Royal Astronomical Society of Canada
BULLETIN
La Société Royale d'Astronomie du Canada

Supplement to the Journal / Supplément au Journal

February
février
1991

Volume 1
Number 1

Reflections

AH, THE AMATEUR ENJOYS
by Alister Ling

Recent articles about movements in amateur astronomy have caught my attention. My own ideas about what amateurs should do or who they are have changed over the past couple of years. There has been a lot of talk about observing "seriously" or scientifically. I've had quite a kick thinking about amateur astronomy and why we do it.

In the March 1990 issue of *Sky & Telescope,* author James Mullaney wrote a piece for "Focal Point" concerning metaphysical stargazing. The crux of his essay is the notion that we should pursue the aesthetic, spiritual aspect of observing. He encourages us to experience the meditative and therapeutic facets of astronomy. Of course, those who contribute scientifically should continue.

Coincidentally, in the March 1990 issue of *Astronomy*, Stephen Edberg's essay in "Viewpoint" also discusses the merits of scientific and recreational observing. Edberg's perspective is that astronomy is great because people can have fun at whatever level they please (casual or serious), but his underlying theme is that amateurs should consider doing more science than they are now.

The two authors do not address an issue that I would like to take up: the so-called "serious" amateur who does not contribute to science. The vast majority of astrophotographers are serious about their work. They spend hours driving to dark sites, guiding, and aligning, to obtain great pictures. There are many deep-sky observers who push their scopes to the limit, striving to detect 15th magnitude galaxies and delicate tendrils of nebulosity in supernova remnants. And what about the novice observer hunting. down the last objects on their Messier list with a six or eight inch telescope? They, too, are serious in their pursuits.

To me the fundamental point of astronomy is that each aspect shares a common experience; the differences between them matter little. Mullaney comes closest to hitting the point home when he mentions observers having almost "out-of-body" experiences. Gerrit Verschuur, in his excellent book *Interstellar Matters*, calls them "peak experiences" and candidly elaborates on the topic. It is this very emotional (and addictive!) sensation that is a major driving force behind intellectual enquiry.

Other words which may be used to convey peak experiences are enjoyment and fulfilment. Words are, of course, inadequate. What counts is that you enjoy the sensations and the approach, not the loftiness of the goal. Allow me to make this point clear through my favourite analogy — music — in this case piano playing.

What is one person's chore, is another's salvation. The "casual" bangs out Beatle tunes and has a great time. The "serious" person might work on a four voice Bach fugue. To each, the accomplishment of finishing the piece, and the challenge in getting there, are equally fulfilling. The Beatle player might chide "Lighten up, you're too serious," while the Bach player replies "I only wish I had more time to work on the incredible weaving of Bach's counterpoint; how could you waste precious time fooling around?"

Neither the serious nor the casual player can understand how the other derives enjoyment from their activity. Each person's "high" is achieved through a different route. One is turned on by bold energy, while the other finds structure and subtlety simply exquisite. I would be surprised if these characterizations did not carry through to other aspects of daily life.

Perhaps we have let our aggressive human traits get the best of us. In the past, there has been a tendency to separate into camps of serious and casual astronomy and to argue over which is better. But it is these very differences in approach that is our **strength** in astronomy. We should be reassured that wherever we turn to, there will be always be something of interest.

As people, we need to develop a respect for another's observing preferences. There is no need to feel threatened, indignant, or guilty about being too casual or too serious. The prime directive should be to enjoy and to submit to the peak experience of astronomy, to share this with others less fortunate. The general public may become more interested in science if we also tell them about the wonderful emotional and physical rewards we reap nightly. ✪

My First Editorial

I imagine that before you read this you will have noticed the new look to your national newsletter. Before I say anything else, I want it stated for the record, that this was not my idea! Let me explain. If you look back at page 3 of the February 1989 issue of the *Newsletter/Bulletin* you will note that Ian McGregor (my predecessor) had envisioned a "Stage Two" in his plans to update the format of the national newsletter. He even had the people at University of Toronto Press produce a sample copy using the new format. However, Ian found that this step would be most effective if he switching to a desktop publishing system at the same time. Unfortunately, between work and a new daughter at home, he was unable to find the time to implement his ideas.

