

NATIONAL NEWSLETTER

October, 1979

Supplement to the JOURNAL OF THE ROYAL ASTRONOMICAL SOCIETY OF
CANADA

Vol. 73 No.5



SIMON NEWCOMB AWARD PRESENTED

William Calnen of the Halifax Centre receiving the newly-established Simon Newcomb award from Michael Edwards during the regular monthly meeting of that centre on May 24th last. Since Halifax will be the host Centre for next year's General Assembly, presumably they will have a similar privilege next July.

NATIONAL NEWSLETTER

October, 1979

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Deadline is six weeks prior to month of issue

A Question of Balance

by Alan Dyer
Edmonton Centre

June brought us to the end of another "Season" of general meetings. While we had been pushing observing sessions and Observer's Corners a great deal lately (with, we might add, some degree of success), the monthly meetings will always be the principal activity of the Centre, attended by the majority of the members. Arranging for the program topics for these meetings is probably *the* worst job in the Centre; it is a task handled by various members of Council, but the ultimate responsibility of course falls upon the incumbent President.

The first problem is digging out a new array of guest speakers every year. I envy the large eastern Centres with their proximity to Universities, Research Councils and Observatories that can be drawn upon for numerous guest speakers. Out west, particularly here on the prairies, we have much fewer resources to rely upon in that regard. Still, we do the best we can.

The second problem is striking a balance in the year's meeting schedule. Even if we could get 10 guest speakers, I'm not sure that we would want a talk from a professional scientist *every* month. This could turn the meetings into formal lectures, excluding contributions from our own members. We are constantly striving to increase the "activity" of our Centre members (however one wishes to define an "active member"), but if the meetings are no more than passive lectures, this becomes difficult to do. One must keep in mind that the function of the RASC is not only to inform its members of current advances in professional astronomy, but also to keep them in touch with what their fellow amateurs are up to.

Thus we scheduled throughout this year what other Centres refer to as "members' nights", or what we in Edmonton sometimes unstuffily call "the Observer's Corner's Greatest Hits".

In other words, it is a chance for those conducting photographic, observing, or ATM projects to “show-and-tell”. Some may find these meetings highly entertaining; others may be bored by it all! “Oh no, not *those* characters again! When are we going to learn some *real* astronomy?!” (I can hear the comments now.)

There are usually one or two meetings in the year that feature more formally prepared full-length talks by a Centre member on some topic that he or she is particularly interested in. Probably more than any other kind of meeting, this is what we would like to see more of. However, not everyone is “ham” enough to want to get up in front of 50 or 60 people and talk for an hour. Therefore, most of our members’ presentations are usually short, and we try to gather them together into a pot pourri for the meetings in Greatest Hits style.

Other possible meeting topics are films (although good up-to-date astronomical films are hard to come by), and Planetarium shows (which we always view as a last-resort topic, since RASC members get into the Queen Elizabeth Planetarium for free anyway at any time, something I hope every member is aware of). (*Other Planetaria please note. Ed.*)

All-in-all, our choice is limited. No matter what meeting programme we arrange, there will always be some people that find it unsatisfactory; (“It’s not what I expected it would be like when I joined!”). But of course, you cannot please everyone all the time. So we try to strike a balance throughout the year – a number of guest speakers from outside the ranks of the RASC, a number of talks from RASC members themselves, one or two “pot pourri” nights, one or two films, etc. – in other words, a balance between meetings that will please both the armchair astronomer and the active observer; both the professional and the amateur astronomer; a balance between education and entertainment, formality and informality.

One solution to our continual problem of finding interesting meeting topics and speakers is our programme of exchange speakers with other Centres. This year we had exchange speakers from the Calgary and Vancouver Centres, with Doug Beck from Saskatoon scheduled on June 8. By exchanging speakers we receive the best of what other centres have to offer, while making our best available to them. Throughout this past season these exchanges have been financed by the Centres, or by the speakers themselves; however, I made a proposal to the National Council, which has been accepted, that will allow Centres to receive travel subsidy grants, enabling us to send and receive speakers from over a much wider area of the country than we could currently afford.

Another factor we have to balance out is the compromise between introductory and advanced topics. Do we include a lot of introductory talks on basics like: how to use your telescope, how to take astro-photos, how to make a telescope, etc.? There is a need for talks on astronomy basics, but we run the risk of losing a lot of veteran members who would be bored by basics. Conversely, new members may be turned off by too many esoteric lectures on obscure aspects of research. Sure, we’d all like to hear a lot more about “gee whiz” subjects like Black Holes, Extra-Terrestrial Life, Space Colonization, etc. but who is there available to talk about them?

