



REGULUS

SEPTEMBER-OCTOBER 1993

NEWSLETTER OF THE KINGSTON CENTRE
OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

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CONTRIBUTIONS WELCOME: Articles, notes on observations, humour, poetry, artwork, anything on astronomy or related topics, are invited. Submitted material may be edited for brevity or clarity. Please send all submissions to the **Editor** as follows:

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DEADLINE FOR MATERIAL IS THE 15th OF THE MONTH PRIOR TO PUBLICATION.

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MEETINGS AND EVENTS HORIZON

Regular Meetings of the Kingston Centre, RASC, are held on the **second Friday** of each month (unless noted otherwise) at **8 p.m.**, in **Room B-201, Mackintosh-Corry Hall, Queen's University.** **Non-members are welcome.** Executive Council Meetings are at 7 p.m.

Fri., Sept. 10 **REGULAR MONTHLY MEETING. MEMBERS' NIGHT—Short presentations by members on topics of their choice.**

Fri., Oct. 1 **SPECIAL PUBLIC EVENT—Location Room 205, Walter Light Hall, Queen's. Speaker, David Levy, "Year of The Comet: Collision With Jupiter." Admission FREE.**

Fri., Oct 8 **ANNUAL GENERAL MEETING AND ELECTION OF OFFICERS. Speaker, Walter MacDonald, "Astronomy."**

Fri., Oct. 22 **SPECIAL PUBLIC EVENT—Location Room 205, Walter Light Hall, Queen's. Speaker, Terence Dickinson "From The Big Bang to Planet X" (launching Terry's new book of the same title). Admission FREE.**

Fri., Nov. 12 **REGULAR MONTHLY MEETING. Speaker, Peter Broughton. National President, RASC, "What Is The RASC? Past, Present and Future."**

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THE JULY 1993 NATIONAL COUNCIL MEETINGS & ANNUAL MEETING

By Walter MacDonald, National Council Rep

Three meetings were held at the Halifax GA during the Canada Day weekend this year: two council meetings and the annual meeting. Here are the highlights:

Kingston Centre members figured prominently in these meetings! Dan Rombough's application for a Messier Certificate was approved. Congratulations Dan! (Hopefully more Centre members are working on their Messier lists too.) Leo Enright announced that a new edition of the *Beginner's Observing Guide* will be available in early August ('93). Bill Broderick was named as a new member of the national Light Pollution Committee. And of course Teny Hicks had his hands full national Treasurer!

Much discussion surrounded the issue of basing budgets on existing membership fees rather than on an increased fee. It was explained that the Treasurer and Finance Committee used an increased membership fee to balance the budget only after all reasonable measures had been taken to minimize expenditures. The alternative to the fee increase would have been a significant cut in RASC services and/or equity.

Dr. David Turner will be taking over as the new editor of the Journal in 1994. The possibility of making the Journal a joint publication with CASCA (Canadian Astronomical Society) is being studied. Another possibility that has been raised is combining the Journal with the Bulletin — interesting since the editors of both these publications will be living in Halifax.

The Centennial Committee reported that Peter Broughton's book is ready for publication in early 1994. Approval was given for the printing of 1000 copies which will retail for \$35, but be available *before the publication date* to RASC members at a 25% discount. Shipping charges (if any) would be added on top of these figures.

After presenting its final accounting of funds, the Solar Eclipse Expedition 1991 committee was disbanded. The approximately \$8000 surplus is to be used by the Solar Eclipse 1994 committee to promote the upcoming eclipse to the public. Centres will be receiving public education materials (including solar eclipse viewers) to do just this.

The Windsor Centre will be hosting the 1995 GA and distributed some information on this along with a tentative schedule of events. The Windsor Centre also thanked National Council for the grant it had received toward the purchase of a slide projector. It saw "first light" when Jack Newton came to town to speak to their Centre.

It was announced that Patrick Moore (UK) and Rev. Robert Evans (Australia) are now honorary members of the RASC. A complete list of honorary members appears on the inside cover of the Annual Report.

