Nova Notes

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

Volume 35 | Number 1 | February 2004

PO Box 31011, Halifax, Nova Scotia, Canada B3K 5T9 www.halifax.rasc.ca halifax@rasc.ca

We are saddened to announce the unexpected death of Dr. Bill Thurlow. Bill was a good friend to many of us, and one of Halifax Centre's most dedicated, long-term life members.

Although Bill only recently moved to Halifax, he frequently attended Halifax Centre meetings even while living in Digby and Summerside, PEI. He was a regular participant at Nova East. Many of you will know Bill as the proud owner of his 17.5" scope "Big Red." It was the first really large telescope to grace the skies of Nova East back when a 10" scope was considered big. Bill was one of the best deep sky observers in the centre, and a Messier fanatic. He could find all 110 Messier objects without charts. It was Bill who initiated the Messier Marathon observing challenge in the Halifax Centre. He was always willing to share his enthusiasm for astronomy and his knowledge of the sky with anyone willing to listen.

Bill retired from medicine almost two years ago to follow his life-long dream: to study astronomy at Saint Mary's University. He was having the time of his life pursuing this dream.

Bill was a surgeon who practiced in Newfoundland, Nova Scotia and Prince Edward Island. He was an active member of the Athena Astronomy Club in Summerside. In addition to his passion for astronomy, Bill was an avid marathon runner, an outspoken environmentalist and a pacifist. He was a kind, honest, generous and thoughtful person. He had a gentle sense of humour and was a great storyteller. He was a welcome member of many astronomical expeditions. We will miss him.

Dave Lane
Mary Lou Whitehorne

Bill Thurlow with "Big Red" at Nova East 1992, Fundy Park. Photo by Roy Bishop.

President's Annual Report, Halifax Centre

Steve Tancock

At meetings back when I was secretary I'd often hear some of the executive members say we need some new ideas, drive and input – we need to get new blood on the council. I decided jump foolishly into the job with both feet! To start the year I stirred things up a little by re-organizing the way the executive meetings flow. There was some hesitation to change – and a lot of "feedback" – but that's what I wanted! I eventually pushed through a change or two and now exec meetings end with time to spare, quite often making things less hectic. I continue to listen to input and look for ideas to improve our efficiency.

The summary of council activities are as follows.

The Center Executive, with some prompting by Craig Levine, created an award program for photography by Halifax members. A panel of three, chaired by the first vice president will judge the entries for the new Murray Cunningham Astrophotography Award.

Earlier this year the council passed the formation of the St. Croix Observatory Committee (SCOC) to oversee the care and future expansion of the facility. The council is made up of members and headed by the Observing Chairman. Based on the record turnouts of members on members nights at the observatory, the SCOC initiated an expansion and improvement program. A letter campaign to request financial assistance from the membership to fund the project was a big success.

Nova East, our local summer star party continues to grow, and thanks to the efforts of many members the event is proving its ability to keep, and even gain new attendees each year.

These were the main motions and activities noted this year. All other motions and council activities were of a house keeping nature; paying the insurance, authorizing care of St. Croix, exterminators at SCO, etc. ✯

Treasurer's Report *Paul Evans* (as of November 21, 2003)

ROYAL ASTRONOMICAL SOCIETY OF CANADA, HALIFAX CENTRE
Comparative Income Statement for 2001/2002 and 2002/2003 Membership Years

	Year Oct 2002 to Sept. 2003	Year Oct 2001 to Sept. 2002	Increase over 2001/2002
REVENUE			
Membership Fees	$ 3,488.15	$ 2,834.06	$ 654.09
Life Members Grant	492.80	492.80	0.00
Donations and Obs. Donations	2,480.00	250.00	2,230.00
Interest	55.95	61.42	–5.47
Handbook Sales (Net)	269.74	432.85	–163.11
Sales of Merchandise (Net)	592.16	646.37	–54.21
Nova East (Net)	818.98	711.79	107.19
Miscellaneous	$ 0.00	$ 0.00	$ 0.00
Total Income	$ 8,197.78	$ 5,429.29	$ 2,768.49
EXPENSES			
Meetings & Newsletter	$ 2,203.90	$ 1,573.60	$ 630.30
Equipment & Supplies	42.15	0.00	42.15
Office Administration	82.80	269.08	–186.28
Legal Expenses	25.00	25.00	0.00
Educational Activities	0.00	0.00	0.00
Insurance	1,007.00	769.00	238.00
Awards & Donations	249.63	168.57	81.06
Observatory - Operating	422.18	606.13	–183.95
Miscellaneous Expenses	$ 754.97	$ 530.10	$ 224.87
Total Expenses	$ 4,787.63	$ 3,941.48	$ 846.15
NET INCOME	$ 3,410.15	$ 1,487.81	$ 1,922.34

