

# Nova Notes

The Newsletter of the Halifax Centre  
of the Royal Astronomical Society of Canada



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**Nova  
East** ★  
★ ★ **2005**



# As heard on hfxrasc@rasc.ca...

If you're a member with email, why not become part of the Centre's email list? The list is a great resource for people looking for other members to observe with, for reminders of upcoming astronomical events, or for sharing information. Members who observe at

St. Croix usually post a notice to say if they'll be out that night. Log on to our website ([www.halifax.rasc.ca](http://www.halifax.rasc.ca)) to get signed up and you too could participate in lively intellectual discussions, or at least read them!

## Nova East

Just a short note to pass on my congratulations to the organizers of Nova East.

It was an exceptional event. The workshops and talks generated great discussions. Our guest speaker is sure to generate many more interesting discussions. To who ever ordered the weather, many thanks. Some great nights under the stars. Hopefully next year's weather will match.

Paul Heath  
– [pheath@hfx.eastlink.ca](mailto:pheath@hfx.eastlink.ca)

## Nova East

I second your comments, Paul. Many thanks to the organizers, presenters, and workshopers who gave, unselfishly, their valuable time to make the event a success. I thoroughly enjoyed our guest speaker and, whether or not you agree with his theories and philosophies, you have to agree that, at some level, he was wonderfully entertaining.

To say the least, I had a blast!

Wes Howie  
– [Wesley.Howie@nsc.ca](mailto:Wesley.Howie@nsc.ca)

## Nova East

I agree with Paul and Wes. This was an excellent Nova East! I have to say

that of the five NE's that I've attended, I had the most fun at this one. The speakers and workshop instructors were all wonderful, the weather was "amazing", the number of telescopes in the field were the most that I've ever seen, the door prizes were abundant and very nice, and the relaxed sense of community made me feel as relaxed as I do in my own living room. The number of non-NE campers that strolled by to see the Sun and night-time sights was huge! I think that we've kindled some deeper interest in Astronomy in more than one person.

John Dobson was engaging, and quite the character. He handled questions from the youngest child to the most hardened skeptic with grace and aplomb. I may not find his cosmology to be at all convincing, but I learned much from him during our brief conversations and from observing the way he dealt with people of all ages and opinions. As for his energy, I defy anyone to stand and talk to a crowd, unscripted – without electronic amplification – for over 2 hours!

On behalf of the Halifax Centre of the RASC and myself personally, I offer my heartiest and sincerest "thank you" to the organizers for Nova East 2005!

Craig Levine  
– [clevine@ns.sympatico.ca](mailto:clevine@ns.sympatico.ca)

## Nova East

As one of the people on the Nova East Organizing Committee, I would like to offer my sincere thanks to all those who came out and enjoyed the long weekend at Smiley's Provincial Park. Also I would like to thank all those who gave of their time to provide workshops and talks for everyone to enjoy.

Special thanks go to Paul Gray and Ted Dunphy who spent a tremendous amount of time providing people with the materials and instruction to build a safe solar filter for small instruments. Nova East works because people are actively involved in making it happen and nearly all the program is delivered by committed volunteers.

We had participants from all Atlantic provinces as well as Quebec and Ontario. Hopefully we can maintain a wide geographical base of people in the years to come. If anyone has any comments or suggestions on how to improve Nova East, or if you want to be involved in future Nova East activities, please let me know.

Once again, Thank You to all the presenters and participants who made the long weekend such a success for everyone.

Gary Weber  
– [gweber@hfx.eastlink.ca](mailto:gweber@hfx.eastlink.ca)



## Nova Notes

*The Newsletter of the  
Halifax Centre of the RASC*

PO Box 31011  
Halifax, Nova Scotia  
B3K 5T9

Articles on any aspect of Astronomy will be considered for publication.

Nova Notes is published bi-monthly in February, April, June, August, October and December. The opinions expressed herein are not necessarily those of the Halifax Centre.