17 of the 22 Centres were represented at the Annual Meeting and there were 132 proxies held by 28 reps. A new wrinkle in the use of proxies was discovered this year: proxies may *or may not be* cast at the discretion of the proxy holder. Since the use of proxies in the RASC is only in its second year we are still learning about the laws governing their use. Beyond these laws (of which there aren't too many) the Society may pass its own by-laws on how proxies may be used (or not used!). No doubt as the various implications of these laws (or lack thereof!) are found, action will be taken to fully define what constitutes proper use of proxies within the RASC.

After much debate, including a strong case put forth by Treasurer Terry Hicks, the new membership fees were approved by a substantial margin, despite the fact that not all proxies were cast. The new fees are \$36 regular, \$22.50 youth, and \$900 life. The motion to abolish the senior category of membership was carried also.

For anyone wishing more information on the doings of National Council at these meetings, the minutes will be available in the near future from either the Centre President or National Council Rep.

AN EXPEDITION TO THE 1993 HALIFAX GA

By Walter MacDonald

The Trip East

I attended this year's GA along with our former PFL **Ian Levatein, Barb Wight** (Hamilton Centre), **Cathy Hall, and Jon Buchanan** (Ottawa Centre). Contrary to rumours, Jon is NOT the former premier of Nova Scotia. We met at **Ian's** place about noon on Wednesday, June 30. The five of us set off to Halifax in two cars, stopping for an overnight stay in Edmundston N.B. Here we discovered there was no night life—except at the local Tim Horton's where the air was so thick with smoke we could hardly breathe!

As we drove through New Brunswick and Nova Scotia, we noticed that Canada Day seemed to be a bigger event than back home in Ontario. The vast majority of the trans-Canada highway here is only two lanes wide. With trucks and cars passing each other, this leaves only the paved shoulders to drive on—and they are driven on a lot! This took some getting used to and resulted in some exhilarating moments. In Nova Scotia we encountered some stretches of highway with red asphalt, green asphalt, or an alternating combination of the two. We arrived in Halifax, none the worse for wear, at 7 p.m. on Thursday, July 1st. We visited the registration desk and then settled into our rooms in rez.

The GA

A long, hot council meeting was held on Friday afternoon. Fortunately a motion was made at the beginning of the meeting to limit its duration to 5 hours. The motion was carried unanimously! The biz remaining at the end of this meeting (you didn't think 5 hours would be enough, did you?) was deferred to the next council meeting on Sunday.

After dinner the obligatory wine and cheese party was held, followed by a combo event consisting of a Murphy slide show, song contest, and astronomical joke telling. Perhaps the highlight of this particular event was a skit parodying the exploits of National Council and the centre council reps. Starring in this farce were none other than **Peter Broughton, David Tindall, Doug Hube, Mike Watson, Mary Anne Harrington, and Cathy Hall**. Among other things, several unsuccessful attempts were made to abolish the **Journal**, and \$900,000 was given to the Charlottetown Centre for its 7th-month anniversary celebration bash aboard the space shuttle.

On Saturday, July 3, there were two paper sessions. The abstracts for these papers appear in the GA guide. If anyone is interested in looking at these, I have left a copy with our librarian **David Stokes**. In between the paper sessions was lunch and the usual group photo. The displays were available for perusal throughout the day—and the Kingston Centre was well-represented. The evening featured a cruise on the Bluenose II.

Not being booked on the Bluenose cruise, I had Saturday evening free. **Jack Newton** suggested going out to **Roy Bishop's** observatory near Windsor (N.S., that is!), which he was quite anxious to see. To make a long story short, I drove **Jack Newton** and **Alan MacRobert** (visiting the GA for Sky & Telescope magazine) out to **Roy's** place. **Roy** and his wife would be along with **Cathy Hall** after the Bluenose cruise—an hour or so after our arrival. This allowed us to arrive before sunset and get some pictures. **Roy's** observatory is a 10' Ash dome mounted on top of his house. It is reached by a set of stairs going up from his study. We snapped some pics, explored the property, and went out for ice cream by the time **Roy** and company arrived. Finally we were ready for the observatory, tour!

