 05/23/2018 | W | 19:21s | 19:44t | | | | | |
| 05/23/2018 | W | 21:05et | | | 22:02s | 23:37r | 22:44t | 21:51r |
| 05/24/2018 | Th | 2:34mt | 2:08s | 3:44r | | 4:09t | 3:43s | 2:21t |
| 05/24/2018 | Th | 4:18r | | 10:54t | 6:20r | 8:41s | | 6:50s |
| 05/24/2018 | Th | 11:50t | 14:17r | 18:05s | 14:12t | | 17:39r | |
| 05/24/2018 | Th | 19:22s | 20:32t | | | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 05/24/2018 | Th | 21:07et | | | 22:04s | 23:35r | 22:39t | 21:47r |
| 05/25/2018 | F | 2:33mt | 2:37s | 3:45r | | 4:06t | 3:39s | 2:17t |
| 05/25/2018 | F | 4:17r | | 10:57t | 6:21r | 8:38s | | 6:46s |
| 05/25/2018 | F | 11:50t | 15:23r | 18:11s | 14:13t | | 17:35r | |
| 05/25/2018 | F | 19:23s | | | | | | |
| 05/25/2018 | F | 21:08et | 21:18t | | 22:05s | 23:32r | 22:35t | 21:43r |
| 05/26/2018 | Sat | 2:32mt | 3:04s | 3:46r | | 4:04t | 3:35s | 2:12t |
| 05/26/2018 | Sat | 4:17r | | 11:01t | 6:23r | 8:36s | | 6:42s |
| 05/26/2018 | Sat | 11:50t | 16:28r | 18:18s | 14:14t | | 17:30r | |
| 05/26/2018 | Sat | 19:24s | | | | | | |
| 05/26/2018 | Sat | 21:10et | 22:04t | | 22:06s | 23:29r | 22:30t | 21:39r |
| 05/27/2018 | Sun | 2:31mt | 3:33s | 3:47r | | 4:01t | 3:31s | 2:08t |
| 05/27/2018 | Sun | 4:16r | | 11:05t | 6:24r | 8:33s | | 6:37s |
| 05/27/2018 | Sun | 11:50t | 17:32r | 18:26s | 14:16t | | 17:26r | |
| 05/27/2018 | Sun | 19:25s | | | | | | |
| 05/27/2018 | Sun | 21:11et | 22:51t | | 22:07s | 23:27r | 22:26t | 21:35r |
| 05/28/2018 | M | 2:30mt | 4:04s | 3:48r | | 3:59t | 3:26s | 2:04t |
| 05/28/2018 | M | 4:15r | | 11:10t | 6:26r | 8:31s | | 6:33s |
| 05/28/2018 | M | 11:51t | 18:34r | 18:33s | 14:17t | | 17:21r | |
| 05/28/2018 | M | 19:26s | | | | | | |
| 05/28/2018 | M | 21:12et | 23:39t | | 22:07s | 23:24r | 22:22t | 21:31r |
| 05/29/2018 | Tu | 2:28mt | | 3:50r | | 3:56t | 3:22s | 2:00t |
| 05/29/2018 | Tu | 4:15r | 4:38s | | 6:28r | | | 6:29s |
| 05/29/2018 | Tu | 11:51t | 7:20FM | 11:14t | 14:18t | 8:28s | 17:17r | |
| 05/29/2018 | Tu | 19:27s | 19:34r | 18:40s | | | | |
| 05/29/2018 | Tu | 21:14et | | | 22:08s | 23:21r | 22:17t | 21:26r |
| 05/30/2018 | W | 2:27mt | 0:27t | 3:51r | | 3:54t | 3:18s | 1:56t |
| 05/30/2018 | W | 4:14r | 5:17s | 11:19t | 6:29r | 8:26s | | 6:25s |
| 05/30/2018 | W | 11:51t | | 18:48s | 14:19t | | 17:12r | |
| 05/30/2018 | W | 19:28s | 20:30r | | | | | |
| 05/30/2018 | W | 21:15et | | | 22:09s | 23:19r | 22:13t | 21:22r |
| 05/31/2018 | Th | 2:26mt | 1:16t | 3:53r | | 3:51t | 3:14s | 1:51t |
| 05/31/2018 | Th | 4:13r | 6:00s | 11:24t | 6:31r | 8:23s | | 6:21s |
| 05/31/2018 | Th | 11:51t | | 18:56s | 14:21t | | 17:08r | |
| 05/31/2018 | Th | 19:29s | | | | | | |
| 05/31/2018 | Th | 21:16et | 21:22r | | 22:10s | 23:16r | 22:09t | 21:18r |
| 06/01/2018 | F | 2:25mt | 2:04t | 3:55r | | 3:48t | 3:09s | 1:47t |
| 06/01/2018 | F | 4:13r | 6:47s | 11:29t | 6:33r | 8:21s | | 6:16s |
| 06/01/2018 | F | 11:51t | | 19:03s | 14:22t | | 17:03r | |
| 06/01/2018 | F | 19:30s | | | | | | 21:14r |
| 06/01/2018 | F | 21:18et | 22:08r | | 22:10s | 23:13r | 22:04t | |
| 06/02/2018 | Sat | 2:24mt | 2:53t | 3:58r | | 3:45t | 3:05s | 1:43t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 06/02/2018 | Sat | 4:12r | 7:39s | 11:34t | 6:35r | 8:18s | 6:12s |
| 06/02/2018 | Sat | 11:51t | | 19:11s | 14:23t | 16:59r | |
| 06/02/2018 | Sat | 19:30s | | | | | 21:10r |
| 06/02/2018 | Sat | 21:19et | 22:49r | | 22:11s | 23:10r | 22:00t |
| 06/03/2018 | Sun | 2:23mt | 3:40t | 4:00r | | 3:43t | 3:01s |
| 06/03/2018 | Sun | 4:12r | 8:34s | 11:39t | 6:37r | 8:15s | 6:08s |
| 06/03/2018 | Sun | 11:51t | | 19:19s | 14:24t | 16:54r | |
| 06/03/2018 | Sun | 19:31s | | | | | 21:06r |
| 06/03/2018 | Sun | 21:20et | 23:26r | | 22:11s | 23:07r | 21:56t |
| 06/04/2018 | M | 2:23mt | | 4:03r | | 3:40t | 2:57s |
| 06/04/2018 | M | 4:12r | 4:26t | | 6:39r | 8:12s | 6:04s |
| 06/04/2018 | M | 11:52t | 9:32s | 11:44t | 14:25t | | 16:50r |
| 06/04/2018 | M | 19:32s | | 19:27s | | | 21:01r |
| 06/04/2018 | M | 21:21et | 23:58r | | 22:12s | 23:05r | 21:51t |
| 06/05/2018 | Tu | 2:22mt | | 4:06r | | 3:37t | 2:53s |
| 06/05/2018 | Tu | 4:11r | 5:12t | | 6:41r | 8:09s | 5:59s |
| 06/05/2018 | Tu | 11:52t | 10:31s | 11:50t | 14:27t | | 16:45r |
| 06/05/2018 | Tu | 19:33s | | 19:34s | | | 20:57r |
| 06/05/2018 | Tu | 21:22et | | | 22:12s | 23:02r | 21:47t |
| 06/06/2018 | W | 2:21mt | 0:27r | 4:10r | | 3:34t | 2:48s |
| 06/06/2018 | W | 4:11r | 5:56t | | 6:43r | 8:06s | 5:55s |
| 06/06/2018 | W | | 11:32LQ | | | | |
| 06/06/2018 | W | 11:52t | 11:32s | 11:55t | 14:28t | | 16:41r |
| 06/06/2018 | W | 19:33s | | 19:42s | | | 20:53r |
| 06/06/2018 | W | 21:23et | | | 22:12s | 22:59r | 21:43t |
| 06/07/2018 | Th | 2:20mt | 0:55r | | | 3:31t | 2:44s |
| 06/07/2018 | Th | 4:10r | 6:41t | 4:14r | 6:45r | 8:04s | 5:51s |
| 06/07/2018 | Th | 11:52t | 12:35s | 12:01t | 14:29t | | 16:37r |
| 06/07/2018 | Th | 19:34s | | 19:49s | | | 20:49r |
| 06/07/2018 | Th | 21:24et | | | 22:12s | 22:56r | 21:38t |
| 06/08/2018 | F | 2:20mt | 1:22r | | | 3:28t | 2:40s |
| 06/08/2018 | F | 4:10r | 7:26t | 4:18r | 6:47r | 8:01s | 5:47s |
| 06/08/2018 | F | 11:52t | 13:39s | 12:07t | 14:30t | | 16:32r |
| 06/08/2018 | F | 19:35s | | 19:57s | | | 20:45r |
| 06/08/2018 | F | 21:25et | | | 22:12s | 22:53r | 21:34t |
| 06/09/2018 | Sat | 2:19mt | 1:50r | | | 3:25t | 2:36s |
| 06/09/2018 | Sat | 4:10r | 8:13t | 4:22r | 6:49r | 7:57s | 5:43s |
| 06/09/2018 | Sat | 11:52t | 14:46s | 12:12t | 14:31t | | 16:28r |
| 06/09/2018 | Sat | 19:35s | | 20:03s | | | 20:40r |
| 06/09/2018 | Sat | 21:26et | | | 22:12s | 22:50r | 21:30t |
| 06/10/2018 | Sun | 2:19mt | 2:19r | | | 3:22t | 2:32s |
| 06/10/2018 | Sun | 4:10r | 9:02t | 4:26r | 6:51r | 7:54s | 5:38s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 06/10/2018 Sun | 11:53t | 15:56s | 12:18t | 14:32t | | 16:24r | |
| 06/10/2018 Sun | 19:36s | | 20:10s | | | 21:25t | 20:36r |
| 06/10/2018 Sun | 21:27et | | | 22:12s | 22:47r | | |
| 06/11/2018 M | 2:18mt | 2:52r | | | 3:19t | 2:27s | 1:05t |
| 06/11/2018 M | 4:10r | 9:55t | 4:31r | 6:53r | 7:51s | | 5:34s |
| 06/11/2018 M | 11:53t | 17:08s | 12:23t | 14:33t | | 16:19r | |
| 06/11/2018 M | 19:36s | | 20:16s | | | 21:21t | 20:32r |
| 06/11/2018 M | 21:28et | | | 22:12s | 22:44r | | |
| 06/12/2018 Tu | 2:18mt | 3:31r | | | 3:16t | 2:23s | 1:01t |
| 06/12/2018 Tu | 4:09r | 10:52t | 4:35r | 6:56r | 7:48s | | 5:30s |
| 06/12/2018 Tu | 11:53t | 18:22s | 12:29t | 14:34t | | 16:15r | |
| 06/12/2018 Tu | 19:37s | | 20:22s | | | 21:17t | 20:28r |
| 06/12/2018 Tu | 21:29et | | | 22:12s | 22:41r | | |
| 06/13/2018 W | 2:18mt | | | | 3:13t | 2:19s | 0:57t |
| 06/13/2018 W | 4:09r | 4:17r | 4:40r | 6:58r | 7:45s | | 5:26s |
| 06/13/2018 W | 11:53t | 11:52t | 12:34t | | | | |
| 06/13/2018 W | | 12:43NM | | 14:35t | | 16:10r | |
| 06/13/2018 W | 19:37s | 19:33s | 20:28s | | | 21:13t | 20:24r |
| 06/13/2018 W | 21:29et | | | 22:12s | 22:38r | | |
| 06/14/2018 Th | 2:17mt | | | | 3:10t | 2:15s | 0:52t |
| 06/14/2018 Th | 4:09r | 5:11r | 4:45r | 7:00r | 7:41s | | 5:21s |
| 06/14/2018 Th | 11:54t | 12:55t | 12:39t | 14:36t | | 16:06r | |
| 06/14/2018 Th | 19:38s | 20:39s | 20:33s | | | 21:08t | 20:19r |
| 06/14/2018 Th | 21:30et | | | 22:11s | 22:35r | | |
| 06/15/2018 F | 2:17mt | | | | 3:06t | 2:11s | 0:48t |
| 06/15/2018 F | 4:09r | 6:14r | 4:50r | 7:02r | 7:38s | | 5:17s |
| 06/15/2018 F | 11:54t | 13:58t | 12:44t | 14:37t | | 16:02r | |
| 06/15/2018 F | 19:38s | | 20:38s | | | 21:04t | 20:15r |
| 06/15/2018 F | 21:31et | 21:37s | | 22:11s | 22:32r | | |
| 06/16/2018 Sat | 2:17mt | | | | 3:03t | 2:07s | 0:44t |
| 06/16/2018 Sat | 4:09r | 7:24r | 4:56r | 7:05r | 7:34s | | 5:13s |
| 06/16/2018 Sat | 11:54t | 14:59t | 12:49t | 14:38t | | 15:58r | |
| 06/16/2018 Sat | 19:39s | | 20:43s | | | 21:00t | 20:11r |
| 06/16/2018 Sat | 21:31et | 22:26s | | 22:11s | 22:28r | | |
| 06/17/2018 Sun | 2:17mt | | | | 3:00t | 2:02s | 0:40t |
| 06/17/2018 Sun | 4:09r | 8:36r | 5:01r | 7:07r | 7:31s | | 5:08s |
| 06/17/2018 Sun | 11:54t | 15:57t | 12:54t | 14:39t | | 15:53r | |
| 06/17/2018 Sun | 19:39s | | 20:47s | | | 20:56t | 20:07r |
| 06/17/2018 Sun | 21:31et | 23:07s | | 22:10s | 22:25r | | |
| 06/18/2018 M | 2:17mt | | | | 2:56t | 1:58s | 0:35t |
| 06/18/2018 M | 4:09r | 9:49r | 5:06r | 7:09r | 7:27s | | 5:04s |
| 06/18/2018 M | 11:54t | 16:51t | 12:59t | 14:40t | | 15:49r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 06/18/2018 | M | 19:39s | | 20:50s | | 20:52t | 20:03r |
| 06/18/2018 | M | 21:32et | 23:42s | | 22:09s | 22:22r | |
| 06/19/2018 | Tu | 2:17mt | | | 2:53t | 1:54s | 0:31t |
| 06/19/2018 | Tu | 4:10r | 11:00r | 5:12r | 7:11r | 7:23s | 5:00s |
| 06/19/2018 | Tu | 11:55t | 17:42t | 13:03t | 14:41t | | 15:45r |
| 06/19/2018 | Tu | 19:40s | | 20:54s | | 20:47t | 19:58r |
| 06/19/2018 | Tu | 21:32et | | 22:09s | 22:19r | | |
| 06/20/2018 | W | 2:17mt | 0:13s | | 2:49t | 1:50s | 0:27t |
| 06/20/2018 | W | 4:10r | 3:51FQ | 5:17r | 7:14r | 7:20s | 4:56s |
| 06/20/2018 | W | 11:55t | 12:09r | 13:07t | 14:41t | | 15:41r |
| 06/20/2018 | W | 19:40s | 18:30t | 20:57s | | 20:43t | 19:54r |
| 06/20/2018 | W | 21:32et | | 22:08s | 22:16r | | |
| 06/21/2018 | Th | 2:17mt | 0:42s | | 2:46t | 1:46s | 0:23t |
| 06/21/2018 | Th | 3:07JS | | | | | |
| 06/21/2018 | Th | 4:10r | | 5:22r | 7:16r | 7:16s | 4:51s |
| 06/21/2018 | Th | 11:55t | 13:16r | 13:11t | 14:42t | | 15:36r |
| 06/21/2018 | Th | 19:40s | 19:17t | 20:59s | | 20:39t | 19:50r |
| 06/21/2018 | Th | 21:33et | | 22:07s | 22:12r | | |
| 06/22/2018 | F | 2:18mt | 1:09s | | 2:42t | 1:42s | 0:19t |
| 06/22/2018 | F | 4:10r | | 5:27r | 7:18r | 7:12s | 4:47s |
| 06/22/2018 | F | 11:55t | 14:21r | 13:15t | 14:43t | | 15:32r |
| 06/22/2018 | F | 19:40s | 20:03t | 21:02s | | 20:35t | 19:46r |
| 06/22/2018 | F | 21:33et | | 22:07s | 22:09r | | |
| 06/23/2018 | Sat | 2:18mt | 1:38s | | 2:39t | 1:38s | 0:14t |
| 06/23/2018 | Sat | 4:10r | | 5:33r | 7:21r | 7:08s | 4:43s |
| 06/23/2018 | Sat | 11:55t | 15:24r | 13:19t | 14:44t | | 15:28r |
| 06/23/2018 | Sat | 19:40s | 20:49t | 21:04s | | 20:31t | 19:41r |
| 06/23/2018 | Sat | 21:33et | | 22:06s | 22:05r | | |
| 06/24/2018 | Sun | 2:18mt | 2:07s | | 2:35t | 1:34s | 0:10t |
| 06/24/2018 | Sun | 4:11r | | 5:38r | 7:23r | 7:04s | 4:39s |
| 06/24/2018 | Sun | 11:56t | 16:26r | 13:22t | 14:44t | | 15:24r |
| 06/24/2018 | Sun | 19:41s | | 21:05s | | 20:27t | |
| 06/24/2018 | Sun | 21:33et | 21:36t | | 22:05s | 22:02r | |
| 06/25/2018 | M | 2:19mt | 2:40s | | 2:31t | 1:30s | 0:06t |
| 06/25/2018 | M | 4:11r | | 5:43r | 7:25r | 7:00s | 4:34s |
| 06/25/2018 | M | 11:56t | 17:26r | 13:25t | 14:45t | | 15:20r |
| 06/25/2018 | M | 19:41s | | 21:06s | | 20:23t | |
| 06/25/2018 | M | 21:33et | 22:23t | | 22:04s | 21:59r | |
| 06/26/2018 | Tu | 2:19mt | 3:16s | | 2:27t | 1:26s | 0:02t |
| 06/26/2018 | Tu | 4:12r | | 5:48r | 7:27r | 6:56s | 4:30s |
| 06/26/2018 | Tu | 11:56t | 18:24r | 13:28t | 14:46t | | 15:16r |
| 06/26/2018 | Tu | 19:41s | | 21:07s | | 20:18t | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 06/26/2018 | Tu | 21:33et | 23:11t | 22:03s | 21:55r | | 23:57t |
| 06/27/2018 | W | 2:20mt | 3:57s | | 2:23t | 1:21s | |
| 06/27/2018 | W | 4:12r | | 5:52r | 7:30r | 6:52s | 4:26s |
| 06/27/2018 | W | 11:56t | 19:17r | 13:31t | 14:46t | 15:11r | 19:25r |
| 06/27/2018 | W | 19:41s | | 21:08s | | 20:14t | |
| 06/27/2018 | W | 21:33et | 21:53FM | 22:02s | 21:52r | | 23:53t |
| 06/28/2018 | Th | 2:20mt | 0:00t | | 2:20t | 1:17s | |
| 06/28/2018 | Th | 4:12r | 4:42s | 5:57r | 7:32r | 6:47s | 4:22s |
| 06/28/2018 | Th | 11:57t | | 13:33t | 14:47t | 15:07r | 19:20r |
| 06/28/2018 | Th | 19:41s | 20:05r | 21:09s | | 20:10t | |
| 06/28/2018 | Th | 21:32et | | 22:01s | 21:48r | | 23:49t |
| 06/29/2018 | F | 2:21mt | 0:48t | | 2:16t | 1:13s | |
| 06/29/2018 | F | 4:13r | 5:33s | 6:01r | 7:34r | 6:43s | 4:17s |
| 06/29/2018 | F | 11:57t | | 13:36t | 14:47t | 15:03r | 19:16r |
| 06/29/2018 | F | 19:40s | 20:49r | 21:09s | | 20:06t | |
| 06/29/2018 | F | 21:32et | | 22:00s | 21:44r | | 23:45t |
| 06/30/2018 | Sat | 2:22mt | 1:36t | | 2:12t | 1:09s | 4:13s |
| 06/30/2018 | Sat | 4:13r | 6:27s | 6:06r | 7:37r | 6:39s | |
| 06/30/2018 | Sat | 11:57t | | 13:38t | 14:48t | 14:59r | 19:12r |
| 06/30/2018 | Sat | 19:40s | 21:27r | 21:09s | | 20:02t | |
| 06/30/2018 | Sat | 21:32et | | 21:58s | 21:41r | | 23:40t |
| 07/01/2018 | Sun | 2:23mt | 2:23t | | 2:08t | 1:05s | 4:09s |
| 07/01/2018 | Sun | 4:14r | 7:24s | 6:10r | 7:39r | 6:34s | |
| 07/01/2018 | Sun | 11:57t | | 13:40t | 14:49t | 14:55r | 19:08r |
| 07/01/2018 | Sun | 19:40s | | 21:08s | | 19:58t | |
| 07/01/2018 | Sun | 21:31et | 22:00r | 21:57s | 21:37r | | 23:36t |
| 07/02/2018 | M | 2:23mt | 3:08t | | 2:03t | 1:01s | 4:04s |
| 07/02/2018 | M | 4:14r | 8:23s | 6:14r | 7:41r | 6:30s | |
| 07/02/2018 | M | 11:57t | | 13:42t | 14:49t | 14:51r | 19:03r |
| 07/02/2018 | M | 19:40s | | 21:08s | | 19:54t | |
| 07/02/2018 | M | 21:31et | 22:30r | 21:56s | 21:33r | | 23:32t |
| 07/03/2018 | Tu | 2:24mt | 3:53t | | 1:59t | 0:57s | 4:00s |
| 07/03/2018 | Tu | 4:15r | 9:22s | 6:18r | 7:43r | 6:25s | |
| 07/03/2018 | Tu | 11:57t | | 13:43t | 14:49t | 14:47r | 18:59r |
| 07/03/2018 | Tu | 19:40s | | 21:07s | 21:30r | 19:50t | |
| 07/03/2018 | Tu | 21:30et | 22:58r | 21:55s | | | 23:28t |
| 07/04/2018 | W | 2:25mt | | | 1:55t | 0:53s | 3:56s |
| 07/04/2018 | W | 4:16r | 4:37t | 6:21r | 7:45r | 6:20s | |
| 07/04/2018 | W | 11:58t | 10:23s | 13:44t | 14:50t | 14:43r | 18:55r |
| 07/04/2018 | W | 19:39s | | 21:06s | 21:26r | 19:46t | |
| 07/04/2018 | W | 21:30et | 23:25r | 21:53s | | | 23:23t |
| 07/05/2018 | Th | 2:26mt | | | 1:51t | 0:49s | 3:52s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 07/05/2018 | Th | 4:16r | 5:21t | 6:25r | 7:48r | 6:16s | | |
| 07/05/2018 | Th | 11:58t | 11:26s | 13:45t | 14:50t | | 14:39r | 18:51r |
| 07/05/2018 | Th | 19:39s | | 21:05s | | 21:22r | 19:42t | |
| 07/05/2018 | Th | 21:29et | 23:51r | | 21:52s | | | 23:19t |
| 07/06/2018 | F | 2:27mt | 0:51LQ | | | 1:46t | 0:45s | 3:47s |
| 07/06/2018 | F | 4:17r | 6:06t | 6:28r | 7:50r | 6:11s | | |
| 07/06/2018 | F | 11:58t | 12:30s | 13:46t | 14:51t | | 14:35r | 18:46r |
| 07/06/2018 | F | 19:39s | | 21:03s | | 21:18r | 19:38t | |
| 07/06/2018 | F | 21:28et | | | 21:51s | | | 23:15t |
| 07/07/2018 | Sat | 2:28mt | 0:19r | | | 1:42t | 0:41s | 3:43s |
| 07/07/2018 | Sat | 4:18r | 6:52t | 6:31r | 7:52r | 6:06s | | |
| 07/07/2018 | Sat | 11:58t | 13:36s | 13:47t | 14:51t | | 14:31r | 18:42r |
| 07/07/2018 | Sat | 19:38s | | 21:02s | | 21:14r | 19:34t | |
| 07/07/2018 | Sat | 21:27et | | | 21:49s | | | 23:11t |
| 07/08/2018 | Sun | 2:29mt | 0:49r | | | 1:38t | 0:37s | 3:39s |
| 07/08/2018 | Sun | 4:18r | 7:42t | 6:33r | 7:54r | 6:01s | | |
| 07/08/2018 | Sun | 11:58t | 14:45s | 13:47t | 14:51t | | 14:27r | 18:38r |
| 07/08/2018 | Sun | 19:38s | | 21:00s | | 21:10r | 19:30t | |
| 07/08/2018 | Sun | 21:27et | | | 21:48s | | | 23:06t |
| 07/09/2018 | M | 2:30mt | 1:24r | | | 1:33t | 0:33s | 3:35s |
| 07/09/2018 | M | 4:19r | 8:35t | 6:36r | 7:56r | 5:56s | | |
| 07/09/2018 | M | 11:58t | 15:57s | 13:48t | 14:52t | | 14:23r | 18:34r |
| 07/09/2018 | M | 19:37s | | 20:58s | | 21:06r | 19:26t | |
| 07/09/2018 | M | 21:26et | | | 21:46s | | | 23:02t |
| 07/10/2018 | Tu | 2:32mt | 2:05r | | | 1:29t | 0:29s | 3:30s |
| 07/10/2018 | Tu | 4:20r | 9:33t | 6:38r | 7:58r | 5:51s | | |
| 07/10/2018 | Tu | 11:59t | 17:08s | 13:48t | 14:52t | | 14:19r | 18:30r |
| 07/10/2018 | Tu | 19:37s | | 20:56s | | 21:02r | 19:22t | |
| 07/10/2018 | Tu | 21:25et | | | 21:44s | | | 22:58t |
| 07/11/2018 | W | 2:33mt | 2:54r | | | 1:24t | 0:25s | 3:26s |
| 07/11/2018 | W | 4:21r | 10:34t | 6:40r | 8:01r | 5:46s | | |
| 07/11/2018 | W | 11:59t | 18:18s | 13:47t | 14:52t | | 14:15r | 18:25r |
| 07/11/2018 | W | 19:36s | | 20:54s | | 20:58r | 19:18t | |
| 07/11/2018 | W | 21:24et | | | 21:43s | | | 22:54t |
| 07/12/2018 | Th | 2:34mt | 3:52r | | | 1:20t | 0:21s | 3:22s |
| 07/12/2018 | Th | 4:21r | 11:37t | 6:42r | 8:03r | 5:41s | | |
| 07/12/2018 | Th | 11:59t | | 13:47t | 14:52t | | 14:11r | 18:21r |
| 07/12/2018 | Th | 19:36s | 19:21s | | | | 19:14t | |
| 07/12/2018 | Th | 21:23et | 19:48NM | 20:51s | 21:41s | 20:54r | | 22:49t |
| 07/13/2018 | F | 2:35mt | | | | 1:15t | 0:17s | 3:18s |
| 07/13/2018 | F | 4:22r | 5:00r | 6:43r | 8:05r | 5:35s | | |
| 07/13/2018 | F | 11:59t | 12:41t | 13:46t | 14:53t | | 14:07r | 18:17r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 07/13/2018 | F | 19:35s | 20:15s | 20:48s | | 20:50r | 19:11t | |
| 07/13/2018 | F | 21:22et | | | 21:40s | | | 22:45t |
| 07/14/2018 | Sat | 2:37mt | | | | 1:10t | 0:14s | 3:13s |
| 07/14/2018 | Sat | 4:23r | 6:13r | 6:44r | 8:07r | 5:30s | | |
| 07/14/2018 | Sat | 11:59t | 13:42t | 13:45t | 14:53t | | 14:04r | 18:13r |
| 07/14/2018 | Sat | 19:35s | 21:01s | 20:45s | | 20:46r | 19:07t | |
| 07/14/2018 | Sat | 21:21et | | | 21:38s | | | 22:41t |
| 07/15/2018 | Sun | 2:38mt | | | | 1:05t | 0:10s | 3:09s |
| 07/15/2018 | Sun | 4:24r | 7:29r | 6:45r | 8:09r | 5:25s | | |
| 07/15/2018 | Sun | 11:59t | 14:40t | 13:44t | 14:53t | | 14:00r | 18:09r |
| 07/15/2018 | Sun | 19:34s | | 20:42s | | 20:42r | 19:03t | |
| 07/15/2018 | Sun | 21:19et | 21:40s | | 21:36s | | | 22:37t |
| 07/16/2018 | M | 2:39mt | | | | 1:01t | 0:06s | 3:05s |
| 07/16/2018 | M | 4:25r | 8:43r | 6:46r | 8:11r | 5:19s | | |
| 07/16/2018 | M | 11:59t | 15:34t | 13:43t | 14:53t | | 13:56r | 18:04r |
| 07/16/2018 | M | 19:33s | | 20:39s | | 20:37r | 18:59t | |
| 07/16/2018 | M | 21:18et | 22:14s | | 21:34s | | | 22:32t |
| 07/17/2018 | Tu | 2:41mt | | | | 0:56t | 0:02s | 3:01s |
| 07/17/2018 | Tu | 4:26r | 9:55r | 6:46r | 8:13r | 5:14s | | |
| 07/17/2018 | Tu | 11:59t | 16:25t | 13:41t | 14:53t | | 13:52r | 18:00r |
| 07/17/2018 | Tu | 19:32s | | 20:35s | | 20:33r | 18:55t | |
| 07/17/2018 | Tu | 21:17et | 22:44s | | 21:33s | | 23:58s | 22:28t |
| 07/18/2018 | W | 2:42mt | | | | 0:51t | | 2:56s |
| 07/18/2018 | W | 4:27r | 11:05r | 6:46r | 8:15r | 5:09s | | |
| 07/18/2018 | W | 11:59t | 17:14t | 13:39t | 14:53t | | 13:48r | 17:56r |
| 07/18/2018 | W | 19:32s | | 20:32s | | 20:29r | 18:51t | |
| 07/18/2018 | W | 21:16et | 23:13s | | 21:31s | | 23:54s | 22:24t |
| 07/19/2018 | Th | 2:44mt | | | | 0:46t | | 2:52s |
| 07/19/2018 | Th | 4:28r | | 6:45r | 8:17r | 5:03s | | |
| 07/19/2018 | Th | 12:00t | 12:12r | | | | | |
| 07/19/2018 | Th | | 12:52FQ | 13:37t | 14:53t | | 13:45r | 17:52r |
| 07/19/2018 | Th | 19:31s | 18:01t | 20:28s | | 20:24r | 18:47t | |
| 07/19/2018 | Th | 21:14et | 23:41s | | 21:29s | | 23:50s | 22:20t |
| 07/20/2018 | F | 2:45mt | | | | 0:41t | | 2:48s |
| 07/20/2018 | F | 4:29r | | 6:44r | 8:19r | 4:58s | | |
| 07/20/2018 | F | 12:00t | 13:16r | 13:35t | 14:53t | | 13:41r | 17:48r |
| 07/20/2018 | F | 19:30s | 18:47t | 20:24s | | 20:20r | 18:44t | |
| 07/20/2018 | F | 21:13et | | | 21:27s | | 23:46s | 22:16t |
| 07/21/2018 | Sat | 2:47mt | 0:11s | | | 0:36t | | 2:44s |
| 07/21/2018 | Sat | 4:30r | | 6:43r | 8:21r | 4:52s | | |
| 07/21/2018 | Sat | 12:00t | 14:19r | 13:32t | 14:53t | | 13:37r | 17:43r |
| 07/21/2018 | Sat | 19:29s | 19:34t | 20:20s | | 20:16r | 18:40t | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------------|--------|---------|--------|
| 07/21/2018 | Sat | 21:11et | | 21:25s | | 23:42s | 22:11t |
| 07/22/2018 | Sun | 2:48mt | 0:42s | | 0:31t | | 2:39s |
| 07/22/2018 | Sun | 4:31r | | 6:41r 8:23r | 4:47s | | |
| 07/22/2018 | Sun | 12:00t | 15:20r | 13:29t 14:53t | | 13:33r | 17:39r |
| 07/22/2018 | Sun | 19:28s | 20:21t | 20:15s | 20:11r | 18:36t | |
| 07/22/2018 | Sun | 21:10et | | 21:23s | | 23:39s | 22:07t |
| 07/23/2018 | M | 2:50mt | 1:17s | | 0:26t | | 2:35s |
| 07/23/2018 | M | 4:32r | | 6:39r 8:24r | 4:41s | | |
| 07/23/2018 | M | 12:00t | 16:18r | 13:25t 14:53t | | 13:30r | 17:35r |
| 07/23/2018 | M | 19:27s | | 20:11s | 20:07r | 18:32t | |
| 07/23/2018 | M | 21:09et | 21:09t | 21:21s | | 23:35s | 22:03t |
| 07/24/2018 | Tu | 2:51mt | 1:56s | | 0:21t | | 2:31s |
| 07/24/2018 | Tu | 4:33r | | 6:37r 8:26r | 4:36s | | |
| 07/24/2018 | Tu | 12:00t | 17:13r | 13:22t 14:53t | | 13:26r | 17:31r |
| 07/24/2018 | Tu | 19:26s | | 20:06s | 20:02r | 18:28t | |
| 07/24/2018 | Tu | 21:07et | 21:57t | 21:19s | | 23:31s | 21:59t |
| 07/25/2018 | W | 2:53mt | 2:40s | | 0:16t | | 2:27s |
| 07/25/2018 | W | 4:34r | | 6:34r 8:28r | 4:30s | | |
| 07/25/2018 | W | 12:00t | 18:03r | 13:18t 14:53t | | 13:22r | 17:27r |
| 07/25/2018 | W | 19:25s | | 20:01s | 19:58r | 18:25t | |
| 07/25/2018 | W | 21:05et | 22:45t | 21:17s | | 23:27s | 21:55t |
| 07/26/2018 | Th | 2:54mt | 3:28s | | 0:11t | | 2:23s |
| 07/26/2018 | Th | 4:35r | | 6:31r 8:30r | 4:24s | | |
| 07/26/2018 | Th | 12:00t | | 13:14t 14:53t | | 13:18r | 17:23r |
| 07/26/2018 | Th | 19:24s | 18:48r | 19:56s | 19:53r | 18:21t | |
| 07/26/2018 | Th | 21:04et | 23:33t | 21:15s | | 23:23s | 21:50t |
| 07/27/2018 | F | 2:56mt | | | 0:06t | | 2:18s |
| 07/27/2018 | F | 4:36r | 4:21s | 6:27r 8:32r | 4:19s | | |
| 07/27/2018 | F | 12:00t | 13:20FM | 13:09t 14:53t | | 13:15r | 17:18r |
| 07/27/2018 | F | 19:23s | 19:27r | 19:51s | 19:49r | 18:17t | |
| 07/27/2018 | F | 21:02et | | 21:13s | | 23:19s | 21:46t |
| 07/28/2018 | Sat | 2:58mt | 0:20t | | 0:01t | | 2:14s |
| 07/28/2018 | Sat | 4:37r | 5:17s | 6:23r 8:34r | 4:13s | | |
| 07/28/2018 | Sat | 12:00t | | 13:04t 14:53t | | 13:11r | 17:14r |
| 07/28/2018 | Sat | 19:22s | 20:02r | 19:45s | 19:44r | 18:13t | |
| 07/28/2018 | Sat | 21:01et | | 21:11s | 23:56t | 23:16s | 21:42t |
| 07/29/2018 | Sun | 2:59mt | 1:06t | | 4:08s | | 2:10s |
| 07/29/2018 | Sun | 4:38r | 6:16s | 6:18r 8:35r | | | |
| 07/29/2018 | Sun | 12:00t | | 12:59t 14:53t | | 13:08r | 17:10r |
| 07/29/2018 | Sun | 19:21s | 20:34r | 19:40s | 19:39r | 18:10t | |
| 07/29/2018 | Sun | 20:59et | | 21:09s | 23:51t | 23:12s | 21:38t |
| 07/30/2018 | M | 3:01mt | 1:51t | | 4:02s | | 2:06s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 07/30/2018 | M | 4:39r | 7:16s | 6:13r | 8:37r | | | |
| 07/30/2018 | M | 12:00t | | 12:53t | 14:53t | | 13:04r | 17:06r |
| 07/30/2018 | M | 19:20s | | 19:34s | | 19:35r | 18:06t | |
| 07/30/2018 | M | 20:57et | 21:02r | | 21:07s | 23:46t | 23:08s | 21:34t |
| 07/31/2018 | Tu | 3:02mt | 2:35t | | | 3:57s | | 2:02s |
| 07/31/2018 | Tu | 4:40r | 8:16s | 6:07r | 8:39r | | | |
| 07/31/2018 | Tu | 12:00t | | 12:48t | 14:52t | | 13:00r | 17:02r |
| 07/31/2018 | Tu | 19:18s | | 19:28s | | 19:30r | 18:02t | |
| 07/31/2018 | Tu | 20:56et | 21:29r | | 21:05s | 23:41t | 23:04s | 21:30t |
| 08/01/2018 | W | 3:04mt | 3:19t | | | 3:51s | | 1:57s |
| 08/01/2018 | W | 4:41r | 9:17s | 6:01r | 8:40r | | | |
| 08/01/2018 | W | 11:59t | | 12:42t | 14:52t | | 12:57r | 16:58r |
| 08/01/2018 | W | 19:17s | | 19:22s | | 19:25r | 17:59t | |
| 08/01/2018 | W | 20:54et | 21:55r | | 21:03s | 23:36t | 23:00s | 21:25t |
| 08/02/2018 | Th | 3:06mt | 4:03t | | | 3:46s | | 1:53s |
| 08/02/2018 | Th | 4:42r | 10:20s | 5:55r | 8:42r | | | |
| 08/02/2018 | Th | 11:59t | | 12:35t | 14:52t | | 12:53r | 16:54r |
| 08/02/2018 | Th | 19:16s | | 19:16s | | 19:21r | 17:55t | |
| 08/02/2018 | Th | 20:52et | 22:22r | | 21:01s | 23:31t | 22:57s | 21:21t |
| 08/03/2018 | F | 3:07mt | | | | 3:41s | | 1:49s |
| 08/03/2018 | F | 4:43r | 4:48t | 5:48r | 8:44r | | | |
| 08/03/2018 | F | 11:59t | 11:24s | 12:29t | 14:52t | | 12:50r | 16:49r |
| 08/03/2018 | F | 19:15s | | 19:10s | | 19:16r | 17:51t | |
| 08/03/2018 | F | 20:50et | 22:50r | | 20:58s | 23:26t | 22:53s | 21:17t |
| 08/04/2018 | Sat | 3:09mt | | | | 3:35s | | 1:45s |
| 08/04/2018 | Sat | 4:44r | 5:35t | 5:41r | 8:45r | | | |
| 08/04/2018 | Sat | 11:59t | 11:18LQ | 12:22t | | | | |
| 08/04/2018 | Sat | | 12:30s | | 14:51t | | 12:46r | 16:45r |
| 08/04/2018 | Sat | 19:13s | | 19:04s | | 19:11r | 17:48t | |
| 08/04/2018 | Sat | 20:48et | 23:21r | | 20:56s | 23:21t | 22:49s | 21:13t |
| 08/05/2018 | Sun | 3:10mt | | | | 3:30s | | 1:41s |
| 08/05/2018 | Sun | 4:46r | 6:25t | 5:33r | 8:47r | | | |
| 08/05/2018 | Sun | 11:59t | 13:38s | 12:16t | 14:51t | | 12:42r | 16:41r |
| 08/05/2018 | Sun | 19:12s | | 18:58s | | 19:07r | 17:44t | |
| 08/05/2018 | Sun | 20:47et | 23:58r | | 20:54s | 23:16t | 22:45s | 21:09t |
| 08/06/2018 | M | 3:12mt | | | | 3:25s | | 1:37s |
| 08/06/2018 | M | 4:47r | 7:19t | 5:26r | 8:49r | | | |
