# Winnicentrics

**Newsletter of the Winnipeg Centre of the Royal Astronomical Society of Canada**

## Upcoming events

February 1, 2016
Last Quarter

February 8, 2016
New Moon

**February 12, 2016**
**RASC Monthly Meeting**

February 15, 2016
First Quarter

February 22, 2016
Full Moon

March 1, 2016
Last Quarter

March 9, 2016
New Moon

**March 11, 2016**
**RASC Monthly Meeting**

March 15, 2016
First Quarter

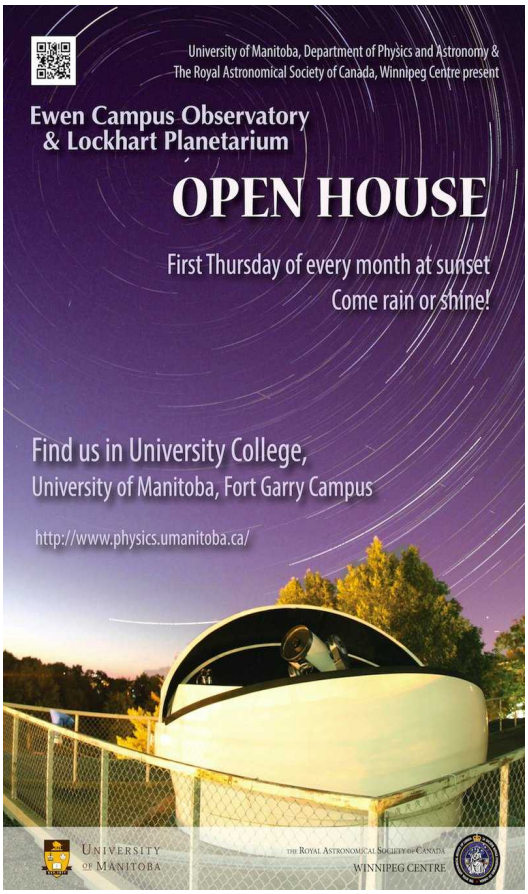
March 23, 2016
Full Moon

**April 8, 2016**
**RASC Monthly MeetIng**

**September 2-4, 2016**
**RASC Spruce Woods Star Party**

Regular meetings of the Winnipeg Centre are held in the Robert B. Schultz lecture theatre in St. John's College at the University of Manitoba. The theatre is on the lower (basement) floor of the College. Meetings are held on the second Friday of each month from 7 p.m. to 10 p.m. After the meetings, members who wish to do so usually retire for pizza and more conversation about astronomical subjects.

The June meeting is not held at St. John's College but is instead a barbeque at either a member's house or at Glenlea. Meeting dates and meeting places may be adjusted during exam times and during Bomber home games or stadium events.




## February Meeting Schedule

**Our meeting on Friday February 12 will be changed to Room 118 lecture theatre because of a last-minute conference booking at St Johns College. It is next door to our usual meeting room.**

Beginner's session – Brenden Petracek: Stars
What's Up? – Bryan Stach
What's New? – Jay Anderson
Constellation of the Month – Gail Wise: Cancer the Crab
Refreshment Break
Main Presentation – Mick Rice: Mysteries of Mars

For centuries, the red planet has captured our imagination, and after the "discovery" of canals in the nineteenth century, intelligent life on Mars became the accepted paradigm. Indeed, it was not until the early Mariner missions showed the surface as a barren and cratered desert that the question of life on Mars was thrown into doubt. Subsequent missions to Mars have only deepened the mystery, and the controversial discovery of fossilized bacteria within a Martian meteorite found on Antarctica made headline news worldwide. More recent missions to Mars have confirmed the presence of liquid surface water in the distant past, yet the confirmation of present or past life on Mars forever seems to elude us. Martian Mysteries will study the evolution of our knowledge of the red planet, including our most recent findings.

