



Comet C/2012 S1 ISON 2013-11-03 Van Macatec



# “WHAT’S UP”

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



# This Month's Sky: December 2013

- **Our Solar System Tonight**
- **Target List**
- **ISON Update**
- **Great Geminids Meteor Shower**
- **Welcome Winter**
- **Bright Venus**
- **Moon/Pleiades Conjunction**
- **Monthly Lunar Feature/Name**
- **Gee Whiz Question of the Month**
- **CE Observing Challenge**



# Our Solar System Tonight

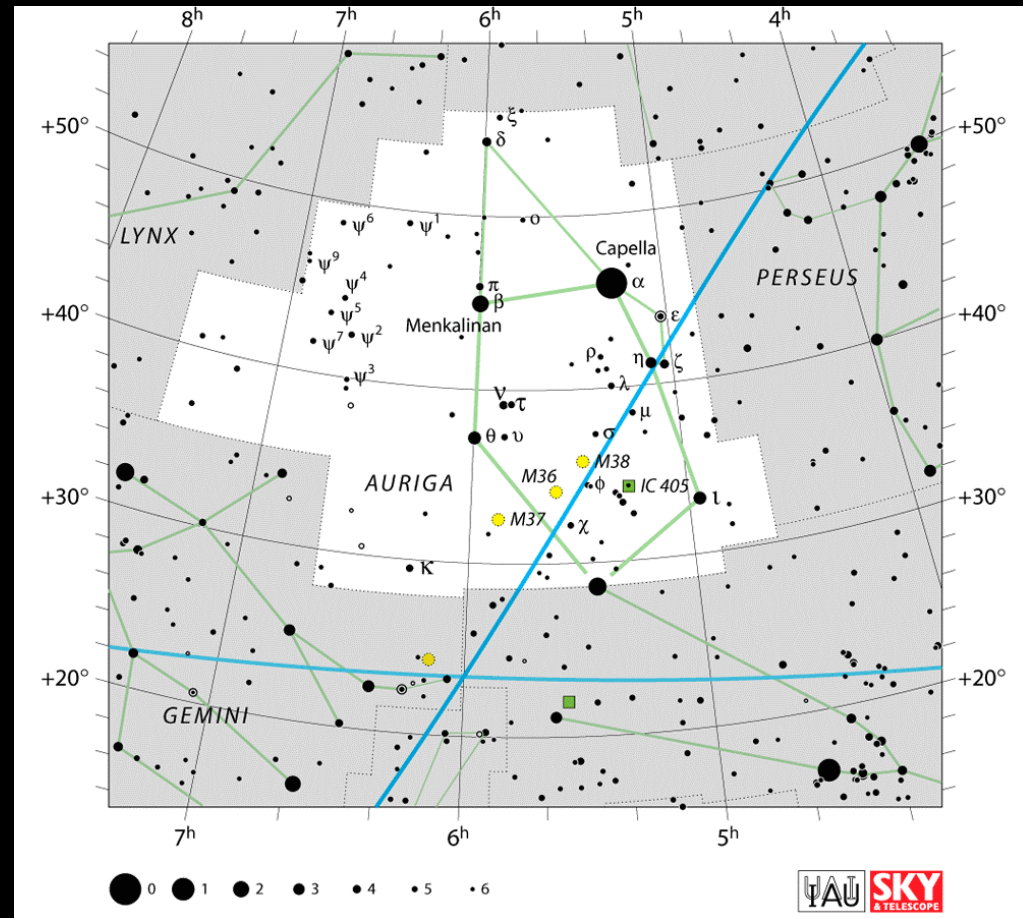
|         | Rises      | Sets       |
|---------|------------|------------|
| Sun     | 7:26 a.m.  | 5:26 p.m.  |
| Moon    | 11:20 a.m. | 10:56 p.m. |
| Mercury | 6:30 a.m.  | 4:43 p.m.  |
| Venus   | 10:23 a.m. | 8:15 p.m.  |
| Mars    | 1:24 a.m.  | 1:38 p.m.  |
| Jupiter | 7:44 p.m.  | 9:57 a.m.  |
| Saturn  | 5:12 a.m.  | 3:54 p.m.  |
| Uranus  | 1:51 p.m.  | 2:13 a.m.  |
| Neptune | 12:15 p.m. | 11:19 p.m. |
| Pluto   | 9:07 a.m.  | 7:18 p.m.  |



