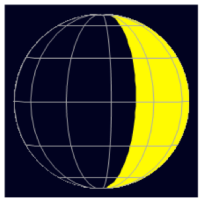
Moon

Daily Moon Data

Year 2014 Month August Day 1 Time 20:12:

Position

Altitude	28.6°
Azimuth	231.1°
Right ascension	$13^h\ 0^m\ 46^s$
Declination	-6° 59' 9"
Range	396,699 km
Constellation	Virgo



Appearance of the Moon, celestial north is upwards

Appearance

Diameter	30.12'
Illumination of disk	31%
Libration in longitude	-6.373°
Libration in latitude	0.688°

Event	Time	Altitude	Azimuth
Sets	23:00	-0.8°	260°
Rises	11:22	-0.8°	97°
Maximum altitude	17:12	44.2°	179°

Monthly phases

New moon	26 July 2014 17:42
First quarter	03 August 2014 19:50
Full moon	10 August 2014 13:09
Last quarter	17 August 2014 07:26
New moon	25 August 2014 09:13

Sun

Year 2014 Month August Day 1 Time 13:00:58

Daily events for 01 August

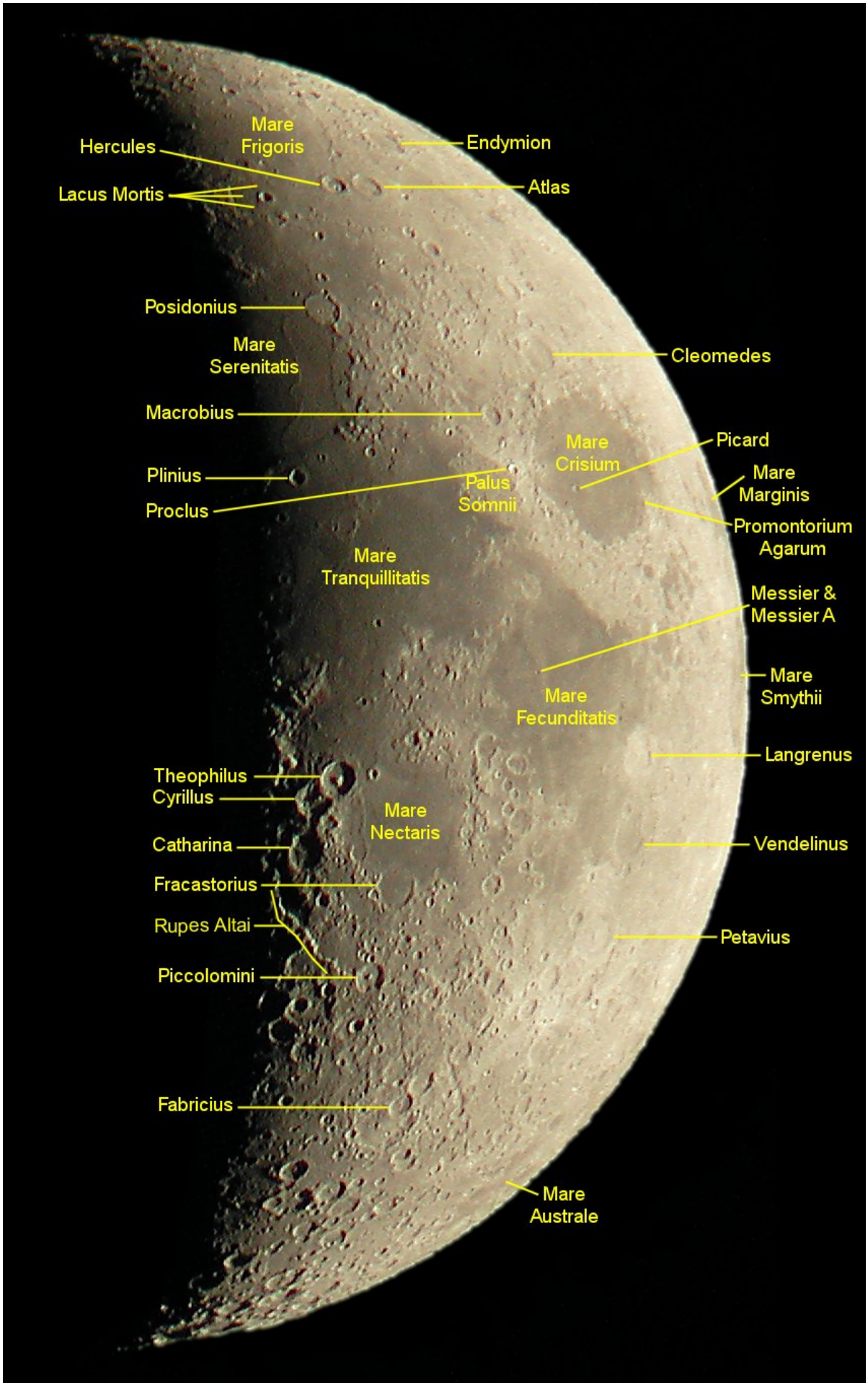
Event	Time	Altitude	Azimuth
Minimum altitude:	01:08	-33.3°	0°
Astronomical twilight begins:	04:18	-18.0°	48°
Nautical twilight begins:	04:57	-12.0°	55°
Civil twilight begins:	05:33	-6.0°	61°
Sunrise:	06:03	-0.8°	66°
Maximum altitude:	13:07	69.3°	180°
Sunset:	20:12	-0.8°	294°
Civil twilight ends:	20:41	-6.0°	299°
Nautical twilight ends:	21:17	-12.0°	305°
Astronomical twilight ends:	21:56	-18.0°	312°