"Letters to the Editor" or letters to our resident expert "Gazer" are also most welcome.

Contact the editor at the following:

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453-5486 (Home) 482-1013 (Work)

Nova Notes is also available as a PDF file on our Centre's website at [www.halifax.rasc.ca](http://www.halifax.rasc.ca)

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Material for the next issue should reach the editor by Nov 01/05



Thanks to Tim Doucette, Tony McGrath and Pat Saxton for their images from Nova East 2005.



Williams Optics was a generous supporter of Nova East.

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The advertisement features a variety of optical instruments including telescopes, binoculars, and camera lenses, set against a background of a starry night sky. The William Optics logo is prominently displayed at the top left.

## A Beginner's Astronomy - Part 2

by John Vandermeulen

In the previous issue of Nova Notes I described my introduction to astronomy, and the eventual purchase of a 4.5" Orion Starblast (reflector/dob). Although small, I mean to use this as an interim scope until I develop more familiarity with stars and constellations, when the plan is to upgrade to an 8" or 10". While reasonably comfortable with the theoretical side of things, I had never owned or even peered through a telescope. As it turned out, that was a wise move as I encountered three or four things that I had not counted on. Nothing serious, but I had to deal with them, or find someone else who could.

First on the list concerned the finder (EZ Finder™ II Reflex Sight), a "1x magnification" plastic gun-sight tube for orienting the telescope that projects a red dot onto the target. Try as I did I could not for the life of me get it to work, whether the finder was on or off the scope. It took an on-site visit by Clint Shannon to get that functioning properly. While here, Clint then collimated the whole thing – finder, primary, secondary, eye piece. And then returned a few weeks later with a hand-made anti-dew sleeve. Not only was this very generous, but it turned into a fine introduction.

A few weeks later came the actual baptism of scope and myself. Ah, from here on we (scope and I) would work together, uncover the great mysteries of limitless space! Yeah! But, the fates would not have it. I lined up the scope approximately by pointing

the tube at a distant star, and then switched to the red-dot finder. This worked perfectly, and just as Clint had said it would. The scope was now on target ... but try as I did, I could not get an image in the eye piece except for some light flashes at the very edge of the field of view. I don't know how long we (my wife Gail and I) stood out there, and fidgeted and fiddled. We finally called it quits for the night, and carried the whole shebang back indoors, where, to my total embarrassment, Gail pointed to the dust cap, still left on the tube. So much for the baptism and all those mysteries. As this of course was also meant to pass, I did eventually get it all to work in unison.

However, I was much surprised at just how small an image is in the eyepiece, even with the lowest mag. eyepiece. I had read somewhere that this was a common reaction with an amateur's first view through the scope, but had mentally set it aside as a possibility, but not to worry about it. Well, it did come upon me. Things were indeed much smaller than I had expected, plus everything was in B & W – what happened to all those beautiful full-colour photos in the books that I had purchased?

Finally, things were going smoothly (which should have warned me), when I came up against a problem that I had not at all foreseen – i.e. what to view? What do I look at? I mean, what is there to see? What do I spend my time on? I had observed, with the naked eye, the night sky as it soared over my sundeck, all done in the final freezing evenings of winter. All the while craning my neck

looking overhead, and simultaneously clinging the siding on the house so as to cuddle up to the smallest remnant photon of heat. But when it came to actually using the telescope I was at a loss. Not mechanically. I could line up perfectly on Polaris or the star belt in Orion, but, after looking at yet another white spot out of the 2000 or so on a black background, I realized that what was needed was some sort of a plan or goal.

Curiously, my impression is that the rationale underlying observing seems to have largely fallen between the cracks. True, there are books with vast data bases and star maps, and my first purchases were the heavenly trio – *Night Watch*, the *Backyard Astronomer's Guide*, and *Turn Left at Orion*. Add to that the RASC handbook, two more hefty books that Clint brought over, and several dozens of web article print-outs, all loaded with information – stellar coordinates, star colours and luminosity, doubles, variables, band so on. But what I could not find was a coherent approach that made rational sense.