Approved by: Paul Evans, Treasurer Steve Tancock, President

COMPARATIVE BALANCE SHEET FOR 1999/2000 AND 2000/2001 MEMBERSHIP YEARS
Comparative Balance Sheet for 2000/2001 and 2001/2002 Membership Years

	Year Oct 2002 to Sep 2003	Year Oct 2001 to Sep 2002	Increase over 2001/2002
ASSETS			
Cash	$ 4,364.98	$ 2,583.78	$ 1,781.20
Nova East Profits (MAG/NCAC)	1,501.91	955.92	545.99
Undeposited Funds	2,625.00	800.00	1,825.00
Accounts Receivable	0.00	77.40	–77.40
Handbook Inventory	566.57	41.20	525.37
Merchandise Inventory	2,245.15	1,729.24	515.91
Investments	2,000.00	2,000.00	0.00
Accrued Interest	678.68	624.46	54.22
Estimated Library	3,395.01	3,395.01	0.00
Observatory Equipment	9,538.77	10,528.61	-989.84
Estimated Miscellaneous	$ 452.54	$ 452.54	$ 0.00
Total Assets	$ 27,368.61	$ 23,188.16	$ 4,180.45
LIABILITIES			
Accounts Payable	$ 1,867.15	$ 1,096.85	$ 770.30
Est. Handbook Payable	0.00	0.00	0.00
Fees owed to National Office	0.00	0.00	0.00
Other Liabilities	$ 0.00	$ 0.00	$ 0.00
Total Liabilities	$ 1,867.15	$ 1,096.85	$ 770.30
EQUITY	$ 25,501.46	$ 22,091.31	$ 3,410.15
Observatory Investment to Date	$ 19,584.01	$ 19,584.01	$ 0.00

Approved by: Paul Evans, Treasurer Steve Tancock, President

MEMBERSHIP	1997	1998	1999	2000	2001	2002	2003
	135	164	157	164	180	192	209

2002/2003 has been a solid financial year for the Halifax Centre. Financially, as in all aspects of our Centre we continue to run smoothly.

At our September 30th year-end, we had a surplus of $3,410.15.

Membership levels have increased over last year to 209 from 192. Membership growth in the Centre has been very strong since 2000 – we've grown by 27% in four years. Counting the observatory, we are now worth (at least on paper) $45,085.47 and have no significant liabilities. The following are some explanatory details pertaining to the Income Statement and Balance Sheet.

Respectfully submitted,
Paul Evans, Treasurer

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:

Michael Gatto
agatto@ns.sympatico.ca
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**

Material for the next issue should reach the editor by April. 30

DETAILS OF THE 2002/2003 INCOME STATEMENT

REVENUES:

Membership Fees $3,488.15: Membership fees are up from last year corresponding with our increased numbers.

Life Members Grant $492.80: Our grant from National Office is the same as last year. Currently we have 26 life members.

Donations and Observatory Donations $2,480.00: This is the big news this year! The fundraising campaign currently underway for funds to improve our St. Croix Observatory facility has yielded a very generous result. Thank you!

Interest $55.95: This was earned mainly in our money market mutual fund, which included the final quarter of the previous fiscal year but not the interest received during the final quarter of this fiscal year. Interest earned is lower than last year due to lower interest rates. Our bank account earns very little interest.

Handbook Sales (net) $269.74: Handbook sales are down from last year – however last year was a very strong year for handbook sales.

