

# Nova Notes

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



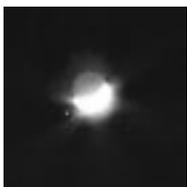
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The evening of March 25, 2004 provided a fine naked-eye view when the crescent moon (complete with Earthshine) passed  $0.6^\circ$  from Mars, with the Pleiades and Venus close by. Canon A70, 5 second exp, processed with Photoshop. Dartmouth – Michael G.

Moon/Mars Detail



Comet Bradfield – I stayed up late last night (April 28th) and went out between 3:30 and 4:30. The conditions were not very good, a lot of haze up to 30-40 degrees from the horizon and a lot of scattered light from the hanger here on the airport. I never did pick it up naked-eye or with the bino's. I set up the camera and took some stationary shots.

<http://www.jamescrombie.com/temp/bradfield2.jpg>

– James Crombie



Taken on April 01, 2004 at North Preston, NS during Venus close approach to Pleiades, Minolta X570 with 35-70 zoom, FUJI Superia 800, 70mm 25 sec F3.5 – Paul Heath

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

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

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

## C/2004 F4 (Comet Bradfield)

I walked up to the top of my hill this morning at about 4:40 to observe comet Bradfield with my 10x50 binoculars. Looking off over Cole Harbor I could see that the first 2° of my sky was taken over by fog and above that it was fairly clear. Above and below me were streetlights and there were several power lines in the FOV of the binos. When I first picked up C/2004 F4 it was a little bit north of what I think was Eta Andromeda and I immediately recognized it as a comet because of the 3-4° long tail sticking out of the western side of a teardrop shaped fuzz ball! The nucleus was very tight and maybe about 3-4th mag (hard to say due to the aforementioned reasons) while the tail was narrow and long with a brighter central vein running up through it ... It kind of resembled a feather.

– Graeme Hill ([grhill44@hotmail.com](mailto:grhill44@hotmail.com))

## C/2004 F4 (Comet Bradfield)

I got out the door at 4:00 a.m. this morning with my 80mm f/5 achromat plus 2 eyepieces and a 2x Barlow lens and hiked up to the top of my hill from Bellevista to observe comet Bradfield. I located it a little more than 4° SSW of Beta Andromeda with a 32mm plossl by about 4:10 a.m. and observed it until about 4:50 a.m. The comet was noticeably dimmer than when I saw it on the 24th and my estimates place it between about 6.5-7th magnitude with a

bright 2° tail that may have been as long as 4° with averted vision, at a PA= $\sim$ 290°. At 80x the nucleus appeared to be a small greenish disk enveloped in a nice parabola-shaped coma that swept back into a narrow, straight tail that spanned the 1.75° FOV. During this observation I noticed that the limiting magnitude around Polaris was 5.8 averted and 5.6 direct (vision) and the Milky Way could easily be seen sprawling through Cygnus.

When I got back to my house by about 5:00 a.m. I could still see the comet with my 10x50 binoculars. I hope Darren (and others) were able to take pictures this morning – this snowball's haul'n ass back to the outer solar system ;-)

– Graeme Hill ([grhill44@hotmail.com](mailto:grhill44@hotmail.com))

## C/2004 F4 (Comet Bradfield)

Finally, a clear, transparent, dark sky to see Comet Bradfield!

Also, today was the last viewing window for two and a half weeks, for the view this morning was only 20-minutes long, sandwiched between moonset at 4:00 a.m. and the beginning of significant dawn twilight at 4:20 a.m. Starting tomorrow, moonlight will interfere.

Comet Bradfield was not a naked-eye object this morning (April 29), but it was a very nice binocular comet, particularly so in large binoculars (15x60). Using the

out-of-focus method the head of the comet was about as bright as Sigma Piscium (magnitude 5.5) less than a degree to the lower left of the head. The tail was straight and slender, spanning a full 5 degrees, possibly 6 degrees, although it was difficult to discern the point at which averted imagination took over.

