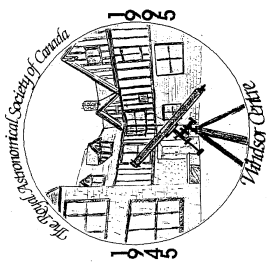




AURORA



January 2013

The Royal Astronomical Society of Canada - Windsor Centre

Volume 38, No. 4

Some mundane tasks have happy endings. We are fortunate, our group, that we think to look up when we go out on cold clear mornings to take in the beautiful sight above us. Such was the case yesterday (December 11th) as I went out to recover our just emptied garbage can and pick up our newspaper at the end of the driveway and looked up to behold a startlingly clear conjunction. Two planets and the Moon greeted me with a beautiful sight to the east and another planet sinking in the west just sparkled! The Moon had company what with Venus above and Mercury below, just peeking through the trees near my house. Outside the sky dazzled and the air was cold and crisp. It made for a beautiful conjunctive sight.

Text and Photos by Art Rae (see page 6 for image with Mercury)



First view of the Moon and Venus when I stepped outside about 6:15am.



And later as the sky lightened

In This Issue

A Planetary Conjunction	Cover & Page 6
Events; Housekeeping Items	Page 2
November Meeting Minutes	Page 3, 5 and 6
Hallam Happenings	Page 4
2013 Council of the RASC - Windsor Centre	Page 5

Calendar of Events

Our next meeting...

Tuesday February 19, 2013

7:30 p.m.

at

Ojibway Park Nature Centre

5200 Matchette Road

Main Speaker...

TBD

Topic...

"TBD"

Activities...

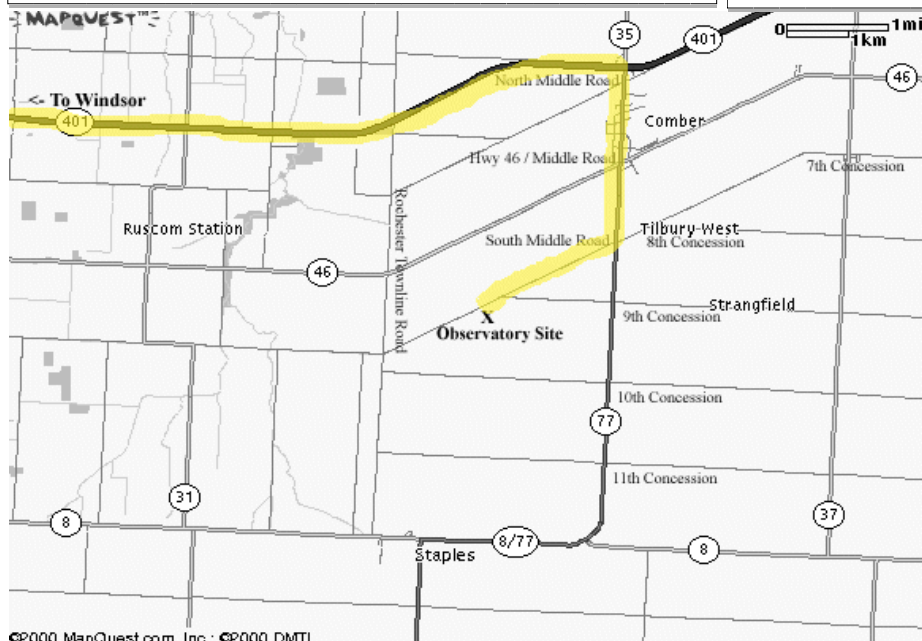
Open House Night at Hallam: The next open house night at Hallam is on Saturday January 19 at 7:00 p.m..

Conjunction #1: The **Moon and Jupiter** will be less than a degree apart on the night of January 21.

Conjunction #2: **Mercury and Mars** will be very low in the SW just after sunset on February 8 when they will be 24 arc minutes apart and fit within a telescopic field of view.

Council Meeting: Our next Council meeting will be held on Tuesday February 12 at Dr. Pierre Boulos' house. The meeting will begin promptly at 7:30 p.m..

Mercury: Will be at its' best on February 16 but will still be close to the horizon even though this is one of the better evening appearances of the year.



Hallam Observatory Site

Directions: The map at left shows the Comber area and it includes the major highways (401, 77, 8 and 46) that are in the area of the observatory.