Pizza at Boston Pizza following the meeting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**Montreal is pushing for outdoor LED lights to reduce pollution.**

Scientists and Environmentalists have now discovered that light pollution could affect health and the ecosystem. Light pollution has been linked to an increased risk of sleep disorders, cancers, diabetes, mental problems and obesity. It can also affect wildlife who become confused by artificial light at night. It will cost $110 million to replace all the lights in the city. Montreal hopes to but the electricity bill in half and reduce cost by 55% which would total a savings of $278 million over 20 years. White LEDs come in a wide range of white colours. All of them contain a blue tone and it is this blue that increases light pollution and affects our health. Both the U.S. National Institutes of Health's National Library of Medicine and the American Medical Association have research that shows a increase of sleep disorders, diabetes, obesity, and cancer from exposure to light pollution. The International Dark-Sky Association has 5 criteria for responsible lighting: lighting should only be used when needed; light only the area that needs it; light should not be brighter than necessary; blue-light emissions should be minimized; and light should be pointing downwards.

http://montrealgazette.com/news/local-news/montreals-push-for-outdoor-led-lights-isnt-just-a-night-sky-problem-its-unhealthy-scientists-warn

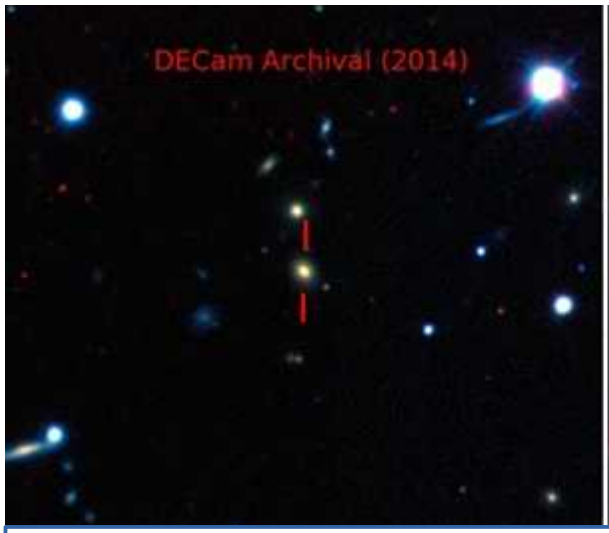
Photo above: Using a Canon EOS Rebel, Pentax 135 mm lens, and a 4-1/2 minute exposure

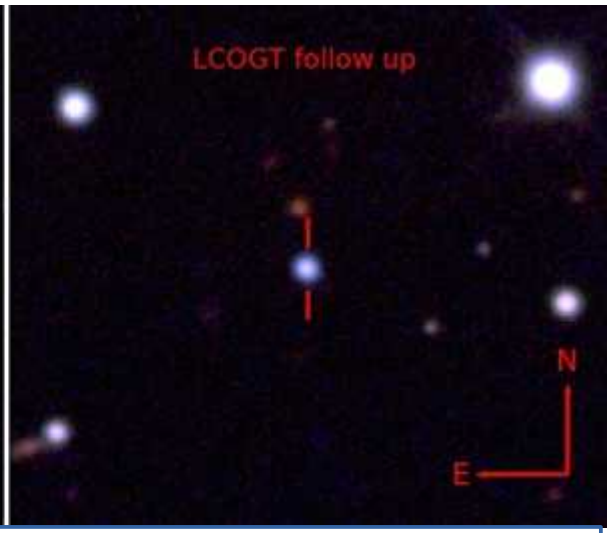
Photo by: Davidian Chorley (Winnipeg, Manitoba)

Photo above: M42 and NGC1973, 72 30" subs, no guiding, no darks, no flats; using a NP101 on the EQG (EQ6).

Photo below: M27 from Mark's POD processed using Pixinsight only for processing with 30 X 300" lights, darks, and flats.

Photos by: Mark Irvine (Winnipeg, Manitoba)




