

September 01, 2022 12:00:00 PM MDT

Object	Right ascens	Declination	Earth distance	Sun distance
Sun	10h 43m 27.7s	+08° 05' 13"	0	0
Mercury	12h 16m 30.9s	-05° 05' 05"	127,478,462	68,188,896
Venus	09h 53m 40.8s	+13° 58' 58"	248,263,118	107,480,978
Mars	04h 21m 26.3s	+20° 11' 32"	142,778,813	211,963,228
Ceres	09h 27m 47.8s	+21° 11' 51"	519,104,611	384,466,528
Jupiter	00h 27m 27.6s	+01° 14' 57"	604,367,316	741,519,271
Saturn	21h 33m 40.2s	-15° 52' 45"	1,332,079,402	1,475,835,011
Uranus	03h 06m 10.2s	+17° 05' 03"	2,889,239,931	2,945,262,436
Neptune	23h 41m 31.6s	-03° 19' 44"	4,329,374,482	4,475,244,384
Pluto	19h 55m 34.3s	-23° 00' 32"	5,064,020,911	5,175,615,664
Moon	14h 48m 27.3s	-16° 27' 38"	379,203	0

(Distances in km)

Object	Rise:	Tran	Set:	Phase	Constl	Magnitud
Sun	06:28	13:00	19:31	0.00%	Leo	unknown
Mercury	08:47	14:33	20:18	44.57%	Vir	0.4
Venus	05:19	12:10	19:01	97.21%	Leo	-3.9
Mars	23:22	06:38	13:52	85.13%	Tau	-0.1
Ceres	04:28	11:45	19:02	99.50%	Leo	8.6
Jupiter	20:35	02:45	08:52	99.78%	Cet	-2.9
Saturn	18:41	23:48	05:00	99.97%	Cap	0.3
Uranus	22:18	05:24	12:25	99.94%	Ari	5.7
Neptune	20:05	01:56	07:50	100.00%	Aqr	7.8
Pluto	17:29	22:09	02:53	99.99%	Sgr	14.3
Moon	11:55	17:11	22:20	28.15%	Lib	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

Equinox/Solstice Report

Vernal equinox: 3/20/22 8:34 AM STD
Summer solstice: 6/21/22 2:14 AM STD
Autumnal equinox: 9/22/22 6:05 PM STD
Winter solstice: 12/21/22 2:49 PM STD

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

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