The most direct route from Windsor is "highlighted" on the map which is to take Highway 401 East to Highway 77 South to South Middle Road. Turn right onto South Middle Road and go about 1 kilometer and just after the point where Concession 9 joins it (it is hard to see this intersection) you will find the observatory site on the South side (left) of the road. 3989 South Middle Road.

If you hit the Rochester Townline Road (you come to a stop sign) you have gone too far.

Submissions

Aurora is published monthly except for July, August and December. The September, October, January, March and May issues are full newsletters (usually 6 pages) with a number of member submitted articles. The November, February, April and June issues are short flyers (2 pages).

Submitted articles can be of any length from a paragraph to multiple pages. I can scan pictures and/or diagrams (both prints and film) to support your article and the originals will be returned to you.

Submission deadline is the 1st of the month.

Editor: Steve Mastellotto Email: mmastellotto@cogeco.ca

Membership

The Windsor Centre of The Royal Astronomical Society of Canada meets on the 3rd Tuesday of every month (except July and August) at the Ojibway Park Nature Centre. In addition to regular meetings the centre hosts a number of observing nights, a picnic and a December social. Members receive a copy of the Observer's Handbook, a subscription to SkyNews magazine and access to the Centre's library and telescopes. Optionally the RASC Journal is available in print form—online version free.

Annual Membership Fees: Please see the RASC website at www.rasc.ca for current rates.

Contact Greg Mockler at (519) 326-7255 or visit our website at: <http://www.rascwindsor.com> for more information.

November 2012 Meeting Minutes by Art Rae

The monthly meeting of The Royal Astronomical Society of Canada - Windsor Centre was held at the Ojibway Park Nature Centre on November 20, 2012.

Windsor Centre **President Paul Pratt** chaired the Meeting. Paul called the meeting to order at 7:34 p.m. and welcomed members and guests to the Ojibway Nature Centre.

A **motion to accept the Minutes** of the October 16, 2012 General Members Meeting was made by Pierre Boulos, seconded by Rick Marion. **MOTION CARRIED**

RASC Windsor Centre Historian, Randy Groundwater, has set up a display of Centre artifacts for viewing at the Break.

Annual Elections: Past President, Dr. Pierre Boulos was called to carry out the election for the 2013 Windsor Centre Officers and Council and to announce the appointed positions. Pierre presented the proposed list of positions for the executive then opened the floor for further nominees:

President: Rick Marion. No other nominees for the position came forward. Motion to close nominations for the office of President moved by Brian Thomas, seconded by Brian Blake. **CARRIED.**

Pierre continued in similar fashion for the following positions:

First Vice-President: Brian Thomas. Motion to close nominations for the office of First Vice-President moved by Susan Sawyer-Beaulieu, seconded by C. Joady Ulrich. **CARRIED.**

Second Vice-President: Sue Iihola. Motion to close nominations for the office of Second Vice-President moved by Steve Pellarin, seconded by Al DesRosiers. **CARRIED.**

Secretary: Matt McCall. Motion to close nominations for the office of Secretary moved by Paul Pratt, seconded by Rick Marion. **CARRIED.**

Treasurer: Greg Mockler. Motion to close nominations for the office of Treasurer moved by Brian Thomas, seconded by Susan Sawyer-Beaulieu. **CARRIED.**

National Council Representative: Mike Mastronardi. Motion to close nominations for the office of National Council Representative moved by Greg Mockler, seconded by Al DesRosiers. **CARRIED.**

Past President position will automatically be held by Paul Pratt.

Windsor Centre Council:

Dr. Pierre Boulos	Tina Chichkan
Randy Groundwater	Steve Mastellotto
Dave Panton	Steve Pellarin
Paul Preney	Dr. Susan Sawyer-Beaulieu
Dan Taylor	C. Joady Ulrich

A motion to close nominations for Windsor Centre Council moved by Brian Thomas, seconded by Randy Groundwater. **CARRIED.**

A full list of **Officers, Councilors and Appointed Positions** for 2013 can be found on page 5.

Pierre closed the session with thanks to outgoing executive members President Paul Pratt and Secretary Arthur Rae.