After 10 years, **Roy** has finally completed a 17½" Dobsonian for his observatory. Few telescopes on this planet are as finely crafted as his instrument. And the ergonomics of the instrument are well thought out. The 'scope rests on the floor of the observatory—there is no pier (one night say that this is an observatory without pier!). The floor is

rock solid thanks to careful positioning of the observatory and house framing. The solidness has to be experienced to be believed. Unfortunately, it was cloudy so we couldn't do any observing. After some good conversation, and some even better strawberry shortcake (provided by Roy's wife), we headed back to Halifax.

I was quite tired, so Cathy did the driving. A substantial downpour started just after we left Roy's. As I found out later, it was fortunate that I slept for most of the trip back. The rain had reduced visibility and control considerably and Jack was rather nervous about the driving being done, viz:

Jack: "Don't these windshield wipers go any faster?"
Cathy: "It wouldn't make any difference in my driving."
Jack: "It would make me feel better!"

Sunday morning saw the final paper session. The display room was open for most of the day, until the judging took place in the afternoon. The annual meeting was held in the afternoon (see the national rep's report) and was followed by (yet) another national council meeting.

The Awards Banquet was held Sunday evening, featuring a choice of a lobster or roast beef dinner. The awards portion was a glorious time as the Kingston Centre really cleaned up! A list of the spoils appears elsewhere in this newsletter. The Chant Medal was awarded to Mary Lou Whitehorne.

Monday consisted of trips to the Citadel, Peggy's Cove, and the Nova Scotia International Tatoo. Cathy, Stan Runge and Scott Young (both from Winnipeg Centre) and I went out for dinner at an incredible restaurant called Mexicali Rosa's. We pigged out on steak and shrimp Fajitas—truly an incredible gastronomical experience to go with the incredible astronomical experience we were having! Only later did we learn (from Ian and Jon) that Kingston and Ottawa are blessed with the presence of Mexicali Rosa's establishments.

The Long Road Home

The trip back proved to be as interesting as the GA itself. Our two cars were separated (for the rest of the trip, as it turned out) when Cathy, Jon and I made a two-hour stop at an incredible second-hand book store near Fredericton. I picked up a hardcover 1907 first edition of The Friendly Stars by Martha Evans Martin (the book that got Leslie Peltier started in astronomy)! Cathy bought a 1900 hardcover edition of Flammarion's Astronomy for Amateurs. I have never seen so many books in such a store before, and never so many antique books! I plan to stop in again at this store on my way to the St. John's GA next year!

We stopped for dinner at Woodstock (but there were no bands!) and later made another brief detour from the main highway so that we could drive through the world's longest covered bridge (1283 feet).

ASTER, la Station Scientifique du Bas-Saint-Laurent

After spending the night in Edmunston again (with no sign of Ian or Barb), we set off once again towards home. About half way from Edmunston to Riviere-du-Loup, Cathy noticed an observatory sign. Fortunately the brakes on the car had been serviced just the week before and we quickly veered off the highway and toward the advertised observatory.

The observatory is located near a place called St. Louis du Ha! Hal (really!). As we drove up the long driveway we were treated to a scale model of the solar system. In seconds we were through the outer solar system. Carefully avoiding the asteroid belt, we next zoomed through the inner solar system and right past the sun!

Dropping out of warp, we found ourselves in the parking lot at the observatory. The main building was equipped with a solar cell array on its front, and was topped off by a 20' (modified silo) dome. In the back yard was an impressive wind turbine on a 25m mast.

SUMMARY OF A MORNING SOLAR ECLIPSE

By Joseph Silliker

The partial solar eclipse of May 21, 1993, took a path from the South-Western United States over Southern California. Falling over the Baja Peninsula and moving diagonally north-east from the south of New Mexico over the U.S. mid-west, it trekked north-east over Lakes Erie and Ontario. From there it travelled up the St. Lawrence River to South Labrador. Crossing the North Atlantic the penumbral shadow passed over the British Isles, then progressed over Europe and along the north edge of the Black Sea. Finally, it ended over the south-western edge of the Caspian Sea.