Yearly events for 2014

Event	Time
Spring equinox	Mar 20, 11:57
Summer solstice	Jun 21, 05:51
Autumn equinox	Sep 22, 21:29
Winter solstice	Dec 21, 17:03

Position at selected time

Altitude	69.2°
Azimuth	175.7°
Right ascension	$8^h\ 47^m\ 24^s$
Declination	17° 53' 40"
Range (AU)	1.0149220
Constellation	Cancer

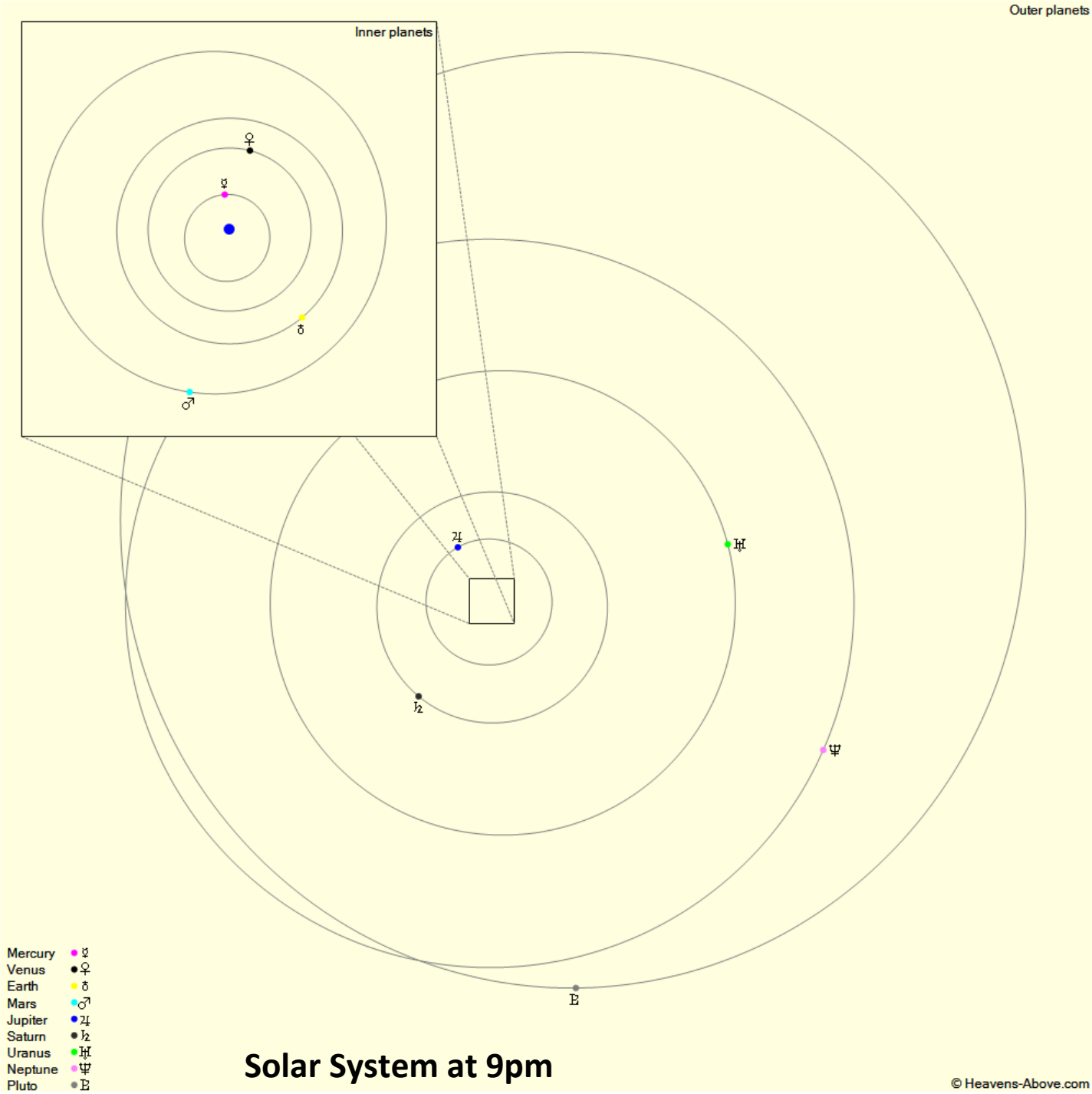

Mare
Frigoris
Hercules
Endymion
Lacus Mortis
Atlas
Posidonius
Mare
Serenitatis
Cleomedes
Macrobius
Mare
Crisium
Picard
Plinius
Palus
Somnii
Mare
Marginis
Proclus
Promontorium
Agarum
Mare
Tranquillitatis
Messier &
Messier A
Mare
Smythii
Mare
Fecunditatis
Langrenus
Theophilus
Cyrillus
Mare
Nectaris
Catharina
Vendelinus
Fracastorius
Rupes Altai
Petavius
Piccolomini
Fabricius
Mare
Australe

Planet Summary

Year 2014 Month August Day 1 Time 20:41:00

Planet	D-Sun (AU)	D-Earth(AU)	D-Sun (miles)	D-Earth (miles)	Light Minutes	Light-Hours	100mph Trip
Mercury	**0.31**	**1.29**	**28,816,300**	**119,912,991**	10.745	0.179	136.89
Venus	0.72	1.55	**66,928,181**	**144,081,501**	12.911	0.215	164.48
Earth	1.01	0	**93,885,365**	**0**	0.000		0.00
Mars	1.49	1.2	**138,504,152**	**111,546,968**	9.995	0.167	127.34
Jupiter	5.27	6.28	**489,877,103**	**583,762,468**	52.308	0.872	666.40
Saturn	9.92	9.74	**922,121,605**	**905,389,560**	81.128	1.352	1033.55
Uranus	20.02	19.6	**1,860,975,256**	**1,821,933,817**	163.256	2.721	2079.83
Neptune	29.97	29.07	**2,785,885,536**	**2,702,225,309**	242.135	4.036	3084.73
Pluto	32.7	31.8	**3,039,654,889**	**2,955,994,663**	264.874	4.415	3374.42

	Mercury	Venus	Mars	Jupiter	Saturn	Uranus	Neptune	Pluto
Right ascension	$8^h\ 19^m\ 33.2^s$	$7^h\ 15^m\ 57.4^s$	$14^h\ 4^m\ 32.0^s$	$8^h\ 24^m\ 26.0^s$	$14^h\ 59^m\ 48.7^s$	$1^h\ 1^m\ 43.6^s$	$22^h\ 35^m\ 38.6^s$	$18^h\ 49^m\ 31.8^s$
