

January 01, 2021 12:00:00 PM MST

Object	Right ascens	Declination	Earth distance	Sun distance
Sun	18h 50m 22.9s	-22° 56' 02"	0	0
Mercury	19h 23m 35.9s	-24° 11' 26"	206,814,535	64,172,640
Venus	17h 22m 44.4s	-22° 32' 07"	233,779,597	108,349,106
Mars	01h 41m 35.6s	+11° 28' 51"	135,490,720	225,951,841
Ceres	23h 08m 11.0s	-15° 42' 28"	495,168,952	442,809,697
Jupiter	20h 21m 29.6s	-19° 58' 19"	897,347,105	762,270,732
Saturn	20h 16m 13.0s	-20° 09' 20"	1,631,267,938	1,494,021,975
Uranus	02h 18m 25.7s	+13° 21' 17"	2,892,250,335	2,957,867,611
Neptune	23h 19m 21.8s	-05° 32' 50"	4,532,649,623	4,476,996,211
Pluto	19h 45m 20.7s	-22° 26' 48"	5,258,569,088	5,115,166,739
Moon	09h 05m 48.4s	+20° 07' 24"	383,904	0

(Distances in km)

Object	Rise:	Tran	Set:	Phase	Constl	Magnitud
Sun	07:20	12:03	16:46	0.00%	Sgr	unknown
Mercury	08:00	12:36	17:13	97.58%	Sgr	-0.9
Venus	05:52	10:35	15:19	94.17%	Oph	-3.9
Mars	12:12	18:54	01:37	89.01%	Psc	-0.2
Ceres	11:12	16:21	21:30	99.50%	Aqr	9.4
Jupiter	08:41	13:34	18:26	99.88%	Cap	-2.0
Saturn	08:37	13:29	18:20	99.97%	Cap	0.6
Uranus	12:43	19:30	02:21	99.95%	Ari	5.7
Neptune	10:48	16:31	22:15	99.98%	Aqr	7.9
Pluto	08:14	12:57	17:39	100.00%	Sgr	14.4
Moon	19:27	01:59	09:28	92.53%	Cnc	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
1/1/21	19:28	09:29	07:20	16:46	05:44	18:23
1/2/21	20:35	10:06	07:20	16:47	05:44	18:23
1/3/21	21:44	10:39	07:20	16:48	05:44	18:24
1/4/21	22:53	11:09	07:20	16:49	05:44	18:25
1/5/21	-----	11:37	07:20	16:50	05:44	18:26
1/6/21	00:02	12:05	07:20	16:51	05:44	18:27
1/7/21	01:12	12:34	07:20	16:52	05:44	18:27
1/8/21	02:24	13:08	07:20	16:53	05:44	18:28
1/9/21	03:38	13:46	07:20	16:54	05:44	18:29
1/10/21	04:51	14:31	07:20	16:55	05:44	18:30
1/11/21	06:01	15:26	07:19	16:56	05:44	18:31
1/12/21	07:05	16:27	07:19	16:57	05:44	18:32
1/13/21	07:59	17:34	07:19	16:58	05:44	18:33
1/14/21	08:43	18:42	07:18	16:59	05:43	18:34
1/15/21	09:20	19:49	07:18	17:00	05:43	18:35
1/16/21	09:51	20:52	07:18	17:01	05:43	18:36
1/17/21	10:17	21:54	07:17	17:02	05:43	18:37
1/18/21	10:42	22:53	07:17	17:03	05:42	18:38
1/19/21	11:06	23:52	07:16	17:05	05:42	18:39
1/20/21	11:29	-----	07:16	17:06	05:42	18:40
1/21/21	11:54	00:50	07:15	17:07	05:41	18:41
1/22/21	12:21	01:49	07:14	17:08	05:41	18:42
1/23/21	12:53	02:49	07:14	17:09	05:40	18:43
1/24/21	13:31	03:49	07:13	17:10	05:40	18:44
1/25/21	14:15	04:49	07:12	17:12	05:39	18:45
1/26/21	15:08	05:46	07:12	17:13	05:39	18:46
1/27/21	16:08	06:38	07:11	17:14	05:38	18:47
1/28/21	17:14	07:25	07:10	17:15	05:37	18:48
1/29/21	18:23	08:05	07:09	17:16	05:37	18:49
1/30/21	19:34	08:40	07:08	17:18	05:36	18:50
1/31/21	20:44	09:11	07:07	17:19	05:35	18:51

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