Bradfield most resembles the sungrazer Comet Ikeya-Seki of 1965, although it is about 5 magnitudes dimmer, and Ikeya-Seki had a definite curve to the dimmer portion of its long tail. Remarkably, the same person who observed Ikeya-Seki with me was there to share the view this morning: Sherman Williams. This morning was slightly warmer than that dawn of 39 years ago: 0C compared to -4C.

– Roy Bishop ([rg@ns.sympatico.ca](mailto:rg@ns.sympatico.ca))

## C/2004 F4 (Comet Bradfield)

I too was out between 4 a.m. & 4:30 a.m. observing Comet Bradfield and I made a similar observation using the in-out method compared to 69 Sig Psc.

Unfortunately there was light fog so the comet wasn't visible to the naked eye from Fergusons Cove. But with 10x50 Binoculars, the comet popped out easily and using a 4 degree field in my 80mm f5 I could detect a tail  $\sim$  2 degrees and the nucleus remained tight at 50X. Conditions improved as I observed and after I packed my scope up I returned to the comet with binoculars



## 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](mailto: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](http://www.halifax.rasc.ca)

Material for the next issue should reach the editor by June. 15

and traced out a tail nearly 4-degrees. The tail is much broader than I expected.

According to our estimates of ~5.5 the comet is better than a full magnitude brighter than the expected 6.8 for this date and time.

Very happy I made it out to observe this comet in the early hours as the comet is expected to fade and may be as faint as 10th magnitude when the moon no longer interferes in early/mid-May. However, in my experience a tight nucleus like this at ~10.5th magnitude can still be observed with an 80mm scope from SCO :)

– Chris Beckett  
(christopher\_beckett@hotmail.com >)

**C/2004 F4 (Comet Bradfield)**

*(edited slightly for length)*

Beginning with a scan through Andromeda at about 4:15 a.m., I spotted the comet

easily. A fine object in binoculars, with a tail spanning the field of view (between 5 and 6 degrees long). I had a good look at it through 10X50 and 15X60 binoculars. Roy's 4 inch Rich Field Scope nicely showed its compact bright head and the brighter inner region of the narrow tail. The tail rises upward at a steep angle from the comet head, maintaining a narrow dust trail straight away from the head, very gradually fanning out, thinning and disappearing into the dark sky background.

Some have compared Comet Bradfield to Comet Ikeya-Seki (1965), my very first comet! In my mind's eye, that nearly 40-year old impression is still with me. Like Bradfield, Ikeya-Seki was narrow tailed but it was brighter and longer, sweeping up several degrees from the west side of the constellation Corvus, the Crow. Near the end, however, its tail distinctly bowed into an upward sweep. Roy and I kept each other company in the early morning darkness for that one too!

We attempted to see Bradfield with the unaided eye, but could not. A brightness comparison was made using "the out-of-focus-binocular" method and found that the head of the comet was extremely close in brightness to, the star, Sigma Piscium (mag 5.5), conveniently placed less than a degree from the comet centre.

By 4:30 the strength of daylight already was beginning to lessen the contrast between comet and sky. Sky brightening over the next 15 minutes would put severe limits on the chances of an inexperienced observer with binoculars from locating the comet if they were just beginning their search during this time. About 5:30, at home, near the end of making a quick sketch and a few specific observation notes, I could hear the robins and song sparrows beginning a dawn chorus. Nature is grand, especially this early morning!!

– Sherman Williams (sherm@glinx.com)

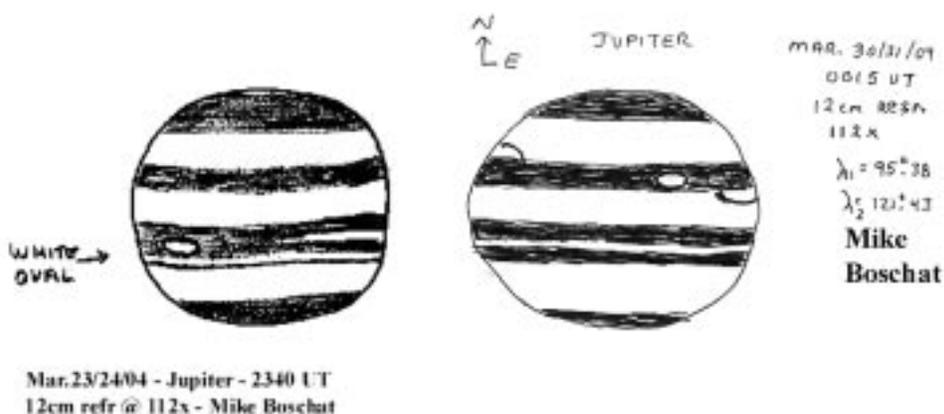
# eyes Up!

