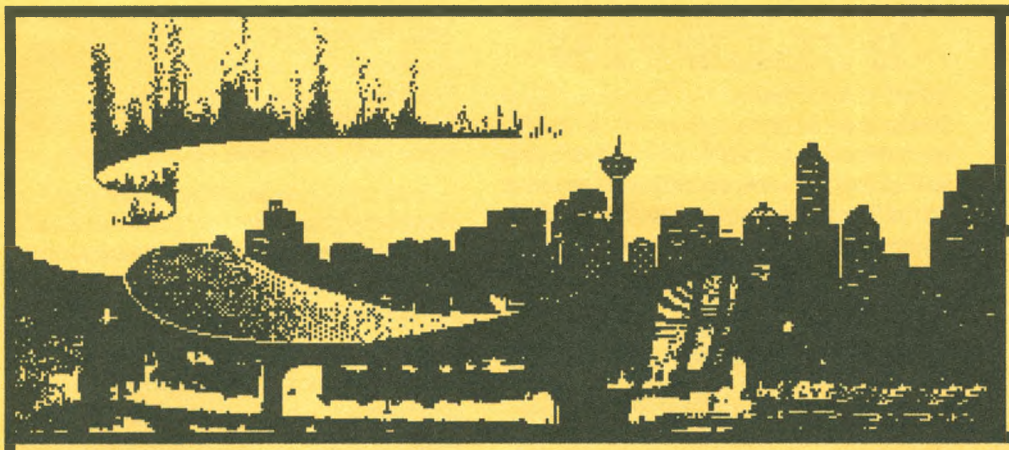

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Number 6

The Royal Astronomical Society of Canada

BULLETIN

La Société Royale d'Astronomie du Canada

Reflections

Charting a Course for the Society's Future - I

Derek Baker

Introduction

Although I have spent a lot of time over the last fifteen years developing a philosophical framework concerning the R.A.S.C., it was the recent membership survey which was the catalyst that prompted me to try putting it down on paper. Hopefully, I have avoided the minefields of emotional debate by attempting to view the issues from the "outside looking in". I extend my thanks to those who have "held the fort" over the years; they have worked hard. However, for better or worse, the mood of the membership has changed in recent years and some reorganization appears to be in order.

I should give some personal background information to let you know where I am coming from. I have been actively involved in astronomy for the past twenty-two years and have been an R.A.S.C. member since 1975. I have a B.Sc. in chemistry and physics (including a few senior astrophysics courses). I have served on my centre's executive for a total of six years, edited our newsletter, served as an alternate national council representative, organized group observing programs and have made contacts with people in many regions of the country via General Assemblies, phone conversation, etc. The observations, comments and suggestions that follow have been developed from the sum of these experiences.

I have not focused on professional astronomers for three reasons. First, they have their own society to address their objectives. Second, the vast majority of R.A.S.C. members are amateurs – their concerns must be paramount. Third, it is the amateurs who require training, coaching and support. Yet, professionals **do** belong in the R.A.S.C. and their presence should be appreciated! Their motivation in "networking" with amateurs comes from: a) a nostalgic and parental concern for the amateurs' interests, b) a desire to work with amateurs on joint projects and c) a recognition that their own livelihood depends on public interest and funding. Those who would banish professionals from any astronomical organization would rob the amateur of a very valuable resource. I value their presence in the R.A.S.C. and I hope that more will become directly involved with amateurs in the future.

The Problems

Over the years, I have noted a consistent dissatisfaction with many aspects of the society. Although there has always been some discontent, it has reached an alarming proportion during the last five years. Certain issues seem to come to light on a repeated basis.

Limited Appeal. It has been estimated that there are 30 000 amateurs in Canada, yet only 10% choose to belong to the R.A.S.C. There are many clubs and organizations which have formed and would qualify for entry into our society, but have chosen not to do so.

Lost members. Some groups, such as the North York Astronomical Association, have formed as alternatives to the R.A.S.C. The driving force behind this has been discontent and conflict within the R.A.S.C. We have lost enthusiastic and productive members because of their frustration with the operation of the society. Some higher profile amateur have kept their distance from the R.A.S.C. or avoided the society altogether. Some centres have had dialogue on the viability of separating from the R.A.S.C. and servicing their members on their own.

The membership turnover rate is also too high. A significant portion of newcomers do not stick around for more than a few years. My experience puts the rate at about twenty percent. Although some turnover is inevitable, the quantity is still disturbing.

Lack of trust. There is a strong feeling that the national council has little concern for the individual amateur's interests. Reformative ideas brought forward to the national council have been ignored or "shot down in flames". Many members react by describing National Council as a reactionary body of bureaucrats interested more in their own agendas.

