Nova Notes

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

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In this issue:

Front page photo :
Jeff Donaldson "Werner X"
Taken on August 8th 2008 in Shediac, New Brunswick using a Canon SD750 Point and Shoot, held up to the eyepiece for an afocal image (processed in Registax)

From the editor *Quinn Smith*

Where did the summer go? It seems like only a few weeks ago I was putting the last edition of Nova Notes together, and that was in May! I'm sure you have noticed that there was no August edition on Nova Notes this year. There were a couple of reasons for that. The main reason was that I was away on a motorcycle trip across country, and simply not available to put the edition together. The second was that there was very little "copy" to use for a summer edition.

Nova Notes relies on input from members. Book or equipment reviews, articles, photographs, rants, raves are the stuff of this publication. As always I thank all those who send me content, and for those who haven't got around to it yet - get yourself published! I look forward to a flood of articles for the next (December) edition.

For those of you who missed this year's Nova East, let me just say that you missed a great event, albeit a wet one. We have tried to capture the spirit of Nova East in this edition. Now that we have had two rain events (last year was wet as well) mark your calendars for next year - we a due for a sunny Nova East (it will be in early August 2009).

2009 is International Year of Astronomy and your IYA committee has been working hard planning and organising events for the year. The outline of these events is in this edition, so please read, enjoy, and participate.

Meeting Announcements

Meetings begin at 8:00 p.m.

Meetings are held every third Friday of the month, except for the months of July and August, when there are no meetings.

Meetings take place in room SB260, Sobey Building (#2 on map) at Saint Mary's University.

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.

Executive meetings begin at 7:00 p.m., and all members are welcome to attend.

Note that the meeting room has changed.

New room is SB260 in the Sobey building

October 17, 2008 - Speakers night

"Computing the Universe" Dr Rob Thacker will discuss how a virtual universe is created in a computer.

November 21, 2008 - Speakers night

Dr Luigi Gallo will talk about a yet unknown astronomical topic (I'm afraid we don't have the title of the talk)

December 12, 2008 - Meeting night

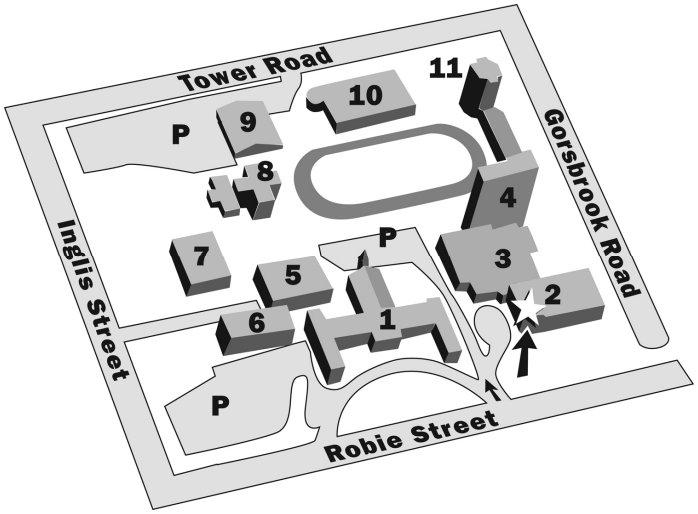
The Annual General meeting. Discover the excitement of astronomical accounting, elect new officers and generally have the time of your life! Tim Donovan will also present his telescope building project.

[The content of all meetings is subject to change]

Meeting Location:

1. McNally
2. **Sobey 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

P Parking



Halifax RASC Executive, 2008:

Honorary President	Dr. Roy Bishop	902 542 3992
President	Paul Evans	902 827 5977
1st vice-president	Gary Weber	
2nd vice-president	Wes Howie	835-3966
Secretary	Alex LeCreux	404-5480
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Nova Notes Editor	Quinn Smith	852 3894
National Rep.	Pat Kelly	798-3329
Librarian	Gilles Arsenault	864 6654
Observing Chairman	John Liddard	902 865 7607
Councilor	Paul Heath	457 0610
Councilor	Jim Dorey	464-8781

In search of an eclipse, but discovering much more.

Pat d'Entremont

I should read the RASC email list more often because I totally missed this year's solar eclipse. But Roy Bishop's reminder of one in 1999 reminded me of an article I wrote at the time and got partially published in Astronomy Magazine. I didn't know any of you at the time because I had yet to discover RASC but I had just discovered astronomy. In case you're interested, here is my write-up from August 11, 1999, perhaps my first ever observation notes.

