



# Winnicentrics

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

JANUARY 2015

## UPCOMING EVENTS

Next meeting:  
January 9

Members Observing Night:  
January 10

Quadrantid Meteors  
January 4

Earth at Perihelion  
January 4

Best view of Mercury in the evening  
January 14

Mercury-Venus-Moon at sunset  
January 21

Triple satellite shadow transits on Jupiter  
January 24

RASC Winter Potluck  
January 24

Conjunction of the Moon & Uranus  
January 25

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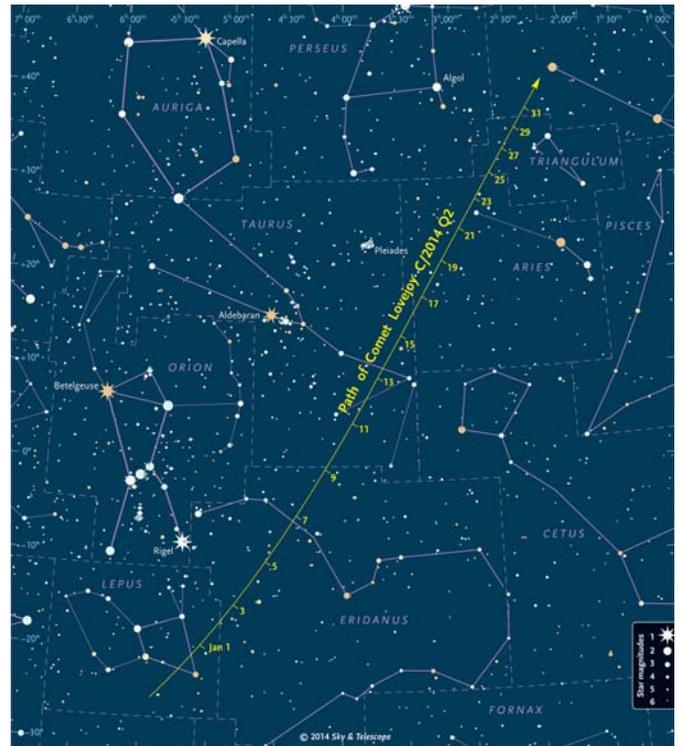
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## Three Planets and a Comet

The next month is setting up to be an interesting one, with Venus and Mercury playing orbital tag in the sunset sky while Comet Lovejoy brightens and moves northward past Orion. At the moment, Lovejoy is a magnificent green object with a long and spindly blue tail. On New Year's Day, the tail was more than 6 degrees long and the nucleus was visible to the naked eye at a magnitude of 4.6. It's likely that the comet will reach 4th magnitude on January 10th when it is at its brightest. The finder chart at the right, from Sky & Telescope, shows the motion of Lovejoy through January.

Venus and Mercury are now climbing higher in the evening twilight, with much brighter Venus above and to the left of its dimmer fellow traveler. On January 12, the two will be at their closest, with Mercury less than a degree to the right.

After the 12th, Mercury gradually begins to sink back toward the horizon, while Venus climbs. The thin, crescent moon will join them on the 21st, with all three of the bodies forming a 5°-wide triangle. On the following night, the Moon will pass 1st-magnitude Mars.



Track of Comet Lovejoy during January (Sky & Telescope)



Sheila Wiwchar caught a glimpse of Comet Lovejoy on December 30.

## So You Want to be an Astronomer?

January's meeting has something a little different—aside from the elections, that is. We'll be hosting a quiz contest modelled on the old TV program "So You want to be a Millionaire?" We won't be awarding a million bucks, but some lucky "expert" will go home with an Optec camera tracker; there will be smaller prizes for less "fortunate" participants.

Names of participants will be picked from a hat, and each contestant will be allowed the usual three helplines: "ask an expert," "ask the audience;" and "50-50" (in which half of the allowable answers are eliminated).

How tough are the questions? Well, try this one:

*In what year did supernova 1987a explode?*

If that one doesn't present you with any astronomical challenges, then you are a candidate for "So You Want to be an Astronomer?" Get ready to put your name in the hat and prepare to challenge for **Astronomer Royal** of the Winnipeg Centre.