Declination	20° 52' 50"	22° 14' 53"	-13° 44' 12"	19° 43' 12"	-14° 42' 57"	5° 50' 15"	-9° 39' 57"	-20° 23' 31"
Range (AU)	1.287	1.550	1.196	6.278	9.750	19.596	29.067	31.801
Brightness	-1.4	-3.7	0.5	-1.6	1.1	5.8	7.8	14.1
Constellation	Cancer	Gemini	Virgo	Cancer	Libra	Pisces	Aquarius	Sagittarius
Meridian transit	12:36	11:33	18:23	12:43	19:18	05:22	02:57	23:07
Rises	05:22	04:16	13:08	05:37	14:07	23:01	21:25	18:17
Sets	19:49	18:50	23:37	19:49	00:33	11:40	08:24	04:01
Altitude	-8.6°	-16.8°	28.5°	-8.7°	33.3°	-25.8°	-8.6°	21.6°
Azimuth	305.6°	318.3°	218.7°	304.0°	204.0°	58.0°	95.5°	142.8°
Inferior Conjunction	2014-Jun-19 2014-Oct-16	2014-Jan-11 2015-Aug-15	-	-	-	-	-	-
Opposition	-	-	2014-Apr-08 2016-May-22	2014-Jan-05 2015-Feb-06	2014-May-10 2015-May-22	2013-Oct-03 2014-Oct-07	2013-Aug-26 2014-Aug-29	2014-Jul-04 2015-Jul-06
Superior Conjunction	2014-Apr-25 2014-Aug-08	2013-Mar-28 2014-Oct-25	2013-Apr-17 2015-Jun-14	2014-Jul-24 2015-Aug-26	2013-Nov-06 2014-Nov-18	2014-Apr-02 2015-Apr-06	2014-Feb-23 2015-Feb-25	2014-Jan-01 2015-Jan-03
Max. eastern elongation	2014-May-25 2014-Sep-21	2013-Nov-01 2015-Jun-06	-	-	-	-	-	-
Max. western elongation	2014-Jul-12 2014-Nov-01	2014-Mar-22 2015-Oct-26	-	-	-	-	-	-
Perihelion	2014-Jul-29 2014-Oct-25	2014-Jan-23 2014-Sep-05	2013-Jan-24 2014-Dec-12	2011-Mar-17 2023-Jan-20	2003-Jul-26 2032-Nov-28	1966-May-21 2050-Aug-16	1876-Aug-26 2042-Sep-03	1989-Sep-05 2237-Sep-15
Aphelion	2014-Jun-15 2014-Sep-11	2014-May-16 2014-Dec-26	2014-Jan-02 2015-Nov-20	2005-Apr-14 2017-Feb-17	1988-Sep-11 2018-Apr-17	2009-Feb-26 2092-Nov-22	1959-Jul-16 2125-Dec-01	1866-Jun-04 2114-Feb-18



