

# NOVA NOTES

VOLUME 28 — NUMBER 2 — APRIL 1997

THE NEWSLETTER OF THE HALIFAX CENTRE OF THE RASC  
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## PRESIDENT'S REPORT:

BY DAVID CHAPMAN

I think you will all agree that we have had another great spring comet season. Although I try not to get drawn into the "which was better, Hyakutake or Hale-Bopp" debate, there is no doubt that Hale-Bopp has provided many, many opportunities for viewing, even from within the urban light dome. Consequently, many more casual observers have seen this comet. As I write this, we are entering another dark sky period for viewing Hale-Bopp, although it is rapidly descending in declination and will soon leave us.

I developed my slide film, and was delighted to find that I had 15 respectable photos of Hale-Bopp from 5 sessions over a 30-day period. Most were camera-on-tripod shots, but Dave Lane permitted me to mount my camera piggy-back on his telescope at Beaverbank one night, and I have 3 guided photos. I am also the proud owner of the set of 3 prints by Dave Lane and Darren Talbot that are being sold to finance the completion of the observatory project. Get yours soon!



## ASTROPHOTO OF THE MONTH - HALE-BOPP

DAVE LANE TOOK THIS PHOTO OF COMET HALE-BOPP IN FRONT OF THE CENTRE'S OBSERVATORY ON APRIL 27<sup>TH</sup>. IT WAS ABOUT A 3 MINUTE EXPOSURE (OR HOW LONG IT TAKES TO RUN THROUGH THE BRUSH SHINE A FLASHLIGHT ALL OVER THE OBSERVATORY, THEN RUN BACK TO RELEASE THE EXPOSURE!) ON KODAK EXTRAPRESS MULTISPEED PMJ FILM USING A 28MM F2.8 LENS.

Speaking of the observatory, please contact the Observing Chairman, Shawn Mitchell (865-7026) if you are interested in visiting at night to observe. The nights are becoming warm enough for ordinary mortals to consider venturing out, and don't forget we have a warm room now. Shawn is working on a policy for observatory use, including the loaning of keys.

We had a good visit with national RASC president Doug George, although the weather was the pits and he ended up visiting our observatory site in the rain. His talk was excellent. As he stayed at my home, I took the opportunity to get to know him better, and he entertained me with a sneak preview of some of the

projects he is working on. After Halifax, he was off to St. John's, where they were good enough to move their meeting to the night following ours to ease the logistics.

## UPCOMING MEETINGS

**MAY 16<sup>TH</sup> AT 8PM**

COMET NIGHT AND  
"COMET ODYSSEY" VIDEO

**JUNE 20<sup>TH</sup> AT 8PM**

LESLIE SAGE - GAMMA RAY BURSTERS

**JUNE 21<sup>ST</sup> AT 1PM**

GRAND OPENING STAR-B-QUE AT  
THE ST. CROIX SITE.



**NOVA NOTES**, the newsletter of the *Halifax Centre of the Royal Astronomical Society of Canada*, is published bi-monthly in February, April, June, August, October, and December. The opinions expressed herein are not necessarily those of the *Halifax Centre*. Material for the next issue should reach the editor by **June 1<sup>st</sup>, 1997**. Articles on any aspect of astronomy will be considered for publication. "Letters to the Editor" or to our resident expert: **GAZER** are also most welcome. Contact the editor at:

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A brief word on upcoming meetings and events: At the May 16 meeting, we will be showing **Comet Odyssey**, the 45-minute video made from still photos of comet Hyakutake, plus there will be a chance for members to share observations and photos of Comet Hale-Bopp. We will also have a mini-debate on what to call the St. Croix Observatory...oops, I let the cat out of the bag again!

On June 20, we will have Dr. Leslie Sage, an editor at Nature magazine. He is spending a few months on a research leave at Saint Mary's. His talk will be on "Gamma Ray Bursters" which have been a recent topic of astronomical news.

That completes our meeting season, after which we take a summer break that ends with Nova East on Labour Day weekend. However, there

will be a few events during the summer. On Saturday, June 21, the day following our June meeting, we plan to have a centre BBQ picnic at the St. Croix Observatory site, in lieu of the Annual Banquet. Plans are at an early stage now, but we'll keep you posted. So far, we have decided to have an official opening ceremony at 1:00 P.M. and the BBQ will be a "potluck" affair, where we will be asking members to bring their own food and refreshments. We hope to have some special guests on hand.

