Nova Notes

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

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

Volume 40 Number 2 April 2009 E mail: novanoteseditor@rasc.ca

In this issue:

Front page photo: Roy Bishop

2009 February 25th, 21h 12m Moon,
Canon XTi, ISO 400, 300 mm, 2 secs. @ f/10

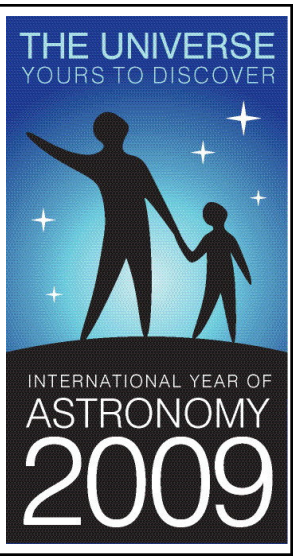
From the editor

Quinn Smith

I am writing this editorial at 8:44 a.m. ADT as the Sun crosses the equator. It's a long editorial, as I started it in Winter and will finish it in Spring.

March and April are great months for observing. We still have long dark nights and the weather is warming up. My personal goal for IYA is to complete my Messier list and apply for the RASC Messier Certificate. While at the Winter Star Party, in Florida, I bagged 21 new (for me) Messier objects. All I have left is the Virgo cluster, and although I did find them all through my 80 mm 'scope at the WSP, I need to identify them individually (using my C8) before I can consider them completed.

My quest to complete my Messier list and get my certificate, brings up an interesting point. Most of the Messier objects I have identified prior to 2009 have been documented with just the date, which is not really enough information for the certificate. I have now learned the value of keeping an observing log. Now I look forward to working through previously found objects and recording the observations in greater detail. If at first you don't do it right, repeat the process!



Meeting Announcements

Meeting room SB 260
No meetings July and August

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. in room SB152, and all members are welcome to attend.

April 17th, 2009 - Speakers night
Mark Dryden will talk about his Obsession telescope. Dave Chapman will discuss the optics of the Galilean telescope.

May 15th, 2009 - Meeting night
Doug Pitcairn will talk on a topic titled: "Search for another Home World: An examination of the possibilities of finding another Earth"

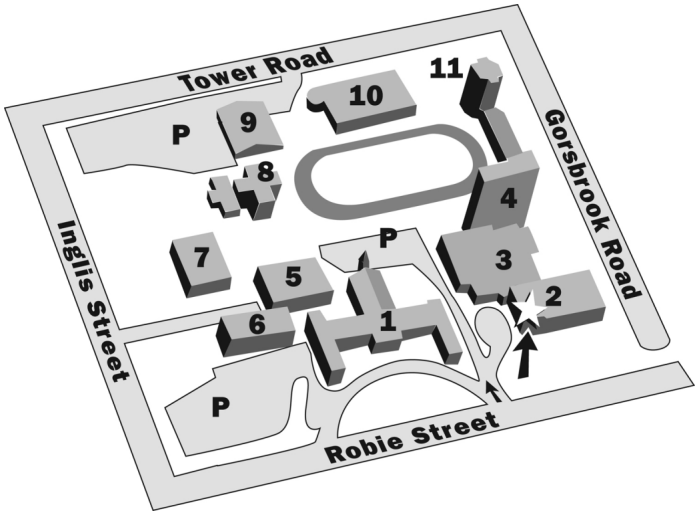
June 19th, 2009 - Speakers night
Dr Bob Hawkes will talk on a topic still to be decided. Stay tuned.

[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, 2009:

Honorary President	Dr. Roy Bishop	902 542 3992
President	Andrea Misner	877-6723
1st Vice-President	Wes Howie	252-9453
2nd Vice-President		
Secretary	Chris Young	466-0489
Treasurer	Pat Kelly	472-2322
Nova Notes Editor	Quinn Smith	852 3894
National Rep.	Pat Kelly	472-2322
Librarian	Robert Bussieres	434 4821
Observing Chair	John Liddard	902 865 7607
Councilor	Paul Heath	457 0610
Councilor	Sean Dzafovic	430 9062

Auditor's Report (Year ending 2007)

Ian Anderson

Halifax RASC Centre Auditor's Report for Fiscal Year Ending September 30, 2007.

Having inspected the financial statements and supporting documentation of the Halifax RASC for the year ending September 30th 2007, I would express the opinion that there is no evidence the trust the Centre places in out Treasurer is misdirected.

