

AURORA



Volume 30, Number 9

The Royal Astronomical Society of Canada - Windsor Centre

July 2005

Summer Star Parties compiled by Steve Mastellotto

DATE(s)	Event/Location	For more information
June 30 - July 4	Stargazing Manitoulin	www.gordonspark.com
July 1 - July 3	Island Star Party 2005 Victoria, BC	starfinders.cvnet.net/
July 8 - July 10	Gateway to the Universe Star Party Powassan ON (North Bay)	www.gateway-to-the-universe.org/main.html
July 8 - July 10	ASTRO Festival - Mont-Megantic Research Observatory, QC	www.astrolab.qc.ca
July 29 - July 31	CAFTA 2005 Parc des Iles de St-Timothée, QC	membres.lycos.fr/cdadfs/cafta.html
July 30 - Aug. 7	Mount Kobau Star Party Osoyoos, BC	www.mksp.ca
Aug. 4 - Aug. 7	Starfest 2005 Mount Forest, ON	www.nyaa-starfest.com/
Aug. 4 - Aug. 7	Saskatchewan Summer Star Party Maple Creek, SK	duke.usask.ca/~ges125/rasc/starparty.html
Aug. 5 - Aug. 6	Stellafane Breezy Hill, VT	www.stellafane.com/
Aug. 11 - Aug. 14	Manitoulin Star Party Manitoulin Island, ON	www.gordonspark.com
Sep. 2 - Sep. 4	RASCALS Star Party Victoria, BC	http://victoria.rasc.ca/events/StarParty/

For September—October Star Parties, see page 5.

In This Issue

Summer Star Parties	Cover
Calendar of Events; Submissions; membership Info	Page 2
Minutes of the May meeting	Page 3
Windsor's Night Sky	Page 4
Annual Picnic at the Observatory; Fall Star Parties	Page 5
Item 5 Bits / Obituary / Hallam Clock / Centre Comms	Page 6

Calendar of Events

Our next meeting...

Tuesday, Sept 20, 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...

Steve Pellarin

Topic...

The Cassini Mission

Coming Events

Centre Observing Night/Open House:

July 16, 2005 9:30 p.m.

August 13, 2005 8:30 p.m.

September 10, 2005 8:00 p.m.

June 27, 2005 (noon) Mercury 4' from Venus

July 4, 2005 "Deep Impact" hits Comet 9P/Tempel

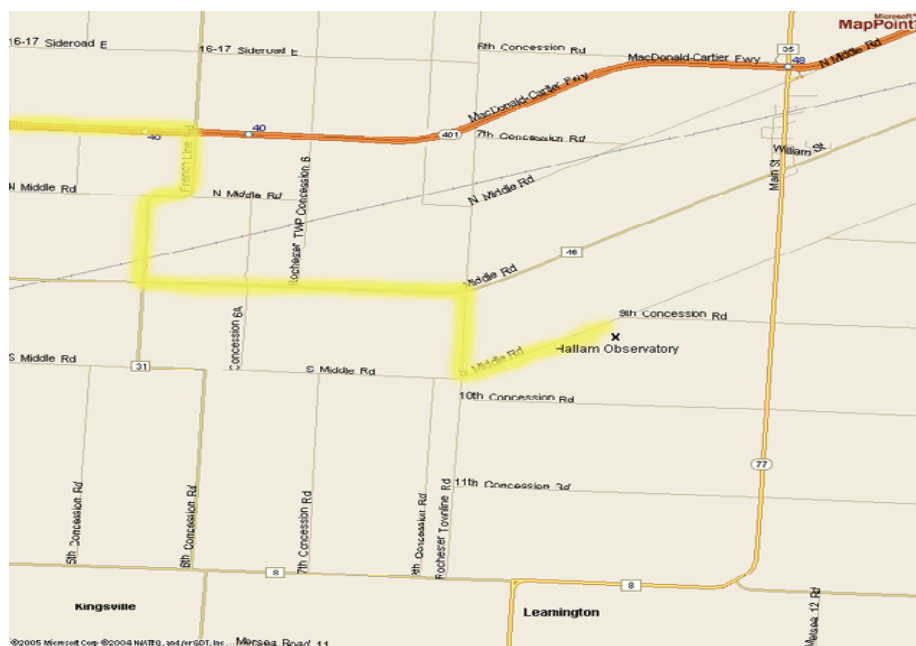
Visible Planets:

Morning: Mars

Evening: Venus, Mercury, Saturn, Jupiter

Council Meeting

Tuesday Oct. 11th; 7:30PM; Tim Bennett's



Hallam Observatory Site

New directions for April - November 2005 during 401 construction!!!

