



Veil Nebula, John Towne (& Danielle) 2x 15 min ISO 200



# “WHAT’S UP”

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



# This Month's Sky: September 2013

- **Our Solar System Tonight**
- **Mars Gets Stung**
- **ISON Update**
- **Monthly Lunar Feature/Name**
- **Quadruple Conjunction**
- **Autumnal Equinox (YAAAAAYYYY!!!)**
- **Gee Whiz Question of the Month**
- **CE Observing Challenge**



# Our Solar System Tonight

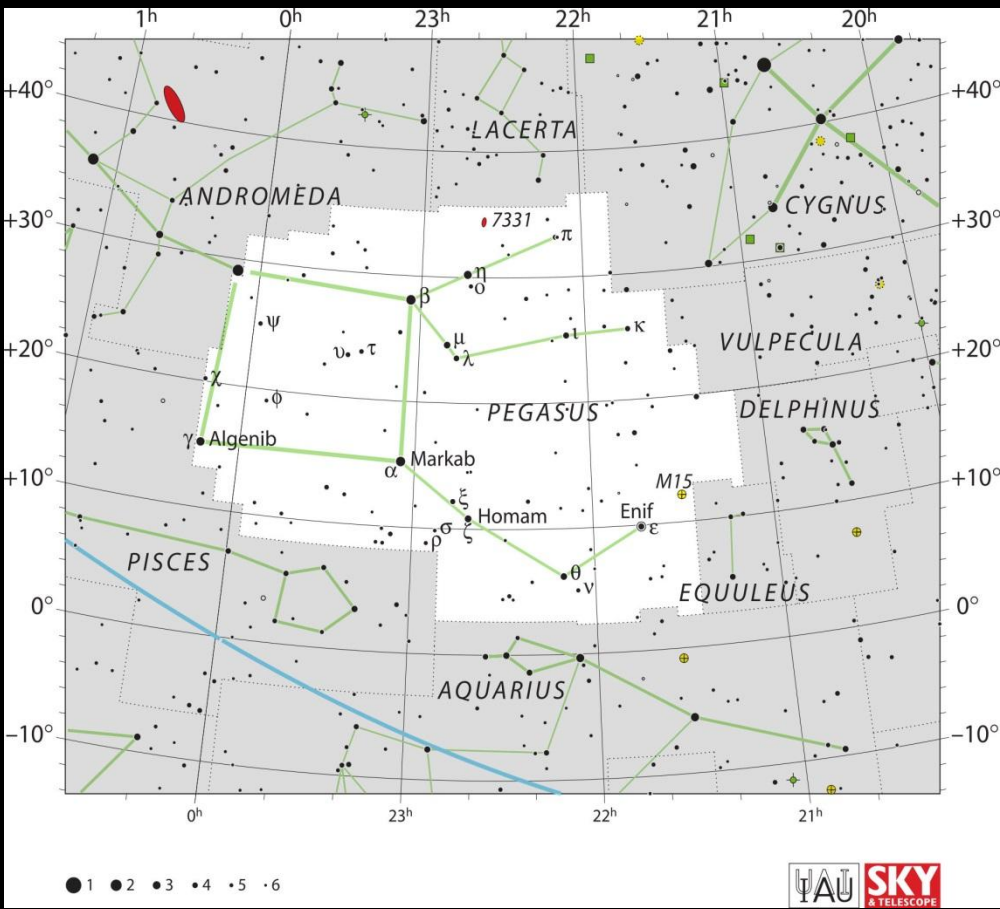
	Rises	Sets
Sun	07:13 a.m.	07:51 p.m.
Moon	9:17 a.m.	9:01 p.m.
Mercury	8:10 a.m.	8:26 p.m.
Venus	10:28 a.m.	9:37 p.m.
Mars	4:08 a.m.	6:02 p.m.
Jupiter	2:28 a.m.	4:39 p.m.
Saturn	11:21 a.m.	10:21 p.m.
Uranus	8:56 p.m.	9:25 a.m.
Neptune	7:16 p.m.	6:25 a.m.
Pluto	3:58 p.m.	2:14 a.m.