*Few objects are as difficult to see and as easy to photograph as the Horsehead Nebula in Orion, just under the belt stars.*

*Winnicentrics* is published six times each year by the Winnipeg Centre, RASC. *Winnicentrics* is produced by and for the members of the Winnipeg Centre, and any opinions expressed are those of the author. If you have comments, questions or concerns about *Winnicentrics*, you can contact any of the councillors or write to RASC, Winnipeg Centre, Box 2694, Winnipeg, MB, R3C 4B3



*The Pleiades star cluster is one of the highlights of winter's skies. In this long-exposure image, the blue nebulosity surrounding the cluster tells of immense quantities of dust and gas in the surrounding galaxy.*

## Catch a Cold-Weather Aurora



The Sun has just passed solar maximum in its 11-year cycle and is in the early stages of its decline in about 2020 or 2021. It hasn't been a big maximum, but the auroral activity has been very rewarding for Centre members. There is some evidence that aurora are most frequent on the declining stage of the cycle, and so the next three or four months are likely to be the best for aurora-watching for the next decade.

Aurora-watching is dead easy: you just have to go out at the right time. That in itself is easy thanks to [spaceweather.com](http://spaceweather.com) and to [Space Weather Canada](http://SpaceWeatherCanada.com), both of which offer information about current conditions and short-range forecasts. Dark skies are pretty much mandatory, as bright auroras visible from the city are very rare. And because they are usually seen to the north, a location on the south side of the city (such as Glenlea) doesn't work very well. We prefer to go to Cedar Bog Trail at Birds Hill Park for our aurora observing.

## About RASC Winnipeg Monthly Meetings

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 beginning at 7 p.m. and ending around 10. After the meetings, members who wish to do so usually retire to the local Boston Pizza for more conversation about astronomical subjects.

Meetings begin with a half-hour Beginner's Session and then go on to the regular meeting, though, in fact, the Beginner's Sessions are popular with the whole of the Centre's members. After an hour, the meeting usually breaks for a half-hour for coffee and cookies, resuming, about 9, with a main speaker or event.

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.

# Notices



## The Meade 12-inch telescope at Glenlea

### Telescope Loans

The club has a number of telescopes available for members in good standing to borrow. If you don't have a telescope of your own, or if you have one, but want to try something different, this program may have something for you. If you would like to borrow a telescope, go online to the Winnipeg Centre site and fill out the rental form

or come to a meeting and make arrangements in person. Equipment can be checked out for periods up to one month in length.

### Glenlea Observatory Telescope

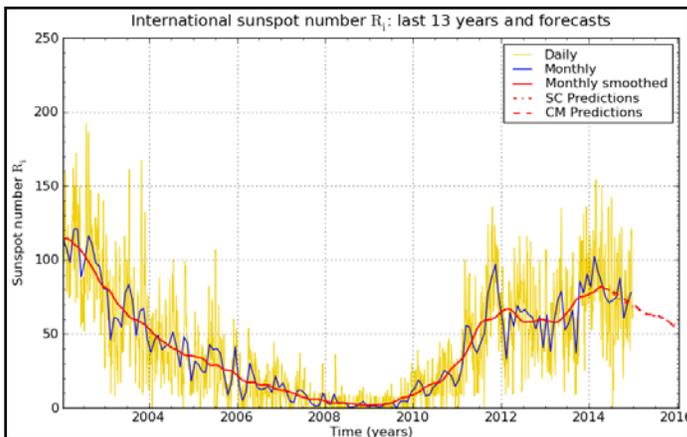
The Glenlea Observatory is equipped with a computerized Schmidt-Cassegrain telescope with a 12" objective lens that is available for club use.

This provides a fantastic opportunity for members who would like to do some serious observing, while avoiding the thousands of dollars it would cost to procure such high-end gear. The telescope is computer controlled and mounted in the dome.

As with all specialized, high-tech equipment, it can feel somewhat daunting to jump head-first into using it. Fortunately, we have a training course available for members who would like to make use of the telescope dome at Glenlea. Talk to one of the councillors to get the details.

### The Warm Room

All Centre members are entitled to use the warm room at the Glenlea Observatory site. A small refundable deposit is required to get a key to the facility. The key also opens the Observatory building and gives members access to the washroom.