The greatest coverage and best viewing (depending on the clarity of the weather that day) was in Fairbanks, Alaska, with 56%. Towards the evening much of North-Western Russia, as well, had a good opportunity to see this eclipse. Most viewers would not have seen the full magnitude of 74% because it was high in the Arctic at the northeastern edge of Russia. Because of the way the moon's penumbra fell over North America, 50% of the population had a chance to observe this if they were interested, and if the skies were fairly clear. Because the penumbral shadow ended over the St. Lawrence River at Wolfe Island, Kingston, Ontario, did not do well in this event, although some areas north-west of the city of Kingston did manage to see a faint dent of about 1%.

At Odessa, Ontario time, the eclipse started at 0901hr and the time greatest in degree was at 0908hr. Last contact was at 0916hr. Because the sun was low in the sky at this time, I was able to view this event through my living room window. I used a Number 14 piece of welder's glass. Through welder's glass the image appeared tiny. If I had used my telescope with the Solar Screen attached, the result would have been a larger image. Despite its size, I could easily see the dent made in the north-west corner of the sun's disk as the moon cast its shadow on the earth.

Since Odessa was just on the very edge of 1%, I am going to call this event the Odessa Eclipse.

NOTE: There will be an annular Solar Eclipse of the magnitude of 94% coverage visible from the Kingston area on May 10, 1994. This is one event that should be worth watching, weather permitting.

AN EXPEDITION (continued)

The observatory is run by a private incorporated group for the purpose of educating the public in astronomy, geology, and alternative energies. In addition to serving as a showcase of solar and wind energy technology, this facility has several rooms full of displays on astronomy and geology. Supplementing these are the observatory (with C14, computer, and ST4 CCD), a rock collection (with over 200 specimens), and a working seismometer. As RASC members we received a very thorough tour. We watched the fluorescence of various rock specimens under an ultraviolet lamp, inspected some of the seismological records collected by the seismometer, and observed the sun with their C14 telescope.

After some more picture-taking we were on our way home again. By this time it seemed as if we were making an asymptotic approach to Ontario—the closer we got to home, the longer it was taking to get there! We made three more stops for such mundane things as food and gas and finally arrived back at Ian's (via Mexicali Rosa's for dinner!) about 11 p.m.—a quarter day after Ian and Barb!

Well, as you can see, it was an exciting trip. There is nothing quite like the GA experience—especially when it is part of an exploratory expedition to a distant part of our country. I don't know about the other members of our little expedition, but Cathy and I are giving serious consideration to a similar trip to St. John's next year!

NEWS AND NOTES

MESSIER CERTIFICATE AWARDED

Hearty congratulations to Kingston Centre member **Dan Rombough** (of Marmora), who has earned his **Messier Certificate** from the National Office of the RASC. Dan, who says it took him about 2½ years to spot all of the Messier objects, completed his search last winter by managing to observe the last elusive items on his list--"either M63 or M87," says Dan, who was too excited to remember the precise details from that far back, when his award was presented to him at our July meeting. He did remember very clearly though, that he accomplished his goal "in two feet of snow at 30 below!"

KINGSTON CREW CLEANS UP AT HALIFAX GA

The Kingston Centre made a big splash in the **Display Contest awards** at this year's RASC **General Assembly** in Halifax. Altogether, we came away with four awards (more than any other Centre)! Congratulations to all of the winners and special thanks to **Bill Broderick** for preparing our **Centre Display** and transporting it to Halifax.

KINGSTON CENTRE (group award)—First Place for Best Centre Display.

Prize: Commemorative silver medallion specially designed for the 1993 GA by Halifax Centre member Nat Cohen; plus a copy of **Passport to the Stars**, an astronomy workbook text by **Terence Dickinson** (duly entrusted to our Centre library).