| 08/06/2018 | M | 11:59t | 14:48s | 12:09t | 14:51t | | 12:39r | 16:37r |
| 08/06/2018 | M | 19:11s | | 18:53s | | 19:02r | 17:40t | |
| 08/06/2018 | M | 20:45et | | | 20:52s | 23:11t | 22:42s | 21:05t |
| 08/07/2018 | Tu | 3:14mt | 0:41r | | | 3:19s | | 1:32s |
| 08/07/2018 | Tu | 4:48r | 8:16t | 5:18r | 8:50r | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 08/07/2018 | Tu | 11:59t | 15:56s | 12:02t | 14:50t | | 12:35r | 16:33r |
| 08/07/2018 | Tu | 19:09s | | 18:47s | | 18:57r | 17:37t | |
| 08/07/2018 | Tu | 20:43et | | | 20:50s | 23:06t | 22:38s | 21:01t |
| 08/08/2018 | W | 3:15mt | 1:34r | | | 3:14s | | 1:28s |
| 08/08/2018 | W | 4:49r | 9:17t | 5:10r | 8:52r | | | |
| 08/08/2018 | W | 11:59t | 17:01s | 11:55t | 14:50t | | 12:32r | 16:29r |
| 08/08/2018 | W | 19:08s | | 18:41s | | 18:52r | 17:33t | |
| 08/08/2018 | W | 20:41et | | | 20:47s | 23:01t | 22:34s | 20:57t |
| 08/09/2018 | Th | 3:17mt | 2:36r | | | 3:09s | | 1:24s |
| 08/09/2018 | Th | 4:50r | 10:20t | 5:01r | 8:53r | | | |
| 08/09/2018 | Th | 11:59t | | 11:48t | 14:50t | | 12:28r | 16:25r |
| 08/09/2018 | Th | 19:06s | 18:00s | 18:36s | | 18:48r | 17:29t | |
| 08/09/2018 | Th | 20:39et | | | 20:45s | 22:56t | 22:30s | 20:52t |
| 08/10/2018 | F | 3:18mt | 3:46r | | | 3:04s | | 1:20s |
| 08/10/2018 | F | 4:51r | 11:22t | 4:53r | 8:55r | | | |
| 08/10/2018 | F | 11:59t | | 11:41t | 14:49t | | 12:25r | 16:21r |
| 08/10/2018 | F | 19:05s | 18:50s | 18:30s | | 18:43r | 17:26t | |
| 08/10/2018 | F | 20:37et | | | 20:43s | 22:51t | 22:27s | 20:48t |
| 08/11/2018 | Sat | 3:20mt | 2:58NM | 4:45r | | 2:59s | | 1:16s |
| 08/11/2018 | Sat | 4:52r | 5:01r | 11:35t | 8:56r | | | |
| 08/11/2018 | Sat | 11:58t | 12:22t | | 14:49t | | 12:22r | 16:17r |
| 08/11/2018 | Sat | 19:04s | 19:33s | 18:25s | | 18:38r | 17:22t | |
| 08/11/2018 | Sat | 20:35et | | | 20:40s | 22:46t | 22:23s | 20:44t |
| 08/12/2018 | Sun | 3:22mt | | 4:37r | | 2:54s | | 1:12s |
| 08/12/2018 | Sun | 4:53r | 6:18r | 11:28t | 8:58r | | | |
| 08/12/2018 | Sun | 11:58t | 13:20t | | 14:48t | | 12:18r | 16:12r |
| 08/12/2018 | Sun | 19:02s | 20:10s | 18:20s | | 18:34r | 17:19t | |
| 08/12/2018 | Sun | 20:33et | | | 20:38s | 22:41t | 22:19s | 20:40t |
| 08/13/2018 | M | 3:23mt | | 4:30r | | 2:49s | | 1:08s |
| 08/13/2018 | M | 4:55r | 7:33r | 11:22t | 8:59r | | | |
| 08/13/2018 | M | 11:58t | 14:14t | | 14:48t | | 12:15r | 16:08r |
| 08/13/2018 | M | 19:01s | | 18:16s | | 18:29r | 17:15t | |
| 08/13/2018 | M | 20:31et | 20:43s | | 20:36s | 22:37t | 22:16s | 20:36t |
| 08/14/2018 | Tu | 3:25mt | | 4:22r | | 2:44s | | 1:04s |
| 08/14/2018 | Tu | 4:56r | 8:46r | 11:17t | 9:00r | | | |
| 08/14/2018 | Tu | 11:58t | 15:05t | | 14:47t | | 12:11r | 16:04r |
| 08/14/2018 | Tu | 18:59s | | 18:12s | | 18:24r | 17:12t | |
| 08/14/2018 | Tu | 20:29et | 21:13s | | 20:33s | 22:32t | 22:12s | 20:32t |
| 08/15/2018 | W | 3:26mt | | 4:15r | | 2:40s | | 1:00s |
| 08/15/2018 | W | 4:57r | 9:56r | 11:11t | 9:02r | | | |
| 08/15/2018 | W | 11:58t | 15:54t | | 14:47t | | 12:08r | 16:00r |
| 08/15/2018 | W | 18:58s | | 18:08s | | 18:20r | 17:08t | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 08/15/2018 | W | 20:28et | 21:42s | | 20:31s | 22:27t | 22:08s | 20:28t |
| 08/16/2018 | Th | 3:28mt | | 4:09r | | 2:35s | | 0:55s |
| 08/16/2018 | Th | 4:58r | 11:04r | 11:06t | 9:03r | | | |
| 08/16/2018 | Th | 11:57t | 16:42t | | 14:46t | | 12:04r | 15:56r |
| 08/16/2018 | Th | 18:56s | | 18:05s | | 18:15r | 17:05t | 20:24t |
| 08/16/2018 | Th | 20:26et | 22:12s | | 20:28s | 22:23t | 22:05s | |
| 08/17/2018 | F | 3:30mt | | 4:03r | | 2:31s | | 0:51s |
| 08/17/2018 | F | 4:59r | | 11:02t | 9:04r | | | |
| 08/17/2018 | F | 11:57t | 12:09r | | 14:46t | | 12:01r | 15:52r |
| 08/17/2018 | F | 18:54s | 17:30t | 18:02s | | 18:11r | 17:01t | 20:20t |
| 08/17/2018 | F | 20:24et | 22:43s | | 20:26s | 22:18t | 22:01s | |
| 08/18/2018 | Sat | 3:31mt | 0:48FQ | 3:57r | | 2:26s | | 0:47s |
| 08/18/2018 | Sat | 5:00r | | 10:58t | 9:06r | | | |
| 08/18/2018 | Sat | 11:57t | 13:12r | | 14:45t | | 11:58r | 15:48r |
| 08/18/2018 | Sat | 18:53s | 18:17t | 17:59s | | 18:06r | 16:57t | 20:16t |
| 08/18/2018 | Sat | 20:22et | 23:17s | | 20:24s | 22:14t | 21:57s | |
| 08/19/2018 | Sun | 3:33mt | | 3:52r | | 2:22s | | 0:43s |
| 08/19/2018 | Sun | 5:01r | | 10:54t | 9:07r | | 11:54r | |
| 08/19/2018 | Sun | 11:57t | 14:12r | 17:57s | 14:45t | 18:02r | 16:54t | 15:44r |
| 08/19/2018 | Sun | 18:51s | 19:05t | | | | | 20:12t |
| 08/19/2018 | Sun | 20:20et | 23:55s | | 20:21s | 22:09t | 21:54s | |
| 08/20/2018 | M | 3:34mt | | 3:48r | | 2:17s | | 0:39s |
| 08/20/2018 | M | 5:03r | | 10:51t | 9:08r | | 11:51r | |
| 08/20/2018 | M | 11:57t | 15:08r | 17:55s | 14:44t | 17:57r | 16:51t | 15:40r |
| 08/20/2018 | M | 18:50s | 19:53t | | | | | 20:08t |
| 08/20/2018 | M | 20:18et | | | 20:19s | 22:05t | 21:50s | |
| 08/21/2018 | Tu | 3:36mt | 0:37s | 3:44r | | 2:13s | | 0:35s |
| 08/21/2018 | Tu | 5:04r | | 10:49t | 9:09r | | 11:48r | |
| 08/21/2018 | Tu | 11:56t | 15:59r | 17:53s | 14:43t | 17:53r | 16:47t | 15:36r |
| 08/21/2018 | Tu | 18:48s | | | | | | 20:04t |
| 08/21/2018 | Tu | 20:15et | 20:42t | | 20:16s | 22:01t | 21:46s | |
| 08/22/2018 | W | 3:37mt | 1:24s | 3:41r | | 2:09s | | 0:31s |
| 08/22/2018 | W | 5:05r | | 10:47t | 9:11r | | 11:44r | |
| 08/22/2018 | W | 11:56t | 16:46r | 17:52s | 14:43t | 17:48r | 16:44t | 15:32r |
| 08/22/2018 | W | 18:46s | | | | | | 19:59t |
| 08/22/2018 | W | 20:13et | 21:30t | | 20:14s | 21:56t | 21:43s | |
| 08/23/2018 | Th | 3:39mt | 2:16s | 3:39r | | 2:05s | | 0:27s |
| 08/23/2018 | Th | 5:06r | | 10:45t | 9:12r | | 11:41r | |
| 08/23/2018 | Th | 11:56t | 17:27r | 17:51s | 14:42t | 17:44r | 16:40t | 15:28r |
| 08/23/2018 | Th | 18:45s | | | 20:11s | | | 19:55t |
| 08/23/2018 | Th | 20:11et | 22:17t | | | 21:52t | 21:39s | |
| 08/24/2018 | F | 3:40mt | 3:11s | 3:37r | | 2:01s | | 0:23s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 08/24/2018 | F | 5:07r | | 10:44t | 9:13r | | 11:38r | |
| 08/24/2018 | F | 11:55t | 18:04r | 17:51s | 14:41t | 17:39r | 16:37t | 15:24r |
| 08/24/2018 | F | 18:43s | | | 20:08s | | | 19:51t |
| 08/24/2018 | F | 20:09et | 23:04t | | | 21:48t | 21:35s | |
| 08/25/2018 | Sat | 3:42mt | 4:09s | 3:36r | | 1:57s | | 0:19s |
| 08/25/2018 | Sat | 5:08r | | 10:43t | 9:14r | | 11:34r | |
| 08/25/2018 | Sat | 11:55t | 18:36r | 17:50s | 14:40t | 17:35r | 16:33t | 15:20r |
| 08/25/2018 | Sat | 18:41s | | | 20:06s | | | 19:47t |
| 08/25/2018 | Sat | 20:07et | 23:49t | | | 21:44t | 21:32s | |
| 08/26/2018 | Sun | 3:43mt | 4:56FM | 3:36r | | 1:53s | | 0:15s |
| 08/26/2018 | Sun | 5:09r | 5:09s | 10:43t | 9:15r | | 11:31r | |
| 08/26/2018 | Sun | 11:55t | | 17:50s | 14:39t | 17:31r | 16:30t | 15:16r |
| 08/26/2018 | Sun | 18:40s | 19:06r | | 20:03s | | | 19:43t |
| 08/26/2018 | Sun | 20:05et | | | | 21:40t | 21:28s | |
| 08/27/2018 | M | 3:45mt | 0:34t | 3:36r | | 1:49s | | 0:11s |
| 08/27/2018 | M | 5:11r | 6:09s | 10:44t | 9:16r | | 11:28r | |
| 08/27/2018 | M | 11:55t | | 17:51s | 14:39t | 17:27r | 16:26t | 15:12r |
| 08/27/2018 | M | 18:38s | 19:33r | | 20:01s | | | 19:39t |
| 08/27/2018 | M | 20:03et | | | | 21:36t | 21:25s | |
| 08/28/2018 | Tu | 3:46mt | 1:18t | 3:37r | | 1:46s | | 0:07s |
| 08/28/2018 | Tu | 5:12r | 7:11s | 10:44t | 9:17r | | 11:25r | |
| 08/28/2018 | Tu | 11:54t | | 17:51s | 14:38t | 17:22r | 16:23t | 15:08r |
| 08/28/2018 | Tu | 18:36s | 19:59r | | 19:58s | | | 19:35t |
| 08/28/2018 | Tu | 20:01et | | | | 21:32t | 21:21s | |
| 08/29/2018 | W | 3:48mt | 2:02t | 3:39r | | 1:42s | | 0:03s |
| 08/29/2018 | W | 5:13r | 8:13s | 10:46t | 9:18r | | 11:21r | |
| 08/29/2018 | W | 11:54t | | 17:52s | 14:37t | 17:18r | 16:19t | 15:04r |
| 08/29/2018 | W | 18:34s | | | 19:55s | | | 19:31t |
| 08/29/2018 | W | 19:59et | 20:26r | | | 21:28t | 21:17s | 23:59s |
| 08/30/2018 | Th | 3:49mt | 2:46t | 3:41r | | 1:38s | | |
| 08/30/2018 | Th | 5:14r | 9:17s | 10:47t | 9:19r | | 11:18r | |
| 08/30/2018 | Th | 11:54t | | 17:52s | 14:36t | 17:14r | 16:16t | 15:00r |
| 08/30/2018 | Th | 18:33s | | | 19:53s | | | 19:27t |
| 08/30/2018 | Th | 19:57et | 20:53r | | | 21:24t | 21:14s | 23:55s |
| 08/31/2018 | F | 3:51mt | 3:32t | 3:44r | | 1:35s | | |
| 08/31/2018 | F | 5:15r | 10:22s | 10:49t | 9:19r | | 11:15r | |
| 08/31/2018 | F | 11:53t | | 17:53s | 14:35t | 17:10r | 16:13t | 14:56r |
| 08/31/2018 | F | 18:31s | | | 19:50s | | | 19:23t |
| 08/31/2018 | F | 19:55et | 21:23r | | | 21:21t | 21:10s | 23:51s |
| 09/01/2018 | Sat | 3:52mt | 4:21t | 3:48r | | 1:32s | | |
| 09/01/2018 | Sat | 5:16r | 11:28s | 10:51t | 9:20r | | 11:12r | |
| 09/01/2018 | Sat | 11:53t | | 17:54s | 14:34t | 17:06r | 16:09t | 14:52r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 09/01/2018 Sat | 18:29s | | | 19:47s | | | 19:20t |
| 09/01/2018 Sat | 19:53et | 21:57r | | | 21:17t | 21:07s | 23:47s |
| 09/02/2018 Sun | 3:54mt | 5:12t | 3:51r | | 1:28s | | |
| 09/02/2018 Sun | 5:17r | | 10:54t | 9:21r | | 11:09r | |
| 09/02/2018 Sun | 11:53t | 12:36s | 17:55s | 14:33t | 17:02r | 16:06t | 14:48r |
| 09/02/2018 Sun | 18:27s | 19:37LQ | | 19:44s | | | 19:16t |
| 09/02/2018 Sun | 19:51et | 22:36r | | | 21:13t | 21:03s | 23:43s |
| 09/03/2018 M | 3:55mt | | 3:56r | | 1:25s | | |
| 09/03/2018 M | 5:19r | 6:06t | 10:56t | 9:21r | | 11:05r | |
| 09/03/2018 M | 11:52t | 13:43s | 17:56s | 14:32t | 16:58r | 16:03t | 14:44r |
| 09/03/2018 M | 18:25s | | | 19:42s | | | 19:12t |
| 09/03/2018 M | 19:49et | 23:23r | | | 21:10t | 21:00s | 23:39s |
| 09/04/2018 Tu | 3:56mt | | 4:00r | | 1:22s | | |
| 09/04/2018 Tu | 5:20r | 7:04t | 10:59t | 9:22r | | 11:02r | |
| 09/04/2018 Tu | 11:52t | 14:47s | 17:57s | 14:31t | 16:54r | 15:59t | 14:40r |
| 09/04/2018 Tu | 18:24s | | | 19:39s | | | 19:08t |
| 09/04/2018 Tu | 19:47et | | | | 21:06t | 20:56s | 23:35s |
| 09/05/2018 W | 3:58mt | 0:19r | 4:05r | | 1:19s | | |
| 09/05/2018 W | 5:21r | 8:04t | 11:02t | 9:22r | | 10:59r | |
| 09/05/2018 W | 11:52t | 15:46s | 17:57s | 14:30t | 16:50r | 15:56t | 14:36r |
| 09/05/2018 W | 18:22s | | | 19:36s | | | 19:04t |
| 09/05/2018 W | 19:45et | | | | 21:03t | 20:52s | 23:31s |
| 09/06/2018 Th | 3:59mt | 1:24r | 4:11r | | 1:16s | | |
| 09/06/2018 Th | 5:22r | 9:04t | 11:05t | 9:23r | | 10:56r | |
| 09/06/2018 Th | 11:51t | 16:39s | 17:58s | 14:28t | 16:46r | 15:52t | 14:32r |
| 09/06/2018 Th | 18:20s | | | 19:33s | | | 19:00t |
| 09/06/2018 Th | 19:43et | | | | 20:59t | 20:49s | 23:27s |
| 09/07/2018 F | 4:01mt | 2:35r | 4:16r | | 1:13s | | |
| 09/07/2018 F | 5:23r | 10:04t | 11:08t | 9:23r | | 10:53r | |
| 09/07/2018 F | 11:51t | 17:24s | 17:59s | 14:27t | 16:42r | 15:49t | 14:29r |
| 09/07/2018 F | 18:18s | | | 19:30s | | | 18:56t |
| 09/07/2018 F | 19:40et | | | | 20:56t | 20:45s | 23:23s |
| 09/08/2018 Sat | 4:02mt | 3:50r | 4:22r | | 1:10s | | |
| 09/08/2018 Sat | 5:24r | 11:02t | 11:11t | 9:24r | | 10:50r | |
| 09/08/2018 Sat | 11:51t | 18:03s | 18:00s | 14:26t | 16:38r | 15:46t | 14:25r |
| 09/08/2018 Sat | 18:16s | | | 19:27s | | | 18:52t |
| 09/08/2018 Sat | 19:38et | | | | 20:53t | 20:42s | 23:19s |
| 09/09/2018 Sun | 4:03mt | 5:06r | 4:28r | | 1:07s | | |
| 09/09/2018 Sun | 5:25r | 11:01NM | 11:15t | 9:24r | | 10:46r | |
| 09/09/2018 Sun | 11:50t | 11:58t | 18:00s | 14:24t | 16:35r | 15:42t | 14:21r |
| 09/09/2018 Sun | 18:15s | 18:38s | | 19:24s | | | 18:48t |
| 09/09/2018 Sun | 19:36et | | | | 20:49t | 20:38s | 23:15s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 09/10/2018 | M | 4:05mt | | 4:34r | | 1:04s | |
| 09/10/2018 | M | 5:27r | 6:21r | 11:18t | 9:24r | | 10:43r |
| 09/10/2018 | M | 11:50t | 12:51t | 18:01s | 14:23t | 16:31r | 15:39t 14:17r |
| 09/10/2018 | M | 18:13s | 19:09s | | 19:21s | | 18:44t |
| 09/10/2018 | M | 19:34et | | | | 20:46t | 20:35s 23:11s |
| 09/11/2018 | Tu | 4:06mt | | 4:40r | | 1:02s | |
| 09/11/2018 | Tu | 5:28r | 7:34r | 11:21t | 9:24r | | 10:40r |
| 09/11/2018 | Tu | 11:50t | 13:42t | 18:01s | 14:22t | 16:27r | 15:36t 14:13r |
| 09/11/2018 | Tu | 18:11s | | | 19:18s | | 18:40t |
| 09/11/2018 | Tu | 19:32et | 19:39s | | | 20:43t | 20:31s 23:08s |
| 09/12/2018 | W | 4:07mt | | 4:46r | | 0:59s | |
| 09/12/2018 | W | 5:29r | 8:45r | 11:24t | 9:24r | | 10:37r |
| 09/12/2018 | W | 11:49t | 14:32t | 18:01s | 14:20t | 16:24r | 15:33t 14:09r |
| 09/12/2018 | W | 18:09s | | | 19:15s | | 18:36t |
| 09/12/2018 | W | 19:30et | 20:10s | | | 20:40t | 20:28s 23:04s |
| 09/13/2018 | Th | 4:09mt | | 4:52r | | 0:57s | |
| 09/13/2018 | Th | 5:30r | 9:53r | 11:28t | 9:24r | | 10:34r |
| 09/13/2018 | Th | 11:49t | 15:21t | 18:01s | 14:18t | 16:20r | 15:29t 14:05r |
| 09/13/2018 | Th | 18:07s | | | 19:12s | | 18:32t |
| 09/13/2018 | Th | 19:28et | 20:41s | | | 20:37t | 20:24s 23:00s |
| 09/14/2018 | F | 4:10mt | | 4:58r | | 0:54s | |
| 09/14/2018 | F | 5:31r | 10:59r | 11:31t | 9:24r | | 10:31r |
| 09/14/2018 | F | 11:49t | 16:10t | 18:02s | 14:17t | 16:16r | 15:26t 14:01r |
| 09/14/2018 | F | 18:05s | | | 19:09s | | 18:29t |
| 09/14/2018 | F | 19:26et | 21:14s | | | 20:34t | 20:21s 22:56s |
| 09/15/2018 | Sat | 4:11mt | | 5:04r | | 0:52s | |
| 09/15/2018 | Sat | 5:32r | | 11:34t | 9:24r | | 10:28r |
| 09/15/2018 | Sat | 11:48t | 12:01r | | 14:15t | 16:13r | 15:23t 13:57r |
| 09/15/2018 | Sat | 18:03s | 16:59t | 18:02s | 19:06s | | 18:25t |
| 09/15/2018 | Sat | 19:24et | 21:51s | | | 20:31t | 20:17s 22:52s |
| 09/16/2018 | Sun | 4:13mt | | 5:10r | | 0:49s | |
| 09/16/2018 | Sun | 5:34r | | 11:37t | 9:23r | | 10:25r |
| 09/16/2018 | Sun | 11:48t | 13:00r | | 14:13t | 16:09r | 15:19t 13:54r |
| 09/16/2018 | Sun | | 16:15FQ | | | | |
| 09/16/2018 | Sun | 18:02s | 17:47t | 18:01s | 19:02s | | 18:21t |
| 09/16/2018 | Sun | 19:22et | 22:32s | | | 20:28t | 20:14s 22:48s |
| 09/17/2018 | M | 4:14mt | | 5:16r | | 0:47s | |
| 09/17/2018 | M | 5:35r | | 11:40t | 9:23r | | 10:22r |
| 09/17/2018 | M | 11:48t | 13:54r | | 14:11t | 16:06r | 15:16t 13:50r |
| 09/17/2018 | M | 18:00s | 18:36t | 18:01s | 18:59s | | 18:17t |
| 09/17/2018 | M | 19:20et | 23:18s | | | 20:25t | 20:10s 22:44s |
| 09/18/2018 | Tu | 4:15mt | | 5:22r | | 0:45s | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 09/18/2018 | Tu | 5:36r | | 11:43t | 9:22r | | 10:19r | |
| 09/18/2018 | Tu | 11:47t | 14:43r | | 14:09t | 16:02r | 15:13t | 13:46r |
| 09/18/2018 | Tu | 17:58s | | 18:01s | 18:56s | | | 18:13t |
| 09/18/2018 | Tu | 19:18et | 19:25t | | | 20:22t | 20:07s | 22:40s |
| 09/19/2018 | W | 4:17mt | 0:08s | 5:28r | | 0:43s | | |
| 09/19/2018 | W | 5:37r | | 11:45t | 9:22r | | 10:16r | |
| 09/19/2018 | W | 11:47t | 15:26r | | 14:07t | 15:59r | 15:10t | 13:42r |
| 09/19/2018 | W | 17:56s | | 18:01s | 18:52s | | | 18:09t |
| 09/19/2018 | W | 19:16et | 20:13t | | | 20:20t | 20:03s | 22:37s |
| 09/20/2018 | Th | 4:18mt | 1:02s | 5:34r | | 0:40s | | |
| 09/20/2018 | Th | 5:38r | | | 9:21r | | 10:13r | |
| 09/20/2018 | Th | 11:47t | 16:04r | 11:48t | 14:05t | 15:56r | 15:06t | 13:38r |
| 09/20/2018 | Th | 17:54s | | 18:00s | 18:49s | | | 18:06t |
| 09/20/2018 | Th | 19:14et | 20:59t | | | 20:17t | 20:00s | 22:33s |
| 09/21/2018 | F | 4:19mt | 2:00s | | | 0:38s | | |
| 09/21/2018 | F | 5:39r | | 5:40r | 9:20r | | 10:10r | |
| 09/21/2018 | F | 11:46t | 16:38r | 11:51t | 14:03t | 15:52r | 15:03t | 13:34r |
| 09/21/2018 | F | 17:52s | | 18:00s | 18:45s | | | 18:02t |
| 09/21/2018 | F | 19:12et | 21:45t | | | 20:14t | 19:57s | 22:29s |
| 09/22/2018 | Sat | 4:20mt | 2:59s | | | 0:36s | | |
| 09/22/2018 | Sat | 5:40r | | 5:46r | 9:19r | | 10:07r | |
| 09/22/2018 | Sat | 11:46t | 17:08r | 11:53t | 14:00t | 15:49r | 15:00t | 13:31r |
| 09/22/2018 | Sat | 17:50s | | 17:59s | 18:42s | | | 17:58t |
| 09/22/2018 | Sat | 18:54SE | | | | | | |
| 09/22/2018 | Sat | 19:10et | 22:30t | | | 20:12t | 19:53s | 22:25s |
| 09/23/2018 | Sun | 4:22mt | 4:00s | | | 0:34s | | |
| 09/23/2018 | Sun | 5:42r | | 5:51r | 9:17r | | 10:04r | |
| 09/23/2018 | Sun | 11:45t | 17:36r | 11:56t | 13:58t | 15:46r | 14:57t | 13:27r |
| 09/23/2018 | Sun | 17:49s | | 17:59s | 18:38s | | | 17:54t |
| 09/23/2018 | Sun | 19:08et | 23:15t | | | 20:09t | 19:50s | 22:21s |
| 09/24/2018 | M | 4:23mt | 5:02s | | | 0:32s | | |
| 09/24/2018 | M | 5:43r | | 5:57r | 9:16r | | 10:01r | |
| 09/24/2018 | M | 11:45t | | 11:58t | 13:55t | 15:42r | 14:53t | 13:23r |
| 09/24/2018 | M | 17:47s | 18:03r | 17:58s | 18:35s | | | 17:50t |
| 09/24/2018 | M | 19:06et | 19:52FM | | | 20:06t | 19:46s | 22:17s |
| 09/24/2018 | M | | 23:59t | | | | | |
| 09/25/2018 | Tu | 4:24mt | | | | 0:31s | | |
| 09/25/2018 | Tu | 5:44r | 6:05s | 6:02r | 9:14r | | 9:58r | |
| 09/25/2018 | Tu | 11:45t | | 12:01t | 13:53t | 15:39r | 14:50t | 13:19r |
| 09/25/2018 | Tu | 17:45s | 18:29r | 17:58s | 18:31s | | | 17:46t |
| 09/25/2018 | Tu | 19:04et | | | | 20:04t | 19:43s | 22:14s |
| 09/26/2018 | W | 4:25mt | 0:44t | | | 0:29s | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 09/26/2018 | W | 5:45r | 7:09s | 6:08r | 9:13r | | 9:55r | |
| 09/26/2018 | W | 11:44t | | 12:03t | 13:50t | 15:36r | 14:47t | 13:15r |
| 09/26/2018 | W | 17:43s | 18:56r | 17:57s | 18:27s | | | 17:43t |
| 09/26/2018 | W | 19:02et | | | | 20:01t | 19:39s | 22:10s |
| 09/27/2018 | Th | 4:27mt | 1:30t | | | 0:27s | | |
| 09/27/2018 | Th | 5:46r | 8:14s | 6:13r | 9:11r | | 9:52r | |
| 09/27/2018 | Th | 11:44t | | 12:05t | 13:47t | 15:33r | 14:44t | 13:12r |
| 09/27/2018 | Th | 17:41s | | 17:56s | 18:23s | | | 17:39t |
| 09/27/2018 | Th | 19:00et | 19:25r | | | 19:59t | 19:36s | 22:06s |
| 09/28/2018 | F | 4:28mt | 2:18t | | | 0:25s | | |
| 09/28/2018 | F | 5:47r | 9:21s | 6:18r | 9:09r | | 9:49r | |
| 09/28/2018 | F | 11:44t | | 12:07t | 13:44t | 15:30r | 14:41t | 13:08r |
| 09/28/2018 | F | 17:39s | | 17:55s | 18:19s | | | 17:35t |
| 09/28/2018 | F | 18:59et | 19:58r | | | 19:56t | 19:33s | 22:02s |
| 09/29/2018 | Sat | 4:29mt | 3:09t | | | 0:24s | | |
| 09/29/2018 | Sat | 5:49r | 10:29s | 6:23r | 9:06r | | 9:46r | |
| 09/29/2018 | Sat | 11:43t | | 12:10t | 13:41t | 15:26r | 14:37t | 13:04r |
| 09/29/2018 | Sat | 17:38s | | 17:55s | 18:15s | | | 17:31t |
| 09/29/2018 | Sat | 18:57et | 20:35r | | | 19:54t | 19:29s | 21:58s |
| 09/30/2018 | Sun | 4:30mt | 4:02t | | | 0:22s | | |
| 09/30/2018 | Sun | 5:50r | 11:36s | 6:28r | 9:04r | | 9:43r | |
| 09/30/2018 | Sun | 11:43t | | 12:12t | 13:38t | 15:23r | 14:34t | 13:00r |
| 09/30/2018 | Sun | 17:36s | | 17:54s | 18:11s | | | 17:28t |
| 09/30/2018 | Sun | 18:55et | 21:19r | | | 19:52t | 19:26s | 21:55s |
| 10/01/2018 | M | 4:32mt | 4:58t | | | 0:20s | | |
| 10/01/2018 | M | 5:51r | | 6:33r | 9:01r | | 9:40r | |
| 10/01/2018 | M | 11:43t | 12:40s | 12:14t | 13:34t | 15:20r | 14:31t | 12:57r |
| 10/01/2018 | M | 17:34s | | 17:53s | 18:07s | | | 17:24t |
| 10/01/2018 | M | 18:53et | 22:11r | | | 19:49t | 19:22s | 21:51s |
| 10/02/2018 | Tu | 4:33mt | 2:45LQ | | | 0:19s | | |
| 10/02/2018 | Tu | 5:52r | 5:56t | 6:38r | 8:58r | | 9:37r | |
| 10/02/2018 | Tu | 11:42t | 13:40s | 12:16t | 13:31t | 15:17r | 14:28t | 12:53r |
| 10/02/2018 | Tu | 17:32s | | 17:52s | 18:03s | | | 17:20t |
| 10/02/2018 | Tu | 18:51et | 23:11r | | | 19:47t | 19:19s | 21:47s |
| 10/03/2018 | W | 4:34mt | | | | 0:17s | | |
| 10/03/2018 | W | 5:53r | 6:54t | 6:43r | 8:55r | | 9:34r | |
| 10/03/2018 | W | 11:42t | 14:33s | 12:18t | 13:27t | 15:14r | 14:25t | 12:49r |
| 10/03/2018 | W | 17:30s | | 17:51s | 17:59s | | | 17:16t |
| 10/03/2018 | W | 18:49et | | | | 19:45t | 19:16s | 21:43s |
| 10/04/2018 | Th | 4:35mt | 0:18r | | | 0:16s | | |
| 10/04/2018 | Th | 5:54r | 7:53t | 6:48r | 8:52r | | 9:31r | |
| 10/04/2018 | Th | 11:42t | 15:19s | 12:20t | 13:23t | 15:11r | 14:22t | 12:45r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 10/04/2018 | Th | 17:28s | | 17:50s | 17:55s | | | 17:13t |
| 10/04/2018 | Th | 18:47et | | | | 19:42t | 19:12s | 21:40s |
| 10/05/2018 | F | 4:37mt | 1:30r | | | 0:14s | | |
| 10/05/2018 | F | 5:56r | 8:50t | 6:53r | 8:48r | | 9:28r | |
| 10/05/2018 | F | 11:42t | 15:59s | 12:22t | 13:19t | 15:08r | 14:18t | 12:42r |
| 10/05/2018 | F | 17:27s | | 17:49s | 17:51s | | | 17:09t |
| 10/05/2018 | F | 18:46et | | | | 19:40t | 19:09s | 21:36s |
| 10/06/2018 | Sat | 4:38mt | 2:44r | | | 0:13s | | |
| 10/06/2018 | Sat | 5:57r | 9:45t | 6:58r | 8:44r | | 9:25r | |
| 10/06/2018 | Sat | 11:41t | 16:34s | 12:24t | 13:15t | 15:05r | 14:15t | 12:38r |
| 10/06/2018 | Sat | 17:25s | | 17:49s | 17:46s | | | 17:05t |
| 10/06/2018 | Sat | 18:44et | | | | 19:38t | 19:05s | 21:32s |
| 10/07/2018 | Sun | 4:39mt | 3:58r | | | 0:11s | | |
| 10/07/2018 | Sun | 5:58r | 10:38t | 7:02r | 8:40r | | 9:22r | |
| 10/07/2018 | Sun | 11:41t | | 12:26t | 13:11t | 15:02r | 14:12t | 12:34r |
| 10/07/2018 | Sun | 17:23s | 17:06s | 17:48s | 17:42s | | | 17:01t |
| 10/07/2018 | Sun | 18:42et | | | | 19:36t | 19:02s | 21:28s |
| 10/08/2018 | M | 4:40mt | 5:11r | | | 0:10s | | |
| 10/08/2018 | M | 5:59r | 11:29t | 7:07r | 8:36r | | 9:19r | |
| 10/08/2018 | M | 11:41t | | 12:28t | 13:07t | 14:59r | 14:09t | 12:31r |
| 10/08/2018 | M | 17:21s | 17:36s | 17:47s | 17:37s | | | 16:58t |
| 10/08/2018 | M | 18:40et | 20:47NM | | | 19:34t | 18:59s | 21:25s |
| 10/09/2018 | Tu | 4:41mt | | | | 0:09s | | |
| 10/09/2018 | Tu | 6:01r | 6:23r | 7:12r | 8:31r | | 9:16r | |
| 10/09/2018 | Tu | 11:40t | 12:19t | 12:29t | 13:02t | 14:56r | 14:06t | 12:27r |
| 10/09/2018 | Tu | 17:20s | 18:06s | 17:46s | 17:33s | | | 16:54t |
| 10/09/2018 | Tu | 18:39et | | | | 19:32t | 18:55s | 21:21s |
| 10/10/2018 | W | 4:43mt | | | | 0:07s | | |
| 10/10/2018 | W | 6:02r | 7:33r | 7:16r | 8:27r | | 9:13r | |
| 10/10/2018 | W | 11:40t | 13:09t | 12:31t | 12:57t | 14:53r | 14:03t | 12:23r |
| 10/10/2018 | W | 17:18s | | 17:45s | 17:28s | | | 16:50t |
| 10/10/2018 | W | 18:37et | 18:37s | | | 19:29t | 18:52s | 21:17s |
| 10/11/2018 | Th | 4:44mt | | | | 0:06s | | |
| 10/11/2018 | Th | 6:03r | 8:41r | 7:21r | 8:22r | | 9:10r | |
| 10/11/2018 | Th | 11:40t | 13:59t | 12:33t | 12:53t | 14:50r | 14:00t | 12:19r |
| 10/11/2018 | Th | 17:16s | | 17:44s | 17:24s | | | 16:47t |
| 10/11/2018 | Th | 18:35et | 19:10s | | | 19:27t | 18:49s | 21:14s |
| 10/12/2018 | F | 4:45mt | | | | 0:05s | | |
| 10/12/2018 | F | 6:04r | 9:47r | 7:25r | 8:16r | | 9:08r | |
| 10/12/2018 | F | 11:40t | 14:49t | 12:35t | 12:48t | 14:47r | 13:56t | 12:16r |
| 10/12/2018 | F | 17:14s | | 17:43s | 17:19s | | | 16:43t |
| 10/12/2018 | F | 18:33et | 19:45s | | | 19:25t | 18:45s | 21:10s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 10/13/2018 | Sat | 4:46mt | | | 0:04s | | | |
| 10/13/2018 | Sat | 6:05r | 10:48r | 7:30r | 8:11r | 9:05r | | |
| 10/13/2018 | Sat | 11:39t | 15:39t | 12:37t | 12:42t | 14:44r | 13:53t | 12:12r |
| 10/13/2018 | Sat | 17:13s | | 17:43s | 17:14s | | | 16:39t |
| 10/13/2018 | Sat | 18:32et | 20:25s | | | 19:23t | 18:42s | 21:06s |
| 10/14/2018 | Sun | 4:47mt | | | 0:03s | | | |
| 10/14/2018 | Sun | 6:07r | | 7:34r | 8:05r | 9:02r | | |
| 10/14/2018 | Sun | 11:39t | 11:46r | 12:38t | 12:37t | 14:41r | 13:50t | 12:08r |
| 10/14/2018 | Sun | 17:11s | 16:28t | 17:42s | 17:10s | | | 16:36t |
| 10/14/2018 | Sun | 18:30et | 21:10s | | | 19:21t | 18:39s | 21:03s |
| 10/15/2018 | M | 4:49mt | | | 0:01s | | | |
| 10/15/2018 | M | 6:08r | | 7:38r | 7:59r | 8:59r | | |
| 10/15/2018 | M | 11:39t | 12:37r | 12:40t | 12:32t | 14:38r | 13:47t | 12:05r |
| 10/15/2018 | M | 17:09s | 17:18t | 17:41s | 17:05s | | | 16:32t |
| 10/15/2018 | M | 18:28et | 21:59s | | | 19:19t | 18:35s | 20:59s |
| 10/16/2018 | Tu | 4:50mt | | | 0:00s | | | |
| 10/16/2018 | Tu | 6:09r | 11:02FQ | 7:43r | 7:53r | 8:56r | | |
| 10/16/2018 | Tu | 11:39t | 13:23r | 12:42t | 12:26t | 14:36r | 13:44t | 12:01r |
| 10/16/2018 | Tu | 17:07s | 18:06t | 17:40s | 17:00s | | | 16:28t |
| 10/16/2018 | Tu | 18:27et | 22:52s | | | 19:17t | 18:32s | 20:55s |
| 10/16/2018 | Tu | | | | | 23:59s | | |
| 10/17/2018 | W | 4:51mt | | | | | | |
| 10/17/2018 | W | 6:10r | | 7:47r | 7:46r | 8:53r | | |
| 10/17/2018 | W | 11:38t | 14:03r | 12:44t | 12:21t | 14:33r | 13:41t | 11:57r |
| 10/17/2018 | W | 17:06s | | 17:40s | 16:56s | | | 16:25t |
| 10/17/2018 | W | 18:25et | 18:53t | | | 19:15t | 18:29s | 20:52s |
| 10/17/2018 | W | | 23:48s | | | 23:58s | | |
| 10/18/2018 | Th | 4:52mt | | | | | | |
| 10/18/2018 | Th | 6:12r | | 7:51r | 7:39r | 8:50r | | |
| 10/18/2018 | Th | 11:38t | 14:38r | 12:45t | 12:15t | 14:30r | 13:38t | 11:54r |
| 10/18/2018 | Th | 17:04s | | 17:39s | 16:51s | | | 16:21t |