Solar System at 9pm

Planet	D-Sun (AU)	D-Earth(AU)	D-Sun (miles)	D-Earth (miles)	Light Minutes	Light-Hours	100mph Trip
Mercury	**0.31**	**1.29**	**28,816,300**	**119,912,991**	10.745	0.179	136.89
Venus	0.72	1.55	**66,928,181**	**144,081,501**	12.911	0.215	164.48
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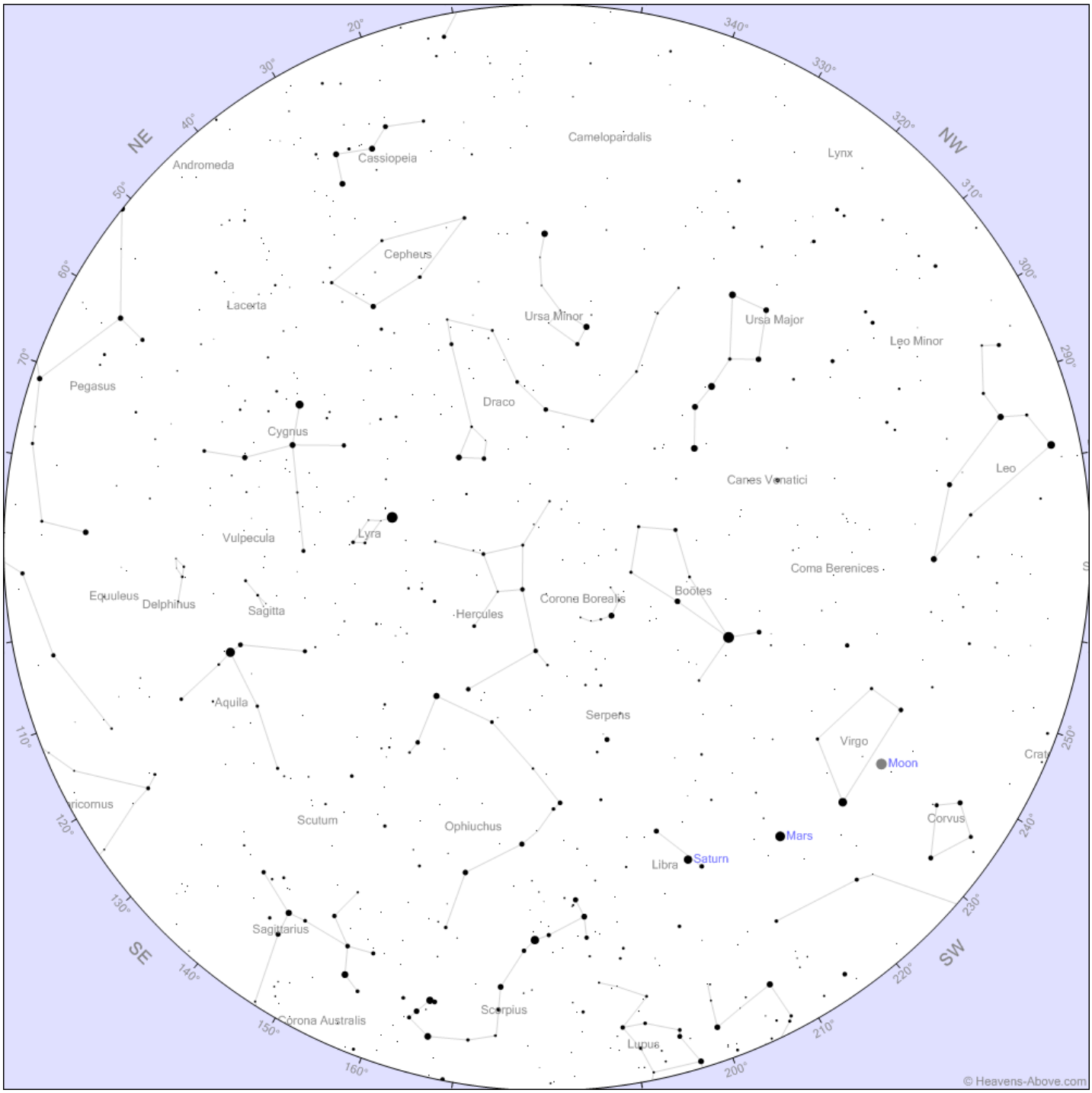