The map above shows the Comber area and it includes the major highways (401, 77, 8, 31 and 46) that are in the area of the observatory.

During the 401 construction, the best route from Windsor is "highlighted" on the map which is to take 401 East to Highway 31 South to Middle Road East to Rochester Townline Road South to South Middle Road. While on South Middle Road you will pass a couple of houses and just before Concession 9 intersects it you will find the observatory site on the South side of the road.

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 - \$55.00, Youth - \$34.25 and Life - \$1100.00. **** NOTE New Rates ****

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

General Meeting Minutes for May 17th, 2005

President, Steve Mastellotto: Steve asked members present to read the minutes from the April meeting. A motion to accept the minutes from the April meeting was made by Tim Bennett seconded by Susan Sawyer-Beaulieu and carried.

Reports

Correspondence Secretary, Joady Ulrich: Joady reported that Martha Pinch, our unofficial Windsor Centre poet is being treated for lymphatic cancer. She is able to receive visitors at her home.

Treasurer, Ken Garber: Ken was resting at home after a medical emergency took him to London in an ambulance. Ken informed Steve we currently have 112 paid up members and a bank balance of \$6,997.66.

Librarian, Milica Rakic: Milica is expecting to bring a little star into the Universe in June and could not make the meeting.

Newsletter Editor, Ken Garber: Steve reported the current newsletter was edited by Ken. From his own experience in the position he reminded members there is always a need for articles from members.

Public Education, Randy Groundwater: Randy's work unfortunately placed him out of town.

Public Relations, Peter Bondy: Peter recounted the experience setting up and manning our display on a perfectly miserable Earth Day. Global warming evidence was not noticed in the snow and rain.

The Annual Picnic at the Hallam observatory is on June 11th and will feature barbecued meat courtesy Windsor Centre. Guests are asked to bring side dishes for a buffet. Start time is 6:30 p.m. and the dinner table ready about 7:30 p.m. All are reminded no alcoholic drinks of any kind are permitted on the site. The Website road map has been updated to show the best route during the Hwy 77 construction.

Light Pollution Committee, Dan Taylor: Dan will speak on this topic later in the meeting.

National Council Representative, Tim Bennett: Tim will attend the annual General Assembly in Kelowna this week. Some major issues are on the agenda. One involves the annual dues split ratio between National and Centres and the ability for National Council to set the fee increase without the membership approval vote. With lots of proxies in hand Tim will have an important influence.

Observatory Director, Peter Bondy: The next improvement project is to motorize the dome. The upper and lower shutter movements make the project much more complex than it would seem.

Trillium Funding is a possibility for a full concept project

like a major expansion with additional observing equipment such as a hydrogen alpha filtered telescope for solar observation.

Membership Chairman, Pierre Boulos: Pierre was unable to attend the meeting. Steve mentioned the latest membership cards are available.

Director of Observing, Steve Pellarin: A stellar performance was given by Steve as he presented all sorts of neat things to observe over the next couple of months. Jupiter is perfectly placed. The summer constellations are rising. Ursa Major is overhead in clear air to best see its wonders. The brightest asteroid, Ceres is a naked eye object.

In astronomy news, Jupiter and Saturn are both yielding more moons to well equipped patient observers. Saturn's moon count has risen to 49 and Jupiter's to 63.

Among more interesting objects are NGC 3115 the Spindle Galaxy and several Messier objects M48 (often neglected). M68 is a nice globular cluster and M64, the "Black Eye Galaxy" a great sight.

Even though the Sun is at its 11 year solar minimum there are still chances we may see summer auroral displays.

Business

Steve reminded members that a council meeting is planned for Tuesday June 7th at Pierre Boulos' home.

Short Talk by Steve Mastellotto: "The Simpsons, A pop culture look at light pollution".

Steve ran a DVD of the adventures of the Simpson family when Lisa tackles the problem of light pollution, crime and energy savings in their home town of Springfield. The original program was broadcast in March 2003. That night about 10 million people painlessly learned about light pollution in a humorous manner.

Coffee break and 50/50 draw: Steve welcomed new members and guests and a short break was taken for refreshments and the 50/50 draw.