| 10/18/2018 | Th | 18:24et | 19:40t | | | 19:13t | 18:25s | 20:48s |
| 10/18/2018 | Th | | | | | 23:57s | | |
| 10/19/2018 | F | 4:53mt | 0:47s | | | | | |
| 10/19/2018 | F | 6:13r | | 7:55r | 7:32r | 8:47r | | |
| 10/19/2018 | F | 11:38t | 15:09r | 12:47t | 12:09t | 14:27r | 13:35t | 11:50r |
| 10/19/2018 | F | 17:03s | | 17:38s | 16:46s | | 18:22s | 16:17t |
| 10/19/2018 | F | 18:22et | 20:25t | | | 19:11t | | 20:44s |
| 10/19/2018 | F | | | | | 23:56s | | |
| 10/20/2018 | Sat | 4:55mt | 1:47s | | | | | |
| 10/20/2018 | Sat | 6:14r | | 7:59r | 7:25r | 8:45r | | |
| 10/20/2018 | Sat | 11:38t | 15:38r | 12:49t | 12:03t | 14:24r | 13:32t | 11:47r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 10/20/2018 | Sat | 17:01s | | 17:38s | 16:42s | | 18:19s 16:14t |
| 10/20/2018 | Sat | 18:21et | 21:09t | | | 19:09t | 20:41s |
| 10/20/2018 | Sat | | | | | 23:55s | |
| 10/21/2018 | Sun | 4:56mt | 2:49s | | | | |
| 10/21/2018 | Sun | 6:16r | | 8:03r | 7:18r | | 8:42r |
| 10/21/2018 | Sun | 11:38t | 16:05r | 12:50t | 11:57t | 14:21r | 13:29t 11:43r |
| 10/21/2018 | Sun | 16:59s | | 17:37s | 16:37s | | 18:15s 16:10t |
| 10/21/2018 | Sun | 18:19et | 21:54t | | | 19:08t | 20:37s |
| 10/21/2018 | Sun | | | | | 23:54s | |
| 10/22/2018 | M | 4:57mt | 3:51s | | | | |
| 10/22/2018 | M | 6:17r | | 8:07r | 7:11r | | 8:39r |
| 10/22/2018 | M | 11:38t | | 12:52t | 11:51t | 14:19r | 13:25t 11:39r |
| 10/22/2018 | M | 16:58s | 16:31r | 17:36s | 16:33s | | 18:12s 16:06t |
| 10/22/2018 | M | 18:18et | 22:38t | | | 19:06t | 20:33s |
| 10/22/2018 | M | | | | | 23:53s | |
| 10/23/2018 | Tu | 4:58mt | 4:56s | | | | |
| 10/23/2018 | Tu | 6:18r | | 8:11r | 7:03r | | 8:36r 11:36r |
| 10/23/2018 | Tu | 11:37t | | 12:54t | 11:45t | 14:16r | 13:22t 16:03t |
| 10/23/2018 | Tu | 16:56s | 16:58r | 17:36s | 16:28s | | 18:09s |
| 10/23/2018 | Tu | 18:16et | 23:25t | | | 19:04t | 20:30s |
| 10/23/2018 | Tu | | | | | 23:52s | |
| 10/24/2018 | W | 4:59mt | 6:02s | | | | |
| 10/24/2018 | W | 6:19r | 9:45FM | 8:14r | 6:56r | | 8:33r 11:32r |
| 10/24/2018 | W | 11:37t | | 12:55t | 11:39t | 14:13r | 13:19t 15:59t |
| 10/24/2018 | W | 16:55s | 17:26r | 17:35s | 16:24s | | 18:05s |
| 10/24/2018 | W | 18:15et | | | | 19:02t | 20:26s |
| 10/24/2018 | W | | | | | 23:51s | |
| 10/25/2018 | Th | 5:01mt | 0:13t | | | | |
| 10/25/2018 | Th | 6:21r | 7:10s | 8:18r | 6:48r | | 8:30r 11:28r |
| 10/25/2018 | Th | 11:37t | | 12:57t | 11:33t | 14:10r | 13:16t 15:55t |
| 10/25/2018 | Th | 16:53s | 17:58r | 17:35s | 16:19s | | 18:02s |
| 10/25/2018 | Th | 18:13et | | | | 19:00t | 20:23s |
| 10/25/2018 | Th | | | | | 23:50s | |
| 10/26/2018 | F | 5:02mt | 1:03t | | | | |
| 10/26/2018 | F | 6:22r | 8:19s | 8:22r | 6:40r | | 8:27r 11:25r |
| 10/26/2018 | F | 11:37t | | 12:58t | 11:27t | 14:07r | 13:13t 15:52t |
| 10/26/2018 | F | 16:52s | | 17:34s | 16:15s | | 17:59s |
| 10/26/2018 | F | 18:12et | 18:34r | | | 18:58t | 20:19s |
| 10/26/2018 | F | | | | | 23:50s | |
| 10/27/2018 | Sat | 5:03mt | 1:57t | | | | |
| 10/27/2018 | Sat | 6:23r | 9:28s | 8:25r | 6:32r | | 8:25r |
| 10/27/2018 | Sat | 11:37t | | 13:00t | 11:21t | 14:05r | 13:10t 11:21r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|--------|---------|--------|--------|---------|--------|
| 10/27/2018 Sat | 16:50s | | 17:34s | 16:10s | | 17:55s | 15:48t |
| 10/27/2018 Sat | 18:10et | 19:16r | | | 18:57t | | 20:15s |
| 10/27/2018 Sat | | | | | 23:49s | | |
| 10/28/2018 Sun | 5:04mt | 2:53t | | 6:25r | | | |
| 10/28/2018 Sun | 6:25r | 10:35s | 8:28r | 11:15t | | 8:22r | 11:18r |
| 10/28/2018 Sun | 11:37t | | 13:01t | 16:06s | 14:02r | 13:07t | 15:45t |
| 10/28/2018 Sun | 16:49s | | 17:34s | | | 17:52s | |
| 10/28/2018 Sun | 18:09et | 20:06r | | | 18:55t | | 20:12s |
| 10/28/2018 Sun | | | | | 23:48s | | |
| 10/29/2018 M | 5:05mt | 3:51t | | 6:17r | | | |
| 10/29/2018 M | 6:26r | | 8:31r | 11:09t | | 8:19r | 11:14r |
| 10/29/2018 M | 11:37t | 11:37s | 13:03t | 16:02s | 13:59r | 13:04t | 15:41t |
| 10/29/2018 M | 16:47s | | 17:33s | | | 17:49s | |
| 10/29/2018 M | 18:08et | 21:04r | | | 18:53t | | 20:08s |
| 10/29/2018 M | | | | | 23:47s | | |
| 10/30/2018 Tu | 5:06mt | 4:50t | | 6:09r | | | |
| 10/30/2018 Tu | 6:27r | | 8:34r | 11:03t | | 8:16r | 11:10r |
| 10/30/2018 Tu | 11:37t | 12:32s | 13:04t | 15:58s | 13:56r | 13:01t | 15:37t |
| 10/30/2018 Tu | 16:46s | | 17:33s | | | 17:46s | |
| 10/30/2018 Tu | 18:07et | 22:09r | | | 18:51t | | 20:05s |
| 10/30/2018 Tu | | | | | 23:46s | | |
| 10/31/2018 W | 5:08mt | 5:48t | | 6:02r | | | |
| 10/31/2018 W | 6:29r | 9:40LQ | 8:37r | 10:57t | | 8:13r | 11:07r |
| 10/31/2018 W | 11:37t | 13:20s | 13:05t | 15:54s | 13:54r | 12:58t | 15:34t |
| 10/31/2018 W | 16:44s | | 17:32s | | | 17:42s | |
| 10/31/2018 W | 18:05et | 23:18r | | | 18:49t | | 20:01s |
| 10/31/2018 W | | | | | 23:46s | | |
| 11/01/2018 Th | 5:09mt | | | 5:54r | | | |
| 11/01/2018 Th | 6:30r | 6:44t | 8:40r | 10:52t | | 8:11r | 11:03r |
| 11/01/2018 Th | 11:37t | 14:00s | 13:06t | 15:50s | 13:51r | 12:55t | 15:30t |
| 11/01/2018 Th | 16:43s | | 17:32s | | | 17:39s | |
| 11/01/2018 Th | 18:04et | | | | 18:48t | | 19:57s |
| 11/01/2018 Th | | | | | 23:45s | | |
| 11/02/2018 F | 5:10mt | 0:30r | | 5:47r | | | |
| 11/02/2018 F | 6:31r | 7:38t | 8:42r | 10:46t | | 8:08r | 11:00r |
| 11/02/2018 F | 11:37t | 14:36s | 13:07t | 15:46s | 13:48r | 12:52t | 15:27t |
| 11/02/2018 F | 16:42s | | 17:32s | | | 17:36s | |
| 11/02/2018 F | 18:03et | | | | 18:46t | | 19:54s |
| 11/02/2018 F | | | | | 23:44s | | |
| 11/03/2018 Sat | 5:11mt | 1:42r | | 5:39r | | | |
| 11/03/2018 Sat | 6:33r | 8:30t | 8:45r | 10:41t | | 8:05r | 10:56r |
| 11/03/2018 Sat | 11:37t | 15:07s | 13:08t | 15:43s | 13:45r | 12:49t | 15:23t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|--------|---------|--------|--------|---------|--------|
| 11/03/2018 Sat | 16:40s | | 17:31s | | | 17:33s | |
| 11/03/2018 Sat | 18:02et | | | | 18:44t | | 19:50s |
| 11/03/2018 Sat | | | | | 23:43s | | |
| 11/04/2018 Sun | 5:12mt | 2:54r | | 5:32r | | | |
| 11/04/2018 Sun | 6:34r | 9:21t | 8:47r | 10:35t | | 8:02r | 10:52r |
| 11/04/2018 Sun | 11:37t | 15:37s | 13:09t | 15:39s | 13:43r | 12:46t | 15:20t |
| 11/04/2018 Sun | 16:39s | | 17:31s | | | 17:29s | |
| 11/04/2018 Sun | 18:01et | | | | 18:42t | | 19:47s |
| 11/04/2018 Sun | | | | | 23:43s | | |
| 11/05/2018 M | 5:14mt | 4:04r | | 5:25r | | | |
| 11/05/2018 M | 6:35r | 10:10t | 8:48r | 10:30t | | 7:59r | 10:49r |
| 11/05/2018 M | 11:37t | 16:05s | 13:10t | 15:35s | 13:40r | 12:43t | 15:16t |
| 11/05/2018 M | 16:38s | | 17:31s | | | 17:26s | |
| 11/05/2018 M | 17:59et | | | | 18:41t | | 19:43s |
| 11/05/2018 M | | | | | 23:42s | | |
| 11/06/2018 Tu | 5:15mt | 5:14r | | 5:19r | | | |
| 11/06/2018 Tu | 6:37r | 10:59t | 8:50r | 10:25t | | 7:56r | 10:45r |
| 11/06/2018 Tu | 11:37t | 16:35s | 13:10t | 15:32s | 13:37r | 12:40t | 15:12t |
| 11/06/2018 Tu | 16:37s | | 17:30s | | | 17:23s | |
| 11/06/2018 Tu | 17:58et | | | | 18:39t | | 19:40s |
| 11/06/2018 Tu | | | | | 23:41s | | |
| 11/07/2018 W | 5:16mt | 6:23r | | 5:12r | | | |
| 11/07/2018 W | 6:38r | 9:02NM | 8:51r | 10:20t | | 7:54r | 10:42r |
| 11/07/2018 W | 11:37t | 11:48t | 13:10t | 15:29s | 13:35r | 12:37t | 15:09t |
| 11/07/2018 W | 16:35s | 17:06s | 17:29s | | | 17:20s | |
| 11/07/2018 W | 17:57et | | | | 18:37t | | 19:36s |
| 11/07/2018 W | | | | | 23:40s | | |
| 11/08/2018 Th | 5:17mt | | | 5:06r | | | |
| 11/08/2018 Th | 6:39r | 7:30r | 8:52r | 10:15t | | 7:51r | 10:38r |
| 11/08/2018 Th | 11:37t | 12:38t | 13:10t | 15:25s | 13:32r | 12:34t | 15:05t |
| 11/08/2018 Th | 16:34s | 17:40s | 17:29s | | | 17:16s | |
| 11/08/2018 Th | 17:56et | | | | 18:36t | | 19:33s |
| 11/08/2018 Th | | | | | 23:40s | | |
| 11/09/2018 F | 5:18mt | | | 5:00r | | | |
| 11/09/2018 F | 6:41r | 8:34r | 8:52r | 10:11t | | 7:48r | 10:35r |
| 11/09/2018 F | 11:37t | 13:28t | 13:10t | 15:22s | 13:29r | 12:31t | 15:02t |
| 11/09/2018 F | 16:33s | | 17:28s | | | 17:13s | |
| 11/09/2018 F | 17:55et | 18:18s | | | 18:34t | | 19:29s |
| 11/09/2018 F | | | | | 23:39s | | |
| 11/10/2018 Sat | 5:19mt | | | 4:54r | | | |
| 11/10/2018 Sat | 6:42r | 9:34r | 8:52r | 10:06t | | 7:45r | 10:31r |
| 11/10/2018 Sat | 11:37t | 14:19t | 13:09t | 15:19s | 13:26r | 12:28t | 14:58t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|--------|---------|--------|--------|---------|--------|
| 11/10/2018 Sat | 16:32s | | 17:27s | | | 17:10s | |
| 11/10/2018 Sat | 17:54et | 19:01s | | | 18:32t | | 19:26s |
| 11/10/2018 Sat | | | | | 23:38s | | |
| 11/11/2018 Sun | 5:21mt | | | 4:48r | | | |
| 11/11/2018 Sun | 6:43r | 10:29r | 8:51r | 10:02t | | 7:42r | 10:28r |
| 11/11/2018 Sun | 11:37t | 15:09t | 13:09t | 15:16s | 13:24r | 12:25t | 14:55t |
| 11/11/2018 Sun | 16:31s | | 17:26s | | | 17:07s | |
| 11/11/2018 Sun | 17:53et | 19:49s | | | 18:31t | | 19:22s |
| 11/11/2018 Sun | | | | | 23:38s | | |
| 11/12/2018 M | 5:22mt | | | 4:43r | | | |
| 11/12/2018 M | 6:45r | 11:18r | 8:50r | 9:57t | | 7:40r | 10:24r |
| 11/12/2018 M | 11:37t | 15:58t | 13:07t | 15:13s | 13:21r | 12:22t | 14:51t |
| 11/12/2018 M | 16:30s | | 17:24s | | | 17:03s | |
| 11/12/2018 M | 17:52et | 20:40s | | | 18:29t | | 19:18s |
| 11/12/2018 M | | | | | 23:37s | | |
| 11/13/2018 Tu | 5:23mt | | | 4:37r | | | |
| 11/13/2018 Tu | 6:46r | | 8:48r | 9:53t | | 7:37r | 10:21r |
| 11/13/2018 Tu | 11:37t | 12:01r | 13:05t | 15:10s | 13:18r | 12:18t | 14:48t |
| 11/13/2018 Tu | 16:29s | 16:47t | 17:23s | | | 17:00s | |
| 11/13/2018 Tu | 17:52et | 21:36s | | | 18:27t | | 19:15s |
| 11/13/2018 Tu | | | | | 23:37s | | |
| 11/14/2018 W | 5:24mt | | | 4:32r | | | |
| 11/14/2018 W | 6:47r | | 8:46r | 9:49t | | 7:34r | 10:17r |
| 11/14/2018 W | 11:38t | 12:38r | 13:03t | 15:07s | 13:16r | 12:15t | 14:44t |
| 11/14/2018 W | 16:28s | 17:33t | 17:21s | | | 16:57s | |
| 11/14/2018 W | 17:51et | 22:34s | | | 18:26t | | 19:11s |
| 11/14/2018 W | | | | | 23:36s | | |
| 11/15/2018 Th | 5:25mt | | | 4:28r | | | |
| 11/15/2018 Th | 6:49r | 7:54FQ | 8:43r | 9:46t | | 7:31r | 10:13r |
| 11/15/2018 Th | 11:38t | 13:10r | 13:00t | 15:04s | 13:13r | 12:12t | 14:41t |
| 11/15/2018 Th | 16:27s | | 17:18s | | | 16:54s | |
| 11/15/2018 Th | 17:50et | 18:18t | | | 18:24t | | 19:08s |
| 11/15/2018 Th | | 23:33s | | | 23:35s | | |
| 11/16/2018 F | 5:26mt | | | 4:23r | | | |
| 11/16/2018 F | 6:50r | | 8:39r | 9:42t | | 7:28r | 10:10r |
| 11/16/2018 F | 11:38t | 13:39r | 12:57t | 15:01s | 13:10r | 12:09t | 14:37t |
| 11/16/2018 F | 16:26s | | 17:16s | | | 16:50s | |
| 11/16/2018 F | 17:49et | 19:03t | | | 18:22t | | 19:04s |
| 11/16/2018 F | | | | | 23:35s | | |
| 11/17/2018 Sat | 5:27mt | 0:33s | | 4:19r | | | |
| 11/17/2018 Sat | 6:51r | | 8:34r | 9:39t | | 7:26r | 10:06r |
| 11/17/2018 Sat | 11:38t | 14:06r | 12:53t | 14:59s | 13:08r | 12:06t | 14:34t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 11/17/2018 Sat | 16:25s | | 17:13s | | | 16:47s | |
| 11/17/2018 Sat | 17:48et | 19:46t | | | 18:21t | | 19:01s |
| 11/17/2018 Sat | | | | | 23:34s | | |
| 11/18/2018 Sun | 5:29mt | 1:35s | | 4:15r | | | |
| 11/18/2018 Sun | 6:52r | | 8:28r | 9:35t | | 7:23r | 10:03r |
| 11/18/2018 Sun | 11:38t | 14:32r | 12:48t | 14:56s | 13:05r | 12:03t | 14:30t |
| 11/18/2018 Sun | 16:24s | | 17:09s | | | 16:44s | |
| 11/18/2018 Sun | 17:48et | 20:30t | | | 18:19t | | 18:57s |
| 11/18/2018 Sun | | | | | 23:34s | | |
| 11/19/2018 M | 5:30mt | 2:38s | | 4:11r | | | |
| 11/19/2018 M | 6:54r | | 8:22r | 9:32t | | 7:20r | 9:59r |
| 11/19/2018 M | 11:39t | 14:58r | 12:43t | 14:54s | 13:02r | 12:00t | 14:27t |
| 11/19/2018 M | 16:23s | | 17:05s | | | 16:41s | |
| 11/19/2018 M | 17:47et | 21:16t | | | 18:17t | | 18:54s |
| 11/19/2018 M | | | | | 23:33s | | |
| 11/20/2018 Tu | 5:31mt | 3:43s | | 4:07r | | | |
| 11/20/2018 Tu | 6:55r | | 8:14r | 9:29t | | 7:17r | 9:56r |
| 11/20/2018 Tu | 11:39t | 15:25r | 12:37t | 14:51s | 13:00r | 11:57t | 14:23t |
| 11/20/2018 Tu | 16:22s | | 17:00s | | | 16:38s | |
| 11/20/2018 Tu | 17:47et | 22:03t | | | 18:16t | | 18:51s |
| 11/20/2018 Tu | | | | | 23:33s | | |
| 11/21/2018 W | 5:32mt | 4:51s | | 4:03r | | | |
| 11/21/2018 W | 6:56r | | 8:06r | 9:26t | | 7:14r | 9:52r |
| 11/21/2018 W | 11:39t | 15:55r | 12:30t | 14:49s | 12:57r | 11:54t | 14:20t |
| 11/21/2018 W | 16:22s | | 16:55s | | | 16:34s | |
| 11/21/2018 W | 17:46et | 22:52t | | | 18:14t | | 18:47s |
| 11/21/2018 W | | | | | 23:32s | | |
| 11/22/2018 Th | 5:33mt | 6:00s | | 4:00r | | | |
| 11/22/2018 Th | 6:58r | | 7:56r | 9:23t | | 7:12r | 9:49r |
| 11/22/2018 Th | 11:39t | | 12:22t | 14:46s | 12:54r | 11:51t | 14:16t |
| 11/22/2018 Th | 16:21s | 16:29r | 16:50s | | | 16:31s | |
| 11/22/2018 Th | 17:45et | 22:39FM | | | 18:13t | | 18:44s |
| 11/22/2018 Th | | 23:46t | | | 23:31s | | |
| 11/23/2018 F | 5:34mt | | | 3:57r | | | |
| 11/23/2018 F | 6:59r | 7:12s | 7:46r | 9:20t | | 7:09r | 9:45r |
| 11/23/2018 F | 11:40t | | 12:14t | 14:44s | 12:52r | 11:48t | 14:13t |
| 11/23/2018 F | 16:20s | 17:10r | 16:44s | | | 16:28s | |
| 11/23/2018 F | 17:45et | | | | 18:11t | | 18:40s |
| 11/23/2018 F | | | | | 23:31s | | |
| 11/24/2018 Sat | 5:35mt | 0:42t | | 3:54r | | | |
| 11/24/2018 Sat | 7:00r | 8:22s | 7:35r | 9:18t | | 7:06r | 9:42r |
| 11/24/2018 Sat | 11:40t | | 12:06t | 14:42s | 12:49r | 11:45t | 14:09t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 11/24/2018 Sat | 16:19s | | 16:37s | | | 16:25s | |
| 11/24/2018 Sat | 17:44et | 17:58r | | | 18:09t | | 18:37s |
| 11/24/2018 Sat | | | | | 23:30s | | |
| 11/25/2018 Sun | 5:36mt | 1:42t | | 3:52r | | | |
| 11/25/2018 Sun | 7:01r | 9:29s | 7:23r | 9:15t | | 7:03r | 9:38r |
| 11/25/2018 Sun | 11:40t | | 11:56t | 14:39s | 12:46r | 11:42t | 14:06t |
| 11/25/2018 Sun | 16:19s | | 16:31s | | | 16:22s | |
| 11/25/2018 Sun | 17:44et | 18:54r | | | 18:08t | | 18:33s |
| 11/25/2018 Sun | | | | | 23:30s | | |
| 11/26/2018 M | 5:37mt | 2:42t | | 3:49r | | 7:00r | |
| 11/26/2018 M | 7:02r | 10:28s | 7:11r | 9:13t | | 11:39t | 9:35r |
| 11/26/2018 M | 11:41t | | 11:47t | 14:37s | 12:43r | | 14:02t |
| 11/26/2018 M | 16:18s | | 16:24s | | | 16:18s | |
| 11/26/2018 M | 17:44et | 19:59r | | | 18:06t | | 18:30s |
| 11/26/2018 M | | | | | 23:29s | | |
| 11/27/2018 Tu | 5:38mt | 3:42t | 6:59r | 3:47r | | 6:58r | |
| 11/27/2018 Tu | 7:04r | 11:20s | 11:38t | 9:11t | | 11:36t | 9:31r |
| 11/27/2018 Tu | 11:41t | | 16:17s | 14:35s | 12:41r | 16:15s | 13:59t |
| 11/27/2018 Tu | 16:18s | | | | | | |
| 11/27/2018 Tu | 17:43et | 21:09r | | | 18:05t | | 18:26s |
| 11/27/2018 Tu | | | | | 23:29s | | |
| 11/28/2018 W | 5:39mt | 4:40t | 6:47r | 3:45r | | 6:55r | |
| 11/28/2018 W | 7:05r | | 11:28t | 9:09t | | 11:33t | 9:28r |
| 11/28/2018 W | 11:41t | 12:03s | 16:11s | 14:33s | 12:38r | 16:12s | 13:55t |
| 11/28/2018 W | 16:17s | | | | | | |
| 11/28/2018 W | 17:43et | 22:21r | | | 18:03t | | 18:23s |
| 11/28/2018 W | | | | | 23:28s | | |
| 11/29/2018 Th | 5:40mt | 5:36t | 6:36r | 3:43r | | 6:52r | |
| 11/29/2018 Th | 7:06r | | 11:20t | 9:07t | | 11:30t | 9:24r |
| 11/29/2018 Th | 11:42t | 12:40s | 16:04s | 14:31s | 12:35r | 16:09s | 13:52t |
| 11/29/2018 Th | 16:17s | 17:19LQ | | | | | |
| 11/29/2018 Th | 17:43et | | | | 18:01t | | 18:19s |
| 11/29/2018 Th | | 23:33r | | | 23:28s | | |
| 11/30/2018 F | 5:41mt | 6:28t | 6:25r | 3:41r | | 6:49r | |
| 11/30/2018 F | 7:07r | | 11:11t | 9:05t | | 11:27t | 9:21r |
| 11/30/2018 F | 11:42t | 13:12s | 15:58s | 14:29s | 12:33r | 16:06s | 13:48t |
| 11/30/2018 F | 16:16s | | | | | | |
| 11/30/2018 F | 17:42et | | | | 18:00t | | 18:16s |
| 11/30/2018 F | | | | | 23:27s | | |
| 12/01/2018 Sat | 5:42mt | 0:44r | 6:15r | 3:39r | | 6:46r | |
| 12/01/2018 Sat | 7:08r | 7:18t | 11:03t | 9:03t | | 11:24t | 9:17r |
| 12/01/2018 Sat | 11:42t | 13:41s | 15:52s | 14:27s | 12:30r | 16:02s | 13:45t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 12/01/2018 | Sat | 16:16s | | | | | |
| 12/01/2018 | Sat | 17:42et | | | 17:58t | | 18:12s |
| 12/01/2018 | Sat | | | | 23:27s | | |
| 12/02/2018 | Sun | 5:43mt | 1:53r | 6:06r | 3:38r | 6:44r | |
| 12/02/2018 | Sun | 7:09r | 8:06t | 10:56t | 9:01t | 11:21t | 9:14r |
| 12/02/2018 | Sun | 11:43t | 14:09s | 15:46s | 14:25s | 12:27r | 15:59s |
| 12/02/2018 | Sun | 16:16s | | | | | |
| 12/02/2018 | Sun | 17:42et | | | 17:57t | | 18:09s |
| 12/02/2018 | Sun | | | | 23:26s | | |
| 12/03/2018 | M | 5:44mt | 3:02r | 5:58r | 3:36r | 6:41r | |
| 12/03/2018 | M | 7:10r | 8:54t | 10:49t | 9:00t | 11:18t | 9:10r |
| 12/03/2018 | M | 11:43t | 14:37s | 15:41s | 14:23s | 12:25r | 15:56s |
| 12/03/2018 | M | 16:15s | | | | | |
| 12/03/2018 | M | 17:42et | | | 17:55t | | 18:06s |
| 12/03/2018 | M | | | | 23:26s | | |
| 12/04/2018 | Tu | 5:45mt | 4:09r | 5:51r | 3:35r | 6:38r | |
| 12/04/2018 | Tu | 7:11r | 9:42t | 10:43t | 8:58t | 11:15t | 9:07r |
| 12/04/2018 | Tu | 11:43t | 15:06s | 15:36s | 14:21s | 12:22r | 15:53s |
| 12/04/2018 | Tu | 16:15s | | | | | |
| 12/04/2018 | Tu | 17:42et | | | 17:54t | | 18:02s |
| 12/04/2018 | Tu | | | | 23:25s | | |
| 12/05/2018 | W | 5:46mt | 5:16r | 5:45r | 3:34r | 6:35r | |
| 12/05/2018 | W | 7:13r | 10:30t | 10:38t | 8:57t | 11:12t | 9:03r |
| 12/05/2018 | W | 11:44t | 15:38s | 15:32s | 14:19s | 12:19r | 15:50s |
| 12/05/2018 | W | 16:15s | | | | | |
| 12/05/2018 | W | 17:42et | | | 17:52t | | 17:59s |
| 12/05/2018 | W | | | | 23:25s | | |
| 12/06/2018 | Th | 5:47mt | 6:21r | 5:40r | 3:33r | 6:32r | |
| 12/06/2018 | Th | 7:14r | 11:20t | 10:34t | 8:55t | 11:09t | 9:00r |
| 12/06/2018 | Th | 11:44t | 16:14s | 15:28s | 14:17s | 12:17r | 15:46s |
| 12/06/2018 | Th | 16:15s | | | | | |
| 12/06/2018 | Th | 17:42et | | | 17:50t | | 17:55s |
| 12/06/2018 | Th | | | | 23:25s | | |
| 12/07/2018 | F | 5:48mt | 0:20NM | 5:36r | 3:32r | 6:29r | |
| 12/07/2018 | F | 7:15r | 7:23r | 10:30t | 8:54t | 11:06t | 8:56r |
| 12/07/2018 | F | 11:45t | 12:10t | 15:24s | 14:16s | 12:14r | 15:43s |
| 12/07/2018 | F | 16:15s | 16:54s | | | | |
| 12/07/2018 | F | 17:42et | | | 17:49t | | 17:52s |
| 12/07/2018 | F | | | | 23:24s | | |
| 12/08/2018 | Sat | 5:49mt | | 5:33r | 3:31r | 6:27r | |
| 12/08/2018 | Sat | 7:15r | 8:20r | 10:27t | 8:53t | 11:03t | 8:53r |
| 12/08/2018 | Sat | 11:45t | 13:01t | 15:21s | 14:14s | 12:11r | 15:40s |
| 12/08/2018 | Sat | | | | | | 13:21t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 12/08/2018 | Sat | 16:15s | 17:40s | | | | |
| 12/08/2018 | Sat | 17:42et | | | 17:47t | | 17:48s |
| 12/08/2018 | Sat | | | | 23:24s | | |
| 12/09/2018 | Sun | 5:49mt | | 5:31r | 3:30r | 6:24r | |
| 12/09/2018 | Sun | 7:16r | 9:12r | 10:25t | 8:51t | 11:00t | 8:49r |
| 12/09/2018 | Sun | 11:46t | 13:51t | 15:18s | 14:12s | 12:09r | 15:37s |
| 12/09/2018 | Sun | 16:15s | | | | | 13:17t |
| 12/09/2018 | Sun | 17:42et | 18:30s | | 17:46t | | 17:45s |
| 12/09/2018 | Sun | | | | 23:23s | | |
| 12/10/2018 | M | 5:50mt | | 5:30r | 3:30r | 6:21r | |
| 12/10/2018 | M | 7:17r | 9:57r | 10:23t | 8:50t | 10:57t | 8:46r |
| 12/10/2018 | M | 11:46t | 14:40t | 15:16s | 14:10s | 12:06r | 15:34s |
| 12/10/2018 | M | 16:15s | | | | | 13:14t |
| 12/10/2018 | M | 17:42et | 19:25s | | 17:44t | | 17:42s |
| 12/10/2018 | M | | | | 23:23s | | |
| 12/11/2018 | Tu | 5:51mt | | 5:29r | 3:30r | 6:18r | |
| 12/11/2018 | Tu | 7:18r | 10:37r | 10:21t | 8:49t | 10:54t | 8:43r |
| 12/11/2018 | Tu | 11:47t | 15:27t | 15:14s | 14:09s | 12:03r | 15:31s |
| 12/11/2018 | Tu | 16:15s | | | | | 13:10t |
| 12/11/2018 | Tu | 17:42et | 20:22s | | 17:43t | | 17:38s |
| 12/11/2018 | Tu | | | | 23:22s | | |
| 12/12/2018 | W | 5:52mt | | 5:29r | 3:29r | 6:15r | |
| 12/12/2018 | W | 7:19r | 11:11r | 10:20t | 8:48t | 10:51t | 8:39r |
| 12/12/2018 | W | 11:47t | 16:13t | 15:12s | 14:07s | 12:01r | 15:27s |
| 12/12/2018 | W | 16:15s | | | | 17:41t | 13:07t |
| 12/12/2018 | W | 17:42et | 21:20s | | | 23:22s | 17:35s |
| 12/12/2018 | W | | | | | | |
| 12/13/2018 | Th | 5:53mt | | 5:29r | 3:29r | 6:13r | |
| 12/13/2018 | Th | 7:20r | 11:41r | 10:20t | 8:47t | 10:48t | 8:36r |
| 12/13/2018 | Th | 11:47t | | 15:10s | 14:05s | 11:58r | 15:24s |
| 12/13/2018 | Th | 16:15s | 16:57t | | | 17:40t | 13:04t |
| 12/13/2018 | Th | 17:42et | 22:20s | | | 23:21s | 17:31s |
| 12/13/2018 | Th | | | | | | |
| 12/14/2018 | F | 5:53mt | | 5:30r | 3:29r | 6:10r | |
| 12/14/2018 | F | 7:21r | | 10:20t | 8:46t | 10:45t | 8:32r |
| 12/14/2018 | F | 11:48t | 12:08r | 15:08s | 14:04s | 11:56r | 15:21s |
| 12/14/2018 | F | 16:15s | 17:40t | | | 17:38t | 13:00t |
| 12/14/2018 | F | 17:43et | 23:20s | | | 23:21s | 17:28s |
| 12/14/2018 | F | | | | | | |
| 12/15/2018 | Sat | 5:54mt | 4:49FQ | 5:31r | 3:29r | 6:07r | |
| 12/15/2018 | Sat | 7:21r | | 10:20t | 8:46t | 10:42t | 8:29r |
| 12/15/2018 | Sat | 11:48t | 12:34r | 15:07s | 14:02s | 11:53r | 15:18s |
| 12/15/2018 | Sat | 16:15s | | | | 17:36t | 12:57t |
| 12/15/2018 | Sat | 17:43et | 18:23t | | | 23:21s | 17:25s |
| 12/15/2018 | Sat | | | | | | |
| 12/16/2018 | Sun | 5:55mt | 0:21s | 5:33r | 3:29r | 6:04r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|---------|---------|--------|--------|---------|--------|
| 12/16/2018 | Sun 7:22r | | 10:20t | 8:45t | | 10:39t | 8:25r |
| 12/16/2018 | Sun 11:49t | 12:59r | 15:06s | 14:01s | 11:50r | 15:15s | 12:53t |
| 12/16/2018 | Sun 16:16s | | | | 17:35t | | 17:21s |
| 12/16/2018 | Sun 17:43et | 19:07t | | | 23:20s | | |
| 12/17/2018 | M 5:55mt | 1:24s | 5:35r | 3:29r | | 6:01r | |
| 12/17/2018 | M 7:23r | | 10:20t | 8:44t | 11:48r | 10:36t | 8:22r |
| 12/17/2018 | M 11:49t | 13:25r | 15:05s | 13:59s | | 15:12s | 12:50t |
| 12/17/2018 | M 16:16s | | | | 17:33t | | 17:18s |
| 12/17/2018 | M 17:43et | 19:52t | | | 23:20s | | |
| 12/18/2018 | Tu 5:56mt | 2:29s | 5:37r | 3:29r | | 5:58r | |
| 12/18/2018 | Tu 7:23r | | 10:21t | 8:44t | 11:45r | 10:33t | 8:18r |
| 12/18/2018 | Tu 11:50t | 13:52r | 15:05s | 13:58s | | 15:08s | 12:46t |
| 12/18/2018 | Tu 16:16s | | | | 17:32t | | 17:14s |
| 12/18/2018 | Tu 17:44et | 20:39t | | | 23:19s | | |
| 12/19/2018 | W 5:56mt | 3:37s | 5:40r | 3:29r | | 5:55r | |
| 12/19/2018 | W 7:24r | | 10:22t | 8:43t | 11:42r | 10:30t | 8:15r |
| 12/19/2018 | W 11:50t | 14:24r | 15:04s | 13:56s | | 15:05s | 12:43t |
| 12/19/2018 | W 16:17s | | | | 17:30t | | 17:11s |
| 12/19/2018 | W 17:44et | 21:30t | | | 23:19s | | |
| 12/20/2018 | Th 5:57mt | 4:47s | 5:42r | 3:30r | | 5:53r | |
| 12/20/2018 | Th 7:25r | | 10:23t | 8:42t | 11:40r | 10:27t | 8:11r |
| 12/20/2018 | Th 11:51t | 15:01r | 15:04s | 13:55s | | 15:02s | 12:39t |
| 12/20/2018 | Th 16:17s | | | | 17:29t | | 17:08s |
| 12/20/2018 | Th 17:45et | 22:25t | | | 23:18s | | |
| 12/21/2018 | F 5:58mt | 5:59s | 5:45r | 3:30r | | 5:50r | |
| 12/21/2018 | F 7:25r | | 10:25t | 8:42t | 11:37r | 10:24t | 8:08r |
| 12/21/2018 | F 11:51t | | 15:04s | 13:54s | | 14:59s | 12:36t |
| 12/21/2018 | F 15:23DS | 15:45r | | | | | |
| 12/21/2018 | F 16:18s | | | | 17:27t | | 17:04s |
| 12/21/2018 | F 17:45et | 23:24t | | | 23:18s | | |
| 12/22/2018 | Sat 5:58mt | 7:09s | 5:48r | 3:31r | | 5:47r | |
| 12/22/2018 | Sat 7:26r | 10:49FM | 10:26t | 8:42t | 11:34r | 10:21t | 8:04r |
| 12/22/2018 | Sat 11:52t | | 15:04s | 13:52s | | 14:56s | 12:33t |
| 12/22/2018 | Sat 16:18s | 16:38r | | | 17:26t | | 17:01s |
| 12/22/2018 | Sat 17:46et | | | | 23:18s | | |
| 12/23/2018 | Sun 5:58mt | 0:26t | 5:51r | 3:31r | | 5:44r | |
| 12/23/2018 | Sun 7:26r | 8:14s | 10:28t | 8:41t | 11:32r | 10:18t | 8:01r |
| 12/23/2018 | Sun 11:52t | | 15:04s | 13:51s | | 14:52s | 12:29t |
| 12/23/2018 | Sun 16:19s | 17:41r | | | 17:24t | | 16:57s |
| 12/23/2018 | Sun 17:46et | | | | 23:17s | | |
| 12/24/2018 | M 5:59mt | 1:28t | 5:54r | 3:32r | | 5:41r | |
| 12/24/2018 | M 7:26r | 9:11s | 10:30t | 8:41t | 11:29r | 10:15t | 7:57r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 12/24/2018 | M | 11:53t | | 15:04s | 13:50s | | 14:49s 12:26t |
| 12/24/2018 | M | 16:19s | | | 17:23t | | 16:54s |
| 12/24/2018 | M | 17:47et | 18:51r | | 23:17s | | |
| 12/25/2018 | Tu | 5:59mt | 2:30t | 5:58r | 3:32r | | 5:38r |
| 12/25/2018 | Tu | 7:27r | 10:00s | 10:31t | 8:41t | 11:26r | 10:12t 7:54r |
| 12/25/2018 | Tu | 11:53t | | 15:05s | 13:48s | | 14:46s 12:22t |
| 12/25/2018 | Tu | 16:20s | | | 17:21t | | 16:51s |
| 12/25/2018 | Tu | 17:47et | 20:06r | | 23:16s | | |
| 12/26/2018 | W | 6:00mt | 3:28t | 6:01r | 3:33r | | 5:35r |
| 12/26/2018 | W | 7:27r | 10:41s | 10:33t | 8:40t | 11:24r | 10:09t 7:51r |
| 12/26/2018 | W | 11:54t | | 15:05s | 13:47s | | 14:43s 12:19t |