This is where I stepped into the picture. I already had a lot of experience with desktop publishing, having produced the Halifax Centre's newsletter, *NOVA NOTES*, using a Macintosh since 1986. I also had sufficient time and the original sample copy that had been prepared for Ian to use as a guide. I have made a few modifications but I hope that what you are holding in your hands is close to what Ian had hoped for (and only a year late!). I would like to publicly thank Ian and the people at U. of T. Press for the

(continued on page 8)

BULLETIN

is a publication of the Royal Astronomical Society of Canada and is distributed together with the Society's Journal. It contains articles on curreni activities of the Royal Astronomical Society of Canada 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 (in English or French) 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.

Editor: Patrick M. Kelly
Mailing Address: 2 Arvida Avenue, Halifax, Nova Scotia, Canada B3R 1K6
E-mail Address: PKELLY@watt.ccs.tuns.ca

Editorial Staff: Harlan Creighton

Rédacteur pour les Centres francais: Marc Gélinas, 11 Pierre-Ricard, N-D-Ile-Perrôt, Québec, Canada J7V 8M6

Printing: University of Toronto Press

This publication is printed on recycled paper containing 50% pre-consumer recycled paper and at least 5% post-consumer de-inked fiber.

Deadline for the June issue is April 15th.

Event Horizon

May 17 - 19
1991 General Assembly
Vancouver, British Columbia
Contact: Organizing Committee, 1991 GA., R.A.S.C. c/o 1100 Chestnut Street, Vancouver, B.C. V6J 3J9

August 11 - 14
Statistical Challenges in Modern Astronomy
The Pennsylvania State University
University Park, Pennsylvania
Contact: Eric D. Feigelson, Dept. of Astronomy and Astrophysics, The Pennsylvania State University, 525 Davey Laboratory, University Park, Pennsylvania 16802

August 30 - September 2
NOVA EAST '91
Fundy National Park, New Brunswick
Contact: Doug Pitcairn, 13 Ferguson Road, Dartmouth, Nova Scotia B3A 4J8

What shall be the lot of attendant worlds that circle around such orbs; or of the Earth as the Sun shall fade and cool?

E. Ledger, American writer (1900)

Letters to the Editor

The Mazatlan Zenith Curse?

I have been thinking about all of the wonderful opportunities for atmospheric phenomena when the Sun will be overhead at eclipse time. It suddenly occurred to me that there are bound to be a number of readers whose telescopes do not have access to the zenith due to the tube hitting the tripod legs. At Mazatlan, the Sun will be only a couple of degrees from straight overhead, so if you are afflicted with this problem, you had better start thinking your way out of it. I can imagine watching a fellow astronomer's expression of joy and wonder turn into shrieks of panic. It would not be a pleasant sight.

Alister Ling
1017 Seneca Avenue, Apt. 310, Mississauga, Ontario L5G 3X5

Humour Wanted!

I am a writer and have been an amateur astronomer for twenty years. I am currently writing a book, tentatively titled *Telescope Tales*, which will consist of stories about things which have happened to amateur and professional astronomers while observing. I would like to know if you have any interesting, true stories or anecdotes that you'd like to share. The purpose of this book will be to provide cloudy night reading for astronomers who will, hopefully, relate to the kinds of stories being told. I will happily reimburse you for any postage, etc. involved and would appreciate having your phone number, if it is convenient, for me to call you with any questions. I will send a final copy of any stories received back to the author in its final form for approval, before the actual publication.

Gregory L. Zentz
4348 Windergate Drive, Jacksonville, Florida 32257

I'm Not Dead Yet!

In the October 1990 Newsletter/Bulletin where the members of the "25 Year Club" are listed, nowhere is the name of D.J. Fitzgerald to be found in the Toronto Centre listing. As far as I know, I paid my annual membership dues faithfully each year since 1955 (or 1956) when I first joined. Admittedly, I usually pay them a bit late since I operate on a calendar year and the R.A.S.C. operates on a fiscal year, but still... I would not want my various friends throughout the Society to think that I had joined the ranks of departed members, otherwise known as the "underground movement". I am enjoying retirement very much up here in the country and even do a little bit of backyard astronomy from time to time.