Main presentation by Dan Taylor: "What Light Pollution Has Done to You and What You Can Do To It!"

Dan gave a very comprehensive presentation about the entire field of outdoor lighting. The legacy from Edison's light bulb invention is virtually world wide light pollution. The primary cause is poor lighting fixture design and installation.

Light pollution is slowly being recognized. Abatement measures are possible, preserving light's benefits and regaining the night sky. Measurement of light and the phenomenon of our eye's transition in adapting from light to dark were explained.

[continued on next page]

General Meeting Minutes (continued)

Dan gave excellent examples of "beasts of the night". They are everywhere, generally swivel mounted, cheap bright glaring fixtures. New gas stations have horrible lighting as do auto dealerships, car storage lots and truck yards.

Many lights could be made more effective merely by redirecting them, installing "sky caps" or light shields. Dan gave examples of car dealerships using 25 One thousand watt beasts of the night light fixtures. Some crime prevention organizations recognize the problem and have more sensible lighting recommendations.

Tower and wind turbine lighting are also concerns. Through Dan and other's work with Transport Canada, pulsing red LED lights instead of white flashing strobe lights will be used on new installations. Dimmer at night, the key factor in such lighting is "acquisition distance". Another factor is concern for potential bird kills and the need to avoid attracting them to lights.

Greenhouse gas emissions are a big but neglected factor in good lighting design. More efficient use of less light reduces power requirements and thus gas generation. Another factor is human eye response. Our eyes can see more when illumination comes from a wide light frequency source such as metal halide lamps. In turn, this allows use of lower power lamps.

Locally the light pollution fight is nicely under way. Allison Baldwin was given a round of applause for her efforts to have full cutoff lighting installed in a new Amherstberg subdivision. Lakeshore and Kingsville will soon adopt full cutoff standards. John Wladarski, President of Essex Power enthusiastically promotes full cut off lighting. The City of Windsor has adopted its first lighting standards partly via Dan and Susan Sawyer-Beaulieu's efforts on their committee. Enwin utilities plan to convert to full cut off lighting when replacing old fixtures.

The attractive city of Tucson, Arizona is the birthplace of the light pollution control industry. Even in Tucson there is concern a percentage of light arriving on the ground will be reflected into the night sky.

Steve thanked Dan for his knowledgeable presentation and the good work he has done initiating light pollution awareness and control in Windsor and Essex County.

Meeting adjourned at 10:18 p.m.

David J. Panton
Recording Secretary

Windsor's Night Sky

How much night sky can be seen from Windsor?

While out at the observatory hours at a time through the year it is easy to get the impression there is a lot of night sky we can never see. Just how much can we see from flat as a billiard table Essex County? From roof top height on a clear night the horizon would be visible in all directions.

So there we are looking all around at all at that vast space above. Not much thought is needed to realize the view is of half the sky. If you don't think so, imagine the earth suddenly became transparent. There is the other half revealed. So what's the big deal? Well then, how much can be seen in an entire year as our tilted, spinning little Earth orbits around the Sun?

First of all where is the observer? If at either pole the view is always of the same half from overhead down to 0 degrees declination on the horizon. It rotates but otherwise never changes.

Let us go to an observer on the equator. An observer could see all the way from the North to the South celestial poles. It is still only half the sky but there is a big advantage on the equator. Over the course of a year the entire sky can be conveniently observed via the Earth's rotation and orbit around the Sun.

At our latitude the situation is more complicated but a bit of calculator work yielded a neat surprise. It was amazing to find we can see such a huge portion of the starry night sky. With good weather to the south over the period of a year it is theoretically possible to see a huge 83.63 percent of the entire night sky!

This article was inspired by two people. Robin Smallwood gave an account of observing the spectacular globular cluster Omega Centauri from the tip of Point Pelee. Barely a degree above the Southern horizon it can be most conveniently seen for a few minutes in early Spring.

At a later meeting Juliana Grigorescu gave an excellent, well illustrated celestial coordinates presentation. She gave me the idea to ask and now answer my question.

Dave Panton

How light interacts with the atmosphere

[www.2010.atmos.uiuc.edu/\(Gh\)/guides/mtr/opt/home/rxml](http://www.2010.atmos.uiuc.edu/(Gh)/guides/mtr/opt/home/rxml)
(Amateur Astronomy)

The Annual Picnic at Comber

Photography by Prez. Steve Mastelotto



The Centre Picnic Cluster (minus photog Steve M.)