| 12/26/2018 | W | 16:21s | | | 17:20t | | 16:47s |
| 12/26/2018 | W | 17:48et | 21:20r | | 23:16s | | |
| 12/27/2018 | Th | 6:00mt | 4:23t | 6:04r | 3:34r | | 5:33r |
| 12/27/2018 | Th | 7:27r | 11:15s | 10:35t | 8:40t | 11:21r | 10:06t 7:47r |
| 12/27/2018 | Th | 11:54t | | 15:06s | 13:46s | | 14:40s 12:15t |
| 12/27/2018 | Th | 16:21s | | | 17:18t | | 16:44s |
| 12/27/2018 | Th | 17:49et | 22:34r | | 23:16s | | |
| 12/28/2018 | F | 6:00mt | 5:15t | 6:08r | 3:35r | | 5:30r |
| 12/28/2018 | F | 7:28r | 11:46s | 10:38t | 8:40t | 11:18r | 10:03t 7:44r |
| 12/28/2018 | F | 11:55t | | 15:07s | 13:45s | | 14:37s 12:12t |
| 12/28/2018 | F | 16:22s | | | 17:17t | | 16:41s |
| 12/28/2018 | F | 17:49et | 23:45r | | 23:15s | | |
| 12/29/2018 | Sat | 6:01mt | 2:34LQ | | 3:35r | | 5:27r |
| 12/29/2018 | Sat | 7:28r | 6:05t | 6:11r | 8:40t | | 10:00t 7:40r |
| 12/29/2018 | Sat | 11:55t | 12:14s | 10:40t | 13:44s | 11:16r | 14:33s 12:09t |
| 12/29/2018 | Sat | 16:23s | | 15:08s | | 17:15t | 16:37s |
| 12/29/2018 | Sat | 17:50et | | | 23:15s | | |
| 12/30/2018 | Sun | 6:01mt | 0:54r | 6:14r | 3:36r | | 5:24r |
| 12/30/2018 | Sun | 7:28r | 6:53t | 10:42t | 8:40t | 11:13r | 9:57t 7:37r |
| 12/30/2018 | Sun | 11:56t | 12:42s | 15:09s | 13:43s | | 14:30s 12:05t |
| 12/30/2018 | Sun | 16:24s | | | 17:13t | | 16:34s |
| 12/30/2018 | Sun | 17:51et | | | 23:14s | | |
| 12/31/2018 | M | 6:01mt | 2:01r | 6:18r | 3:37r | | 5:21r |
| 12/31/2018 | M | 7:28r | 7:40t | 10:44t | 8:40t | 11:11r | 9:54t 7:33r |
| 12/31/2018 | M | 11:56t | 13:10s | 15:11s | 13:42s | | 14:27s 12:02t |
| 12/31/2018 | M | 16:25s | | | 17:12t | | 16:30s |
| 12/31/2018 | M | 17:52et | | | 23:14s | | |
| 01/01/2019 | Tu | 6:01mt | 3:07r | 6:21r | 3:38r | | 5:18r |
| 01/01/2019 | Tu | 7:28r | 8:27t | 10:47t | 8:40t | 11:08r | 9:51t 7:30r |
| 01/01/2019 | Tu | 11:57t | 13:41s | 15:12s | 13:41s | | 14:24s 11:58t |
| 01/01/2019 | Tu | 16:25s | | | 17:10t | | 16:27s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 01/01/2019 | Tu | 17:52et | | | | 23:14s | | |
| 01/02/2019 | W | 6:01mt | 4:12r | 6:24r | 3:39r | | 5:15r | 7:26r |
| 01/02/2019 | W | 7:28r | 9:16t | 10:49t | 8:40t | 11:05r | 9:48t | 11:55t |
| 01/02/2019 | W | 11:57t | 14:14s | 15:14s | 13:40s | | 14:21s | 16:24s |
| 01/02/2019 | W | 16:26s | | | | 17:09t | | |
| 01/02/2019 | W | 17:53et | | | | 23:13s | | |
| 01/03/2019 | Th | 6:01mt | 5:14r | 6:28r | 3:40r | | 5:12r | 7:23r |
| 01/03/2019 | Th | 7:28r | 10:05t | 10:52t | 8:40t | 11:03r | 9:45t | 11:51t |
| 01/03/2019 | Th | 11:58t | 14:52s | 15:16s | 13:39s | | 14:18s | 16:20s |
| 01/03/2019 | Th | 16:27s | | | | 17:07t | | |
| 01/03/2019 | Th | 17:54et | | | | 23:13s | | |
| 01/04/2019 | F | 6:01mt | 6:12r | 6:31r | 3:42r | | 5:09r | 7:19r |
| 01/04/2019 | F | 7:28r | 10:55t | 10:54t | 8:40t | 11:00r | 9:42t | 11:48t |
| 01/04/2019 | F | 11:58t | 15:35s | 15:17s | 13:38s | | 14:14s | 16:17s |
| 01/04/2019 | F | 16:28s | | | | 17:06t | | |
| 01/04/2019 | F | 17:55et | | | | 23:12s | | |
| 01/05/2019 | Sat | 6:02mt | 7:06r | 6:34r | 3:43r | | 5:06r | 7:16r |
| 01/05/2019 | Sat | 7:28r | 11:45t | 10:57t | 8:40t | 10:58r | 9:39t | 11:45t |
| 01/05/2019 | Sat | 11:59t | 16:24s | 15:20s | 13:37s | | 14:11s | 16:13s |
| 01/05/2019 | Sat | 16:29s | | | | 17:04t | | |
| 01/05/2019 | Sat | 17:56et | 18:28NM | | | 23:12s | | |
| 01/06/2019 | Sun | 6:02mt | | 6:37r | 3:44r | | 5:03r | 7:12r |
| 01/06/2019 | Sun | 7:28r | 7:54r | 11:00t | 8:40t | 10:55r | 9:36t | 11:41t |
| 01/06/2019 | Sun | 11:59t | 12:34t | 15:22s | 13:36s | | 14:08s | 16:10s |
| 01/06/2019 | Sun | 16:30s | 17:16s | | | 17:03t | | |
| 01/06/2019 | Sun | 17:57et | | | | 23:12s | | |
| 01/07/2019 | M | 6:01mt | | 6:40r | 3:45r | | 5:01r | 7:09r |
| 01/07/2019 | M | 7:28r | 8:35r | 11:02t | 8:41t | 10:52r | 9:33t | 11:38t |
| 01/07/2019 | M | 11:59t | 13:22t | 15:24s | 13:36s | | 14:05s | 16:07s |
| 01/07/2019 | M | 16:31s | | | | 17:01t | | |
| 01/07/2019 | M | 17:58et | 18:13s | | | 23:11s | | |
| 01/08/2019 | Tu | 6:01mt | | 6:43r | 3:46r | | 4:58r | 7:05r |
| 01/08/2019 | Tu | 7:28r | 9:12r | 11:05t | 8:41t | 10:50r | 9:30t | 11:34t |
| 01/08/2019 | Tu | 12:00t | 14:09t | 15:27s | 13:35s | | 14:02s | 16:03s |
| 01/08/2019 | Tu | 16:32s | | | | 17:00t | | |
| 01/08/2019 | Tu | 17:59et | 19:11s | | | 23:11s | | |
| 01/09/2019 | W | 6:01mt | | 6:46r | 3:48r | | 4:55r | 7:02r |
| 01/09/2019 | W | 7:27r | 9:43r | 11:08t | 8:41t | 10:47r | 9:27t | 11:31t |
| 01/09/2019 | W | 12:00t | 14:53t | 15:29s | 13:34s | | 13:58s | 16:00s |
| 01/09/2019 | W | 16:34s | | | | 16:58t | | |
| 01/09/2019 | W | 18:00et | 20:10s | | | 23:10s | | |
| 01/10/2019 | Th | 6:01mt | | 6:49r | 3:49r | | 4:52r | 6:58r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 01/10/2019 | Th | 7:27r | 10:11r | 11:11t | 8:41t | 10:44r | 9:23t | 11:28t |
| 01/10/2019 | Th | 12:01t | 15:37t | 15:32s | 13:34s | | 13:55s | 15:57s |
| 01/10/2019 | Th | 16:35s | | | | 16:57t | | |
| 01/10/2019 | Th | 18:01et | 21:10s | | | 23:10s | | |
| 01/11/2019 | F | 6:01mt | | 6:52r | 3:50r | | 4:49r | 6:55r |
| 01/11/2019 | F | 7:27r | 10:37r | 11:13t | 8:42t | 10:42r | 9:20t | 11:24t |
| 01/11/2019 | F | 12:01t | 16:19t | 15:35s | 13:33s | | 13:52s | 15:53s |
| 01/11/2019 | F | 16:36s | | | | 16:55t | | |
| 01/11/2019 | F | 18:02et | 22:10s | | | 23:10s | | |
| 01/12/2019 | Sat | 6:01mt | | 6:55r | 3:51r | | 4:46r | 6:52r |
| 01/12/2019 | Sat | 7:26r | 11:02r | 11:16t | 8:42t | 10:39r | 9:17t | 11:21t |
| 01/12/2019 | Sat | 12:02t | | 15:38s | 13:33s | | 13:49s | 15:50s |
| 01/12/2019 | Sat | 16:37s | 17:02t | | | 16:54t | | |
| 01/12/2019 | Sat | 18:03et | 23:10s | | | 23:09s | | |
| 01/13/2019 | Sun | 6:00mt | | 6:57r | 3:53r | | 4:43r | 6:48r |
| 01/13/2019 | Sun | 7:26r | 11:26r | 11:19t | 8:43t | 10:37r | 9:14t | 11:17t |
| 01/13/2019 | Sun | 12:02t | | 15:41s | 13:32s | | 13:46s | 15:46s |
| 01/13/2019 | Sun | 16:38s | 17:45t | | | 16:53t | | |
| 01/13/2019 | Sun | 18:04et | 23:45FQ | | | 23:09s | | |
| 01/14/2019 | M | 6:00mt | 0:13s | 7:00r | 3:54r | | 4:40r | 6:45r |
| 01/14/2019 | M | 7:26r | 11:52r | 11:22t | 8:43t | 10:34r | 9:11t | 11:14t |
| 01/14/2019 | M | 12:02t | | 15:44s | 13:32s | | 13:42s | 15:43s |
| 01/14/2019 | M | 16:39s | | | | 16:51t | | |
| 01/14/2019 | M | 18:05et | 18:29t | | | 23:09s | | |
| 01/15/2019 | Tu | 6:00mt | 1:17s | 7:02r | 3:56r | | 4:37r | 6:41r |
| 01/15/2019 | Tu | 7:25r | | 11:25t | 8:44t | 10:32r | 9:08t | 11:10t |
| 01/15/2019 | Tu | 12:03t | 12:21r | 15:48s | 13:31s | | 13:39s | 15:40s |
| 01/15/2019 | Tu | 16:41s | | | | 16:50t | | |
| 01/15/2019 | Tu | 18:06et | 19:17t | | | 23:08s | | |
| 01/16/2019 | W | 5:59mt | 2:24s | 7:05r | 3:57r | | 4:34r | 6:38r |
| 01/16/2019 | W | 7:24r | | 11:28t | 8:44t | 10:29r | 9:05t | 11:07t |
| 01/16/2019 | W | 12:03t | 12:53r | 15:52s | 13:31s | | 13:36s | 15:36s |
| 01/16/2019 | W | 16:42s | | | | 16:48t | | |
| 01/16/2019 | W | 18:07et | 20:08t | | | 23:08s | | |
| 01/17/2019 | Th | 5:59mt | 3:33s | 7:07r | 3:58r | | 4:31r | 6:34r |
| 01/17/2019 | Th | 7:24r | | 11:31t | 8:45t | 10:26r | 9:02t | 11:03t |
| 01/17/2019 | Th | 12:03t | 13:32r | 15:55s | 13:31s | | 13:33s | 15:33s |
| 01/17/2019 | Th | 16:43s | | | | 16:47t | | |
| 01/17/2019 | Th | 18:08et | 21:04t | | | 23:07s | | |
| 01/18/2019 | F | 5:59mt | 4:43s | 7:09r | 4:00r | | 4:28r | 6:31r |
| 01/18/2019 | F | 7:23r | | 11:34t | 8:45t | 10:24r | 8:59t | 11:00t |
| 01/18/2019 | F | 12:04t | 14:20r | 15:59s | 13:31s | | 13:30s | 15:30s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 01/18/2019 | F | 16:44s | | | 16:45t | | |
| 01/18/2019 | F | 18:09et | 22:03t | | 23:07s | | |
| 01/19/2019 | Sat | 5:58mt | 5:51s | 7:11r | 4:01r | 4:25r | 6:27r |
| 01/19/2019 | Sat | 7:23r | | 11:37t | 8:46t | 10:21r | 8:56t 10:57t |
| 01/19/2019 | Sat | 12:04t | 15:17r | 16:03s | 13:30s | 16:44t | 13:26s 15:26s |
| 01/19/2019 | Sat | 16:46s | | | | | |
| 01/19/2019 | Sat | 18:10et | 23:06t | | 23:07s | | |
| 01/20/2019 | Sun | 5:58mt | 6:53s | 7:13r | 4:02r | 4:22r | 6:24r |
| 01/20/2019 | Sun | 7:22r | | 11:40t | 8:46t | 10:19r | 8:52t 10:53t |
| 01/20/2019 | Sun | 12:04t | 16:25r | 16:07s | 13:30s | 16:42t | 13:23s 15:23s |
| 01/20/2019 | Sun | 16:47s | | | | | |
| 01/20/2019 | Sun | 18:11et | 22:16FM | | 23:06s | | |
| 01/21/2019 | M | 5:57mt | 0:09t | 7:15r | 4:04r | 4:19r | 6:20r |
| 01/21/2019 | M | 7:21r | 7:48s | 11:43t | 8:47t | 10:16r | 8:49t 10:50t |
| 01/21/2019 | M | 12:05t | | 16:12s | 13:30s | 16:41t | 13:20s 15:19s |
| 01/21/2019 | M | 16:48s | 17:39r | | | | |
| 01/21/2019 | M | 18:12et | | | 23:06s | | |
| 01/22/2019 | Tu | 5:56mt | 1:11t | 7:17r | 4:05r | 4:16r | 6:17r |
| 01/22/2019 | Tu | 7:20r | 8:33s | 11:46t | 8:48t | 10:14r | 8:46t 10:46t |
| 01/22/2019 | Tu | 12:05t | | 16:16s | 13:30s | 16:39t | 13:17s 15:16s |
| 01/22/2019 | Tu | 16:50s | | | | | |
| 01/22/2019 | Tu | 18:14et | 18:57r | | 23:06s | | |
| 01/23/2019 | W | 5:56mt | 2:10t | 7:18r | 4:07r | 4:13r | 6:13r |
| 01/23/2019 | W | 7:20r | 9:12s | 11:49t | 8:49t | 10:11r | 8:43t 10:43t |
| 01/23/2019 | W | 12:05t | | 16:21s | 13:30s | 16:38t | 13:13s 15:13s |
| 01/23/2019 | W | 16:51s | | | | | |
| 01/23/2019 | W | 18:15et | 20:14r | | 23:05s | | |
| 01/24/2019 | Th | 5:55mt | 3:06t | | 4:08r | 4:10r | 6:10r |
| 01/24/2019 | Th | 7:19r | 9:46s | 7:20r | 8:49t | 10:08r | 8:40t 10:39t |
| 01/24/2019 | Th | 12:05t | | 11:52t | 13:30s | | 13:10s 15:09s |
| 01/24/2019 | Th | 16:52s | | 16:25s | | 16:36t | |
| 01/24/2019 | Th | 18:16et | 21:29r | | 23:05s | | |
| 01/25/2019 | F | 5:54mt | 3:58t | | 4:09r | 4:07r | 6:06r |
| 01/25/2019 | F | 7:18r | 10:16s | 7:21r | 8:50t | 10:06r | 8:37t 10:36t |
| 01/25/2019 | F | 12:06t | | 11:55t | 13:30s | | 13:07s 15:06s |
| 01/25/2019 | F | 16:54s | | 16:30s | | 16:35t | |
| 01/25/2019 | F | 18:17et | 22:42r | | 23:05s | | |
| 01/26/2019 | Sat | 5:54mt | 4:48t | | 4:11r | 4:03r | 6:03r |
| 01/26/2019 | Sat | 7:17r | 10:45s | 7:23r | 8:51t | 10:03r | 8:34t 10:33t |
| 01/26/2019 | Sat | 12:06t | | 11:58t | 13:31s | 16:34t | 13:04s 15:02s |
| 01/26/2019 | Sat | 16:55s | | 16:35s | | | |
| 01/26/2019 | Sat | 18:18et | 23:51r | | 23:04s | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 01/27/2019 | Sun | 5:53mt | 5:37t | 4:12r | | 4:00r | 5:59r |
| 01/27/2019 | Sun | 7:16r | 11:14s | 7:24r | 8:52t | 10:01r | 8:30t 10:29t |
| 01/27/2019 | Sun | 12:06t | 14:10LQ | 12:02t | 13:31s | 16:32t | 13:01s 14:59s |
| 01/27/2019 | Sun | 16:56s | | 16:40s | | | |
| 01/27/2019 | Sun | 18:19et | | | 23:04s | | |
| 01/28/2019 | M | 5:52mt | 0:59r | 4:13r | | 3:57r | 5:56r |
| 01/28/2019 | M | 7:15r | 6:25t | 7:25r | 8:52t | 9:58r | 8:27t 10:26t |
| 01/28/2019 | M | 12:06t | 11:44s | 12:05t | 13:31s | 16:31t | 12:57s 14:56s |
| 01/28/2019 | M | 16:58s | | 16:45s | | | |
| 01/28/2019 | M | 18:21et | | | 23:04s | | |
| 01/29/2019 | Tu | 5:51mt | 2:05r | 4:15r | | 3:54r | 5:52r |
| 01/29/2019 | Tu | 7:14r | 7:14t | 7:26r | 8:53t | 9:56r | 8:24t 10:22t |
| 01/29/2019 | Tu | 12:06t | 12:16s | 12:08t | 13:31s | 16:29t | 12:54s 14:52s |
| 01/29/2019 | Tu | 16:59s | | 16:50s | | | |
| 01/29/2019 | Tu | 18:22et | | | 23:03s | | |
| 01/30/2019 | W | 5:50mt | 3:07r | 4:16r | | 3:51r | 5:49r |
| 01/30/2019 | W | 7:13r | 8:02t | 7:27r | 8:54t | 9:53r | 8:21t 10:19t |
| 01/30/2019 | W | 12:06t | 12:53s | 12:11t | 13:32s | 16:28t | 12:51s 14:49s |
| 01/30/2019 | W | 17:00s | | 16:55s | | | |
| 01/30/2019 | W | 18:23et | | | 23:03s | | |
| 01/31/2019 | Th | 5:50mt | 4:07r | 4:17r | | 3:48r | 5:45r |
| 01/31/2019 | Th | 7:12r | 8:52t | 7:28r | 8:55t | 9:51r | 8:18t 10:15t |
| 01/31/2019 | Th | 12:07t | 13:34s | 12:14t | 13:32s | 16:26t | 12:47s 14:45s |
| 01/31/2019 | Th | 17:02s | | 17:01s | | | |
| 01/31/2019 | Th | 18:24et | | | 23:03s | | |
| 02/01/2019 | F | 5:49mt | 5:02r | 4:19r | | 3:45r | 5:42r |
| 02/01/2019 | F | 7:11r | 9:41t | 7:29r | 8:56t | 9:48r | 8:15t 10:12t |
| 02/01/2019 | F | 12:07t | 14:20s | 12:17t | 13:33s | 16:25t | 12:44s 14:42s |
| 02/01/2019 | F | 17:03s | | 17:06s | | | |
| 02/01/2019 | F | 18:25et | | | 23:02s | | |
| 02/02/2019 | Sat | 5:48mt | 5:51r | 4:20r | | 3:42r | 5:38r |
| 02/02/2019 | Sat | 7:10r | 10:30t | 7:29r | 8:57t | 9:46r | 8:11t 10:08t |
| 02/02/2019 | Sat | 12:07t | 15:11s | 12:20t | 13:33s | 16:23t | 12:41s 14:39s |
| 02/02/2019 | Sat | 17:05s | | 17:12s | | | |
| 02/02/2019 | Sat | 18:27et | | | 23:02s | | |
| 02/03/2019 | Sun | 5:47mt | 6:35r | 4:21r | | 3:39r | 5:35r |
| 02/03/2019 | Sun | 7:09r | 11:19t | 7:30r | 8:58t | 9:43r | 8:08t 10:05t |
| 02/03/2019 | Sun | 12:07t | 16:06s | 12:23t | 13:34s | 16:22t | 12:38s 14:35s |
| 02/03/2019 | Sun | 17:06s | | 17:17s | | | |
| 02/03/2019 | Sun | 18:28et | | | 23:01s | | |
| 02/04/2019 | M | 5:46mt | | 4:22r | | 3:36r | 5:31r |
| 02/04/2019 | M | 7:07r | 7:12r | 7:30r | 8:59t | 9:41r | 8:05t 10:01t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 02/04/2019 | M | 12:07t | 12:06t | 12:26t | 13:35s | | 12:34s | |
| 02/04/2019 | M | | 14:04NM | | | 16:21t | | 14:32s |
| 02/04/2019 | M | 17:07s | 17:03s | 17:23s | | | | |
| 02/04/2019 | M | 18:29et | | | | 23:01s | | |
| 02/05/2019 | Tu | 5:45mt | | | 4:24r | | 3:32r | 5:27r |
| 02/05/2019 | Tu | 7:06r | 7:45r | 7:31r | 9:00t | 9:38r | 8:02t | 9:58t |
| 02/05/2019 | Tu | 12:07t | 12:51t | 12:29t | 13:36s | 16:19t | 12:31s | 14:28s |
| 02/05/2019 | Tu | 17:09s | 18:03s | 17:29s | | | | |
| 02/05/2019 | Tu | 18:30et | | | | 23:01s | | |
| 02/06/2019 | W | 5:43mt | | | 4:25r | | 3:29r | 5:24r |
| 02/06/2019 | W | 7:05r | 8:15r | 7:31r | 9:01t | 9:36r | 7:59t | 9:54t |
| 02/06/2019 | W | 12:07t | 13:35t | 12:32t | 13:36s | 16:18t | 12:28s | 14:25s |
| 02/06/2019 | W | 17:10s | | 17:35s | | | | |
| 02/06/2019 | W | 18:32et | 19:02s | | | 23:00s | | |
| 02/07/2019 | Th | 5:42mt | | | 4:26r | | 3:26r | 5:20r |
| 02/07/2019 | Th | 7:04r | 8:41r | 7:31r | 9:02t | 9:33r | 7:55t | 9:51t |
| 02/07/2019 | Th | 12:07t | 14:18t | 12:35t | 13:37s | 16:16t | 12:24s | 14:21s |
| 02/07/2019 | Th | 17:11s | | 17:40s | | | | |
| 02/07/2019 | Th | 18:33et | 20:02s | | | 23:00s | | |
| 02/08/2019 | F | 5:41mt | | | 4:27r | | 3:23r | 5:17r |
| 02/08/2019 | F | 7:02r | 9:06r | 7:31r | 9:03t | 9:31r | 7:52t | 9:47t |
| 02/08/2019 | F | 12:07t | 15:00t | 12:38t | 13:38s | 16:15t | 12:21s | 14:18s |
| 02/08/2019 | F | 17:13s | | 17:46s | | | | |
| 02/08/2019 | F | 18:34et | 21:02s | | | 23:00s | | |
| 02/09/2019 | Sat | 5:40mt | | | 4:28r | | 3:20r | 5:13r |
| 02/09/2019 | Sat | 7:01r | 9:30r | 7:31r | 9:04t | 9:28r | 7:49t | 9:44t |
| 02/09/2019 | Sat | 12:07t | 15:42t | 12:41t | 13:39s | 16:14t | 12:18s | 14:15s |
| 02/09/2019 | Sat | 17:14s | | 17:52s | | | | |
| 02/09/2019 | Sat | 18:35et | 22:03s | | | 22:59s | | |
| 02/10/2019 | Sun | 5:39mt | | | 4:29r | | 3:16r | 5:10r |
| 02/10/2019 | Sun | 7:00r | 9:55r | 7:31r | 9:05t | 9:26r | 7:46t | 9:40t |
| 02/10/2019 | Sun | 12:07t | 16:25t | 12:44t | 13:40s | 16:12t | 12:15s | 14:11s |
| 02/10/2019 | Sun | 17:16s | | 17:58s | | | | |
| 02/10/2019 | Sun | 18:37et | 23:06s | | | 22:59s | | |
| 02/11/2019 | M | 5:38mt | | | 4:30r | | 3:13r | 5:06r |
| 02/11/2019 | M | 6:58r | 10:21r | 7:31r | 9:06t | 9:24r | 7:42t | 9:37t |
| 02/11/2019 | M | 12:07t | 17:10t | 12:47t | 13:41s | 16:11t | 12:11s | 14:08s |
| 02/11/2019 | M | 17:17s | | 18:04s | | | | |
| 02/11/2019 | M | 18:38et | | | | 22:59s | | |
| 02/12/2019 | Tu | 5:36mt | 0:10s | | 4:31r | | 3:10r | 5:03r |
| 02/12/2019 | Tu | 6:57r | 10:51r | 7:30r | 9:07t | 9:21r | 7:39t | 9:33t |
| 02/12/2019 | Tu | 12:07t | 15:26FQ | 12:50t | 13:42s | 16:10t | 12:08s | 14:04s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 02/12/2019 | Tu | 17:18s | 17:58t | 18:10s | | | | |
| 02/12/2019 | Tu | 18:39et | | | | 22:58s | | |
| 02/13/2019 | W | 5:35mt | 1:16s | | 4:32r | | 3:07r | 4:59r |
| 02/13/2019 | W | 6:56r | 11:26r | 7:30r | 9:08t | 9:19r | 7:36t | 9:30t |
| 02/13/2019 | W | 12:07t | | 12:52t | 13:44s | 16:08t | 12:05s | 14:01s |
| 02/13/2019 | W | 17:20s | | 18:16s | | | | |
| 02/13/2019 | W | 18:40et | 18:50t | | | 22:58s | | |
| 02/14/2019 | Th | 5:34mt | 2:23s | | 4:33r | | 3:04r | 4:56r |
| 02/14/2019 | Th | 6:54r | | 7:29r | 9:09t | 9:16r | 7:32t | 9:26t |
| 02/14/2019 | Th | 12:07t | 12:07r | 12:55t | 13:45s | 16:07t | 12:01s | 13:57s |
| 02/14/2019 | Th | 17:21s | | 18:22s | | | | |
| 02/14/2019 | Th | 18:42et | 19:46t | | | 22:58s | | |
| 02/15/2019 | F | 5:32mt | 3:30s | | 4:34r | | 3:00r | 4:52r |
| 02/15/2019 | F | 6:53r | | 7:29r | 9:10t | 9:14r | 7:29t | 9:23t |
| 02/15/2019 | F | 12:07t | 12:58r | 12:57t | 13:46s | 16:05t | 11:58s | 13:54s |
| 02/15/2019 | F | 17:23s | | 18:27s | | | | |
| 02/15/2019 | F | 18:43et | 20:45t | | | 22:57s | | |
| 02/16/2019 | Sat | 5:31mt | 4:33s | | 4:34r | | 2:57r | 4:48r |
| 02/16/2019 | Sat | 6:51r | | 7:28r | 9:11t | 9:12r | 7:26t | 9:19t |
| 02/16/2019 | Sat | 12:07t | 13:59r | 13:00t | 13:47s | 16:04t | 11:54s | 13:50s |
| 02/16/2019 | Sat | 17:24s | | 18:33s | | | | |
| 02/16/2019 | Sat | 18:44et | 21:47t | | | 22:57s | | |
| 02/17/2019 | Sun | 5:30mt | 5:31s | | 4:35r | | 2:54r | 4:45r |
| 02/17/2019 | Sun | 6:50r | | 7:27r | 9:12t | 9:09r | 7:22t | 9:16t |
| 02/17/2019 | Sun | 12:07t | 15:09r | 13:02t | 13:49s | 16:03t | 11:51s | 13:47s |
| 02/17/2019 | Sun | 17:25s | | 18:39s | | | | |
| 02/17/2019 | Sun | 18:45et | 22:49t | | | 22:57s | | |
| 02/18/2019 | M | 5:28mt | 6:21s | | 4:36r | | 2:51r | 4:41r |
| 02/18/2019 | M | 6:48r | | 7:26r | 9:13t | 9:07r | 7:19t | 9:12t |
| 02/18/2019 | M | 12:07t | 16:25r | 13:04t | 13:50s | 16:01t | 11:48s | 13:44s |
| 02/18/2019 | M | 17:27s | | 18:44s | | | | |
| 02/18/2019 | M | 18:47et | 23:50t | | | 22:56s | | |
| 02/19/2019 | Tu | 5:27mt | | | 4:36r | | 2:47r | 4:38r |
| 02/19/2019 | Tu | 6:47r | 7:03s | 7:24r | | | 7:16t | |
| 02/19/2019 | Tu | 12:07t | 8:54FM | 13:06t | 9:14t | 9:04r | 11:44s | 9:09t |
| 02/19/2019 | Tu | 17:28s | 17:44r | | 13:52s | 16:00t | | 13:40s |
| 02/19/2019 | Tu | 18:48et | | 18:49s | | 22:56s | | |
| 02/20/2019 | W | 5:25mt | 0:48t | | 4:37r | | 2:44r | 4:34r |
| 02/20/2019 | W | 6:45r | 7:40s | 7:23r | 9:15t | 9:02r | 7:12t | 9:05t |
| 02/20/2019 | W | 12:07t | | 13:07t | 13:53s | 15:59t | 11:41s | 13:37s |
| 02/20/2019 | W | 17:29s | | | | | | |
| 02/20/2019 | W | 18:49et | 19:03r | 18:54s | | 22:56s | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 02/21/2019 | Th | 5:24mt | 1:44t | | 4:38r | | 2:41r | 4:31r |
| 02/21/2019 | Th | 6:44r | 8:13s | 7:21r | 9:16t | 9:00r | 7:09t | 9:02t |
| 02/21/2019 | Th | 12:07t | | 13:09t | 13:55s | 15:57t | 11:38s | 13:33s |
| 02/21/2019 | Th | 17:31s | | | | | | |
| 02/21/2019 | Th | 18:50et | 20:19r | 18:58s | | 22:55s | | |
| 02/22/2019 | F | 5:22mt | 2:37t | | 4:38r | | 2:37r | 4:27r |
| 02/22/2019 | F | 6:42r | 8:43s | 7:19r | 9:17t | 8:57r | 7:06t | 8:58t |
| 02/22/2019 | F | 12:07t | | 13:10t | 13:56s | 15:56t | 11:34s | 13:30s |
| 02/22/2019 | F | 17:32s | | | | | | |
| 02/22/2019 | F | 18:52et | 21:33r | 19:02s | | 22:55s | | |
| 02/23/2019 | Sat | 5:21mt | 3:28t | | 4:39r | | 2:34r | 4:23r |
| 02/23/2019 | Sat | 6:40r | 9:13s | 7:17r | 9:18t | 8:55r | 7:02t | 8:55t |
| 02/23/2019 | Sat | 12:07t | | 13:11t | 13:58s | 15:55t | 11:31s | 13:26s |
| 02/23/2019 | Sat | 17:33s | | | | | | |
| 02/23/2019 | Sat | 18:53et | 22:45r | 19:06s | | 22:55s | | |
| 02/24/2019 | Sun | 5:19mt | 4:18t | | 4:39r | | 2:31r | 4:20r |
| 02/24/2019 | Sun | 6:39r | 9:43s | 7:15r | 9:19t | 8:53r | 6:59t | 8:51t |
| 02/24/2019 | Sun | 12:06t | | 13:11t | 14:00s | 15:53t | 11:27s | 13:23s |
| 02/24/2019 | Sun | 17:35s | | | | | | |
| 02/24/2019 | Sun | 18:54et | 23:53r | 19:09s | | 22:54s | | |
| 02/25/2019 | M | 5:18mt | 5:08t | | 4:39r | | 2:27r | 4:16r |
| 02/25/2019 | M | 6:37r | 10:16s | 7:12r | 9:20t | 8:50r | 6:56t | 8:48t |
| 02/25/2019 | M | 12:06t | | 13:11t | 14:01s | 15:52t | 11:24s | 13:19s |
| 02/25/2019 | M | 17:36s | | | | | | |
| 02/25/2019 | M | 18:55et | | 19:11s | | 22:54s | | |
| 02/26/2019 | Tu | | 0:59r | | | | 2:24r | 4:13r |
| 02/26/2019 | Tu | 5:16mt | 4:28LQ | | 4:40r | | | |
| 02/26/2019 | Tu | 6:35r | 5:58t | 7:09r | 9:21t | 8:48r | 6:52t | 8:44t |
| 02/26/2019 | Tu | 12:06t | 10:52s | 13:11t | 14:03s | 15:51t | 11:20s | 13:16s |
| 02/26/2019 | Tu | 17:37s | | | | | | |
| 02/26/2019 | Tu | 18:57et | | 19:13s | | 22:54s | | |
| 02/27/2019 | W | 5:15mt | 2:01r | | 4:40r | | 2:21r | 4:09r |
| 02/27/2019 | W | 6:34r | 6:48t | 7:06r | 9:22t | 8:46r | 6:49t | 8:41t |
| 02/27/2019 | W | 12:06t | 11:32s | 13:10t | 14:05s | 15:49t | 11:17s | 13:12s |
| 02/27/2019 | W | 17:39s | | | | | | |
| 02/27/2019 | W | 18:58et | | 19:15s | | 22:53s | | |
| 02/28/2019 | Th | 5:13mt | 2:58r | | 4:40r | | 2:17r | 4:05r |
| 02/28/2019 | Th | 6:32r | 7:38t | 7:03r | 9:23t | 8:43r | 6:45t | 8:37t |
| 02/28/2019 | Th | 12:06t | 12:16s | 13:09t | 14:07s | 15:48t | 11:14s | 13:09s |
| 02/28/2019 | Th | 17:40s | | | | | | |
| 02/28/2019 | Th | 18:59et | | 19:15s | | 22:53s | | |
| 03/01/2019 | F | 5:11mt | 3:49r | | 4:40r | | 2:14r | 4:02r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|---------------|--------|
| 03/01/2019 | F | 6:30r | 8:27t | 6:59r | 9:24t | 8:41r | 6:42t 8:33t | |
| 03/01/2019 | F | 12:06t | 13:06s | 13:07t | 14:09s | 15:47t | 11:10s 13:05s | |
| 03/01/2019 | F | 17:41s | | | | | | |
| 03/01/2019 | F | 19:01et | | 19:15s | | 22:53s | | |
| 03/02/2019 | Sat | 5:10mt | 4:34r | | 4:41r | | 2:10r 3:58r | |
| 03/02/2019 | Sat | 6:29r | 9:16t | 6:55r | 9:25t | 8:39r | 6:39t 8:30t | |
| 03/02/2019 | Sat | 12:05t | 14:00s | 13:04t | 14:11s | 15:45t | 11:07s 13:02s | |
| 03/02/2019 | Sat | 17:43s | | | | | | |
| 03/02/2019 | Sat | 19:02et | | 19:14s | | 22:52s | | |
| 03/03/2019 | Sun | 5:08mt | 5:13r | | 4:41r | | 2:07r 3:55r | |
| 03/03/2019 | Sun | 6:27r | 10:03t | 6:51r | 9:26t | 8:37r | 6:35t 8:26t | |
| 03/03/2019 | Sun | 12:05t | 14:57s | 13:01t | 14:12s | 15:44t | 11:03s 12:58s | |
| 03/03/2019 | Sun | 17:44s | | | | | | |
| 03/03/2019 | Sun | 19:03et | | 19:12s | | 22:52s | | |
| 03/04/2019 | M | 5:06mt | 5:48r | | 4:41r | | 2:04r 3:51r | |
| 03/04/2019 | M | 6:25r | 10:49t | 6:47r | 9:27t | 8:34r | 6:32t 8:23t | |
| 03/04/2019 | M | 12:05t | 15:55s | 12:58t | 14:14s | 15:43t | 11:00s 12:55s | |
| 03/04/2019 | M | 17:45s | | | | | | |
| 03/04/2019 | M | 19:04et | | 19:10s | | 22:52s | | |
| 03/05/2019 | Tu | 5:05mt | 6:18r | | 4:41r | | 2:00r 3:47r | |
| 03/05/2019 | Tu | 6:24r | | 6:42r | 9:28t | 8:32r | 6:28t 8:19t | |
| 03/05/2019 | Tu | 12:05t | 11:33t | 12:54t | 14:16s | 15:41t | 10:56s 12:51s | |
| 03/05/2019 | Tu | 17:47s | 16:55s | | | | | |
| 03/05/2019 | Tu | 19:06et | | 19:06s | | 22:51s | | |
| 03/06/2019 | W | 5:03mt | | | 4:41r | | 1:57r 3:44r | |
| 03/06/2019 | W | 6:22r | 6:45r | 6:37r | | 8:30r | 6:25t 8:16t | |
| 03/06/2019 | W | 12:04t | 9:04NM | | 9:29t | | 10:53s | |
| 03/06/2019 | W | 17:48s | 12:16t | 12:50t | 14:18s | 15:40t | | 12:48s |
| 03/06/2019 | W | 19:07et | 17:55s | 19:02s | | 22:51s | | |
| 03/07/2019 | Th | 5:01mt | | | 4:41r | | 1:53r 3:40r | |
| 03/07/2019 | Th | 6:20r | 7:10r | 6:32r | 9:30t | 8:28r | 6:21t 8:12t | |
| 03/07/2019 | Th | 12:04t | 12:59t | 12:44t | 14:20s | 15:39t | 10:49s 12:44s | |
| 03/07/2019 | Th | 17:49s | 18:56s | 18:57s | | | | |
| 03/07/2019 | Th | 19:08et | | | | 22:51s | | |
| 03/08/2019 | F | 4:59mt | | | 4:41r | | 1:50r 3:36r | |
| 03/08/2019 | F | 6:18r | 7:34r | 6:27r | 9:31t | 8:25r | 6:18t 8:08t | |
| 03/08/2019 | F | 12:04t | 13:41t | 12:39t | 14:23s | 15:38t | 10:46s 12:40s | |
| 03/08/2019 | F | 17:50s | | 18:51s | | | | |
| 03/08/2019 | F | 19:10et | 19:57s | | | 22:50s | | |
| 03/09/2019 | Sat | 4:58mt | | | 4:40r | | 1:46r 3:33r | |
| 03/09/2019 | Sat | 6:16r | 7:59r | 6:21r | 9:32t | 8:23r | 6:14t 8:05t | |
| 03/09/2019 | Sat | 12:04t | 14:24t | 12:33t | 14:25s | 15:36t | 10:42s 12:37s | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 03/09/2019 | Sat | 17:52s | | 18:45s | | | | |
| 03/09/2019 | Sat | 19:11et | 20:59s | | 22:50s | | | |
| 03/10/2019 | Sun | 4:56mt | | 4:40r | | 1:43r | 3:29r | |
| 03/10/2019 | Sun | 6:15r | 8:25r | 6:16r | 9:33t | 8:21r | 6:11t | 8:01t |
| 03/10/2019 | Sun | 12:03t | 15:08t | 12:27t | 14:27s | 15:35t | 10:38s | 12:33s |
| 03/10/2019 | Sun | 17:53s | | 18:37s | | | | |
| 03/10/2019 | Sun | 19:12et | 22:02s | | 22:50s | | | |
| 03/11/2019 | M | 4:54mt | | 4:40r | | 1:39r | 3:25r | |