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**Boardwalk observing on the waterfront was such a big hit last year, we will do it again.**

**The dates are the first clear nights of 8-10 July and 5-6 August.**

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Boardwalk observing on the waterfront was such a big hit last year, we will do it again. The dates are the first clear nights of 8-10 July and 5-6 August. The location is on the boardwalk near the Maritime Museum of the Atlantic. Come help show the Moon and the stars to the public!

So everyone get their pencils out and mark those dates on your RASC Observer's Calendars that you bought from Clint, right?  $\Omega$

## A SEVENTH BRIGHT COMET

BY ROY BISHOP

In an article entitled "Six Bright Comets" (Nova Notes, June 1996), I described the great comets I have been privileged to see (Arend-Roland 1957, Mrkos 1957, Ikeya-Seki 1965, Bennett 1970, West 1976, and Hyakutake 1996). Now, of course, there is a seventh one, Hale-Bopp 1997.

In terms of being easily seen by the average person, Hale-Bopp certainly ranks as #1 of all seven comets. This is because unlike the other comets, Hale-Bopp was in the evening sky for over a month, and was at first magnitude or brighter for two full months.

Hyakutake and West (the two best comets of the other six) were bright

and in a dark sky for only a few days. Poor weather during those few days prevented many people from seeing them. For many people with clear skies, by the time they heard about the comet and made an effort to have a look from a dark-sky site, the show was already over. Furthermore, West was in the rarely-seen, pre-dawn sky, and moonlight restricted dark-sky views of the best of Hyakutake to after-midnight.

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**In the earlier article I concluded: "Hyakutake takes the prize as the most spectacular comet I have seen (although Comet West was a close second)." The passage of Hale-Bopp does not change this biased conclusion.**

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In the earlier article I concluded: "Hyakutake takes the prize as the most spectacular comet I have seen (although Comet West was a close second)." The passage of Hale-Bopp does not change this biased conclusion. I place Hale-Bopp in third place, between West and Bennett.

Hyakutake was not quite as bright as West and Hale-Bopp. Furthermore, Mrkos, Bennett, West, and Hale-Bopp had much brighter dust tails than did Hyakutake (the feature that makes a comet stand out in light-polluted skies).

Hyakutake gets my vote because at its best it was sprawled through the zenith at midnight, with a head like a welder's arc surrounded by a blue-green glow, and an ion tail extending a stupendous 50 degrees. Moreover, no optical aid was needed to see the colour or to follow the flowing tail. From a dark-sky site, as Hyakutake passed by Earth in the early hours of March 25, 1996, it was in a class by itself — an immense, drifting, ghostly, greenish apparition that dominated the night — the best comet in half a century of observing.  $\Omega$

## MEETING REPORT:

JANUARY 1997

BY DAVID TURNER

Friday, January 17th, 1997. Time for the first meeting of the *Halifax Centre* for 1997, which finally began a full six minutes after the hour (8:06 p.m.). So much for military precision during Dave Chapman's second year of office. The "What, me worry?" approach has clearly taken over. Is Dave on anti-stress medication, or what?

Following a brief welcome and the introduction of "membership guy" Blair MacDonald to the audience, attention was shifted to the new Centre brochures. Mr. Cool then paused to make a few sad announcements, noting in particular the untimely death of Nat Cohen and the heart troubles suffered by Tom Harp. Nat was preoccupied with a visit by a young woman astronomer from Mexico in the days preceding his death, but according to Dave's questioning she was not present in the audience that evening. Members were also queried about whether or not they had received their copies of the *Observer's Handbook* and the last issues of the old *Journal* and *Bulletin*, including the first issue of *SkyNews* to be bundled with the *Journal*. Hey, we're always interested in hearing of any new ways that the U of T Press has screwed up, right?

At that point it was time to make a few more introductions. Clint Shannon was welcomed as the new "Ferengi," and made an auspicious debut hawking *Beginner's Observing Guides* (BOGs for the savants) and RASC Calendars (in colour) to the unwary. Dave Lane was then introduced, seemingly to hawk T-shirts and sweat shirts for the Tuktoyaktuk Star Party, which did NOT happen in November of '96 despite the lengthy description of events provided. The Centre's Observatory project was obviously on the front burner that evening as every spare shekel available in members' pockets was solicited in support of the cause. Mr. Cool took control again momentarily in order to solicit written

submissions for the Simon Newcomb Award, as well as to encourage additional literary efforts for *Nova Notes*. "Don't ask what your Centre can do for you, but ..." hey, you've probably heard this before!