D.J. Fitzgerald
Ridge Road Group Box B7, Hawkstone, Ontario L0L 1T0

Astronomy Day in Montréal

This year for Astronomy Day I wrote a special report detailing our unique activities. That report took about six hours to research and compose. Further, I sent it by special delivery courier, to Steve Dodson in the last week of May. At the G.A. I was concerned about our report, and asked if our report had been received. I was told that it had. To my horror, the August issue did not contain our report, but I did see a nice report from Toronto. It appears that only eleven centres reported for the wrap-up article, and I wonder which bothered to submit any type of article. It is entirely possible that only Toronto and Montréal submitted and ours is no where to be found. But this I do know, only Toronto's was published.
We are a tenth the size of the Toronto Centre and feel we probably put on one of the best Astronomy Days on a per capita basis. I feel strongly that the purpose of the *National Newsletter* is to inform the rest of Canada about centre activities and to inspire all centres, big and small, to participate. It is one centre reading what another has done that spreads ideas to allow everyone improve. I'm really disappointed that after all the time and effort I spent on our Astronomy Day report, neither my work nor the Montréal Centre's work was recognized.

Mario Caluori
President,. Montréal Centre
P.O. Box 1752, Station B, Montréal, Québec H3B 3L3

[Editor's Note: Steve Dodson used the Montréal Centre's report as background material for his article. Ian reprinted the Toronto Centre article from Scope, the Toronto Centre's newsletter and not from a separate report. In the future, a copy of any such document should be submitted to the Bulletin editor as well. The Montréal Centre's report can be found elsewhere in this issue.]

A Society First!?

I note that on page 60 of the August issue it is reported that the Saskatoon Centre held a "pubic" star party in a local park. This must be the first time that such an event has been held in Canada!

Jack Simison
18 Redpine Drive, Nepean, Ontario K2E 6S9

[*Editor's Note: So much for plans to rely on my computer's spelling checker. I hope that any typos I make are equally humorous....]* ✪

Astronomy Day 1990 at the Montréal Centre

Mario Caluori
Montréal Centre

There are three signs to look for when determining the relative success of an Astronomy Day. One is when continuous rain has a limited effect on the turnout, the next is when a lingering crowd creates a continuous murmur of conversation and laughter, and the third is when the exhibitors and public stay right to the end and beyond. And so it was this year!

Our theme was a new one, *Amateur Astronomy in the 1990's / High-Tech*. We wanted to show the sophisticated end of amateur astronomy, and how much astronomical instrumentation has changed since the technological explosion of the late 1980's. We weren't at a loss for exhibitors either. In our small building we had more one-of-a-kind items than perhaps anywhere else in Canada. It almost resembled a trade show!

Whenever the microprocessor infiltrates a scientific discipline, it improves performance and accuracy tenfold. There can be no doubt that the microprocessor has crept into amateur astronomy as evidenced by our display. We had no less than three table-top computers, three of the latest CAT's (Computer Assisted Telescopes), a CCD camera, digital setting circles and a dedicated hand-held computer.

Just like in the previous year, activity was found on all three levels of our Centre building. To begin with, the basement area was our computer corner. Here, Bert Widdop demonstrated a star charting database program for the Apple computer. I was displaying my program, called *Photocal,* which is a program that calculates the correct photographic exposure for the Moon and planets with any telescope and film combination. Our computer whiz, Paul Biro, was showing the advantages of image processing using a specially modified high speed computer. We had planned to digitize images of the Sun in real time, as seen through a hydrogen alpha filter, but the weather foiled this idea. Those who had difficulty understanding the intricacies of computers, could relax on a sofa and watch an excellent National Film Board documentary about the universe.