Sales of Merchandise (net) $592.16: Merchandise sales were moderately lower than last year. Part of this resulted in being overstocked in Calendar inventory

Nova East (Net) $818.98: Nova East made a strong profit this year. Following a motion of the executive at its September 1999 meeting, two-thirds of this profit is to be recorded as profit earned by the other two astronomy clubs that co-hosted Nova East. Ordinarily, the RASC would have paid this profit to these clubs, however neither the Minas Astronomy Club nor the Nova Central Astronomy Club have bank accounts. See Assets – Cash below.

EXPENSES:

Meetings and Newsletter $2,203.90: This expense is up over 40% from last year reflecting a larger Nova Notes and well attended meetings. $711.29 was spent on our meeting treats, prizes, and expenses for out-of-town speakers. Some of this money ($263.31) may be recouped from National Office from the Speaker's Travel Assistance Program. Nova Notes cost us $777.01 to print and $631.13 to send to our members.

Office Administration $82.80: This includes the cost of postage for routine correspondence, office supplies, and the rental of our post office box.

Legal Expenses $25.00: This is the annual fee paid to the Provincial Government to maintain our registration under the Society's Act.

Educational Activities $0.00: No expenditures were classified under educational activities this year.

Insurance $1,007.00: This is entirely the insurance for the observatory. Our insurance costs increased by 31% over last year (and last year we had to endure an increase of 48% over the previous year). Unfortunately we are in the same scenario as many others purchasing insurance.

Observatory — Operating $422.18: This figure includes the $1 annual land lease and some operating expenses such as batteries, cutting keys, and propane for the furnace. Also included are the property taxes, which amounted to only $25.48. We had a (hopefully) unusual expense of 287.50 for pest control. Capital spending that has been expensed on the observatory has totalled $19,584.01 since the project was started in the spring of 1996.

Miscellaneous Expenses $754.97: This item is mostly travel expenses for sending our National Council Representative to meetings.

DETAILS OF THE 2002/2003 BALANCE SHEET

ASSETS:

Cash $4,364.98: This represents the cash balance at the TD Bank in Halifax on September 30, 2001 (but not including the profits from Nova East attributed to the Minas Astronomy Group and the Nova Central Astronomy Club, see below).

Cash – Nova East Profits $1,501.91: This represents two-thirds of the profits from the 2002, 2001 and 2000 Nova East star parties which are attributed to the Minas Astronomy Group and the Nova Central Astronomy Club (see Expenses – Nova East above). This profit is currently held in our regular TD bank account but recorded separately within our accounting system.

Undeposited Funds $2,625.00: This represents cash and cheques that were on hand but not deposited at year-end. We don't normally keep a lot of cash in the mattress – this unusual high amount is a result of the strong initial result in the first several weeks of the fundraising campaign.

Merchandise Inventory $2,811.72: This consists of our inventory of 20 2003 Handbooks, 50 2004 Handbooks, 14 T-Shirts, 9 2003 Calendars, 94 2004 Calendars, 28 centre Pins, 4 bumper stickers, 36 RASC stickers, 19 RASC embroidered crests, 5 RASC mugs, and 15 RASC key chains.

Investments $2000.00: The Halifax Centre holds a money market account with the TD Bank.

Accrued Interest $678.68: Accrued interest on our money market account as reported on four quarterly statements from the TD Bank. This includes income from the last quarter of the previous fiscal year but does not include income from the last quarter of this year since it was not known at the time that the statements were prepared.

Estimated Library $3,395.01: Our library's value is an estimate of all money spent there since the beginning. We did not spend any money on purchasing library inventory this year.

Observatory Equipment $9,538.77: The value of our observatory equipment asset decreased this year due to the sale of the 8" Celestron Ultima telescope.

Estimated Miscellaneous $452.54: These other holdings of the Centre were unchanged this year. Historically, $250 has included a slide projector, a mirror grinding apparatus, and some slides and material available for use at the planetarium.

LIABILITIES:

Accounts Payable $1,867.15: At year-end, the centre owed the National Office for orders of year 2004 Calendars and Handbooks that were received during September 2003. ✭

Secretary's Report

Craig Levine

Membership

2003 President Stephen Tancock stood watch over a year that continued the previous year's membership growth trends. This year saw our roster rise 7% to 214 members. Especially heartening is the rising number of young members and active observers. A number of factors led to this growth, particularly 1st VP Pat Kelly's advertising our monthly meetings in local alternative and mainstream media.