Blair MacDonald was on briefly to solicit volunteers for a *Science Connections* mall display planned for March 15th, although I don't believe that ever came off. Dapper Dave was back to point out the arrival of the Chinese New Year on February 7th, to take note of a special edition stamp commemorating the event, and — his personal specialty — to discuss the origin of the new year in China, namely the second New Moon following the Winter Solstice — yet another piece of astronomical trivia for your collection! Shawn Mitchell was next on the agenda to do his first "What's Up" segment, pointing out the glories of Mars and Saturn in the evening sky, and Venus and Mercury in the morning sky, and the brightening Comet Hale-Bopp in Aquila with its one or two-degree tail — at third magnitude then, but boy did it ever brighten and lengthen in the weeks that followed!

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**The main speaker for the evening was Steve Short from Jeffery's, Newfoundland, and a student in the Astronomy Master's program at Saint Mary's**

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Squeak, squeak, squeak, squeak. A brief pause occurred as Honorary President Murray Cunningham made an uncharacteristically late arrival. Shawn continued by pointing out particulars for recent space missions, such as the *Mars Observer*, and pointing out that we recently commemorated the birthdate of the HAL mainframe computer in "2001, A Space Odyssey." Next to be pointed out were anniversaries for a few meteorite falls, the early observation of Neptune by Galileo that he failed to recognize, and a few other items — a mosaic of the First Quarter Moon obtained with the Burke-Gaffney telescope, supernova discoveries, etc. Isn't it amazing what turns up in one's

## SCIENCE FAIR AWARD WINNER!

AT THE RECENT **HALIFAX REGIONAL SCIENCE FAIR**, THE RASC'S SPECIAL AWARD FOR ASTRONOMY WAS WON. IT WAS WON BY **CHRISTOPHER HAMILTON** FOR HIS PROJECT RELATING TO BLACK HOLES AND COSMOLOGY. DOUG PITCAIRN, THE CENTRE'S JUDGE THIS YEAR, REPORTS CHRIS' "TREMENDOUS ENTHUSIASM FOR A VERY DIFFICULT SUBJECT."

THE AWARD INCLUDES A CASH PRIZE OF \$75 AND A YEAR OF MEMBERSHIP IN THE RASC. WELCOME ABOARD, CHRISTOPHER!

notes of meetings held over three months ago?

The main speaker for the evening was Steve Short from Jeffery's, Newfoundland, and a student in the Astronomy Master's program at Saint Mary's — actually, a student working under my supervision. He was there to speak on, if I remember correctly, "The Exciting Lives of Wolf-Rayet Stars," subtitled "Travelling 8189 km (plus 2280 m straight up) to Play Pool," as well as to point out Binkey's Bachelor Tip #5 (whatever that may be). Steve played the "I'm an astronomer" role fairly well, highlighting the various physical characteristics of Wolf-Rayet stars to the audience and indicating how they got their name — obviously from being pointed out by Wolf and Rayet on account of their unusual broad emission-line spectra, a characteristic of stars with very strong outwards-directed stellar winds. Steve indicated where Wolf-Rayet stars fitted into current pictures of stellar evolution and why such knowledge is important, and discussed various physical mechanisms for their production.

Steve also illustrated his talk with a few "pretty pictures" to show some of the open clusters containing Wolf-Rayet stars that he observed at Cerro Las Campanas in Chile as part of his thesis project, as well as to illustrate a travelogue of the trip to Chile for his observing run. A few homilies learned on his trip were related to the audience, including the unforgettable

“pisco good, beer bad” slogan learned from a “painful” first-hand experience that had all of us “crying in our suds.” At that point his talk denegerated into a discussion about the drinkability — or non-drinkability? — of Chilean beer, by which point it was time to bring out the speaker’s “hook” and direct those in attendance to Ralph Fraser’s assortment of cookies and drinks (but NO beer).  $\Omega$

**MEETING REPORT:**  
**MARCH 97**  
BY PAT KELLY

This meeting looked like it was going to be a good one right from the start. After all, how could you miss when people coming in were treated to the spectacle of Comet Hale-Bopp, sailing in a deep blue sky over the city skyline. (I recall the old days, when RASC members talking about “H/B” were referring to the handbook.) We had a great turnout, a real “Heinz 57” according to Ralph Fraser.