End of CT Sky / 20:41

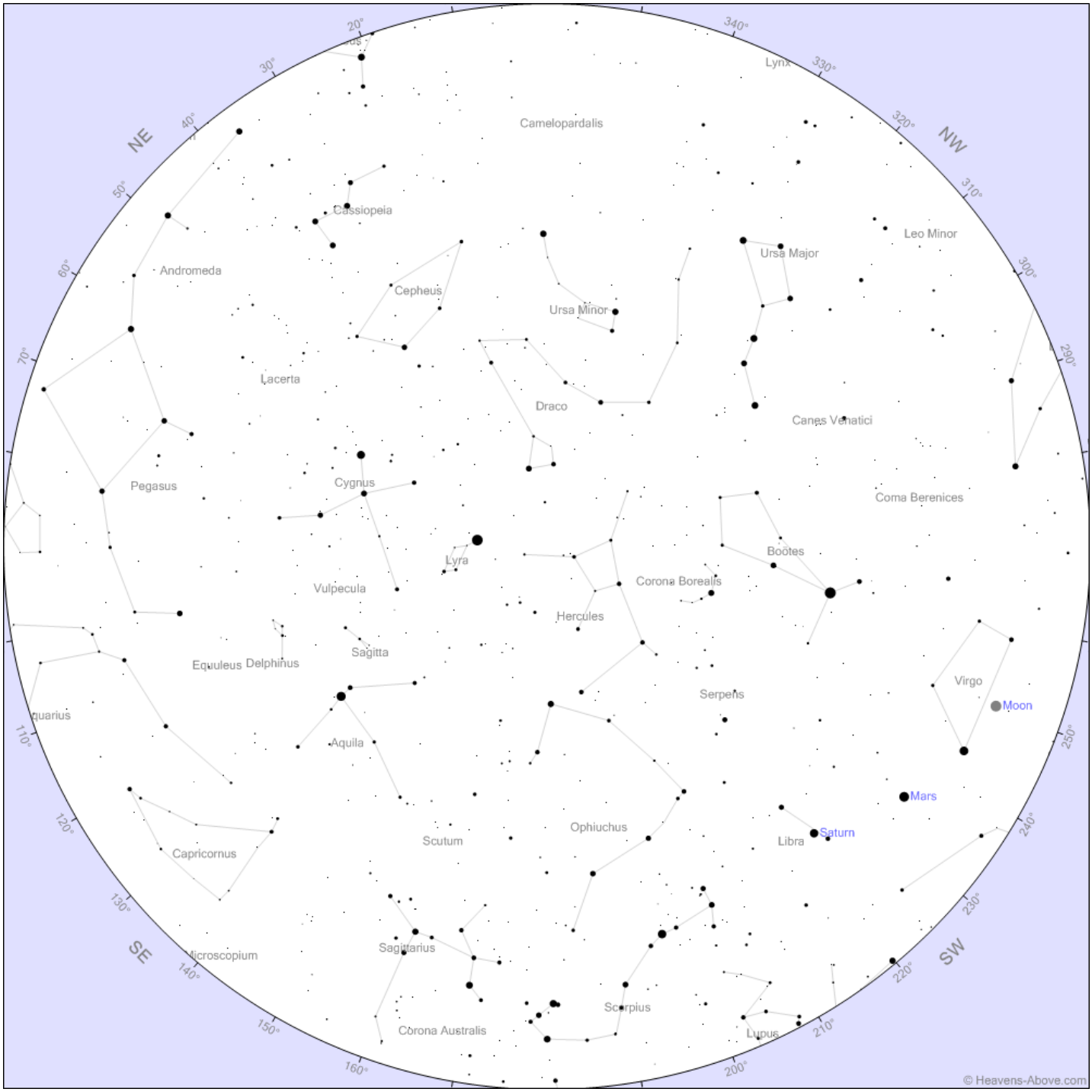
Sunset: 20:12
Civil twilight ends: 20:41
Astronomical twilight ends: 21:56