*eyes Up!* is a forum for observing news from Centre members. This is where you can see what your fellow members have been looking at for the last two months and share your own latest discoveries.

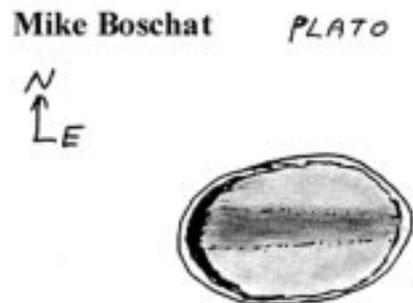
News may include observing reports, observational project status, witnessed daytime or nighttime astronomical phenomena, new equipment reviews, or any other notes of observational interest.

**Michael Boschat—Sketches**

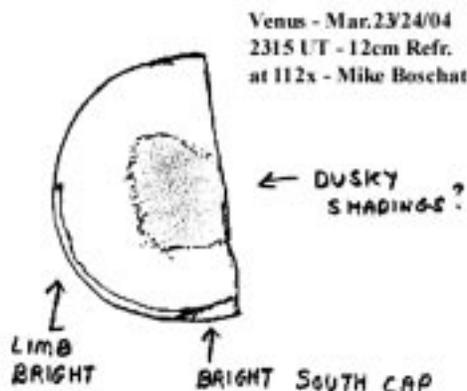
Mike sent in several sketches these last few months.



Mar.23/24/04 - Jupiter - 2340 UT  
12cm refr @ 112x - Mike Boschat



MAR. 30/31/04  
2340 UT  
12cm REFR  
209x  
DARKISH  
STREAK  
ON FLOOR



Venus - Mar.23/24/04  
2315 UT - 12cm Refr.  
at 112x - Mike Boschat

## Some Musings on Dark Skies, Light Pollution, and Cheap Eyepieces

David Griffith

The night of March 30 was a mixed blessing. The fact that it was even clear in March was a small miracle, and the seeing was quite steady from my deck in Bridgewater. The downside of course was the fact that the moon was shining brightly, almost as bright as my neighbour's outside lighting, known affectionately as the Photon Torpedo Array. So despite the fact I could read the daily paper quite easily on my deck at night, I lugged out the 8" Dob to feast on some planetary fare.

Venus was my first target, its brilliant gibbous phase forcing me to use the polarizer to cut down some of its brilliance. Mercury was too low from my location to view, and I wasn't up to lugging my scope through snow banks or hooking it up to a dogsled to find a place where I could view it. So much for Mercury then.

My next target was Jupiter, which didn't disappoint. The seeing was remarkably good, allowing some nice views of several belts and contours. I was easily able to use my highest magnification EP, a 6mm Skywatcher Ultra Wide Angle, and I'm certain I could have gone higher. Saturn was next, and once again my humble little SW eyepieces impressed,

affording a wonderful, crisp view of the disk, some belts, polar darkening, the disk's shadow on the rings, and the best view of Cassini's Division that I've seen in a good while.

Finally, once I'd had my fill of the planets, I trained the scope on the moon, something I've neglected to do for a long time. It was a nice homecoming, revisiting the craters, mountains, and other features too numerous to mention, and an added treat given the gorgeous seeing of the evening. Again, even at my highest magnification, detail remained consistently crisp throughout the session.

