

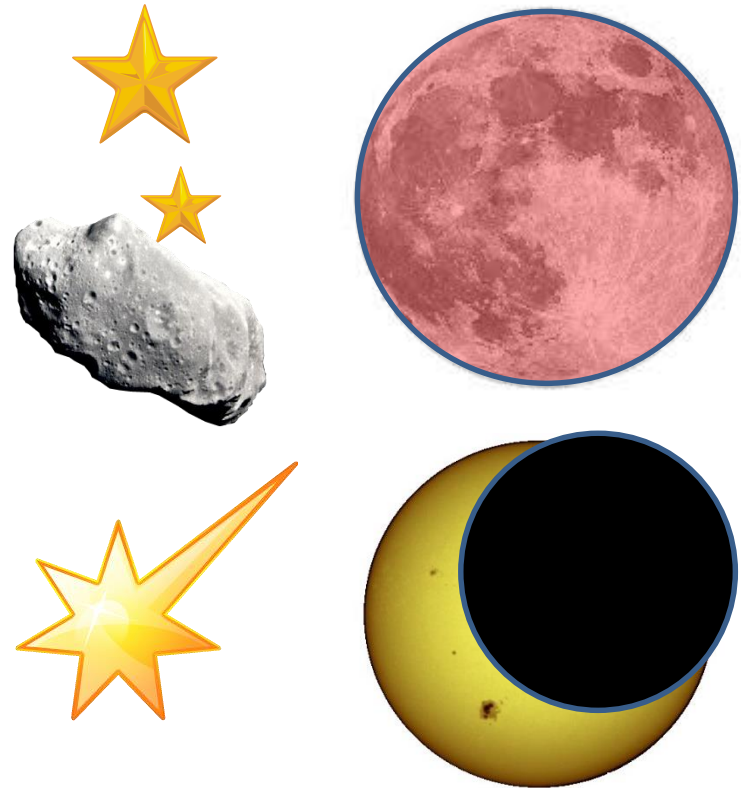
Astronomical Events For North Bay 2014/2015

Doug Patterson
June 10, 2014

Agenda

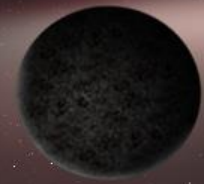
Events:

- Solar and Lunar Eclipse
- Meteor Showers
- Comets
- Asteroid Occultations
- Star Parties



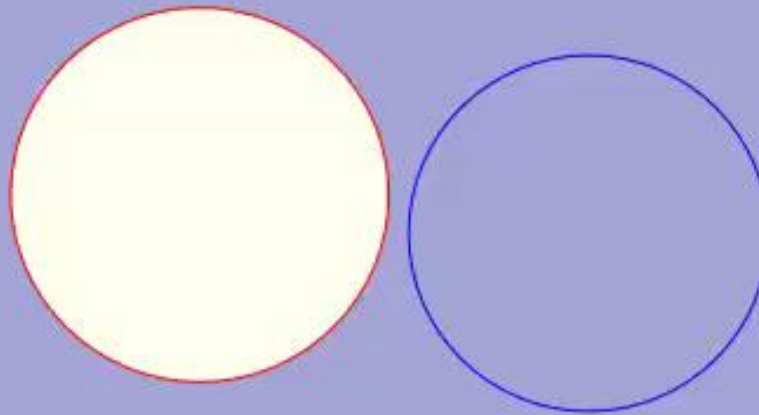
Partial Solar Eclipse Oct 23, 2014:

Video of what we'll see from North Bay



Time: Thursday, October 23 at 5:29 PM EDT
Sun Direction: 245.36° (WSW)
Sun Altitude: 7.29°

Oct
2014








Partial Solar Eclipse Oct 23, 2014



Event	Time in North Bay (sun set 6:17PM)	Direction	Altitude	Looks like	Comments
Partial eclipse begins	Oct 23 at 5:34 PM	246°	6.2°		The Moon touches the Sun's edge. Sun close to horizon, so make sure you have free sight to West-southwest.
Maximum Eclipse	Oct 23 at 6:16 PM	254°	0.2° below		Moon is closest to the center of the Sun. Since the Sun is near the horizon at this time, we recommend going to a high point or finding an unobstructed area with free sight to West-southwest for the best view of the eclipse.
Sunset	Oct 23 at 6:16 PM	254°	0.2° below	Not visible	Below horizon
Partial Eclipse ends	Oct 23 at 7:37 PM	254°	0.2° below	Not visible	Below horizon