The Centre membership was especially proud to learn that Mary Lou Whitehorne and David Chapman were finalists for the Discovery Centre's Science Champion Award, sponsored by Genome Atlantic. It is awarded to a working scientist for the promotion of science and technology to the public, above and beyond what is normally expected within a person's workplace.

The Centre would like to extend a special and sincere "Thank You!" to four long-time Centre Executive members who decided to take a step back from council duties at the end of 2003: Dave Lane, Clint Shannon, Dr. Michael Falk, and David Chapman.

St. Croix Observatory (SCO)

This year the Executive initiated a very successful fund-raising campaign within the membership that allowed some much-needed improvements be made to the SCO facility. The driveway was improved, the parking area enlarged, and most importantly, the south-facing gravel observing pad was greatly enlarged to accommodate the increased usage of the facility.

Burke Gaffney Award

This year's Burke-Gaffney Award for best-written article appearing in the 2002 year of Nova Notes was presented to Andrea Misner.

The Murray Cunningham Astrophotography Award

The Murray Cunningham Astrophotography Award was established by the Halifax Centre in 2003 to promote interest among centre members in astrophotography including digital imaging. The award is named after Dr. Murray Cunningham, one of the centre's founding members and long-time Honorary President, who always displayed a sense of wonder and marvel when looking at the photographic achievements of Centre members

Centre Meetings

January
Dave Lane, Mary Lou Whitehorne, Dr. Roy Bishop, Dr. Bill Thurlow *"The Skies of Mauna Kea."*

February
Dr. Ian Short *"The Oldest Red Giants and the Formation of the Milky Way."*

March
Mary Lou Whitehorne *"The Publication of Skyways."*

April
Sherman Williams, Clint Shannon, Roy Bishop, Paul Heath *"Observastories – Personal Reflections on Astronomy."*

May
Mark Kaye "*Three Decades of Observing, or How to Make Looking Up Look Easy."*

June
Dr. Roy Bishop *"A Leonid Meteor."*

September
Jayanne English *"Cosmos vs. Canvas: Tensions Between Art and Science in Astronomy Images."*

October
Dr. David Crawford of the IDA: *"Protecting Our Night Environment."*

November
Daryl Dewolfe and Friends: *"New Astro-products Showcase."*

December
Pat Kelly *"Binary Stars: The Astronomer's Friend."*

Nova East

This year's Nova East star party also continued the trend towards increased attendance year-over-year, but this year the clouds hogged the sky.

Fortunately there were many speakers and events to entertain the attendees. Dan Falk was the featured speaker with his "Universe on a T-shirt" talk. Other speakers included Dr. Roy Bishop, Paul Evans, John Jarvo, Dave Lane, Graeme Hill and others, plus we were entertained by Paul Gray and Chris Beckett's rockets. Congratulations to the 2003 organizing committee for putting on a first-class event!

Of Note

"Skyways", an astronomy resource for teachers authored by our Mary Lou Whitehorne was published. This excellent resource is garnering praise from across Canada and the USA. Well done Mary Lou!

Carolyn Shoemaker was given an honorary doctorate at St. Mary's University in late May and arrangements were made for members to meet her in a private reception while she was in Halifax. Her grace, intelligence, and charm had the group hanging on her words both in her address and in the relaxed conversation afterwards. ✯

Why we do it.

David Griffith

A significant part of our RASC mandate is outreach, and the education of the general public in astronomy and related sciences. I think many of us get involved for this very reason. We begin as solitary backyard observers, and soon become passionate enough about astronomy to feel compelled to share it with others. Often we begin with family, then friends. Then, perhaps at the request of a friend, colleague, schoolteacher or some community group leader, we share our knowledge expertise and enthusiasm with a larger, more diverse group.

We strive to excite the imagination of our audience, debunk common myths and bad science, and encourage people to go outdoors and look up. We answer those common questions about the north star, the Milky Way, life "out there", astrology, falling stars, eclipses, and yes, even UFOs and aliens.