Of course none of the above is very remarkable (except perhaps a clear March night in NS). It is a scene repeated by most of us many nights of the year, although having such a planetary buffet to choose from all at one time was certainly nice. I did, however, reach several conclusions as I relaxed on my deck with feasting on solar system fare. First, dark skies are not essential for a fulfilling evening of observing. Just because the moon is out or the neighbour is flooding nearby communities with his yard lights, we need not stay inside. The moon and planets suffer little from light pollution. The moon in particular offers such a huge list of targets, that a person could spend many nights observing in detail. Perhaps we could add a "Lunar 100" list (as described in the April issue of Sky and Telescope) to our Messier,

Mini-Messier and Micro-Messier observing challenges. Thoughts?

Secondly, I discovered just how good a modest set of EPs could be. We often get so wound up in the equipment spiral, where there is always a newer and better accessory, that we don't take full advantage of what we already have. My Skywatcher wide angles (same as Orion's Expanse) performed exceptionally well with my f/6 Dob on the planets last night. It's amazing just how well a collimated f/6 Dob with a set of budget EPs can perform on planets. Since receiving these at Christmas, I had only ever used them for deep sky on those rare nights when I could summon enough energy to dig a trench through the snow banks in my yard to put the scope in! Having read mixed reviews on their planetary performance, I wasn't sure what to expect from them. Naglers or Panoptics they aren't, but for all but the most discerning tastes, I feel they yielded a more than acceptable view. So Dob owners, take heart. You can do planetary observing with them, and the views can be pretty decent.

Time to close; it's clear again tonight, so I'm going outside to do it all over again. And if it does cloud over for a while? No sweat; I'm taking a good book with me. I'll turn my back to the neighbors' house, harness some of those excess photons, and have a good read on the deck. Clear skies! ☆



Next Nova Notes look for all the details for Nova East, Nova Scotia's Summer Star Party!

August 20-24th, Smiley's Provincial Park.  
Visit the website at <http://halifax.rasc.ca/ne/>  
or contact Gary Weber 902-454-8264 for details.



May 15, 2004: The sky was clear (but somewhat hazy) so I could not pass up trying to photograph Comet Neat on film. This photo was taken with my 4" TeleVue Genesis refractor (hand guided with the C11). The exposure time is 4 minutes and FOV is about 3 degrees. The cluster in the image is the Beehive (M44). — Dave Lane

# March National Council Report

*Patrick Kelly & Mary Lou Whitehorne*

Mary Lou, Dave Lane, and I participated in the March meeting of the National Council via conference call from Mary Lou's. As the Centre's membership at the end of last year stood at 214, the Centre was entitled to a second national council representative. That position has been filled by Mary Lou.

The following is a list of some of the more noteworthy items that were discussed at the meeting.

**Privacy Policy:** The federal government requires organizations like the RASC to implement a privacy policy to protect membership information. A national policy was adopted and is now posted on the national web site ([www.rasc.ca](http://www.rasc.ca)). Centres will also have to develop a privacy policy and our centre should have a policy in place shortly. It will be published in an upcoming issue of Nova Notes and also be published on the centre's web site.

**Membership and Promotion:** You will probably have noticed the new society seal which was on the cover of a recent issue of the Journal. A similar design for each centre to use was also unveiled. In addition, a simpler version is also planned which will be used where a smaller size would make the new seal difficult to "resolve". Promotional items with the new seal have been ordered, but the existing stock, of which are now collectors items, are still available!

The committee is also looking at guidelines on selling non-RASC "branded" items on the society's e-store.

**New Proxy Form:** Decisions on some issues, such as changes to the society by-laws, setting of membership fees, etc. are made by the general membership at annual general meeting. In the past, members who could attend were able to use a proxy form to

transfer their vote to another member. The proxy form has been changed to make it clear to the person giving the proxy, exactly what a proxy holder can do with their vote. Proxy holders are now required to report back on the use of the proxy to the proxy giver. In the past, members who did not know anyone who was attending the annual meeting were able to send their proxy to the national office and the executive would then delegate someone to receive them. The proxy giver did not know who was holding their vote. In the future, a list of national council representatives who are willing to act as proxy holders, and who will be attending the annual meeting, will be published so that members can find someone that they can trust with their vote.

