

October 01, 2020 12:00:00 PM MDT

Object	Right ascens	Declination	Earth distance	Sun distance
Sun	12h 32m 57.8s	-03° 33' 26"	0	0
Mercury	14h 05m 32.3s	-15° 45' 03"	148,068,221	66,566,984
Venus	10h 03m 37.3s	+12° 13' 33"	161,227,511	107,708,940
Mars	01h 37m 30.1s	+06° 11' 34"	62,341,724	210,308,309
Ceres	22h 27m 31.9s	-25° 18' 46"	323,131,401	445,801,655
Jupiter	19h 18m 06.2s	-22° 39' 37"	729,258,243	767,054,479
Saturn	19h 49m 27.4s	-21° 22' 36"	1,446,988,835	1,496,099,244
Uranus	02h 30m 21.0s	+14° 18' 51"	2,830,125,672	2,959,658,757
Neptune	23h 21m 21.3s	-05° 22' 27"	4,336,222,344	4,477,228,416
Pluto	19h 37m 54.8s	-22° 38' 41"	5,069,008,006	5,106,063,650
Moon	00h 32m 29.7s	-02° 11' 38"	404,929	0

(Distances in km)

Object	Rise:	Tran	Set:	Phase	Constl	Magnitud
Sun	06:56	12:49	18:41	0.00%	Vir	unknown
Mercury	09:12	14:21	19:30	59.99%	Vir	0.1
Venus	03:34	10:19	17:03	71.84%	Leo	-4.1
Mars	19:28	01:55	08:17	98.99%	Psc	-2.5
Ceres	18:11	22:42	03:18	99.50%	PsA	8.2
Jupiter	14:50	19:32	00:18	99.06%	Sgr	-2.4
Saturn	15:17	20:04	00:55	99.77%	Sgr	0.5
Uranus	19:53	02:47	09:38	99.98%	Ari	5.7
Neptune	17:51	23:35	05:23	100.00%	Aqr	7.8
Pluto	15:09	19:51	00:37	99.98%	Sgr	14.3
Moon	19:03	00:32	06:33	99.79%	Cet	unknown

Meteor Radiant Report

Name	Month/Day	RA	Decl	Hourly Rate
Southern Annual Andromedids	10/03	0.3	8.0	13
Northern Annual Andromedids	10/03	1.3	34.0	10
October Draconids/Giacobinids	10/09	17.5	54.1	2
Northern Piscids	10/12	1.7	14.0	6
Epsilon Geminids	10/19	6.9	27.0	5
Orionids	10/21	6.3	15.8	30
Leo Minorids	10/24	10.8	37.0	3

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

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