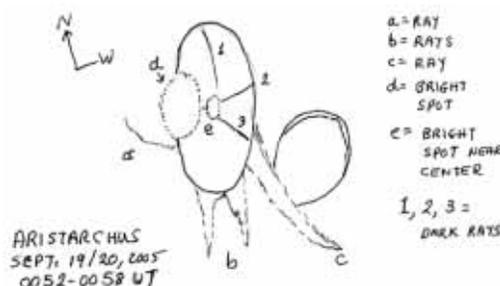
Most common advice given is to get a good star atlas and a good finder, all of which is fine but after a few trips into my backyard it got boring. It is like going to the big box supermarket with the choice of either 1) getting the groceries at random or 2) arriving with a menu list for the weekend's dinner party for eight. Don't get me wrong. I am the first to admit that one has to crawl before can walk. However, It very likely is part of a mid-life crisis that I haven't worked out yet. ☆

## Aristarchus, Sun spot image

by Mike Boshat

I was taking some images and noticed that Aristarchus had a very bright "bulge" on its northeast wall; I never noticed that before so it may be a usual feature that my old eyes overlooked at other times. Also I noticed a short white slight curve ray just below the "bulge" pointing northeast. See drawing.

Anyway, the crater was bright and the center had a very bright spot. I noticed the 2 dark rays that come from the crater's center up its west walls but also saw another darkish ray with a slight curve going from the center to the north wall.



Location: Halifax, Nova Scotia  
Feature: Sunspot, Date: Sept. 12, 05  
Time: 1130 UT, Telescope: 10cm  
Maksutov, f/10, @ 40x with full  
aperture Baader Solar AstroFilter.

## Nova East 2005

The Nova East Organizing Committee would like to thank all the members who came out and enjoyed the best weather we have had for a few years at Nova East. We not only had great observing weather, but we also enjoyed a fine sense of "community" with lots of new friends. Although it was our distinct pleasure to have John Dobson at the event, your attendance and participation is what makes Nova East the success it is.

I would also like to thank the following people for their volunteer efforts in producing a series of workshops

and participating in other activities which all combined to produce a fun and interesting weekend.

Roy Bishop  
David Chapman  
Jenny Costello  
Simon d'Entremont  
Daryl Dewolfe  
Ted Dunphy  
Michael Gatto  
Paul Gray  
John Jarvo  
Dave Lane  
Craig Levine  
Tony McGrath  
Mary Lou Whitehorne  
Campground Hosts  
Smiley's Park Staff

Once again, thank you all for your participation which made the 19th annual Nova East Star Party a great weekend.

The Nova East Organizing Committee

Registrars: Irene Moore  
Dave Parsons

Programming: Darren Talbot  
Gary Weber

Park Liaison: Ron Mills  
Door Prizes: Chris Beckett

★

## Dates for Nova East 2006 – August 25-27

The Nova East 2006 Committee is comprised of Daryl Dewolfe, John Jarvo, Irene Moore, Dave Parsons, and Ron Mills. Contact any of the Committee members if you have questions, suggestions, or want to help out in some way at the next great Nova East Star Party. Email Daryl at [qscope@hotmail.com](mailto:qscope@hotmail.com) or John at [jjarvo@tru.eastlink.ca](mailto:jjarvo@tru.eastlink.ca) with your input/questions. See you all at the next Nova East. ★

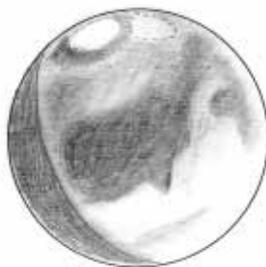
## Asteroid 2005 UB313 *by Dave Lane*

September 23/24, 2005: Here are two images taken about a day apart of Asteroid 2005 UB313, the so-called 10th planet (although lots of controversy surrounds that claim). It was an amazing 95 astronomical units from the Sun when these images were taken and it is nearly 19th magnitude. The exposure times were about 5 minutes (7x45 seconds combined). The planet is marked on each image. It moved only about 1/2 arc-minute in the one day interval.