**New Executive Committee:** At the annual meeting, a new executive will be "elected". None of the positions are contested this year. The new executive will consist of: Peter Jedicke (president), Scott Young (first vice-president), our own David Lane (second vice-president), and David Clarke (treasurer). To the best of my knowledge, there is no truth to the rumour that the Royal Astronomical Society of Daves is planning a coup. (I have made it known that my loyalty can be bought, if the price is right!)

**Observers Handbook and Calendar Pricing:** The single copy price of the 2005 handbook will be \$23.95 and the calendar will cost \$16.95. Both items will also carry a \$4.00 charge for shipping and handling.

**Beginners Observing Guide:** A new version of the "BOG" has just been printed. A sample copy is in the library, and we should have copies available for sale at the meetings shortly.

**New Terms for National Council Representatives:** Due to the position's steep learning curve, it was felt that the current restriction of serving for no more than two consecutive two-year terms should be changed to no more than three consecutive terms. This

was approved by the national council, but as it requires a constitutional change, it will have to be approved by the membership at the annual meeting.

**Annual Meeting and General Assembly:** This year's GA is being held in St. John's. I attended the last one that was held there, and had a great time despite it being the hottest four days there in most peoples' memory. If you have never been to a GA you should consider going while it is nearby; the 2005 GA is being held in Okanagan! A link to the GA site should now be available from the national web site.

**Observing Programs:** The observing committee has been very active lately. I would encourage everyone to look at the observing section of the national web site. Observing forms for the Messier and Finest NGC Certificates are now available. The asteroids section has been updated and a new section on variable stars has been added with another new section on comets about to go on-line shortly. The amount of material there is truly amazing!

**Awards:** Our own Mary Lou Whitehorne will be receiving this year's Simon Newcomb Award for the work she did in producing Skyways, the society's new publication that is a resource for Canadian teachers who are teaching the astronomy components of the new pan-Canadian science curriculum. Congratulations Mary Lou!

**Finances (Red Tide Rising):** We now get to what people of my generation would call the "Gordon Sinclair topic"; money. While the society has had several years with surpluses (25,000 in 2001 and 33,000 in 2002), the 2003 budget had a \$23,000 deficit, and the 2004 budget is predicting a deficit of \$32,000. The change has been due to a number of factors. The national liability insurance coverage has gone from \$2,500 to \$12,200.

Mailing costs have increased, especially for the annual report, and could jump by \$12,000 to \$15,000 if the Journal loses its mailing subsidy from

Heritage Canada. The weak American dollar has resulted in a large decrease in the revenues generated through US sales. Low interest rates have reduced investment income.

Currently, it costs more to provide services to a new member (Handbook, Journal, SkyNews, than the Society gets from its share of the membership fee. This problem has been made worse by the fact that society membership has grown by about 66% over the last five years. My RRSP should be so lucky!

A proposed fee increase of \$6.00 for the 2005 year will be voted on at the annual meeting in St. John's this year. Of this \$6.00 the national society only receives 60% (\$3.60). That amount will only reduce the deficit by about \$18,000. With a small increase like this, the deficit will continue to grow. The finance committee has suggested a few other small savings. Most are in the form of cuts to services and none have a large impact on the total flow

of red ink. Necessary property improvements at the national office have been deferred this year, or the deficit would have been much higher. No doubt there will be a lot of debate on this issue in the coming months.

**Travel Policy Changes:** One proposal to reduce costs is to change the reimbursement policy for travel to national council meetings. A decision on this has been deferred until the October national council meeting.

**Membership Survey:** The membership and promotion committee will be putting together and sending out a survey to all RASC members. The survey will poll members on many topics, including membership benefits: what services are important to members and how much are members willing to pay for them.

We encourage everyone to examine the national financial report and consider carefully the future direction of the

Society. We encourage all members to respond to the survey with the future welfare of the society in mind.

