



M31, M32, M110 PSSG 2013-10-06 Jack Fitzmier



“WHAT’S UP”

A presentation of “what’s up” in the
night sky



This Month's Sky: November 2013

- **Our Solar System Tonight**
- **Jupiter Double Transit**
- **ISON Update**
- **Find Neptune**
- **Mercury/Saturn Meet**
- **Monthly Lunar Feature/Name**
- **Gee Whiz Question of the Month**
- **CE Observing Challenge**



Our Solar System Tonight

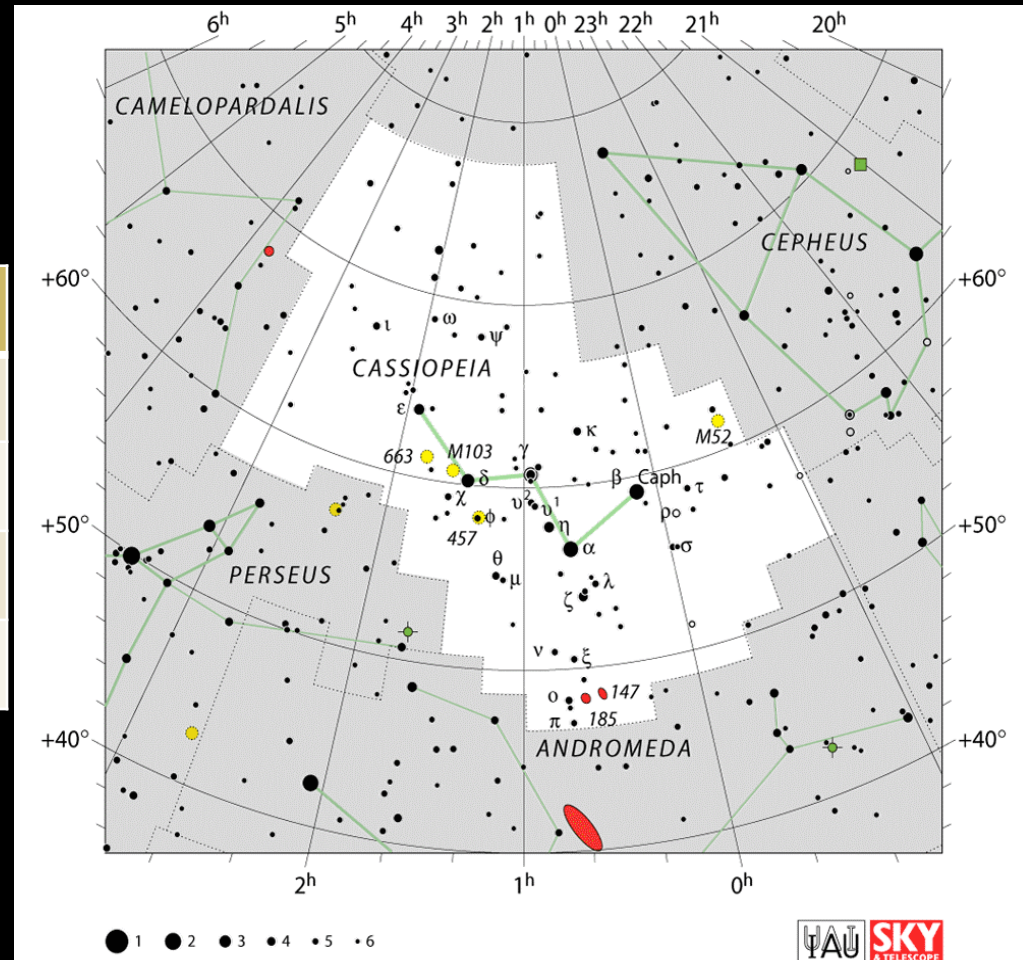
	Rises	Sets
Sun	7:55 a.m.	6:41 p.m.
Moon	6:53 a.m.	6:12 p.m.
Mercury	7:49 a.m.	6:32 p.m.
Venus	11:51 a.m.	9:19 p.m.
Mars	3:11 a.m.	4:04 p.m.
Jupiter	11:09 p.m.	1:20 p.m.
Saturn	8:10 a.m.	6:58 p.m.
Uranus	5:11 p.m.	5:34 a.m.
Neptune	3:33 p.m.	2:40 a.m.
Pluto	12:20 p.m.	10:32 p.m.