Moreover I wish to assert that I believe the balance sheet for our position at the end of fiscal 2007 presents a fair and reasonable estimate of our assets at that time in accordance with established guidelines adopted by the Centre within the past two decades.

There are however significant differences between the increases in assets indicated from the balance sheet of one year earlier, and the increases as indicated in the income statement. I believe these discrepancies are mainly due to the difficulties the Treasurer has expressed in determining costs of sold merchandise.

A reconstruction of the year's activity would present an accurate picture of the Centre's income and expenses for 2007. But such a reconstruction is probably beyond the interests and concerns of the membership. It would merely serve to set the record straight, and I am sure it would reveal no hidden or misappropriated funds.

Having to pick between the two income amounts, I would favour the accuracy of the balance sheet and suggest income for 2007 was just under $1900.

In summary I would say that the two most pressing concerns for members of the Society, namely: that the Treasurer is handling the Centre's funds honestly, and that a reasonably accurate image of the Centre's financial standing is presented at year-end, have been met for 2007.

Respectfully submitted:
January 16th, 2009
Ian R. Anderson
Auditor
RASC Halifax Centre

Nova East Update

Roy Bishop

NOVA EAST 2009
August 21st - 23rd

Plans are in place for Nova East 2009. Sponsored by the RASC Halifax Centre and Minas Astronomy Group, Atlantic Canada's largest star party will again take place at Smileys Provincial Park near Windsor. The dates are Friday August 21st through Sunday the 23rd, about two days after New Moon.

Nova East begins early Friday evening with our special guest speaker for 2009, Dr. David Turner. Dr. Turner is a professor in the Department of Astronomy and Physics at Saint Mary's University, Director of the Burke-Gaffney Observatory, an expert on Cepheid variable stars, and a keen observer of astronomical phenomena that can be viewed with the unaided eye. He is well qualified to address us on the topic: "Everything you wanted to know about the North Star but were afraid to ask".

Saturday events are open to the public, including several talks during the day, viewing a tidal bore (arranged especially for those who missed it last year), solar observing, the popular Door Prize Draw followed by an evening talk, and dark sky observing that night.

Plan to take in Nova East 2009, the largest gathering of amateur astronomers and the most telescopes in one place in eastern Canada. In this the International Year of Astronomy, we are planning for many Galileo moments at Nova East, including one that will be especially memorable.

Mark your calendar now for the astronomy highlight of 2009 in Atlantic Canada.

Registration forms and the Nova East agenda are now available through the Halifax Centre website: http://halifax.rasc.ca/ne/agenda.html

Front page photo:

On February 25 the very young Moon was closer to apogee than perigee, so was moving slower than average, making the sighting more difficult than normal. In Nova Scotia several people tried to see it. Some were successful, some not. Using 10x42 binoculars, I searched for 15 or 20 minutes before I found it (at age 20h 50m). I never did see the Moon naked eye, but used the pattern of distant streetlights to aim the camera where I had seen the Moon in binoculars.

Roy Bishop

2008 Treasurers Report

Pat Kelly

2007/2008 marked a change in the RASC as recent changes to regulations at the Canada Revenue Agency meant that the national society could no longer transfer life membership grants to a centre. The changes also meant that donations for which a tax receipt needs to be issued can no longer be made to the centre as the centre is not registered as a charity in its own right. We also had to repay most of the donations that we had received in the previous year. Even with all those challenges, the centre is still in good shape financially. Nova East did very well this year, especially due to the auction.

I thought that in the previous years I had sorted out the inventory/sales problems in the accounting software that is used for maintaining the Centre's finances. That does not appear to be the case. While there are inventory amounts in the following report for handbooks and other merchandise, I note that on the detailed listing (which is not part of this report) that the inventory for some items are still showing as negative, $465 in the case of calendars, and $422 in the case of miscellaneous. There still appears to be some disconnect between purchasing inventory, selling inventory and doing the cost-of-goods-sold calculation.

I have already made a recommendation to the executive that we either have to spend the time and effort to get this sorted out once and for all, or, given the ease with which purchases can now be made on the national web site, that the centre get of out of the merchandise business completely and concentrate on astronomy.

This report is also slightly different from the one that was presented at the annual meeting. As a result of the theft of my laptop, I had to redo the report and I noticed that $240 in miscellaneous income was, in fact, from the sale of toques. That does not change the total net income for the year, but means that we did not have a negative number for net sales of merchandise, the number is actually positive.

I would also like to thank our auditor, Ian Anderson, whose input has been most valuable.

Counting the observatory, we are now worth (at least on paper) just over $50,000 with no significant liabilities.