# Auriga Over Charlie Elliott

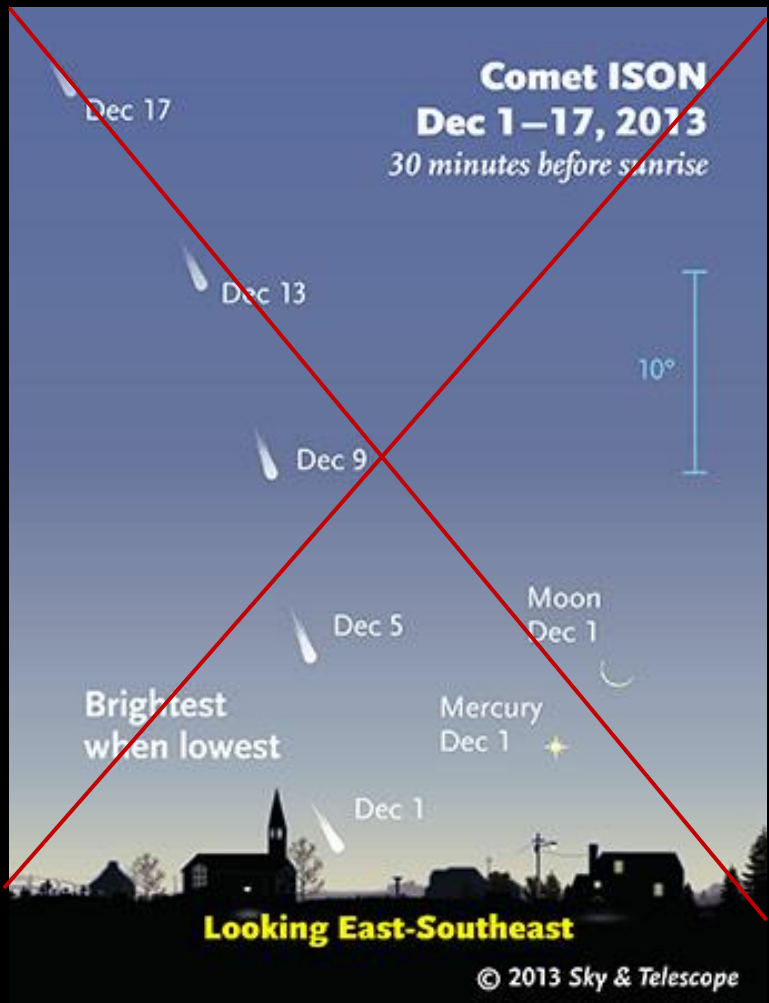
Auriga Deep Sky Objects  
Visible Tonight...HAHAHAHA!  
(Be sure to ask for a sky map!)

| Object  | Description         | Magnitude |
|---------|---------------------|-----------|
| Capella | Double Binary Star  | -0.51     |
| M36     | Open Cluster        | 6.3       |
| M37     | Open Cluster        | 6.2       |
| M38     | Open Cluster        | 7.4       |
| IC 405  | Flaming Star Nebula | 6.1       |