Cassiopeia Over Charlie Elliott

Cassiopeia Deep Sky Objects
Visible Tonight...
(Be sure to ask for a sky map!)

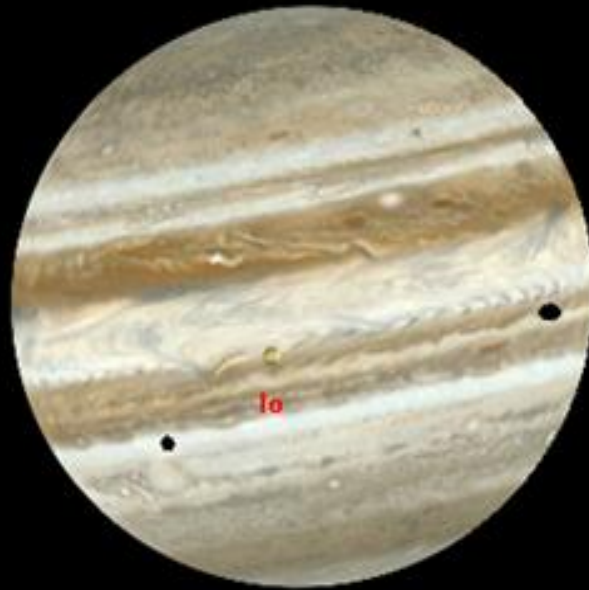
Object	Description	Magnitude
M52	Open Cluster	6.9
M103	Open Cluster	7.4
NGC 457	Open Cluster	6.4
NGC 663	Open Cluster	7.4