Lack of communication. Many members have complained that they really don't know what is going on across the country. (i.e. Can you name the ten most active variable star observers or a dozen owners of CCD's?) Unless you happen to be in with the elite group of experts, you cannot answer the question.

Financial concerns. With increasing regularity, my peers have concluded that the national council is not fiscally responsible and that funds are not prioritized and allocated according to the interests of the membership. Comments such as "With that money they could have purchased a computer for every centre\" are heard quite regularly. The recent vote against fee increases is symptomatic of this tone. The "no" vote was due to the feeling that the membership should see more "bang for their buck". It is not the fee amount that is in question; it is what the members get for their money. Clearly the membership is not satisfied.

Power distribution. Many members feel that the national council is too Toronto-centered and

(continued on page 7)

BULLETIN

is a publication of the Royal Astronomical Society of Canada and is distributed together with the society's *Journal*. It contains articles on current activities of the R.A.S.C. and its centres across Canada, as well as articles from members and non-members which are of general interest to members of the society. Manuscripts should be submitted to the editor at the address below. Inquiries about the society should be directed to its National Office at 136 Dupont Street, Toronto, Ontario, Canada M5R 1V2 (416) 924-7973.

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Editor: Patrick M. Kelly, RR#2 Falmouth, Nova Scotia, Canada B0P 1L0
E-mail Address: pkelly@watt.ccs.tuns.ca
FAX: (902) 423-6672
Phone: (902) 420-7604(w), (902) 798-3329(h)

Editorial Staff: Diane Brooks, Harlan Creighton
Rédacteur pour les Centres français: Marc Gélinas, 11 Pierre-Ricard, N-D-Ile-Perrot, Québec, Canada J7V 8M6
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Event Horizon

February 6th (10:00 A.M.)

National Council Meeting
Offices of Smith Lyons Solicitors
Scotia Plaza, Suite 6200
40 King Street West
Toronto, Ontario ✪

Letters to the Editor

Donations Linkage Upsetting

I found the tenor of Peter Broughton's article, that appeared in the August issue of the BULLETIN, regarding contributions to the society quite disturbing. Other members have also commented on this matter to me.

While we have no objection to a member, or anyone else, making donations to the society, bringing in the defeat of the fee increase as an incentive to contribute to various funds of the society seems to imply that the members who voted down the fee increase were being irresponsible and were acting out of ignorance about the society's financial state. For once, I believe that this is not so and can attest to the fact that those who refused the fee increase by proxy vote were precisely those who are fully aware of the financial situation facing the society. The message thereby given was intended to urge the national council to reform the way in which the society's funds are managed.

That our new president appears to be trying to circumvent this vote of the members in order to get the additional funds by other means is most distressing. It will certainly not make the relationship between centres and the national office any easier. Can I suggest that the entire matter of finances be left to the finance committee until they have time to carry out the thorough review that they were directed to do at the national council meeting of July 3rd.

Suzanne Moreau
4700 Bonavista Avenue, Apt. 308, Montréal, Québec H3W 2C5 ✪

Nominations for 1993 R.A.S.C. Officers

By-Law Number One of the society provides for a nominating committee whose duty is to prepare a list of candidates for each elected and appointed office for which an election or appointment must be made.

In 1993, elections for one national office must be made: National Secretary. If any member wishes to make suggestions for nominations for this office, they should contact the chairperson of the nominating committee, Damien Lemay, as soon as possible.

Members may, of course, submit formal nominations for this office in accordance with article 6.05(2) of By-Law Number One by delivering a nomination signed by five members along with a written statement of acceptance by the candidate to the society's secretary at least sixty days before the 1993 General Assembly.

If you have suggestions for the nominating committee, write to: Damien Lemay, 3 15e rue ouest, Rimouski, Québec G5L 7Y4; electronic mail: damien_lemay@infopuq.uqueb.ca. Suggestions should be received before December 31st, 1992. ✪

1993 National Calendar

The Vancouver Centre of the R.A.S.C. has produced a 1993 calendar which is available for purchase. The calendar gives astronomical data, such as daily Moon rising and setting times and phases. Sun rise and set times, equinoxes and solstices, meteor showers, and planetary elongations and oppositions are also given. Two sets of rising and setting times are given, making the calendar useful to observers across Canada. The calendar features photographs taken by R.A.S.C. members.

The calendar is available to attached members through local centres. Unattached members may order a calendar by sending a cheque for $7.35 ($5.00 plus G.S.T. for the calendar and $2.00 for shipping and handling) to:

Martin Otterson
#212-7110 Fulton Avenue
Burnaby, British Columbia
V5E 3H5

It is expected that a 1994 National R.A.S.C. Calendar, similar to the 1993 version, will be produced next year. Astrophotographers are encouraged to send photographs for consideration for use in the calendar. Photographs should be on black and white 8" by 10" paper, and should be printed without a white border.