The main floor was our nerve centre. Literature about our Centre and the Astronomy Day display was abundantly available. Harold Raussmusen, perhaps one of Québec's foremost electro-mechanical experts, was on hand showing his wares, from photometers to modified Takahashi mountings and Questars. Also on hand was our mathematical expert and the author of *Daytime Astronomy Through Sidereal Telescope Alignment*, Khurram Syed. He was explaining the rewards of daytime astronomy and how simple it is to use setting circles on a calibrated telescope. His computer program, Skycurrent, calculates just about everything with simplicity and accuracy, including sidereal time. Two local astronomical stores, Harrison's and La Maison de L'Astronomie, were responsible for an excellent display of telescopes including Compustars, Ultimas, an LX-6 and similar high-tech hardware. Yves Varin and Michel Lalonde, representatives from Celestron Canada, came by to see that everything was just right. Gilles Perron displayed his new Ultima 11, to the delight of many. Finally, David Levy, who had just flown in from Arizona, gave two talks about comet hunting. He signed autographs and promoted his book, *The Joy of Gazing*.

Everyone really had a great time. The displays were so interesting that each exhibitor visited the other booths, which says a lot! Even the outdoor tent contributed to the festive atmosphere which was prevalent throughout the day. In the evening the sky cleared. Louis Bernstein, our Director of Observational Activities, manned the Centre's Celestron 14 up in the dome. He put it to good use on the Moon and planets. The Ultimas were also put to work in the nearby field.

When you put this many specialists and this many pieces of unique equipment in one room, it is difficult to see how it can be anything else but a formula for success and intellectual stimulation. Despite the pouring rain, we estimate that 250 people made it to our observatory and the centre raised $500 in ten hours. ✪

Long Time, No See

Brian Segal
Halifax Centre

The other day I was walking past my telescope case when I heard a somewhat familiar voice say, "Hey, Buddy, remember me? We used to spend a lot of time together!" Yes, it was my beloved telescope. We hadn't done a thing together for weeks and weeks. I began feeling a strange, inexplicable guilt.

"Look, pal", I said, "It's nothing personal. I still really like you. But what do you expect me to do, set you up in the living room and pray?" I was getting a little uncomfortable. First of all, I don't like arguing with glass and microchips. Secondly, who ever had a really satisfying debate with an inanimate object?

"But you used to take me out all the time", the telescope said with a kind of equatorial whine. This was getting ridiculous. "Well", I said, in the kind of patient, controlled voice I usually use just prior to smacking the T.V "It's REALLY nothing personal, the weather has been simply lousy. Rain, clouds, snow flurries and all that. You wouldn't want to forsake your comfy box for that would you? Why, just think of what it would do to your corrector plate!"

"Harumph", the scope retorted, "we could always take a trip somewhere sunny and warm

"Really. And do you have any bright ideas?", I asked, as the image of an eight inch Schmidt-Cassegrain telescope, lying on the beach, swimsuit clad and sporting a designer full aperture solar filter, uncontrollably flashed across my mind. "Well", the scope whined again, "how about Arizona? It's supposed to have wonderful weather, the natives speak English and it's relatively safe." "Arizona,", I said, amazed at the travel related erudition of my little optical friend, "isn't that where that guy David Levy lives.., you know, the comet hunter and general astronomer extraordinaire?"

"Yeah, so?" the telescope challenged. "Yeah, so what kind of vacation is this going to be? What do you expect me to do, drop in on Levy so we can compare slides? I can just see it now.. "Hi, David, here are some snaps I took of your comet! Let's compare them to your shots from Mount Palomar" Face it, telescope, it's too intimidating!" The telescope grunted. "And another thing", I reminded the optical brat, "the guy's got a whole collection of scopes, and I bet they're all more interesting than a mere production line clone like you!"

"Oh, insults. Fine, forget it. Why go anywhere. We can just wait a few months. There's bound to be one clear night. The Moon will probably be full, but you could go out and howl at it!" I fixed the scope with a cold stare. "You know, there's always the classified ads in the back of *Astronomy* magazine!"

"Sure, sell me! Then what are you going to do when it finally clears up? Boy, will you ever regret it!" "Look,", I pleaded, "this is ridiculous. We're just testy because of the weather. How about this: tomorrow night, without fail, I'll clean your corrector plate. It's overdue for a cleaning anyway."