Paul introduced the guest speaker **Rick Saunders, President of RASC - London Centre, A History of the Fingal Observatory:** The Fingal site of the London Centre Observatory is situated on provincial property, a former air force training base, approximately 35 km SSW of London. This was the third try at attempting to establish an observing site. In 2007 work started on clearing a pad on an old fuel truck parking area. In 2008 an 8'x12' warming room was constructed. The first month after construction the building was shot up with buckshot. After an appeal to the Elgin Stewardship Council, the overseers of the property, no further gunshot damage was incurred.

In June 2011 three piers were installed, two for a pair of telescope sheds and one between them for public use. By October 2011 the buildings sat unfinished till a work crew was called to do the construction of plywood walls and weather seal the two units. With concern of further damage to the door of the warm-up building a steel door was installed. As there are no services available to the site battery power was installed in the warm-up building to serve that building and the two telescope sheds. A 12vdc 300 watt service to the warm-up room provides power to a workstation laptop computer. Telescope mount power includes a high current 12vdc circuit for telescope drive, anti-dew power, DSLR 8vdc and 5vdc USB hub. The floor is click together foam and the pier is a donated Astrophysics unit.

Grand opening was held in October 2012. By then the warm-up room had solar cells to charge the battery, a propane powered gas heater and a 12Ga power line USB feed to both observatory buildings.

It took over four years to build shed number one from the first mixing of the cement foundation to the first Open House. As no one wanted to build the second building a vote was taken to contract out the second shed. It was built by the Skyshed company for \$6,100 in only 9 hours. It is the only Skyshed with steel walls to match the first shed. The telescope for the second shed will be a 15" Discovery instrument. The public pier located between the two observatory sheds which are only 10' apart was deemed not practical and will be taken away.

After the presentation Mr. Saunders answered questions from the audience.

Q.1. What type of scope will be installed? A 12" Astrotech R-C for observatory 1 and a 15" Discovery for observatory 2

Q.2. What is your maintenance budget? We haven't estab-

(Continued on page 5)

Hallam Happenings by Dave Panton

Winter has not been kind in providing those wonderfully clear sparkling dark moonless nights we all hope for on the long dark Winter nights when it is possible to start observing early and still go home at a reasonable hour. Open houses have suffered as a result but no matter, visitors still come out to see our observatory and enjoy the presentations given both outdoors and in. It is not unusual to find people have been to Hallam before and for new visitors, many want to return.

Nor is it unusual to hear visitors say they had been out this way before but had never been able to find our observatory. Even when signs are out on the road visitors sometimes pass by, turn around and drive in to enjoy their first visit. Snow has only blocked drive in access a few nights and even those it was not knee deep as it is sometimes when strong winds blow deep sweeping drifts around Moe's machinery storage building. In those instances there is lots of parking along the edge of the road as it is plowed nice and wide.

The main event in the Fall of 2012 was the Geminid Meteor Shower witnessed from the Hallam deck by Al DesRosiers, Steve Mastellotto and Larry Burgess. The shower provided a good display with about 20 meteors seen in a 1 hour period. Those of us who saw the great Leonid shower some years ago will likely never see another to compare.

Some time back after a heavy snow blew into the dome via shutter openings the dome rotation park position was changed to place the shutter in a more protected position. Nevertheless it is necessary to place the plastic cover over the telescope during the winter. The shutter must never be fully closed or it will freeze shut and if it does, there is little to be done but to wait for a warm day to open it.

Recently two members arrived to find the padlock frozen solid. Fortunately they had some lock deicer on with them and opened it easily. It was soaked in anti-freeze and seems ok since. The two were Dave Panton with his IR equipment for a brief trial and Juliana Grigorescu on a rare visit with her Nikon D50 camera which she used to take some nice shots of Caldwell C13 in Steve's AT111 refracting telescope. That was the heaviest snow night and all equipment was hauled in on her daughter Amalia's sleigh.

On the grand night of January 9th 2013, Hallam had a whole se-

ries of interesting happenings. The C14 was used by Steve Mastellotto to take some video sequences of Jupiter with his new PGR Flea camera which were then processed into still images. Outside, Scott Stuckless took a three hour set of fish eye images that he combined into a time-lapse movie showing a great sky with all manner of air traffic zipping every which way, Orion was rising rapidly from the East and thin passing clouds caused brighter stars to "flare" in an unusual manner. Back inside Brian Thomas used the C14 after Steve was done to take a two hour string of images later stacked and processed to show the reflection nebula NGC 1977 in all it's glory. Larry Burgess was also on site with his big refractor for the evening.