Please send photographs so as to arrive by July 9th, 1993 to:

Rajiv Gupta
c/o Vancouver Centre, R.A.S.C.
2476 W. 1st Avenue
Vancouver, British Columbia
V6K 1G6 ✪

I have just been reading some of my early papers and you know, when I'd finished, I said to myself, "Rutherford, my boy, you used to be a damn clever fellow."

Ernest Rutherford
British physicist (1871-1937)

Ad Astra

Nova Scotia: There's So Much to Sea!

Mary Lou Whitehorne
1993 G.A. Co-ordinator

On behalf of the Halifax Centre of the R.A.S.C., I would like to extend an invitation to all members of the society to come to our fair city for the 1993 General Assembly from Friday, July 2nd to Monday, July 5th, 1993.

The location will be Mount Saint Vincent University on the shores of the beautiful Bedford Basin. The Mount offers a variety of accommodations (both single and double) in their student residences, all located in a relaxing, park-like setting. All facilities required for a successful G.A. are to be found at the Mount: meeting and assembly rooms, meals, banquet facilities and accommodation. The Mount is located within minutes of Halifax's downtown core and is on local transit routes.

Here are a few of the things to look forward to. Friday, July 2nd is the day to "settle in" and get acquainted (or re-acquainted) with everyone. National Council will meet in the afternoon, displays will be set up, and in the evening we'll have the traditional wine and cheese party followed by the song contest and Murphy's Slides. Be prepared for the following possibilities too: an East-West "Reach for the Top" contest in the afternoon and an astronomy joke-telling session with the Murphy's Slides! Start working on your stand-up technique now!

Saturday's emphasis will be on the paper sessions with a real treat scheduled for the evening: a sail on historic Halifax Harbour aboard the world-famous schooner **Bluenose II**. (But register early as Bluenose II can accommodate a maximum of **only eighty people**. First come, first served!)

Sunday will begin with a morning paper session followed by the Annual General Meeting, National Council Meeting, display judging, and the annual banquet and awards. This day also brings one of the 1993 G.A.'s highlights: the **Ruth Northcott Memorial Lecture** will be delivered by none other than **David Levy**, who has agreed to come to Halifax to speak about the art of comet hunting!

But that's not all — read on! Monday is the day set aside to see some of what Nova Scotia has to offer. Visit the **Halifax Citadel** —a fortress that has never fired a single shot. Walk the ramparts and see the twin cities of Halifax and Dartmouth on either side of one of the world's finest deep water harbours. Or visit the **Maritime Museum of the Atlantic**: see Queen Victoria's barge, the lantern from the Sambro lighthouse (you haven't seen a prism till you've seen this one!). Then board Canada's Naval Memorial, the **H.M.C.S. Sackville**, a painstakingly restored WWII corvette (and the last of its kind). Tour the **Acadia**, a restored seventy-eight year old hydrographic research vessel. Enjoy an afternoon exploring the glacier scoured rocks of **Peggy's Cove**.

We've saved the best for last — Monday evening is your chance to take in the renowned **Nova Scotia International Tattoo**, a show that you won't want to miss! Register early to ensure a ticket for this sell-out event.

Now that your appetite has been whetted, you can start to think about that paper you are going to present! Or consider entering the song contest or the display competition. Maybe you want to try your hand at stand-up comedy and tell a few astronomy jokes! The display competition will include the following categories: Imaging (electronic and astrophotographic; piggyback, projection, & prime focus), Observational (solar system & deep sky), Instrumentation, Non-observational, Best Centre Display, Best Youth Entry, Astronomical Humour (stand-up comedy and best cartoon). There is a lot to enjoy about a G.A., and active participation in the events makes it even more rewarding. There's lots to do and see in Nova Scotia. Come and sample our "down east" hospitality. We'll give you a G.A. you'll never forget!

A limited number of registration forms will be going out to each centre secretary or you can write to the following address to receive your registration package:

Mr. David Lane
26 Randall Avenue, Apt. 4
Halifax, Nova Scotia
Canada
B3M 1E2
(902) 420-5633

See you in Halifax in July! ✪

Items of Interest

Light Pollution

The July 31st issue of *The Globe and Mail* contained a commentary on light pollution by Dale Armstrong of the London Centre. The article describes the effects of light pollution both in terms of its effect on astronomers as well as its effect on robbing our children of the beauty of the night sky. Also described are the financial savings that can be had by eliminating the problem.

Ontario municipalities and their lighting engineers also received another source of information on light pollution courtesy of Ontario Hydro. Society members Bill Broderick and Terence Dickinson were consulted in preparing the text for a pamphlet that was created as part of Ontario Hydro's Street-Smart program. This program is aimed at promoting energy efficient lighting to Ontario Hydro's municipal customers.

