



AURORA



Volume 30, Number 5

The Royal Astronomical Society of Canada - Windsor Centre

March 2005

Notes from the Hallam Logbook by Randy Groundwater

It has not been much of a winter, weather-wise, for stargazing. Clear nights have been few and far between, and those have been bitter cold. At the observatory, what few bookings we've had for visiting groups in January and February were cancelled due to severe weather.

At our first monthly open house for 2005, held on January 15th, the weather was (surprise!) poor as well, and Al DesRosiers and I held the fort by ourselves for most of the evening. Things have to turn around soon!

Open Houses are scheduled one Saturday evening for the rest of the year, and for those of you who do not have easy access to the centre's website, here is a listing of the dates:

February	19th at 7:00 p.m.
March	12th at 7:30 p.m.
April	16th at 8:30 p.m.
May	14th at 9:30 p.m.
June	11th at 9:45 p.m. (See below)
July	16th at 9:30 p.m.
August	13th at 8:30 p.m.
September	10th at 8:00 p.m.
October	8th at 7:00 p.m.
November	5th at 7:00 p.m.
December	10th at 7:00 p.m.

The open house evening of June 11th coincides with our Annual Picnic at the observatory. More on this to come.

Also to note is that for one hour prior to the times listed on open house evenings, there is an orientation for those who wish to become keyholders and have access to the Henry Lee telescope. To be eligible, you must be a member in good standing of the Windsor Centre for a minimum of one year and, following the orientation, pay the (annual) access fee of \$40.00. You get your key at the end of the orientation.

Fees collected go to the maintenance costs of the observatory. Currently we have about 27 members who support the observatory in this way, and get access to a first-class observatory in return. A great deal!

Incidentally, the orientation is also perfectly suitable for those who already have their key, who might just want to brush up on their knowledge of building procedures, or telescope operation.

Randy Groundwater

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Calendar of Events

Our next meeting...

Tuesday, March 15, 2005 8:00 p.m.
at
K of C Maidstone Recreation Centre
10720 County Road 34 (Old Hiway 3)
just west of beautiful downtown
Maidstone (and the railway crossing)

Main Speaker...

TBA

Topic...

TBA

Coming Events

Centre Observing Night/Open House:

February 19, 2005

7:00 p.m.

March 12, 2005

7:30 p.m.

*In the coming weeks, Comet Machholtz approaches
Polaris.*

March 3: Moon occults Antares

March 12: Mercury at greatest elongation, bright but
starts out setting low in the west

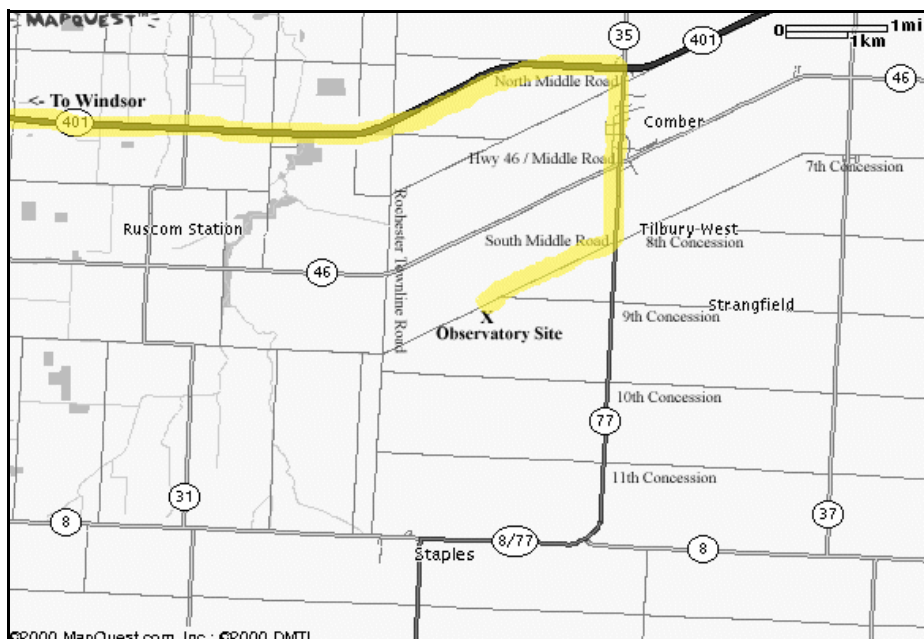
March 19th: Pelee Island Winery at the Observatory