| 03/11/2019 | M | 6:13r | 8:53r | 6:10r | 9:34t | 8:19r | 6:07t | 7:58t |
| 03/11/2019 | M | 12:03t | 15:55t | 12:20t | 14:29s | 15:34t | 10:35s | 12:30s |
| 03/11/2019 | M | 17:54s | | 18:30s | | | | |
| 03/11/2019 | M | 19:13et | 23:07s | | 22:49s | | | |
| 03/12/2019 | Tu | 4:52mt | | 4:40r | | 1:36r | 3:22r | |
| 03/12/2019 | Tu | 6:11r | 9:25r | 6:04r | 9:35t | 8:17r | 6:04t | 7:54t |
| 03/12/2019 | Tu | 12:03t | 16:44t | 12:13t | 14:31s | 15:33t | 10:31s | 12:26s |
| 03/12/2019 | Tu | 17:55s | | 18:21s | | | | |
| 03/12/2019 | Tu | 19:15et | | | 22:49s | | | |
| 03/13/2019 | W | 4:50mt | 0:13s | 5:59r | 4:39r | | 1:32r | 3:18r |
| 03/13/2019 | W | 6:09r | 10:03r | | 9:36t | 8:15r | 6:00t | 7:50t |
| 03/13/2019 | W | 12:03t | 17:37t | 12:06t | 14:33s | 15:31t | 10:28s | 12:23s |
| 03/13/2019 | W | 17:57s | | 18:13s | | | | |
| 03/13/2019 | W | 19:16et | | | 22:49s | | | |
| 03/14/2019 | Th | | 1:18s | | | | 1:29r | 3:14r |
| 03/14/2019 | Th | 4:48mt | 3:27FQ | 5:53r | 4:39r | | 5:56t | |
| 03/14/2019 | Th | 6:08r | 10:48r | 11:59t | 9:37t | 8:13r | 10:24s | 7:47t |
| 03/14/2019 | Th | 12:02t | | | 14:35s | 15:30t | | 12:19s |
| 03/14/2019 | Th | 17:58s | 18:33t | 18:04s | | | | |
| 03/14/2019 | Th | 19:17et | | | 22:48s | | | |
| 03/15/2019 | F | 4:46mt | 2:21s | 5:48r | 4:39r | | 1:25r | 3:11r |
| 03/15/2019 | F | 6:06r | | | 9:38t | 8:10r | 5:53t | 7:43t |
| 03/15/2019 | F | 12:02t | 11:43r | 11:52t | 14:37s | 15:29t | 10:21s | 12:15s |
| 03/15/2019 | F | 17:59s | | 17:55s | | | | |
| 03/15/2019 | F | 19:19et | 19:31t | | 22:48s | | | |
| 03/16/2019 | Sat | 4:45mt | 3:19s | 5:42r | 4:38r | | 1:21r | 3:07r |
| 03/16/2019 | Sat | 6:04r | | | 9:39t | 8:08r | 5:49t | 7:39t |
| 03/16/2019 | Sat | 12:02t | 12:46r | 11:44t | 14:40s | 15:28t | 10:17s | 12:12s |
| 03/16/2019 | Sat | 18:01s | | 17:46s | | | | |
| 03/16/2019 | Sat | 19:20et | 20:31t | | 22:47s | | | |
| 03/17/2019 | Sun | 4:43mt | 4:10s | 5:37r | 4:38r | | 1:18r | 3:03r |
| 03/17/2019 | Sun | 6:02r | | | 9:39t | 8:06r | 5:46t | 7:36t |
| 03/17/2019 | Sun | 12:02t | 13:58r | 11:37t | 14:42s | 15:26t | 10:13s | 12:08s |
| 03/17/2019 | Sun | 18:02s | | 17:36s | | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 03/17/2019 Sun | 19:21et | 21:31t | | | 22:47s | | |
| 03/18/2019 M | 4:41mt | 4:54s | 5:32r | 4:37r | | 1:14r | 3:00r |
| 03/18/2019 M | 6:00r | | | 9:40t | 8:04r | 5:42t | 7:32t |
| 03/18/2019 M | 12:01t | 15:14r | 11:30t | 14:44s | 15:25t | 10:10s | 12:05s |
| 03/18/2019 M | 18:03s | | 17:28s | | | | |
| 03/18/2019 M | 19:23et | 22:29t | | | 22:47s | | |
| 03/19/2019 Tu | 4:39mt | 5:33s | 5:27r | 4:37r | | 1:11r | 2:56r |
| 03/19/2019 Tu | 5:58r | | | 9:41t | 8:02r | 5:38t | 7:28t |
| 03/19/2019 Tu | 12:01t | 16:32r | 11:24t | 14:46s | 15:24t | 10:06s | 12:01s |
| 03/19/2019 Tu | 18:04s | | 17:19s | | | | |
| 03/19/2019 Tu | 19:24et | 23:26t | | | 22:46s | | |
| 03/20/2019 W | 4:37mt | | 5:23r | 4:36r | | 1:07r | 2:52r |
| 03/20/2019 W | 5:57r | 6:07s | | 9:42t | 8:00r | 5:35t | 7:25t |
| 03/20/2019 W | 12:01t | | 11:17t | 14:49s | | 10:02s | 11:57s |
| 03/20/2019 W | 14:58ME | 17:50r | 17:11s | | 15:23t | | |
| 03/20/2019 W | 18:05s | 18:43FM | | | | | |
| 03/20/2019 W | 19:25et | | | | 22:46s | | |
| 03/21/2019 Th | 4:35mt | 0:20t | 5:18r | 4:35r | | 1:03r | 2:49r |
| 03/21/2019 Th | 5:55r | 6:38s | | 9:43t | 7:58r | 5:31t | 7:21t |
| 03/21/2019 Th | 12:00t | | 11:11t | 14:51s | 15:21t | 9:59s | 11:54s |
| 03/21/2019 Th | 18:07s | 19:06r | 17:03s | | | | |
| 03/21/2019 Th | 19:27et | | | | 22:45s | | |
| 03/22/2019 F | 4:33mt | 1:13t | 5:14r | 4:35r | | 1:00r | 2:45r |
| 03/22/2019 F | 5:53r | 7:09s | | 9:44t | 7:56r | 5:27t | 7:17t |
| 03/22/2019 F | 12:00t | | 11:05t | 14:53s | 15:20t | 9:55s | 11:50s |
| 03/22/2019 F | 18:08s | | 16:55s | | | | |
| 03/22/2019 F | 19:28et | 20:21r | | | 22:45s | | |
| 03/23/2019 Sat | 4:31mt | 2:05t | 5:11r | 4:34r | | 0:56r | 2:41r |
| 03/23/2019 Sat | 5:51r | 7:39s | | 9:44t | 7:54r | 5:24t | 7:14t |
| 03/23/2019 Sat | 12:00t | | 11:00t | 14:55s | 15:19t | 9:51s | 11:46s |
| 03/23/2019 Sat | 18:09s | | 16:48s | | | | |
| 03/23/2019 Sat | 19:29et | 21:34r | | | 22:45s | | |
| 03/24/2019 Sun | 4:29mt | 2:57t | 5:07r | 4:33r | | 0:52r | 2:37r |
| 03/24/2019 Sun | 5:49r | 8:11s | | 9:45t | 7:52r | 5:20t | 7:10t |
| 03/24/2019 Sun | 11:59t | | 10:55t | 14:58s | 15:18t | 9:48s | 11:43s |
| 03/24/2019 Sun | 18:10s | | 16:42s | | | | |
| 03/24/2019 Sun | 19:31et | 22:43r | | | 22:44s | | |
| 03/25/2019 M | 4:27mt | 3:48t | 5:04r | 4:32r | | 0:49r | 2:34r |
| 03/25/2019 M | 5:48r | 8:47s | | | 7:50r | 5:16t | 7:06t |
| 03/25/2019 M | 11:59t | | 10:50t | 9:46t | | 9:44s | 11:39s |
| 03/25/2019 M | 18:12s | | 16:36s | 15:00s | 15:17t | | |
| 03/25/2019 M | 19:32et | 23:49r | | | 22:44s | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 03/26/2019 | Tu | 4:25mt | 4:40t | 5:00r | 4:32r | | 0:45r | 2:30r |
| 03/26/2019 | Tu | 5:46r | 9:26s | | | 7:48r | 5:13t | 7:03t |
| 03/26/2019 | Tu | 11:59t | | 10:45t | 9:47t | | 9:40s | 11:35s |
| 03/26/2019 | Tu | 18:13s | | 16:30s | 15:02s | 15:15t | | |
| 03/26/2019 | Tu | 19:34et | | | | 22:43s | | |
| 03/27/2019 | W | 4:23mt | 0:50r | 4:57r | 4:31r | | 0:41r | 2:26r |
| 03/27/2019 | W | 5:44r | 5:31t | | | 7:46r | 5:09t | 6:59t |
| 03/27/2019 | W | 11:59t | 10:10s | 10:41t | 9:47t | | 9:36s | 11:32s |
| 03/27/2019 | W | 18:14s | | 16:25s | 15:05s | 15:14t | | |
| 03/27/2019 | W | 19:35et | 21:10LQ | | | 22:43s | | |
| 03/28/2019 | Th | 4:21mt | 1:44r | 4:55r | 4:30r | | 0:37r | 2:22r |
| 03/28/2019 | Th | 5:42r | 6:22t | | | 7:44r | 5:05t | 6:55t |
| 03/28/2019 | Th | 11:58t | 10:59s | 10:38t | 9:48t | | 9:33s | 11:28s |
| 03/28/2019 | Th | 18:15s | | 16:21s | 15:07s | 15:13t | | |
| 03/28/2019 | Th | 19:36et | | | | 22:42s | | |
| 03/29/2019 | F | 4:19mt | 2:32r | 4:52r | 4:29r | | 0:34r | 2:19r |
| 03/29/2019 | F | 5:40r | 7:11t | | | 7:42r | 5:01t | 6:52t |
| 03/29/2019 | F | 11:58t | 11:52s | 10:34t | 9:49t | | 9:29s | 11:24s |
| 03/29/2019 | F | 18:17s | | 16:17s | 15:09s | 15:12t | | |
| 03/29/2019 | F | 19:38et | | | | 22:42s | | |
| 03/30/2019 | Sat | 4:17mt | 3:14r | 4:50r | 4:28r | | 0:30r | 2:15r |
| 03/30/2019 | Sat | 5:38r | 7:59t | | | 7:40r | 4:58t | 6:48t |
| 03/30/2019 | Sat | 11:58t | 12:48s | 10:31t | 9:49t | 15:11t | 9:25s | 11:21s |
| 03/30/2019 | Sat | 18:18s | | 16:13s | 15:11s | | | |
| 03/30/2019 | Sat | 19:39et | | | | 22:42s | | |
| 03/31/2019 | Sun | 4:15mt | 3:49r | 4:47r | 4:27r | | 0:26r | 2:11r |
| 03/31/2019 | Sun | 5:37r | 8:45t | | | 7:38r | 4:54t | 6:44t |
| 03/31/2019 | Sun | 11:57t | 13:47s | 10:29t | 9:50t | 15:10t | 9:21s | 11:17s |
| 03/31/2019 | Sun | 18:19s | | 16:10s | 15:14s | | | |
| 03/31/2019 | Sun | 19:41et | | | | 22:41s | | |
| 04/01/2019 | M | 4:13mt | 4:21r | 4:45r | 4:26r | | 0:22r | 2:07r |
| 04/01/2019 | M | 5:35r | | | | 7:36r | 4:50t | 6:40t |
| 04/01/2019 | M | 11:57t | 9:30t | 10:26t | 9:51t | | 9:17s | 11:13s |
| 04/01/2019 | M | 18:20s | 14:46s | 16:07s | 15:16s | 15:08t | | |
| 04/01/2019 | M | 19:42et | | | | 22:41s | | |
| 04/02/2019 | Tu | 4:11mt | | 4:43r | 4:25r | | 0:19r | 2:04r |
| 04/02/2019 | Tu | 5:33r | 4:48r | | | 7:35r | 4:46t | 6:37t |
| 04/02/2019 | Tu | 11:57t | 10:14t | 10:24t | 9:51t | 15:07t | 9:14s | 11:10s |
| 04/02/2019 | Tu | 18:21s | 15:47s | 16:05s | 15:18s | | | |
| 04/02/2019 | Tu | 19:43et | | | | 22:40s | | |
| 04/03/2019 | W | 4:09mt | | 4:41r | 4:24r | | 0:15r | 2:00r |
| 04/03/2019 | W | 5:31r | 5:14r | | | 7:33r | 4:42t | 6:33t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------------|
| 04/03/2019 | W | 11:56t | 10:56t | 10:22t | 9:52t | 15:06t | 9:10s 11:06s |
| 04/03/2019 | W | 18:23s | 16:47s | 16:04s | 15:21s | | |
| 04/03/2019 | W | 19:45et | | | 22:40s | | |
| 04/04/2019 | Th | 4:07mt | | 4:23r | | 0:11r | 1:56r |
| 04/04/2019 | Th | 5:29r | 5:39r | 4:40r | 7:31r | 4:38t | 6:29t |
| 04/04/2019 | Th | 11:56t | 11:39t | 10:21t | 9:53t | 15:05t | 9:06s 11:02s |
| 04/04/2019 | Th | 18:24s | 17:49s | 16:02s | 15:23s | | |
| 04/04/2019 | Th | 19:46et | | | 22:39s | | |
| 04/05/2019 | F | 4:05mt | 1:50NM | 4:22r | | 0:07r | 1:52r |
| 04/05/2019 | F | 5:28r | 6:03r | 4:38r | 7:29r | 4:35t | 6:25t |
| 04/05/2019 | F | 11:56t | 12:22t | 10:19t | 9:53t | 15:04t | 9:02s 10:58s |
| 04/05/2019 | F | 18:25s | 18:51s | 16:01s | 15:25s | | |
| 04/05/2019 | F | 19:48et | | | 22:39s | | |
| 04/06/2019 | Sat | 4:03mt | | 4:21r | | 0:03r | 1:49r |
| 04/06/2019 | Sat | 5:26r | 6:28r | 4:36r | 7:27r | 4:31t | 6:22t |
| 04/06/2019 | Sat | 11:56t | 13:06t | 10:18t | 9:54t | 15:03t | 8:58s 10:55s |
| 04/06/2019 | Sat | 18:26s | | 16:01s | 15:28s | | |
| 04/06/2019 | Sat | 19:49et | 19:55s | | 22:38s | 23:59r | |
| 04/07/2019 | Sun | 4:01mt | | 4:35r | 4:20r | 4:27t | 1:45r |
| 04/07/2019 | Sun | 5:24r | 6:55r | 10:17t | 9:55t | 7:26r | 8:54s 6:18t |
| 04/07/2019 | Sun | 11:55t | 13:53t | 16:00s | 15:30s | 15:01t | 10:51s |
| 04/07/2019 | Sun | 18:27s | | | | | |
| 04/07/2019 | Sun | 19:51et | 21:00s | | 22:38s | 23:55r | |
| 04/08/2019 | M | 3:59mt | | 4:33r | 4:19r | 4:23t | 1:41r |
| 04/08/2019 | M | 5:22r | 7:26r | 10:17t | 9:55t | 7:24r | 8:50s 6:14t |
| 04/08/2019 | M | 11:55t | 14:42t | 16:00s | 15:32s | 15:00t | 10:47s |
| 04/08/2019 | M | 18:29s | | | | | |
| 04/08/2019 | M | 19:52et | 22:06s | | 22:37s | 23:52r | |
| 04/09/2019 | Tu | 3:57mt | | 4:32r | 4:18r | 4:19t | 1:37r |
| 04/09/2019 | Tu | 5:20r | 8:02r | 10:16t | 9:56t | 7:22r | 8:47s 6:10t |
| 04/09/2019 | Tu | 11:55t | 15:33t | 16:01s | 15:35s | 14:59t | 10:43s |
| 04/09/2019 | Tu | 18:30s | | | | | |
| 04/09/2019 | Tu | 19:54et | 23:12s | | 22:37s | 23:48r | |
| 04/10/2019 | W | 3:55mt | | 4:31r | 4:16r | 4:15t | 1:33r |
| 04/10/2019 | W | 5:19r | 8:45r | 10:16t | 9:56t | 7:20r | 8:43s 6:06t |
| 04/10/2019 | W | 11:55t | 16:28t | 16:01s | 15:37s | 14:58t | 10:40s |
| 04/10/2019 | W | 18:31s | | | | | |
| 04/10/2019 | W | 19:55et | | | 22:36s | 23:44r | |
| 04/11/2019 | Th | 3:53mt | 0:15s | 4:29r | 4:15r | 4:11t | 1:30r |
| 04/11/2019 | Th | 5:17r | 9:36r | 10:15t | 9:57t | 7:19r | 8:39s 6:03t |
| 04/11/2019 | Th | 11:54t | 17:25t | 16:02s | 15:39s | 14:57t | 10:36s |
| 04/11/2019 | Th | 18:32s | | | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 04/11/2019 | Th | 19:57et | | | | 22:35s | 23:40r | |
| 04/12/2019 | F | 3:51mt | 1:14s | 4:28r | 4:14r | | 4:07t | 1:26r |
| 04/12/2019 | F | 5:15r | | 10:15t | 9:57t | 7:17r | 8:35s | 5:59t |
| 04/12/2019 | F | 11:54t | 10:35r | | | | | 10:32s |
| 04/12/2019 | F | | 12:06FQ | 16:03s | 15:42s | 14:56t | | |
| 04/12/2019 | F | 18:34s | 18:23t | | | | | |
| 04/12/2019 | F | 19:58et | | | | 22:35s | 23:36r | |
| 04/13/2019 | Sat | 3:49mt | 2:06s | 4:27r | 4:13r | | 4:03t | 1:22r |
| 04/13/2019 | Sat | 5:14r | | 10:16t | 9:58t | 7:15r | 8:31s | 5:55t |
| 04/13/2019 | Sat | 11:54t | 11:42r | 16:05s | 15:44s | 14:55t | | 10:28s |
| 04/13/2019 | Sat | 18:35s | 19:21t | | | | | |
| 04/13/2019 | Sat | 20:00et | | | | 22:34s | 23:32r | |
| 04/14/2019 | Sun | 3:47mt | 2:51s | 4:26r | 4:12r | | 3:59t | 1:18r |
| 04/14/2019 | Sun | 5:12r | | 10:16t | 9:59t | 7:14r | 8:27s | 5:51t |
| 04/14/2019 | Sun | 11:53t | 12:54r | 16:06s | 15:46s | 14:53t | | 10:24s |
| 04/14/2019 | Sun | 18:36s | | | | | | |
| 04/14/2019 | Sun | 20:01et | 20:17t | | | 22:34s | 23:28r | |
| 04/15/2019 | M | 3:45mt | 3:30s | 4:25r | 4:11r | | 3:55t | 1:14r |
| 04/15/2019 | M | 5:10r | | 10:16t | 9:59t | 7:12r | 8:23s | 5:47t |
| 04/15/2019 | M | 11:53t | 14:09r | 16:08s | 15:49s | 14:52t | | 10:21s |
| 04/15/2019 | M | 18:37s | | | | | | |
| 04/15/2019 | M | 20:03et | 21:13t | | | 22:33s | 23:24r | |
| 04/16/2019 | Tu | 3:43mt | 4:04s | 4:24r | 4:09r | | 3:51t | 1:10r |
| 04/16/2019 | Tu | 5:08r | | 10:17t | 10:00t | 7:10r | 8:19s | 5:44t |
| 04/16/2019 | Tu | 11:53t | 15:25r | 16:10s | 15:51s | 14:51t | | 10:17s |
| 04/16/2019 | Tu | 18:38s | | | | | | |
| 04/16/2019 | Tu | 20:05et | 22:06t | | | 22:32s | 23:20r | |
| 04/17/2019 | W | 3:41mt | 4:35s | 4:22r | 4:08r | | 3:47t | 1:07r |
| 04/17/2019 | W | 5:07r | | | 10:00t | 7:09r | 8:15s | 5:40t |
| 04/17/2019 | W | 11:53t | | 10:17t | 15:53s | 14:50t | | 10:13s |
| 04/17/2019 | W | 18:40s | 16:40r | 16:13s | | | | |
| 04/17/2019 | W | 20:06et | 22:59t | | | 22:32s | 23:16r | |
| 04/18/2019 | Th | 3:39mt | | 4:21r | 4:07r | | 3:43t | 1:03r |
| 04/18/2019 | Th | 5:05r | 5:05s | | 10:01t | 7:07r | 8:11s | 5:36t |
| 04/18/2019 | Th | 11:53t | | 10:18t | 15:56s | 14:49t | | 10:09s |
| 04/18/2019 | Th | 18:41s | 17:55r | 16:15s | | | | |
| 04/18/2019 | Th | 20:08et | 23:50t | | | 22:31s | 23:12r | |
| 04/19/2019 | F | 3:37mt | 4:12FM | 4:20r | 4:06r | | 3:39t | 0:59r |
| 04/19/2019 | F | 5:03r | 5:35s | | 10:01t | 7:05r | 8:07s | 5:32t |
| 04/19/2019 | F | 11:52t | | 10:19t | 15:58s | 14:48t | | 10:05s |
| 04/19/2019 | F | 18:42s | 19:09r | 16:18s | | | | |
| 04/19/2019 | F | 20:09et | | | | 22:31s | 23:08r | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|-------------|
| 04/20/2019 | Sat | 3:35mt | 0:42t | 4:20r | 4:04r | | 3:35t 0:55r |
| 04/20/2019 | Sat | 5:02r | 6:06s | | | 7:04r | 8:03s 5:28t |
| 04/20/2019 | Sat | 11:52t | | 10:20t | 10:02t | 14:47t | 10:01s |
| 04/20/2019 | Sat | 18:43s | | 16:21s | 16:00s | | |
| 04/20/2019 | Sat | 20:11et | 20:22r | | | 22:30s | 23:04r |
| 04/21/2019 | Sun | 3:33mt | 1:35t | 4:19r | 4:03r | | 3:31t 0:51r |
| 04/21/2019 | Sun | 5:00r | 6:40s | | | 7:02r | 7:59s 5:24t |
| 04/21/2019 | Sun | 11:52t | | 10:21t | 10:02t | 14:46t | 9:58s |
| 04/21/2019 | Sun | 18:45s | | 16:24s | 16:03s | | |
| 04/21/2019 | Sun | 20:12et | 21:31r | | | 22:29s | 22:59r |
| 04/22/2019 | M | 3:31mt | 2:27t | 4:18r | 4:02r | | 3:27t 0:47r |
| 04/22/2019 | M | 4:59r | 7:18s | | | 7:01r | 7:54s 5:20t |
| 04/22/2019 | M | 11:52t | | 10:22t | 10:03t | 14:45t | 9:54s |
| 04/22/2019 | M | 18:46s | | 16:27s | 16:05s | | |
| 04/22/2019 | M | 20:14et | 22:36r | | | 22:28s | 22:55r |
| 04/23/2019 | Tu | 3:29mt | 3:20t | 4:17r | 4:00r | | 3:23t 0:43r |
| 04/23/2019 | Tu | 4:57r | 8:01s | | | 6:59r | 7:50s 5:17t |
| 04/23/2019 | Tu | 11:52t | | 10:23t | 10:03t | 14:43t | 9:50s |
| 04/23/2019 | Tu | 18:47s | | 16:31s | 16:07s | | |
| 04/23/2019 | Tu | 20:16et | 23:35r | | | 22:28s | 22:51r |
| 04/24/2019 | W | 3:27mt | 4:12t | 4:16r | 3:59r | | 3:19t 0:39r |
| 04/24/2019 | W | 4:55r | 8:49s | | | 6:58r | 7:46s 5:13t |
| 04/24/2019 | W | 11:51t | | 10:25t | 10:04t | 14:42t | 9:46s |
| 04/24/2019 | W | 18:48s | | 16:35s | 16:10s | | |
| 04/24/2019 | W | 20:17et | | | | 22:27s | 22:47r |
| 04/25/2019 | Th | 3:25mt | 0:27r | 4:15r | 3:58r | | 3:15t 0:35r |
| 04/25/2019 | Th | 4:54r | 5:04t | | | 6:56r | 7:42s 5:09t |
| 04/25/2019 | Th | 11:51t | 9:41s | 10:26t | 10:04t | 14:41t | 9:42s |
| 04/25/2019 | Th | 18:49s | | 16:38s | 16:12s | | |
| 04/25/2019 | Th | 20:19et | | | | 22:26s | 22:43r |
| 04/26/2019 | F | 3:23mt | 1:12r | 4:14r | 3:57r | | 3:11t 0:32r |
| 04/26/2019 | F | 4:52r | 5:53t | | | 6:55r | 7:38s 5:05t |
| 04/26/2019 | F | 11:51t | 10:37s | 10:28t | 10:05t | 14:40t | 9:38s |
| 04/26/2019 | F | 18:51s | 15:18LQ | 16:42s | 16:14s | | |
| 04/26/2019 | F | 20:21et | | | | 22:26s | 22:39r |
| 04/27/2019 | Sat | 3:21mt | 1:50r | 4:14r | 3:55r | | 3:06t 0:28r |
| 04/27/2019 | Sat | 4:51r | 6:40t | | | 6:53r | 7:34s 5:01t |
| 04/27/2019 | Sat | 11:51t | 11:36s | 10:30t | 10:06t | 14:39t | 9:34s |
| 04/27/2019 | Sat | 18:52s | | 16:47s | 16:17s | | |
| 04/27/2019 | Sat | 20:22et | | | | 22:25s | 22:35r |
| 04/28/2019 | Sun | 3:19mt | 2:23r | 4:13r | 3:54r | | 3:02t 0:24r |
| 04/28/2019 | Sun | 4:49r | 7:26t | | | 6:52r | 7:30s 4:57t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 04/28/2019 | Sun | 11:51t | 12:35s | 10:31t | 10:06t | 14:38t | 9:30s |
| 04/28/2019 | Sun | 18:53s | | 16:51s | 16:19s | | |
| 04/28/2019 | Sun | 20:24et | | | 22:24s | 22:31r | |
| 04/29/2019 | M | 3:17mt | 2:52r | 4:12r | 3:53r | 2:58t | 0:20r |
| 04/29/2019 | M | 4:48r | 8:10t | | 6:51r | 7:26s | 4:53t |
| 04/29/2019 | M | 11:51t | 13:35s | 10:33t | 10:07t | 14:37t | 9:26s |
| 04/29/2019 | M | 18:54s | | 16:56s | 16:21s | | |
| 04/29/2019 | M | 20:26et | | | 22:23s | 22:26r | |
| 04/30/2019 | Tu | 3:15mt | 3:18r | 4:12r | 3:51r | 2:54t | 0:16r |
| 04/30/2019 | Tu | 4:46r | 8:53t | | 6:49r | 7:21s | 4:49t |
| 04/30/2019 | Tu | 11:50t | 14:36s | 10:35t | 10:07t | 14:36t | 9:22s |
| 04/30/2019 | Tu | 18:55s | | 17:00s | 16:24s | | |
| 04/30/2019 | Tu | 20:27et | | | 22:22s | 22:22r | |
| 05/01/2019 | W | 3:13mt | 3:42r | 4:11r | 3:50r | 2:50t | 0:12r |
| 05/01/2019 | W | 4:45r | | | 6:48r | 7:17s | 4:45t |
| 05/01/2019 | W | 11:50t | 9:35t | 10:38t | 10:08t | 14:35t | 9:18s |
| 05/01/2019 | W | 18:57s | 15:37s | 17:05s | 16:26s | | |
| 05/01/2019 | W | 20:29et | | | 22:21s | 22:18r | |
| 05/02/2019 | Th | 3:11mt | 4:06r | 4:11r | 3:49r | 2:45t | 0:08r |
| 05/02/2019 | Th | 4:43r | | | 6:47r | 7:13s | 4:41t |
| 05/02/2019 | Th | 11:50t | 10:18t | 10:40t | 10:08t | 14:34t | 9:15s |
| 05/02/2019 | Th | 18:58s | 16:40s | 17:11s | 16:28s | | |
| 05/02/2019 | Th | 20:31et | | | 22:21s | 22:14r | |
| 05/03/2019 | F | 3:09mt | 4:31r | 4:10r | 3:48r | 2:41t | 0:04r |
| 05/03/2019 | F | 4:42r | | | 6:45r | 7:09s | 4:37t |
| 05/03/2019 | F | 11:50t | 11:02t | 10:42t | 10:09t | 14:32t | 9:11s |
| 05/03/2019 | F | 18:59s | 17:44s | 17:16s | 16:31s | | |
| 05/03/2019 | F | 20:32et | | | 22:20s | 22:09r | |
| 05/04/2019 | Sat | 3:07mt | | 4:10r | 3:46r | 2:37t | 0:00r |
| 05/04/2019 | Sat | 4:41r | 4:57r | | 6:44r | 7:05s | 4:33t |
| 05/04/2019 | Sat | 11:50t | 11:48t | 10:45t | 10:09t | 14:31t | 9:07s |
| 05/04/2019 | Sat | | 15:45NM | 17:21s | 16:33s | | |
| 05/04/2019 | Sat | 19:00s | 18:49s | | | | |
| 05/04/2019 | Sat | 20:34et | | | 22:19s | 22:05r | 23:56r |
| 05/05/2019 | Sun | 3:06mt | | 4:10r | 3:45r | 2:33t | 4:29t |
| 05/05/2019 | Sun | 4:39r | 5:27r | 10:47t | 10:10t | 6:43r | 7:00s |
| 05/05/2019 | Sun | 11:50t | 12:37t | 17:27s | 16:36s | 14:30t | |
| 05/05/2019 | Sun | 19:01s | 19:57s | | | | |
| 05/05/2019 | Sun | 20:36et | | | 22:18s | 22:01r | 23:52r |
| 05/06/2019 | M | 3:04mt | | 4:09r | 3:44r | 2:29t | 4:25t |
| 05/06/2019 | M | 4:38r | 6:01r | 10:50t | 10:10t | 6:41r | 6:56s |
| 05/06/2019 | M | 11:50t | 13:28t | 17:33s | 16:38s | 14:29t | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------------|--------|---------|--------|
| 05/06/2019 | M | 19:03s | | | | | |
| 05/06/2019 | M | 20:37et | 21:04s | | 22:17s | 21:57r | 23:48r |
| 05/07/2019 | Tu | 3:02mt | | 4:09r 3:43r | | 2:24t | 4:21t |
| 05/07/2019 | Tu | 4:37r | 6:42r | 10:53t 10:11t | 6:40r | 6:52s | 8:55s |
| 05/07/2019 | Tu | 11:50t | 14:23t | 17:39s 16:40s | 14:28t | | |
| 05/07/2019 | Tu | 19:04s | | | | | |
| 05/07/2019 | Tu | 20:39et | 22:10s | | 22:16s | 21:52r | 23:44r |
| 05/08/2019 | W | 3:00mt | | 4:09r 3:41r | | 2:20t | 4:17t |
| 05/08/2019 | W | 4:35r | 7:31r | 10:56t 10:12t | 6:39r | 6:48s | 8:51s |
| 05/08/2019 | W | 11:50t | 15:20t | 17:45s 16:43s | 14:27t | | |
| 05/08/2019 | W | 19:05s | | | | | |
| 05/08/2019 | W | 20:41et | 23:11s | | 22:15s | 21:48r | 23:40r |
| 05/09/2019 | Th | 2:58mt | | 4:09r 3:40r | | 2:16t | 4:13t |
| 05/09/2019 | Th | 4:34r | 8:28r | 11:00t 10:12t | 6:38r | 6:43s | 8:47s |
| 05/09/2019 | Th | 11:50t | 16:18t | 17:52s 16:45s | 14:26t | | |
| 05/09/2019 | Th | 19:06s | | | | | |
| 05/09/2019 | Th | 20:42et | | | 22:14s | 21:44r | 23:36r |
| 05/10/2019 | F | 2:57mt | 0:05s | 4:09r 3:39r | | 2:11t | 4:09t |
| 05/10/2019 | F | 4:33r | 9:33r | 11:03t 10:13t | 6:36r | 6:39s | 8:43s |
| 05/10/2019 | F | 11:50t | 17:16t | 17:59s 16:48s | 14:25t | | |
| 05/10/2019 | F | 19:07s | | | | | |
| 05/10/2019 | F | 20:44et | | | 22:13s | 21:39r | 23:32r |
| 05/11/2019 | Sat | 2:55mt | 0:52s | 4:10r 3:38r | | 2:07t | 4:05t |
| 05/11/2019 | Sat | 4:32r | 10:43r | 11:07t 10:13t | 6:35r | 6:35s | 8:39s |
| 05/11/2019 | Sat | 11:50t | 18:12FQ | 18:05s 16:50s | 14:24t | | |
| 05/11/2019 | Sat | 19:08s | 18:12t | | | | |
| 05/11/2019 | Sat | 20:46et | | | 22:12s | 21:35r | 23:28r |
| 05/12/2019 | Sun | 2:53mt | 1:32s | 4:10r 3:37r | | 2:03t | 4:01t |
| 05/12/2019 | Sun | 4:30r | | 11:10t 10:14t | 6:34r | 6:30s | 8:35s |
| 05/12/2019 | Sun | 11:50t | 11:56r | 18:13s 16:52s | 14:23t | | |
| 05/12/2019 | Sun | 19:09s | 19:07t | | | | |
| 05/12/2019 | Sun | 20:47et | | | 22:11s | 21:31r | 23:24r |
| 05/13/2019 | M | 2:51mt | 2:06s | 4:11r 3:36r | | 1:58t | 3:57t |
| 05/13/2019 | M | 4:29r | | 11:14t 10:15t | 6:33r | 6:26s | 8:31s |
| 05/13/2019 | M | 11:50t | 13:09r | 18:20s 16:55s | 14:21t | | |
| 05/13/2019 | M | 19:11s | 19:59t | | | | |
| 05/13/2019 | M | 20:49et | | | 22:10s | 21:26r | 23:20r |
| 05/14/2019 | Tu | 2:50mt | 2:37s | 4:11r 3:34r | | 1:54t | 3:53t |
| 05/14/2019 | Tu | 4:28r | | 11:18t 10:15t | 6:32r | 6:22s | 8:26s |
| 05/14/2019 | Tu | 11:50t | 14:23r | 18:27s 16:57s | 14:20t | | |
| 05/14/2019 | Tu | 19:12s | 20:50t | | | | |
| 05/14/2019 | Tu | 20:51et | | | 22:09s | 21:22r | 23:16r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 05/15/2019 | W | 2:48mt | 3:06s | 4:12r | 3:33r | | 1:50t | 3:49t |
| 05/15/2019 | W | 4:27r | | 11:22t | 10:16t | 6:31r | 6:18s | 8:22s |
| 05/15/2019 | W | 11:50t | 15:36r | 18:35s | 17:00s | 14:19t | | |
| 05/15/2019 | W | 19:13s | | | | | | |
| 05/15/2019 | W | 20:52et | 21:41t | | | 22:08s | 21:18r | 23:12r |
| 05/16/2019 | Th | 2:46mt | 3:35s | 4:13r | 3:32r | | 1:45t | 3:45t |
| 05/16/2019 | Th | 4:26r | | 11:27t | 10:17t | 6:29r | 6:13s | 8:18s |
| 05/16/2019 | Th | 11:50t | 16:49r | 18:43s | 17:02s | 14:18t | | |
| 05/16/2019 | Th | 19:14s | | | | | | |
| 05/16/2019 | Th | 20:54et | 22:31t | | | 22:07s | 21:13r | 23:08r |
| 05/17/2019 | F | 2:45mt | 4:04s | 4:14r | 3:31r | | 1:41t | 3:41t |
| 05/17/2019 | F | 4:25r | | 11:31t | 10:17t | 6:28r | 6:09s | 8:14s |
| 05/17/2019 | F | 11:50t | 18:01r | 18:50s | 17:05s | 14:17t | | |
| 05/17/2019 | F | 19:15s | | | | | | |
| 05/17/2019 | F | 20:56et | 23:22t | | | 22:06s | 21:09r | 23:04r |
| 05/18/2019 | Sat | 2:43mt | | 4:15r | 3:30r | | 1:37t | 3:37t |
| 05/18/2019 | Sat | 4:24r | 4:36s | 11:36t | 10:18t | 6:27r | 6:05s | 8:10s |
| 05/18/2019 | Sat | 11:50t | 14:11FM | 18:58s | 17:07s | 14:16t | | |
| 05/18/2019 | Sat | 19:16s | 19:11r | | | | | |
| 05/18/2019 | Sat | 20:57et | | | | 22:05s | 21:04r | 23:00r |
| 05/19/2019 | Sun | 2:42mt | 0:15t | 4:17r | 3:29r | | 1:32t | 3:33t |
| 05/19/2019 | Sun | 4:23r | 5:11s | 11:41t | 10:19t | 6:26r | 6:00s | 8:06s |
| 05/19/2019 | Sun | 11:50t | | 19:06s | 17:10s | 14:15t | | |
| 05/19/2019 | Sun | 19:17s | 20:19r | | | | | |
| 05/19/2019 | Sun | 20:59et | | | | 22:04s | 21:00r | 22:56r |
| 05/20/2019 | M | 2:40mt | 1:08t | 4:19r | 3:28r | | 1:28t | 3:29t |
| 05/20/2019 | M | 4:22r | 5:52s | 11:46t | 10:19t | 6:25r | 5:56s | 8:02s |
| 05/20/2019 | M | 11:50t | | 19:15s | 17:12s | 14:14t | | |
| 05/20/2019 | M | 19:18s | | | | | 20:56r | |
| 05/20/2019 | M | 21:00et | 21:22r | | | 22:02s | | 22:52r |
| 05/21/2019 | Tu | 2:39mt | 2:01t | 4:21r | 3:27r | | 1:23t | 3:25t |
| 05/21/2019 | Tu | 4:21r | 6:38s | | 10:20t | 6:24r | 5:51s | 7:58s |
| 05/21/2019 | Tu | 11:50t | | 11:51t | 17:15s | 14:13t | | |
| 05/21/2019 | Tu | 19:19s | | 19:23s | | | 20:51r | |
| 05/21/2019 | Tu | 21:02et | 22:18r | | | 22:01s | | 22:48r |
| 05/22/2019 | W | 2:37mt | 2:53t | | 3:26r | | 1:19t | 3:21t |
| 05/22/2019 | W | 4:20r | 7:29s | 4:23r | 10:21t | 6:23r | 5:47s | 7:54s |
| 05/22/2019 | W | 11:50t | | 11:56t | 17:17s | 14:12t | | |
| 05/22/2019 | W | 19:20s | | 19:31s | | | 20:47r | |
| 05/22/2019 | W | 21:03et | 23:07r | | | 22:00s | | 22:44r |
| 05/23/2019 | Th | 2:36mt | 3:44t | | 3:25r | | 1:15t | 3:17t |
| 05/23/2019 | Th | 4:19r | 8:24s | 4:25r | 10:22t | 6:22r | 5:43s | 7:50s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 05/23/2019 | Th | 11:50t | | 12:01t | 17:19s | 14:10t | | |
| 05/23/2019 | Th | 19:21s | | 19:39s | | | 20:42r | |
| 05/23/2019 | Th | 21:05et | 23:48r | | | 21:59s | | 22:40r |
| 05/24/2019 | F | 2:35mt | | | 3:24r | | 1:10t | 3:13t |
| 05/24/2019 | F | 4:18r | 4:33t | 4:28r | | 6:21r | 5:38s | 7:46s |
| 05/24/2019 | F | 11:50t | 9:23s | 12:06t | 10:23t | 14:09t | | |
| 05/24/2019 | F | 19:22s | | 19:47s | 17:22s | | 20:38r | |
| 05/24/2019 | F | 21:06et | | | | 21:57s | | 22:36r |
| 05/25/2019 | Sat | 2:33mt | 0:23r | | 3:23r | | 1:06t | 3:09t |
| 05/25/2019 | Sat | 4:18r | 5:20t | 4:30r | | 6:20r | 5:34s | 7:41s |