Dave Panton concentrates on hamburgers and stars



Future Astronomers



Steve Pellarin hams it up for the photographer

Fall Star Parties

compiled by Steve Mastelotto

DATE(s)	Event/Location	For more information
Sep. 8 - Sep. 10	Astrofest Kankakee, IL	www.chicagoastro.org
Sep. 9 - Sep. 11	Algonquin Adventure (Algonquin Park)	206.172.13.93/artman/publish/Algonquin2005.shtml
Sep. 9 - Sep. 11	Northern Prairie Starfest Tofield, AB	www.edmontonrasc.com/nps.html
Sep. 24	DRAO Open House 2005 Penticton, BC	hia-ih.nrc-cnrc.gc.ca/drao/index_e.html
Sep. 29 - Oct. 1	Frozen Banana Star Party Powassan, ON, (North Bay)	www.sudburyastronomyclub.com
Oct. 1 - Oct. 9	Okie-Tex Star Party Kenton, Oklahoma	www.okie-tex.com

Astronomy on the Internet Dan Anzovino

<u>Address</u>	<u>Description</u>
www.rasc.ca	Royal Astronomical Society of Canada
www.spaceweather.com	Site for solar flare updates, lots of good links to other sites
www.spacew.com	Another site similar to above link
www.cleardarksky.com	Observing forecast site, or visit from link on our home page
www.hubblesite.org	Get the latest pics from Hubble while they last
www.fourmilab.com/yoursky	Freeware sky map with other good links
www.glyphweb.com/esky	The electronic sky, good informative site
www.heavens-above.com	Another sky chart, front page has current ISS graphic
www.stargazing.net/astropc/	Yet another sky chart free-ware program
www.sel.noaa.gov/info/Navigation.pdf	Solar Activity and GPS discusses the ionosphere and the effects of solar activity on navigation systems, including GPS.
www.astromart.com	Astronomy related everything
antwrp.gsfc.nasa.gov/apod/astropix.html	Astro-photo of the day
www.starregistry.ca	A unique gift for that special someone—name a star after them

Time to Renew???

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

Martha Pinch

On May 19th, 2005 our Centre lost one of its much admired and valued members with the passing of Martha Pinch. She had been bravely battling cancer for a number of years, though despite that battle, continued to enjoy the goodness of life including of observing the night sky. She was involved in education efforts in astronomy, including teaching about the stars at a girls' camp, and at a gathering of young people in Leamington as well. She also wrote some fine poems about the night sky, one she combined with her love of riding horses. In her 67 years of living, Martha, this kind hearted lady, was a self made person of varied active interests. Along with riding horses, she trained and cared for them, was a painter of pictures, a very avid reader, a perceptive observer of nature (she once saw and photographed a trillium with four petals), a compiler of a large amount of family genealogy, a great conversationalist, and for some of us, a fine friend. We will always remember her for her encouraging enthusiasm about astronomy that can continue to encourage us to make our own discoveries among the wonders of the starry sky.

Joady Ulrich

The Hallam Sky Clock

cleardarksky.com/c/H11m0bONkey.html?1

The Old Astronomer

The Old Astronomer to His Pupil

Sarah Williams

Reach me down my Tycho Brahe, I would know him when we meet,
When I share my later science, sitting humbly at his feet;
He may know the law of all things, yet be ignorant of how
We are working to completion, working on from then to now.

Pray remember that I leave you all my theory complete,
Lacking only certain data for your adding, as is meet,
And remember men will scorn it, 'tis original and true,
And the obloquy of newness may fall bitterly on you.

But, my pupil, as my pupil you have learned the worth of scorn,
You have laughed with me at pity, we have joyed to be forlorn,
What for us are all distractions of men's fellowship and smiles;
What for us the Goddess Pleasure with her meretricious smiles!

You may tell that German College that their honor comes too late,
But they must not waste repentance on the grizzly savant's fate.
Though my soul may set in darkness, it will rise in perfect light;
I have loved the stars too fondly to be fearful of the night.

NEW Centre Communications

At the last Council meeting it was agreed that a Newsgroup/discussion board would be set up for Centre members. Just created by Pierre Boulos, the list is called **RASCWINDSOR**.

To find out more about the *rascwindsor* group and to subscribe, please visit

<http://groups.yahoo.com/group/rascwindsor>