Jupiter Double Transit

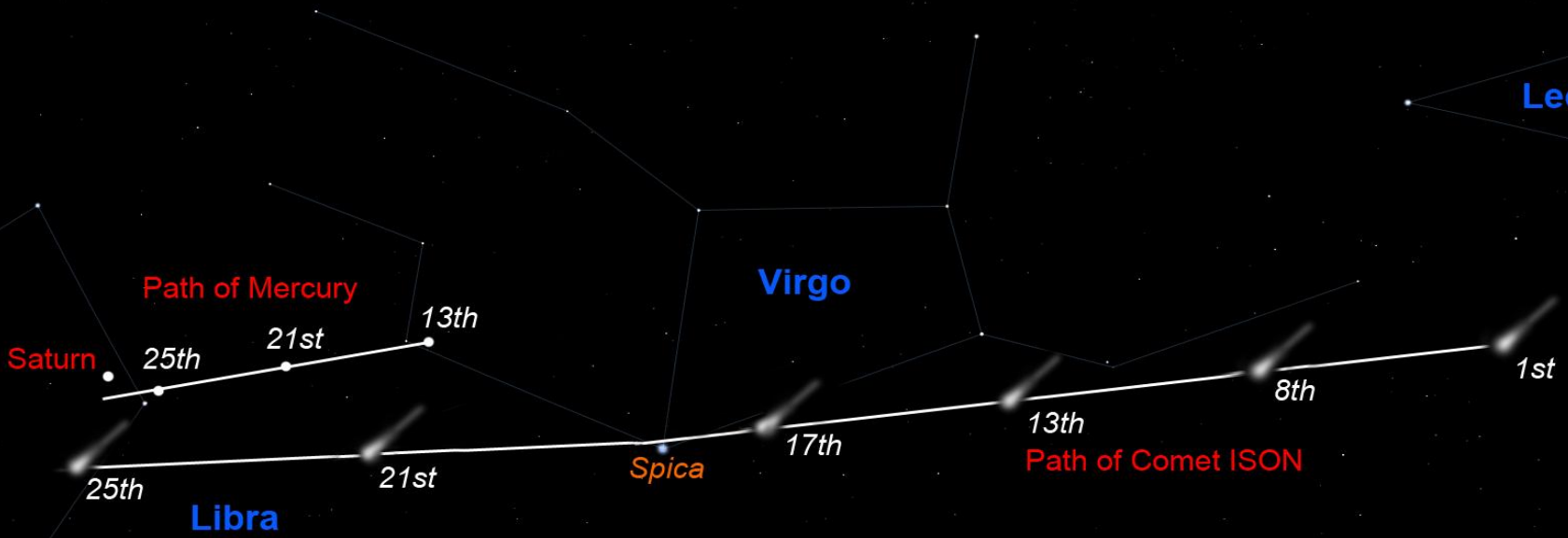
5/6th and 12/13th



The transits start at 23:00 on the evening of the 5th as the shadow of Io falls upon the surface of Jupiter. Just after midnight, Io will begin to pass across the face of Jupiter and at 00:49 Io and its shadow will be joined by Europa's shadow. On the morning of the 13th, the process starts at 2:04 am