April 16th: Astronomy Day 2005 (tentative)

May 20-23: General Assembly 2005 - Kelowna BC

June 7th: Council Meeting

June 11th: Annual Picnic/Open House



Hallam Observatory Site

At left is a map showing the Comber area and it includes the major highways (401, 77, 8 and 46) that are in the area of the observatory. I "highlighted" the most direct route from Windsor on this map which is to take 401 East to Highway 77 South to South Middle Road. While on South Middle Road you will cross an old railway right of way and just after the barely discernable point where Concession 9 joins it you will find the observatory site on the South side of the road. If you hit the Rochester Townline Road (i.e. you come to a stop sign and have to turn left or right) you have gone too far. On most clear nights someone is usually out there observing but if it happens to be a clear, moonless, weekend night you should have many observing buddies.

Submissions

Aurora is published monthly except for August. The September, November, January, March, May and July issues are full newsletters (usually 6 pages) with a number of member submitted articles. The October, December, February, April and June issues are short flyers (2 pages) with one short article. 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. I will accept Emails at the address below, floppy disks, CD's, or written submissions.

Editor: Ken Garber Email: kgarber@cogeco.ca

Ass't: Dan Anzovino Email: danzovino@sympatico.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 K of C Maidstone Recreation 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, the RASC Journal, a subscription to SkyNews magazine and access to the Centre's library and telescopes.

Annual Membership Fees are Regular - \$50.00, Youth - \$31.25 and Life - \$1000.00.

Contact Ken Garber at (519) 966-3478 or visit our website at: www.mnsi.net/~rasc for more information.

Message from the President from Steve Mastellotto

Welcome Back!

No I am not welcoming the membership back from summer vacation or Christmas holidays. I am sending a welcome back out to Aurora, the newsletter of the RASC – Windsor Centre. Thank you to our new Editor Ken Garber and Assistant Editor Dan Anzovino. After a 1 year hiatus I am very pleased to see the return of our newsletter and not just because I was the editor for the last 4 years (5 if you count the interim Flyer I was producing for the last year). But because for many of you this is the only contact you have with the Windsor Centre. You get the Observer's Handbook, Journal and SkyNews but unless you make it out to a meeting or one of our events you do not get a chance to experience what the Windsor Centre has to offer.

We have about 125 members and generally about 50 make it out to our meetings. A lot of you are on the email distribution list (send me an email if you are not) so you hear from me from time to time but Aurora gives you a flavour for what is going on in the club. Of course it can only reflect what is going on if you participate by submitting articles. One of the challenging tasks of the editor is to find material each month and I am sure we will be hearing from Ken often for help in that regard. It doesn't have to be long (but it can be) just a few sentences about something you may have done recently or a picture. Did you go on a vacation and stop by a museum, planetarium or observatory? Let us know and send along a picture.

This club is run by volunteer labour and I want to take a moment to thank last years' council for their efforts and welcome new members of council for stepping up to help out. There was a lot of activity last year around light pollution abatement in the city and county and I want to thank Dan Taylor for his tireless work as well as Susan Sawyer-Beaulieu and Mel Richardson. Mel is an excellent example of how a member who is not on council or any committees can join in and help out with an issue like the proposed Wind Farms. Randy Groundwater has been as busy as ever with his public education efforts and bringing groups out to enjoy the Hallam Observatory. Pete Bondy along with his work-horses Dave Panton and Al DesRosiers have kept

things humming along out at the observatory as we wrap up our first full year of use with the Henry Lee telescope. Tom Sobocan is the man behind making sure there is coffee, hot chocolate and donuts at all of our meetings. Thanks again to everyone for your efforts.