Total Lunar Eclipse Oct 8, 2014



Event	Time in North Bay sun rise 7:23 AM	Direction	Altitude	Looks like	Comments
Penumbral eclipse begins	Oct 8 at 4:17 AM	243°	30.3°		The Earth's penumbra start touching the Moon's face.
Partial eclipse begins	Oct 8 at 5:18 AM	255°	21.0°		Partial moon eclipse starts - moon is getting red.
Total Eclipse begins	Oct 8 at 6:27 AM	268°	9.7°		Total moon eclipse starts - completely red moon.
Maximum Eclipse	Oct 8 at 6:55 AM	273°	5.2°		Moon is closest to the center of the shadow. Moon close to horizon, so make sure you have free sight to West.
Total Eclipse ends	Oct 8 at 7:22 AM	278°	0.9°		Total moon eclipse ends. Moon close to horizon, recommend going to a high point

FYI- Next Lunar Eclipse: partial on Apr 4 2015, Total Sept 27/28 of 2015

Meteor Showers: 2014

Best Events

- **Perseids:** Aug 10-13
 - 50-100 per hour
 - Gibbous moon impact in 2014
- **Geminids:** Dec 13- 14
 - 50-100 per hour
 - Try late eve viewing to avoid last qtr moon

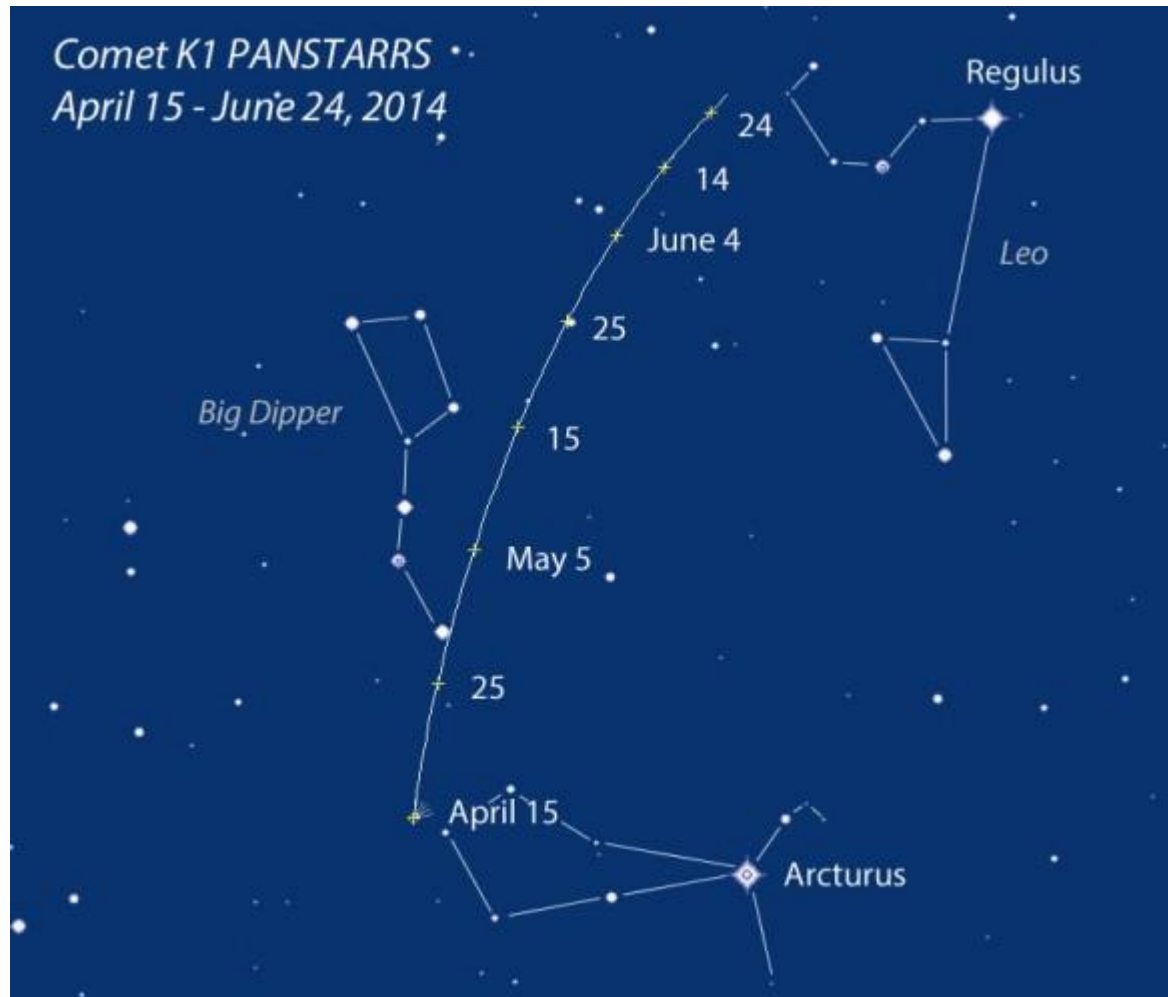


Other Showers

- **Orionids:** Oct 21, 10-20 per hour, new moon
- **North Taurids:** (Oct12- Dec2 with best view Nov 11 before moon rise)
- **Leonids:** Nov 17-18 no moon impact in 2014, display has been weak in recent years