"Really? You'll really do it?", the scope said in a smooth, glassy tone, "That sounds positively delightful."

"Sure. I'll give you a really nice cleaning. Not a scratch. I'll polish you right up and get you ready for the first clear night. Let's just be friends, O.K.?" The scope purred. "Sounds heavenly." I closed the box and picked up the latest *Sky & Telescope* and began to plan our next celestial adventure. ✪

Ways to Increase Disabled Participation

Wayne and Kathie Davie

Recently our attention was drawn to an article by Denise Sabitini on the topic of astronomy and disabled people (*Recruiting Disabled People Into Astronomy*, October 1990; Volume 2 Number 5). We are interested in the desegregation of disabled people and the removal of environmental and personal barriers to disabled people for several reasons. Firstly, one of us has a physical disability and secondly, together we run teaching groups for disabled individuals in our community.

Some of the words used in the previously mentioned article need to be operationally defined. From our hands-on knowledge, the area of disability must be seen as heterogeneous and cannot be limited simply to discussions of a barrier-free entrance or a signing interpreter (although we acknowledge that these are important components). The reality is that disabled individuals may have physical, emotional, developmental delay or multiple handicaps

'Disabled people" are only disabled when the environment or those around them cannot meet their special needs. In other words, it is not the individual who is disabled, but rather the disability of external factors to ensure participation is not difficult for individuals with different needs.

The groups we run for developmentally delayed and sometimes multiply handicapped individuals are cases in point. Our chosen individuals have impressed us. Their enthusiasm for the topics we share each month is contagious. Repeatedly they have taught us how to cope on a daily basis with situations, barriers, individuals, biases and limitations which many of us may never face during our whole lifetime. How many of us have broken an arm or a leg? Think about the things others did for you during the healing process. Now think about what would have had to change in your environment had that broken limb not healed.

Our response to the enthusiasm of our group members has been to learn more about our world with them. In reality, our topic groups have led us to discover much more about ourselves and the group, as well as the chosen topic areas. By participating with the disabled in this way, we have had to alter the ways in which we look at our whole world. We have become much more sensitive to the barriers of learning and belonging, as well as to access.

The article raised the question of how to reach the disabled person. The teaching techniques we use in our groups are more holistic and draw on all our sensory abilities so that we stand a better chance of learning successes. In each case the goal has been growth and development in topic areas where opportunities to learn have been limited. Astronomy was one recently chosen subject for our group.

To expand our knowledge and learn about the topic of astronomy, our group has met together to share experiences in our home environment and found ways to encourage field trips, but getting around has not always been easy. It has not always been possible to provide opportunities for discussions at a community level. Instead, we have made use of our library, shared auditory and visual books, and encouraged the use of puzzles, toys and games during the learning process. In other words, we have used our imaginations and existing support systems or developed our own supportive environment as a group.

What our group needs now are opportunities for field trips, hands-on learning experiences at the community level and shared integrated group participation so that the experiences take on a new reality that can be shared. We are now at a stage in our astronomy topic where we need access to resources like a real observatory, for example, because our group has moved beyond the point of just looking at the night sky. However, without community support, it may be difficult to help group participants with special needs grow towards an insight into observing with telescopes and binoculars. This represents but one way in which the disabled could be reintegrated into the astronomical community.

We will leave you with some final thoughts. Cost and accessibility are issues that, for the individuals we work with, we have not found ways around. Remember that the majority of disabled people are on fixed or low incomes so that cost is a factor which limits their ability to participate and belong. It may also be difficult for them to travel alone and there are always transportation issues. To encourage all disabled people to participate may require a rethinking of priorities and the altering of techniques you currently use in an effort to encourage the disabled to share your group participation. From our experience, the process of reintegration across disability areas is well worth the effort. ✪

Where the telescope ends, the microscope begins. Which of the two has the grander view?
Victor Hugo, French poet/novelist/dramatist (1802-1885)