Canadian Space First

On October 1st, Canada issued its first stamp containing a hologram. The pair of stamps were issued to publicize Canada's involvement in space exploration. One stamp depicts a view of Canada with the space shuttle in orbit above it, while in the background is an electrocardiogram reading from a human heart, symbolic of the experiments performed during shuttle missions. The second stamp depicts the Earth from space along with the ANIK E2 communications satellite. In the background is a remote sensing photograph of the area around Québec City. The stamps are due to be taken off the market on March 31st, 1993 although they will probably disappear before that at local post offices. For more information on ordering either the stamps or first day covers, contact: National Philatelic Centre, Antigonish, Nova Scotia, Canada B2G 2R8 1-800-565-4362.

Electronic Astronomy

Daniel Johnson, of the Calgary Centre, has been chosen to produce an electronic learning guide (E.L.G.) for the world's best-selling astronomy textbook. *Astronomy: The Evolving Universe* by Dr. Michael Zeilik currently sells about 30 000 copies per year, which accounts for about 25% of the market. The E.L.G. will be produced for DOS computers and will be included with the seventh edition, due for release in the summer of 1993.

The E.L.G. will have three main sections: (1) an **observing** guide for astronomical observations by naked eye and with simple instruments such as binoculars and telescopes; (2) an **activities** guide for hands-on experiments that can be carried out individually or in small groups; and (3) a **study** guide for the text and sample tests and additional multiple choice questions.

New A.S.P. Catalogue Published

A new forty-eight page catalog of informative astronomy materials has just been released by the Astronomical Society of the Pacific. Among the new items are a slide set on women in astronomy, videos from the Emmy Award winning *Planet Earth* TV series, new slides from the

(continued on page 7)

Outreach Programs for Centres

Bill Broderick
Kingston Centre

Recruiting new members is a subject of strong interest for most organizations, including astronomy groups. Some kind of recruitment program must be in place if the organization is to thrive and maintain vitality. What can astronomical groups, like R.A.S.C. centres, do to attract new members?

It seems to me that an astronomical organization should not have a terribly difficult time attracting new members. Astronomy is something that practically everyone has some interest in and respect for. Most people are interested in space and what's out there, at least marginally.

Our problem, as I see it, is basically one of attracting a certain amount of favourable attention to astronomy and to our particular group, and letting "nature take its course". Here are five tools that an astronomy group can use to achieve this goal.

Public Observing Sessions

Public observing sessions are the easiest way of bringing astronomy to the public. Such sessions can be planned or impromptu. They can consist of one or two telescopes, or any number that can be obtained. The main requirement is that the event be staged where there are people. A downtown sidewalk, public square, a shopping mall parking lot, or a park are all ideal so long as there are lots of people around.

The next requirement is something to look at. The Moon is always a favourite. Planets, especially Jupiter and Saturn, are also great subjects. Unless you're at a dark location, deep-sky objects are probably best avoided if you want to "wow" the crowd.

Daytime observing can be a real crowd-pleaser. Venus in the daytime can be terrific! Also, the Sun makes a great daytime subject. Ditto for solar prominences, if you have the equipment. There's no reason at all for thinking that all observing, public or otherwise, has to be done at night.

When staging a public observing session, use long eye-relief eyepieces to make observing as comfortable as possible for everyone; and have a step-stool or chair available for short people (small children) to stand on so they don't have to be lifted to the telescope. Also, if you have a number of telescopes and some are pointed to the same things, a sign should be fixed to the tripod or mounting of each stating what the telescope is observing. That way, people don't have to line up more than once to see the same thing.

Planned sessions have the disadvantage that they can be rained or clouded out. On the other hand, impromptu sessions can be called anytime by anyone. A few phone calls, a place agreed upon, and voila, you're in business! Even if only one or two telescopes can be mustered, there's no reason why the event can't be a success.

Displays

Mall displays require more work on the part of the people involved than public observing sessions. Posters, signs, models, perhaps even a display stand or two, have to be made. In addition, all the material has to be transported to the display site and set up. Arrangements for a mall display usually must be made months in advance. Also many malls require that the group carry insurance to cover public liability and any damage they may cause. Fortunately for R.A.S.C. centres, such insurance is provided by the national office.

Most malls require that displays be "professional looking", meaning no hand-lettered or home-made-looking signs and posters. Unless the group has an artist or graphics expert handy, meeting the requirements can be a real challenge. Coloured poster and art boards, and stick-on and transfer letters can go a long way towards making the job look professional.

In this respect, photocopiers and laser printers can be used to enlarge ordinary typing, graphics, and even coloured pictures and photographs. The material can then be cut out and pasted in place with rubber cement or spray adhesive.