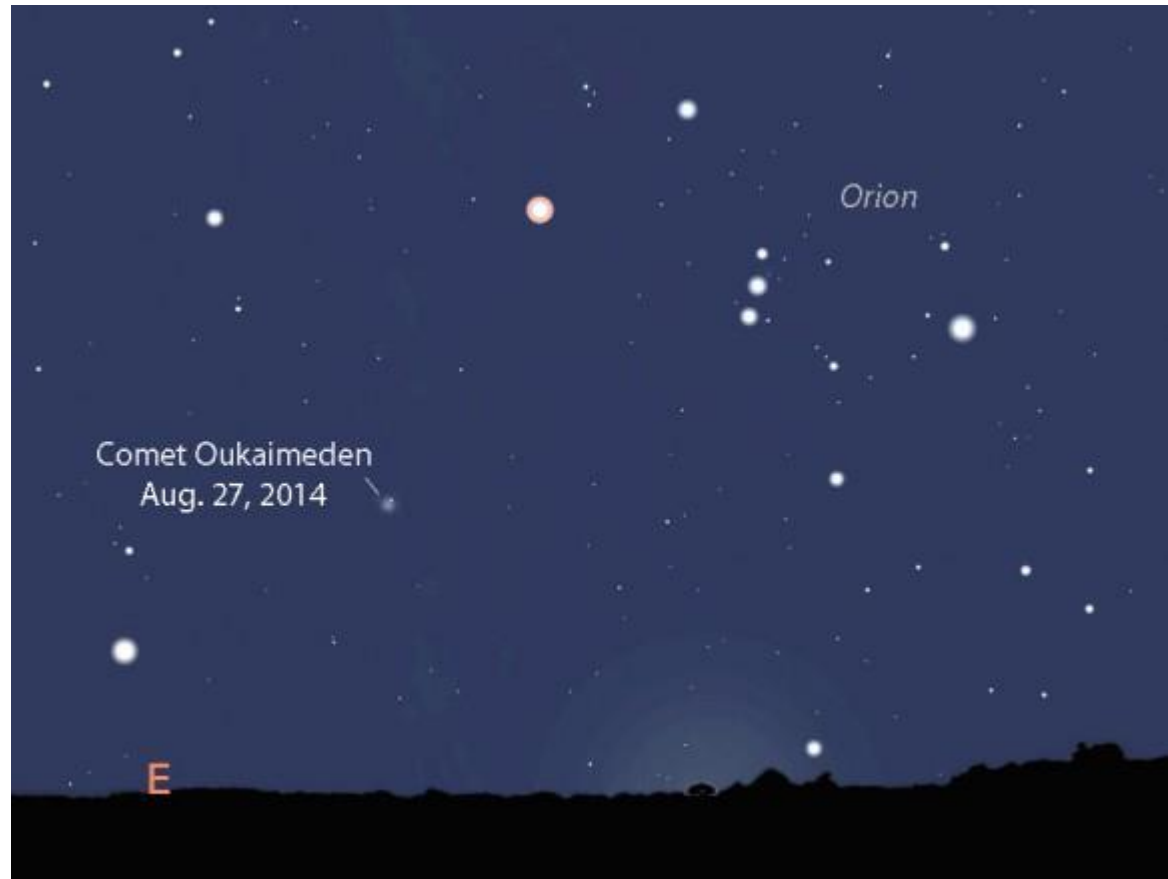
Comets

- **Panstars:** Mag 7.5 by end of June
- Will be visible in North again this fall