When Brian was finished, Dave Panton carried on using the C14 and successfully found it was possible to find and accurately centre stars at high elevations with a custom made illuminate reticule holder and then set an IR detect diode in it's place to detect Infra

Red starlight. This took the time well past midnight when it was noticed an OPP car was parked North of the observatory on Highway 46, all lights blazing for over an hour. On departure after 2:00 a.m. more OPP vehicles were noted in and around Comber. Over the next three days the Windsor Star reported details of a home invasion on Main Street Comber just past midnight.

Recent trips to Hallam have been a pleasure in passing by the Comber Truck Stop as it is now lit as it should have been when first built without

any bright lights facing motorists passing by. The two tower lights have been switched off. We do not know the circumstances nor do Lakeshore building department officials who are still pressing the contractor to change the lights to full cutoff type. Far to our SSE a major flare of light shows in the ground haze. Matt McCall found it was at least several kilometers distant but it does not look that far from Hallam. Some think it may be a flower greenhouse pushing Easter flowers to blossom for sale.

The only piece of equipment giving a little trouble at Hallam was the AT111 light box used in astroimaging. It's light was not consistent via a poor solder joint. Repairs were made, fresh batteries installed and it is back in service. No other problems are evident anywhere at this writing. We have a very fine facility that is under used. Qualified members should seriously consider obtaining a key to use the observatory. It is not as complicated as it looks and there are people always willing to assist new Hallam observers.



Image by Brian Thomas of the reflection nebula NGC 1977 - The Running Man in Orion. Captured January 9, 2013 using the C14 at Hallam and Brian's Canon 5D. Total exposure was 2 hours at ISO 800 and processed with ImagesPlus.

November Meeting Minutes

lished that yet, starting with \$5,000 to see. We can't get insurance for a building ungated out in the bush.

Q.3. How did you raise all the funds needed? GICs were already in our account, bequeathed to us. We have more in the bank than what it all cost.

Q.4. How many members are in the London Centre? One hundred and fifty members.

Q.5. How many members are using the site on a regular basis? Twenty, hopefully more now.

Q.6 Who's pushing to have the observatory, mainly astrophotographers? Yes, but we did stipulate it is not an astrophotography observatory. We want this to be the focus of all our outreach.

Q.7. How far off the main road is it, what do you do about snow clearance. The Elgin Stewardship Council plows the driveway.

Q.8. How are you set up for washroom facilities? A Ministry outhouse is located about 300 meters away, we bring in portables for special occasions.

Q.9. What is the limiting magnitude at the site? It is classed a 4 area. I see 6th magnitude towards the south.

Q.10. Are there problems with dew off the lake? Yes, we use active anti-dew equipment.

Q.11. How are the mosquitoes and coyotes? They are out there, also deer and bobcats.

Q.12. Was there ammunition found there? No, the military exercises were training, no ammunition used on site.

Q.13. How long does it take to get there from London? A 45min drive from my house.

Paul thanked the guest for his presentation and invited the members for refreshments and further questions for Mr. Saunders.

Announcements: The **Annual Holiday Dinner** will be December 7th, a pot luck supper held at the Ojibway Centre, starting at 6 p.m., meal at 7 p.m., gift exchange of \$10.

Next **Hallam Observatory Open House** is December 15th, Pelee Night on December 14th, meeting at the DeLaurier parking lot.

Randy Groundwater raised the concern of a conflict of dates of our Open House nights and those of **Point Pelee Dark Sky Nights** stretching the resources of our volunteers who help out at those functions.