Moon at 20:41 CT
Altitude 24.0° / Azimuth 237.1
Range 396,614 km
Constellation Virgo
Diameter 30.13' / Illumination of disk 31%

Event	Time	Altitude	Azimuth
Sets	23:00	-0.8°	260°
Rises	11:22	-0.8°	97°
Maximum altitude	17:12	44.2°	179°

Mars sets at 23:37
Transits at 18:23
Located in Virgo
m = 0.5
1.196 AU from Earth

Saturn Sets at 00:33
Transits at 19:18
Located in Libra
m = 1.1
9.75 AU from Earth Constellation



End of AT Sky / 21:56

Sunset: 20:12
Civil twilight ends: 20:41
Astronomical twilight ends: 21:56

Moon at 20:41 CT
Altitude 24.0° / Azimuth 237.1
Range 396,614 km
Constellation Virgo
Diameter 30.13' / Illumination of disk 31%

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Located in Virgo
m = 0.5
1.196 AU from Earth

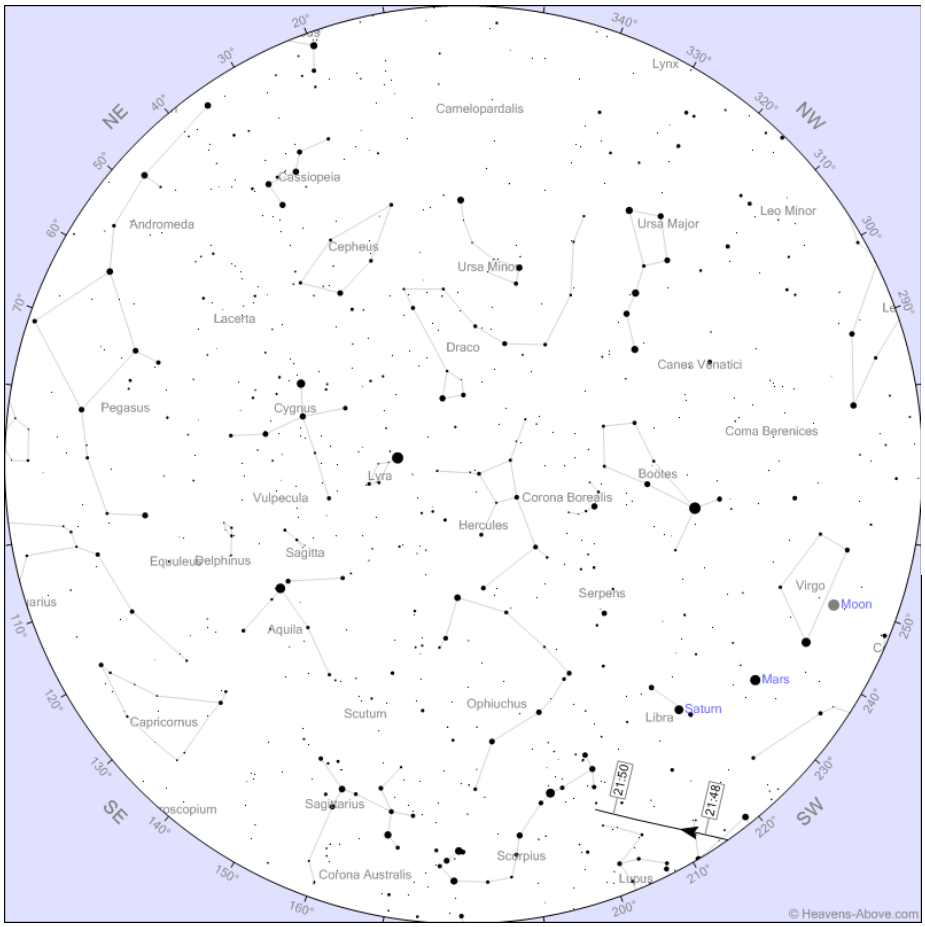
Saturn Sets at 00:33
Transits at 19:18
Located in Libra
m = 1.1
9.75 AU from Earth Constellation