Still another problem in scheduling meeting topics is the balance one must reach between the principal topic and the inevitable business announcements etc. that accompany every meeting. I sometimes hate people having to sit through even 15 or 20 minutes of business when they’ve really come to see Dr. Boris Bolide speak on “The Red-Shift of Mercury Vapour Streetlamps”.

And yet, if we are trying to organize various RASC projects we have to advertise them to get your support. This means announcing them at meetings. If we are spending *your* money, you should be given the opportunity to discuss how it’s being spent. We could take care of all sorts of business without having to bother the membership about it, but in many cases that would not be democratic. We don’t want to run the risk of killing members’ enthusiasm by ignoring their opinions and their contributions.

Balance is a question of some Gravity!

Adapted from *Stardust* of the
Edmonton Centre, Vol. 24,
No. 9, June, 1979

Dominion Astronomer Passes

The Royal Astronomical Society of Canada has suffered a real loss in the passing away of Dr. Carl S. Beals on July 2, 1979. Dr. Beals was Dominion Astronomer from 1946 to 1964. He was in his eightieth year. His contributions to science earned him the highest award of our Society in 1952, and the Gold Medal of the Royal Society of Canada in 1957. He was also a Fellow of the Royal Astronomical Society, in England. All members of the RASC will wish to join in expressing a share in the country's loss to his daughter, Janitza, of Manotick, and his sister Helen Beals of Wolfville, N.S.

Wanted: Good Astronomical Slides

John R. Percy
National President

The Royal Astronomical Society of Canada maintains a collection of 35 mm astronomical slides as part of its National Library. These slides are available for loan to Centres and individual members. They also form a potentially valuable reference and archival collection of astronomical photographs. The slides are housed in convenient trays in a sturdy cabinet, and we have recently checked, sorted and catalogued the slides on computer cards so that the catalogue can be easily updated and reprinted. An accurate catalogue should be available to Centres and members in the fall of 1979.

Now is a very suitable time to add slides to the collection. We are asking you, therefore, to consider donating two or three of your best slides to the collection. The slides can be black and white or colour, mounted in cardboard, plastic or glass (though some projectors have trouble with the latter). We would especially like slides with a special significance to the Society, to the amateur and to Canadian astronomy: amateur and professional observatories and telescopes; planetariums and museums; historical sites; Canadian astronomers, past and present, amateur and professional; Society and Centre activities; eclipses and similar events. We would also like good slides of astronomical objects.

We intend to be selective in what slides we accept, so send us your best! Include a brief caption, and the name of the photographer. The photographer retains the copyright; we will not allow your slide to be used for any commercial purpose without your prior permission. We are also willing to reimburse you \$0.50 per slide for the cost of making the copy, if you specifically request it and if we accept the slide.

Please send your donations to: Slide Collection, Royal Astronomical Society of Canada, 124 Merton St., Toronto M4S 2Z2.

Pay Due Respect

All members are reminded that their 1980 fees were due on October 1, 1979. Members of Centres should remit directly to their Centre's treasurer; unattached members should send their fees to the National Office, 124 Merton Street, Toronto, Ontario, M4S 2Z2. Please include apartment numbers and specify your postal code.

National fees are \$16.00 for regular members, and \$10.00 for members under the age of 18 years as of October 1, with proof of age required to be eligible for the student rate. As well, some Centres have special fees in addition to the above. Please consult your local treasurer for further details.

Treasurers of Centres are reminded that all membership fees received up to December 31 must reach the National Office by January 15 in order to permit membership lists to be updated in time to mail in the February issue of the Journal. It will not be possible to retain membership and receive publications of the Society unless fees are received by January 15.

Two Members of the Society Receive Public Recognition

Notice has been received at the Editorial Office of the *National Newsletter* that two of our members have received public acknowledgment of their contribution to Astronomy in Canada: Professor J. E. Kennedy of Saskatoon, and Dr. John Noel Roberts Scatliff of Winnipeg.