Once made, displays have the advantage that they can be used any number of times. Also, why restrict yourselves to shopping malls. Spring and fall fairs and any event where there are lots of people may provide an opportunity for having a display. However, displays do take up space, which means that someone will have to take charge of the material and store it someplace clean and dry.

Here are some themes that displays can be built around:

- How telescopes work
- Choosing a telescope
- Telescope making
- Stars & constellations
- 3-D constellations
- Model of a lunar crater
- Earth & Moon in space
- Models of planets
- The Milky Way
- The external galaxies
- Life in the universe
- Meteors & meteorites
- Solar system model
- Light pollution
- Astronomical software
- Eclipses

Public Lectures

Astronomy groups usually feature a speaker at each of their monthly meetings. Although non-members are probably welcome at any meeting, there's no reason why an occasional public meeting cannot be held, or a regular meeting designated as a public meeting. A public meeting would not be cluttered with club business, executive and committee reports, etc. Rather, it would consist of a featured speaker and possibly refreshments and a social period afterwards. Naturally, information on joining the group would be available for anyone interested, with someone present to take applications. A public meeting can be combined with an observing session afterwards if the weather permits.

Besides public meetings, the group can make it known that it can provide speakers and presenters for youth groups (Scouts, Guides, etc.), schools, clubs, and other groups. Members may possess among themselves a good repertoire of slides, videos, and other material that could be used to good advantage in such presentations. It's even possible that the group's library has such material lying otherwise unused.

A Pamphlet or Brochure

All of the activities outlined so far are great ways of bringing astronomy to the public. But if the public comes, looks, listens, observes, and then walks away, the group will probably have very little to show for the effort expended. Something else is needed. Something that people can take away with them. Something that some of them will probably keep and possibly take action on sooner or later. That something could be a pamphlet or brochure.

The basic idea of a pamphlet is a single sheet of letter-size bond paper folded into thirds, making six "pages". It can be on coloured paper or plain white. It is arranged according to the following plan:

1. First page — Identify your group.

2. Inside pages — A few easy-to-read paragraphs about astronomy and about the group, including when and where it meets.

3. Final pages — Perhaps a membership application and the address where to send it, and maybe an "astronomy quiz" (with answers) or a list of interesting astronomical facts.

The advantage of a pamphlet or brochure is that it gives people something tangible that they can take away with them. If it's attractive and interesting, it will likely be retained and read.

The cost of such a pamphlet or folder need not be prohibitive. Typesetting can be expensive, but it's amazing what can be accomplished with a modern electronic typewriter or printer

with interchangeable type, and transfer letters, clip-art and graphics, and rubber cement, not to mention personal computers. The printing can be done on a photocopier in whatever quantities your budget will allow and the finished result can look as good as any print job.

What can you do with a pamphlet? Well, members can take a few to give to friends who might be interested. Here are some other ideas:

- Have copies available at all meetings of the group, on a table, for non-members to pick up;
- Put a few in holders affixed to a tripod leg of every telescope at a public observing session;
- Have them available on tables, etc., at mall displays and the like.

A pamphlet is the group's "silent salesperson". It doesn't have to be thrust on anyone. People will pick it up. It will carry your message long after everyone has gone home.

Media Releases

Most communities have a number of newspapers (both daily and weekly) as well as radio and television stations that will be happy to publicize some of your events. A planned public observing session, a public lecture, or a mall display, can be easily announced by means of a media release.

If your group has a letterhead (and it should) photocopy it onto legal-sized white bond paper in whatever quantity you think you will need. Twenty sheets should last you for a year or two.

For ideas on how to write a media release, study the announcements you see about other organizations. Basically, the release should contain the following information: WHO, WHAT, WHEN, WHERE and WHY.

At the top of your sheet, just below the letterhead, type the words "For publication" on the left hand side of the page. On the right side, put the date that you are sending it out. Three or four line spaces below, put in the title of your article, in capital letters, neatly centred. Three or four lines below your title, commence your text. Leave plenty of margin space, indent your paragraphs and double space your lines. Near the bottom, some three or four spaces below your last paragraph, type # # # # #, neatly centred. Three or four spaces below that, type: "For further information, contact..." and give your name and phone number, or the name and phone number of some other suitable contact person for your group. That's it!

Your media release can be photocopied and mailed out or hand-delivered to the media you've selected. Be sure not to crowd their deadlines. Also be sure to keep a copy of all releases you send out. If possible, get copies of the issues your releases appear in and check for any editorial changes, so that you can improve your style. Editors love writers who don't require too much correcting.