The clerk at the donut shop was philosophical about the empty bins. "Some days they're on time at five a.m., and some days you have to wait until six."

"I can't wait" I replied, "I have an eclipse to go to." Nor did I have time to return home, so I satisfied myself with a bag of potato chips and a coffee for breakfast. The moon was crossing in front of the sun at precisely 6:12 and there was nothing anyone was going to do about that.

I am new to astronomy, having been hooked a year ago by a newspaper article on Jupiter and its moons. Ever since that time, I have been constantly amazed at all the sights that have been going on right around me my whole life, only I hadn't really paid very much attention to them. Now from my very own backyard, Saturn's rings, Jupiter's moons, and the mountains on our own Moon entertain me, sights that surpass places I've had to travel thousands of miles to see.

At 5:45, I arrived at my destination, which I had scouted out the previous morning. Geography had been kind to me, with a location that would yield over 90% totality. The Nova Scotia sky early that morning was just stunning, a brilliant pink prior to sunup and gradually moving to a deep blue. Light wispy clouds added to the scenery and also to the drama, as they were hovering perilously close to the place where the sun would rise. A bright star kept me company until it eventually faded into the twilight over my left shoulder. I wondered which it might be, but did not have my sky charts with me to look it up.

I had a fresh roll of film in my camera, and the scenery was so breathtaking that I took five shots before the main event even began! At first, the only sound I heard was the creaking of a sailboat gently rubbing against its mooring. Later, I could hear the occasional car in the background, early-birders going to work perhaps, or maybe other enthusiasts going to a viewing site of their own. Two ducks came along and split the calm waters. Then a splash right below my feet startled me, and I noticed two crabs dropping themselves in the water from a nearby rock.

As the sky lightened and darkened and lightened again, I was thinking about how astronomy is really not just about stars and moons and planets, it is about the interconnectivity of it all. In a way, it's as much about crabs on a rock as about the Crab Nebula. At that precise moment, there were people all over the world looking at the very thing at which I was peering through my welder's goggles. Oftentimes, when I am looking through my telescope, I wonder how many people are looking at the same thing. This time there could be no doubt; there were millions.

I did manage to use up my entire roll of 36 exposures, but most of the prints turned out to be quite unspectacular. I don't mind all that much; my morning was not really about taking photographs, enough other people would do that. No, it was about discovering things on my own, and about taking the time to think about the universe around me. I had gone out in search of an eclipse, but discovered much more.

On my way home, my thoughts returned to the bright star I had seen earlier, and I realized I would not need my charts after all. It was my old friend Jupiter, the very thing that first drew me to the heavens.

HALIFAX CENTRE

Nova Notes The Newsletter of the Halifax Centre of the RASC

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

Deadline for the next edition is Nov 23rd 2008.

Nova East Review

August 29 - September 1st 2008
Quinn Smith

My thanks to all who organised another great Nova East. Special thanks to Dr Roy Bishop (who stepped in as chairperson) and guest speaker Terence Dickinson, who stayed and visited the whole weekend.

The event was well attended with over 75 attendees and over 30 camp sites. Despite the rain, I think everyone had a great time.

Registration started Friday afternoon with threatening weather, but most people managed to set up in the dry. The highlight of the evening was guest speaker, Terence Dickinson's talk "What was the Best Decade in the last Half Century to be an Astronomer?". By the end of Terrance's talk a light rain had begun, and so there was no observing Friday night.

Saturday brought clearing weather and an opportunity for solar observing. There were several presentations during the day including:

- Stars for Kids (Mary Lou Whitehorne)
- Astronomy for Adults (Doug Pitcairn)
- Geology of the 3rd Planet (Ron Mills)
- Natural History of Smiley's Park (Sherman Williams)
- Door Prize Draw (Chris Beckett and Andrea Misner)

Although clouds returned in the evening public observing was possible till about 1am.