| 05/25/2019 | Sat | 11:50t | 10:22s | 12:12t | 10:23t | 14:08t | | |
| 05/25/2019 | Sat | 19:23s | | 19:55s | 17:24s | | 20:33r | |
| 05/25/2019 | Sat | 21:08et | | | | 21:56s | | 22:32r |
| 05/26/2019 | Sun | 2:32mt | 0:54r | | 3:22r | | 1:01t | 3:05t |
| 05/26/2019 | Sun | 4:17r | 6:05t | 4:33r | | 6:19r | 5:29s | 7:37s |
| 05/26/2019 | Sun | | 9:34LQ | | 10:24t | | | |
| 05/26/2019 | Sun | 11:50t | 11:23s | 12:17t | 17:27s | 14:07t | | |
| 05/26/2019 | Sun | 19:24s | | 20:02s | | | 20:29r | |
| 05/26/2019 | Sun | 21:09et | | | | 21:55s | | 22:28r |
| 05/27/2019 | M | 2:31mt | 1:21r | | 3:22r | | 0:57t | 3:01t |
| 05/27/2019 | M | 4:16r | 6:48t | 4:36r | 10:25t | 6:18r | 5:25s | 7:33s |
| 05/27/2019 | M | 11:50t | 12:23s | 12:22t | 17:29s | 14:06t | | |
| 05/27/2019 | M | 19:25s | | 20:09s | | | 20:24r | |
| 05/27/2019 | M | 21:11et | | | | 21:54s | | 22:24r |
| 05/28/2019 | Tu | 2:30mt | 1:45r | | 3:21r | | 0:53t | 2:56t |
| 05/28/2019 | Tu | 4:15r | 7:30t | 4:39r | 10:26t | 6:17r | 5:21s | 7:29s |
| 05/28/2019 | Tu | 11:50t | 13:24s | 12:27t | 17:32s | 14:05t | | |
| 05/28/2019 | Tu | 19:26s | | 20:17s | | | 20:20r | |
| 05/28/2019 | Tu | 21:12et | | | | 21:52s | | 22:20r |
| 05/29/2019 | W | 2:29mt | 2:09r | | 3:20r | | 0:48t | 2:52t |
| 05/29/2019 | W | 4:15r | 8:12t | 4:43r | 10:27t | 6:16r | 5:16s | 7:25s |
| 05/29/2019 | W | 11:51t | 14:25s | 12:33t | 17:34s | 14:04t | | |
| 05/29/2019 | W | 19:27s | | 20:23s | | | 20:15r | |
| 05/29/2019 | W | 21:14et | | | | 21:51s | | 22:16r |
| 05/30/2019 | Th | 2:28mt | 2:33r | | 3:19r | | 0:44t | 2:48t |
| 05/30/2019 | Th | 4:14r | 8:55t | 4:46r | 10:28t | 6:15r | 5:12s | 7:21s |
| 05/30/2019 | Th | 11:51t | 15:28s | 12:38t | 17:37s | 14:03t | | |
| 05/30/2019 | Th | 19:28s | | 20:30s | | | 20:11r | |
| 05/30/2019 | Th | 21:15et | | | | 21:50s | | 22:11r |
| 05/31/2019 | F | 2:27mt | 2:58r | | 3:19r | | 0:39t | 2:44t |
| 05/31/2019 | F | 4:14r | 9:40t | 4:50r | 10:29t | 6:14r | 5:07s | 7:17s |
| 05/31/2019 | F | 11:51t | 16:33s | 12:43t | 17:39s | 14:01t | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 05/31/2019 | F | 19:29s | | 20:36s | | 20:06r | |
| 05/31/2019 | F | 21:16et | | | 21:48s | | 22:07r |
| 06/01/2019 | Sat | 2:26mt | 3:26r | | 3:18r | 0:35t | 2:40t |
| 06/01/2019 | Sat | 4:13r | 10:28t | 4:54r | 10:29t | 6:14r | 5:03s |
| 06/01/2019 | Sat | 11:51t | 17:40s | 12:48t | 17:42s | 14:00t | |
| 06/01/2019 | Sat | 19:29s | | 20:42s | | | 20:02r |
| 06/01/2019 | Sat | 21:17et | | | 21:47s | | 22:03r |
| 06/02/2019 | Sun | 2:25mt | 3:59r | | 3:17r | 0:30t | 2:36t |
| 06/02/2019 | Sun | 4:13r | 11:19t | 4:58r | 10:30t | 6:13r | 4:59s |
| 06/02/2019 | Sun | 11:51t | 18:49s | 12:52t | 17:44s | 13:59t | |
| 06/02/2019 | Sun | 19:30s | | 20:47s | | | 19:57r |
| 06/02/2019 | Sun | 21:19et | | | 21:45s | | 21:59r |
| 06/03/2019 | M | 2:24mt | 3:02NM | | 3:17r | 0:26t | 2:32t |
| 06/03/2019 | M | 4:12r | 4:37r | 5:02r | 10:31t | 6:12r | 4:54s |
| 06/03/2019 | M | 11:51t | 12:13t | 12:57t | 17:47s | 13:58t | |
| 06/03/2019 | M | 19:31s | 19:57s | 20:52s | | | 19:53r |
| 06/03/2019 | M | 21:20et | | | 21:44s | | 21:55r |
| 06/04/2019 | Tu | 2:23mt | | | 3:16r | 0:21t | 2:27t |
| 06/04/2019 | Tu | 4:12r | 5:23r | 5:06r | 10:32t | 6:11r | 4:50s |
| 06/04/2019 | Tu | 11:52t | 13:11t | 13:01t | 17:49s | 13:57t | |
| 06/04/2019 | Tu | 19:32s | 21:02s | 20:57s | | | 19:48r |
| 06/04/2019 | Tu | 21:21et | | | 21:42s | | 21:51r |
| 06/05/2019 | W | 2:22mt | | | 3:16r | 0:17t | 2:23t |
| 06/05/2019 | W | 4:11r | 6:19r | 5:10r | 10:33t | 6:10r | 4:45s |
| 06/05/2019 | W | 11:52t | 14:11t | 13:06t | 17:52s | 13:56t | |
| 06/05/2019 | W | 19:33s | | 21:01s | | | 19:44r |
| 06/05/2019 | W | 21:22et | 22:01s | | 21:41s | | 21:47r |
| 06/06/2019 | Th | 2:21mt | | | 3:15r | 0:12t | 2:19t |
| 06/06/2019 | Th | 4:11r | 7:23r | 5:14r | 10:34t | 6:09r | 4:41s |
| 06/06/2019 | Th | 11:52t | 15:10t | 13:10t | 17:54s | 13:55t | |
| 06/06/2019 | Th | 19:33s | | 21:05s | | | 19:39r |
| 06/06/2019 | Th | 21:23et | 22:51s | | 21:40s | | 21:43r |
| 06/07/2019 | F | 2:21mt | | | 3:15r | 0:08t | 2:15t |
| 06/07/2019 | F | 4:11r | 8:33r | 5:18r | 10:35t | 6:09r | 4:36s |
| 06/07/2019 | F | 11:52t | 16:08t | 13:13t | 17:57s | 13:53t | |
| 06/07/2019 | F | 19:34s | | 21:08s | | | 19:35r |
| 06/07/2019 | F | 21:24et | 23:34s | | 21:38s | | 21:39r |
| 06/08/2019 | Sat | 2:20mt | | | 3:15r | 0:03t | 2:11t |
| 06/08/2019 | Sat | 4:10r | 9:46r | 5:22r | 10:36t | 6:08r | 4:32s |
| 06/08/2019 | Sat | 11:52t | 17:04t | 13:17t | 17:59s | 13:52t | 19:30r |
| 06/08/2019 | Sat | 19:35s | | 21:11s | | | |
| 06/08/2019 | Sat | 21:25et | | | 21:36s | 23:59t | 21:34r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|---------|---------|--------|--------|---------|--------|
| 06/09/2019 | Sun 2:19mt | 0:10s | | 3:14r | | | 2:07t |
| 06/09/2019 | Sun 4:10r | 11:00r | 5:26r | 10:38t | 6:07r | 4:27s | 6:39s |
| 06/09/2019 | Sun 11:52t | 17:57t | 13:20t | 18:01s | 13:51t | 19:26r | |
| 06/09/2019 | Sun 19:35s | | 21:14s | | | | |
| 06/09/2019 | Sun 21:26et | 22:59FQ | | | 21:35s | 23:54t | 21:30r |
| 06/10/2019 | M 2:19mt | 0:42s | | 3:14r | | | 2:02t |
| 06/10/2019 | M 4:10r | | 5:31r | 10:39t | 6:06r | 4:23s | 6:35s |
| 06/10/2019 | M 11:53t | 12:13r | 13:24t | 18:04s | 13:50t | | |
| 06/10/2019 | M 19:36s | 18:47t | 21:16s | | | 19:21r | 21:26r |
| 06/10/2019 | M 21:27et | | | | 21:33s | 23:50t | |
| 06/11/2019 | Tu 2:18mt | 1:11s | | 3:14r | | | 1:58t |
| 06/11/2019 | Tu 4:10r | | 5:34r | 10:40t | 6:05r | 4:19s | 6:30s |
| 06/11/2019 | Tu 11:53t | 13:25r | 13:27t | 18:06s | 13:49t | 19:17r | |
| 06/11/2019 | Tu 19:36s | 19:37t | 21:18s | | | | 21:22r |
| 06/11/2019 | Tu 21:28et | | | | 21:32s | 23:45t | |
| 06/12/2019 | W 2:18mt | 1:38s | | 3:14r | | | 1:54t |
| 06/12/2019 | W 4:10r | | 5:38r | 10:41t | 6:05r | 4:14s | 6:26s |
| 06/12/2019 | W 11:53t | 14:36r | 13:29t | 18:09s | 13:48t | 19:12r | |
| 06/12/2019 | W 19:37s | 20:26t | 21:20s | | | | 21:18r |
| 06/12/2019 | W 21:28et | | | | 21:30s | 23:41t | |
| 06/13/2019 | Th 2:18mt | 2:06s | | 3:14r | | | 1:50t |
| 06/13/2019 | Th 4:09r | | 5:42r | 10:42t | 6:04r | 4:10s | 6:22s |
| 06/13/2019 | Th 11:53t | 15:47r | 13:32t | 18:11s | 13:46t | 19:08r | |
| 06/13/2019 | Th 19:37s | 21:16t | 21:21s | | 21:29s | | 21:14r |
| 06/13/2019 | Th 21:29et | | | | | 23:37t | |
| 06/14/2019 | F 2:17mt | 2:36s | | 3:14r | | 4:05s | 1:46t |
| 06/14/2019 | F 4:09r | | 5:46r | 10:43t | 6:03r | | 6:18s |
| 06/14/2019 | F 11:53t | 16:56r | 13:34t | 18:13s | 13:45t | 19:03r | |
| 06/14/2019 | F 19:38s | | 21:22s | | 21:27s | | 21:10r |
| 06/14/2019 | F 21:30et | 22:06t | | | | 23:32t | |
| 06/15/2019 | Sat 2:17mt | 3:09s | | 3:14r | | 4:01s | 1:42t |
| 06/15/2019 | Sat 4:09r | | 5:49r | 10:44t | 6:02r | | 6:13s |
| 06/15/2019 | Sat 11:54t | 18:04r | 13:36t | 18:16s | 13:44t | 18:59r | |
| 06/15/2019 | Sat 19:38s | | 21:22s | | 21:25s | | 21:05r |
| 06/15/2019 | Sat 21:30et | 22:58t | | | | 23:28t | |
| 06/16/2019 | Sun 2:17mt | 3:47s | | 3:14r | | 3:56s | 1:37t |
| 06/16/2019 | Sun 4:09r | | 5:53r | 10:46t | 6:02r | | 6:09s |
| 06/16/2019 | Sun 11:54t | 19:09r | 13:38t | 18:18s | 13:43t | 18:54r | |
| 06/16/2019 | Sun 19:39s | | 21:23s | | 21:24s | | 21:01r |
| 06/16/2019 | Sun 21:31et | 23:51t | | | | 23:23t | |
| 06/17/2019 | M 2:17mt | 1:31FM | | 3:14r | | 3:52s | 1:33t |
| 06/17/2019 | M 4:09r | 4:30s | 5:56r | 10:47t | 6:01r | | 6:05s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 06/17/2019 | M | 11:54t | | 13:40t | 18:20s | 13:42t | 18:50r |
| 06/17/2019 | M | 19:39s | 20:08r | 21:22s | | 21:22s | 20:57r |
| 06/17/2019 | M | 21:31et | | | | 23:19t | |
| 06/18/2019 | Tu | 2:17mt | 0:44t | | 3:14r | | 3:48s |
| 06/18/2019 | Tu | 4:09r | 5:19s | 5:59r | 10:48t | 6:00r | 6:01s |
| 06/18/2019 | Tu | 11:54t | | 13:41t | 18:22s | 13:40t | 18:45r |
| 06/18/2019 | Tu | 19:39s | 21:00r | 21:22s | | 21:20s | 20:53r |
| 06/18/2019 | Tu | 21:32et | | | | 23:14t | |
| 06/19/2019 | W | 2:17mt | 1:36t | | 3:15r | | 3:43s |
| 06/19/2019 | W | 4:10r | 6:13s | 6:02r | 10:49t | 6:00r | 5:56s |
| 06/19/2019 | W | 11:55t | | 13:42t | 18:25s | 13:39t | 18:41r |
| 06/19/2019 | W | 19:40s | | 21:21s | | 21:18s | 20:49r |
| 06/19/2019 | W | 21:32et | 21:45r | | | 23:10t | |
| 06/20/2019 | Th | 2:17mt | 2:26t | | 3:15r | | 3:39s |
| 06/20/2019 | Th | 4:10r | 7:10s | 6:04r | 10:50t | 5:59r | 5:52s |
| 06/20/2019 | Th | 11:55t | | 13:43t | 18:27s | 13:38t | 18:36r |
| 06/20/2019 | Th | 19:40s | | 21:20s | | 21:17s | 20:45r |
| 06/20/2019 | Th | 21:32et | 22:23r | | | 23:05t | |
| 06/21/2019 | F | 2:17mt | 3:14t | | 3:15r | | 3:34s |
| 06/21/2019 | F | 4:10r | 8:10s | 6:07r | | 5:58r | 5:48s |
| 06/21/2019 | F | 8:54JS | | | 10:52t | | |
| 06/21/2019 | F | 11:55t | | 13:44t | 18:29s | 13:37t | 18:32r |
| 06/21/2019 | F | 19:40s | | 21:19s | | 21:15s | 20:41r |
| 06/21/2019 | F | 21:33et | 22:55r | | | 23:01t | |
| 06/22/2019 | Sat | 2:18mt | 3:59t | | 3:16r | | 3:30s |
| 06/22/2019 | Sat | 4:10r | 9:10s | 6:09r | 10:53t | 5:58r | 5:44s |
| 06/22/2019 | Sat | 11:55t | | 13:44t | 18:31s | 13:36t | 18:27r |
| 06/22/2019 | Sat | 19:40s | | 21:18s | | 21:13s | 20:36r |
| 06/22/2019 | Sat | 21:33et | 23:23r | | | 22:56t | |
| 06/23/2019 | Sun | 2:18mt | | | 3:16r | | 3:25s |
| 06/23/2019 | Sun | 4:10r | 4:43t | 6:11r | | 5:57r | 5:39s |
| 06/23/2019 | Sun | 11:55t | 10:10s | 13:44t | 10:54t | 13:34t | 18:23r |
| 06/23/2019 | Sun | 19:40s | | 21:16s | 18:33s | 21:11s | 20:32r |
| 06/23/2019 | Sun | 21:33et | 23:48r | | | 22:52t | |
| 06/24/2019 | M | 2:18mt | | | 3:17r | | 3:21s |
| 06/24/2019 | M | 4:11r | 5:25t | 6:13r | 10:56t | 5:56r | 5:35s |
| 06/24/2019 | M | 11:56t | 11:11s | 13:44t | 18:35s | 13:33t | 18:18r |
| 06/24/2019 | M | 19:40s | | 21:14s | | 21:09s | 20:28r |
| 06/24/2019 | M | 21:33et | | | | 22:47t | |
| 06/25/2019 | Tu | 2:19mt | 0:12r | | | | 0:59t |
| 06/25/2019 | Tu | 4:11r | 2:46LQ | | 3:17r | 5:56r | 3:17s |
| 06/25/2019 | Tu | 11:56t | 6:07t | 6:14r | 10:57t | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 06/25/2019 | Tu | 19:41s | 12:11s | 13:43t | 18:37s | 13:32t | 18:14r | 20:24r |
| 06/25/2019 | Tu | 21:33et | | 21:12s | | 21:08s | 22:43t | |
| 06/26/2019 | W | 2:19mt | 0:36r | | 3:18r | | 3:12s | 0:55t |
| 06/26/2019 | W | 4:11r | 6:49t | 6:15r | 10:58t | 5:55r | | 5:27s |
| 06/26/2019 | W | 11:56t | 13:13s | 13:43t | 18:39s | 13:31t | 18:09r | |
| 06/26/2019 | W | 19:41s | | 21:09s | | 21:06s | | 20:20r |
| 06/26/2019 | W | 21:33et | | | | | 22:39t | |
| 06/27/2019 | Th | 2:20mt | 1:00r | | 3:19r | | 3:08s | 0:51t |
| 06/27/2019 | Th | 4:12r | 7:32t | 6:16r | 11:00t | 5:54r | | 5:22s |
| 06/27/2019 | Th | 11:56t | 14:16s | 13:42t | 18:41s | 13:29t | 18:05r | |
| 06/27/2019 | Th | 19:41s | | 21:06s | | 21:04s | | 20:15r |
| 06/27/2019 | Th | 21:33et | | | | | 22:34t | |
| 06/28/2019 | F | 2:20mt | 1:26r | | 3:20r | | 3:03s | 0:47t |
| 06/28/2019 | F | 4:12r | 8:18t | 6:17r | 11:01t | 5:54r | | 5:18s |
| 06/28/2019 | F | 11:56t | 15:21s | 13:40t | 18:43s | 13:28t | 18:00r | |
| 06/28/2019 | F | 19:41s | | 21:03s | | 21:02s | | 20:11r |
| 06/28/2019 | F | 21:32et | | | | | 22:30t | |
| 06/29/2019 | Sat | 2:21mt | 1:55r | | 3:21r | | 2:59s | 0:42t |
| 06/29/2019 | Sat | 4:13r | 9:07t | 6:17r | 11:02t | 5:53r | | 5:14s |
| 06/29/2019 | Sat | 11:57t | 16:29s | 13:39t | 18:45s | 13:27t | 17:56r | |
| 06/29/2019 | Sat | 19:40s | | 21:00s | | 21:00s | | 20:07r |
| 06/29/2019 | Sat | 21:32et | | | | | 22:25t | |
| 06/30/2019 | Sun | 2:22mt | 2:30r | | 3:21r | | 2:55s | 0:38t |
| 06/30/2019 | Sun | 4:13r | 10:00t | 6:17r | 11:04t | 5:52r | | 5:09s |
| 06/30/2019 | Sun | 11:57t | 17:38s | 13:37t | 18:46s | 13:26t | 17:51r | |
| 06/30/2019 | Sun | 19:40s | | 20:56s | | 20:58s | | 20:03r |
| 06/30/2019 | Sun | 21:32et | | | | | 22:21t | |
| 07/01/2019 | M | 2:22mt | 3:13r | | 3:22r | | 2:50s | 0:34t |
| 07/01/2019 | M | 4:14r | 10:56t | 6:16r | 11:05t | 5:52r | | 5:05s |
| 07/01/2019 | M | 11:57t | 18:45s | 13:35t | 18:48s | 13:24t | 17:47r | |
| 07/01/2019 | M | 19:40s | | 20:53s | | 20:56s | | 19:59r |
| 07/01/2019 | M | 21:31et | | | | | 22:17t | |
| 07/02/2019 | Tu | 2:23mt | 4:05r | | 3:24r | | 2:46s | 0:30t |
| 07/02/2019 | Tu | 4:14r | 11:56t | 6:16r | 11:07t | 5:51r | | 5:01s |
| 07/02/2019 | Tu | 11:57t | 12:16NM | 13:33t | 18:50s | 13:23t | 17:43r | |
| 07/02/2019 | Tu | 19:40s | 19:48s | 20:49s | | 20:54s | | 19:55r |
| 07/02/2019 | Tu | 21:31et | | | | | 22:12t | |
| 07/03/2019 | W | 2:24mt | | | 3:25r | | 2:42s | 0:26t |
| 07/03/2019 | W | 4:15r | 5:06r | 6:14r | 11:08t | 5:51r | | 4:57s |
| 07/03/2019 | W | 11:57t | 12:58t | 13:30t | 18:51s | 13:22t | 17:38r | |
| 07/03/2019 | W | 19:40s | 20:44s | 20:44s | | 20:52s | | 19:50r |
| 07/03/2019 | W | 21:30et | | | | | 22:08t | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 07/04/2019 | Th | 2:25mt | | | 3:26r | | 2:37s | 0:21t |
| 07/04/2019 | Th | 4:15r | 6:16r | 6:13r | 11:09t | 5:50r | | 4:52s |
| 07/04/2019 | Th | 11:58t | 13:58t | 13:27t | 18:53s | 13:20t | 17:34r | |
| 07/04/2019 | Th | 19:40s | | 20:40s | | 20:50s | | 19:46r |
| 07/04/2019 | Th | 21:30et | 21:31s | | | | 22:03t | |
| 07/05/2019 | F | 2:26mt | | | 3:27r | | 2:33s | 0:17t |
| 07/05/2019 | F | 4:16r | 7:31r | 6:11r | 11:11t | 5:49r | | 4:48s |
| 07/05/2019 | F | 11:58t | 14:57t | 13:23t | 18:54s | 13:19t | 17:29r | |
| 07/05/2019 | F | 19:39s | | 20:35s | | 20:48s | | 19:42r |
| 07/05/2019 | F | 21:29et | 22:11s | | | | 21:59t | |
| 07/06/2019 | Sat | 2:27mt | | | 3:28r | | 2:29s | 0:13t |
| 07/06/2019 | Sat | 4:17r | 8:47r | 6:09r | 11:12t | 5:49r | | 4:44s |
| 07/06/2019 | Sat | 11:58t | 15:52t | 13:20t | 18:56s | 13:18t | 17:25r | 19:38r |
| 07/06/2019 | Sat | 19:39s | | 20:30s | | 20:46s | | |
| 07/06/2019 | Sat | 21:28et | 22:45s | | | | 21:55t | |
| 07/07/2019 | Sun | 2:28mt | | | 3:30r | | 2:24s | 0:09t |
| 07/07/2019 | Sun | 4:17r | 10:02r | 6:06r | 11:14t | 5:48r | | 4:39s |
| 07/07/2019 | Sun | 11:58t | 16:44t | 13:16t | 18:57s | 13:17t | 17:21r | 19:34r |
| 07/07/2019 | Sun | 19:38s | | 20:25s | | 20:44s | | |
| 07/07/2019 | Sun | 21:28et | 23:15s | | | | 21:50t | |
| 07/08/2019 | M | 2:29mt | | | 3:31r | | 2:20s | 0:04t |
| 07/08/2019 | M | 4:18r | 11:16r | 6:03r | 11:15t | 5:48r | | 4:35s |
| 07/08/2019 | M | 11:58t | 17:35t | 13:11t | 18:58s | 13:15t | 17:16r | 19:29r |
| 07/08/2019 | M | 19:38s | | 20:19s | | 20:42s | | |
| 07/08/2019 | M | 21:27et | 23:43s | | | | 21:46t | |
| 07/09/2019 | Tu | 2:30mt | 3:55FQ | | 3:33r | | 2:16s | 0:00t |
| 07/09/2019 | Tu | 4:19r | | 5:59r | 11:16t | 5:47r | | 4:31s |
| 07/09/2019 | Tu | 11:58t | 12:27r | 13:07t | | 13:14t | 17:12r | |
| 07/09/2019 | Tu | 19:38s | 18:24t | 20:14s | 19:00s | 20:40s | | 19:25r |
| 07/09/2019 | Tu | 21:26et | | | | | 21:42t | 23:56t |
| 07/10/2019 | W | 2:31mt | 0:11s | | 3:34r | | 2:11s | |
| 07/10/2019 | W | 4:20r | | 5:55r | 11:18t | 5:47r | | 4:26s |
| 07/10/2019 | W | 11:59t | 13:38r | 13:02t | 19:01s | 13:13t | 17:08r | |
| 07/10/2019 | W | 19:37s | 19:13t | 20:08s | | 20:38s | | 19:21r |
| 07/10/2019 | W | 21:25et | | | | | 21:37t | 23:52t |
| 07/11/2019 | Th | 2:33mt | 0:40s | | 3:36r | | 2:07s | |
| 07/11/2019 | Th | 4:20r | | 5:51r | 11:19t | 5:46r | | 4:22s |
| 07/11/2019 | Th | 11:59t | 14:47r | 12:57t | 19:02s | 13:11t | 17:03r | 19:17r |
| 07/11/2019 | Th | 19:37s | 20:03t | 20:02s | | 20:36s | | |
| 07/11/2019 | Th | 21:24et | | | | | 21:33t | 23:47t |
| 07/12/2019 | F | 2:34mt | 1:11s | | 3:38r | | 2:03s | 4:18s |
| 07/12/2019 | F | 4:21r | | 5:46r | 11:21t | 5:45r | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 07/12/2019 | F | 11:59t | 15:55r | 12:51t | 19:03s | 13:10t | 16:59r | 19:13r |
| 07/12/2019 | F | 19:36s | 20:53t | 19:56s | | 20:34s | | |
| 07/12/2019 | F | 21:23et | | | | 21:29t | 23:43t | |
| 07/13/2019 | Sat | 2:35mt | 1:46s | | 3:39r | | 1:59s | 4:14s |
| 07/13/2019 | Sat | 4:22r | | 5:41r | 11:22t | 5:45r | | |
| 07/13/2019 | Sat | 11:59t | 16:59r | 12:46t | 19:04s | 13:09t | 16:55r | 19:08r |
| 07/13/2019 | Sat | 19:35s | | 19:50s | | 20:32s | | |
| 07/13/2019 | Sat | 21:22et | 21:45t | | | | 21:24t | 23:39t |
| 07/14/2019 | Sun | 2:36mt | 2:26s | | 3:41r | | 1:54s | 4:09s |
| 07/14/2019 | Sun | 4:23r | | 5:36r | 11:23t | 5:44r | | |
| 07/14/2019 | Sun | 11:59t | 18:00r | 12:40t | 19:05s | 13:07t | 16:50r | 19:04r |
| 07/14/2019 | Sun | 19:35s | | 19:43s | | 20:30s | 21:20t | |
| 07/14/2019 | Sun | 21:21et | 22:37t | | | | | 23:35t |
| 07/15/2019 | M | 2:38mt | 3:12s | | 3:43r | | 1:50s | 4:05s |
| 07/15/2019 | M | 4:24r | | 5:30r | 11:25t | 5:44r | | |
| 07/15/2019 | M | 11:59t | 18:54r | 12:33t | 19:06s | 13:06t | 16:46r | 19:00r |
| 07/15/2019 | M | 19:34s | | 19:37s | | 20:28s | 21:16t | |
| 07/15/2019 | M | 21:20et | 23:29t | | | | | 23:30t |
| 07/16/2019 | Tu | 2:39mt | 4:04s | | 3:45r | | 1:46s | 4:01s |
| 07/16/2019 | Tu | 4:25r | | 5:24r | 11:26t | 5:43r | | |
| 07/16/2019 | Tu | 11:59t | 14:38FM | 12:27t | 19:07s | 13:05t | 16:42r | 18:56r |
| 07/16/2019 | Tu | 19:33s | 19:41r | 19:30s | | 20:26s | 21:12t | |
| 07/16/2019 | Tu | 21:18et | | | | | | 23:26t |
| 07/17/2019 | W | 2:41mt | 0:19t | | 3:47r | | 1:42s | 3:56s |
| 07/17/2019 | W | 4:26r | 5:00s | 5:17r | 11:27t | 5:43r | | |
| 07/17/2019 | W | 11:59t | | 12:20t | 19:08s | 13:03t | 16:37r | 18:52r |
| 07/17/2019 | W | 19:33s | 20:21r | 19:24s | | 20:23s | 21:07t | |
| 07/17/2019 | W | 21:17et | | | | | | 23:22t |
| 07/18/2019 | Th | 2:42mt | 1:08t | | 3:49r | | 1:37s | 3:52s |
| 07/18/2019 | Th | 4:27r | 5:59s | 5:11r | 11:29t | 5:42r | | |
| 07/18/2019 | Th | 11:59t | | 12:14t | 19:08s | 13:02t | 16:33r | 18:47r |
| 07/18/2019 | Th | 19:32s | 20:56r | 19:17s | | 20:21s | 21:03t | |
| 07/18/2019 | Th | 21:16et | | | | | | 23:18t |
| 07/19/2019 | F | 2:43mt | 1:55t | | 3:51r | | 1:33s | 3:48s |
| 07/19/2019 | F | 4:27r | 7:00s | 5:04r | 11:30t | 5:41r | | |
| 07/19/2019 | F | 12:00t | | 12:07t | 19:09s | 13:00t | 16:29r | 18:43r |
| 07/19/2019 | F | 19:31s | | 19:11s | | 20:19s | 20:59t | |
| 07/19/2019 | F | 21:15et | 21:25r | | | | | 23:13t |
| 07/20/2019 | Sat | 2:45mt | 2:39t | | 3:53r | | 1:29s | 3:44s |
| 07/20/2019 | Sat | 4:28r | 8:00s | 4:57r | 11:31t | 5:41r | | |
| 07/20/2019 | Sat | 12:00t | | 12:00t | | 12:59t | 16:25r | 18:39r |
| 07/20/2019 | Sat | 19:30s | | 19:04s | 19:10s | 20:17s | 20:55t | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 07/20/2019 | Sat | 21:13et | 21:51r | | | | 23:09t |
| 07/21/2019 | Sun | 2:46mt | 3:22t | 3:55r | | 1:25s | 3:39s |
| 07/21/2019 | Sun | 4:29r | 9:00s | 4:49r | 11:33t | 5:40r | |
| 07/21/2019 | Sun | 12:00t | | 11:54t | 12:58t | 16:20r | 18:35r |
| 07/21/2019 | Sun | 19:29s | | 18:58s | 19:10s | 20:15s | 20:50t |
| 07/21/2019 | Sun | 21:12et | 22:16r | | | | 23:05t |
| 07/22/2019 | M | 2:48mt | 4:03t | 3:57r | | 1:21s | 3:35s |
| 07/22/2019 | M | 4:30r | 10:00s | 4:42r | 11:34t | 5:40r | |
| 07/22/2019 | M | 12:00t | | 11:47t | 12:56t | 16:16r | 18:31r |
| 07/22/2019 | M | 19:28s | | 18:52s | 19:10s | 20:12s | 20:46t |
| 07/22/2019 | M | 21:10et | 22:39r | | | | 23:01t |
| 07/23/2019 | Tu | 2:49mt | | 3:59r | | 1:16s | 3:31s |
| 07/23/2019 | Tu | 4:31r | 4:45t | 4:35r | 5:39r | | |
| 07/23/2019 | Tu | 12:00t | 11:00s | 11:41t | 11:35t | 12:55t | 16:12r |
| 07/23/2019 | Tu | 19:27s | | 18:46s | 19:11s | 20:10s | 20:42t |
| 07/23/2019 | Tu | 21:09et | 23:02r | | | | 22:56t |
| 07/24/2019 | W | 2:51mt | | 4:28r | 4:02r | 1:12s | 3:26s |
| 07/24/2019 | W | 4:32r | 5:27t | 11:34t | 11:37t | 5:39r | |
| 07/24/2019 | W | 12:00t | 12:02s | | 12:54t | 16:08r | |
| 07/24/2019 | W | 19:26s | 18:18LQ | 18:41s | 19:11s | 20:08s | 20:38t |
| 07/24/2019 | W | 21:07et | 23:26r | | | | 22:52t |
| 07/25/2019 | Th | 2:52mt | | 4:21r | 4:04r | 1:08s | 3:22s |
| 07/25/2019 | Th | 4:33r | 6:10t | 11:28t | 11:38t | 5:38r | |
| 07/25/2019 | Th | 12:00t | 13:05s | 18:36s | 19:11s | 12:52t | 16:04r |
| 07/25/2019 | Th | 19:25s | | | 20:06s | 20:34t | |
| 07/25/2019 | Th | 21:06et | 23:54r | | | | 22:48t |
| 07/26/2019 | F | 2:54mt | | 4:14r | 4:06r | 1:04s | 3:18s |
| 07/26/2019 | F | 4:34r | 6:57t | 11:22t | 11:39t | 5:38r | |
| 07/26/2019 | F | 12:00t | 14:10s | 18:31s | 19:12s | 12:51t | 15:59r |
| 07/26/2019 | F | 19:24s | | | 20:03s | 20:30t | |
| 07/26/2019 | F | 21:04et | | | | | 22:44t |
| 07/27/2019 | Sat | 2:56mt | 0:25r | 4:07r | 4:09r | 1:00s | 3:14s |
| 07/27/2019 | Sat | 4:36r | 7:46t | 11:16t | 11:41t | 5:37r | |
| 07/27/2019 | Sat | 12:00t | 15:17s | 18:26s | 19:12s | 12:49t | 15:55r |
| 07/27/2019 | Sat | 19:23s | | | 20:01s | 20:25t | |
| 07/27/2019 | Sat | 21:03et | | | | | 22:40t |
| 07/28/2019 | Sun | 2:57mt | 1:03r | 4:01r | 4:11r | 0:56s | 3:09s |
| 07/28/2019 | Sun | 4:37r | 8:40t | 11:11t | 11:42t | 5:36r | |
| 07/28/2019 | Sun | 12:00t | 16:24s | 18:22s | 19:12s | 12:48t | 15:51r |
| 07/28/2019 | Sun | 19:22s | | | 19:59s | 20:21t | |
| 07/28/2019 | Sun | 21:01et | | | | | 22:35t |
| 07/29/2019 | M | 2:59mt | 1:50r | 3:55r | 4:13r | 0:52s | 3:05s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 07/29/2019 | M | 4:38r | 9:38t | 11:06t | 11:43t | 5:36r | |
| 07/29/2019 | M | 12:00t | 17:30s | 18:18s | 19:12s | 12:47t | 15:47r 18:01r |
| 07/29/2019 | M | 19:21s | | | 19:57s | 20:17t | |
| 07/29/2019 | M | 20:59et | | | | | 22:31t |
| 07/30/2019 | Tu | 3:00mt | 2:46r | 3:49r | 4:16r | 0:47s | 3:01s |
| 07/30/2019 | Tu | 4:39r | 10:39t | 11:02t | 11:44t | 5:35r | |
| 07/30/2019 | Tu | 12:00t | 18:29s | 18:15s | 19:12s | 12:45t | 15:43r 17:57r |
| 07/30/2019 | Tu | 19:20s | | | 19:54s | 20:13t | |
| 07/30/2019 | Tu | 20:58et | | | | | 22:27t |
| 07/31/2019 | W | 3:02mt | 3:53r | 3:44r | 4:18r | 0:43s | 2:57s |
| 07/31/2019 | W | 4:40r | 11:41t | 10:58t | 11:45t | 5:35r | |
| 07/31/2019 | W | 12:00t | | 18:12s | 19:12s | 12:44t | 15:39r 17:53r |
| 07/31/2019 | W | 19:19s | 19:21s | | | 19:52s | 20:09t |
| 07/31/2019 | W | 20:56et | 20:12NM | | | | 22:23t |
| 08/01/2019 | Th | 3:04mt | | 3:39r | 4:21r | 0:39s | 2:52s |
| 08/01/2019 | Th | 4:41r | 5:07r | 10:54t | 11:47t | 5:34r | |
| 08/01/2019 | Th | 12:00t | 12:42t | 18:09s | 19:12s | 12:42t | 15:35r 17:49r |
| 08/01/2019 | Th | 19:17s | 20:05s | | | 19:50s | 20:05t |
| 08/01/2019 | Th | 20:54et | | | | | 22:19t |
| 08/02/2019 | F | 3:05mt | | 3:35r | 4:23r | 0:35s | 2:48s |
| 08/02/2019 | F | 4:42r | 6:25r | 10:50t | 11:48t | 5:34r | |
| 08/02/2019 | F | 11:59t | 13:40t | 18:07s | 19:12s | 12:41t | 15:31r 17:45r |
| 08/02/2019 | F | 19:16s | 20:43s | | | 19:47s | 20:01t |
| 08/02/2019 | F | 20:52et | | | | | 22:14t |
| 08/03/2019 | Sat | 3:07mt | | 3:31r | 4:26r | 0:31s | 2:44s |
| 08/03/2019 | Sat | 4:43r | 7:44r | 10:48t | 11:49t | 5:33r | |
| 08/03/2019 | Sat | 11:59t | 14:36t | 18:05s | 19:11s | 12:39t | 15:27r 17:41r |
| 08/03/2019 | Sat | 19:15s | | | | 19:45s | 19:57t |
| 08/03/2019 | Sat | 20:51et | 21:15s | | | | 22:10t |
| 08/04/2019 | Sun | 3:08mt | | 3:27r | 4:28r | 0:27s | 2:40s |
| 08/04/2019 | Sun | 4:44r | 9:00r | 10:45t | 11:50t | 5:33r | |
| 08/04/2019 | Sun | 11:59t | 15:29t | 18:04s | 19:11s | 12:38t | 15:23r 17:37r |
| 08/04/2019 | Sun | 19:14s | | | | 19:43s | 19:53t |
| 08/04/2019 | Sun | 20:49et | 21:45s | | | | 22:06t |
| 08/05/2019 | M | 3:10mt | | 3:24r | 4:31r | 0:23s | 2:35s |
| 08/05/2019 | M | 4:45r | 10:15r | 10:43t | 11:51t | 5:32r | |
| 08/05/2019 | M | 11:59t | 16:20t | 18:03s | 19:11s | 12:36t | 15:19r 17:32r |
| 08/05/2019 | M | 19:12s | | | | 19:40s | 19:49t |
| 08/05/2019 | M | 20:47et | 22:14s | | | | 22:02t |
| 08/06/2019 | Tu | 3:12mt | | 3:22r | 4:33r | 0:19s | 2:31s |
| 08/06/2019 | Tu | 4:46r | 11:28r | 10:42t | 11:52t | 5:31r | |
| 08/06/2019 | Tu | 11:59t | 17:10t | 18:02s | 19:10s | 12:35t | 15:15r 17:28r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 08/06/2019 | Tu | 19:11s | | | | 19:38s | 19:45t | |
| 08/06/2019 | Tu | 20:45et | 22:43s | | | | | 21:58t |
| 08/07/2019 | W | 3:13mt | | 3:20r | 4:36r | | 0:15s | 2:27s |
| 08/07/2019 | W | 4:48r | 10:31FQ | 10:41t | 11:53t | 5:31r | | |
| 08/07/2019 | W | 11:59t | 12:39r | | | 12:34t | 15:11r | 17:24r |
| 08/07/2019 | W | 19:10s | 18:00t | 18:02s | 19:10s | 19:36s | 19:41t | |
| 08/07/2019 | W | 20:43et | 23:13s | | | | | 21:53t |
| 08/08/2019 | Th | 3:15mt | | 3:19r | 4:38r | | 0:11s | 2:23s |
| 08/08/2019 | Th | 4:49r | | 10:40t | 11:54t | 5:30r | | |
| 08/08/2019 | Th | 11:59t | 13:47r | 18:02s | | 12:32t | 15:07r | 17:20r |