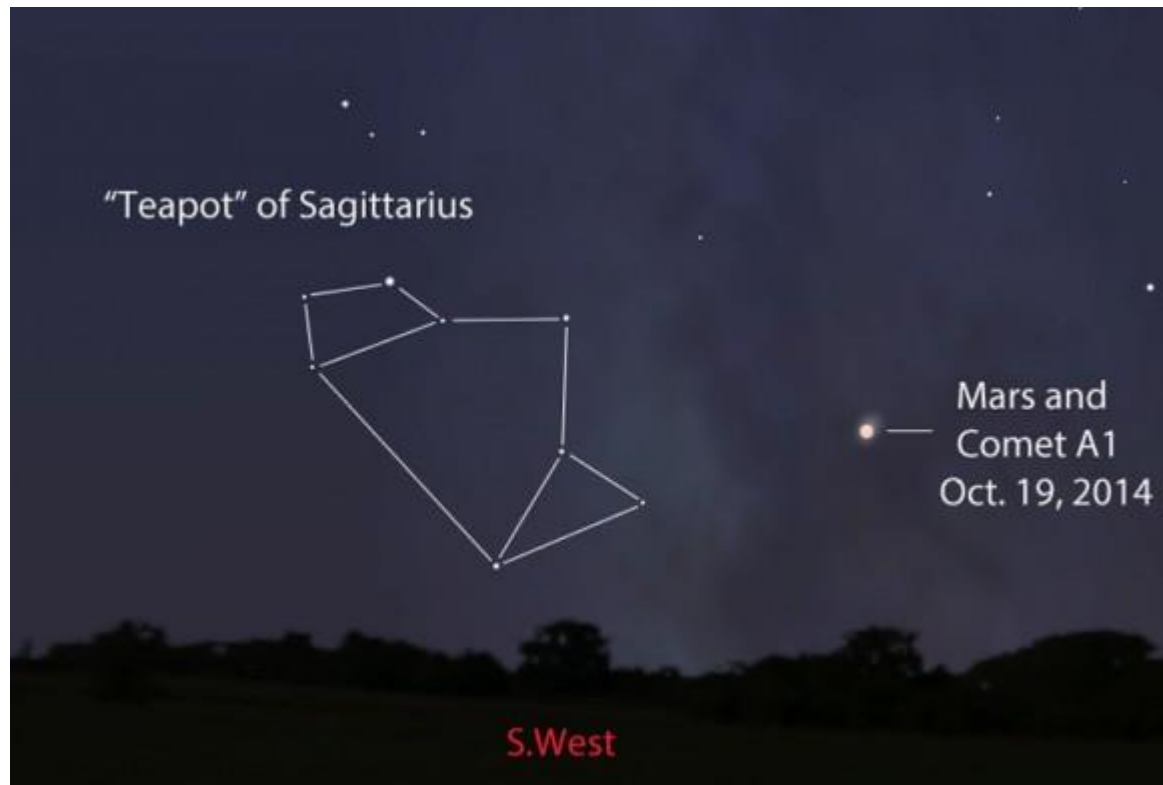
Comets

- **Oukaimeden:** Could reach magnitude 5.5 later this summer



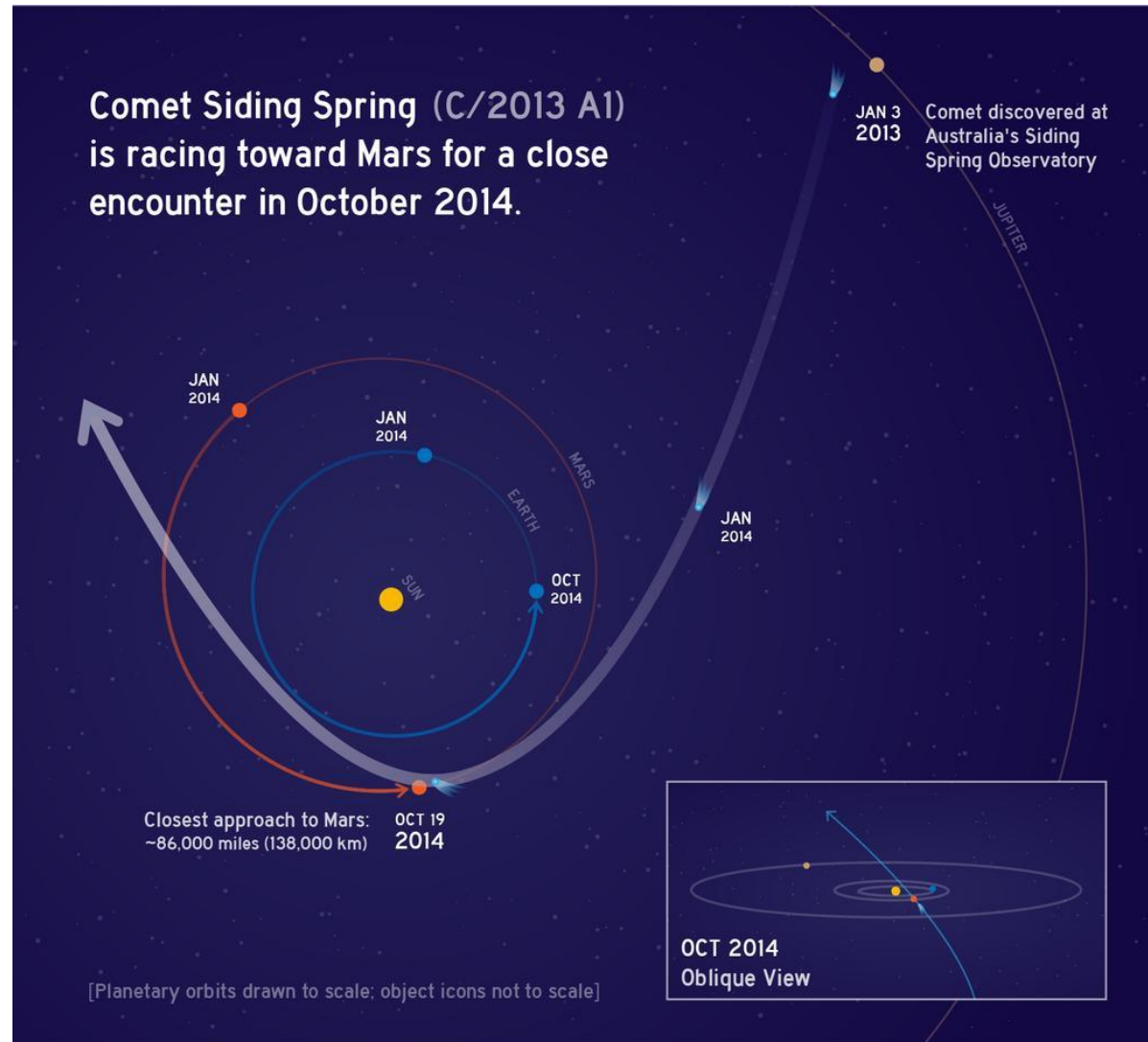
Comets

- **A1 Siding Spring:** Magnitude 7.5 to 8 this fall
- Outer coma is actually expected to brush Mars on Oct 19