Below are some explanatory details pertaining to the Income Statement and Balance Sheet.

Respectfully submitted,

Patrick Kelly, Treasurer

Details of the 2007/2008 Income Statement

REVENUE:

Membership Fees $2,788.07: Membership fees are down slightly from last year.

Life Members Grant $0.00: This line item will disappear in next year's report.

Donations and Observatory Donations $83.00: This is an decrease over last year. Due to the inability to issue tax receipts, donations will likely stay low in the future.

Interest $125.60: This was earned mainly in our money market mutual fund.

Handbook Sales (net) $66.72: Handbook sales are up from last year.

Sales of Merchandise (net) $67.23: Sales of merchandise are down from last year. See note in introductory text.

Nova East (net) $3,373.74: Nova East had a made a substantial profit this year, mostly due to the huge success of the auction.

EXPENSES:

Meetings and Newsletter $2,163.50: This expense is down comparable to last year. $190.21 was spent on our meeting treats. Nova Notes cost us $595.15 to print, $1,005.40. to mail to our members, and $226.64 for labels and envelopes. This is higher than last year mostly because it covers six issues.

Office Administration $136.73: This includes the cost of postage for routine correspondence, office supplies, and the rental of our post office box.

Legal Expenses $26.70: This is the annual fee paid to the Provincial Government to maintain our registration under the Societies Act.

Educational Activities $884.15: This was mostly for materials for mall displays which are being well used for other public events.

Insurance $1,064.00: This is entirely the insurance for the observatory. Up slightly from the previous year.

Awards and Donations $50.00: The bulk of this in the previous year was due to the Centre returning its share of the last two membership fee increases back to the national society. This was for done just for a one-year period. Also included in this amount is $117.14 for the Centre's membership in the International Dark Sky Association.

Observatory / Operating: $1702.74: This figure is higher than last year as repairs/upgrades were made to the electrical system and we had to make repairs to the door and windows due to an incident of vandalism.

Miscellaneous Expenses: $472.97: This is almost entirely the repayment of donations made the previous year that had to be returned due to the new Canada Revenue Agency regulations.

Details of the 2007/2008 Balance Sheet

Cash $2,597.19: This represents the cash balance at the TD Bank in Halifax on September 30, 2008 (but not including the profits from Nova East, see below).

Cash – Nova East Profits $5,087.52: This is the fund upon which the Nova East committee can draw to cove losses in a given year. These funds are currently held in our regular TD bank account but recorded separately within our accounting system.

Un-deposited Funds $3,116.37: These were funds from Nova East that had not yet been deposited.

Handbook Inventory $753.20: This represents the value of handbooks on hand. See introductory remarks.

Merchandise Inventory $701.76 This consists of our inventory of BOGS, Skyways, T-Shirts, Calendars, lapel pins, RASC stickers, RASC embroidered crests, mugs, and key chains. See introductory remarks.

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

Accrued Interest $1052.86: Accrued interest on our money market account as reported on four quarterly statements from the TD Bank.

Estimated Library $3,633.29: This value represents an estimate of all the money invested in the library.

Observatory Equipment $12,131.35: The value of our observatory equipment.

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.

Observatory Investment to Date $21,869.64: This amount represents the total amount of money that the Centre has spent on the St. Croix Observatory for capital expenses (*i.e.* concrete slabs, landscaping,, the main observatory buildings) that are deem to be fixed and that could not be moved if we were to leave the St. Croix site.

Income Statement

	YEAR Oct 07 - Sep 08	YEAR Oct 06 - Sep 07	Increase Over 06/07
REVENUE			
Membership Fees	$2,788.07	$3,022.54	-$234.47
Life Members Grant	$0.00	$484.00	-$484.00
Donations and Observatory donations	$83.00	$686.84	-$603.84
Interest	$125.60	$98.17	$27.43
Handbook Sales (Net)	$66.72	$38.30	$28.42
Sales of Merchandise (Net)	$67.23	$1,631.60	-$1,564.37
Nova East (Net)	$3,373.74	$0.00	$3,373.74
Miscellaneous	$0.00	$30.00	-$30.00
Total Income	**$6,504.36**	**$5,991.45**	**$512.91**
EXPENSES			
Meetings / Newsletter	$2,163.50	$1,455.53	$707.97
Equipment & Supplies	$26.21	$0.00	$26.21
Office Administration	$136.73	$174.40	-$37.67
Legal Expenses	$26.70	$25.00	$1.70
Educational Activities	$884.15	$0.00	$884.15
Insurance	$1,064.00	$1,043.00	$21.00
Awards & Donations	$50.00	$190.58	-$140.58
Observatory operating	$1,702.74	$66.44	$1,636.30
Miscellaneous	$472.97	$125.68	$347.29
Total Expenses	**$6,527.00**	**$3,080.63**	**$3,446.37**
NET INCOME	**-$22.64**	**$2,910.82**	**-$2,933.46**