| 08/08/2019 | Th | 19:08s | 18:50t | | 19:09s | 19:33s | 19:37t | |
| 08/08/2019 | Th | 20:42et | 23:47s | | | | | 21:49t |
| 08/09/2019 | F | 3:17mt | | 3:18r | 4:41r | | 0:07s | 2:18s |
| 08/09/2019 | F | 4:50r | | 10:40t | 11:55t | 5:30r | | |
| 08/09/2019 | F | 11:59t | 14:53r | 18:02s | | 12:31t | 15:03r | 17:16r |
| 08/09/2019 | F | 19:07s | 19:41t | | 19:09s | 19:31s | 19:33t | |
| 08/09/2019 | F | 20:40et | | | | | | 21:45t |
| 08/10/2019 | Sat | 3:18mt | 0:26s | 3:18r | 4:43r | | 0:03s | 2:14s |
| 08/10/2019 | Sat | 4:51r | | 10:40t | 11:56t | 5:29r | | |
| 08/10/2019 | Sat | 11:59t | 15:54r | 18:03s | | 12:29t | 14:59r | 17:12r |
| 08/10/2019 | Sat | 19:05s | 20:33t | | 19:08s | 19:28s | 19:29t | |
| 08/10/2019 | Sat | 20:38et | | | | | 23:59s | 21:41t |
| 08/11/2019 | Sun | 3:20mt | 1:10s | 3:18r | 4:46r | | | 2:10s |
| 08/11/2019 | Sun | 4:52r | | 10:41t | 11:57t | 5:29r | | |
| 08/11/2019 | Sun | 11:58t | 16:50r | 18:04s | | 12:28t | 14:55r | 17:08r |
| 08/11/2019 | Sun | 19:04s | | | 19:08s | 19:26s | 19:25t | |
| 08/11/2019 | Sun | 20:36et | 21:25t | | | | 23:55s | 21:37t |
| 08/12/2019 | M | 3:21mt | 1:59s | 3:19r | 4:49r | | | 2:06s |
| 08/12/2019 | M | 4:53r | | 10:42t | | 5:28r | | |
| 08/12/2019 | M | 11:58t | 17:39r | 18:05s | 11:58t | 12:26t | 14:51r | 17:03r |
| 08/12/2019 | M | 19:02s | | | 19:07s | 19:24s | 19:21t | |
| 08/12/2019 | M | 20:34et | 22:15t | | | | 23:51s | 21:33t |
| 08/13/2019 | Tu | 3:23mt | 2:54s | 3:21r | 4:51r | | | 2:02s |
| 08/13/2019 | Tu | 4:54r | | 10:44t | | 5:28r | | |
| 08/13/2019 | Tu | 11:58t | 18:21r | 18:07s | 11:59t | 12:25t | 14:47r | 16:59r |
| 08/13/2019 | Tu | 19:01s | | | 19:06s | 19:21s | 19:17t | |
| 08/13/2019 | Tu | 20:32et | 23:04t | | | | 23:47s | 21:28t |
| 08/14/2019 | W | 3:25mt | 3:52s | 3:23r | 4:54r | | | 1:57s |
| 08/14/2019 | W | 4:55r | | 10:46t | | 5:27r | | |
| 08/14/2019 | W | 11:58t | 18:57r | 18:08s | 12:00t | 12:23t | 14:43r | 16:55r |
| 08/14/2019 | W | 18:59s | | | 19:05s | 19:19s | 19:13t | |
| 08/14/2019 | W | 20:30et | 23:51t | | | | 23:43s | 21:24t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 08/15/2019 | Th | 3:26mt | 4:51s | 3:25r | 4:56r | | | 1:53s |
| 08/15/2019 | Th | 4:57r | 5:29FM | 10:48t | | 5:26r | | |
| 08/15/2019 | Th | 11:58t | | 18:10s | 12:01t | 12:22t | 14:39r | 16:51r |
| 08/15/2019 | Th | 18:58s | 19:28r | | 19:05s | 19:16s | 19:10t | |
| 08/15/2019 | Th | 20:28et | | | | | 23:40s | 21:20t |
| 08/16/2019 | F | 3:28mt | 0:36t | 3:28r | | | | 1:49s |
| 08/16/2019 | F | 4:58r | 5:52s | 10:50t | 4:59r | 5:26r | | |
| 08/16/2019 | F | 11:57t | | 18:12s | 12:02t | 12:20t | 14:36r | 16:47r |
| 08/16/2019 | F | 18:56s | 19:55r | | 19:04s | 19:14s | 19:06t | |
| 08/16/2019 | F | 20:26et | | | | | 23:36s | 21:16t |
| 08/17/2019 | Sat | 3:29mt | 1:20t | 3:32r | | | | 1:45s |
| 08/17/2019 | Sat | 4:59r | 6:52s | 10:53t | 5:02r | 5:25r | | |
| 08/17/2019 | Sat | 11:57t | | 18:14s | 12:03t | 12:19t | 14:32r | 16:43r |
| 08/17/2019 | Sat | 18:55s | 20:19r | | 19:03s | 19:11s | 19:02t | |
| 08/17/2019 | Sat | 20:24et | | | | | 23:32s | 21:12t |
| 08/18/2019 | Sun | 3:31mt | 2:01t | 3:36r | | | | 1:41s |
| 08/18/2019 | Sun | 5:00r | 7:52s | 10:56t | 5:04r | 5:25r | | |
| 08/18/2019 | Sun | 11:57t | | 18:15s | 12:04t | 12:17t | 14:28r | 16:39r |
| 08/18/2019 | Sun | 18:53s | | | 19:02s | 19:09s | 18:58t | |
| 08/18/2019 | Sun | 20:22et | 20:43r | | | | 23:28s | 21:08t |
| 08/19/2019 | M | 3:32mt | 2:43t | 3:41r | | | | 1:37s |
| 08/19/2019 | M | 5:01r | 8:52s | 10:59t | 5:07r | 5:24r | | |
| 08/19/2019 | M | 11:57t | | 18:17s | 12:05t | 12:16t | 14:24r | 16:35r |
| 08/19/2019 | M | 18:52s | | | 19:01s | 19:06s | 18:54t | |
| 08/19/2019 | M | 20:20et | 21:05r | | | | 23:24s | 21:04t |
| 08/20/2019 | Tu | 3:34mt | 3:24t | 3:46r | | | | 1:32s |
| 08/20/2019 | Tu | 5:02r | 9:52s | 11:03t | 5:10r | 5:24r | | |
| 08/20/2019 | Tu | 11:57t | | 18:19s | 12:05t | 12:14t | 14:20r | 16:31r |
| 08/20/2019 | Tu | 18:50s | | | 19:00s | 19:04s | 18:50t | |
| 08/20/2019 | Tu | 20:18et | 21:29r | | | | 23:20s | 20:59t |
| 08/21/2019 | W | 3:35mt | 4:06t | 3:51r | | | | 1:28s |
| 08/21/2019 | W | 5:03r | 10:54s | 11:06t | 5:12r | 5:23r | | |
| 08/21/2019 | W | 11:56t | | 18:21s | 12:06t | 12:13t | 14:17r | 16:27r |
| 08/21/2019 | W | 18:48s | | | 18:59s | 19:02s | 18:47t | |
| 08/21/2019 | W | 20:16et | 21:55r | | | | 23:16s | 20:55t |
| 08/22/2019 | Th | 3:37mt | 4:51t | 3:56r | | | | 1:24s |
| 08/22/2019 | Th | 5:05r | | 11:10t | 5:15r | 5:23r | | |
| 08/22/2019 | Th | 11:56t | 11:57s | 18:23s | 12:07t | 12:11t | 14:13r | 16:22r |
| 08/22/2019 | Th | 18:47s | | | 18:58s | 18:59s | 18:43t | |
| 08/22/2019 | Th | 20:14et | 22:23r | | | | 23:13s | 20:51t |
| 08/23/2019 | F | 3:38mt | | 4:02r | | | | 1:20s |
| 08/23/2019 | F | 5:06r | 5:38t | | 5:17r | 5:22r | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|--------|---------|--------|--------|---------|--------|
| 08/23/2019 | F | 11:56t | 7:56LQ | 11:14t | 12:08t | 12:10t | | |
| 08/23/2019 | F | | 13:02s | 18:24s | | | 14:09r | 16:18r |
| 08/23/2019 | F | 18:45s | | | 18:57s | 18:57s | 18:39t | |
| 08/23/2019 | F | 20:12et | 22:57r | | | | 23:09s | 20:47t |
| 08/24/2019 | Sat | 3:40mt | | 4:08r | | | | 1:16s |
| 08/24/2019 | Sat | 5:07r | 6:28t | 11:18t | 5:20r | 5:21r | | |
| 08/24/2019 | Sat | 11:56t | 14:07s | 18:26s | 12:09t | 12:08t | 14:05r | 16:14r |
| 08/24/2019 | Sat | 18:43s | | | 18:56s | 18:54s | 18:35t | |
| 08/24/2019 | Sat | 20:10et | 23:39r | | | | 23:05s | 20:43t |
| 08/25/2019 | Sun | 3:42mt | | 4:15r | | | | 1:12s |
| 08/25/2019 | Sun | 5:08r | 7:23t | 11:22t | 5:23r | 5:21r | | |
| 08/25/2019 | Sun | 11:55t | 15:12s | 18:27s | 12:09t | 12:06t | 14:02r | 16:10r |
| 08/25/2019 | Sun | 18:42s | | | 18:55s | 18:52s | 18:31t | |
| 08/25/2019 | Sun | 20:08et | | | | | 23:01s | 20:39t |
| 08/26/2019 | M | 3:43mt | 0:29r | 4:21r | | | | 1:08s |
| 08/26/2019 | M | 5:09r | 8:21t | 11:25t | 5:25r | 5:20r | | |
| 08/26/2019 | M | 11:55t | 16:13s | | 12:10t | 12:05t | 13:58r | 16:06r |
| 08/26/2019 | M | 18:40s | | 18:28s | 18:54s | 18:49s | 18:28t | |
| 08/26/2019 | M | 20:06et | | | | | 22:57s | 20:35t |
| 08/27/2019 | Tu | 3:45mt | 1:30r | 4:28r | | | | 1:04s |
| 08/27/2019 | Tu | 5:10r | 9:21t | 11:29t | 5:28r | 5:20r | | |
| 08/27/2019 | Tu | 11:55t | 17:08s | | 12:11t | 12:03t | 13:54r | 16:02r |
| 08/27/2019 | Tu | 18:38s | | 18:29s | 18:53s | 18:47s | 18:24t | |
| 08/27/2019 | Tu | 20:04et | | | | | 22:54s | 20:31t |
| 08/28/2019 | W | 3:46mt | 2:40r | 4:34r | | | | 0:59s |
| 08/28/2019 | W | 5:12r | 10:22t | 11:33t | 5:31r | 5:19r | | |
| 08/28/2019 | W | 11:54t | 17:55s | | 12:12t | 12:02t | 13:51r | 15:58r |
| 08/28/2019 | W | 18:37s | | 18:30s | 18:52s | 18:44s | 18:20t | |
| 08/28/2019 | W | 20:02et | | | | | 22:50s | 20:27t |
| 08/29/2019 | Th | 3:47mt | 3:56r | 4:41r | | | | 0:55s |
| 08/29/2019 | Th | 5:13r | 11:22t | 11:37t | 5:33r | 5:19r | | |
| 08/29/2019 | Th | 11:54t | | | 12:12t | 12:00t | 13:47r | 15:54r |
| 08/29/2019 | Th | 18:35s | 18:36s | 18:31s | 18:50s | 18:42s | 18:17t | |
| 08/29/2019 | Th | 20:00et | | | | | 22:46s | 20:23t |
| 08/30/2019 | F | 3:49mt | 3:37NM | 4:47r | | | | 0:51s |
| 08/30/2019 | F | 5:14r | 5:16r | 11:40t | 5:36r | 5:18r | | |
| 08/30/2019 | F | 11:54t | 12:20t | | 12:13t | 11:59t | 13:43r | 15:50r |
| 08/30/2019 | F | 18:33s | 19:11s | 18:32s | 18:49s | 18:39s | 18:13t | |
| 08/30/2019 | F | 19:58et | | | | | 22:42s | 20:19t |
| 08/31/2019 | Sat | 3:50mt | | 4:54r | | | | 0:47s |
| 08/31/2019 | Sat | 5:15r | 6:35r | 11:44t | 5:38r | 5:17r | | |
| 08/31/2019 | Sat | 11:54t | 13:15t | | 12:14t | 11:57t | 13:40r | 15:46r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 08/31/2019 | Sat | 18:31s | 19:43s | 18:32s | 18:48s | 18:36s | 18:09t |
| 08/31/2019 | Sat | 19:55et | | | | 22:39s | 20:15t |
| 09/01/2019 | Sun | 3:52mt | | 5:00r | | | 0:43s |
| 09/01/2019 | Sun | 5:16r | 7:54r | 11:48t | 5:41r | 5:17r | |
| 09/01/2019 | Sun | 11:53t | 14:09t | | 12:14t | 11:56t | 13:36r 15:42r |
| 09/01/2019 | Sun | 18:29s | | 18:33s | 18:47s | 18:34s | 18:06t |
| 09/01/2019 | Sun | 19:53et | 20:12s | | | 22:35s | 20:10t |
| 09/02/2019 | M | 3:53mt | | 5:07r | | 5:16r | 0:39s |
| 09/02/2019 | M | 5:17r | 9:10r | 11:51t | 5:43r | | |
| 09/02/2019 | M | 11:53t | 15:01t | | 12:15t | 11:54t | 13:32r 15:38r |
| 09/02/2019 | M | 18:28s | | 18:33s | 18:46s | 18:31s | 18:02t |
| 09/02/2019 | M | 19:51et | 20:42s | | | 22:31s | 20:06t |
| 09/03/2019 | Tu | 3:55mt | | 5:13r | | 5:16r | 0:35s |
| 09/03/2019 | Tu | 5:18r | 10:24r | | 5:46r | 11:53t | |
| 09/03/2019 | Tu | 11:53t | 15:53t | 11:54t | 12:16t | | 13:29r 15:34r |
| 09/03/2019 | Tu | 18:26s | | 18:33s | 18:44s | 18:29s | 17:58t |
| 09/03/2019 | Tu | 19:49et | 21:13s | | | 22:28s | 20:02t |
| 09/04/2019 | W | 3:56mt | | | | 5:15r | 0:31s |
| 09/04/2019 | W | 5:20r | 11:36r | 5:20r | 5:49r | 11:51t | |
| 09/04/2019 | W | 11:52t | 16:45t | 11:57t | 12:16t | | 13:25r 15:30r |
| 09/04/2019 | W | 18:24s | | 18:33s | 18:43s | 18:26s | 17:55t |
| 09/04/2019 | W | 19:47et | 21:47s | | | 22:24s | 19:58t |
| 09/05/2019 | Th | 3:57mt | | | | 5:15r | 0:27s |
| 09/05/2019 | Th | 5:21r | | 5:26r | 5:51r | 11:49t | |
| 09/05/2019 | Th | 11:52t | 12:45r | 12:00t | 12:17t | | 13:22r 15:26r |
| 09/05/2019 | Th | 18:22s | 17:37t | 18:33s | 18:42s | 18:24s | 17:51t |
| 09/05/2019 | Th | 19:45et | 20:10FQ | | | 22:20s | 19:54t |
| 09/05/2019 | Th | | 22:24s | | | | |
| 09/06/2019 | F | 3:59mt | | | | 5:14r | 0:23s |
| 09/06/2019 | F | 5:22r | | 5:32r | 5:54r | 11:48t | |
| 09/06/2019 | F | 11:52t | 13:48r | 12:03t | 12:18t | | 13:18r 15:22r |
| 09/06/2019 | F | 18:20s | 18:29t | 18:33s | 18:40s | 18:21s | 17:47t |
| 09/06/2019 | F | 19:43et | 23:07s | | | 22:17s | 19:50t |
| 09/07/2019 | Sat | 4:00mt | | | | 5:13r | 0:19s |
| 09/07/2019 | Sat | 5:23r | | 5:38r | 5:56r | 11:46t | |
| 09/07/2019 | Sat | 11:51t | 14:46r | 12:06t | 12:18t | | 13:15r 15:18r |
| 09/07/2019 | Sat | 18:19s | 19:21t | 18:33s | 18:39s | 18:19s | 17:44t |
| 09/07/2019 | Sat | 19:41et | 23:55s | | | 22:13s | 19:46t |
| 09/08/2019 | Sun | 4:02mt | | | | 5:13r | 0:15s |
| 09/08/2019 | Sun | 5:24r | | 5:44r | 5:59r | 11:45t | |
| 09/08/2019 | Sun | 11:51t | 15:38r | 12:09t | 12:19t | | 13:11r 15:14r |
| 09/08/2019 | Sun | 18:17s | | 18:33s | 18:38s | 18:16s | 17:40t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|--------|
| 09/08/2019 | Sun | 19:39et | 20:12t | | | 22:09s | 19:42t |
| 09/09/2019 | M | 4:03mt | 0:48s | | 5:12r | | 0:11s |
| 09/09/2019 | M | 5:25r | | 5:50r | 6:02r | 11:43t | |
| 09/09/2019 | M | 11:51t | 16:21r | 12:12t | 12:19t | 13:08r | 15:10r |
| 09/09/2019 | M | 18:15s | | 18:32s | 18:36s | 18:14s | 17:37t |
| 09/09/2019 | M | 19:37et | 21:02t | | | 22:06s | 19:38t |
| 09/10/2019 | Tu | 4:04mt | 1:45s | | 5:12r | | 0:07s |
| 09/10/2019 | Tu | 5:26r | | 5:56r | 6:04r | 11:42t | |
| 09/10/2019 | Tu | 11:50t | 16:59r | 12:14t | 12:20t | 13:04r | 15:06r |
| 09/10/2019 | Tu | 18:13s | | 18:32s | 18:35s | 18:11s | 17:33t |
| 09/10/2019 | Tu | 19:35et | 21:49t | | | 22:02s | |
| 09/11/2019 | W | 4:06mt | 2:44s | | 5:11r | | 0:03s |
| 09/11/2019 | W | 5:28r | | 6:01r | 6:07r | 11:40t | |
| 09/11/2019 | W | 11:50t | | 12:17t | 12:21t | 13:01r | 15:02r |
| 09/11/2019 | W | 18:11s | 17:31r | 18:31s | 18:34s | 18:08s | 17:30t |
| 09/11/2019 | W | 19:33et | 22:35t | | | 21:59s | 23:59s |
| 09/12/2019 | Th | 4:07mt | 3:45s | | 5:10r | | |
| 09/12/2019 | Th | 5:29r | | 6:07r | 6:09r | 11:38t | |
| 09/12/2019 | Th | 11:49t | | 12:19t | 12:21t | 12:57r | 14:58r |
| 09/12/2019 | Th | 18:09s | 17:59r | 18:30s | 18:32s | 18:06s | 17:26t |
| 09/12/2019 | Th | 19:31et | 23:18t | | | 21:55s | 23:55s |
| 09/13/2019 | F | 4:08mt | 4:45s | | 5:10r | | |
| 09/13/2019 | F | 5:30r | | 6:12r | 6:12r | 11:37t | |
| 09/13/2019 | F | 11:49t | | 12:22t | 12:22t | 12:54r | 14:54r |
| 09/13/2019 | F | 18:08s | 18:24r | 18:30s | 18:31s | 18:03s | 17:22t |
| 09/13/2019 | F | 19:29et | 21:33FM | | | 21:51s | 23:51s |
| 09/14/2019 | Sat | 4:10mt | 0:00t | | 5:09r | | |
| 09/14/2019 | Sat | 5:31r | 5:45s | 6:18r | 6:14r | 11:35t | |
| 09/14/2019 | Sat | 11:49t | | 12:24t | 12:22t | 12:50r | 14:50r |
| 09/14/2019 | Sat | 18:06s | 18:47r | 18:29s | 18:29s | 18:01s | 17:19t |
| 09/14/2019 | Sat | 19:27et | | | | 21:48s | 23:47s |
| 09/15/2019 | Sun | 4:11mt | 0:42t | | 5:09r | | |
| 09/15/2019 | Sun | 5:32r | 6:45s | 6:23r | 6:17r | 11:34t | |
| 09/15/2019 | Sun | 11:48t | | 12:26t | 12:23t | 12:47r | 14:46r |
| 09/15/2019 | Sun | 18:04s | 19:10r | 18:28s | 18:28s | 17:58s | 17:15t |
| 09/15/2019 | Sun | 19:25et | | | | 21:44s | 23:43s |
| 09/16/2019 | M | 4:12mt | 1:23t | | 5:08r | | |
| 09/16/2019 | M | 5:33r | 7:46s | 6:28r | 6:20r | 11:32t | |
| 09/16/2019 | M | 11:48t | | 12:28t | 12:24t | 12:43r | 14:42r |
| 09/16/2019 | M | 18:02s | | 18:27s | 18:27s | 17:56s | 17:12t |
| 09/16/2019 | M | 19:23et | 19:33r | | | 21:41s | 23:39s |
| 09/17/2019 | Tu | 4:14mt | 2:05t | | 5:08r | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 09/17/2019 | Tu | 5:34r | 8:47s | 6:33r | 6:22r | 11:31t | | |
| 09/17/2019 | Tu | 11:48t | | 12:30t | 12:24t | | 12:40r | 14:38r |
| 09/17/2019 | Tu | 18:00s | | 18:26s | 18:25s | 17:53s | 17:09t | 19:07t |
| 09/17/2019 | Tu | 19:21et | 19:58r | | | | 21:37s | 23:35s |
| 09/18/2019 | W | 4:15mt | 2:48t | | | 5:07r | | |
| 09/18/2019 | W | 5:36r | 9:49s | 6:38r | 6:25r | 11:29t | | |
| 09/18/2019 | W | 11:47t | | 12:32t | 12:25t | | 12:36r | 14:34r |
| 09/18/2019 | W | 17:58s | | 18:25s | 18:24s | 17:50s | 17:05t | 19:03t |
| 09/18/2019 | W | 19:19et | 20:25r | | | | 21:34s | 23:31s |
| 09/19/2019 | Th | 4:16mt | 3:34t | | | 5:06r | | |
| 09/19/2019 | Th | 5:37r | 10:53s | 6:43r | 6:27r | 11:27t | | |
| 09/19/2019 | Th | 11:47t | | 12:34t | 12:25t | | 12:33r | 14:31r |
| 09/19/2019 | Th | 17:56s | | 18:24s | 18:23s | 17:48s | 17:02t | 18:59t |
| 09/19/2019 | Th | 19:17et | 20:56r | | | | 21:30s | 23:27s |
| 09/20/2019 | F | 4:18mt | 4:22t | | | 5:06r | | |
| 09/20/2019 | F | 5:38r | | 6:48r | 6:30r | 11:26t | | |
| 09/20/2019 | F | 11:47t | 11:57s | 12:36t | 12:26t | | 12:30r | 14:27r |
| 09/20/2019 | F | 17:55s | | 18:23s | 18:21s | 17:45s | 16:58t | 18:55t |
| 09/20/2019 | F | 19:15et | 21:34r | | | | 21:27s | 23:23s |
| 09/21/2019 | Sat | 4:19mt | 5:14t | | | 5:05r | | |
| 09/21/2019 | Sat | 5:39r | | 6:52r | 6:32r | 11:24t | | |
| 09/21/2019 | Sat | 11:46t | 13:01s | 12:38t | 12:27t | | 12:26r | 14:23r |
| 09/21/2019 | Sat | 17:53s | | 18:22s | 18:20s | 17:43s | 16:55t | 18:51t |
| 09/21/2019 | Sat | 19:13et | 19:41LQ | | | | 21:23s | |
| 09/21/2019 | Sat | | 22:19r | | | | | 23:19s |
| 09/22/2019 | Sun | 4:20mt | | | | 5:05r | | |
| 09/22/2019 | Sun | 5:40r | 6:09t | 6:57r | 6:35r | 11:23t | | |
| 09/22/2019 | Sun | 11:46t | 14:01s | 12:40t | 12:27t | | 12:23r | 14:19r |
| 09/22/2019 | Sun | 17:51s | | 18:21s | 18:18s | 17:40s | 16:51t | 18:47t |
| 09/22/2019 | Sun | 19:11et | 23:13r | | | | 21:20s | 23:15s |
| 09/23/2019 | M | 0:50SE | | | | | | |
| 09/23/2019 | M | 4:21mt | | | | 5:04r | | |
| 09/23/2019 | M | 5:41r | 7:06t | 7:02r | 6:38r | 11:21t | | |
| 09/23/2019 | M | 11:46t | 14:57s | 12:42t | 12:28t | | 12:20r | 14:15r |
| 09/23/2019 | M | 17:49s | | 18:20s | 18:17s | 17:37s | 16:48t | 18:43t |
| 09/23/2019 | M | 19:09et | | | | | 21:16s | 23:11s |
| 09/24/2019 | Tu | 4:23mt | 0:17r | | | 5:03r | | |
| 09/24/2019 | Tu | 5:42r | 8:05t | 7:06r | 6:40r | 11:19t | | |
| 09/24/2019 | Tu | 11:45t | 15:46s | 12:43t | 12:28t | | 12:16r | 14:11r |
| 09/24/2019 | Tu | 17:47s | | 18:19s | 18:16s | 17:35s | 16:44t | 18:39t |
| 09/24/2019 | Tu | 19:07et | | | | | 21:13s | 23:08s |
| 09/25/2019 | W | 4:24mt | 1:29r | | | 5:03r | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 09/25/2019 | W | 5:44r | 9:04t | 7:11r | 6:43r | 11:18t | | |
| 09/25/2019 | W | 11:45t | 16:28s | 12:45t | 12:29t | | 12:13r | 14:07r |
| 09/25/2019 | W | 17:45s | | 18:18s | 18:14s | 17:32s | 16:41t | 18:35t |
| 09/25/2019 | W | 19:05et | | | | | 21:09s | 23:04s |
| 09/26/2019 | Th | 4:25mt | 2:46r | | | 5:02r | | |
| 09/26/2019 | Th | 5:45r | 10:02t | 7:15r | 6:45r | 11:16t | | |
| 09/26/2019 | Th | 11:44t | | 12:46t | 12:30t | | 12:10r | 14:03r |
| 09/26/2019 | Th | 17:43s | 17:05s | 18:17s | 18:13s | 17:30s | 16:38t | 18:32t |
| 09/26/2019 | Th | 19:03et | | | | | 21:06s | 23:00s |
| 09/27/2019 | F | 4:26mt | 4:05r | | | 5:02r | | |
| 09/27/2019 | F | 5:46r | 10:58t | 7:19r | 6:48r | 11:15t | | |
| 09/27/2019 | F | 11:44t | | 12:48t | 12:30t | | 12:06r | 13:59r |
| 09/27/2019 | F | 17:42s | 17:38s | 18:15s | 18:12s | 17:27s | 16:34t | 18:28t |
| 09/27/2019 | F | 19:01et | | | | | 21:02s | 22:56s |
| 09/28/2019 | Sat | 4:28mt | 5:24r | | | 5:01r | | |
| 09/28/2019 | Sat | 5:47r | 11:26NM | 7:24r | 6:51r | 11:13t | | |
| 09/28/2019 | Sat | 11:44t | 11:53t | 12:50t | 12:31t | | 12:03r | 13:56r |
| 09/28/2019 | Sat | 17:40s | 18:08s | 18:14s | 18:10s | 17:24s | 16:31t | 18:24t |
| 09/28/2019 | Sat | 18:59et | | | | | 20:59s | 22:52s |
| 09/29/2019 | Sun | 4:29mt | | | | 5:01r | | |
| 09/29/2019 | Sun | 5:48r | 6:43r | 7:28r | 6:53r | 11:11t | | |
| 09/29/2019 | Sun | 11:43t | 12:46t | 12:51t | 12:31t | | 12:00r | 13:52r |
| 09/29/2019 | Sun | 17:38s | 18:38s | 18:13s | 18:09s | 17:22s | 16:28t | 18:20t |
| 09/29/2019 | Sun | 18:57et | | | | | 20:55s | 22:48s |
| 09/30/2019 | M | 4:30mt | | | | 5:00r | | |
| 09/30/2019 | M | 5:49r | 8:00r | 7:32r | 6:56r | 11:10t | | |
| 09/30/2019 | M | 11:43t | 13:40t | 12:53t | 12:32t | | 11:56r | 13:48r |
| 09/30/2019 | M | 17:36s | | 18:12s | 18:08s | 17:19s | 16:24t | 18:16t |
| 09/30/2019 | M | 18:55et | 19:09s | | | | 20:52s | 22:44s |
| 10/01/2019 | Tu | 4:31mt | | | | 4:59r | | |
| 10/01/2019 | Tu | 5:51r | 9:16r | 7:36r | 6:58r | 11:08t | | |
| 10/01/2019 | Tu | 11:43t | 14:33t | 12:54t | 12:33t | | 11:53r | 13:44r |
| 10/01/2019 | Tu | 17:34s | | 18:11s | 18:06s | 17:17s | 16:21t | 18:12t |
| 10/01/2019 | Tu | 18:53et | 19:42s | | | | 20:49s | 22:41s |
| 10/02/2019 | W | 4:33mt | | | | 4:59r | | |
| 10/02/2019 | W | 5:52r | 10:29r | 7:40r | 7:01r | 11:07t | | |
| 10/02/2019 | W | 11:43t | 15:27t | 12:55t | 12:33t | | 11:50r | 13:40r |
| 10/02/2019 | W | 17:32s | | 18:09s | 18:05s | 17:14s | 16:18t | 18:08t |
| 10/02/2019 | W | 18:52et | 20:19s | | | | 20:45s | 22:37s |
| 10/03/2019 | Th | 4:34mt | | | | 4:58r | | |
| 10/03/2019 | Th | 5:53r | 11:37r | 7:44r | 7:04r | 11:05t | | |
| 10/03/2019 | Th | 11:42t | | 12:57t | 12:34t | | 11:47r | 13:36r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------------|--------|---------|---------------|
| 10/03/2019 | Th | 17:31s | 16:21t | 18:08s | 18:04s | 17:12s | 16:14t 18:05t |
| 10/03/2019 | Th | 18:50et | 21:01s | | | | 20:42s 22:33s |
| 10/04/2019 | F | 4:35mt | | | | 4:58r | |
| 10/04/2019 | F | 5:54r | | 7:48r 7:06r | 11:04t | | |
| 10/04/2019 | F | 11:42t | 12:40r | 12:58t 12:35t | | 11:43r | 13:33r |
| 10/04/2019 | F | 17:29s | 17:15t | 18:07s 18:03s | 17:09s | 16:11t | 18:01t |
| 10/04/2019 | F | 18:48et | 21:48s | | | 20:38s | 22:29s |
| 10/05/2019 | Sat | 4:36mt | | | | 4:57r | |
| 10/05/2019 | Sat | 5:55r | 9:47FQ | 7:52r 7:09r | 11:02t | 11:40r | |
| 10/05/2019 | Sat | 11:42t | 13:34r | 12:59t 12:36t | 17:06s | 16:08t | 13:29r |
| 10/05/2019 | Sat | 17:27s | 18:07t | 18:06s 18:01s | | | 17:57t |
| 10/05/2019 | Sat | 18:46et | 22:41s | | | 20:35s | 22:25s |
| 10/06/2019 | Sun | 4:37mt | | | | 4:56r | |
| 10/06/2019 | Sun | 5:57r | | 7:55r 7:12r | 11:00t | 11:37r | |
| 10/06/2019 | Sun | 11:41t | 14:21r | 13:00t 12:36t | 17:04s | 16:04t | 13:25r |
| 10/06/2019 | Sun | 17:25s | | 18:05s 18:00s | | | 17:53t |
| 10/06/2019 | Sun | 18:44et | 18:58t | | | 20:32s | 22:22s |
| 10/06/2019 | Sun | | 23:37s | | | | |
| 10/07/2019 | M | 4:39mt | | | | 4:56r | |
| 10/07/2019 | M | 5:58r | | 7:59r 7:14r | 10:59t | 11:34r | |
| 10/07/2019 | M | 11:41t | 15:01r | 13:02t 12:37t | 17:01s | 16:01t | 13:21r |
| 10/07/2019 | M | 17:23s | | 18:03s 17:59s | | | 17:49t |
| 10/07/2019 | M | 18:42et | 19:46t | | | 20:28s | 22:18s |
| 10/08/2019 | Tu | 4:40mt | 0:36s | | | 4:55r | |
| 10/08/2019 | Tu | 5:59r | | 8:02r 7:17r | 10:57t | 11:31r | |
| 10/08/2019 | Tu | 11:41t | 15:34r | 13:03t 12:38t | 16:59s | 15:58t | 13:17r |
| 10/08/2019 | Tu | 17:22s | | 18:02s 17:58s | | | 17:46t |
| 10/08/2019 | Tu | 18:41et | 20:32t | | | 20:25s | 22:14s |
| 10/09/2019 | W | 4:41mt | 1:37s | | | 4:55r | |
| 10/09/2019 | W | 6:00r | | 8:06r 7:20r | 10:56t | 11:27r | |
| 10/09/2019 | W | 11:40t | 16:03r | 13:04t 12:38t | 16:56s | 15:55t | 13:13r |
| 10/09/2019 | W | 17:20s | | 18:01s 17:57s | | | 17:42t |
| 10/09/2019 | W | 18:39et | 21:16t | | | 20:22s | 22:10s |
| 10/10/2019 | Th | 4:42mt | 2:37s | | | 4:54r | |
| 10/10/2019 | Th | 6:01r | | 8:09r 7:22r | 10:54t | 11:24r | |
| 10/10/2019 | Th | 11:40t | 16:29r | 13:05t 12:39t | 16:53s | 15:51t | 13:10r |
| 10/10/2019 | Th | 17:18s | | 18:00s 17:55s | | | 17:38t |
| 10/10/2019 | Th | 18:37et | 21:59t | | | 20:18s | 22:06s |
| 10/11/2019 | F | 4:44mt | 3:37s | | | 4:54r | |
| 10/11/2019 | F | 6:03r | | 8:12r 7:25r | 10:52t | 11:21r | |
| 10/11/2019 | F | 11:40t | 16:52r | 13:06t 12:40t | 16:51s | 15:48t | 13:06r |
| 10/11/2019 | F | 17:16s | | 17:58s 17:54s | | | 17:34t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|----------------|---------|---------|---------|--------|--------|---------|--------|
| 10/11/2019 F | 18:35et | 22:41t | | | | 20:15s | 22:03s |
| 10/12/2019 Sat | 4:45mt | 4:38s | | | 4:53r | | |
| 10/12/2019 Sat | 6:04r | | 8:15r | 7:28r | 10:51t | 11:18r | |
| 10/12/2019 Sat | 11:40t | | 13:07t | 12:41t | 16:48s | 15:45t | 13:02r |
| 10/12/2019 Sat | 17:15s | 17:15r | 17:57s | 17:53s | | | 17:31t |
| 10/12/2019 Sat | 18:34et | 23:22t | | | | 20:12s | 21:59s |
| 10/13/2019 Sun | 4:46mt | 5:39s | | | 4:52r | | |
| 10/13/2019 Sun | 6:05r | | 8:18r | 7:30r | 10:49t | 11:15r | |
| 10/13/2019 Sun | 11:39t | 14:08FM | 13:08t | 12:42t | 16:46s | 15:42t | 12:58r |
| 10/13/2019 Sun | 17:13s | 17:38r | 17:56s | 17:52s | | | 17:27t |
| 10/13/2019 Sun | 18:32et | | | | | 20:08s | 21:55s |
| 10/14/2019 M | 4:47mt | 0:04t | | | 4:52r | | |
| 10/14/2019 M | 6:06r | 6:40s | 8:21r | 7:33r | 10:48t | 11:12r | |
| 10/14/2019 M | 11:39t | | 13:08t | 12:42t | 16:43s | 15:38t | 12:55r |
| 10/14/2019 M | 17:11s | 18:02r | 17:55s | 17:51s | | | 17:23t |
| 10/14/2019 M | 18:30et | | | | | 20:05s | 21:51s |
| 10/15/2019 Tu | 4:48mt | 0:47t | | | 4:51r | | |
| 10/15/2019 Tu | 6:08r | 7:43s | 8:24r | 7:36r | 10:46t | 11:08r | |
| 10/15/2019 Tu | 11:39t | | 13:09t | 12:43t | 16:41s | 15:35t | 12:51r |
| 10/15/2019 Tu | 17:10s | 18:28r | 17:53s | 17:50s | | | 17:19t |
| 10/15/2019 Tu | 18:29et | | | | | 20:02s | 21:48s |
| 10/16/2019 W | 4:49mt | 1:32t | | | 4:51r | | |
| 10/16/2019 W | 6:09r | 8:46s | 8:26r | 7:38r | 10:45t | 11:05r | |
| 10/16/2019 W | 11:39t | | 13:10t | 12:44t | 16:38s | 15:32t | 12:47r |
| 10/16/2019 W | 17:08s | | 17:52s | 17:49s | | | 17:16t |
| 10/16/2019 W | 18:27et | 18:58r | | | | 19:59s | 21:44s |
| 10/17/2019 Th | 4:51mt | 2:20t | | | 4:50r | | |
| 10/17/2019 Th | 6:10r | 9:51s | 8:29r | 7:41r | 10:43t | 11:02r | |
| 10/17/2019 Th | 11:39t | | 13:10t | 12:45t | 16:35s | 15:29t | 12:43r |
| 10/17/2019 Th | 17:06s | | 17:51s | 17:48s | | | 17:12t |
| 10/17/2019 Th | 18:26et | 19:33r | | | | 19:55s | 21:40s |
| 10/18/2019 F | 4:52mt | 3:10t | | | 4:50r | | |
| 10/18/2019 F | 6:11r | 10:55s | 8:31r | 7:44r | 10:41t | 10:59r | |
| 10/18/2019 F | 11:38t | | 13:10t | 12:46t | 16:33s | 15:25t | 12:40r |
| 10/18/2019 F | 17:05s | | 17:50s | 17:47s | | | 17:08t |
| 10/18/2019 F | 18:24et | 20:15r | | | | 19:52s | 21:37s |
| 10/19/2019 Sat | 4:53mt | 4:03t | | | 4:49r | | |
| 10/19/2019 Sat | 6:13r | | 8:32r | 7:46r | 10:40t | 10:56r | |
| 10/19/2019 Sat | 11:38t | 11:56s | 13:11t | 12:47t | 16:30s | 15:22t | 12:36r |
| 10/19/2019 Sat | 17:03s | | 17:48s | 17:47s | | | 17:04t |
| 10/19/2019 Sat | 18:22et | 21:05r | | | | 19:49s | 21:33s |
| 10/20/2019 Sun | 4:54mt | 4:59t | | | 4:49r | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|---------|---------|--------|--------|---------|--------|
| 10/20/2019 | Sun 6:14r | | 8:34r | 7:49r | 10:38t | 10:53r | |
| 10/20/2019 | Sun 11:38t | 12:52s | 13:11t | 12:48t | 16:28s | 15:19t | 12:32r |
| 10/20/2019 | Sun 17:01s | | 17:47s | 17:46s | | | 17:01t |