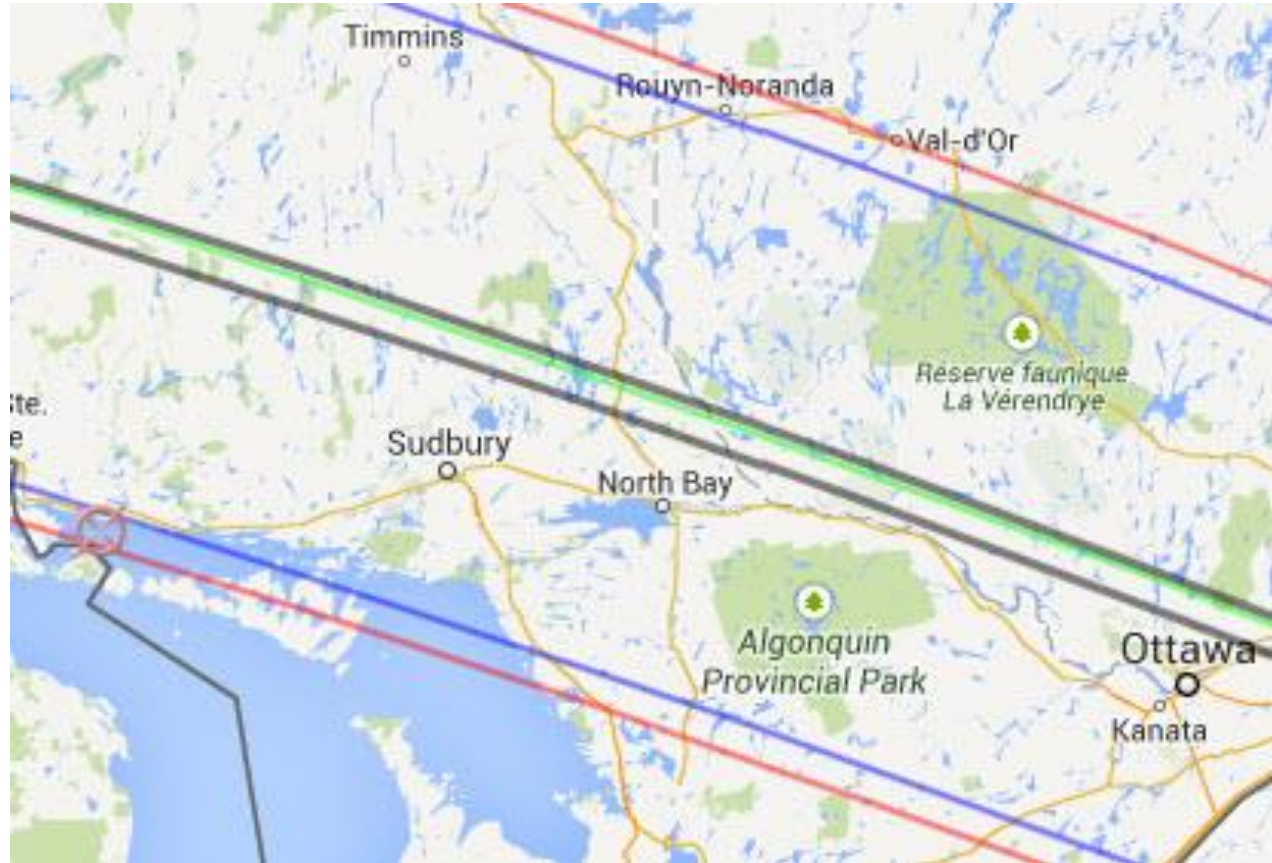
Comets

- **A1 Siding:** Oct 19 brush with Mars



Asteroid Occultation

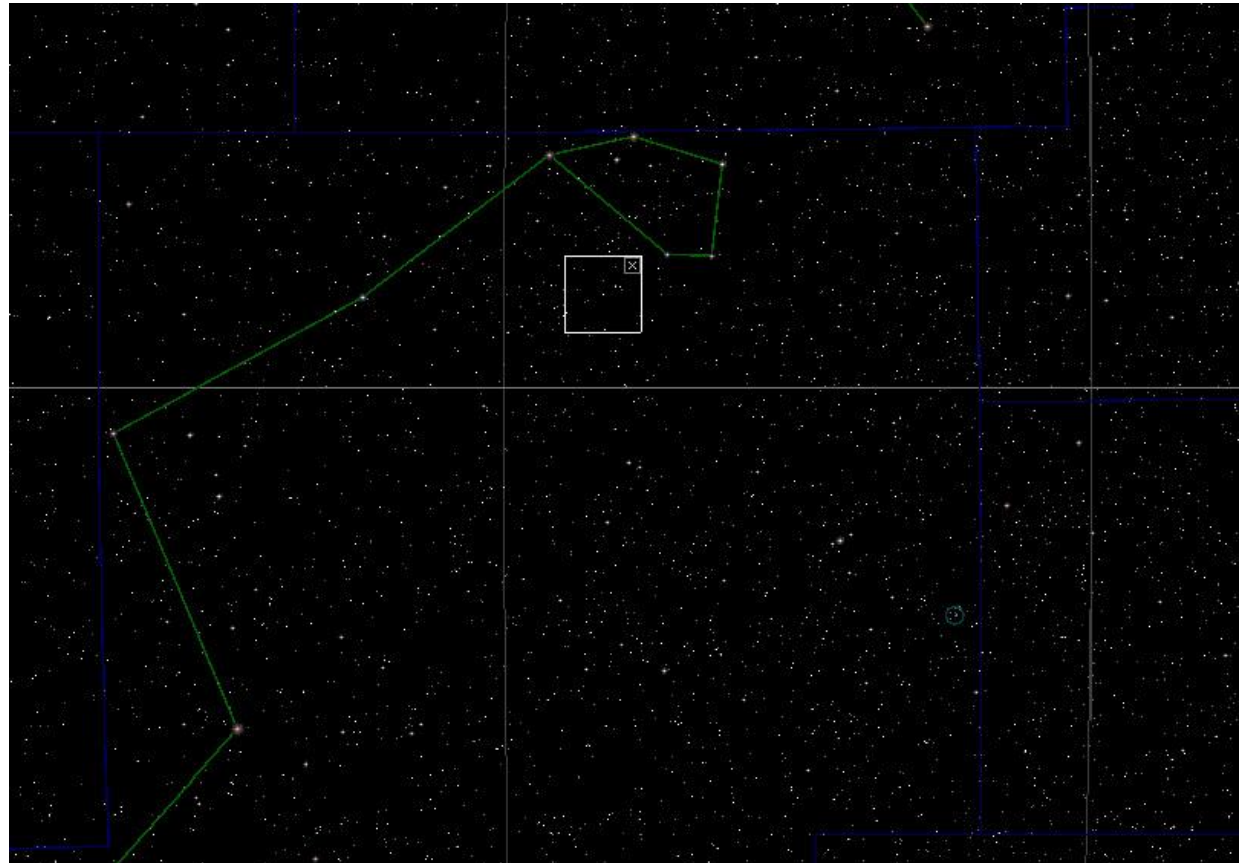
- **Juno and star HIP43357**
- **Nov 20, 2014 at 2-3 AM North Bay time**



FYI star is 7.24 magnitude (brightest for rest of 2014). IOTA will be contributing resources to support watching this event

Asteroid Occultation

- HIP43357/HD75407
- Magnitude 7.24 at 337 light years away
- Yellow subgiant star in Hydra (G5)
- Sky position: RA 8h 49.9m, Dec +2° 21.6′
- Moving at a speed of 51.9 KM/S relative to the sun with an orbit between 19300 and 31400 from galactic centre



Star Parties 2014

Book Now!

- New Moon in June: June 26-29 @ Mew Lake Campground
- Gateway to the Universe: July 24 - 27 @ Marten River Provincial Park
- August Star Party: Aug 21 - 24 @ Marten River Provincial Park (reservations not required)
- Half the Night: Aug 21 - 24 @ Halfway Lake (Book March 21)
- Algonquin Adventure: Sept 18 - 21 @ Mew Lake Campground (book April 18)

Wrap Up

- Did we capture everything you want to see?



Thank You!