J. E. Kennedy, Assistant Dean of the College of Arts and Science, and Professor of Physics at the University of Saskatchewan was named Patron for the Saskatchewan Library Week, March 24-31, 1979. During the Library Week Professor Kennedy made an extensive tour of the province speaking to various local groups at the Regional Libraries. His lectures were supplemented with slides taken from plates in his personal book collection covering 19th century astronomy.

Dr. John N. R. Scatliff, Director of V.D. Control for the Public Health Service of Manitoba, is the subject of an article by Manfred Lager in the Science and Art section of the *Canadian Medical Association Journal* for April 1979, Vol. 120. His service as a medical doctor in various capacities is reviewed, together with numerous quotes from the interview regarding his astronomical interests. Mention is made of the two eclipse expeditions he conducted; one to Wivenhoe and one to Mexico. That he has been awarded the Service Award of the RASC is recorded.

Nouvelles des Centres Québécois

de Damien Lemay

SOCIÉTÉ D'ASTRONOMIE DE MONTRÉAL

En rapport avec la réunion de l'Union Astronomique Internationale à Montréal, au mois d'août, la *Société d'Astronomie de Montréal* organisait une EXPO-ASTRO au Complexe Desjardin les 16-17 et 18 août. Plusieurs kiosques exhibaient soit des photos, des rapports d'observations, technique de fabrication de miroir, ainsi que les publications et/au matériel astronomique disponible au magasin de la SAM.

Concurremment avec les activités précédentes, était cédulé une soirée d'observation populaire au Jardin Botanique le 18, en plus de conférences publiques.

Comme autre activité importante, mentionnons le premier "**Concours Annuel des Fabricants de Télescopes d'Amateur**" (CAFTA). Cet événement qui devrait se répéter, se tiendra au site de l'observatoire de la SAM à St Valérien les 24-25 août.

Enfin, un autobus est réservé pour une visite au Mt. Mégantic le 29 Septembre.

LE CENTRE DE QUÉBEC

Mario Lapointe, un des membres les plus actifs, a obtenu une subvention de AGAA pour préparer une série d'émissions télévisées sur l'astronomie, dont quelques visites à les observatoires d'amateurs. Ceci a été rendu possible grâce aussi à Cablovision de la Rive Sud, à Lévis, qui a bien voulu prêter les équipements vidéo nécessaires. Ces enregistrements seront disponibles gratuitement aux clubs d'astronomie qui feront la demande à:

AGAA,
1415 est, rue Jarry
Montréal
H2E 2Z7
Tel. 374-3541

Stellar Spectroscopy – A Personal Approach

by Clive Gibbons
Hamilton Centre

Mention the term, “stellar spectroscopy” and most amateurs will conjure up images of huge coude spectrographs attached to large observatory instruments – a pursuit best left to the professionals. This is unfortunate since the amateur with little means can perform many interesting and varied experiments in stellar spectroscopy.

As a project prepared for the 1979 General Assembly, I compiled a low dispersion survey of 50 bright stars.

The equipment used to compile the survey was similar in design, though much scaled down, to the objective prism spectrographs used at the major observatories.

The heart of the system was a war-surplus, right-angled prism purchased for a nominal sum. This element dispersed starlight into its spectral components, which were then fed into a 400 mm f/6.3 telephoto lens for focussing and magnification onto the film plane of a 35 mm camera. This entire assembly (the spectrograph) was then rigidly clamped to a small equatorial mount, making sure the prism was oriented to disperse starlight in a north-south direction. No clock drive was employed, thus allowing the stars to drift in right ascension during each exposure. This widened the recorded spectra, allowing easy scrutiny of the absorption or emission features.

Many film and developer combinations were tried in attempting to seek an ideal balance between film speed and grainlessness. Kodak Tri-X processed to E.I. 1200 in Acu-I developer was finally settled upon. Later on, Ilford HP-S was tried due to a promise of finer grain. However, it actually gave coarser grain and lower sensitivity than Tri-X developed in Acu-I. Colour films were never seriously tried for several reasons. While more aesthetically pleasing, they were usually too slow, too grainy and lacked the resolution of B&W film. Colour film is also more expensive, much more difficult to process and generally an inconvenience to use for this type of work.