# Pegasus Over Charlie Elliott

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

Object	Description	Magnitude
NGC 7317-7320	Galaxy Cluster	13.2
NGC 7331	Spiral Galaxy	10.4
NGC 7479	Spiral Galaxy	10.9
NGC 7217	Spiral Galaxy	11
M15	Globular Cluster	6.2





# Mars Gets Stung

**Mars**  
 Magnitude: 1.84 (extincted to: 2.38)  
 Absolute Magnitude: 31.64  
 RA/DE (J2000): 8h38m47.8s/+19°32'54.0"  
 RA/DE (of date): 8h39m35s/+19°29'59"  
 Hour angle/DE: 18h51m55s/+19°29'59" (geometric)  
 Hour angle/DE: 18h52m3s/+19°31'10" (apparent)  
 Az/Alt: +80°41'59"/+21°26'23" (geometric)  
 Az/Alt: +80°41'59"/+21°28'39" (apparent)  
 Ecliptic Geocentric (of date): +127°12'26.8"/+1°03'57.6"  
 Obliquity (of date): +23°26'15.0"  
 Distance: 2.25890520AU  
 Apparent diameter: +0°00'04.2"  
 Phase Angle: +23°09'48"  
 Elongation: +38°43'06"  
 Phase: 0.96  
 Illuminated: 96.0%

Date and Time

2013	/	9	/	8	:	5	:	45	:	0
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# Mars Gets Stung

Date and Time

2013	/	9	/	8	:	5	:	45	:	0
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Asellus Borealis

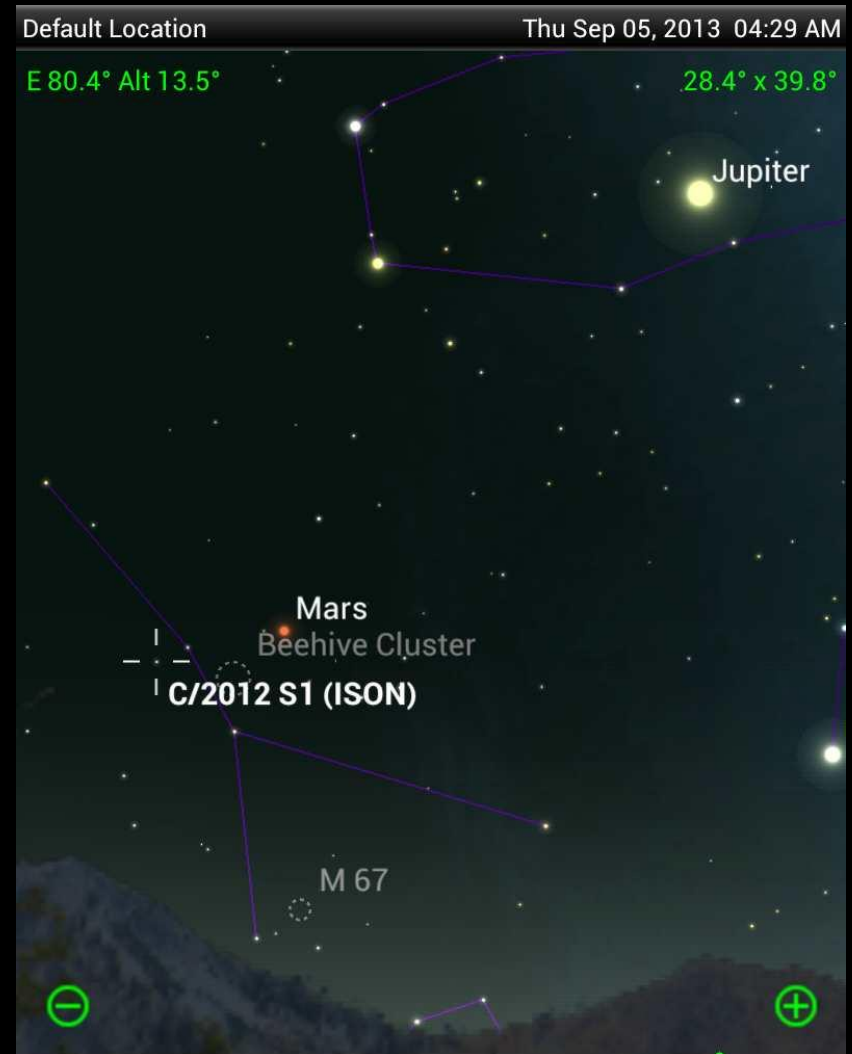
Mars

Asellus Australis



# ISON A Bust?

As seen from Earth, Comet ISON was behind the sun in June and July. Its recovery occurred on August 12, 2013; however, its brightness is not what was hoped. This month, it might be bright enough to be seen by observers using small telescopes at dark locations