Last Words

As I stated at the beginning, the problem of any astronomical group that wants to attract new members is basically one of simply getting attention. Attention, of course, of the right kind. Doing the things we do best, and letting the world around us know what we're doing — and when and where we're doing it — should result in good membership growth. Astronomy for most of us is a challenging and rewarding hobby. To me, one of the greatest joys of being an amateur astronomer, is sharing the experience with others. ✪

What the Blinkity-Blink is Going On Here?

Jeremy B. Tatum
Journal Editor

Professional astronomers live on an altogether higher plane than mere amateurs, don't they? You may get the occasional professional who will stoop to explain some elementary thing to an amateur, but one could never imagine a professional doing anything so lowly as, let us say, reading the **BULLETIN**, let alone finding anything of professional use in it. Still less could one imagine that an amateur could possibly teach a professional anything.

Not true! It was an article by Greg Saxon in the June 1991 **BULLETIN**, reprinted from the Niagara Centre's *Whirlpool*, that took precedence for me that month over the *Astrophysical Journal*. Greg's article described a blinking reticle illuminator. I regularly photograph comets and asteroids for astrometric purposes, guiding on a nearby star. Our cross-hairs can be rotated and driven at a predetermined speed and direction to compensate for the motion of the comet or asteroid, and they are usually pretty convenient to use. But sometimes the field is very sparse, and the only guide-stars available are so faint that they are totally swamped by the cross-hair illuminator. Greg Saxon's article — which I read in the **BULLETIN**, be it noted — provided the answer. Our electronics boffins here have now built a blinking illuminator for me based on Greg's design, though we can also vary the length of the on-off cycle as well as the brightness. It has vastly improved my guiding, and now I don't know how I ever did without it before.

The cross-hairs themselves, incidentally, were also fitted for me by two amateurs - a lady by the name of *Araneus diadematus*, under the guidance of the Victoria Centre's George Ball. Thank you very much, Greg, *Araneus*, and George! ✪

The Noblest Cause

Doug Pitcairn
Halifax Centre

As R.A.S.C. members, we are all, by definition, expected to contribute something to our noble cause, the advancement of astronomy. How? I've been asked this on occasion and this is one of my favorite answers.

Let's indulge ourselves in your profile as a typical observer. Let your thoughts wander back to your childhood days: snowballs, hockey on the pond, sitting on the swings and staring up at the stars. You had an interest in astronomy since you were quite young. Perhaps it started with those rocket flights in the sixties, and all those episodes of "Lost in Space" (with that adorable robot who always knew when danger was about). You finally talked your parents into getting you that shiny white telescope for Christmas, and, of course, it stayed cloudy until January 13th or so. But then, a clear night! Out onto the doorstep you went, (it was the only place that wasn't two feet deep in frozen hydrogen oxide) and soon you were hopping from one star to the next, wondering why they all looked the same.

This is a critical point in the hobby for many a budding young amateur. From here, there are several possibilities.

This, unfortunately, terminates the observing career for some people. Without any support, the interest soon wanes or gets washed aside in the flood of changing stimuli that all children experience. The telescope ends up in the closet, to be traded years later for a set of goalie pads and forgotten.

Others will stick with it a bit. Perhaps the Moon rose, and the sight of the orange Moon clearing the treetops thrilled you and your parents enough to keep you encouraged through the dull sights. Or perhaps one of the bright stars you chose happened to be Saturn, and the glorious sight of that tiny jewel, hanging up there was never to be forgotten. You still dig the old scope out from time to time, to gaze at a planet or two, and remember.

Others will have taken encouragement from a neighbour or a teacher. Someone who had been blessed with the "itch", and encouraged you with a kind word, a suggestion for a project or per-

(continued on page 7)

Starfest '92

Dale Armstrong

The eleventh annual STARFEST, sponsored by the North York Astronomical Association, had an excellent slate of speakers this year.

Sheldon Faworski, a regional sales representative with Meade Instruments, started off the formal paper session on Saturday with a bit of information about his background. It included an anecdote in which he recalled telling Roland Christen that Roland's prototype five inch APO refractor would never sell! Sheldon then showed slides and talked about the developments at Meade Instruments.

The next speaker was Doug Clapp who began his talk on astrovideo with a phenomenal fifteen minute movie which included everything from northern lights to galaxies, complete with neat graphics. He received a tremendous round of applause and then went on to tell us about the work involved in video production. He described video as the most convenient way to show pictures to others. Key elements in such productions are a colour processor and a VCR with a flying erase head.

Peter Ceravolo (far right) with the 8" f/4 and 5.7" f/6 telescopes. All photos for this article are by Dale Armstrong.