We are always looking for help even if it is one time per year like helping out with setup at the annual holiday dinner, summer picnic or helping with Earth Day or a public observing night. Or maybe something more regular like joining council or writing a short regular article for the newsletter. Please let me know if you would be interested in helping out with something.

As I said earlier we have about 125 members and unlike the days when we had less than 50 members it is a lot more difficult to meet everyone and make sure you are feeling welcomed to our little club. It can be daunting to show up at your first meeting and not know anybody or what to expect. At our last council meeting we created a new job for the 1st Vice President - Pierre Boulos and that is Membership Chairperson. Pierre's new job will include reaching out to new members to get to know you a little, make sure you know someone at the meetings, what resources are available to you (magazines, books, telescopes, etc.) but also to teach you the secret handshake – just kidding but I bet you wonder sometimes. Pierre will also be making sure the Windsor Centre is meeting the needs of the membership not just welcoming new members. So he will also be following up with people who do not renew their membership to see if we somehow didn't meet their needs. Of course we would prefer that you let anyone on council know if you feel we are not meeting your needs before you leave us because feedback is the only way we know how we are doing. Thank you Pierre, for taking on this very important job.

Welcome back Aurora!

Steve Mastellotto
President

January Meeting Minutes

General Meeting Minutes

January 18, 2005

President, Steve Mastellotto: Steve welcomed everyone and thanked all for coming on such a cold, windy and miserable night. A new Council has been elected and there are numerous plans for activities in 2005. Steve asked members present to read the minutes from the November meeting. A motion to accept the minutes from the November meeting was made by Randy Groundwater, seconded by Peter Bondy and carried.

Reports

Correspondence Secretary, C. Joady Ulrich: Joady was unable to attend the meeting.

Treasurer, Ken Garber: Ken summarized our accounts noting the lottery account had a zero balance and the Heritage account has about \$5. The General account stands at approximately \$8,200. Currently there are 122 paid up members.

Librarian, Milica Rakic: Milica was unable to attend the meeting.

Newsletter Editor, Ken Garber: Ken plans to produce his first full "Aurora" for the February meeting.

Director of Public Education, Randy Groundwater: Randy has already given two group presentations, one at the Hallam observatory and another in Riverside. He has three groups planned in February, including Girl Guides in Kingsville and Tilbury. Randy will also start teaching his astronomy course at the Centre for Learning and Retirement at the University of Windsor.

Public Relations, Steve Pellarin (filling in for Robin Smallwood): Steve reported lots has happened including public observing sessions, at Malden Park, at Forest Glade Community Centre and the Hallam Observatory to observe a very spectacular October 27th Lunar eclipse. CBC radio's Paul Vasey interviewed Steve regarding astronomy and the coming Lunar eclipse. They discussed the possibility of a brief weekly radio program featuring coming night sky events. Peter Bondy's wife used her PR skills to help spread the word and bring public attention to observing the eclipse.

Two very spectacular nights of Aurora Borealis occurred over Windsor separated by a night with only a moderate display.

National Representative, Tim Bennett: Tim is just getting into the work again after serving as National Rep. in years past. He told us Okanagan Centre will host the General Assembly this year in Kelowna B.C.

Results from the recent membership survey have been posted in the latest issue of the Journal for all to examine.

Steve Mastellotto recently provided the National Office with in-

formation regarding the value of the observatory with hopes they will be able to organize a pooled insurance plan. If very fortunate our current \$1,300 per year cost could be substantially cut.

Observatory, Peter Bondy: Peter had little to report other than noting the observatory committee would soon be meeting to discuss projects and long term plans.

Light Pollution Abatement, Dan Taylor and Susan Sawyer-Beaulieu: Dan gave an update on meetings held with the City of Windsor on their proposed lighting legislation. He also mentioned the town of Kingsville was working on regulations to control sign lighting.

The new major concern is the potential for flashing white strobe lights on wind turbines to be built on "wind farms" in Essex County. Transport Canada has been contacted and urged to require red aviation warning lights as a more acceptable alternate. Comber is an area expected to become a wind farm location.