ISON Update





Find Neptune

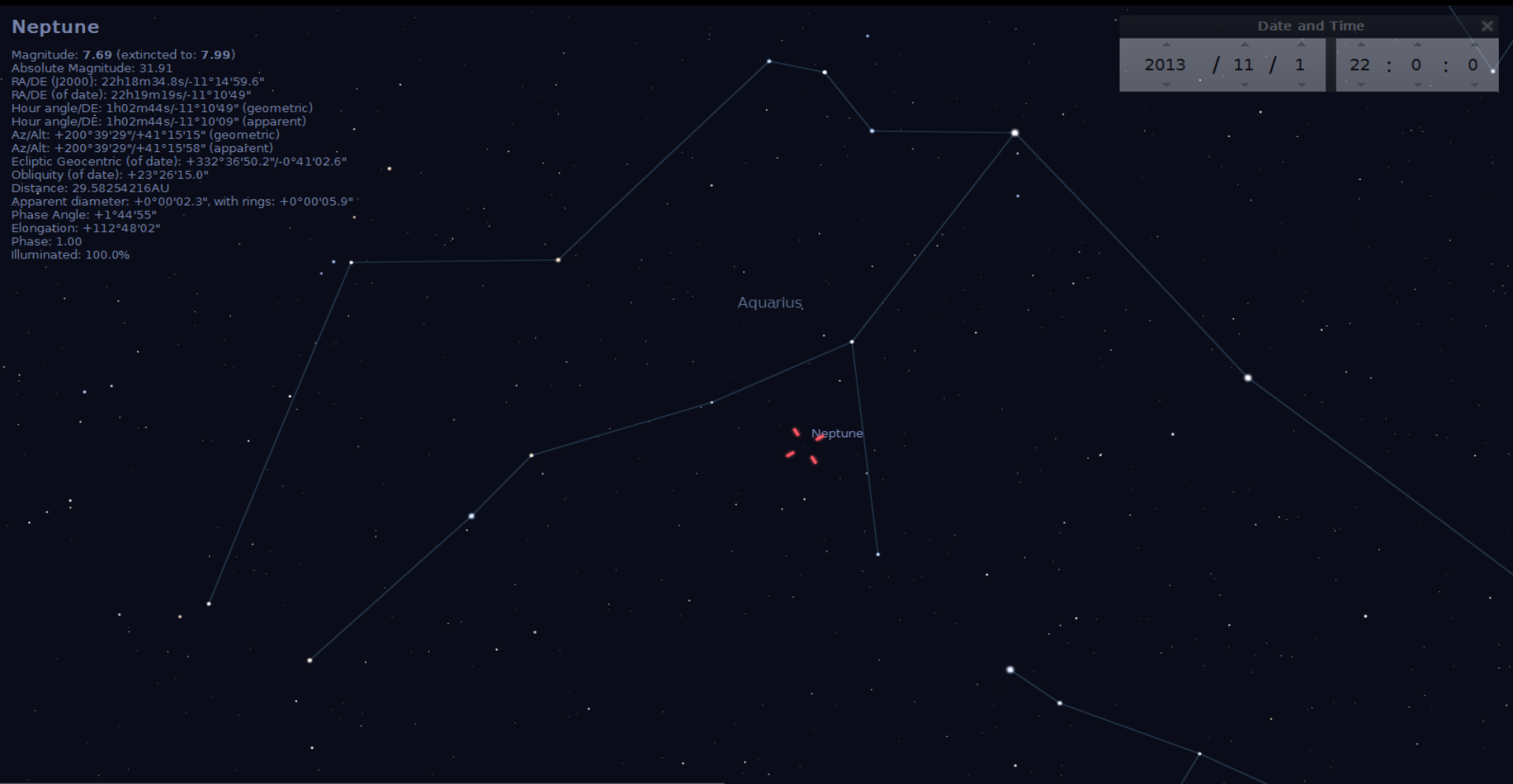
1st_7th

Neptune

Magnitude: **7.69** (extincted to: **7.99**)
 Absolute Magnitude: 31.91
 RA/DE (J2000): 22h18m34.8s/-11°14'59.6"
 RA/DE (of date): 22h19m19s/-11°10'49"
 Hour angle/DE: 1h02m44s/-11°10'49" (geometric)
 Hour angle/DE: 1h02m44s/-11°10'09" (apparent)
 Az/Alt: +200°39'29"/+41°15'15" (geometric)
 Az/Alt: +200°39'29"/+41°15'58" (apparent)
 Ecliptic Geocentric (of date): +332°36'50.2"/-0°41'02.6"
 Obliquity (of date): +23°26'15.0"
 Distance: 29.58254216AU
 Apparent diameter: +0°00'02.3", with rings: +0°00'05.9"
 Phase Angle: +1°44'55"
 Elongation: +112°48'02"
 Phase: 1.00
 Illuminated: 100.0%