**The brightest supernova ever seen has been discovered.**

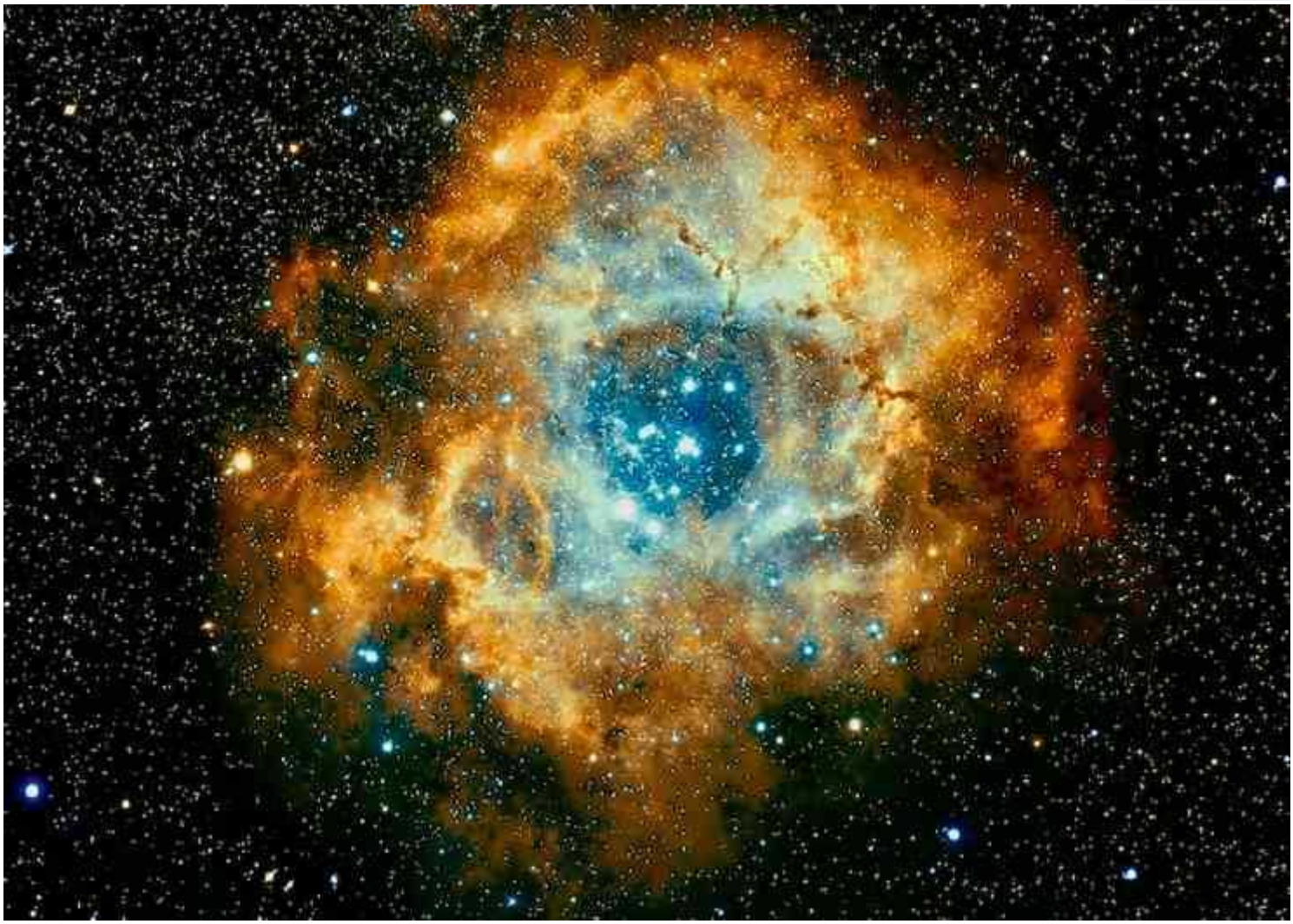
There is an unusual object powering the supernova could change what we know about dying stars. The photo above left from the Dark Energy Camera was taken before the explosion of ASASSN-15lh. The photo above right from the Las Cumbres Observatory Global Telescope Network 1-meter telescope network of the supernova. The supernova was 20 times brighter at its peak and is the brightest supernova ever observed at twice as bright as the previous record-holder.

http://www.astronomy.com/news/2016/01/brightest-supernova-ever-seen-pushes-theoretical-models-to-the-edge

Photo top of page: Perseid meteor shower composite. The two of the brightest meteors were not part of the Perseid shower. This image shows that there is another shower occurring at the same time, and numerous meteors point to the other radient spot.

Photo by: Stan Runge (Winnipeg, Manitoba)

Photo left: Comet Catalina as it passes by Arcturus. Using a 5x1 min exposures at ISO 3200 with a Canon 69da William optic star 71.

Photo right: Rosette Nebula taken with a DSLR. The image was done by putting the small low resolution jpeg file into GIMP and using channel mixer which alters colors by mixing RGB channels and playing with each red blue and green

Photos by: Sheila Wiwchar (Winnipeg, Manitoba)