Following Doug's talk, Peter Ceravolo and Bob Sandness described a new type of telescope which they have optimized for visual use and CCD imaging. Two compact Maksutov-Newtonians, a 5.7" f/6 and an 8" f/4, have been constructed. Both scopes received an enormous amount of attention during the weekend. In describing the construction of the optics, Peter stressed the need for an affordable, objective test of optical quality. In a production situation he told us that he felt that subjective tests were not really valid if one wanted to achieve consistent levels of optical quality. Consequently, he has been working on a reasonably affordable interferometer, which he said he hoped to be able to market sometime in the next year.

Just before lunch, Murray Kucherawy, from the London Board of Education, slipped in a presentation on the space camp proposal for the decommissioned Wolseley Barracks. The space camp would be something like the one in Huntsville, Alabama, but with a much greater emphasis on education.

David Levy began the afternoon session with an interesting detective story, a story which grew out of the biography he wrote of Clyde Tombaugh. In the course of interviewing Clyde, David discovered that Tombaugh had discovered a comet in 1931 which had gone unreported! David decided to report Clyde's comet, but first he had to find the plate on which the comet was recorded. Fortunately, Clyde always recorded what he had found on the plate envelopes. David's only problem was finding the right plate, which was complicated by the fact that the plate envelopes were not considered archival and, therefore, were filed separately from the plates. David's subsequent search through the plate envelopes led Art Hoag to comment: "That's a new one, comet hunting by reading!" Well, eventually he found the comet, but Brian Marsden couldn't announce it without a good orbit. That really started a search! David checked the plate

The three telescopes (1/2, 1/4 and 1/10 wave) from the Sky & Telescope optical quality experiment.

libraries of ten observatories, but unfortunately, could find no other images of the comet.

David then learned of an additional discovery. In 1931 Clyde had also discovered a nova in Corvus. A check of 275 plates taken between 1930 and 1985 revealed ten outbursts, characteristic of a cataclysmic variable. Once again, Brian Marsden refused to announce the discovery, this time "Because you are an amateur astronomer."! Brian pointed out that David had a big scope and was a very active observer. The implication being that David should watch for the next outburst and then announce the star's history. Naturally, this came to pass. The moral of David's story: you don't have to have a Ph.D. to do good research.

Alan Dyer started off his presentation about *Astronomy* magazine by displaying an assortment of astronomy magazines from around the world. His point: there is a lot of amateur astronomy going on out there! *Astronomy* 's first issue came out in August, 1973 and its circulation today, reflecting the success of the magazine, stands at 160 000. Alan proceeded to show slides of the whole *Astronomy* operation and explained how each issue is produced.

Terence Dickinson and Doug George were next on the agenda and gave us an in-depth look at the effort that they and Peter Ceravolo went to in order to examine telescope performance, the results of which were summed up in their article "Optical Quality in Telescopes" which was printed in the March 1992 issue of *Sky & Telescope*. Four 6" f/8 Newtonians were constructed having 1, 1/2, 1/4 and 1/10 wave optics. Their purpose was to address two questions: 1) Do optical tests coincide with visual impressions? and 2) How good a telescope does a person really need? They reported that the one wave scope was obviously bad. The 1/2 wave scope was clearly not as good as the other two, but was comparable to most scopes they had looked through. Only good seeing allowed them to

Terence Dickinson (left) and Doug George during their presentation.

distinguish between the 1/4 wave and the 1/10 wave mirrors. Their conclusion? The 1/10 wave scope was only better under superb conditions and that 1/6 or 1/7 wave was as good as you needed. That night the three best telescopes were pointed at Saturn so that anyone could bring their own eyepiece and compare optics for themselves.

Terry and Alan teamed up for the twilight talk to tell us about *The Backyard Astronomer's Guide*. Everyone thoroughly enjoyed their review of amateur instrumentation, illustrated with magazine advertisements from various eras.

As you can see, there was a topic of interest for just about every type of amateur astronomer. Hopefully we will see even more people show up for next year's event! ✪

Awards of the R.A.S.C. 1992-1993

The R.A.S.C. may, from time to time, confer awards on members in recognition of meritorious service or achievement. Recommendations for such awards should, in most cases, be made through the council of the local centre. Unattached members may submit recommendations, if they so wish, to National Council for consideration. Centre councils should submit recommendations as they see fit to the national council for final approval. With the exception of the Simon Newcombe Award, nominations should reach the national office by December 31st.

CHANT MEDAL

The Chant Medal was established in 1940 in appreciation of the great work of the late professor C. A. Chant in furthering the interests of astronomy in Canada. This medal is awarded, not more often than once a year, to any amateur astronomer resident in Canada on the basis of the value of the work they have carried out in astronomy and allied fields of investigation.

SERVICE AWARD MEDAL

The Service Award was established in 1959. This bronze medal is presented to members who have performed outstanding service to a centre or to the national society.