La nuit du grand OVNI de Montréal

Marc A. Gélinas

A 18h30 le mercredi 7 novembre 1990, Michel Sirois de l'observatoire météorologique de Montreal/Dorval, effectue une observation de contrôle. Il veut s'assurer qu'aucun changement majeur ne s'est produit depuis 18h, (23:00 Temps Universel). En plus de noter la presence de stratocumulus épars à 6000 pieds et d'une visibilité sans restriction, M. Sirois remarque des colonnes de lumières s'étirant d'assez bas a l'horizon jusqu'à pres du zenith. Le phénomène est de couleur verdàtre mais il remarque aussi du bleu. M. Sirois reconnalt une aurore boréale mais luitrouve quand même un aspect inhabituel. En général les aurores boréales ont plus l'aspect de rideaux mouvant que de colon nes statiques.

Entre 19h et 20h des témoins indépendants, à Châteauguay, à Ville Mercier, à Pointe Claire (toutes des villes de banlieue de Montréal), rapporteront l'observation d'un phénoméne semblable. On peut résumer les témoignages comme suit: Une source lumineuse accompagnée de larges rayons,, de couleur neutre ou légèrement teinté. Cela semblait immobile ou en déplacement très lent car le phénomène a été observe durant plusieurs dizaines de minutes, jusqu'à deux heures.

Au même moment, sur le toit de l'Hôtel Bonaventure de Montréal, des clients profitent d'une des attractions majeures de l'hôtel: la piscine chaude à ciel ouvert, qui permet la baignade même en plein hiver. Peu après 19h ce soir là les baigneurs remarquent les étranges lumières dans le ciel. La préposée au sauvetage est intriguée. Elle fait venir le responsable de la sécurité qui a son tour alerte la police de la Communauté Urbaine de Montréal. Les agents font un constat et passent le dossier a la G.R.C. Ces derniers vérifient auprès de la tour de contrôle que tout est normal dans le ciel de la ville, et, comme rien ne met en danger la sécurité de la population le dossier est classé.

Par contre a l'hôtel les choses n'en restent pas là, la presse et les médias électroniques sont conviés a venir voir le phénomène, qui est maintenant officiellement un <OVNI>. Même un ufologue vienttémoigner devant les cameras de la nature extraterrestre de la chose.

Lesjours suivants, radio, télévision, journaux parlerontde l'événement. Des hypotheses seront publiés, mais le mystère planera encore longtemps.

Toujours le même soir, a Joliette cette fois, à une trentaine de kilomètres à l'est de Montréal, Yves Laroche,astronome amateur expérimenté lève le nez au ciel peu avant 20h. Il aperçoit les lumières et se dit a lui-même "Wow! une couronne aurorale pour ui pas de doute c'est une aurore boréale, une belle et une rare: une couronne aurorale.

Les témoignages réunis autour du phénomène du 7 novembre permettent de tirer certaines conclusions étayant l'hypothèse de l'aurore boréale. La premiere, c'est que les observateuers expérimentés, qui en furent témoins, ont reconnu immédiatement une aurore boréale. Quant aux descriptions des témoins peu familiers avec le ciel, elles concordent; un ou des centres lumineux avec des, rayons qui s'en échappent; peu ou pas de mouvement; le phénomène dure longtemps, en fait ce sont les nuages qui y mettront fin; a couleur est neutre ou verdâtre, du bleu est aussi mentionné. Enfin notons que le phénomène a été vu dans un rayon d'au moins 30 kilomètres avec es même caracteristiques.

La premiere conclusion à tirer c'est qu'il s'agissait d'un phénomène de haute altitude, car l'effet de parallaxe n'était pas sensible, du moms a méso-échelle.

La teinte bleutée mentionnée par M. Sirois, et d'autres selon le journal La Presse, est particulièrement intéressante. Les couleurs associées aux aurores boréales sont généralement le vert et le rouge, qui correspondentaux longueurs d'ondes émises par les atomes de l'ionosphère quand ils sont excites. Cependant du bleu apparalt aussi quand une molecule d'azote est excite alors qu'elle se trouve éclairée par la lumière solaire. La lumière solaire est dispersee par ces molecules en état d'excitation et de la lumière bleutée devient visible au sol. A 19h le 7 novembre le Soleil nétaitcouché que depuis environ deux heures a Montréal, et il est plausible de penser que les molecules, a cent kilomètres au-dessus du sol, étaient encore baignées par la lumière du jour.