Sunday morning was damp, and the Bannock Beaker's breakfast was much appreciated. The rain and thunderstorms held off till noon, when the skies opened in true Nova East fashion. Presentations for Sunday included:

- Looking (and sketching) the Universe (Michael Gatto)
- Variable Star Observing (Dave Lane)
- Tidal Bore Introduction and Tour (Dr Roy Bishop)
- What Came before the Big Bang? (Larry Bogan)
- Awesome Astronomy Auction (John Liddard and Quinn Smith)
- 168 Moons (Dave Chapman)
- The Explosion of Comet Holmes (Dr Roy Bishop)

Despite the rain, Sunday evening was spent socialising and telling lies about observing "it was that faint!". Just when we thought the day was lost for observing the skies partially cleared, and for a while, around midnight, several members managed an hour or two of observing.

Monday morning saw a return to the rain and the Bannock Baker's breakfast was the focal point of a very muddy Event Tent.
Most people packed up late on Monday morning (after the rain stopped) and enjoyed sunshine on their way home.
That's Nova East for you. I can't wait till next year!

Nova East committee:
Registration: Dave Parsons, Irene Moore, and Don Wright
NE website: Irene Moore
Program: Roy Bishop and Ron Mills
Door Prizes: Chris Beckett

Thanks also to:
Brochure: Michael Gatto:
Advice: Daryl Dewolfe and John Jarvo
The ten speakers, including keynote speaker Terence Dickinson, who set the high standard of Nova East 2008.
The field hands who helped with setup and tear down (special thanks to Ian Anderson for his truck)
The two auctioneers: John Liddard and Quinn Smith
The chefs at the breakfasts: Daryl Dewolfe, Ron Mills, and Gary Weber
Dave Lane, who provided a data projector and screen
Paul Heath, Nova East's Sky Tour leader
Pat Kelly, who looks after the Nova East account for the Halifax Centre.
Gary Weber, who thanked the keynote speaker on behalf of the Halifax Centre.
Paul Evans and the Halifax Centre executive: advice and support
The staff of Smiley's Provincial Park: assistance and breakfast coffee.

The last word from Roy Bishop
Clearly, the success of Nova East is primarily due to the interest and dedicated work of many people. Nova East, and the Halifax Centre generally, are doing well because of this broad base of support. As volunteers step aside after contributing for a few years, others come forward to take their place. For 38 years I have been a member of the Halifax Centre and have always been impressed by the many fine individuals who make up its membership. They have contributed greatly to the promotion of astronomy in Nova Scotia, and in Canada.

Two views of the Nova East camping area on Sunny Saturday (All Nova East photos by John Liddard)

Dr Roy Bishop addressing the group in the Event Tent

Terence Dickinson autographing one of his books

Dave Lane trying to improve cell phone reception

A fine collection of astronomical equipment

Quinn Smith trying to auction an illuminated "rectal" eyepiece. As Terence Dickinson pointed out - good for observing Uranus..

John Liddard giving his famous "Madonna" impersonation

Monthly Meeting Report

June 20th 2008
Larry Bogan

On this pleasant spring evening, president, Paul Evans, opened the meeting shortly after 8 p.m.

Attendance was good with nearly every seat in the auditorium filled. Several announcements were made before the main event of the evening.

The Mount Carlton Star Party sponsored by the New Brunswick Centre of the RASC will occur August 1st (Friday) to 4th (Sunday). Mount Carlton is a provincial park in the northern part of the province. All are invited - for more information go to http://www.mcsp.ca/ This is a no frills camping party but with excellent dark skies.

The Halifax RASC Barbeque on June 7th at Saintt Croix Observatory was a success. Over 20 people attended and returned home happy, healthy and full.

Nova East weekend this year will be three days from Aug 29th (Friday) to Sep 1st (Monday) The main speaker this year on Friday night will be Terrance Dickenson. (See http://halifax.rasc.ca/ne/)

FYI - green lasers handy for pointing to stars is available at low cost from http://www.dealextreme.com - a 20 mW laser is about $22 with shipping from Hong Kong.

The Saint.Croix Observatory damage (see June 2008 Nova Notes) has been repaired at a cost of about $550. The RCMP have identified the perpetrator. The executive will be writing a letter to the judge to ask for reimbursement for the damages as part Restorative Justice recommended by the RCMP for this person.
http://www.restorativejustice.org and http://www.gov.ns.ca/just/rj/program.asp

Summer was to arrive sometime (9 p.m. ADT) during the meeting.

Dr. Roy Bishop then spoke about his trips below the equator "Water and Sky in the Deep South"

This year Roy and his wife Gertrude made two trip south of the Equator. The first, in March, was to be on a cruise from the southern tip of South America to the southern tip of Africa. The second, in April - May, was for five weeks of caravanning about southeast Australia. Overall they travelled 75,000 km enough to circle the Earth twice.

