

September 01, 2019 12:00:00 PM MDT

Object	Right ascens	Declination	Earth distance	Sun distance
Sun	10h 42m 17.3s	+08° 12' 14"	0	0
Mercury	10h 36m 19.1s	+10° 42' 03"	202,409,468	52,174,017
Venus	11h 03m 22.6s	+07° 35' 12"	257,097,811	107,644,168
Mars	10h 44m 51.1s	+09° 07' 05"	400,146,123	249,205,843
Ceres	16h 14m 57.7s	-22° 30' 59"	403,914,251	424,857,953
Jupiter	16h 55m 50.4s	-22° 16' 31"	757,778,368	788,527,881
Saturn	19h 01m 16.8s	-22° 27' 30"	1,410,758,753	1,502,771,930
Uranus	02h 17m 09.8s	+13° 10' 56"	2,883,104,207	2,967,037,898
Neptune	23h 15m 50.3s	-05° 53' 34"	4,328,843,237	4,478,177,301
Pluto	19h 30m 34.3s	-22° 18' 20"	4,965,046,385	5,067,096,882
Moon	12h 51m 54.7s	-00° 23' 39"	361,109	0

(Distances in km)

Object	Rise:	Tran	Set:	Phase	Constl	Magnitud
Sun	06:28	13:00	19:31	0.00%	Leo	unknown
Mercury	06:14	12:54	19:33	99.46%	Leo	-1.7
Venus	06:52	13:21	19:49	99.59%	Leo	-3.9
Mars	06:29	13:02	19:35	100.00%	Leo	1.7
Ceres	13:50	18:33	23:15	99.50%	Sco	8.8
Jupiter	14:29	19:12	23:56	99.09%	Oph	-2.3
Saturn	16:34	21:17	02:04	99.83%	Sgr	0.3
Uranus	21:45	04:36	11:22	99.95%	Ari	5.7
Neptune	19:49	01:31	07:17	100.00%	Aqr	7.8
Pluto	17:02	21:45	02:32	99.99%	Sgr	14.3
Moon	09:00	15:15	21:20	7.90%	Vir	unknown

Meteor Radiant Report

Name	Month/Day	RA	Decl	Hourly Rate
Aurigids	09/01	5.7	42.0	30
Northern Tau Aquarids	09/20	21.8	-6.0	15
Southern Piscids	09/20	0.4	0.0	10
Kappa Aquarids	09/21	22.5	-5.0	5
Daytime Sextantids	09/29	10.1	0.0	30

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

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