Director of Observing, Steve Pellarin: All sorts of neat things have happened this month. The big one was the Huygens space craft landing on Saturn's moon Titan. Steve showed a variety of stunning scenic shots taken by Huygens as it descended onto Titan. It was hard to comprehend we were looking at a lake and shoreline so far away, especially when we learned it was a lake of liquid ethane and methane. Saturn's moons Rhea and Iapetus also were featured in spectacular photographs. Landslides on these moons reveal geologic activity similar to that on Earth.

For local observers, Saturn is currently a great sight. Bands of color can be seen on the planet and some ring detail in addition to the Cassini division is also visible. Comet Machholz is a great sight. A nice shot by David Williams was taken as the comet passed by the Pleiades. Art Rae also had a good print saved on a CD. The ion tail was visible on December 29th. Machholz will not be seen again for 120,000 years.

The sun has some large spots and there have been large mass ejections producing Northern lights visible locally this morning.

Comet Temple 1 will soon be hit by a deep impact probe designed to knock material from the comet to learn more of it's structure and composition.

Local observers will be able to use binoculars to observe two bright asteroids, Herculania at magnitude 9 and Flora, Magnitude 7.5. Mars will be near the Lagoon Nebula on February 8th.

Steve listed a variety of additional objects visible to local observers on clear winter nights in Essex County.

Business

Awards: Steve Mastellotto announced that Ray Drouillard had

(Continued on page 5)

January Meeting Minutes (continued)

(Continued from previous page)

patiently earned his Messier Certificate by observing all 110 objects, primarily from the Hallam Observatory site. Ray was working at meeting time so the award will be mailed.

Pelee Island Winery: March 19, 2005 is still the firm date for this event. Members are reminded they too can take part. The cost is \$55 per person and includes wine tasting, goodies, a winery tour and bus trip to the observatory for a presentation under the stars and viewing with the Henry Lee telescope. About \$20 of each ticket will be go to Windsor Centre. There is also a chance at winning a \$200 gift basket.

Coffee Break and 50/50 Draw: Steve welcomed new members and we broke for the Coffee Break. Rod Clark won the 50/50 draw and donated the proceeds back to the Centre.

Short Talk #1: "Building a Foucault Pendulum" by Dave Panton - In aid of a proposal to build a pendulum for the Canada South Science Centre Dave chose first to build one in his hobby shop. This deceptively simple device will, under the right circumstances reveal the Earth's rotation.

Using a series of photographs Dave showed the various phases of construction and described the many difficulties encountered in obtaining consistent results. After many versions and modifications, repeatable results were obtained. Unfortunately they were in gross error indicating the Sun should rise in the West.

He found correct results could only be obtained by using a small angle of swing. In turn, this imposes a whole variety of new difficulties in making a useful display pendulum. For best results one should have a very high ceiling, from which to hang a dense and aerodynamic heavy pendulum bob as possible. The whole affair should be in a draft free area and started only after all initial motion has died.

Researchers at the South Pole recently built a Foucault pendulum out of scientific curiosity. Their results showed the earth rotated in a period of 24 hours plus or minus 50 minutes further revealing the device can be very temperamental.

Short Talk #2: "Starfest" by Steve Pellarin - Steve's attendance at Starfest last Summer proved very rewarding. He described amazing views of the Sun as seen through Hydrogen Alpha filters. Starfest features all manner of displays and sales tents for amateur astronomers.

"Sky Shed" attracted Steve's attention. It is a modified garden shed very attractively designed for good appearance in one's garden. The big feature is a roll off roof, making a very efficient observatory for amateur astronomers wishing to have the comfort and convenience of a home observatory.

Steve related some of the stories told by Nagan Cox, a JPL engineer involved in managing the travels of the two Mars Rovers Spirit and Opportunity. One of their major problems was in

their personal lives. Mars days are 40 minutes longer than Earth days. All their affairs slid that amount each day creating all manner of difficulties living with the ever changing shift times.