As always, the meeting started with a series of announcements. This was a good thing as the overhead projector was nowhere to be found, and it was needed for the main speaker! Clint Shannon did his usual plug for the various items that the centre has for sale and followed it up with a special presentation. It seems that Mary Lou Whitehorne recently obtained her private pilot’s license, prompting a remark from Blair MacDonald that now not even the skies were safe! Clint had brought along a small pin, in the shape of a pair of wings, and pinned it on her to mark the occasion.

Dave Lane brought us up to date on the public events being planned in Halifax for Comet Hale-Bopp, and Bill Thurlow let us know about the plans that were being made in Summerside.

Next up was “What’s Up” with Shawn Mitchell. He went over the three main events for the immediate future — Mars (which may be displaying dust storms), the upcoming lunar eclipse, and of course, Comet Hale-Bopp. There were some great photos on display (taken by David Lane and Darren Talbot) and it looks

as if we will be selling comet pictures again this year to raise observatory funds. Dave Lane showed a short (five second) video of Hale-Bopp that he made from seventy-one CCD images. In the low contrast version, the formation of a dust shell can be readily seen. It must be nice to get paid to do things like that!

The main speaker for the evening was Meghan Gray, who is currently taking her Bachelor’s physics degree at Mount Allison University. She was born in Halifax and went to Halifax West High School. She has been accepted at Cambridge University (with a scholarship!) to work on her PhD.

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**The title of (Meghan Gray’s)  
talk was “The Rainbow  
Connection: Mapping an  
Active Galaxy with the Hubble  
Space Telescope.”**

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The title of her talk was “The Rainbow Connection: Mapping an Active Galaxy with the Hubble Space Telescope.” She based her talk on the research work that she did last summer at the Dominion Astrophysical Observatory in Victoria.

The object of her study was NGC 4151, a type of active galaxy called a Seyfert galaxy, of which about 600 are known. This type of galaxy has a bright stellar nucleus and faint, wispy spiral arms. If seen from a greater distance (and further back in time) these galaxies would look like quasars and are thought to be an intermediate form between quasars and “normal” galaxies. The core of a Seyfert galaxy produces a tremendous amount of power, all from a region about the size of a solar system (four light-days across). The best explanation for this appears to be that the center of the galaxy contains a very massive black hole which is surrounded by an accretion disk.

For the data that they needed there were two main requirements, high resolution and access to the ultraviolet part of the spectrum. The Hubble Space Telescope fit the bill nicely. Researchers at the DAO had been involved in the design of the Hubble’s

high resolution ultraviolet spectrograph in exchange for guaranteed time on the instrument.

We then watched a short video that showed how the spectrograph worked. It was noted by a few that not only did her video run longer than Dave’s but hers was in color! Ms. Gray then turned on a gas discharge tube and passed out some diffraction gratings which circulated through the audience. Once everyone had a basic understanding of spectra, she explained how emission and absorption lines were formed and the effect that they had on a normal spectrum.

The discussion then turned to the spectrum of NGC 4151, which is dominated by a mix of emission lines, broad “normal” ones as well as “forbidden” ones that are not observed in labs due to their low probability of occurring.

The spectrum of NGC 4151 contains some very strange absorption lines due to CIV (triply-ionized carbon) and it was hoped that a high-resolution spectra might be able to determine if the material causing the lines was actually in the galaxy or not. With the data that they were able to obtain, they were able to recognize another absorption line of CIV, this one a double line. This line appeared in several positions, and measurements showed that they were indeed in the area near the black hole—some of these have ejection velocities of 3700 km/h.