Balance Sheet

	YEAR Oct 07 - Sep 08	YEAR Oct 06 - Sep 07	Increase Over 06/07
ASSETS			
Cash	$2,597.19	$8,349.25	-$5,752.06
Nova East Profits	$5,087.52	$1,743.78	$3,343.74
Un-deposited Funds	$3,116.37	$0.00	$3,116.37
Accounts Receivable	$0.00	$0.00	$0.00
Handbook Inventory	$753.20	$56.41	$696.79
Merchandise Inventory	$701.76	$1,258.95	-$557.19
Investments	$2,000.00	$2,000.00	$0.00
Accrued Interest	$1,052.86	$932.15	$120.71
Estimated Library	$3,633.29	$3,758.97	-$125.68
Observatory Equip.	$12,131.35	$12,131.35	$0.00
Estimated Misc.	$452.54	$452.54	$0.00
Total Assets	**$31,526.08**	**$30,683.40**	**$842.68**
LIABILITIES			
Accounts Payable	$0.00	$0.00	$0.00
Fees owed to National	$0.00	$0.00	$0.00
Other Liabilities	$0.00	$0.00	$0.00
Total Liabilities	**$0.00**	**$0.00**	**$0.00**
EQUITY	**$31,526.08**	**$30,683.40**	**$842.68**
Observatory Investment to Date	**$21,869.64**	**$21,869.64**	**$0.00**

February Meeting Report

Chris Young

The February meeting began at 8 p.m. in room SB255 at Saint Mary's University. This was not our usual room, as a larger than normal attendance was expected.

Our President, Andrea Misner opened the meeting welcoming the 90 members and guests, and spoke briefly about International Year of Astronomy and the upcoming events.

She then specifically welcomed the 40 guests who were present, introduced the executive, and explained the benefits of RASC membership. She also offered a RASC information package (a new concept) to anyone who was interested. The information packets prepared for interested guests were quickly snapped up and guests were encouraged to meet with members of the executive at break, to find out more about our Centre.

David Lane, in his capacity as RASC National President, presented a National Service Award Bronze Medallion to Clint Shannon, a long serving member of the Halifax Centre. Dr Roy Bishop spoke and paid tribute to Clint's service to the Centre and its members. Clint graciously accepted the award!
(The tribute to Clint can be found on page 8).

Andrea then introduced the main presenter for the evening: Dan Falk, author, journalist and broadcaster. Dan was to talk on the topic of his new book "In Search of Time"

Dan Falk is a past member of the Halifax Centre. Several guests had been drawn to the meeting by Dan Falk's interview earlier in the day on Breakfast Television where he talked about his book and tonight's presentation.

Dan Falk then gave his presentation based on his latest book "In Search of Time: Journeys along a Curious Dimension".

Dan has been intrigued with the subject of time and how it has been perceived through history, from how we first learned to measure it, to the physics of time travel and the paradoxes it appears to present. The presentation was well received and Dan was asked to autograph copies of his book by those present.

Dan began his talk noting that humans have marked the passage of time through history by watching the night sky, phases of the moon and the passage of the seasons. Early examples include artifacts such as a 30,000 year old bone with markings consistent with a lunar calendar, and Stonehenge which marks the alignment of the sunrise at summer solstice and sunset at winter solstice. Another example is New grange in Ireland, c. 3000 BC, where the sunrise casts light on the back of a burial chamber deep in an enormous burial mound.

Tracking time has involved different techniques including the sundial invented c. 3500 BC, of which the Greek philosopher Plotinus laments "… chopping and hacking his day into little bits".. Dan illustrated our common view of time as a marker moving at a constant rate along a linear measure (demonstrated by 2 members of Centre executive holding a tape measure to which Dan applied a cut-out arrow!).

Isaac Newton in his Principia noted that "…time flows uniformly…" and that mathematical time was different from common time. The sun's motion is not uniform around the sun due to its elliptical orbit and tilted axis. Mathematical time is without these defects. Can time be measured other than in relation to the motion of objects? Newton said "yes" while others say "no".

In Newton's world there was a master clock all agreed upon. Einstein however said there is "…no audible tick tock everywhere in the world". Einstein realized that space and time are inseparably linked and that observers at different reference points experience time differently.