KEN CHILTON PRIZE

The Ken Chilton Prize was established in 1977 in remembrance of the late K. E. Chilton, an active member of the Hamilton Centre. The prize is awarded annually to an amateur astronomer resident in Canada, in recognition of a significant piece of astronomical work carried out or published during the year.

SIMON NEWCOMB AWARD

The Simon Newcomb Award is named in honour of the famous astronomer Simon Newcomb (1835-1909) who was born in Nova Scotia, and later served for twenty years as Superintendent of the American Ephemeris and National Almanac Office at the United States Naval Observatory in Washington. The award was created in 1978 on the initiative of the Halifax Centre. The intent of the Simon Newcomb Award is to recognize literary ability among members of the society who are not professional astronomers. Submitted articles must be original and should not have been previously published in any substantially similar form (although appearances in centre newsletters is permissible).

Who can enter? Any member of the society who does their astronomy purely as a hobby.

Format: The article(s) should be no longer than 2 500 words in length, be written in proper grammatical form, and be presented typewritten and double-spaced. Diagrams need not be in a finished form but should be complete and ready for drafting. Photographs may also be submitted, if possible, with the original negatives. The author(s) name(s) should appear only on the title page and reference to centre affiliation should not appear in the article.

Submission of Entries: Articles must be received by the awards committee between January 1st and March 31st. Members of the centres must first submit their entries to their centre executive for its approval before submission to the awards committee. Unattached members should make their submissions directly to the committee, c/o R.A.S.C. National Office.

Judging: Articles are judged based on their scientific accuracy, originality and literary merit.

Presentation: The award is presented at the General Assembly and remains in the hands of the winner's centre for one year. ✪

The Noblest Cause

(continued from page 5)

haps a book or two which further tweaked your interest. How many astronomers owe their love of the science to someone like this?

Which neighbour gave some older books to the young Edwin Hubble? Possibly the greatest contribution we can all make to the advancement of astronomy is to encourage a child in this direction. I know of several astronomers who guard their observing time jealously, holed up in their observatories like misers hunched over their piles of coins. Shame on them for their selfishness. We should all take some personal time and use it for a bit of star-sharing. I have yet to see a bunch of kids who wouldn't run over and get in line to look through a telescope. John Dobson takes it to extremes perhaps, but I'll bet you a Nagler eyepiece that you could go to any I.A.U. assembly in the middle 2020's, and find a few astronomers who fondly remember that view of the Moon through "John's big telescope", and the places it led. ✪

Items of Interest

(continued from page 3)

Hubble Space Telescope, new astronomy software for IBM-compatible and Macintosh computers, a dramatic poster of Earth from space, a book for children by astronaut Sally Ride, and the release (after fifteen years) of the audio and visual record that flew on the Voyager spacecrafts.

For a free copy, write to: Catalog Requests Dept., A.S.P., 390 Ashton Avenue, San Francisco, California 94112 or call 415-337-1100.

WISE Women Wanted

The access program for Women in Science and Engineering (WISE) was established to encourage women to consider science and engineering when making career choices. To accomplish this, WISE employs young undergraduate women to visit schools and talk to students in grades five to twelve about science. They are also compiling a list of women scientists and engineers who would be willing to act as role models and talk about their careers in science to one or two groups of students over the course of a year. If you are interested, please contact Dr. Barbara Sherriff, Associate Dean, Faculty of Science, University of Manitoba, 239 Machray Hall, Winnipeg, Manitoba R3T 2N2, phone: 204-474-9348. ✪

Reflections

(continued from page 1)

that too much voting power is given to the largest centres.

There are many ways to deflect or discount the observations that I have put forth, however, I think it is obvious to almost everyone that the R.A.S.C. is no longer meeting the needs, interests and goals common to Canadian amateur astronomers in a satisfactory manner. The membership does not see the activities of the national office as directly impacting on their objectives and since a significant portion of a member's fee goes to the national office, the individual has become dissatisfied with the R.A.S.C. leadership.

These complaints, though, give a clue to the nature and interests of amateur astronomers. I believe we are dealing with a group of hobbyists who are continually asking "What am I getting out of this?", "Am I getting my money's worth?" and "What have you done for me lately?". Although these are self-centered questions, I do not think that this is a bad thing. The R.A.S.C. is a group of like-minded amateur and professional astronomers working toward bettering their opportunities to pursue the study of the heavens. As such, the leadership should be viewing the members as clients with needs and goals. The R.A.S.C.must provide the products and services to meet these needs to remain a healthy, viable and dynamic organization.

[In the next issue — Part 2: Defining Amateur Astronomers' Needs] ✪

Index – Volume 2, 1992

Note that the individual issues are identified by letters as follows: F=February, Ap=April, J=June, Au=August, O=October, D=December. Thus a reference of Au7 refers to page 7 of the August issue.