They were able to get four observations over four years and the structure of the core seems to be stable over this period. The Hubble instrument that was used to make these observations was replaced on the recent repair/upgrade so more and better data may soon be available.  $\Omega$

**ANNOUNCEMENT:**  
**“RADIO ASTRONOMY  
PROJECTS” PUBLISHED**

One of our members, Fr. William Lonc, Professor Emeritus, Saint Mary’s University, recently published a new

book. The book: **Radio Astronomy Projects** is published by Radio-Sky Publishing, Louisville, KY, PO Box 3552, 1996. It is suitable for High-school and/or undergraduate projects; contains tested projects showing appropriate theory and results; many illustrations; and has over 200 pages. It is \$20 in the US plus shipping or contact R&S Electronics in Dartmouth (464-0464) for the special Canadian price. Ω

**DREAMING WHEN DAWN'S  
LEFT HAND WAS IN THE  
SKY... BY DAVID CHAPMAN**

The night I observed Comet Hale-Bopp from Uniacke Estate in rural Nova Scotia, I found myself cursing the glow in the sky which remained after the end of astronomical twilight and which seemed to interfere with the viewing somewhat. I attributed this glow to some nearby settlement, perhaps Windsor, but the next day Dave Lane informed me that my geography was off, as Windsor was in the wrong direction and too far away. He did however, mention that the Zodiacal light had been very prominent that night at Beaverbank, and suggested this is what I might have seen. Sure enough, when I joined him and others at Beaverbank the next night, I saw the same glow in the same place relative to the stars. I do not recall seeing this effect before (I really must get out more). Perhaps I have seen it and mistook it for something else. In any case, I was pleased to experience it this time, especially with the comet on display as well.

The Zodiacal light results from sunlight scattering from dust in the plane of the solar system. It appears as a triangle or wedge of light along the Zodiac in the sky after the end of twilight at night or before the beginning of dawn in the morning. Because the ecliptic is inclined to the celestial equator, the best time of year to see the Zodiacal light in the western evening sky is during the spring, just when I was looking in that direction to see Hale-Bopp.

Conversely, the best time of year to see the Zodiacal light in the eastern morning sky is in the autumn. Dave Lane supplied this insight to me at Beaverbank that night, and I verified it through a little research since then.

Thinking of the Zodiacal light in the morning jogged my memory. Although I am not a big poetry reader, the one book of poetry I know well is the *Rubaiyat of Omar Khayyam*, a favorite of my father, who spent time in the Middle East before the Second World War. Omar Khayyam was a mathematician, astronomer, and poet who lived in Persia in the late 11th and early 12th centuries. The Englishman Edward Fitzgerald translated Khayyam's set of four-line verses in the 19th century, and they have remained popular ever since. (You may be familiar with the lines "The moving finger writes: and, having writ, moves on." or "A loaf of bread, a jug of wine, and thou.")

So, what has this got to do with the Zodiacal light, you ask? Good question! The second verse in Fitzgerald's most popular translation is:

*Dreaming when Dawn's Left Hand was in the Sky, I heard a Voice within the Tavern cry, "Awake, my Little ones, and fill the Cup, Before Life's Liquor in its Cup be dry."*

(There is plenty of wine-drinking in the Rubaiyat!) I remember reading an annotated version of Fitzgerald's translation that suggested that "Dawn's Left Hand" is in fact the Zodiacal light. Not convinced? Let's look at another Fitzgerald translation of the same verse:

*Before the phantom of false morning died, Methought a voice within the tavern cried, "When all the temple is prepared within, Why nods the drowsy worshipper outside?"*

This is more like it. The writer sees the Zodiacal light before dawn, mistakes it for the dawn glow, but then watches it disappear as the true dawn glow brightens the sky and washes it out. The Zodiacal light is the "phantom of false morning".

It is not clear whether this identification is due to Fitzgerald himself, or whether it was in Khayyam's original. If Khayyam was indeed an astronomer, he would have known all about the Zodiacal light. However, Fitzgerald evidently translated the verses from the Persian quite freely, as shown by the quite different versions of the same rubai. It would have been quite difficult to execute a literal translation from the Persian while maintaining the rhyming first, second, and fourth lines.