# ISON Update

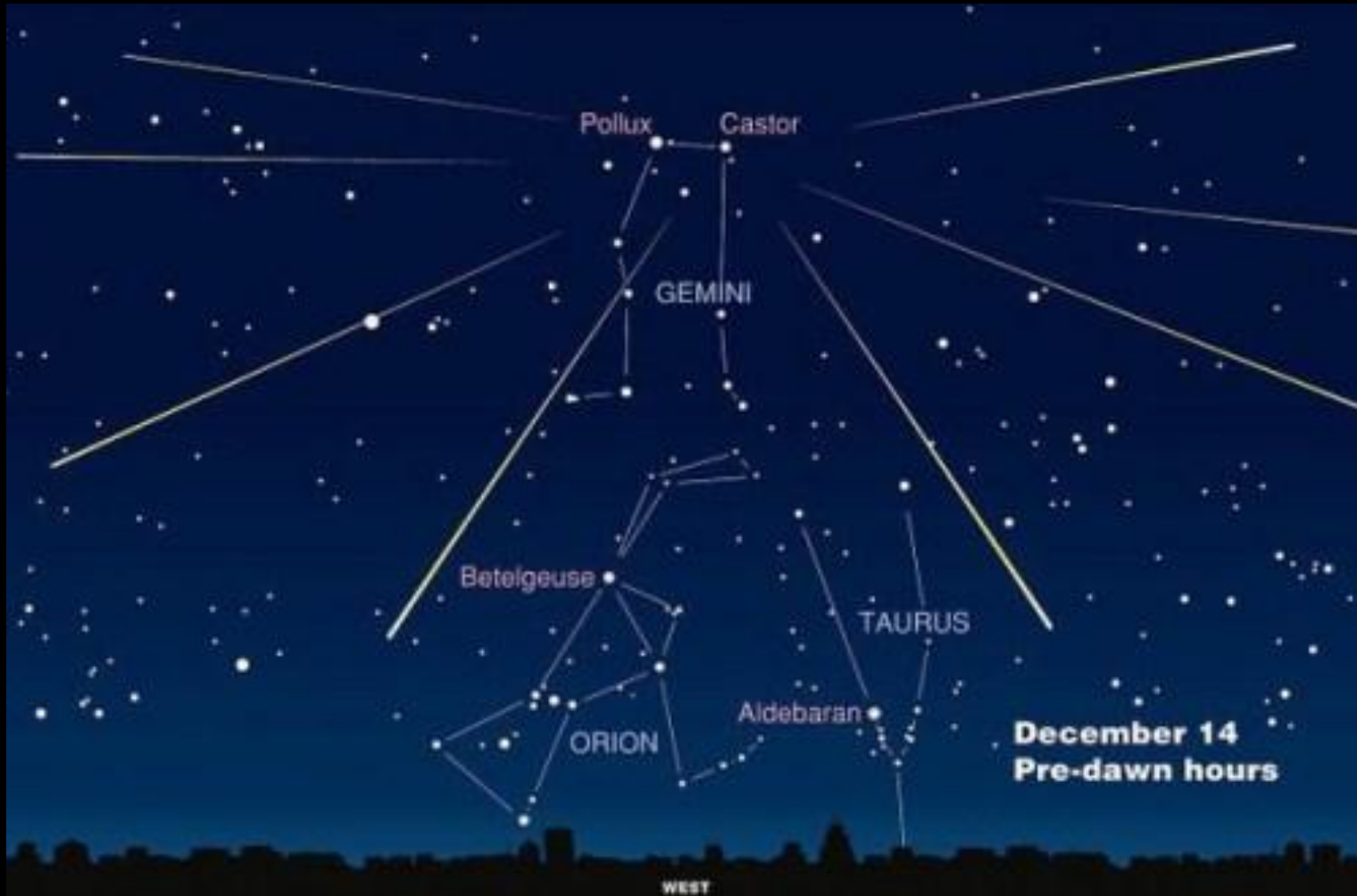






# Great Geminids Meteor Shower

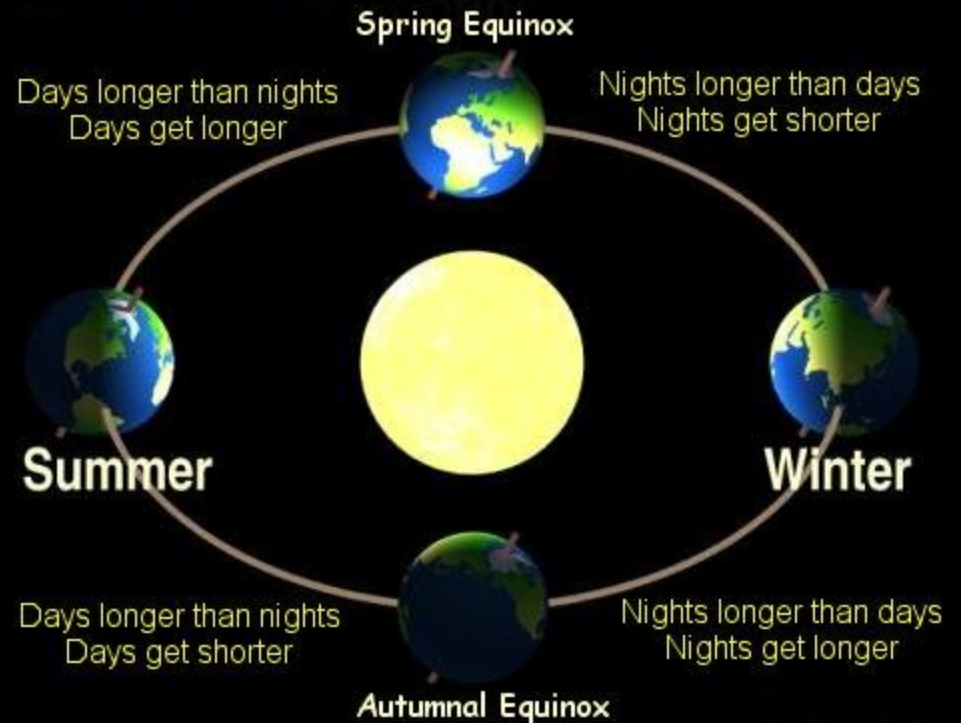
13<sup>th</sup>-14<sup>th</sup>





# Hello Winter

The December solstice occurs at 17:11 UTC. The South Pole of the earth will be tilted toward the Sun, which will have reached its southernmost position in the sky and will be directly over the Tropic of Capricorn at 23.44 degrees south latitude. This is the first day of winter (winter solstice) in the Northern Hemisphere.







# Bright Venus

Magnitude -4.9





# Moon/Pleiades Conjunction



Date and Time

|      |   |    |   |    |  |    |   |   |   |   |
|------|---|----|---|----|--|----|---|---|---|---|
| 2013 | / | 12 | / | 14 |  | 19 | : | 0 | : | 0 |
|------|---|----|---|----|--|----|---|---|---|---|



# Monthly Lunar Feature(s)

Lunar Rays





# Monthly Lunar Feature(s)

Sinus Iridium





# Monthly Lunar Feature(s)

Sinus Medii







# Monthly Lunar Feature(s)

Sinus Roris







# Monthly Full Moon Name

The November Full Moon is known as the Full Cold Moon. No explanation necessary!





# Gee Whiz Question(s) of the Month

Which of the 8 planets has no moons?  
Mercury



# Gee Whiz Question(s) of the Month

How long is 1 Mercurian day?

180 Earth Days

How long is 1 Mercurian Year?

88 Earth days



# Gee Whiz Question(s) of the Month

What is the largest planet in our solar system?

Jupiter



# Gee Whiz Question(s) of the Month

How long is 1 Jovian day?

9.9 Earth Hours

How long is 1 Jovian Year?

11.6 Earth Years



# Gee Whiz Question(s) of the Month

What is the only planet that rotates clockwise? Why?

Venus





# Gee Whiz Question(s) of the Month

**How long is 1 Venusian day?**

**243 Earth Days**

**How long is 1 Venusian Year?**

**224.7 Earth Days**



# CE Observing Challenge

## Barnard's Loop

- Bright Nebula (H $\alpha$ !) in Orion
- Magnitude 10.0
- Right Ascension: 05h 48m 43.78s
- Declination: 01° 00' 06.4"

**ENJOY!!**



Comet C/2012 S1 ISON 2013-11-03 Van Macatec



# Next Meeting

January 4<sup>th</sup>, 3:30 p.m.



# 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>