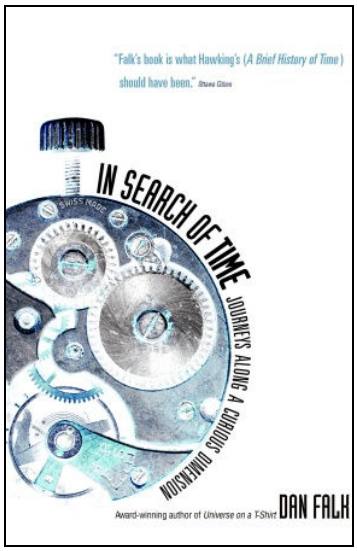
Time travel into the future is possible as cosmonaut Sergei Krikalyov is believed to have traveled 1/50th of a second into the future in his 804 days orbiting the earth.

Dan discussed the viewpoint of physicists Sir Roger Penrose and Julian Baker who believe there is nothing in the laws of physics that corresponds to the flow of time. "Time is a mistake the mind has made " says Baker. The flow of time could be an illusion. There may be a vast array of "nows" with no flow to connect them forming a timeless realm. Baker has said that it is the nature of human consciousness that gives us the perception of time.

Dan's investigations presented flaws in our common Newtonian understanding of time however the alternate views offered by physicists are difficult for both Dan and most of us to grasp.

Dan has a website www.danfalk.ca which describes his work, has articles and his Blog.

Following the talk a large cake celebrating Clint's award was shared by all present. Following food and discussion the meeting broke up, and was deemed a successful evening by those present.



March Meeting Report

Quinn Smith

The meeting was held on March 20th in room SB260 at Saint Mary's University, and was hosted by our Vice President Wes Howie.

President Andrea Misner, and our speaker Mark Dryden were both stricken with the flu and were absent. Because of this, the meeting was an "ad lib" event. Dave Chapman noted that it was the first meeting for a long time where no electronic visual aids were used, and dubbed the meeting "Halifax Centre - unplugged"

Wes opened the meeting at 8 p.m. and welcomed the group. We had 35 members and 5 guests, and Wes introduced the executive members, and handed out information packages to the five guests.

Robert Bussieres gave a excellent and humorous report of the changes he has made to the organization of the Centre library. Details can be found on the Centre web site (www.halifax.rasc.ca). I have to take my hat off to Robert for making us laugh so much during what could have been a "dry" report. He set the tone for the whole meeting - I don't thing I've laughed so much at a Centre meeting since Pat Kelly gave a financial report involving occulting pie charts and parallel universes.

Quinn Smith then gave a review of IYA 2009 events. He reviewed the recent display that was put on at the Outdoor Sports and RV show and went on to describe the events planned for the upcoming "100 hours of Astronomy" (www.astronomynovascotia.ca).

Quinn also discussed with the membership a possible upcoming event, namely exhibiting at the Saltscapes Expo on April 24th - 26th. (www.saltscapesexpo.com). Thanks to the great response of the membership, we will be attending this event. Quinn ended by thanking Dalhousie University for contributing $1000 to the printing of 10,000 Responsible Lighting Brochures. A great addition to our public outreach efforts.

Wes then opened the floor to the membership, asking them to describe their first "Galileo Moment"

Pat d'Entremont was first up, describing his first Galileo moment. Pat grew up in the Pubnico area of Nova Scotia. Pat described how he was warned not to take physics at university (too much work), but that did not dampen his interest in astronomy or his desire to learn the night sky. Like most of us his first "Galileo" moment was with a pair of binoculars looking at Jupiter and the Moon, and then with a small Meade telescope (an ETX I believe). Pat went on to describe a "fireball" he saw over Nova Scotia and answered several questions from the audience.

Dave Lane was up next, explaining his interest in Astronomy beginning as a young boy. He described how he read two red covered astronomy books over and over. He acknowledged his physics teacher, Wolf Morley, who loved to teach anything related to astronomy in his classes. Dave's first telescope was a 90 mm Celestron spotting scope, which he used to observe a triple conjunction of Jupiter, and Saturn. Dave's first Galileo moment!

Mary Lou Whitehorne then spoke about her first Galileo moment. She described how, as a girl guide, she was not able to get her astronomy badge because she could not attend camp. However a few years ago, while giving a planetarium presentation to a group of guides, she was finally presented with her astronomy badge.

Mary Lou explained how her interest in astronomy was encouraged while reading articles in the Chronicle Herald written by Terence Dickinson. Her first Galileo moment was observing the moons of Jupiter through binoculars.