I retain a memory of my father sitting at the kitchen table early on a Saturday morning with his leather-covered copy of the *Rubaiyat of Omar Khayyam* on his lap, a cup of tea by his elbow. He reads to me the very first rubai:

*"Awake! for Morning in the Bowl of Night Has flung the Stone that puts the Stars to Flight: And lo! the Hunter of the East has caught The Sultan's Turret in a Noose of Light."*

**JUST WHAT SHOULD WE  
CALL THE "ST CROIX  
OBSERVATORY":  
COMPILED BY SHAWN MITCHELL**

I've been asked (commanded) to write an article for *Nova Notes* on the Halifax Centre's e-mail listserv debate regarding an official name for our observatory. We are planning to have a debate during the May meeting to decide on a name for the observatory. We are planning to have an official opening on June 21 and it was felt that the observatory should also receive its official name at the same time. Our president got the land slide rolling when he posted the following message:

*"To get the ball rolling, I suggest that we name the observatory after a well-known astronomer from NS, i.e. Simon Newcomb. Consider the discussion open" — Dave Chapman (Apr 3, 1997)*

What follows is a digest of the messages sent on the listserv (some serious, some not-so-serious). I have

removed any references to the sender's identity, and in some cases I have removed the suggested name and will refer to the suggested names as a "past member" or "present member". I felt that this was necessary so that no one would be offended by comments or criticism supporting or rejecting the suggested name.

*"Regarding the names of the buildings, I do support naming those after deserving individuals assuming they have/had a genuine connection to the centre or Nova Scotia generally (being born here I don't think is enough)."*

*"I think the idea was to name the observatory something else and then the main scope the 'Present Member.'"*

*"'Current Member' had a good idea — to investigate the possibility of using a local Micmac name that would be appropriate to the location. We could even consider using the name of the lake and calling it the Panuke Observatory."*

*"Regarding the use of Panuke for a name, No way! We are not on or near Panuke Lake. Panuke starts at the Salmon Hole Dam about 2 km away, we are located on the St. Croix river."*

*"I would just like to say that I thought that the St. Croix Dark Sky Preserve was to be saved and used for a larger area that surrounds the observatory land in the future. It was just a thought."*

*"I think that no matter what we name it we will still refer to it as, 'are you going to St. Croix tonight?' I believe that the site should be called the "St. Croix Observatory" — just my point of view."*

*"I think that I prefer either 1) 'Salmon Hole Dam Observatory' (shortened to the "damn" observatory :-)) or 2) 'St. Croix Observatory.' Some that I don't like are: Observatory Halifax OR Observatory Nova Scotia (they sound too much like government departments)."*

*"Halifax Centre Observatory (not poetic enough)"*

*"The Observatory of the Halifax Centre of the Royal Astronomical Society of Canada (too traditional and too long unless we use the acronym)"*

*"We could still name the buildings and/or telescopes after people... if we are going to use an historical name with a Nova Scotian connection, I would not go with Beals or Newcombe, whose only claim to NS is that they were born here. I would go with that DesBarre (sp?) fellow who built the observatory at Castle Frederick (not too far from St. Croix) and who is buried in St. George's "Round" Church (see News Notes in the April Journal...)"*

*"Regarding the name of the site, as others have stated, regardless of what it gets named, it will still be "Are you going to St. Croix?". So, I suggest that we give in to the inevitable and call it either the "St. Croix Observatory" or the "St. Croix River Observatory". The acronym SCRO doesn't sound to bad and we are right on the river flow (yes, a man-made section of it, but most of the flow goes right by us!)."*

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***"I think that no matter what we name it, we will still refer to it as, 'are you going to St. Croix tonight?' I believe that the site should be called the "St. Croix Observatory"***

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*"Some well known astronomer, eh? Well, in that case, how about Carlyle S. Beals who was born in Canso, NS, and became Canada's first Dominion Astronomer? Beals actually stayed in Canada... He was hot on WR stars and was the first to figure out what the heck those interstellar lines were all about. Or there's always Ruth Northcott or Mary Grey or Alice Veibert Douglas — we wouldn't want to leave the women out, now would we???"*

*"Some people also want to name it the 'St. Croix Dark Sky Preserve,' or*

*the 'clear-cut Observatory' or we could call it 'The Beaver Lodge' or 'The Sky Dome' or the 'Faint Fuzzy Observatory' or the 'Salmon Hole Dam Observatory' or the 'Star Track Observatory.'*

Response to the above message:

*"Subject: Good Grief..."*

*It's been interesting to read the suggestions on this topic. It seems a host of good ideas have been mentioned. Perhaps several can be incorporated together. I think "current member's " idea of a sign at the gate indicating a "dark sky preserve" is a good one. It helps to remind all of us that without dark skies, our enjoyment of our universe is limited. In my memory, 'Past Member' always prompted 'discussion' and critical thinking in astronomy. Why not name the warm room after him, as that has been the site of informal astronomical discussions ever since it was built. I wholeheartedly lend my support to "current member's" suggestion of a female astronomer's name being linked to a building (like the roll-off). Half of the people who attend public astronomy events are female. We have had some notable young female astronomers speak at RASC meetings. Naming a structure after a female astronomer (professional or amateur) might go a long way to fostering some young person's interest, and removing the perception amongst some who think this science is a male preserve (I personally don't think the Halifax Center has a problem with this). Lastly, should another building be constructed to house a permanent scope there are probably several names which could be considered for their dedication to astronomy, the Halifax RASC, etc. 'Present Member' comes to mind easily. Well, that's my 2 cents worth on the subject. See you at the eyepiece."*

*"Hell, there's been a few interesting suggestions for names for our new observatory. I'm not sure that I*

subscribe to the idea of naming every component of the place after someone — it can get too political and there may be, unintentionally of course, potential for giving offense and for hurt feelings and all sorts of unwanted unpleasantness. A name for the observatory as a whole is a good idea, plus, if we ever do get a large scope, it too would deserve a fitting name."

"I like 'St. Croix Astrophysical Observatory (SCAO)' as a possible name for the site, and we can name buildings etc. later."

To summarize the discussions above:

Do we name the site, buildings and telescopes individually? Or do we just name the site and telescopes? Name the buildings only? Or some other combination?

Now the hard part, how do we go about choosing names, do we use current conventions and include the location in the name? Do we honor past and/or present members of the Halifax Centre? How about honoring astronomers with historical links to Nova Scotia? As you can see this debate has burned out a few wires and no real consensus was reached. Below is a list of the names suggested (some serious, some otherwise!) that we can use as a starting point for the May debate. This is not a comprehensive list and new name suggestions will, of course, be accepted during the debate.

- St. Croix Astrophysical Observatory (SCAO)
- St. Croix River Observatory (SCRO)
- St. Croix Observatory (SCO)
- St. Croix Dark Sky Preserve
- Carlyle S. Beals
- Ruth Northcott
- Mary Grey
- Alice Veibert Douglas
- Clear-Cut Observatory
- The Beaver Lodge
- The Sky Dome
- Faint Fuzzy Observatory
- Salmon Hole Dam Observatory
- Star Track Observatory
- DesBarre
- Halifax Centre Observatory
- Panuke Observatory
- "a local Micmac name"

or Past or Present Members who have contributed greatly to the Centre  $\Omega$

## 1996 FINANCIAL STATEMENTS

THE 1996 FINANCIAL STATEMENTS OF THE CENTRE WILL BE PUBLISHED IN THE JUNE ISSUE NOVA NOTES. THERE WAS INSUFFICIENT ROOM IN THIS ISSUE FOR IT TO FIT AND INSUFFICIENT MATERIAL TO INCREASE THE SIZE OF THIS ISSUE TO 10 PAGES.

- EDITOR

## COMET HALE BOPP PHOTOS FOR SALE

Once again, Centre members have been busy photographing comet Hale-Bopp and spending much time in the darkroom making enlargement and flogging those enlargements.

Three beautiful custom-printed colour photo enlargements are available for sale.

The samples here are a poor representation of the actual photos. You can get a better look at the web site: [apwww.stmarys.ca/dlane/hb](http://apwww.stmarys.ca/dlane/hb). All proceeds go to the Observatory project. So far, over \$1700 has been raised. Please help us reach our goal of \$2500!

## CLOSE-UP VIEW



Photo by David Lane. Printing by Dave Lane and Darren Talbot. Date: April 8, 1997 (from St. Croix, NS). 16 minutes on Fuji Super HG-400 with TeleVue Genesis (500mm f/5).

## WIDE-FIELD VIEW



Photo by Dave Lane. Printing by David Lane and Darren Talbot. Date: April 8th, 1997 (from St. Croix Observatory). 8 minutes on Kodak Royal Gold 1000 with 50mm-f2.8.