Date and Time

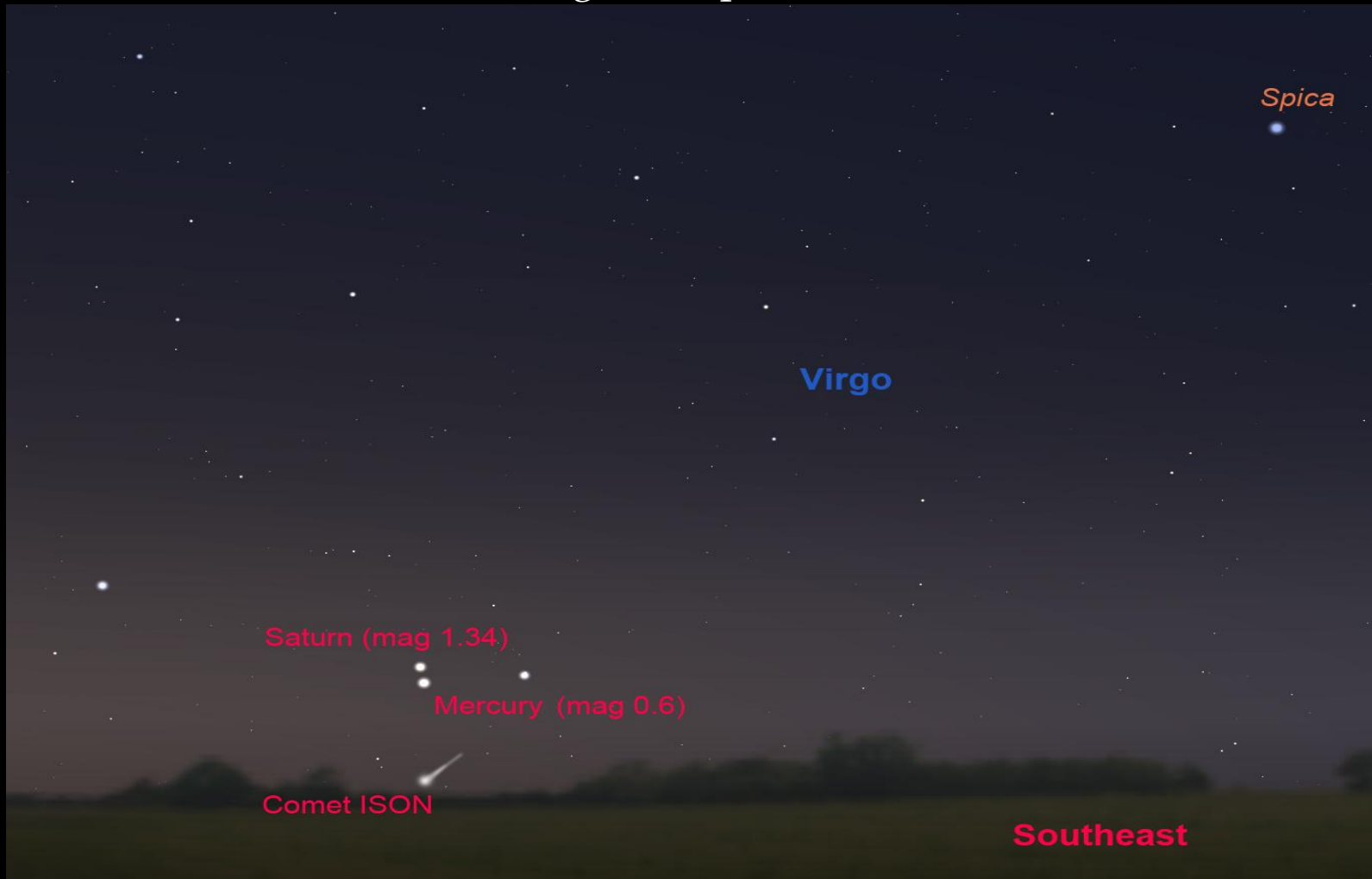
2013	/	11	/	1	:	22	:	0	:	0
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Mercury/Saturn Meet

.3 Degrees Separation





Monthly Lunar Feature(s)

Remaining Naked Eye Features



The Man in the Moon



The Rabbit in the Moon



The Woman in the Moon



The Cow Jumping over the Moon



Monthly Lunar Feature(s)

Remaining Naked Eye Features

Old Moon in New Moon's Arms: (Within 72 Hrs of new)

New Moon in Old Moon's Arms: (Within 72 Hrs of new)

Crescent Moon, Waxing: (Within 40 Hrs of new)

Crescent Moon, Waning: (Within 48 Hrs of New)



Monthly Full Moon Name

The November Full Moon is known as the Full Beaver Moon because it marked the time of year where trappers needed to start setting the beaver traps to ensure there was an adequate supply of warm winter furs.





Gee Whiz Question of the Month

A single Quasar produces the same amount of energy as how many of our Suns?



Gee Whiz Question of the Month

1 Trillion



CE Observing Challenge

IC 63 (Gamma Cassiopeiae Nebula)

- Bright Nebula is Cassiopeia
- Magnitude 10.0
- Right Ascension: 01h 00m 16.64s
- Declination: 60° 58' 29.6"

ENJOY!!



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Next Meeting

December 7th, 3:30 p.m.

Potluck!!!



Useful Websites

- Stellarium for Windows
- SkySafari for Android
- Sky and Telescope:
<http://www.skyandtelescope.com>
- Farmers Almanac:
<http://www.almanac.com/astronomy>
- Night Sky Network: <http://bit.ly/NSN-CEA>
- CEA Facebook page: <http://bit.ly/CEAAstronomy>