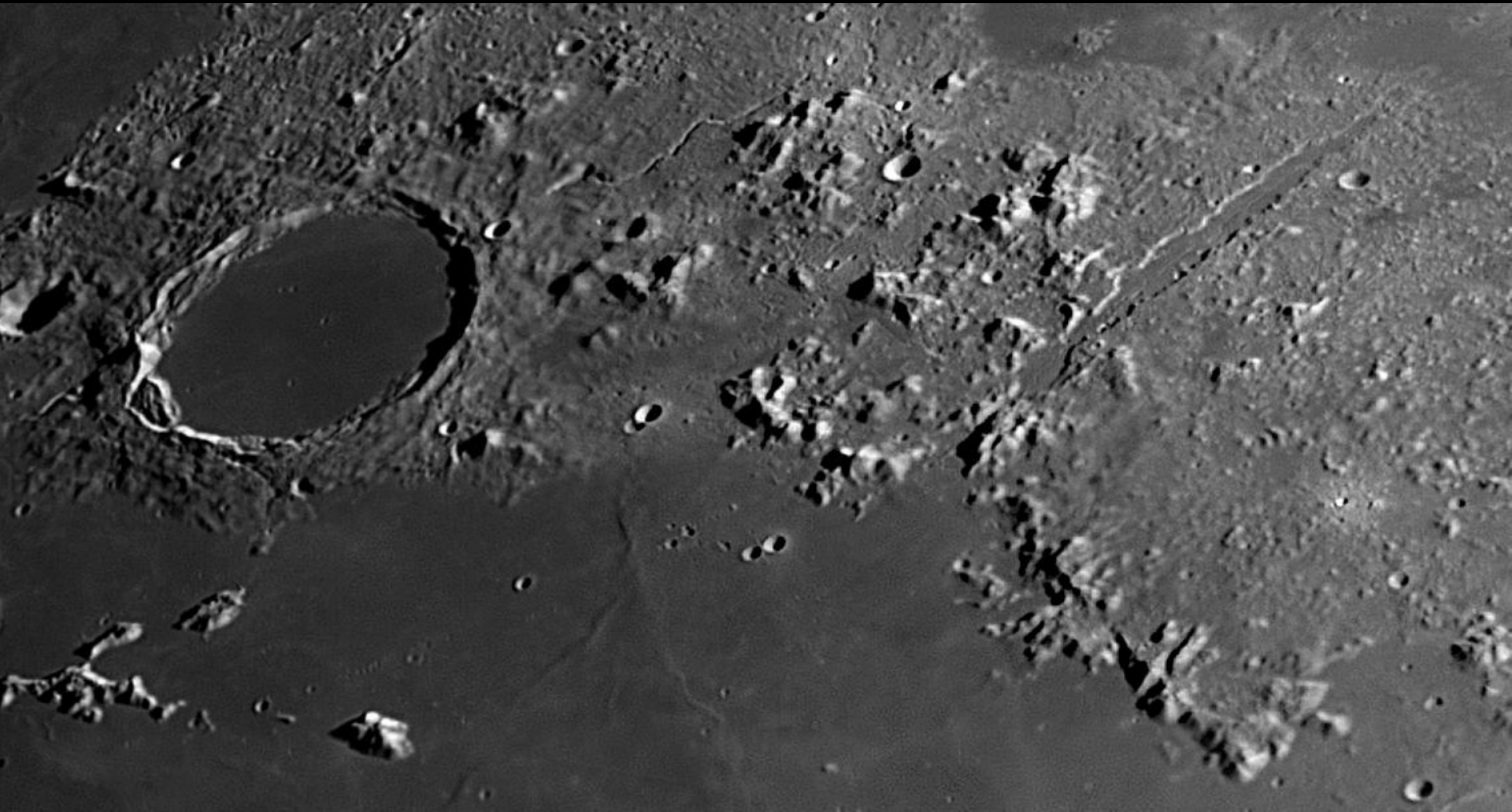






# Monthly Lunar Feature

The Alpine Valley (A.K.A: Vallis Alpes)-14<sup>th</sup>,26<sup>th</sup>,27<sup>th</sup>