## HALE-BOPP WITH AURORA



Photo by Darren Talbot. Printing by David Lane and Darren Talbot. Date: March 25, 1997 at 9:50pm (from Beaverbank, NS). The comet is nicely framed with the northern lights. 8 minutes on Kodak Royal Gold 1000 with 28mm-f2.8.

They are available in three sizes: 8" x 10" - \$5 each, 11" x 14" - \$8 each, and 16" x 20" - \$15 each. Note: the most popular size is 8" x 10", so we're likely to have these in stock, but many of the larger sizes are also currently in stock.

To purchase a photo, contact David Lane at 443-5989 or attend a meeting.  $\Omega$

## NOTICE OF MEETINGS AND EVENTS

### REGULAR MEETINGS

Date: **Regular Meeting — Friday, May 16 at 8pm;**  
7pm for the council meeting.

Place: Lower Theatre, Nova Scotia Museum of Natural History, Summer Street, Halifax. Access is from the parking lot.

Topic: Main Topic: **Comet Night.** In addition to providing members the opportunity to share observations and photos of Comet Hale-Bopp, we will be showing the video "**Comet Odyssey.**" This video, produced by several RASC members (mostly from the Ottawa Centre), documents and presents a fantastic movie of Comet Hyakutake's motion across the sky.

Date: **Regular Meeting — Friday, June 20 at 8pm;** 7pm for the council meeting.

Place: Lower Theatre, Nova Scotia Museum of Natural History, Summer Street, Halifax. Access is from the parking lot.

Topic: Main Speaker: **Dr. Leslie Sage**, an editor at Nature Magazine. Topic: "**Gamma Ray Bursters**"

### SPECIAL EVENTS

**St. Croix Pot Luck Starbeque** — June 21<sup>st</sup>. More details will be in the next issue.

**General Assembly in Kingston, Ontario** — June 28<sup>th</sup> to July 1<sup>st</sup>.

**Astro Atlantik** — the annual star party of New Brunswick Astronomy—Astronomie Nouveau Brunswick will be held July 4-6 at Fundy National Park. For information, contact: Adrien Bordage: 506-635-3004 (copies of the registration package can be obtained locally from Dave Lane [443-5989]).

**Nova East** — the Halifax Centre's 11<sup>th</sup> annual star party will be held August 29 to September 1 at Fundy National Park. Detailed brochures with a pre-registration form will be mailed with the next Nova Notes.

## COMET PHOTOS FOR SALE!

Support the completion of the Centre's Observatory

Buy a comet photo today!  
(makes a great gift, too)

See the details on page 7

## NEW CENTRE WEB SITE ADDRESS

The centre now has a new personalized web site address which is:

[halifax.rasc.ca](http://halifax.rasc.ca)

The national rasc site is also new and is at [www.rasc.ca](http://www.rasc.ca). Both sites are 'hosted' courtesy the Department of Astronomy and Physics at Saint Mary's.

## JUST WHERE IS THE ST. CROIX OBSERVATORY?

The Centre's Observatory is located in the community of St. Croix, Nova Scotia. To get there from Halifax (Bayers Road Shopping Centre), follow these simple instructions.

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 1.5km until you cross the St. Croix River Bridge. You will see a power dam on your left.*
5. *Drive about 0.2km past the bridge and take the first left (Salmon Hole Dam Road).*
6. *Drive about 1km until the pavement ends.*
7. *Continue onto the dirt road and drive another 1km to the site.*
8. *You will recognize the site by the two small white buildings on the left.*

## 1997 HALIFAX CENTRE EXECUTIVE

|                         |                       |          |
|-------------------------|-----------------------|----------|
| Honorary President      | Dr. Murray Cunningham |          |
| President               | David Chapman         | 463-9103 |
| 1st vice-president      | Blair MacDonald       | 445-5672 |
| 2nd vice-president      | Clint Shannon         | 889-2426 |
| Secretary               | Mary Lou Whitehorne   | 865-0235 |
| Treasurer               | Ian Anderson          | 542-0772 |
| Nova Notes Editor       | David Lane            | 443-5989 |
| National Representative | Pat Kelly             | 798-3329 |
| Librarian               | Greg Spears           | 868-2626 |
| Observing Chairman      | Shawn Mitchell        | 865-7026 |
| Councilors              | Paul Gray             | 469-0947 |
|                         | Robin Clayton         | 864-0550 |
|                         | Dr. David Turner      | 435-2733 |