Daily predictions for brighter satellites

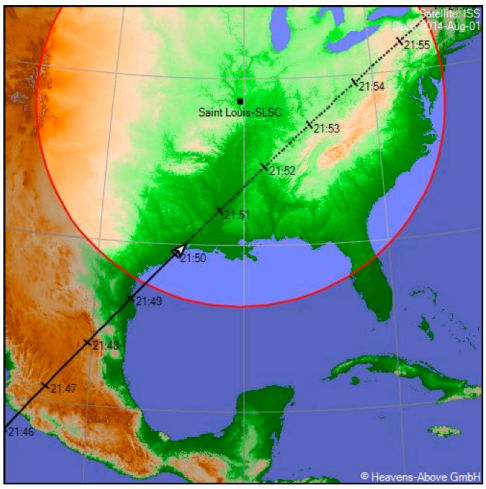
Month August 2014 Day 1 ○ Morning ◉ Evening Update Reset to now

Minimum brightness: ◉ 3.0 ○ 3.5 ○ 4.0 ○ 4.5 ○ 5.0

Satellite	Brightness	Start			Highest point			End		
	(mag)	Time	Altitude	Azimuth	Time	Altitude	Azimuth	Time	Altitude	Azimuth
Cosmos 1825	2.5	20:50:57	10°	SSE	20:54:42	49°	E	20:58:30	10°	NNE
Cosmos 2360 Rocket	2.2	20:58:21	10°	NNW	21:04:02	85°	ENE	21:09:42	10°	SSE
RESURS DK-1	2.5	21:30:49	10°	S	21:34:50	50°	ESE	21:38:53	10°	NE
H-2A R/B	2.2	21:37:58	10°	NNE	21:41:50	67°	ESE	21:44:35	18°	S
ISS	-1.3	21:49:16	10°	SSW	21:50:14	18°	SSW	21:50:14	18°	SSW
ALOS	2.2	21:55:16	26°	S	21:57:52	85°	WSW	22:02:35	10°	NNW
Cosmos 2297 Rocket	2.7	22:07:31	35°	ESE	22:08:02	36°	ESE	22:13:08	10°	NE
ATLAS 5 CENTAUR R/B	2.6	22:08:04	10°	WSW	22:09:56	28°	SW	22:09:56	28°	SW
Cosmos 2227 Rocket	3.0	22:46:42	10°	SW	22:52:10	50°	WNW	22:57:41	10°	NNE
H-2A R/B	2.7	22:57:49	41°	ENE	22:57:49	41°	ENE	23:02:41	10°	N
Cosmos 2219 Rocket	2.6	22:56:26	10°	NNW	23:01:50	50°	WSW	23:02:42	46°	SW
Cosmos 2237 Rocket	2.7	23:05:08	10°	NW	23:10:35	48°	WSW	23:11:15	45°	SW
Terra	2.6	23:29:03	48°	WNW	23:29:03	48°	WNW	23:33:05	10°	NNW
SL-16 R/B	2.5	23:30:40	10°	NNW	23:35:53	60°	W	23:35:53	60°	W



Ground track



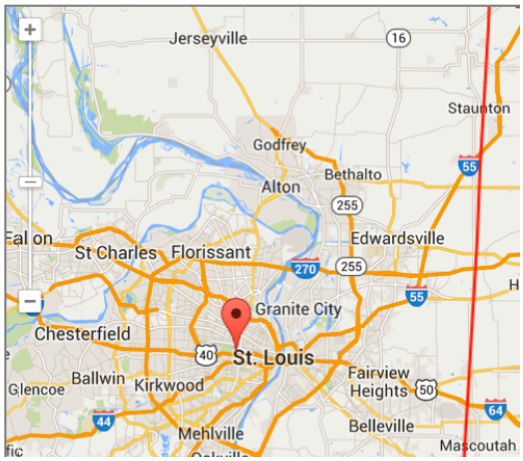
The highlighted circle is the region where the satellite is at least 10° above your horizon. The size of the circle depends on the height of the satellite.

