

January 01, 2022 12:00:00 PM MST

Object	Right ascens	Declination	Earth distance	Sun distance
Sun	18h 49m 18.0s	-22° 57' 23"	0	0
Mercury	20h 07m 21.4s	-22° 00' 03"	168,169,941	53,644,466
Venus	19h 36m 43.9s	-18° 27' 11"	40,713,609	107,608,040
Mars	16h 49m 02.9s	-22° 34' 44"	349,615,761	229,725,471
Ceres	03h 45m 56.2s	+17° 45' 40"	285,731,933	406,906,208
Jupiter	22h 12m 28.4s	-12° 09' 20"	834,271,800	746,879,257
Saturn	20h 58m 46.0s	-17° 59' 14"	1,608,613,532	1,483,974,826
Uranus	02h 34m 35.1s	+14° 43' 22"	2,875,039,042	2,950,468,472
Neptune	23h 27m 33.1s	-04° 44' 05"	4,525,758,469	4,475,996,605
Pluto	19h 53m 12.0s	-22° 39' 08"	5,293,526,093	5,151,385,575
Moon	17h 47m 46.0s	-26° 37' 46"	358,058	0

(Distances in km)

Object	Rise:	Tran	Set:	Phase	Constl	Magnitud
Sun	07:20	12:04	16:47	0.00%	Sgr	unknown
Mercury	08:36	13:22	18:08	76.40%	Sgr	-0.7
Venus	07:53	12:51	17:49	2.05%	Sgr	-4.2
Mars	05:20	10:03	14:46	97.74%	Oph	1.5
Ceres	13:56	21:00	04:08	99.50%	Tau	7.9
Jupiter	10:05	15:26	20:47	99.44%	Aqr	-2.2
Saturn	09:12	14:13	19:13	99.94%	Cap	0.7
Uranus	12:55	19:48	02:44	99.95%	Ari	5.7
Neptune	10:55	16:41	22:27	99.98%	Aqr	7.9
Pluto	08:24	13:06	17:48	100.00%	Sgr	14.4
Moon	06:20	10:59	15:37	1.51%	Sgr	unknown

Meteor Radiant Report

Name	Month/Day	RA	Decl	Hourly Rate
Quadrantids	01/03	15.3	48.5	80
Coma Berenicids	01/10	11.7	25.0	8
Delta Cancrids	01/16	8.4	20.0	7

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Date	Moonrise	Moonset	Sunrise	Sunset	Begin Twilight	End Twilight
1/1/22	06:21	15:37	07:21	16:47	05:44	18:23
1/2/22	07:32	16:43	07:21	16:48	05:44	18:24
1/3/22	08:32	17:56	07:21	16:49	05:45	18:25
1/4/22	09:21	19:12	07:21	16:49	05:45	18:26
1/5/22	10:00	20:26	07:21	16:50	05:45	18:26
1/6/22	10:31	21:36	07:21	16:51	05:45	18:27
1/7/22	10:59	22:42	07:21	16:52	05:45	18:28
1/8/22	11:23	23:46	07:21	16:53	05:45	18:29
1/9/22	11:47	-----	07:21	16:54	05:45	18:30
1/10/22	12:10	00:47	07:20	16:55	05:45	18:31
1/11/22	12:35	01:48	07:20	16:56	05:45	18:32
1/12/22	13:03	02:48	07:20	16:57	05:45	18:32
1/13/22	13:35	03:49	07:20	16:58	05:44	18:33
1/14/22	14:12	04:48	07:19	16:59	05:44	18:34
1/15/22	14:56	05:46	07:19	17:01	05:44	18:35
1/16/22	15:48	06:39	07:18	17:02	05:44	18:36
1/17/22	16:45	07:27	07:18	17:03	05:43	18:37
1/18/22	17:46	08:07	07:18	17:04	05:43	18:38
1/19/22	18:50	08:43	07:17	17:05	05:43	18:39
1/20/22	19:54	09:13	07:16	17:06	05:42	18:40
1/21/22	20:59	09:41	07:16	17:07	05:42	18:41
1/22/22	22:03	10:05	07:15	17:09	05:42	18:42
1/23/22	23:10	10:30	07:15	17:10	05:41	18:43
1/24/22	-----	10:55	07:14	17:11	05:41	18:44
1/25/22	00:17	11:23	07:13	17:12	05:40	18:45
1/26/22	01:29	11:54	07:12	17:13	05:40	18:46
1/27/22	02:42	12:33	07:12	17:14	05:39	18:47
1/28/22	03:58	13:21	07:11	17:16	05:38	18:48
1/29/22	05:10	14:19	07:10	17:17	05:38	18:49
1/30/22	06:14	15:29	07:09	17:18	05:37	18:50
1/31/22	07:08	16:43	07:08	17:19	05:36	18:51

'-----' means the event does not occur on this date.