As is generally the case with astrophotography of any type, most of the time was spent in the darkroom. Since the resulting negatives had spectra only 8 mm long, quite a bit of enlargement had to be done to produce usable prints. However, my enlarger, in its unmodified state could only give me 8x enlargements. Since I desired spectra at least 4 inches (102 mm) long on the finished prints, some way had to be found to increase the magnification. Considering the obvious limitations of my “darkroom” (which doubles as a closet), it was decided to add supplementary lenses to the enlarger. This resulted in much larger projected images, but introduced considerable aberrations not before present. Fortunately the central image was unaffected, but some blurring can be seen at the extremities of some of the spectrograms.

Several unusual features can be seen on the spectrograms. Since a prism was used to produce the spectra, the wavelength scale is non-linear, with least dispersion in the red and most in the near ultraviolet. Also, absorption lines in the ultraviolet appear blurry, since the lens was not corrected to record these wavelengths properly. Especially noticeable on the spectrographs of O, B, A and F type stars are dark bands centred at approx. 500 nm and 600 nm. In reality, these features are due to sensitivity dips of the film at the wavelengths, and not absorption bands of the stars themselves. Theoretically the hydrogen-alpha line should have been visible on most of the spectrograms. However, Tri-X has a red cut-off at approx. 660 nm and there is little dispersion at such long wavelengths. For these reasons the H-alpha line is not discernible.

When one considers the brightest stars in the sky (as listed in the *Observer's Handbook*), it is easy to see that the number of stars in each spectral type is far from evenly distributed. Of the 283 brightest stars, 88 are B type, 61 are K type, 50 are A type, 36 are G type, 22 are F type, 20 are M type and 6 are O type. This uneven distribution is also shown in the 50 stars of my survey, with some exceptions; O, F and M stars are too numerous and B, G and K stars are too

few in number when compared to the spectral distribution of the 283 brightest stars. This is probably due, in part, to sampling error and the fact that stars of one spectral type are easier to photograph than stars of another type.

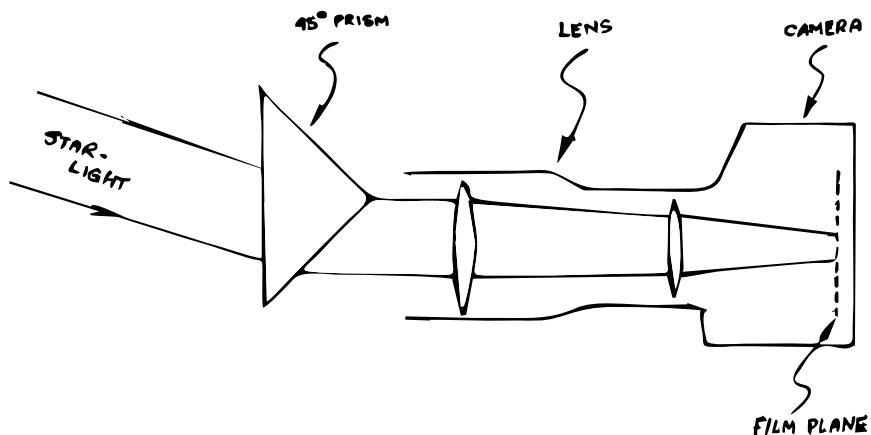
The spectrograms taken with my system show all the major features of the different spectral types. Hot, O and B type stars show typical hydrogen and helium absorption lines. Slightly cooler, A and F stars reveal hydrogen lines and a weak calcium line. Solar-type stars of classes G and K are abundant in neutral metals with weakening hydrogen features, while M type stars are rich in fluted titanium oxide bands. Hundreds of unidentified lines were also revealed with the 400 mm lens. Differences in luminosity can be determined, with huge supergiant stars showing razor-sharp lines, while dwarfs (like the Sun) show characteristically wider lines.

A total of 80 different spectra were originally photographed. After weeding out stars with identical spectral types and those not capable of producing usable prints, the 50 stars appearing in the survey were chosen. Unfortunately, several spectral types could not be represented. I would very much have liked to have included a Wolfe-Rayet star. Initially, my hopes were raised while perusing the *Observer's Handbook* for these hot and very rare objects. Thanks to cruel fate, the only bright member of this class, Gamma Velorum (mag. 1.83) has a declination of $-47^{\circ} 18'$, placing it right on the theoretical horizon when at culmination, as viewed from my location (Burlington, Ontario). Close, but no cigar!