# Monthly Full Moon Name

The September Moon is known as the Full Corn Moon because it traditionally corresponds with the time of harvesting corn. Farmers were able to use the light of the full moon to light the fields. There is another name for the Full Moon this month...any ideas? Hint, look at the picture →





# Quadruple Conjunction

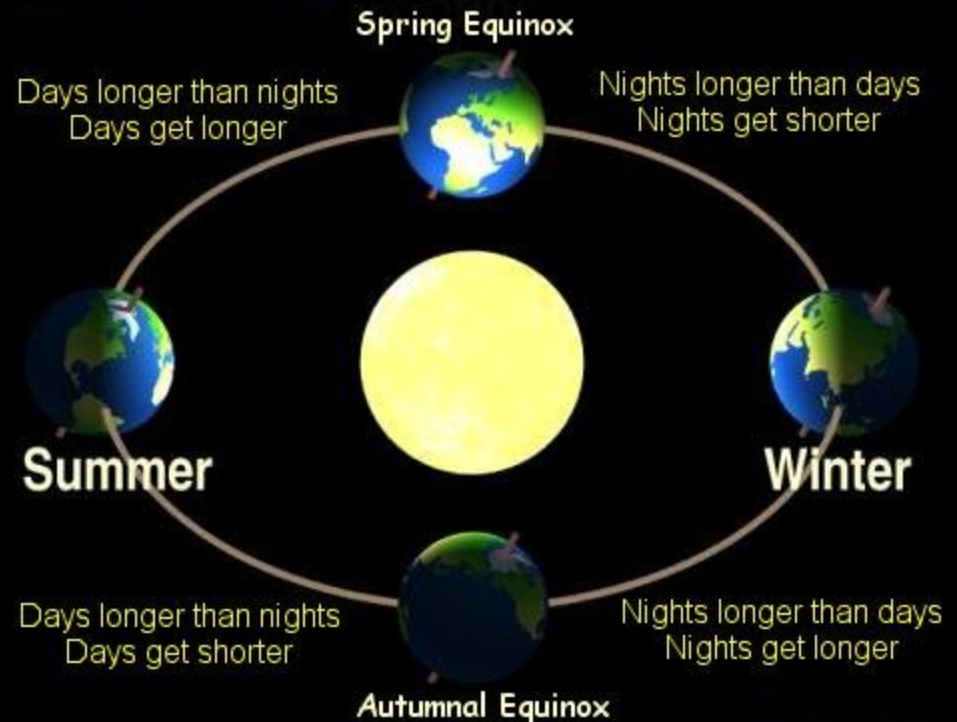
Saturn, Venus, the Moon, and Spica. The two planets will be within 3 degrees of each other in the early evening sky. Venus will be at magnitude -4.6 and Saturn will be at magnitude -1.1. Look for all 4 objects low in the western sky in the early evening.





# The Autumnal Equinox

The 2013 Autumnal Equinox occurs on Sunday, September 22, 2013, at 4:44 PM EDT. An equinox occurs twice each year. Once on or around March 20<sup>th</sup>, and again on or around September 22<sup>nd</sup>. An equinox occurs when the tilt of the Earth is inclined neither away nor toward the sun, causing the number of minutes of darkness and the number of minutes of light to be almost equal on that day. The term “equinox” is derived from the Latin words *aequus* (equal) and *nox* (night).





# Gee Whiz Question of the Month

**Why do the Sun and Moon appear almost exactly the same size as viewed from Earth?**



# Gee Whiz Question of the Month

Because the Sun is 400 times bigger and 400 times further away than the Moon.



# CE Observing Challenge

## Pease 1

- Planetary Nebula in Pegasus
- Magnitude 15.10
- Right Ascension: 21h 30m 39.81s
- Declination: 12° 14' 12.0"

**ENJOY and GOOD LUCK!!!!!!!!!!**



# Useful Websites

- [Stellarium for Windows](#)
- [SkySafari for Android](#)
- <http://www.skyandtelescope.com>
- <http://www.jodrellbank.manchester.ac.uk/astronomy/nightsky/#highlights>
- <http://www.almanac.com/astronomy>





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