ISS Pass 21:49:16

Rises in SSW

Max El at 21:50:14 (18 Deg / SSW)

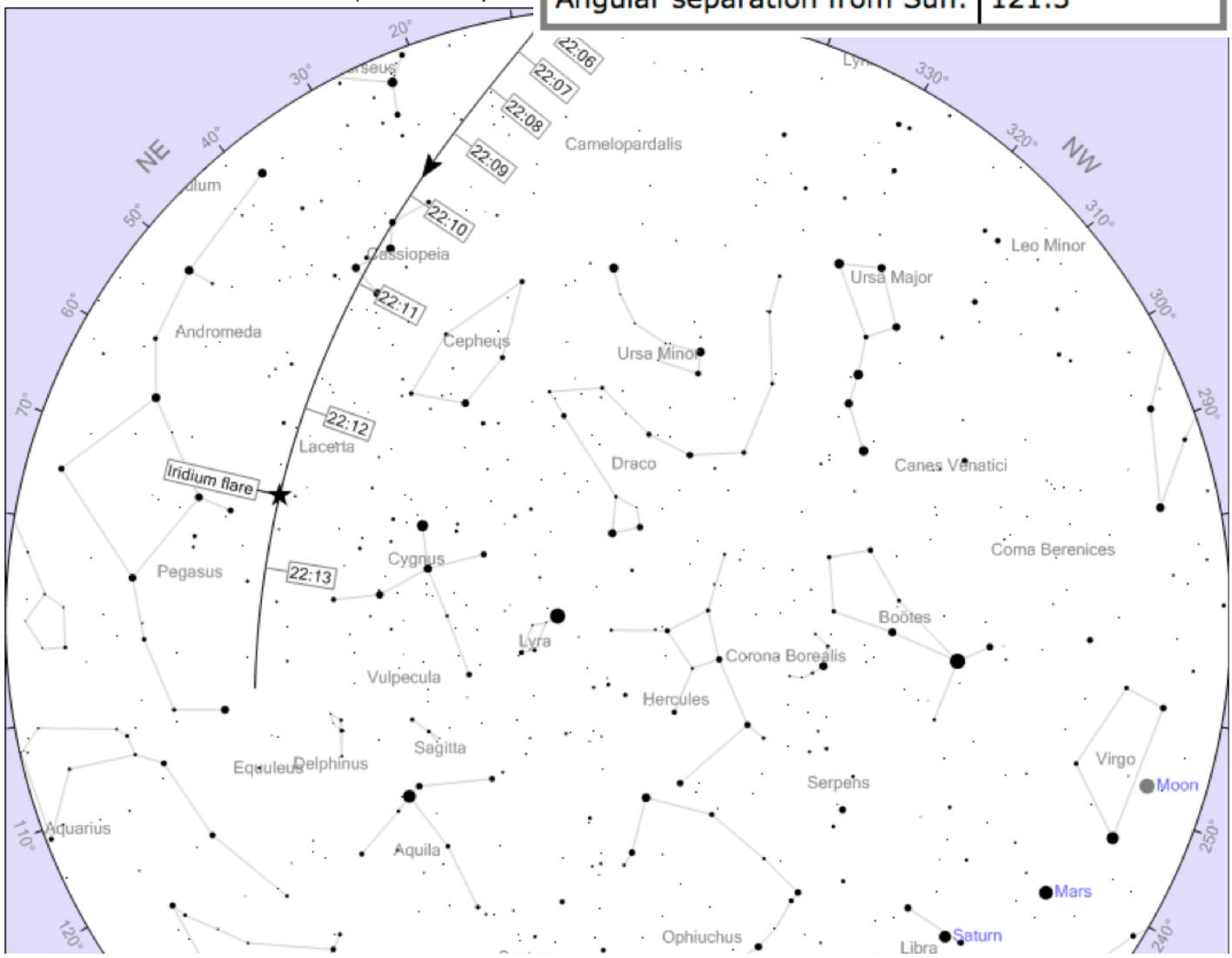
Map showing path of flare centre over Earth's surface



22:12:33 Flare

Flare Details	
Date:	01 August 2014
Time:	22:12:33
Brightness:	-1
Altitude:	38°
Azimuth:	70°
Satellite:	Iridium 18
Distance to satellite:	1183 km
Angle off flare centre-line:	1.3°
Distance to flare centre:	40 km
Flare producing antenna:	right
Sun altitude:	-20.3°
Angular separation from Sun:	121.3°

Iridium Flare Details

Sky Chart

Click on the chart to zoom in on that part of the sky