The South Atlantic Cruise:
Roy had been invited to be a Astronomy resource person on a three-week cruise during March of this year. The cruise started from the southern-most city on Earth, Ushuaia, Argentina (S55° 47' W68°17'), and travelled to three island groups and ending at Cape Town, South Africa. During the trip, he gave tours of the night sky and spoke on many astronomy-related topics. Because of the movement of the boat, he had no pictures of the southern sky from this trip. There were many other resource persons aboard who spoke on the wildlife and geology of the area. At the stops at islands, Zodiacs carried passengers for field trips to view the landscape and wildlife. The area has a fascinating collection of sea birds and mammals included many species of penguin, albatross, and seals. Roy had many great pictures of many of these animals as well as scenes of the dramatic island seascapes.

The ship, named Corinthian II, was a modest size about 300ft long, small compared with modern day cruise ships that run twice that size or more. It was able to dock only at Stanley in the Falklands. Stanley is at south 52 degrees and about 1000 km from Ishuaia. On the Falklands, many beaches were full of penguins of several species.

Next after 1600 more km travel came South Georgia at the same latitude as Ishuaia. This was, by far, the most scenic of places in the South Atlantic. The island is 100km long by 20km wide with snow covered mountains peaking at 2,900m. Glaciers flow down out of the mountains to the sea at the head of several deep fjords. Several landings took place here, to view wildlife, geology and scenery and there was a visit to Grytviken, former whaling station, and the tomb of Ernest Shackleton, the Antarctic explorer.

Next, after "steaming" about 1800 km they reached the volcanic islands of Tristan de Cunha at 37°19'S, 12°44'W. There are three islands here and the ship approached between Inaccessible and Nightingale Islands but the strong winds made it too dangerous to land on the largest (Tristan de Cunha). The only spot flat enough for living was on the north east coast where Edinburgh of the Seven Seas exists and that was inaccessible.

After circumnavigating the scenic steep-sided island they headed for Cape Town, South Africa 1,800 km to the east. On the way, Roy took a picture of his GPS screen when they crossed the Prime Meridian. Arrival at Cape Town ended the 8,300 km voyage.

The Southern Sky from Australia:
Roy flew to Australia in April-May and on the flight down made several interesting observation which he shared with us. His GPS showed when he crossed the international dateline and the shadow of the earth was prominent in the western sky as the sun rose during the flight.

He and his daughter's family travelled in New South Wales, Victoria, and Tasmania, leading a nomadic life in caravans under the beautiful southern skies. Along the way he saw and showed us images of wombat, kangaroo, koala, parakeets, and pelicans.

On this trip "below" the equator, he was able to take images of the sky. Using a small tripod and his Canon XTi digital camera, Roy took 30 second images of the southern skies. These showed the richness of the Milky Way area of Carina, Centaurus, Crux, Scorpius, and Sagittarius. The Coal Sack, a dark dust cloud over the Milky Way, was plainly visible in many images.

There were also images of familiar constellations such as Leo and Scorpius, but were challenging to identify because to the "upside-down" relative to the horizon (in this case the northern one).

Undoubtedly, the southern hemisphere sky is much more impressive than ours because the rich areas of the sky are immediately overhead at 35° S

Footnotes:
Managers of the Tour were Adventure Live Voyages of N.Y.C. (see http://www.alvoyages.com/ships/corinthian-2/19/1025/)

Ushuaia is due south of the state of Maine

There are two web cams on the official webpage of South Georgia Island through which you can see the island. The images are archived and put in a slideshow so that you can see weather change, penguins come and go, cruise ship pass by, etc (go to http://www.sgisland.gs/ and click on the appropriate links)

Google Earth (Panoramic) has many, photos uploaded of the Islands visited by Roy - If you missed the talk, you can get a flavour of the area by looking at those photos. In browsing these, I found that there were far more than I would have guessed for such remote locations.

In 1915 Shackleton sailed to South Georgia Island in an open boat from a stranded expedition in Antarctica and was the first to cross the mountainous island to reach the whaling station, Grytviken. He got help and rescued his party in Antarctica. Later, in 1922, he return to the Antarctic and South Georgia where died of a heart attack at the age of 47.

