



# What'sup?

**The Royal Astronomical Society of Canada  
Belleville Centre Newsletter**

## Christmas Dinner 2018

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### Next Meeting

February 1<sup>st</sup>, 2019

Pioneer Building, Room P13

### Observing Night

TBD



Christmas dinner 2018, Greg Lisk (right) receives a gift of appreciation for his many years as Club President from current club President Dave Cotterell (left).

*Christmas Photos courtesy of Joanne B.*



Randy Boddam plays the flute while Donald Town enjoys the music.

Members of RASC Belleville enjoy a lovely Christmas dinner at the Beaufort Pub.

## Outa This World Humour

Living on Earth might be expensive, but at least you get a free trip around the Sun every year.

Question: How do you know that Saturn has been married more than once?

Answer: Because he has lots of rings!

Question: Why didn't the sun go to college?

Answer: Because it already had a million degrees!

Question: What did Mars say to Saturn?

Answer: Give me a ring sometime!

# What'sup?

## Photos of the Month



Comet 46P/Wirtanen, taken by Dave Billo on the night of December 9<sup>th</sup>, 2018 on its way to perihelion on the 12<sup>th</sup>. 46P is a short-period comet, (5.4yrs) discovered in 1948. On 16 December it made its closest approach to earth, passing 11,580,000 km from us. A five minute exposure @ 800ISO, using a Canon T3i on an 8" f4 Newtonian Astrograph, tracking on the comet nucleus.



Waxing gibbous moon taken on the 18<sup>th</sup> December by Steven Burr using an 8" SCT & f6 focal reducer with a Mallincam DS16C.

## Astronomy Facts

Going into space makes you weightless is fiction. It's only when you start falling that you'd feel weightless. If you were 250 miles above the Earth, you'd have to travel 17,500 mph around the planet to experience continuous free-fall — the same speed as the International Space Station and its inhabitants.

The Earth circles the sun at 29 km/second or 104,268 kph. The Earth along with our sun is moving towards Virgo at 19 km/second or 69,523 kph. The Earth along with our sun is moving around the centre of our galaxy at 322 miles/second or 1,158,727 kph. Our Galaxy is moving towards the Andromeda galaxy at 80 km/second or 289,681 kph. Other Galaxies are moving away from our local group of galaxies at 177 km/second 637,300 kph.

Jupiter circles the Sun is technically incorrect because Jupiter is so big. When a small object orbits a big object in space, the less massive one doesn't travel in a perfect circle around the larger one. In fact, no object in space has a perfectly circular orbit. Rather, both objects orbit in ellipses around a combined center — or halfway point — of gravity, called a barycenter. Weighing more than twice the mass of all the other planets, moons, asteroids, and comets combined. This moves its barycenter with the sun some 1.07 solar radii from the star's center, or about 30,000 miles above the sun's surface.

# What'sup?

## Club Minutes - December 2018

By Joanne B.

13 members present.

### PRESENTERS:

#### Speaker: Dave Cotterell:

"Look Up" featuring variable star Omicron Ceti (Mira) -- the first long-period variable to be discovered.

\* Dec. 6/7 -- Neptune very near Mars and appears blue in binoculars.

\* Geminids meteor shower peaks Dec. 13/14 (8 a.m. on the 14th) -- look before sunrise. Constellation Gemini is overhead at 1:00 a.m. on the 14th.

\* Dec. 16 -- Comet 46P/Wirtanen (discovered 1948). Look for it the night of Dec. 16 with binoculars (3 degrees east of the Pleiades.)

\* Dec. 21 -- winter solstice 5:23 p.m. EST

\* Dec. 21 -- Mercury and Jupiter less than one degree apart at 7:00 a.m.

\* Dec. 22 -- full moon, 12:49 p.m. EST

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#### Steve Burr:

RV Park near South Bay (P.E.C.) for possible new observing site with facilities, running water and bunkhouses.

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#### Dave Cotterell:

*Constellation of the Month* -- "Perseus"

Double stars in Perseus for small scopes: -- Eta Persei (naked-eye) and Theta Persei  
Other: M76 (the Little Dumbbell), NGC 869, Perseus Double Cluster, NGC 1245.

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Check out the STSd Digital Sky Survey.

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#### Greg Lisk:

Astronomy news.....

\* Nov. 26 -- NASA's "InSight" spacecraft safely lands on Mars.

\* NASA and SpaceX aiming to make commercial test flights in 2019

\* Scientists believe lemurs are the only primates with the ability to hibernate and may hold the key to possible future human hibernation on long-duration space flights.

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#### Annual club Christmas Dinner:

Sat., Dec. 15, 6:00 p.m. Beaufort Pub, Belleville.

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The End

## South Bay Rendezvous - June 2019

Club members mark your calendar, for the first weekend in June. RASC Belleville will be holding a daytime solar observation session along with an evening observation session in the South Bay Area on the 1<sup>st</sup> of June 2019. Rent a bunkhouse for the weekend or bring your tent/trailer. See you under the Stars!

Point of contact for this event is Steven Burr at [steveburr100@gmail.com](mailto:steveburr100@gmail.com).