## Mars sketches *by M. Gatto*

Here are the first few sketches I have made of Mars during this close approach. Hopefully the weather will cooperate so I can record all sides of the planet. The first was made on Aug. 07 at about 5 a.m., the second was done on Aug. 27 around 5 a.m. and the third on Sept. 25 at about 4:15 a.m. Each night had very steady seeing. Sketches done at the eyepiece of an 8" f/7.5 reflector at mags between 200-300X. ★



Aug. 7, 12 arc seconds, centered on Aurorea Sinus



Aug. 27, 14 arc seconds, centered on Mare Cimmerium



Sept. 25, 17 arc seconds, centered on Syrtis Major

# Update on "X" on the Moon

By Dave Chapman

Almost one year ago, at the Nova East Star Party, I observed a curious illuminated "X" feature on the dark side of the terminator of the nearly first-quarter Moon. This turned out to be a trick of the rising Sun catching the peaks and ridges of some rather rough topography near the crater Werner. For those who observed this feature or helped in some other way, I thought I would share some of the results of my research.

To the best of my knowledge, this feature appears every lunar month, but is fleeting, lasting only 3-4 hours. As it occurs just before first quarter, the Moon itself is only visible in the evening between sundown and moonset, so one has to observe from within a limited range of longitude on Earth to see it.

Since my report, I have received reports of previous and subsequent observations. These have helped immensely. Because of the libration of the Moon, the lunar phase or percent illumination is only a rough indicator of the timing of this feature. A better indicator is selenographic colongitude, which is tied

to the position of the terminator, and closely follows a synodic period cycle of 29.530589 days. Currently, I estimate the value for the selenographic colongitude at the midpoint of the apparition to be 356.7 degrees plus or minus 1 degree.

By the way, I have one observation from 1978 that fits this pattern very well! It took place almost exactly 224 lunar months before my 2004 observation. I have collected several photos of the X from interested correspondents.

Because the lunar synodic period is not synchronized with the solar day, the strict repeatability of this pattern results in an irregular sequence of observing opportunities from a fixed point on Earth:

- one never sees it 2 lunar months in a row from the same location
- one may see it every other lunar month for 2-3 appearances
- following a string of alternate-month sightings, there will be an interval of 13 or 15 months between sightings
- then there may be another string of 2-3 alternate-month sightings

- in rough terms, the favorable zone for observing the X moves slowly Westwards by one and a half time zones every 2 months

It is no wonder that this feature is not well known! However, with the advent of rapid and easy communication via internet, we have become a collective of networked observers, allowing us to monitor the X continually.

July would have been a good month for those in Europe. August is not a good month for anyone in the Western hemisphere. For Eastern North America, I suggested that the evening of Sept. 10 would be a good time to look, but as early in the evening as possible. I observed that night as early as I could. The X feature was evident, but it was not as prominent against the background as before. After that: look as early in the evening as possible on November 8 and mid-evening January 6. Sightings on these dates would help to validate/ correct my predictor.

Not very important, astronomically speaking, but I find it fascinating how the asynchronous interplay between the event (lunar month) and the observer (solar day), result in an apparently chaotic sequence of observations. Happy observing! ★

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## Another Supernova for Dave and Paul!

By Dave Lane

Paul Gray and I pleased to report that we have discovered another supernova last evening from images taken at my Abbey Ridge Observatory. It is designated "SN2005ea" as detailed in the IAU circular below.

Before and after images are at [www.davelane.ca/aro/suspect2](http://www.davelane.ca/aro/suspect2) The two after images take about 6 days apart clearly show we caught it on the rise.