Quinn then spoke about growing up in England and his interest in physics from an early age. His desire to find out exactly what thunder was (he knew it wasn't clouds bumping together as he was told) started him on a journey of scientific discovery. This eventually led to being given a 4" reflector by his parents and the "discovery" and documentation of the moons of Jupiter - only then to learn about Galileo.

Richard Vanderberg finished the evening by talking about his experiences at the Edmonton Centre, and their problem of having too much money! He described several of the region's observatories and described the beautiful, dark (and cold) skies of the Prairies.

The meeting concluded with Dr Roy Bishop presenting our "What's Up" segment (and at very short notice).

All in all a great meeting.

HALIFAX CENTRE

Nova Notes: The Newsletter of the Halifax Centre of the RASC

PO Box 31011, Halifax, Nova Scotia, B3K 5T9

E mail: novanoteseditor@rasc.ca

Newsletter editor: Quinn Smith

Nova Notes is published in February, April, July, 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 June 23rd 2009.

Clint Shannon: Service Award

Roy Bishop

The Service Award is a major award of the RASC and is given only by resolution of the National Council, on recommendation of the Awards Committee. At the February 20 meeting of the Halifax Centre, National President David Lane presented the Service Award to Clint Shannon. The citation and letter that accompanied the nomination follows.

The Halifax Centre is pleased and honoured to nominate Clinton D. Shannon for the RASC Service Award. The Service Award recognizes the contributions of members who, at either the National or Centre levels, have made a major contribution to the life and vitality of the Society. It is given in recognition of outstanding service, rendered over an extended period of time, where such service has had a major impact on the work of the Society and/or of a Centre of the Society.

Clint amply qualifies for recognition in this regard. He joined the Society on 1992 January 1, and has been an active member in good standing for the intervening 17 years, with a long record of contributions to the Halifax Centre. His formal positions with our Centre include:

- Librarian (1995 and 1996)
- 2nd VP (1997)
- President (1998 and 1999)
- Councilor (2000, 2001, 2002, 2003)

Clint came late to astronomy, yet embraced it with an enthusiasm of someone half his age. His career involved 55 years in the aircraft maintenance industry, both in the United States and Canada, from large air carriers in California to DEW Line operations in the Arctic. In 2003 Clint was one of three Canadians elected to the Aircraft Maintenance Engineers Hall of Fame. In the early nineties he discovered the RASC Halifax Centre and soon became one of our most valuable members, and certainly the most colourful!

Clint never lets his seniority slow him down. Beginning in 1995 he made a large contribution to the building of the Halifax Centre St. Croix Observatory, including clearing the forest with his chain saw, and organizing and taking part in nearly every work party ever since. He is always generous, creative and resourceful whenever anything needs doing. Clint has personally mentored several centre observers, advising and assisting one and all on observing equipment. He is the Centre's telescope guru. Thanks to Clint's interest and advice, many of our observers now have better optics, focusers, dew shields, finders, power supplies, scope drives, cameras . . . the list goes on and on.

Over his seventeen years of active involvement in Centre activities, including a large supporting role in the 1993 GA in Halifax, Clint has contributed extensively to the success of Nova East, Atlantic Canada's largest annual star party. He is always a generous and considerate host to the members and friends of the Halifax Centre attending Nova East. His well-stocked bug tent on the camping and observing field has become a traditional social focus of the event. Beyond Nova East, Clint has been an enthusiastic leader and participant on trips to more distant events, including the Texas Star Party, the Winter Star Party in Florida, and expeditions to view total solar eclipses.

Clint talks and listens to everyone with genuine interest and care. For several years he successfully navigated the treacherous waters of the Centre nominating committee, ensuring a Centre executive well stocked with able and willing people. He is a friend to all, with grace, humour, intelligence and razor-sharp wit. He has added an extra dimension to the life of Halifax Centre. Attached to this nomination is a supporting letter that describes perfectly, and by example, the nature of the many contributions Clint has made to the RASC Halifax Centre and its members.

In the wider community Clint has taken astronomy to the youth of Nova Scotia. For several years he has given talks to schools and youth groups along the eastern shore where he lives, participated in public observing events of the Halifax Centre, and supported Centre involvement in the Halifax planetarium.

Clint Shannon is an inspiration to younger amateur astronomers, and that includes all of us!