Mais une aurore boréale estaussi un signe de l'activité solaire. Cette activité est sous constante surveillance par le Space Environment Services Center (SESC) du NOAA. Une aurore de ce calibre devrait laisser des traces dans le réseau d'observation.

Depuis 1988, et jusqu'en 1992, le Soleil est en période d'activité maximum. De nombreuses eruptions ont déjà crées des problèmes, qu'il suftise de se rappeler que le 13 mars 1988 un orage magnétique intense avait fait tomber le système de distribution d'Hydro-Québec. Cette nuit là une aurore boréale spectaculaire brillait au firmament.

Selon le SESC, a 00 UT le 8 novembre (19 HNE le 7 nov.) le champ magnétique terrestre était plutôt calme avec un indice <K> de variant de 1 à 2 sur une échelle de 0 à 9 (9 = maximum). Aucune alerte, ni avertissement, n'était en vigueur ce soir là pas plus que des perturbations n'ont été observées ace moment. Les mesures a 10,7cm au radio-telescope du parc Algonquin et celles des rayons X faites par le satellite GOES 7 ce jour là, indiquent une très faible activité seulement. Le flux d'électrons et de protons solaires pour le 7 et le 8 novembre tel que mesuré pa GOES 7 reste également faible.

On sait aussi que le champ magnétique terrestre est perturbé ala suite d'éruption solaire mais que cela prend de deux a trois jours aux particules éléctriques pour atteindre la Terre. Les données du SESC des jours précédents montrent un événement intéressant le 6 nov a 20:52 UT. Une eruption modéré de classe M3.1 (échelle de 1 a 4), qui laisse juste assez de temps aux particules voyageant entre 500 a 1000 km/sec, pour atteindre la Terre vers 00 UT le 8 novembre.

En résumé, le phénomène observe au-dessus de la region de Montréal, présentait les aspects d'une aurore boréale intense mais les observations radio, magnétique et celles des particules du vent solaire ne peuventpas corroborer cette hypothèse avec certitude. Les mesures n'indiquent qu'une faible activité dans la magnetosphere. Par contre il y a bien eu une eruption solaire dans les 48 h. précédentes.

D'autres hypotheses peuvent être envisagées mais toutes doivent tenir compte des faits suivants: 1) C'était tort lumineaux (visible a travers une mince couche de nuages); 2) C'était constant en relation avec la rotation de la Terre (jusqu'à deux heures sans déplacement significatit); 3) Ce devant être très haut (effet de parallaxe négligeable sur plusieurs dizaines de kilomètres).

L'hypothèse astronomique: météore par exemple, est difticile a concilier avec la dureé de l'événement. L'hypothèse astronautique: rentrée de satellite, ou dégazage d'un étage de tusée està écarter pour la même raison. Un seul autre phénomène s'approche des descriptions données, le láché d'un nuage de barium par une tusée. Mais aucune indication n'a encore été trouvé qu'une telle experience aurait été eftectuée au-dessus de Montréal ce jour là.

En definitive, seule l'aurore boréale réunit assez de caractéristiques pour expliquer les témoignages recueillis a Montréal le 7 novembre 1990.

références:

La Presse, de Montréal, les 8 et 9 novembre 1990.

Laroche Yves, C.O.R.A.M., communication personnelle.

Livesey Ron, British Astronomical Association. communication personnelle.

NOAA, Preliminary Report And Forecast of Solar Geophysical Data, #792 et #793, novembre 1990.

Sidgwick J.B., Observational Astronomy for Amateur, Enslow 1982.