The Society plans to use the information gathered from the survey to make important decisions for the Society's future. Think about the deficit, and the actual cost of membership when you make your survey responses.

This is our society. It's up to us to take care of it. I'm sure we all agree that the the RASC is worthy of our care and support!

If you would like further information, or have comments on any of the items discussed here, please feel free to contact either Mary Lou (865-0235, mlwhitehorne@hfx.eastlink.ca) or myself (798-3329, patrick.kelly@dal.ca)  
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## March 2004 Meeting Report

*Andrea Misner*

Taking the stage, President Steve Tancock had the unpleasant task of breaking the news that our friend, and fellow RASC member, Dr. William Thurlow, had passed away. For those of us who knew him, Bill will always be remembered for his zest for life, dedication to his family and passion for the stars. Pressing on, it was announced that the Center's membership has risen to the level where we are entitled to a second national rep. Mary Lou Whitehorn has taken on this responsibility.

The night's main speaker, Paul Gray, booted up his PowerPoint presentation, and entertained us on Dark Nebulae pioneer Edward Emerson Barnard (1857-1923). He began his work in 1876 after purchasing a 5-inch telescope, with what would have been about 2/3rds his yearly income!

It was in 1887 when Barnard met Simon Newcomb, who inspired him to improve his math skills and start up the hunt for comets. Throughout Barnard's life he discovered 8 comets, and then in 1892 he discovered Jupiter's fifth moon, Amalthea.

Now, if you missed the meeting, or simply do not have knowledge of Dark Nebulae, you may be wondering what they are. With colourful pictures, Paul described them in two categories, the ones that are superimposed on stars, and the ones that interact with other nebula. The famous Horsehead Nebula is a good example of a dark nebula.

The bulk of Paul's talk dealt with how we can observe these nebulae. A definite challenge for any observer, what is most needed is very, very dark skies, and a long nights rest before hand. The last part of his talk dealt with Barnard's "Dark Comet", and the investigation into whether or

not there was a mistake in Burnham's Handbook improperly labeling B88. Thanks Paul Gray for an interesting talk!

Next up was the new observing chair, Craig Levine, reporting that this is a perfect time to get out and take part in a Messier Marathon...unfortunately, the typical Nova Scotia weather called for nothing but clouds and rain for the next little while.

Bringing the meeting to a close, Paul Gray once again took the floor, and shared stories from a trip that he and another RASC member, Graeme Hill made to a mirror grinding workshop in Maryland – Paul's old stomping ground. They spend the weekend not only having their stomachs filled with endless amounts of food, but learning how to grind and polish telescope mirrors. A great experience, topped off with some beautiful rainbow pictures...thanks Paul and Graeme for sharing these! ★



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:*

**Date, June 19** (Rain date, Sun. 20)    **Date, July 16** (Rain dates, Sat. 17, Sun. 18)

## 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, June 18th, 2004

### Astronomy Aotearoa by Mary Lou Whitehorne

“Aotearoa” is Maori for “Land of the Long White Cloud,” also known as New Zealand. Mary Lou Whitehorne just returned from a trip to Aotearoa, where she saw the southern skies (Holy Big and Bright!) for the first time. This talk will be an informal presentation on the astronomical components of her visit. It will include a look at the Carter Observatory, the Golden Bay Planetarium, Stonehenge Aotearoa, and a short introduction to Maori sky lore.

*Mary Lou Whitehorne is Past President and Chief Heckler of the Halifax Centre. She is also one of the centre’s two national council representatives, is about to become the chair of the society’s national public education committee, and is the author of the RASC’s newest publication, Skyways, Astronomy Handbook for Teachers. Obviously, she needs to find a better way to spend her time.*

**There are no meetings held in the Summer months of July or August. See you in September!**

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	443-3749
Treasurer	Paul Evans	423-4746
Nova Notes Editor	Michael Gatto	453-5486
National Rep.	Pat Kelly	798-3329
2nd National Rep	Mary Lou Whitehorne	865-0235
Librarian	<i>(We are currently seeking a librarian)</i>	
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