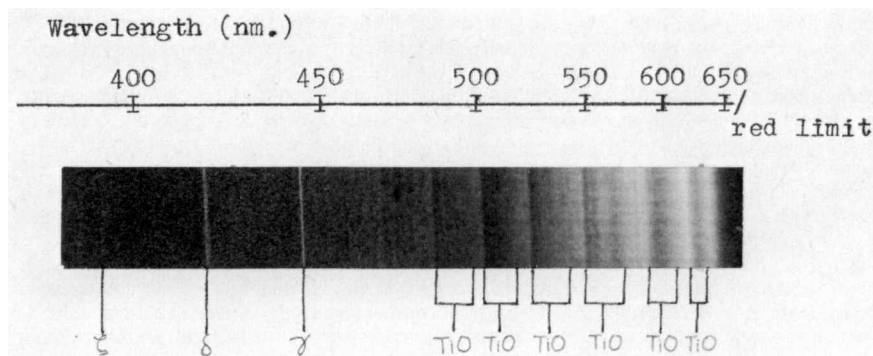
Also not represented in the survey are stars of spectral classes R, N, and S. Of these three, stars of R and N spectral types were all too faint for consideration. However, Chi Cygni, a Mira-type variable of spectral type Se was calculated to be just bright enough at maximum to be recorded. A total of 10 spectrograms of this star were taken ... all on an ASA 400 film other than Tri-X. The developed negatives revealed only random graininess where Chi's spectrum should have been – a discovery made long after Chi had dipped out of sight. Identical causes and effects were encountered while trying to record the spectrum of Delta Cephei, the famous prototype of all Cepheid variables.

Happily, Murphy hasn't had things all his own way. Apart from these minor disappointments, I consider this experiment in spectroscopy to have been an unqualified success!

THE SPECTROGRAPH



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Star Name Omicron Ceti, Mira
Spectral Classification M6e–M9e
Apparent Magnitude 2.0–10.1 332d
Absolute Magnitude –0.5
Coordinates 02hr. 18.3 min. R.A. –03° 04' Dec.
Colour Index ----.
Distance 1031.y.

Additional Comments This is truly a “wonderful” star. Mira is the famous long period variable in Cetus, and the first variable to be discovered. Its widely changing brightness is an indication of its variance in spectra type. However, this spectrogram was taken when Mira was at maximum (M6e). The prominent features of its spectrum are the dense, fluted TiO bands and the remarkable H-gamma and H-delta hydrogen emission lines. Mira is also a double star, with a 10th magnitude companion 1 sec. away. This is interesting, since when Mira is at minimum (around 9th mag.) this double would be easy in any scope over 6”, while at maximum, Mira would surely overwhelm the fainter component.

Simon Newcomb Award of the Royal Astronomical Society of Canada

The Simon Newcomb Award was established on recommendation of the Halifax Centre, in 1978. Full details are given in the *National Newsletter* for August 1978, Vol. 72, No. 4, but subject to the following additional criteria adopted by National Council in May, 1979:

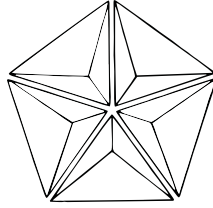
Articles should not contain the author’s name within the paper in order to maintain the impartial nature of the judging process. Articles must be received by the Awards Committee of the RASC between January 1 and March 31.

Members of Centres must first submit their entries to their Centre Executive who will choose those entries they wish to represent their Centre. It is the responsibility of the Executive of the Centre to ensure the entries are received by the deadline above.

Unattached Members will submit their entries directly to the Awards Committee.

Address submissions to:

Awards Committee, RASC
124 Merton Street
Toronto, Ontario
M4S 2Z2



The Simon Newcomb Award

by Diane Brooks
Halifax Centre

At this year's General Assembly in London, the Simon Newcomb Award was presented for the first time. The Award was conceived and constructed by the Halifax Centre, for creativity and accuracy in astronomical writing by a non-professional RASC member. It was with great pleasure that the first recipient of this Award was Mr. William Calnen of the Halifax Centre.

The topic of Bill's paper was, "Astronomy at King's College, Windsor, Nova Scotia". The King's College Observatory was the earliest facility used for instruction in astronomy in Nova Scotia.

Judging was done as impartially as possible. Each entry was read by the Awards Committee, consisting of Dr. A. H. Batten, Mr. H. Creighton, Rev. N. Green, Dr. H. S. Hogg, and Mr. F. Shinn, without knowledge of the author's name or centre. Each entry was rated in order of merit. Peter Broughton, Toronto, and Peter Jedicke, London, tied for second-place honours.