In the last issue of Nova Notes I reflected on one of those moments. The star party at Hebbville Academy drew a large crowd of both kids and adults. The questions were numerous, the enthusiasm was high, and the soccer field was strewn with a diverse collection of telescopes, the majority being department store refractors. When at last I remained the lone figure on the field, packing up my gear that night, I reflected on the evening, recalling the smiles on the faces of the kids, and the never-ending lineups of children and adults at my scopes. I packed the gear in the car, and drove home, cold, tired, and quite content.

A few weeks later I received a phone call from a parent who had attended the outing. She explained how, ever since the star party, her 14 year-old had been heading out to the local golf course every clear night to stargaze. She asked me about telescopes. With Christmas around the corner, she was considering the purchase of a scope for her son to further encourage his new interest. She asked about a few scopes in the Sears catalogue, on the Home Shopping Channel and in a department store. There it was: another of those moments. Recalling the frustrations of those at the star party with junk telescopes I went into damage-control mode. Here was a young person recently turned onto astronomy, facing possible disappointment once he received his "tool of the trade". I suggested several alternatives, including good binoculars and a few smaller 4 – 5 inch scopes that were decent, well-reviewed instruments that wouldn't disappoint the novice.

Once you have entered into this kind of dialogue, it becomes something of a diplomatic mission. You know there is a certain spending limit, and parents like to think they know what's best for their kids. The kids themselves often are swept away by those sleek 60mm refractor tubes and claims of "600 power!" It's not always easy to get the point across without being too technical or coming across as being insulting, despite your good intentions. You walk a tight rope. After exchanging about a dozen e-mails with this parent, she decided to go with one of my recommendations. It was a long process, sometimes frustrating. At times I felt like I was in the midst of some epic battle between good and evil. It's amazing how passionate we can get about how someone else spends his or her money!

After deluging this poor woman with URLs, phone numbers and email addresses, telescope reviews, and jargon about mounts and optics, she replied with a final email, a part of which I share with the readership:

I'll let you know how I make out. Thanks so much, you can tell your … society … that you've helped bring the stars to another teenager and maybe his mom and dad.

I feel confident (and relieved) now, that their choice of scope will encourage, not discourage or even extinguish this newfound enthusiasm in astronomy. To encourage, to inform, to fuel that spark and not see it snuffed out so quickly and needlessly because of misinformation, unrealistic expectations or misleading advertising, to ensure that another generation will continue to look upward in wonder, and ask questions – this is why we do it. ✯

The ISS heads into Orion, 02/04/04, 18:58. PM, Canon A70, 15 second exp, Dartmouth – Michael G.

January 2004 Meeting Report

Pat d'Entremont

19:59:55

Nothing like being prompt. President Steve Tancock called the meeting with five seconds to spare. He did his usual bit about the benefits of joining the RASC (Observer's Handbook, borrowing privileges for books and scopes, use of observatory, Sky News / RASC Journal subscriptions). He then mentioned that our observatory now has room for lots of extra telescopes, and kept on his campaign of getting rid of old Sky and Telescope magazines. ("Get the one for the month of your birth", says Steve; sorry to say, for me they didn't seem to go back that far!)

Designing, Building, and Using a Backyard Observatory for Research

There are probably some small universities that have less equipment than Dave Lane. Tonight's main topic was on Abbey Ridge Observatory, but before going into that, Dave showed us a map of Mars he found while cleaning up. Made by the U.S. Air Force in 1962, the map came complete with Martian Canals!

Dave also expressed a bit of grief that after having just finished his 14-year term on the RASC executive, he had figured that he was free of obligations. But just when he thought he was safe, he was called upon to be our featured speaker.

Abbey Ridge Observatory, in Dave's 5.8 mag backyard in Tantallon, is a 10-foot diameter fiberglass dome on top of a 3-foot high walled square wooden structure. It houses a permanent pier, a Losmandy Titan mount, a Celestron C11 optical tube, an SBIG ST9 CCD camera, a computer, high-speed Internet, and a telephone.

How much? Dave's coy answer: about the same price as a Mazda RX8.

Dave's motivation seems to be to make a contribution to science, and he asks whether or not an amateur can do so. The answer is definitely "yes". One example is in the discovery of supernovae in other galaxies, and it is that for which he and Paul Gray are currently using the observatory. In fact, these two collaborators discovered the first supernova from Canada back in 1995, and Dave tells us that to this day it remains the only one!