Quo ducit Urania,

Roy Bishop, Past President RASC, and Honorary President, Halifax Centre
Paul Evans, President, Halifax Centre
Dave Lane, President RASC
Mary Lou Whitehorne, 1st Vice President RASC

Photo credit - Mary Lou Whitehorne

National President Dave Lane presents Clint Shannon with the Service Award

Cookie Chairman Pat Kelly supervises while Clint cuts the Service Award congratulatory cake for consumption.

Open letter from Alex LeCreux supporting Clint's nomination.

I like to think of Clint as having been my own personal mentor and role model since I joined the RASC in the fall of 2003. I recall attending meetings and feeling quite alone and intimidated, not really knowing anyone. To address this problem, I soon took on the position of Centre Librarian, which I thought would be a great way to meet other members.

Clint was among the first of those I met. He made me feel very welcome and soon began introducing me to others in the group. He knew everyone it seemed. At every meeting I could count on him chatting with me, which I really enjoyed. He is someone you can listen to and learn much from, not only about astronomy but also about life itself. He is a very wise man. Clint truly was, and remains, interested in what was going on in my life, not just my observing endeavours. He took a personal interest in me as well as my family, always making a point to inquire about how my wife and children were doing.

At the Nova East of 2004, I was lucky enough to be in a position to buy Clint's prized Meade 8" SCT, which he was quite reluctant to give up. However, it was becoming too difficult for him to cart around and set up. (I know now what he meant!) I couldn't wait to get my hands on it. However, since Clint was using it himself, I had to settle for taking some setup lessons from Clint then, and picking up the scope some time later. Clint took all the time I needed to fill me in on the workings of the scope to get me off to a good start. When I finally took possession of the scope, I was ecstatic.

However, within a couple of weeks of taking possession of it I experienced a major problem. The scope would run away in declination and I had no control over it. This rendered it unusable in auto track mode. I was devastated. I reluctantly brought this to Clint's attention. His response was nothing short of extraordinary! Clint took the scope from me and at his own expense returned it to the manufacturer in the US and had it repaired. This cost him quite a sum of money but he insisted on doing it and making things right.

I was truly impressed by Clint's handling of this, not something I see everyday. It arrived back eventually and has worked perfectly since. In the years following this initial incident I have maintained a relationship with Clint that continues today. He has always been there for me to answer questions or help out with the scope. He has provided me with many accessories for the scope over the years at a huge savings as well as many freebies. He seems intent to ensure his old favourite continues to perform at its best in my hands.

I look forward to seeing him at each meeting and especially observing beside him at Nova East star parties. I continue to look up to Clint as someone I hope to emulate if I am fortunate enough to have many years of observing in my future. I am looking forward to continuing my astronomy pursuits into my retirement years. Clint has shown me that not only is it possible to observe as one gets into their later years, but the hobby continues to provide much, much more than the time spent at the eyepiece alone in the dark. He has shown me the broader implications of belonging to a great family of observers and like-minded people I now enjoy as a member of the RASC.

Alex LeCreux

Winter Star Party Report

Quinn Smith

This was my first Winter Star Party, and I must confess I wasn't quite sure what to expect.

Four of us headed down to the Florida Keys, Daryle DeWolf, John Jarvo, William Place and myself. Daryl and John had been to the WSP before, and were our guides.

We all took separate flights to Miami, but miraculously all arrived with our luggage and headed by rental car to the WSP located about three hours south.

I was hoping for warm weather, and I was not disappointed. I cannot explain the joy in observing the winter constellations wearing shorts and a tee shirt. It wasn't always that warm, but jeans and a light jacket usually did the job.

The skies were not as dark as I was expecting and were similar to NS in the summer. Although for several days we had a few clouds and wind, I usually managed 6 hours of nightly observing.

I did most of my observing with my 80 mm Stellarvue and a newly acquired 16 mm Nagler eyepiece, purchased at the swap meet. The Nagler turned out to be a perfect match to the ED80 and over the week I bagged 21 new Messiers (only the Virgo cluster to go!)

The highlight of my observing was catching the young moon (picture page 10). We found a good observing spot outside the Star Party and waited.

Worth the wait, worth the trip, worth the cost. I'll be back!

The four amigos (and their new home)

Preparing to observe the young Moon

Greg Parsons: M42 using a 10" Meade LX200 Stock Canon Rebel XT with a F 6.3 focal reducer, at prime focus, 70 second exp. @ 1600 ISO

Rob Thacker presenting a telescope that was won by Robert Burns at an SMU lecture on March 6th. The lecture, given by Rob Thacker, was titled "Computing the Universe".