KINGSTON CENTRE (group award)—First Place for Best Cartoon entry for our Solar System cartoon poster (contributors Bill Broderick, Leo Enright, Christine Kulyk, Walter MacDonald, Steve Manders, Dan Rombough, Denise Sabatini, Peggy Torney).

Prize: a copy of **Guide to the Sun** by **Kenneth J.H. Phillips** (entrusted to our library).

LEO ENRIGHT—Honourable Mention in the category of Astrophotography

Prize: Silver medallion.

BILL BRODERICK—Honourable Mention in the category of Light Pollution Display.

Prize: Silver medallion.

BIG BOOST FOR BOOKCASE FUND

We are well on the way to having our new Centre Library **bookcase** built, thanks to a generous donation of **\$100** from **Arthur Covington**. A Life Member of the RASC, **Arthur** has contributed in countless ways toward the success and growth of our Centre and its activities. The Kingston Centre extends sincere thanks to **Arthur Covington** for his donation to the bookcase fund and for his many other valued contributions to our group!

GOOD LIGHTING CERTIFICATE OF MERIT

The **National Council** has approved a **Certificate of Merit** which Centres may use to recognize persons, firms and other bodies, which use good outdoor lighting. Criteria include the use of high- and low-pressure sodium lighting and full cut-off fixtures or shielding to prevent glare and light trespass. The use of timers or motion detectors, etc., to control outdoor lighting and illuminated signs and displays, to prevent unnecessary waste of energy, is also deserving of recognition. We would very much like to start issuing these certificates, so if you know of a suitable recipient, please bring to our attention. Wherever possible, recipients will be invited to attend a meeting where they will be presented with their certificate. The media will also be invited, or advised by way of a suitable media release, so that the recognition is made public. Let's all get involved in promoting and recognizing good lighting.

KINGSTON CENTRE ANNUAL GENERAL MEETING AND ELECTIONS

FRIDAY, OCTOBER 8, 1993

As "election fever" hits the country, it seems only fitting that the Kingston Centre's annual **Election for Officers of the Centre** will be held at our October 8 meeting which will also be our **Annual General Meeting**. (NOTE: Some proposed amendments to our Centre By-laws will be presented to the membership for approval by vote at this Annual Meeting.)

We urge you to consider throwing your hat in the ring for either a position on the Centre Executive Council or as Chairperson of one of the Centre's Committees, or to consider volunteering to become an active member of one of the Committees. (Please see the front page of this issue of REGULUS for a complete list of our Executive positions and committees.) NOTE: Every Kingston Centre member in good standing, including Ordinary, Life and Youth Members, is entitled to run for office in the Centre. (Associate members may not vote or hold office.)

The year 1994 promises to be an exciting time in the life of the Kingston Centre, and for astronomy in general, with the anticipation of such celestial events as a rare annular eclipse of the Sun coming up in May and the once-in-a-lifetime prospect of observing the effects of a comet collision with Jupiter next summer, as well as the likelihood of another excellent Perseid meteor shower in August. Centre Committee members have a number of interesting projects in the works for the coming year, and we can look forward to another exciting Astronomy Day celebration, in addition to our regular monthly meetings and other events. All of which means there is plenty of "scope" (if you don't mind the pun!) for YOU to get involved in some enjoyable and worthwhile astronomical doings in the months ahead. See you there!

C. KULYK

President

ON THE HORIZON IN '97?

Anyone who has ever attended an astronomy conference or weekend-long astronomy workshop and star party knows what a great time is had by participants at such events. As a case in point, see the RASC 1993 General Assembly reports by our members elsewhere in this issue.

Some of us have lately been getting the urge to begin investigating the possibility of holding such an event here in Kingston at some time in the future. Therefore, we invite all members who would be interested in helping to organize such an event to come to a preliminary meeting to discuss this possibility and what it might involve.

Date: Saturday, September 18, 1993

Time: 2:00 p.m.