Drygalki Fjord South Georgia (Mark Lobo)

Penguins St Andrews Bay South Georgia (Laurie Palmer)

Tristan de Cunha (Peter Balwin)

Right Whale Bay South Georgia

Buying a Telescope
(part 2)

John Vandermulen

In the last Nova Notes I described my first scopes: first a simple reflector, then an equally simple refractor. The Orion “StarBlast” I bought on a whim on-line. I had wanted a scope for some time, and it showed up one day on Astromart. The refractor came up on our own Centre's posting; and Gail and I had a lovely drive into the Valley, had tea with the scope's owner, and then took it home. As Roy Bishop had described it, its optics were very good, but the underpinnings were shaky. Since then Clint Shannon stiffened the tripod and improved other bits, so we do use it as it is a quick and simple instrument, which one cannot say with the greatest stretch of the imagination about the Schmidt-Cassegrain which stands outside on my back sundeck.

This brings me to the telescope in the collection that keeps me fascinated with the universe. For that is how it all began - a fascination with space, the age of the universe, findings by Hubble, a mental sketch of its beginnings. A visit to Efston Science in Toronto revealed a line-up of scopes and gadgets in a plain ordinary store where clearly one did not have to be a Harvard graduate in full doctoral regalia. This was an enter and shop store where plain ordinary citizens shopped. Astronomy for the common man. Wow! With that new knowledge I joined the Halifax RASC Centre.

That act, by itself does neither baptize me as an amateur astronomer nor explain the mysteries of the two simple scopes I now owned. But it did reveal that the folks I saw at the first couple of meetings seemed perfectly ordinary seeming people, a surprisingly large number that ranged from timid to highly knowledgeable, and from young to older. Among the latter (including myself!) I met Clint Shannon, a fortunate event as it turned out, as he guided and steered me through my eventual buying my own "big scope", the aforementioned Schmidt-Cassegrain. I seriously doubt that I would have come this far without a mentor without helpful phone calls and explanations. The regrettable part is that Clint lives in Chezzetcook while Gail and I have just moved house, furnishings, scopes, the works, to Truro, which is a longish piece to travel for either of us.

This is probably the biggest problem for the beginning amateur, regardless of age or education. Astronomy is scattered with arcane terminology, bound up by man's oldest sciences, and now made even more complex with the entry of the digital world. So it really is essential, if at all possible, that a newcomer have a mentor, an experienced amateur to phone with questions and for advice.

The simplest form of telescope is Galileo's refractor, a tube with a lens at one end and a second one (eyepiece) at the other. For more magnification get a longer tube. That's it, at its simplest. There is, however, a hindrance - i.e. the lens. The latter is a piece of glass that is curved on both sides. Not unexpectedly, grinding one of these is labour intensive.

The purpose of these refractor lenses is to direct the light by bending it with the curves of the two lens surfaces. Thus they are ideal for accuracy such as needed for observing planets, the moon and so on within the solar system.

The successor to Galileo's refractor scope is Newton's reflector. It consists of a tube with a large mirror at one end, and a small one at the other. The difference, however, is that the second mirror is much smaller and is suspended within the tube space at an angle. Note: no refractor lens, only two mirrors - a large primary and a small secondary. Ah yes - a small hole in the side of the tube directly opposite the small secondary.

The idea with the Newtonian is to aim the tube with the small mirror forward at your subject. The light streams down into the tube past that tilted small mirror, and down to the large reflector mirror at the other end. There it is reflected back up by the large mirror, focused by the curvature of that large mirror onto the little angled mirror. And its angle redirects it into that small hole bored into the side of the tube where an eyepiece magnifies the image. AND the beauty of the reflector is that one can make the tube superwide and suck in gallons of light - a true "light bucket", ideal for deep sky studying where you want all the image light you can suck in.

Right from the beginning I had my sights set on a Cassegrain. Let me explain. A catadioptric optical system is one which contains both lenses and mirrors. However, rather than complicate your system it takes the best of both lenses and mirrors.

Catadioptrics are a clever attempt to combine the advantages of reflectors and refractors. It wants the long tube of a top-of-the-line refractor, but it wants the light bucket characteristic of the reflector. So you begin with a long tube, the longer the better - like in a refractor.