Other contributions that amateurs can make to science are in discovering near-earth asteroids, comets, and variable star study. Amateurs are especially useful in time-sensitive observations, such as lunar and asteroid occultation timings, positions of newly-discovered asteroids, and in brightness estimates of supernovae. In fact, when it comes to measuring brightness, professional scopes are often "too large" and are not as good as amateur scopes. And when it comes to measuring things that move, the pros only have so much time on the big scopes so they rely on amateurs to fill in the gaps.

Dave and Paul chose an area of the sky quite far north to look for supernovae, because they feel other observers further south will not be looking there. Dave gathers the images and posts them on his web site, then emails Paul in Fredericton, who downloads the images and compares them against reference images to see if there are any new supernova. Dave has developed a scripting language that allows him to easily plan an evening's work using a near-English computer language. He also reprogrammed part of his Earth-Centered Universe to take advantage of his mount's advanced capabilities, and tells us that it is very very accurate.

So while Dave is indoors playing Trivial Pursuit, his scope is automatically scanning the sky and downloading images on his computer. He occasionally has to go out to move the opening in the dome, something which will also be automated soon. And while the rest of us are freezing the nuts off our brass mount gears, Dave is indoors in his home office, connected remotely to his dome computer that controls his telescope.

Next on the agenda for Dave are asteroid astrometry, variable stars, and taking "pretty pictures". Let's see you do that with a Mazda. Zoom-zoom.

What's Up

Craig Levine did a great job with his first What's Up of his observing chair tenure. Saturn is big and bright, with its rings wide open. There are lots of Messier objects to look at: M31, M2, M36/M37/M38 (three nice open clusters in Auriga), M35 (a beautiful cluster), M50, M41. M15, M81/M82, Cone, Crab, Beehive, Rosette (Nice with a wide field and a nebula filter), NGC 1907 (right next to M38).

Jupiter is up late in the evening. No bright comets visible now, but some coming this summer. Venus is big and bright in the West in early evening.

Page 76 of the Observer's Handbook has some good information of the evening sky.

Spirit Rover

Before adjourning the meeting, Steve Tancock showed us some images he downloaded from the Internet (with a 56K modem!) These included an image per hour sequence of Mars taken by Spirit on its last 36 hours, and several images of the planet's surface, including some early ones by Spirit. One feature had an eerie resemblance to Princess Leia of Star Wars fame, something we might not have noticed without Steve's help. (But once he pointed it out, it was definitely there!) A colour image from Spirit was quite breathtaking.

10:17:09

At just past quarter past ten, Steve adjourned another interesting RASC meeting. What a great way to spend a Friday evening! ✯

St.CROIX Observatory

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 Craig Levine at 852-1245. *Dates for Members' Nights for the following few months are:*

Saturday, March 20th *(Rain date, Sun. 21st)* **Saturday, April 17th** *(Rain date, Sun. 18th)*

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 Craig Levine at 852-1245.

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 Craig Levine for more information or to book the scope at 852-1245.

Meeting Announcements

Halifax Centre of the Royal Astronomical Society of Canada

Friday, March 19th, 2004

Paul Gray

Topic: The Dark Nebula Project; updates to his talk from Nova East, and the new dark nebulae section in the Observers Handbook (p. 282).

Friday, April 16th, 2004

John Jarvo

Long-time RASCer John Jarvo will be giving a talk titled Transits of Venus, well-timed for the upcoming June 8th transit.

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 2004

Honorary President	Dr. Roy Bishop	
President	Steve Tancock	465-4092
1st vice-president	Pat Kelly	798-3329
2nd vice-president	Pat d'Entremont	497-1153
Secretary	Andrea Misner	491-8668 x 4808
Treasurer	Paul Evans	423-4746
Nova Notes Editor	Michael Gatto	453-5486
National Rep.	Pat Kelly	798-3329
2nd National Rep	Mary Lou Whitehorne	
Librarian	*(We are currenly seeking a librarian)*	
Observing Chairman	Craig Levine	852-1245
Councilor	Shawna Mitchell	865-7026
Councilor	Gary Weber	454-8264

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. *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 Residence*

P = Parking