Meeting adjourned at 10:30 p.m.

David J. Panton

Recording Secretary



M42

Photo taken on Saturday, November 13 with a Canon 20D digital SLR camera with 500mm f/8 lens, ISO 800, 10 minutes exposure. The camera was mounted on top (piggyback) of the Henry Lee telescope at Hallam observatory. Image by Steve Mastellotto.



Saturn

Photo taken on Saturday, November 13 with a Philips Toucam digital video web camera through the prime focus of the Henry Lee telescope at Hallam observatory (3900mm focal length at f/11). This image is a stack of the best 254 frames from a video capture of 500 frames. RegiStax 2 was used to select, align and stack the frames. Image by Steve Mastellotto.

Bits from Around the Planet

The Windsor Centre receives newsletters and emails from other centres and astronomical sources. Some are posted here, the remainder can be viewed at the library/treasurer tables at the meeting.

A note from the Sarnia Centre:

Here is the new Light Pollution Webpage for the Sarnia Centre: <http://home.cogeco.ca/~richardastro2/>.

We hope to try and save our skies. Surely with the Kyoto Accord coming into effect, everyone should be concerned about saving energy.

GA 2005 Okanagan:

An info pack has arrived for the General Assembly gathering in Kelowna BC this May. See it at the meeting or go to <http://www.rasc.ca:8080/rasc/index.jsp>

Centre Communications

Library Tidbits....

Looking for...

If you are storing any of the Centre's bits, pieces, magazines, or other items, please contact the Centre Librarian Milica Rakic at mica@opusteno.net

Coming Soon....

Along with Sky and Telescope, the library will soon have available issues of Astronomy and Amateur Astronomy. Stay Tuned.

Newsletter Tidbits...

Here it is... The first Aurora in quite a while. Bear with me as I learn the software and the practices and procedures.

You may see a couple of 'holes' in this issue. They aren't Black Holes. They're spaces screaming for text. So if you've got something astronomically you'd like to see published? An article, photos you've taken, interesting website or whatever? Ask or submit them to Steve, Ken or Dan. Don't worry about length, spelling, or grammar - we'll take care of the rest.

This space for 'rent'.

Your "bits" here.

And you're not just limited to this little space—use as much as you need!

New Members

The Windsor Centre would like to welcome the following to the fold:

Dan Anzovino	Kingsville ON
John M Berube	Belle River ON
Paul Pratt	LaSalle ON
Bonny Quick	Harrow ON
Ken Denomme	Windsor ON
Ken Duncan	Leamington ON
Joan Hannah	LaSalle ON
Brian Pring	Sutton West ON
Shane Szczepanik	Leamington ON

Hallam Sky Clock

[//cleardarksky.com/c/H11m0b0Nkey.html?1](http://cleardarksky.com/c/H11m0b0Nkey.html?1)

Subject: Clear Sky Clock Award Nomination

To Clear Sky Clock sponsors:

The Ottawa Centre of the Royal Astronomical Society of Canada has nominated Mr. Attila Danko and Mr. Allan Rahill for the Canadian Meteorological and Oceanographic Society's Rube Hornstein Medal 'for providing outstanding operational meteorological service...', and Dr. Andrew Thompson Award 'for an outstanding contribution to the application of meteorology in Canada' [<http://www.cmos.ca/prize.html>] based on their combined work with the Clear Sky Clock. We are currently soliciting e-mails of support from Clear Sky Clock sponsors to help the prize committee understand the extent and influence of this work on the international astronomical community.

As a sponsor of the Clear Sky Clock, we would appreciate your input. Please send e-mails of support with subject line 'CSC Award Nomination' to: Al Scott at amos@amos.ca. Letters of support will be accepted until 'mid-February' 2005.

Thank you for your attention,
Al Scott
Councillor, Ottawa Centre RASC

Renewing soon???

Don't forget that you can renew your membership at the treasurer's desk, by snailmail to the National, or at the RASC's 'store' at <http://www.store.rasc.ca/>