But there is a limit to the tube length, until some genius figured out "why not fold the tube?" For example a 2100mm tube folded in three, with a mirror at one end and a lens at the other, becomes a 700mm long tube. The more light, the better your magnification. APERTURE is the key. Which is why the scope catalogues list their scopes going from 6" to 8", to 9" and so forth - to 12", and up to 24" and so on. My own scope is an 8", meaning that the diameter of the tube opening is 8". I had intended a 10" and e-mailed around to several members about that choice. I was strongly advised to go with the 8" tube, the 10" tube being just too heavy. But just large enough an aperture that I am still getting the "Aperture effect".

Not surprisingly there are several (at least three) ways of fitting the mirror and lenses in that one/third length, and as many different kinds of mirrors and lenses - some of them with a hole drilled through their center. You take your choice. For my choice I phoned and e-mailed around for opinions, and settled on the Schmidt-Cassegrain configuration. So it has the basic Cassegrain configuration of a reflector, but with some features of a Schmidt. It is a popular choice within the Halifax Centre and on the on-line chat forums, so advice and repair parts are readily available.

Depending on the definition there are as many observatories as observers. David Lane has a full-blown observatory - a separate building with rotating roof, various equipment, and truly remote control. Dave can operate his scope at a distance (Ontario!) via the web, plus other nifty gadgets. Plus he can expand the scope's capabilities to include spectroscopy (my dream).

Now, the dome design is not the only stamp of approval. Another very popular design is the roof roll-off, which is what our own Centre has. For this, the roof is loose from the walls and the scope stands inside it waiting for a dry day. To operate, the observer and friends undo some clamps and then slide the entire roof off the building onto a pair of rails. There are obviously many varieties on this theme. For example, a part of the side wall might drop open. And so forth.

And if you want to go via the ultimate crème de la crème, you can rent time on one of the professional scopes (sniff sniff)!

"The Four Asteroids" (photo taken by Daryl Dewolfe at Nova East 2008)

Each of the people above has had the honour of having an asteroid named after them. For more information go to www.rasc.ca/education/asteroids.shmtl
(from left to right)

Terrance Dickinson	**# 5272 Dickinson - (1981 QH2)**
Dr Roy Bishop	**# 6901 RoyBishop - (1989 PA)**
Dave Lane	**# 117032 DaveLane - (2004 JN20)**
MaryLou Whithorne	**# 144907 Whitehorne - (2004 YS3)**

IYA - Update

Quinn Smith

For the last few months the Halifax Centre IYA committee has be working to draw up plans for IYA events for 2009. Before I explain these plans I would like to give a brief explanation of what IYA is, and why 2009 was chosen as International Year of Astronomy.

The International Astronomical Union (IAU) launched 2009 as the International Year of Astronomy (IYA2009) under the theme, The Universe, Yours to Discover. IYA2009 marks the 400th anniversary of the first astronomical observation through a telescope by Galileo Galilei. It will be a global celebration of astronomy and its contributions to society and culture, with a strong emphasis on education, public engagement and the involvement of young people, with events at national, regional and global levels throughout the whole of 2009. UNESCO has endorsed the IYA2009 and the United Nations proclaimed the year 2009 as the International Year of Astronomy on 20 December 2007.

Just as a point of interest there are a few myths surrounding Galileo and the telescope.

Many people think that Galileo invented the refracting telescope in 1609. The refracting telescope was probably invented several years earlier in Holland, but Galileo improved the concept and made the first practical telescope of good quality (for the time). What he did however was to use his telescope for scientific astronomical measurements, and to go a long way in disproving the idea that the Earth was the center of the Universe.

Galileo's first important discovery was not to look at the Sun through a telescope! He was lucky that his first scope only had an aperture of 1".

He looked at the moon, and by careful observation and interpretation (he compared the shadows of the waxing and waning phases) realised that the moon was full of craters and mountains. It was assumed up the then that the "Heavenly Bodies" were perfect spheres. Identifying craters and mountains on the Moon blew that one.

He then looked at Jupiter, and saw the four largest moons. He correctly interpreted what he saw to be the moons orbiting the planet. According to ideas at the time, everything was supposed to revolve around the Earth, but here were bodies revolving around another planet.

His final breakthrough was to observe the phases of Venus. The sequence of phases would be different if Venus orbited the Sun rather than orbiting the Earth. The difference was calculated beforehand, and Galileo had two different theories that were testable. He showed that Venus actually went around the Sun, disproving the theory that the Earth was the center of the Universe.
He nearly paid with his life for his discoveries, as the Church was not happy. The rest, as they say, is history.