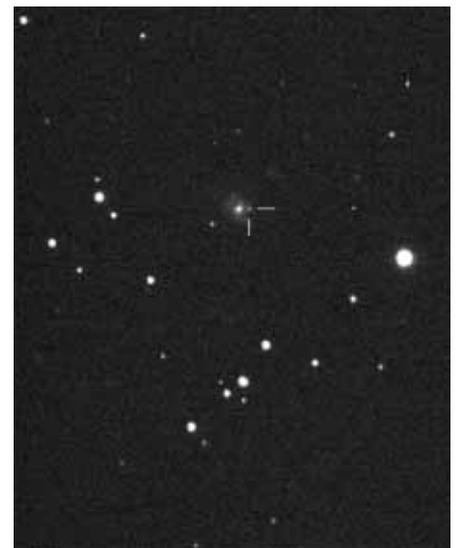
This our third discovery, the other two were 1995F (February 1995) and 2005B (January 2005). – DL

SUPERNOVA 2005ea IN MCG +10-16-61

D. Lane and P. Gray, Stillwater Lake, NS, Canada, report their discovery of an apparent supernova (mag about 17.0) on an unfiltered CCD image (cf. IAUC 8462) taken on Sept. 6.016 UT, with a confirming image showing the new object at mag about 16.3 on Sept. 13.015. SN 2005ea is located at R.A. = 11h06m47s.89, Decl. = +57o41'07".5 (equinox 2000.0), which is about 14" west of the nucleus of the galaxy MCG +10-16-61. Nothing is visible at this location on their images taken on Apr. 22 (limiting mag about 17.7), June 6 (limiting mag about 18.5), and Aug. 18 (limiting mag about 17.8), and nothing is present on Digitized Sky Survey images from 1994 (limiting red mag about 21.0) and 1988 (limiting blue mag about 20.5).

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2005 September 13 (CBET 224)  
Daniel W. E. Green





Part of your membership in the Halifax RASC includes access to our observatory, located in the community of St. Croix, NS. The site has grown over the last few years to include a roll-off roof observatory with electrical outlets, a warm-room and washroom facilities. Enjoy dark pristine skies far away from city lights, and the company of like minded observers searching out those faint fuzzies in the night.

## Members' Night

Every weekend closest to the new Moon there is a Members' Night at St. Croix. The purpose of members' night is to attract members from the Centre to share an evening of observing with other members. It's also a great night for beginners to try out different scopes and see the sky under dark conditions. For more information or transportation arrangements, please contact the Observing Chairman Daryl Dewolfe at 902-542-2357. *Dates for Members' Nights for the following few months are:*

**Friday Sept. 30** (alt. Sat., Oct. 01) **Friday, Nov. 04** (alt. Sat., Nov. 05th)

## Directions from Halifax

*(from Bayers Road Shopping Centre)*

1. Take Hwy 102 (the Bi-Hi) to Exit 4 (Sackville).
2. Take Hwy 101 to Exit 4 (St. Croix).
3. At the end of the off ramp, turn left.
4. Drive about 1.5 km until you cross the St. Croix River Bridge. You'll see a power dam on your left.
5. Drive about 0.2 km past the bridge and take the first left (Salmon Hole Dam Road).
6. Drive about 1 km until the pavement ends.
7. Drive another 1 km on the dirt road to the site.
8. You will recognize the site by the 3 small white buildings on the left.

## Become a St. Croix Key Holder

For a modest key fee, members in good standing for more than a year who have been briefed on observatory can gain access to the St. Croix facility. For more information on becoming a key holder, contact the Observing Chairman Daryl Dewolfe at 542-2357.

## RULES FOR THE 17.5" SCOPE (OR ANY RASC SCOPE AT SCO)

On Members' Nights the 17.5" scope must be shared by all members. The 17.5" scope can be used by anyone, but all views have to be shared with anyone interested in taking a look.