Pat dEntremont: Moon and Venus
Taken February 27th 2009 at 6.15pm AST

Michael Boschat: Moon and Venus
Taken February 27th 2009 at 6.50pm AST

John Jarvo: Feb 25th 2009 Yes it's there!
A through the lens shot of the 22 hour Moon taken at the Winter Star Party in Florida. The WSP was west of Halifax, so it was a 22 hour Moon.

A view of the RASC display at the recent Outdoor Sports and RV show. We had over 750 people stop by and ask questions. A great show with a lot of interest in Responsible lighting.

Cosmic Debris

Odds and sods from the world of Astronomy and Cosmology

What follows is a "dialogue" between Our own Dr Roy Bishop and a NASA article on a solar eclipse viewed from the Moon. I for one would not have noticed the error, but Roy did. It speaks to his powers of observation and understanding of astronomical events.

February 25, 2009: NASA
For the first time, a spacecraft from Earth has captured hi-resolution images of a solar eclipse while orbiting another world.

Japan's Kaguya lunar orbiter accomplished the feat on Feb. 9, 2009, when the Sun, Earth and Moon lined up in a nearly perfect row. From Kaguya's point of view, Earth moved in front of the Sun, producing an otherworldly "diamond-ring" eclipse. Click on the snapshot to launch a movie of the event recorded by Kaguya's onboard HDTV camera:

The sequence begins in complete darkness. At first, Kaguya couldn't see the eclipse because it was blocked by the lunar horizon. Soon, however, the viewing angle improves and a thin ring of light appears. This is Earth's atmosphere backlit by the sun. (Inside that ring, sleepy-headed Earthlings are experiencing the first light of dawn.) Just as the arc is about to join ends to complete the circle—bloom! A sliver of the Sun's disk emerges, bringing the eclipse to a sudden, luminous end.

http://science.nasa.gov/headlines/y2009 /25feb_kaguyaeclipse.htm?list993253

Roy's comments on the article:

I very much enjoyed "Otherworldly Solar Eclipse" and its movie. However, while watching the movie (for about the fifth time!) I noticed that the "diamond" of what the text says was a "diamond-ring eclipse" appears exactly at one end of Earth's sunset arc. That bothered me, because if this truly was the diamond at the end of a total eclipse (as implied by the text), the chance of it appearing exactly at one tip of the sunset arc (at the lunar horizon) would be almost zero.

The text also says: "A sliver of the Sun's disk emerges, bringing the eclipse to a sudden, luminous end." However, the eclipse as viewed from the Moon on February 9 was only a partial solar eclipse (the Moon did not pass through Earth's umbral shadow that day --- see p. 142 of your Handbook), and the partial eclipse was not at an "end" in the last part of the movie. The burst of light was sunrise over the lunar horizon (as viewed from the spacecraft, Kaguya), not the conventional diamond ring at the end of a total solar eclipse.

The news item cites inferior images from many years ago, but Kaguya did not duplicate the view that Surveyor 3 had on April 24, 1967, nor that enjoyed by Apollo 12 astronauts on November 24, 1969. In those earlier events Earth completely covered the Sun.

Perhaps I should "get a life" instead of analyzing mistakes. That habit comes from analyzing mistakes in physics and astronomy assignments, tests and exams during many years of university teaching. However, like teaching, detective work is both fun and educational. In this instance, I now understand what I am seeing in that movie!

Roy Bishop

Extract from the Chronicle Herald March 17th 2009

Olympian, Physicist, Astronaut? Lake Echo native Peter Giles has a good shot of adding the latter job to an already impressive resume since being named one of 16 candidates for a pair of openings with the Canadian Space Agency.

Mr. Giles, who along with his brother Steve was part of Canada's canoe-kayak team at the 1996 Summer Olympics in Atlanta. It was announce on Monday that he, and 16 others, had emerged from a field of more than 5,300 applicants.

Reached in Toronto, the 38-year-old, who now lives in Hammonds Plains, said he was having a pretty good day.

"I've kind of dreamed about that for a long time," he said. "If you're interested in a career in science and technology, I kind of think of it as the pinnacle of that career. What could be more inspiring to other Canadians in terms of the power of science and the power of technology than manned space flight?"

Mr. Giles, who has a B.Sc. in physics from Dalhousie University and master's and doctoral degrees from Stanford University, works as a systems engineer with General Dynamics in Dartmouth.

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:

April	24th,	2009
May	22nd,	2009
June	26th,	2009
July	24th,	2009

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 ask before using laser pointers - other members may be taking astro-photos.
Please share the equipment with other members; and treat the equipment, the facilities, and the site with respect.
…… Enjoy!