| 10/20/2019 | Sun 18:21et | 22:04r | | | | 19:45s | 21:29s |
| 10/21/2019 | M 4:55mt | 5:39LQ | | | 4:48r | | |
| 10/21/2019 | M 6:15r | 5:56t | 8:35r | 7:52r | 10:37t | 10:50r | |
| 10/21/2019 | M 11:38t | 13:42s | 13:10t | 12:49t | 16:25s | 15:16t | 12:28r |
| 10/21/2019 | M 17:00s | | 17:45s | 17:45s | | | 16:57t |
| 10/21/2019 | M 18:19et | 23:11r | | | | 19:42s | 21:26s |
| 10/22/2019 | Tu 4:57mt | | | | 4:47r | | |
| 10/22/2019 | Tu 6:17r | 6:53t | 8:36r | 7:55r | 10:35t | 10:47r | |
| 10/22/2019 | Tu 11:38t | 14:25s | 13:10t | 12:50t | 16:23s | 15:13t | 12:25r |
| 10/22/2019 | Tu 16:58s | | 17:44s | 17:44s | | | 16:53t |
| 10/22/2019 | Tu 18:18et | | | | | 19:39s | 21:22s |
| 10/23/2019 | W 4:58mt | 0:24r | | | 4:47r | | |
| 10/23/2019 | W 6:18r | 7:49t | 8:37r | 7:57r | 10:34t | 10:43r | |
| 10/23/2019 | W 11:37t | 15:02s | 13:10t | 12:51t | 16:20s | 15:10t | 12:21r |
| 10/23/2019 | W 16:57s | | 17:42s | 17:44s | | | 16:50t |
| 10/23/2019 | W 18:16et | | | | | 19:36s | 21:18s |
| 10/24/2019 | Th 4:59mt | 1:40r | | | 4:46r | | |
| 10/24/2019 | Th 6:19r | 8:44t | 8:37r | 8:00r | 10:32t | 10:40r | |
| 10/24/2019 | Th 11:37t | 15:35s | 13:09t | 12:52t | 16:17s | 15:06t | 12:17r |
| 10/24/2019 | Th 16:55s | | 17:40s | 17:43s | | | 16:46t |
| 10/24/2019 | Th 18:15et | | | | | 19:33s | 21:15s |
| 10/25/2019 | F 5:00mt | 2:57r | | | 4:46r | | |
| 10/25/2019 | F 6:20r | 9:37t | 8:37r | 8:03r | 10:31t | 10:37r | |
| 10/25/2019 | F 11:37t | 16:05s | 13:08t | 12:53t | 16:15s | 15:03t | 12:14r |
| 10/25/2019 | F 16:53s | | 17:38s | 17:42s | | | 16:42t |
| 10/25/2019 | F 18:14et | | | | | 19:29s | 21:11s |
| 10/26/2019 | Sat 5:01mt | 4:14r | | | 4:45r | | |
| 10/26/2019 | Sat 6:22r | 10:30t | 8:36r | 8:05r | 10:29t | 10:34r | |
| 10/26/2019 | Sat 11:37t | 16:35s | 13:06t | 12:54t | 16:12s | 15:00t | 12:10r |
| 10/26/2019 | Sat 16:52s | | 17:36s | 17:42s | | | 16:39t |
| 10/26/2019 | Sat 18:12et | | | | | 19:26s | 21:07s |
| 10/27/2019 | Sun 5:03mt | 5:32r | | | 4:45r | | |
| 10/27/2019 | Sun 6:23r | 11:23t | 8:35r | 8:08r | 10:27t | 10:31r | |
| 10/27/2019 | Sun 11:37t | | 13:04t | 12:55t | 16:10s | 14:57t | 12:06r |
| 10/27/2019 | Sun 16:50s | 17:04s | 17:34s | 17:41s | | | 16:35t |
| 10/27/2019 | Sun 18:11et | 20:38NM | | | | 19:23s | 21:04s |
| 10/28/2019 | M 5:04mt | | | | 4:44r | | |
| 10/28/2019 | M 6:24r | 6:49r | 8:33r | 8:11r | 10:26t | 10:28r | |
| 10/28/2019 | M 11:37t | 12:17t | 13:02t | 12:56t | 16:07s | 14:54t | 12:02r |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn | |
|------------|-----|---------|---------|--------|--------|---------|--------|--------|
| 10/28/2019 | M | 16:49s | 17:36s | 17:31s | 17:41s | | 16:31t | |
| 10/28/2019 | M | 18:09et | | | | 19:20s | 21:00s | |
| 10/29/2019 | Tu | 5:05mt | | | 4:44r | | | |
| 10/29/2019 | Tu | 6:26r | 8:05r | 8:31r | 8:14r | 10:24t | 10:25r | |
| 10/29/2019 | Tu | 11:37t | 13:12t | 12:59t | 12:57t | 16:05s | 14:51t | 11:59r |
| 10/29/2019 | Tu | 16:48s | | 17:28s | 17:40s | | 16:28t | |
| 10/29/2019 | Tu | 18:08et | 18:11s | | | 19:17s | 20:56s | |
| 10/30/2019 | W | 5:06mt | | | 4:43r | | | |
| 10/30/2019 | W | 6:27r | 9:18r | 8:27r | 8:16r | 10:23t | 10:22r | |
| 10/30/2019 | W | 11:37t | 14:07t | 12:56t | 12:58t | 16:02s | 14:48t | 11:55r |
| 10/30/2019 | W | 16:46s | | 17:25s | 17:40s | | 16:24t | |
| 10/30/2019 | W | 18:07et | 18:51s | | | 19:13s | 20:53s | |
| 10/31/2019 | Th | 5:07mt | | | 4:43r | | | |
| 10/31/2019 | Th | 6:28r | 10:25r | 8:23r | 8:19r | 10:21t | 10:19r | |
| 10/31/2019 | Th | 11:37t | 15:03t | 12:53t | 13:00t | 16:00s | 14:45t | 11:51r |
| 10/31/2019 | Th | 16:45s | | 17:22s | 17:40s | | 16:20t | |
| 10/31/2019 | Th | 18:06et | 19:37s | | | 19:10s | 20:49s | |
| 11/01/2019 | F | 5:09mt | | | 4:42r | | | |
| 11/01/2019 | F | 6:30r | 11:25r | 8:19r | 8:22r | 10:20t | 10:16r | |
| 11/01/2019 | F | 11:37t | 15:57t | 12:49t | 13:01t | 15:57s | 14:42t | 11:48r |
| 11/01/2019 | F | 16:43s | | 17:19s | 17:40s | | 16:17t | |
| 11/01/2019 | F | 18:04et | 20:29s | | | 19:07s | 20:45s | |
| 11/02/2019 | Sat | 5:10mt | | | 4:41r | | | |
| 11/02/2019 | Sat | 6:31r | | 8:13r | 8:24r | 10:18t | 10:13r | |
| 11/02/2019 | Sat | 11:37t | 12:17r | 12:44t | 13:02t | 15:55s | 14:38t | 11:44r |
| 11/02/2019 | Sat | 16:42s | 16:50t | 17:15s | 17:39s | | 16:13t | |
| 11/02/2019 | Sat | 18:03et | 21:26s | | | 19:04s | 20:42s | |
| 11/03/2019 | Sun | 5:11mt | | | 4:41r | | | |
| 11/03/2019 | Sun | 6:32r | | 8:06r | 8:27r | 10:17t | 10:10r | |
| 11/03/2019 | Sun | 11:37t | 13:00r | 12:38t | 13:03t | 15:52s | 14:35t | 11:40r |
| 11/03/2019 | Sun | 16:41s | 17:41t | 17:11s | 17:39s | | 16:09t | |
| 11/03/2019 | Sun | 18:02et | 22:25s | | | 19:01s | 20:38s | |
| 11/04/2019 | M | 5:12mt | 3:23FQ | | | 4:40r | | |
| 11/04/2019 | M | 6:34r | | 7:59r | 8:29r | 10:15t | 10:07r | |
| 11/04/2019 | M | 11:37t | 13:36r | 12:32t | 13:05t | 15:50s | 14:32t | 11:37r |
| 11/04/2019 | M | 16:39s | | 17:06s | 17:39s | | 16:06t | |
| 11/04/2019 | M | 18:01et | 18:28t | | | 18:58s | 20:35s | |
| 11/04/2019 | M | | 23:26s | | | | | |
| 11/05/2019 | Tu | 5:13mt | | | | 4:40r | | |
| 11/05/2019 | Tu | 6:35r | | 7:51r | 8:32r | 10:14t | 10:04r | 11:33r |
| 11/05/2019 | Tu | 11:37t | 14:07r | 12:26t | 13:06t | 15:47s | 14:29t | 16:02t |
| 11/05/2019 | Tu | 16:38s | | 17:01s | 17:39s | | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-------------|--------|---------|--------|--------|---------|--------|
| 11/05/2019 | Tu 18:00et | 19:13t | | | | 18:55s | 20:31s |
| 11/06/2019 | W 5:14mt | 0:27s | | | 4:39r | | |
| 11/06/2019 | W 6:36r | | 7:41r | 8:35r | 10:12t | 10:01r | 11:29r |
| 11/06/2019 | W 11:37t | 14:33r | 12:18t | 13:07t | 15:45s | 14:26t | 15:58t |
| 11/06/2019 | W 16:37s | | 16:56s | 17:39s | | | |
| 11/06/2019 | W 17:59et | 19:56t | | | | 18:51s | 20:28s |
| 11/07/2019 | Th 5:16mt | 1:27s | | | 4:39r | | |
| 11/07/2019 | Th 6:38r | | 7:31r | 8:37r | 10:11t | 9:58r | 11:26r |
| 11/07/2019 | Th 11:37t | 14:57r | 12:11t | 13:08t | 15:42s | 14:23t | 15:55t |
| 11/07/2019 | Th 16:36s | | 16:51s | 17:39s | | | |
| 11/07/2019 | Th 17:58et | 20:38t | | | | 18:48s | 20:24s |
| 11/08/2019 | F 5:17mt | 2:28s | | | 4:38r | | |
| 11/08/2019 | F 6:39r | | 7:20r | 8:40r | 10:09t | 9:55r | 11:22r |
| 11/08/2019 | F 11:37t | 15:20r | 12:02t | 13:10t | 15:40s | 14:20t | 15:51t |
| 11/08/2019 | F 16:34s | | 16:45s | 17:39s | | | |
| 11/08/2019 | F 17:56et | 21:19t | | | | 18:45s | 20:20s |
| 11/09/2019 | Sat 5:18mt | 3:28s | | | 4:38r | | |
| 11/09/2019 | Sat 6:40r | | 7:09r | 8:42r | 10:08t | 9:52r | 11:19r |
| 11/09/2019 | Sat 11:37t | 15:42r | 11:54t | 13:11t | 15:37s | 14:17t | 15:48t |
| 11/09/2019 | Sat 16:33s | | 16:39s | 17:40s | | | |
| 11/09/2019 | Sat 17:55et | 22:01t | | | | 18:42s | 20:17s |
| 11/10/2019 | Sun 5:19mt | 4:30s | | | 4:37r | | |
| 11/10/2019 | Sun 6:42r | | 6:57r | 8:45r | 10:06t | 9:49r | 11:15r |
| 11/10/2019 | Sun 11:37t | 16:05r | 11:45t | 13:12t | 15:35s | 14:14t | 15:44t |
| 11/10/2019 | Sun 16:32s | | 16:34s | 17:40s | | | |
| 11/10/2019 | Sun 17:55et | 22:44t | | | | 18:39s | 20:13s |
| 11/11/2019 | M 5:20mt | 5:33s | | | 4:37r | | |
| 11/11/2019 | M 6:43r | | 6:45r | 8:47r | 10:05t | 9:46r | 11:11r |
| 11/11/2019 | M 11:37t | | 11:36t | 13:14t | 15:32s | 14:11t | 15:40t |
| 11/11/2019 | M 16:31s | 16:31r | 16:28s | 17:40s | | | |
| 11/11/2019 | M 17:54et | 23:28t | | | | 18:36s | 20:10s |
| 11/12/2019 | Tu 5:21mt | 6:34FM | 6:34r | | 4:36r | | |
| 11/12/2019 | Tu 6:44r | 6:37s | 11:27t | 8:49r | 10:03t | 9:43r | 11:08r |
| 11/12/2019 | Tu 11:37t | | 16:22s | 13:15t | 15:30s | 14:08t | 15:37t |
| 11/12/2019 | Tu 16:30s | 16:59r | | 17:41s | | | |
| 11/12/2019 | Tu 17:53et | | | | | 18:33s | 20:06s |
| 11/13/2019 | W 5:23mt | 0:16t | 6:22r | | 4:36r | | |
| 11/13/2019 | W 6:46r | 7:42s | 11:19t | 8:52r | 10:02t | 9:40r | 11:04r |
| 11/13/2019 | W 11:37t | | 16:17s | 13:17t | 15:27s | 14:05t | 15:33t |
| 11/13/2019 | W 16:29s | 17:33r | | 17:41s | | | |
| 11/13/2019 | W 17:52et | | | | | 18:30s | 20:03s |
| 11/14/2019 | Th 5:24mt | 1:06t | 6:11r | | 4:35r | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 11/14/2019 | Th | 6:47r | 8:48s | 11:11t | 8:54r | 10:00t | 9:37r | 11:00r |
| 11/14/2019 | Th | 11:38t | | 16:11s | 13:18t | 15:25s | 14:02t | 15:30t |
| 11/14/2019 | Th | 16:28s | | | 17:42s | | | |
| 11/14/2019 | Th | 17:51et | 18:13r | | | | 18:27s | 19:59s |
| 11/15/2019 | F | 5:25mt | 1:59t | 6:01r | | 4:35r | | |
| 11/15/2019 | F | 6:48r | 9:51s | 11:03t | 8:56r | 9:59t | 9:34r | 10:57r |
| 11/15/2019 | F | 11:38t | | 16:06s | 13:19t | 15:23s | 13:59t | 15:26t |
| 11/15/2019 | F | 16:27s | | | 17:42s | | | |
| 11/15/2019 | F | 17:50et | 19:01r | | | | 18:24s | 19:56s |
| 11/16/2019 | Sat | 5:26mt | 2:55t | 5:52r | | 4:34r | | |
| 11/16/2019 | Sat | 6:49r | 10:50s | 10:56t | 8:58r | 9:57t | 9:31r | 10:53r |
| 11/16/2019 | Sat | 11:38t | | 16:01s | 13:21t | 15:20s | 13:56t | 15:23t |
| 11/16/2019 | Sat | 16:26s | | | 17:43s | | | |
| 11/16/2019 | Sat | 17:49et | 19:58r | | | | 18:21s | 19:52s |
| 11/17/2019 | Sun | 5:27mt | 3:52t | 5:43r | | 4:34r | | |
| 11/17/2019 | Sun | 6:51r | | 10:50t | 9:01r | 9:56t | 9:28r | 10:50r |
| 11/17/2019 | Sun | 11:38t | 11:42s | 15:57s | 13:22t | 15:18s | 13:53t | 15:19t |
| 11/17/2019 | Sun | 16:25s | | | 17:44s | | | |
| 11/17/2019 | Sun | 17:49et | 21:02r | | | | 18:18s | 19:49s |
| 11/18/2019 | M | 5:28mt | 4:48t | 5:36r | | 4:33r | | |
| 11/18/2019 | M | 6:52r | | 10:44t | 9:03r | 9:55t | 9:25r | 10:46r |
| 11/18/2019 | M | 11:38t | 12:26s | 15:53s | 13:24t | 15:15s | 13:50t | 15:16t |
| 11/18/2019 | M | 16:24s | | | 17:45s | | | |
| 11/18/2019 | M | 17:48et | 22:12r | | | | 18:14s | 19:45s |
| 11/19/2019 | Tu | 5:29mt | 5:44t | 5:30r | | 4:33r | | |
| 11/19/2019 | Tu | 6:53r | | 10:39t | 9:05r | 9:53t | 9:22r | 10:42r |
| 11/19/2019 | Tu | 11:39t | 13:04s | | 13:25t | | 13:47t | |
| 11/19/2019 | Tu | 16:23s | 14:11LQ | 15:49s | 17:46s | 15:13s | | 15:12t |
| 11/19/2019 | Tu | 17:47et | 23:25r | | | | 18:11s | 19:42s |
| 11/20/2019 | W | 5:30mt | 6:37t | 5:25r | | 4:32r | | |
| 11/20/2019 | W | 6:55r | | 10:35t | 9:07r | 9:52t | 9:19r | 10:39r |
| 11/20/2019 | W | 11:39t | 13:37s | 15:45s | 13:27t | 15:10s | 13:44t | 15:08t |
| 11/20/2019 | W | 16:22s | | | 17:47s | | | |
| 11/20/2019 | W | 17:47et | | | | | 18:08s | 19:38s |
| 11/21/2019 | Th | 5:32mt | 0:39r | 5:21r | | 4:32r | | |
| 11/21/2019 | Th | 6:56r | 7:29t | 10:31t | 9:09r | 9:50t | 9:16r | 10:35r |
| 11/21/2019 | Th | 11:39t | 14:07s | 15:42s | 13:28t | 15:08s | 13:41t | 15:05t |
| 11/21/2019 | Th | 16:22s | | | | | | |
| 11/21/2019 | Th | 17:46et | | | 17:48s | | 18:05s | 19:35s |
| 11/22/2019 | F | 5:33mt | 1:54r | 5:18r | | 4:31r | | |
| 11/22/2019 | F | 6:57r | 8:20t | 10:29t | 9:11r | 9:49t | 9:13r | 10:32r |
| 11/22/2019 | F | 11:39t | 14:35s | 15:39s | 13:30t | 15:06s | 13:38t | 15:01t |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 11/22/2019 | F | 16:21s | | | | | |
| 11/22/2019 | F | 17:45et | | 17:49s | | 18:02s | 19:31s |
| 11/23/2019 | Sat | 5:34mt | 3:09r | 5:16r | 4:31r | | |
| 11/23/2019 | Sat | 6:58r | 9:11t | 10:26t | 9:13r | 9:47t | 9:10r 10:28r |
| 11/23/2019 | Sat | 11:40t | 15:03s | 15:37s | 13:31t | 15:03s | 13:35t 14:58t |
| 11/23/2019 | Sat | 16:20s | | | | | |
| 11/23/2019 | Sat | 17:45et | | 17:50s | | 17:59s | 19:28s |
| 11/24/2019 | Sun | 5:35mt | 4:24r | 5:14r | 4:31r | | |
| 11/24/2019 | Sun | 7:00r | 10:03t | 10:24t | 9:14r | 9:46t | 9:07r 10:24r |
| 11/24/2019 | Sun | 11:40t | 15:32s | 15:34s | 13:33t | 15:01s | 13:32t 14:54t |
| 11/24/2019 | Sun | 16:20s | | | | | |
| 11/24/2019 | Sun | 17:44et | | 17:51s | | 17:56s | 19:24s |
| 11/25/2019 | M | 5:36mt | 5:40r | 5:14r | 4:30r | | |
| 11/25/2019 | M | 7:01r | 10:56t | 10:23t | 9:16r | 9:45t | 9:04r 10:21r |
| 11/25/2019 | M | 11:40t | 16:05s | 15:32s | 13:34t | 14:59s | 13:29t 14:51t |
| 11/25/2019 | M | 16:19s | | | | | |
| 11/25/2019 | M | 17:44et | | 17:52s | | 17:53s | 19:21s |
| 11/26/2019 | Tu | 5:37mt | 6:54r | 5:14r | 4:30r | | |
| 11/26/2019 | Tu | 7:02r | 8:06NM | 10:22t | 9:18r | 9:43t | 9:01r 10:17r |
| 11/26/2019 | Tu | 11:40t | 11:51t | 15:30s | 13:36t | 14:56s | 13:26t 14:47t |
| 11/26/2019 | Tu | 16:18s | 16:42s | | | | |
| 11/26/2019 | Tu | 17:44et | | 17:54s | | 17:50s | 19:17s |
| 11/27/2019 | W | 5:38mt | | 5:15r | 4:29r | | |
| 11/27/2019 | W | 7:03r | 8:05r | 10:22t | 9:20r | 9:42t | 8:58r 10:14r |
| 11/27/2019 | W | 11:41t | 12:47t | 15:29s | 13:37t | 14:54s | 13:23t 14:44t |
| 11/27/2019 | W | 16:18s | 17:25s | | | | |
| 11/27/2019 | W | 17:43et | | 17:55s | | 17:47s | 19:14s |
| 11/28/2019 | Th | 5:39mt | | 5:16r | 4:29r | | |
| 11/28/2019 | Th | 7:05r | 9:10r | 10:22t | 9:21r | 9:40t | 8:55r 10:10r |
| 11/28/2019 | Th | 11:41t | 13:43t | 15:27s | 13:39t | 14:52s | 13:20t 14:40t |
| 11/28/2019 | Th | 16:17s | | | | | |
| 11/28/2019 | Th | 17:43et | 18:15s | 17:57s | | 17:44s | 19:10s |
| 11/29/2019 | F | 5:40mt | | 5:18r | 4:28r | | |
| 11/29/2019 | F | 7:06r | 10:07r | 10:22t | 9:23r | 9:39t | 8:52r 10:07r |
| 11/29/2019 | F | 11:41t | 14:38t | 15:26s | 13:40t | 14:49s | 13:17t 14:37t |
| 11/29/2019 | F | 16:17s | | | | 17:41s | |
| 11/29/2019 | F | 17:43et | 19:10s | 17:58s | | | 19:07s |
| 11/30/2019 | Sat | 5:41mt | | 5:20r | 4:28r | | |
| 11/30/2019 | Sat | 7:07r | 10:55r | 10:23t | 9:24r | 9:38t | 8:49r 10:03r |
| 11/30/2019 | Sat | 11:42t | 15:31t | 15:25s | 13:42t | 14:47s | 13:14t 14:33t |
| 11/30/2019 | Sat | 16:17s | | | | 17:38s | |
| 11/30/2019 | Sat | 17:42et | 20:10s | 18:00s | | | 19:03s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 12/01/2019 | Sun | 5:42mt | | 5:22r | | 4:27r | |
| 12/01/2019 | Sun | 7:08r | 11:35r | 10:23t | 9:25r | 9:36t | 8:46r 9:59r |
| 12/01/2019 | Sun | 11:42t | | 15:24s | 13:43t | 14:45s | 13:11t 14:30t |
| 12/01/2019 | Sun | 16:16s | 16:21t | | | | 17:35s |
| 12/01/2019 | Sun | 17:42et | 21:12s | | 18:02s | | 19:00s |
| 12/02/2019 | M | 5:43mt | | 5:25r | | 4:27r | |
| 12/02/2019 | M | 7:09r | | 10:24t | 9:27r | 9:35t | 8:43r 9:56r |
| 12/02/2019 | M | 11:43t | 12:08r | 15:23s | 13:45t | 14:42s | 13:08t 14:26t |
| 12/02/2019 | M | 16:16s | 17:07t | | | | 17:32s |
| 12/02/2019 | M | 17:42et | 22:13s | | 18:03s | | 18:56s |
| 12/03/2019 | Tu | 5:44mt | | 5:28r | | 4:26r | |
| 12/03/2019 | Tu | 7:10r | | 10:25t | 9:28r | 9:33t | 8:40r 9:52r |
| 12/03/2019 | Tu | 11:43t | 12:36r | 15:22s | 13:46t | 14:40s | 13:05t 14:23t |
| 12/03/2019 | Tu | 16:16s | | | | | 17:29s |
| 12/03/2019 | Tu | 17:42et | 17:52t | | 18:05s | | 18:53s |
| 12/03/2019 | Tu | | 23:15s | | | | |
| 12/03/2019 | Tu | | 23:58FQ | | | | |
| 12/04/2019 | W | 5:45mt | | 5:31r | | 4:26r | |
| 12/04/2019 | W | 7:11r | | 10:27t | 9:29r | 9:32t | 8:37r 9:49r |
| 12/04/2019 | W | 11:43t | 13:01r | 15:22s | 13:48t | 14:38s | 13:02t 14:19t |
| 12/04/2019 | W | 16:15s | | | | | 17:26s |
| 12/04/2019 | W | 17:42et | 18:34t | | 18:07s | | 18:50s |
| 12/05/2019 | Th | 5:46mt | 0:15s | 5:34r | | 4:26r | |
| 12/05/2019 | Th | 7:12r | | 10:28t | 9:30r | 9:31t | 8:34r 9:45r |
| 12/05/2019 | Th | 11:44t | 13:24r | 15:21s | 13:49t | 14:36s | 12:59t 14:16t |
| 12/05/2019 | Th | 16:15s | | | | | 17:23s |
| 12/05/2019 | Th | 17:42et | 19:15t | | 18:09s | | 18:46s |
| 12/06/2019 | F | 5:47mt | 1:15s | 5:38r | | 4:25r | |
| 12/06/2019 | F | 7:13r | | 10:30t | 9:31r | 9:29t | 8:31r 9:42r |
| 12/06/2019 | F | 11:44t | 13:46r | 15:21s | 13:51t | 14:33s | 12:56t 14:12t |
| 12/06/2019 | F | 16:15s | | | | | 17:21s |
| 12/06/2019 | F | 17:42et | 19:56t | | 18:11s | | 18:43s |
| 12/07/2019 | Sat | 5:48mt | 2:16s | 5:41r | | 4:25r | |
| 12/07/2019 | Sat | 7:14r | | 10:31t | 9:32r | 9:28t | 8:28r 9:38r |
| 12/07/2019 | Sat | 11:45t | 14:08r | 15:20s | 13:52t | 14:31s | 12:53t 14:09t |
| 12/07/2019 | Sat | 16:15s | | | | | 17:18s |
| 12/07/2019 | Sat | 17:41et | 20:38t | | 18:13s | | 18:39s |
| 12/08/2019 | Sun | 5:48mt | 3:18s | 5:45r | | 4:24r | |
| 12/08/2019 | Sun | 7:15r | | 10:33t | 9:33r | 9:27t | 8:25r 9:35r |
| 12/08/2019 | Sun | 11:45t | 14:32r | 15:20s | 13:54t | 14:29s | 12:50t 14:05t |
| 12/08/2019 | Sun | 16:15s | | | | | 17:15s |
| 12/08/2019 | Sun | 17:42et | 21:22t | | 18:15s | | 18:36s |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|--------|--------|---------|---------------|
| 12/09/2019 | M | 5:49mt | 4:22s | 5:49r | 4:24r | | |
| 12/09/2019 | M | 7:16r | | 10:35t | 9:34r | 9:25t | 8:22r 9:31r |
| 12/09/2019 | M | 11:46t | 14:59r | 15:20s | 13:55t | 14:27s | 12:47t 14:02t |
| 12/09/2019 | M | 16:15s | | | | | 17:12s |
| 12/09/2019 | M | 17:42et | 22:08t | | 18:17s | | 18:33s |
| 12/10/2019 | Tu | 5:50mt | 5:28s | 5:53r | 4:23r | | |
| 12/10/2019 | Tu | 7:17r | | 10:37t | 9:34r | 9:24t | 8:20r 9:27r |
| 12/10/2019 | Tu | 11:46t | 15:31r | 15:20s | 13:57t | 14:25s | 12:44t 13:58t |
| 12/10/2019 | Tu | 16:15s | | | | | 17:09s |
| 12/10/2019 | Tu | 17:42et | 22:58t | | 18:19s | | 18:29s |
| 12/11/2019 | W | 5:51mt | 6:34s | 5:56r | 4:23r | | |
| 12/11/2019 | W | 7:18r | | 10:39t | 9:35r | 9:23t | 8:17r 9:24r |
| 12/11/2019 | W | 11:46t | 16:08r | 15:21s | 13:58t | 14:22s | 12:41t 13:55t |
| 12/11/2019 | W | 16:15s | | | | | 17:06s |
| 12/11/2019 | W | 17:42et | 22:12FM | | 18:22s | | 18:26s |
| 12/11/2019 | W | | 23:51t | | | | |
| 12/12/2019 | Th | 5:52mt | | 6:00r | 4:22r | | |
| 12/12/2019 | Th | 7:19r | 7:40s | 10:41t | 9:36r | 9:22t | 8:14r 9:20r |
| 12/12/2019 | Th | 11:47t | | 15:21s | 14:00t | 14:20s | 12:38t 13:51t |
| 12/12/2019 | Th | 16:15s | 16:54r | | | | 17:03s |
| 12/12/2019 | Th | 17:42et | | | 18:24s | | 18:22s |
| 12/13/2019 | F | 5:52mt | 0:47t | 6:04r | 4:22r | | |
| 12/13/2019 | F | 7:20r | 8:42s | 10:43t | 9:36r | 9:20t | 8:11r 9:17r |
| 12/13/2019 | F | 11:47t | | 15:21s | 14:01t | 14:18s | 12:35t 13:48t |
| 12/13/2019 | F | 16:15s | | | | | 17:00s |
| 12/13/2019 | F | 17:42et | 17:49r | | 18:26s | | 18:19s |
| 12/14/2019 | Sat | 5:53mt | 1:45t | 6:08r | 4:22r | | |
| 12/14/2019 | Sat | 7:20r | 9:38s | 10:46t | 9:36r | 9:19t | 8:08r 9:13r |
| 12/14/2019 | Sat | 11:48t | | 15:22s | 14:02t | 14:16s | 12:32t 13:44t |
| 12/14/2019 | Sat | 16:15s | | | | | 16:57s |
| 12/14/2019 | Sat | 17:42et | 18:53r | | 18:28s | | 18:16s |
| 12/15/2019 | Sun | 5:54mt | 2:43t | 6:12r | 4:21r | | |
| 12/15/2019 | Sun | 7:21r | 10:26s | 10:48t | 9:37r | 9:18t | 8:05r 9:10r |
| 12/15/2019 | Sun | 11:48t | | 15:23s | 14:04t | 14:14s | 12:29t 13:41t |
| 12/15/2019 | Sun | 16:15s | | | | | 16:54s |
| 12/15/2019 | Sun | 17:43et | 20:02r | | 18:31s | | 18:12s |
| 12/16/2019 | M | 5:54mt | 3:40t | 6:16r | 4:21r | | |
| 12/16/2019 | M | 7:22r | 11:07s | 10:50t | 9:37r | 9:16t | 8:02r 9:06r |
| 12/16/2019 | M | 11:49t | | 15:23s | 14:05t | 14:12s | 12:26t 13:37t |
| 12/16/2019 | M | 16:16s | | | | | 16:51s |
| 12/16/2019 | M | 17:43et | 21:15r | | 18:33s | | 18:09s |
| 12/17/2019 | Tu | 5:55mt | 4:34t | 6:21r | 4:20r | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 12/17/2019 | Tu | 7:23r | 11:41s | 10:53t | 9:37r | 9:15t | 7:59r | 9:03r |
| 12/17/2019 | Tu | 11:49t | | 15:24s | 14:06t | 14:09s | 12:24t | 13:34t |
| 12/17/2019 | Tu | 16:16s | | | | | 16:48s | |
| 12/17/2019 | Tu | 17:43et | 22:29r | | 18:36s | | | 18:05s |
| 12/18/2019 | W | 5:56mt | 5:27t | 6:25r | | 4:20r | | |
| 12/18/2019 | W | 7:23r | | 10:55t | 9:37r | 9:14t | 7:56r | 8:59r |
| 12/18/2019 | W | 11:50t | 12:11s | 15:25s | 14:08t | 14:07s | 12:21t | 13:31t |
| 12/18/2019 | W | 16:16s | | | | | 16:45s | |
| 12/18/2019 | W | 17:44et | 21:57LQ | | 18:38s | | | 18:02s |
| 12/18/2019 | W | | 23:43r | | | | | |
| 12/19/2019 | Th | 5:56mt | 6:17t | 6:29r | | 4:19r | | |
| 12/19/2019 | Th | 7:24r | | 10:58t | 9:38r | 9:13t | 7:53r | 8:56r |
| 12/19/2019 | Th | 11:50t | 12:39s | 15:26s | 14:09t | 14:05s | 12:18t | 13:27t |
| 12/19/2019 | Th | 16:17s | | | | | 16:42s | |
| 12/19/2019 | Th | 17:44et | | | 18:41s | | | 17:59s |
| 12/20/2019 | F | 5:57mt | 0:56r | 6:32r | | 4:19r | | |
| 12/20/2019 | F | 7:24r | 7:07t | 11:00t | 9:38r | 9:11t | 7:50r | 8:52r |
| 12/20/2019 | F | 11:51t | 13:06s | 15:28s | 14:10t | 14:03s | 12:15t | 13:24t |
| 12/20/2019 | F | 16:17s | | | | | 16:39s | |
| 12/20/2019 | F | 17:45et | | | 18:43s | | | 17:55s |
| 12/21/2019 | Sat | 5:57mt | 2:09r | 6:36r | | 4:19r | | |
| 12/21/2019 | Sat | 7:25r | 7:57t | 11:03t | 9:38r | 9:10t | 7:47r | 8:49r |
| 12/21/2019 | Sat | 11:51t | 13:34s | 15:29s | 14:11t | 14:01s | 12:12t | 13:20t |
| 12/21/2019 | Sat | 16:18s | | | | | 16:37s | |
| 12/21/2019 | Sat | 17:45et | | | 18:46s | | | 17:52s |
| 12/21/2019 | Sat | 21:19DS | | | | | | |
| 12/22/2019 | Sun | 5:58mt | 3:22r | 6:40r | | 4:18r | | |
| 12/22/2019 | Sun | 7:25r | 8:47t | 11:06t | 9:37r | 9:09t | 7:44r | 8:45r |
| 12/22/2019 | Sun | 11:52t | 14:04s | 15:31s | 14:13t | 13:59s | 12:09t | 13:17t |
| 12/22/2019 | Sun | 16:18s | | | | | 16:34s | |
| 12/22/2019 | Sun | 17:46et | | | 18:48s | | | 17:48s |
| 12/23/2019 | M | 5:58mt | 4:35r | 6:44r | | 4:18r | | |
| 12/23/2019 | M | 7:26r | 9:40t | 11:08t | 9:37r | 9:08t | 7:41r | 8:42r |
| 12/23/2019 | M | 11:52t | 14:38s | 15:32s | 14:14t | 13:57s | 12:06t | 13:13t |
| 12/23/2019 | M | 16:19s | | | | | 16:31s | 17:45s |
| 12/23/2019 | M | 17:46et | | | 18:51s | | | |
| 12/24/2019 | Tu | 5:59mt | 5:46r | 6:48r | | 4:17r | | |
| 12/24/2019 | Tu | 7:26r | 10:34t | 11:11t | 9:37r | 9:06t | 7:38r | 8:38r |
| 12/24/2019 | Tu | 11:53t | 15:17s | 15:34s | 14:15t | 13:55s | 12:03t | 13:10t |
| 12/24/2019 | Tu | 16:19s | | | | | 16:28s | 17:42s |
| 12/24/2019 | Tu | 17:47et | | | 18:53s | | | |
| 12/25/2019 | W | 5:59mt | 6:53r | 6:52r | | 4:17r | | |

Times of rise, transit, set, morning and evening twilight at HVO plus phases of the Moon and the seasons. All dates and times are MST.

| Date | | Sun | Moon | Mercury | Venus | Mars | Jupiter | Saturn |
|------------|-----|---------|---------|---------|--------|--------|---------|--------|
| 12/25/2019 | W | 7:27r | 11:29t | 11:14t | 9:37r | 9:05t | 7:35r | 8:35r |
| 12/25/2019 | W | 11:53t | 16:03s | 15:36s | 14:16t | 13:53s | 12:00t | 13:06t |
| 12/25/2019 | W | 16:20s | | | | | 16:25s | 17:38s |
| 12/25/2019 | W | 17:47et | 22:13NM | | 18:56s | | | |
| 12/26/2019 | Th | 6:00mt | | 6:55r | | 4:16r | | |
| 12/26/2019 | Th | 7:27r | 7:54r | 11:17t | 9:36r | 9:04t | 7:32r | 8:31r |
| 12/26/2019 | Th | 11:54t | 12:25t | 15:38s | 14:17t | 13:51s | 11:57t | 13:03t |
| 12/26/2019 | Th | 16:20s | 16:56s | | | | 16:22s | 17:35s |
| 12/26/2019 | Th | 17:48et | | | 18:58s | | | |
| 12/27/2019 | F | 6:00mt | | 6:59r | | 4:16r | | |
| 12/27/2019 | F | 7:27r | 8:46r | 11:20t | 9:36r | 9:03t | 7:29r | 8:28r |
| 12/27/2019 | F | 11:54t | 13:19t | 15:40s | 14:18t | 13:49s | 11:54t | 13:00t |
| 12/27/2019 | F | 16:21s | | | | | 16:19s | 17:32s |
| 12/27/2019 | F | 17:49et | 17:54s | | 19:01s | | | |
| 12/28/2019 | Sat | 6:00mt | | 7:02r | | 4:16r | 7:26r | |
| 12/28/2019 | Sat | 7:28r | 9:30r | 11:22t | 9:35r | 9:02t | 11:51t | 8:24r |
| 12/28/2019 | Sat | 11:55t | 14:11t | 15:42s | 14:19t | 13:47s | 16:16s | 12:56t |
| 12/28/2019 | Sat | 16:22s | | | | | | 17:28s |
| 12/28/2019 | Sat | 17:49et | 18:56s | | 19:04s | | | |
| 12/29/2019 | Sun | 6:01mt | | 7:06r | | 4:15r | 7:23r | |
| 12/29/2019 | Sun | 7:28r | 10:06r | 11:25t | 9:35r | 9:00t | 11:48t | 8:20r |
| 12/29/2019 | Sun | 11:55t | 14:59t | 15:45s | 14:20t | 13:45s | 16:13s | 12:53t |
| 12/29/2019 | Sun | 16:23s | | | | | | 17:25s |
| 12/29/2019 | Sun | 17:50et | 19:58s | | 19:06s | | | |
| 12/30/2019 | M | 6:01mt | | 7:09r | | 4:15r | 7:20r | |
| 12/30/2019 | M | 7:28r | 10:37r | 11:28t | 9:34r | 8:59t | 11:45t | 8:17r |
| 12/30/2019 | M | 11:56t | 15:45t | 15:47s | 14:21t | 13:43s | 16:10s | 12:49t |
| 12/30/2019 | M | 16:24s | | | | | | 17:22s |
| 12/30/2019 | M | 17:51et | 21:01s | | 19:09s | | | |
| 12/31/2019 | Tu | 6:01mt | | 7:12r | | 4:14r | 7:17r | |
| 12/31/2019 | Tu | 7:28r | 11:03r | 11:31t | 9:34r | 8:58t | 11:42t | 8:13r |
| 12/31/2019 | Tu | 11:56t | | 15:50s | 14:22t | 13:41s | 16:08s | 12:46t |
| 12/31/2019 | Tu | 16:24s | 16:29t | | | | | 17:18s |
| 12/31/2019 | Tu | 17:52et | 22:02s | | 19:12s | | | |
| 01/01/2020 | W | 6:01mt | | 7:16r | | 4:14r | 7:14r | |
| 01/01/2020 | W | 7:28r | | 11:34t | | 8:57t | 11:39t | |
| 01/01/2020 | W | 11:57t | | 15:53s | | 13:40s | 16:05s | |
| 01/01/2020 | W | 16:25s | | | | | | |
| 01/01/2020 | W | 17:52et | | | | | | |