On non Members' Nights the scope can be used by individuals wishing to work on personal observing projects. Members should try to limit their use to under 45 minutes when other members are waiting to use it. Preference will be given to members who send an email to the hfxrasc list, or call the observing chair on the night they want to go out. If no one else wants to use the scope then feel free to use it all night, but it would be considerate every so often to ask members there if anyone has been quietly waiting to use it.

Please contact the Observing Chairman Daryl Dewolfe for more information or to book the scope at 902-542-2357.

# Meeting Announcements

Halifax Centre of the Royal Astronomical Society of Canada



## October 21, "The Lure of the Southern Hemisphere" by Alan Whitman

By the luck of the draw, most of the sky's splendours lie south of the celestial equator. Any serious deep-sky observer yearns to experience the far-southern sky, the home of the finest emission nebula (the Eta Carinae Nebula), the most obvious dark nebula (the Coalsack), arguably the best open cluster (NGC 3532), the most impressive globular cluster (47 Tucanae), the biggest and brightest globular cluster (Omega Centauri, although it is likely the core of a small galaxy absorbed by the Milky Way), the galaxy that offers amateur telescopes hundreds of targets within it (the Large Magellanic Cloud), and the closest naked-eye star (Alpha Centauri), just to name a few.

In February, 1998 Alan Whitman had his first views of most of the far-southern splendours from the decks of a cruiseship in the southern Caribbean. Then in March, 2001 he travelled to Australia to view the southern sky properly, with large Dobsonians at remote dark sites for three weeks. But he whose eyes have feasted upon the Puppis-Vela-Carina-Crux-Centaurus-Lupus-Norma-Scorpius Milky Way must return and so he ended up in Australia again early this year for another three-week observing run. His talk will be illustrated by astrophotos offered by David Malin, Jack Newton, and others.

## November 18.

Watch the RASC email list or check the Halifax Centre's website for further details on November's meeting as the date approaches.

Meetings begin at **8:00 P.M.**

*Members of the general public are welcome.*

All members—but especially new ones—are invited to come to the meetings 20 - 30 minutes early to participate in our new informal "Meet and Greet". It's a chance to ask questions about astronomy, the RASC, memberships, or to just say hello.

Room 176 Loyola Building  
Saint Mary's University (*See Map Below*)

*The Halifax RASC*

*Executive meetings*

*begin at 7:00 P.M.,*

*and members are*

*welcome to attend.*



## Halifax RASC Executive 2005

<i>Honorary President</i>	<i>Dr. Roy Bishop</i>	
<i>President</i>	Craig Levine	852-1245
<i>1st vice-president</i>	Paul Evans	423-4746
<i>2nd vice-president</i>	Marc Bourque	835-2589
<i>Secretary</i>	Andrea Misner	425-5074
<i>Treasurer</i>	Pat Kelly	798-3329
<i>Nova Notes Editor</i>	Michael Gatto	453-5486
<i>National Rep.</i>	Pat Kelly	798-3329
<i>2nd National Rep.</i>	Mary Lou Whitehorne	865-0235
<i>Librarian</i>	Alex LeCreux	404-5480
<i>Observing Chairman</i>	Daryl Dewolfe	542-2357
<i>Councilor</i>	Shawna Mitchell	865-7026
<i>Councilor</i>	Gary Weber	454-8264
<i>Councilor</i>	Steve Tancock	465-4092

## Meeting Location

*Meetings are held every third Friday of the month, except for the months of July and August. Meetings take place in room 176, Loyola Building (#3 on map) at Saint Mary's University.*

1. McNally
  2. Sobeys Building
  3. Loyola Academic Complex
  4. Loyola Residence
  5. Patrick Power Library
  6. Science Building
  7. Burke Building
  8. Bookstore
  9. Alumni Arena
  10. The Tower
  11. Rice Residence
- P = Parking