Entries for next year's competition should be submitted in accordance with the competition rules, which appeared in the *National Newsletter* for August 1978.

Since Bill was unable to attend the General Assembly in London, the Award was presented to him on May 24, during the regular monthly meeting of the Halifax Centre. The photograph of Simon Newcomb, which appeared in the Halifax Centre's display at the London General Assembly, and a copy of Newcomb's book, *Astronomy for Everybody*, were also given to Bill as part of his prize.

Nominations for RASC Officers, 1980–81

The By-Laws of the Society provide for a Nominating Committee composed of the three surviving immediate Past Presidents, whose duty it is to prepare a slate of candidates for the offices of the Society.

Next year, we must elect the following officers specifically: President, 1st Vice-President, 2nd Vice-President. If any member wishes to make suggests in this regard, he should contact the Committee Chairman, Dr. A. H. Batten, c/o the National Office of the RASC, 124 Merton Street, Toronto, Ontario, M4S 2Z2.

The By-Laws provide that "any five members of the Society, in good standing, may nominate candidates for any office, provided that such nomination, accompanied by a letter of acceptance from the nominee, shall be received by the Secretary of the Society, not less than sixty days before the date for the annual meeting".

It would be appreciated if any such nominations, (together with a short résumé) were submitted no later than *April 1, 1980*, in order for the printing and mailing of ballots to be completed as required.

Full details pertaining to nominations are outlined in By-Law 1, Article 11(a), as published in the June, 1969 *Journal*, pages 155–168.

Awards of the RASC for 1980–1981

As outlined in the *Annual Report* of the Society for 1978, page 31 ff, awards may from time to time be conferred upon members in recognition of meritorious service or achievement. Recommendation for such awards should in most cases be made through the Council of the local Centre. Members at large may submit recommendations, if they so wish, to the National Office for consideration of the National Council. Centre Councils will, of course, submit recommendations as they see fit, to National Council for final approval.

GOLD MEDAL OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

The Gold Medal of the Society was established in 1905 as an encouragement to the study of astronomy. It is awarded to the graduating fourth year University of Toronto Arts & Science student who has both an A standing in his fourth year and the highest average mark in the two full courses and two half courses in astronomy which are contained in the Astronomy specialist programme, provided this average is over 80%. If no student satisfies these criteria, the award is not made.

CHANT MEDAL OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

The Chant Medal of the Society 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 oftener than once a year, to an amateur astronomer resident in Canada on the basis of the value of the work which he has carried out in astronomy and closely allied fields of original investigation.

SERVICE AWARD MEDAL OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

The Service Award was established in 1959 and, on recommendation of a special committee of the National Council, this small bronze plaque is presented to members who have performed outstanding service to a Centre or to the National Society.

KEN CHILTON PRIZE OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

The Chilton Prize was established in 1977 by the National Council of the Society, in remembrance of 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.

That Other Part of the Newsletter

Just in case it got into your files before you had a chance to glance at it; did you notice that the *National Newsletter* brought the *Journal* along with it? Back in April, Dr. J. D. Fernie's collection of the papers published by our late Dr. John F. Heard began, and continued in the June issue. No more delightful armchair reading could be found, unless it be something like Dr. Fernie's own *The Director's Director* hidden in the last pages of our own August issue.

Then concealed under a title intended to scare the timid off; *Cyclopean Astronomy and an Unusual Atlas*, in the June issue (*J. Roy. Astron. Soc. Can.*, Vol. 73, No. 3, 1979, 147) Dr. Roy Bishop, who is not unknown to our own readers, took our one-eyed viewing of the Universe to task, but told us of a most unique stereoscopic atlas available for the unbelievable (in these times) figure of \$6.95 U.S. After reading it, we despatched our remittance and forthwith received the most intriguing astronomical plaything we've seen for some time.

These are only samples of the goodies in the Other Part of the *Newsletter*. Sorry if we sometimes get so long that you haven't time to dig into that part. Try it first; we'll risk it!

Comet Meier 1979i

Rolf Meier, well-known amateur comet hunter of the Ottawa Centre, has done it again. Following just seventeen months and thirty observing hours after the discovery of his first comet 1978f (see *National Newsletter* Vol. 72 No. 3, June 1978), Rolf found his second comet on the morning of September 20th.