Paul Pratt noted that some **astronomy books have been donated**

2013 Council of the RASC - Windsor Centre

Elected Officers

President	Rick Marion
1st Vice-President	Brian Thomas
2nd Vice-President	Sue Iihola
Secretary	Matt McCall
Treasurer	Greg Mockler
National Council Rep.	Mike Mastronardi

Councilors

Dr. Pierre Boulos	Tina Chichkan
Randy Groundwater	Steve Mastellotto
Steve Pellarin	Dave Pantan
Paul Preney	Dr. Susan Sawyer-Beaulieu
Dan Taylor	C. Joady Ulrich

Appointed Officers

Honorary President	Dr. William Baylis
Past-President	Paul Pratt
Librarian	Dr. Pierre Boulos
Recording Secretary	Matt McCall
Public Education Director	Matt McCall
Public Relations Director	Sue Iihola
Directors of Observing	Juliana Grigorescu
	Matt McCall
	Steve Pellarin
Light Pollution Abatement Dir.	Dan Taylor
Hallam Observatory Director	Dave Pantan
Aurora Editor	Steve Mastellotto
Webmaster	Steve Mastellotto

to the Centre and are available for loan from the Librarian.

Randy Groundwater announced that a **person has offered three small telescopes for anyone** that could give them to a young person interested in astronomy. There is also a collection of astronomy magazines. Contact Randy for further information.

Dave Pantan requested that **members don't throw out old astronomy magazines** but donate them to the Hallam Observatory for handouts to groups that attend there.

Break and 50-50 Draw: Winner of the 50-50 Draw was Al DesRosiers.

Director of Observing Report, Matt McCall: Matt started the presentation with a summary of Public Education events that have taken place this year. He requested input from those who

(Continued on page 6)

November Meeting Minutes (continued)

had attended the Point Pelee Dark Sky Nights. Randy Groundwater commented that the Pt. Pelee DeLaurier site is much darker than our Hallam site, excellent site.

Although not many requests in January from outside groups to provide talks and presentations, in February a presentation was made to the Windsor Sparks girls organization.

In April we participated in Earth Day at Malden Park with members manning a display area and the night before Steve Pellarin setting up his big telescope there. Randy Groundwater hosted 50 kids with assistance of Rod Clarke and Brian Thomas at Hallam for the event.

In June for the Venus Transit telescopes were set up on the riverfront in Windsor handing out our supply of solar viewing glasses from National with hundreds of people attending as well as at Hallam Observatory and Pt. Pelee. That was the highlight of the year.

In July at Hallam Open House 50 people showed up. All open House events have been busy with a cross section of young and old.

On August 1st Matt McCall gave a lecture on light pollution and astronomy to a campers group. On August 24th Pt. Pelee asked for help at an international youth camp to do an astronomy presentation. Steve Pellarin and Susan Sawyer-Beaulieu did a sky talk, inside demonstration and telescope viewing session.

The Centre participated in the Science Centre Robotics Night.

For the University of Windsor Science Rendezvous Day in May Centre members set up an information booth and because weather was poor for observations, set up a telescope on an image of Saturn to demonstrate the instrument. A spectrograph was

demonstrated. Volunteers included Steve Mastellotto, Steve Pellarin, Randy Groundwater, Susan Sawyer-Beaulieu.

Windsor members attended the London Centre meeting at university of Western Ontario Hume Cronyn Observatory to meet Canadian astronauts there.

In November the Centre hosted a presentation at Hallam Observatory for Belle River Beavers, Scouts and Girl guides. Although it was a cloudy night a Powerpoint presentation on astronomy and Observatory imaging was given.

Director of Observing Report, Juliana Grigorescu: Juliana showed the November sky map the rising autumn constellations were pointed out. For December it was pointed out to note the rotation of the Milky Way with Orion crossing the meridian. Coming events include:

- Nov. 17th will bring the Leonid meteor shower.
- Nov. 26-27 is the conjunction of Venus and Saturn. Also note in the predawn sky a view of Mercury.
- Nov. 28th is a partial lunar eclipse visible in western Canada.
- Dec. 3-4 note the alignment of Mercury, Venus and Saturn
- Dec. 11 the three planets will be joined by the Moon.
- Dec. 13 the Geminid meteor shower will take place in a moonless sky, a good shower with numerous long trails.
- Dec. 21 is the Winter Solstice, also the "Mayan End of the World".
- Dec. 25 Jupiter, the Moon and Pleiades are in conjunction.

Paul thanked the Members for coming out and hoped they would join us for the December 7th Annual Holiday Social.

The meeting was **adjourned at 9:55 p.m..**



In this wide view the Moon and Venus are to the upper right and Mercury to the lower left just before the clouds seen bottom right started to fill in the sky.

[Editor's Note: I have added a gold circle to pick out Mercury amongst the tree branches]