Now back to Halifax and IYA.

Most of the events planned for Nova Scotia and Halifax are centered around public outreach and education.

We are planning a series of presentations within the Halifax Public Library system. The committee is putting together a collection of presentations that can be delivered by anyone who is interested in getting involved. Buy have "canned" presentations that can be run using a computer/projector individuals will not be required to go through the trouble of having to put together a presentation from scratch.

We are also planning multiple Mall displays, not only in the Halifax area but throughout the Province. These Mall displays will hopefully have a public observing component associated with them (weather permitting). We of course will be planning several types of public observing throughout the year.

We are also planning to work within the educational system and get teachers involved with astronomy. IYA has many resources that will be of great benefit to teachers and schools. Andrea Misner has been working hard in this area and will be talking with teachers at the upcoming Association of Science Teachers Provincial Conference (October). She is also planning a student art based project called "The Star Trail Contest"

We have also been planning projects for the Scout and Guide movements. To this end we have be working with the Discovery Centre to offer them displays and projects that will suite younger groups.

There is a limited amount a small group such as the Halifax RASC can do alone. Because of this we have been working closely with Dalhousie University who is using IYA as a focal point for bringing the Planetarium back into regular operation. Our contribution will be in the form of volunteers to run some of the presentations.

We have been working with the IYA committee at Saint Mary's University, planning joint projects.

As a final idea, the IYA committee has been looking into the possibility of establishing a dark sky reserve / preserve within an existing park in Nova Scotia

If anyone would like to participate in any of these events, offer support or ideas, please contact the IYA committee at halifaxiya@rasc.ca

For more info check out our Halifax IYA page at http://halifax.rasc.ca/activities.html
or go to the international IYA site at http://astronomy2009.org

St. Croix Open House

June 7th 2008
John Liddard / Dave Chapman

John Liddard
Thank you everyone for making the SCO Open House BBQ a great success. I'd personally like to thank Gilles Arsenault and Quinn Smith for all their help in organizing the event. Without Gilles, his BBQ and chef skills, we would all have been eating steak tartan.

The Open House was well attended with over 20 people present, and weather during the day was amazing. A beautiful warm sunny day with a slight breeze to keep the bugs away. As far as the evening goes; at approximately 9:07:18pm the skies opened up. With rain that is . . .

In a whirlwind of efforts all the remaining guests packed up, closed up the buildings and were on their way home by about 9:30.

Dave Chapman
Thanks go to John Liddard, Gilles Arsenault, and others who contributed to the success of the Open House and BBQ at Saint Croix Observatory. The weather was great for these events (but did not cooperate for night-time observing later).

Several of our current members were not involved when SCO was officially opened 11 years ago, on June 21, 1997, at 13:18 ADT (the precise instant of the summer solstice). I could not find a photo of this event but details can be found in the archived Nova Notes from August, 1997.

In those days there was no "Mary's Loo" ~ I think people drove to Tim Horton's for bathroom breaks! The event was called a "Star-BQ" and was potluck (perhaps a hint for organizing future events of this type).

I cannot recall if we have had a similar event in the intervening years.

No shortage of food, participants or discussion

The great weather allowed solar observing during the day

An unusual view of the lake at SCO
Several weeks after the Open House the lake at was drained for maintenance of the dam. I wonder what happened to the fish?

St. Croix Observatory

Observing Chair: John Liddard 902 865 7607

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.

Observing Nights:

Every weekend closest to the new Moon, there is an "Observing Night" at St. Croix. The purpose of "Observing Night" is to encourage Centre members, their guests and visitors to share an evening of observing at St Croix. 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 Chair.

Future dates for Observing Nights:

September 26th, 2008
October 24th, 2008
November 28th, 2008
There is no Observing night in December

These dates are all Fridays. If this is a meeting night, or cloudy, the alternate date will be the following Saturday.

Directions from Halifax:

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 , may gain access to the St.Croix facility. For more information on becoming a key holder, contact the Observing Chair.

Rules for using the SCO equipment:

There are several pieces of astronomical equipment available for members (and guests) to use, including a 17.5" dob and a magnificent pair of tripod mounted, 100mm binoculars.
If you are unfamiliar with the use of these pieces of equipment, please ask for assistance—any knowledgeable member would be more than willing to help you out. Please share the equipment with other members; and treat the equipment, the facilities, and the site with respect. …… Enjoy!