Using the 40 cm f/5 reflector of Ottawa's Indian River Observatory, Rolf spotted the estimated magnitude 11.5 comet near the boundary of the constellations Draco and Ursa Minor at R.A. $13^{\text{h}}34^{\text{m}}5$, Dec. $+68^{\circ}38'$. It was officially announced to the astronomical community in I.A.U. Circular No. 3408 of September 21st.

A preliminary orbit calculation indicated perihelion or closest approach to the sun for the comet took place in mid-October. The comet is not expected to reach naked-eye visibility. By late October the comet is near R.A. $12^{\text{h}}50^{\text{min}}$ Dec. $+58^{\circ}$ in the handle of the Big Dipper.

Comet Meier is only the second comet ever discovered by a Canadian in Canada. Congratulations Rolf for your second comet!

Twisted Straightening

(The Editor Apologizes)

In the August *National Newsletter* (Page L47) under the title **To Straighten the Records** we quoted from information sent by Mr. Norman Green re the sequencing of General Assemblies. Mr. Green forwarded to us a copy of a letter sent to him from Mr. Jim Low in regard to this subject. In quoting from this latter correspondence, we inadvertently wrote: "Mr. Green writes in part ...". This should have read "Mr. Low writes ...", because, as Norman Green points out to us in a subsequent letter, the following passages are a direct quote from Jim Low's letter to Norman Green. The result is that Norman feels that he is presented as having done the research into the journals, while really Jim Low should receive the credit.

We really appreciate having this error brought to our attention, and wish to express our sincere regret to Jim Low and Norman Green for any embarrassment our carelessness may have caused.

The Joys of Country Living

by Jody Le Blanc.

From *Nova Notes*, Halifax Centre, Vol. 10 No. 4.

As you may have gathered from my article in the last issue of *Nova Notes*, I'm a died-in-the-wool in-town observer and have no intentions of giving up observing from my corner of suburbia until I can no longer find the moon. However, even I am subject to the lures of dark country skies and their promise of long fog-free exposures and dim Messier objects, and I usually succumb to these promises during the summer months.

I'd like to take this opportunity to tell the other side of the story – the half those 'country folk' never tell. There are in reality many hidden hazards in country observing; here are a few that I've run into.

I've done most of my observing from farmers' fields. Although at first glance they may appear ideal for astronomy, when struggling to carry your equipment over dark, unfamiliar terrain, some 'darker than the rest' spots must be avoided. This brings us to the next hazard; oftentimes fields that appear dark and deserted are in reality occupied by large animals that seem to have little interest in astronomy but great interest in astronomers. My experience in this vein was in trying to outrun several race horses (where did they come from?) while

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carrying/dragging four cameras, one cot, one sleeping bag, two thermos and a radio. Note that music does not always soothe the savage beast!

Even when your choicest site is reached, you and your telescope may become a temporary home for 100,000 ants. The first time a bug walks across the field lens of a Ramsden or Kellner eyepiece and is projected in startling relief against the moon, is an experience that has to be lived through to be believed.

Holes dug by strange burrowing animals never seen in Halifax seem to lurk in hiding, waiting to show a particular affinity for people carrying expensive equipment, but what can you expect from something that hides under a foot and a half of grass?

Oh yes, the grass. I wish I had half the stuff I've lost in knee-deep grass. When I drop the first eyepiece and begin feeling around for it, I begin to dream of my well-mowed and yes, well-lit backyard. Right on cue, the flashlight dies. Gone is my one link with civilization, and as I chide myself for once again forgetting the can of Deepwoods Off I begin to wonder if maybe insects aren't the superior race.

After ruining several exposures by trying to operate unfamiliar cameras by feel (I once focused a twin-lens reflex at 3.5 feet for an entire night) it usually begins to rain. This means a quick retreat, invariably leaving something behind, and a reenactment of the events of the outward trip in reverse – barbed wire is impossible to see without a flashlight.

Why do so many of us city dwellers subject ourselves to such torture year after year? Because the skies are that much better and the results are worth it, either visually or in the eventual photographs. But as I contemplate another 'fun' summer of astronomy, country-style, all I can say is "Thank God I'm a city boy!"

Erratum: National Newsletter for August

We regret that in the *National Newsletter* for August, Page L49, the photographs at the top of the page are interchanged. The one printed on the left, showing the supernova present, is obviously the post-discovery photograph taken 19th May 1979. We apologize to Jack Newton and to Gus Johnson.