Place: At the home of Ian Levstein

000 XXXXXXXXXXXXXXX, Kingston (Phone: 000-0000)

(located northwest of the Cataraque Town Centre just east of the intersection of Bayridge Drive and Cataraque Woods Drive)

Note: Bring your favourite munchie!

THE BEGINNER'S OBSERVING GUIDE

The new edition of this widely acclaimed Society publication is now available. Suitable for anyone just getting started in astronomy, also for veteran observers who are looking for an easy way to introduce someone else to the heavens. See our Secretary-Treasurer KIM HAY for a copy.

LIGHT POLLUTION NEWS

The following was submitted by KIM HAY who
picked it up from one of the E-mail Echos.
Originator is Doug Slauson

If you haven't read your last issue of the IDA Newsletter, there's some real interesting news! For example, the newsletter contained a reprint of a resolution by the New Mexico state legislature to designate the entire state as a "Dark Skies" state to protect the dark skies in New Mexico in the future!!

Also, the State of Michigan passed a law designating the Lake Hudson Recreation Area as a "dark sky preserve." The law passed the house 100 - 0 and the senate 37 - 1. Wow! Other light pollution activity is happening in New Jersey, Massachusetts, Iowa, and elsewhere.

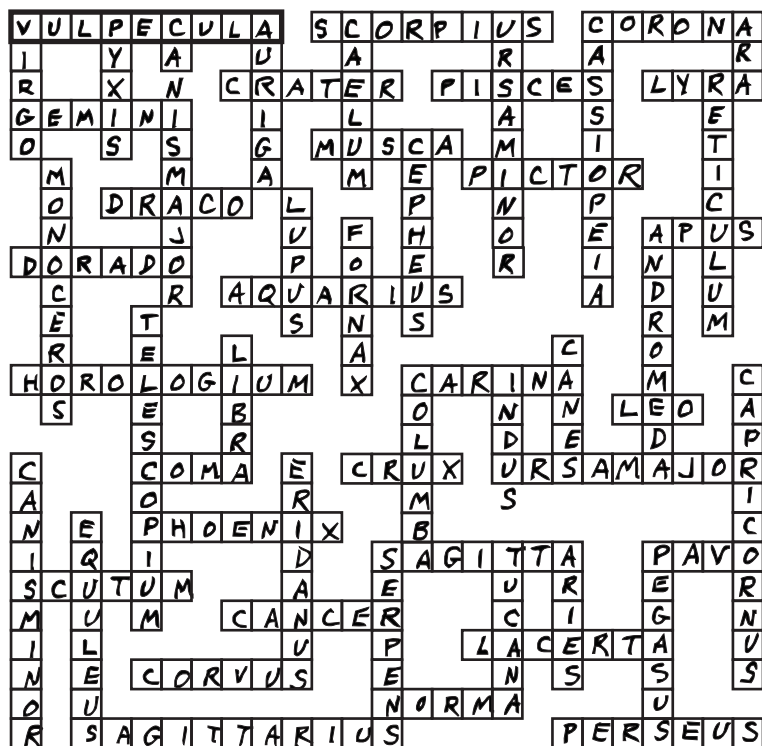
For other news, such as news about "billboards in space", pick up your latest issue of the IDA Newsletter. If you're not a member of IDA, you can join for as little as \$20 (U.S.) per year (\$10 for students and those with limited income). \$20 is less than a subscription to Sky & Telescope or Astronomy and your money is put to work to help educate and to promote and preserve dark sides. Write to:

International Dark-Sky Association
3545 N. Stewart
Tucson, AZ 85716

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KRISS KROSS 4 -- Solution (From last issue)



HUMOUR

- Q. How many astronomers does it take to change a light bulb?
A. Change a light bulb? What's wrong with the dark?
-
- Q. How many academics does it take to change a light bulb?
A. None. That's what their research students are for.

A very brief "History of Time"
May all be compressed in this rhyme.
Fluctuation, inflation,
Quark soup condensation
Then galaxies, stars, bioslime.

If the Universe really is expanding,
why can't I find a parking space?

-- From the 1993 GA Handbook