*The current sunspot cycle is now on a gradual downward trend according to this prediction from the Royal Observatory of Belgium. The current peak is unusual in having a double peak in which the second peak is stronger than the first. Overall, however, cycle 24—the current cycle—was one of the weakest in the last 70 years.*

## January 9 Meeting Schedule

7:00-7:30 **Beginner's Session:**

7:30-8:30 **Announcements**

**What's New?**

new discoveries in astronomy

**What's Up?**

coming events in the sky

Centre Council elections

8:30-9:00 **Break for refreshments and gossip**

9:00-10:00 **So You Want to Be an Astronomer?**

(a game show with spiffy prizes!)



*The Andromeda Galaxy (Messier 31) is the brightest galaxy visible from the Northern Hemisphere, exceeded only by the Magellanic Clouds that can only be seen from the south of the equator. In a dark sky, M31 is easily visible to the eye, lying beneath the W-shape of Cassiopeia in the fall and mid-winter months.*

*Two companion galaxies can be seen in this image, M32, to the left of the nucleus, and M110, above and right. In this image, the full Moon would be about 1/4 the size of the galaxy.*

*The Andromeda Galaxy lies about 2.5 million light-years from the Earth and is on a course that will bring it into collision with the Milky Way in a little under 4 billion years. It is a massive galaxy, about the twice the mass of the Milky Way, and containing about a trillion stars. The dust lanes are easily visible in a small telescope and perhaps even in large binoculars, making this Messier object one of the sky's highlights.*

## Winnipeg Centre Officers & Volunteers

<b>President</b>	Andrea Misner
<b>Vice President</b>	
<b>Past President</b>	Kris Keller
<b>Treasurer</b>	Jay Anderson
<b>Secretary</b>	Stan Runge
<b>National Rep</b>	Jennifer West
<b>Councillors</b>	Bryan Stach
	Kris Keller
	Brenden Petracek
	Silvia Graca
<b>Observatory Director</b>	Bryan Stach
<b>Winnicentrics Editor</b>	Jay Anderson
<b>Webmaster</b>	Julius Lopez-Garcia
<b>New Member Liaison</b>	Dennis Lyons

## January Elections

Winnipeg Centre elections will be held at the January meeting. The positions of President and Vice-President are open, as are several Council positions. Election for both Secretary and Treasurer may be necessary if current candidates are elected to other offices.

In addition to the formal positions, there are several other task-related duties for which members can volunteer and which are confirmed by Council agreement. These include observatory manager, web manager, *Winnicentrics* editor, loaner-scope administrator, and new-member liaison.

Candidates for executive office are elected for 2-year terms, councillors for 3-year terms, with limits on the number of terms in each position for which an individual can be elected. Positions for Treasurer and Secretary are elected but have unrestricted tenures.

A Nominating Committee has been struck to find candidates for the open positions, but nominations are welcome and encouraged from the floor. If you know a member who you think would be suited for one of the positions, you may nominate them at the meeting or let Stan Runge (stanrunge@hotmail.com) know that you are advancing their name for a Council position. Candidates must be members in good standing and, of course, agree to let their name be placed into consideration.



*The Zodiacal light is always with us in a dark, moonless, night sky, but from February to April, it is especially easy to spot after evening twilight ends. Look to the west, and look for a faint, white, shaft of light, about the brightness of the Milky Way, stretching straight upward or at a slight angle from the horizon. The Zodiacal Light is formed by dust particles in the plane of the Earth's orbit (i.e. along the Zodiac) that reflect the Sun's light toward the observer.*

University of Manitoba, Department of Physics and Astronomy & The Royal Astronomical Society of Canada, Winnipeg Centre present

**Ewen Campus Observatory & Lockhart Planetarium**

**OPEN HOUSE**

First Thursday of every month at sunset  
Come rain or shine!

Find us in University College,  
University of Manitoba, Fort Garry Campus

<http://www.physics.umanitoba.ca/>

UNIVERSITY OF MANITOBA  
THE ROYAL ASTRONOMICAL SOCIETY OF CANADA  
WINNIPEG CENTRE