Sirois Michel, Environnement Canada a Montréal! Dorval, communication personnelle. ✪

International Astronomical Youth Camp 1991

To participate in an I.A.Y.C. means, really, to follow your hobby, to spend a nice summer holiday, to meet many new friends and to experience the fantastic camp atmosphere. The I.A.Y.C. is an international youth camp with participants from at least twelve countries and has been held for twenty-two years. For three weeks you can work in one of seven groups, each of which is lead by an experienced amateur astronomer from the I.A.Y.C. team. This year's themes are: Ancient Astronomy, Astrophysics, Constellations, Deep Sky, Meteors, Planetary Systems and Practical Astronomy. In addition to the astronomical program, there are other activities such as group games, singing evenings, hiking tours and an excursion day.

I.A.Y.C. 1991 takes place from the 4th to 25th of August in Torfhaus, a very small village in the middle of Germany, located about 50 km southeast of Hanover. The accommodations will be in a youth house which is empty for the summer school holiday. We will have the whole house to ourselves. There is enough space for working group rooms, a darkroom, a meeting room, a dining room and the sleeping rooms. We will observe from near the house with instruments provided by the I.A.Y.C. Astronomy Workshop. The site promises good observing conditions.

Anybody from age sixteen to twenty-tour, who is able to communicate in English, can participate in the I.A.Y.C. The participation tee for accommodations, full board, astronomy program and the excursion will be about 550 Deutschemarks.

If you are interested, you can request a free detailed information sheet from:

I.W.A. e.V.
c/o Uwe Reimann
Ferdinand-Beit-Str. 7
D-W2000
Hamburg 1
Germany ✪

Astronomy Workshop 1990

Dave Clyburn
Edmonton Centre

For the past two years George Moores, President of the Edmonton Centre of the R.A.S.C., and Russ Sampson have organized an October "Astronomy Workshop", an event which other Centres may find interesting. While Alberta continues to have an annual star party, the aims of the workshop are somewhat different. Star parties typically provide a short program of speakers, relying on clear skies to be truly successful. The workshop, in contrast, though held at a dark site, features a broader range of speakers and activities throughout the day, with discussions and slide shows as a backup for cloudy skies at night. A primary objective is to introduce beginners to amateur astronomy.

Because star parties are often held at campsites with few facilities, when it rains soggy participants are driven into tents and R.V.'s, making meeting new people difficult. The workshop, held at Camp Maskepetoon at Pigeon Lake, an hour's drive from Edmonton, is housed in a large, comfortable lodge with heated cabins for accommodation and with meals provided. The lodge is the focus of activities. Serving as dining room and lecture hall, it also provides a place for everyone to mix and socialize. This year, seventy or so participants were treated to featured speakers John Dobson, founder of the San Francisco Sidewalk Astronomers, and Father Lucien Kemble, naturalist and deep-sky observer.

The organizers' attention to detail was evident when, after driving in after dark on Friday night, I was greeted by a staff member with a red flashlight advising me to turn off my headlights and to dark adapt before approaching the telescope field. Though we had only a few hours observing before clouds rolled in, the Edmonton Observers' Group enjoyed meeting with Calgary friends Bryce Heartwell and astrophotographer John Mirtle. Despite the cloud, some of us didn't get to bed until 4:00 A.M.

Two of the speakers at the 1990 workshop pose in front of the Edmonton Centre's 17.5" telescope. John Dobson is on the left and Father Lucien Kemble is on the right.

As a result of a late night, I missed Murray Paulson's morning talk on basic observing skills. It was clearly successful, though, because when I did arrive I found Murray surrounded by a group of enthusiastic beginners. He was kept busy determining field sizes for their eyepiece/telescope combinations and tracing appropriately sized circles on plastic overlays for their star charts.

After brunch at 11:30 (the second meal of the day), Lucien gave his talk "Why We Observe". After spending a rainy week at Mount Kobau in August, I had been framing that as a question! Lucien spoke of the beauty of the natural world and of man's curiosity to understand it. He went on to describe the delight that comes with insight and the importance of maintaining our sense of wonder about the universe around us — serious, inspiring themes made personal through his use of anecdote and humour.

Following a second talk on basic observing skills by Don Hladiuk, President of the Calgary Centre, the last session of the day consisted of six Edmonton Centre members, each giving a ten minute talk. Michael Moores spoke on detail which can be seen inside popular deep-sky objects, Sylvia Smith on introducing astronomy to children, the author on observing and sketching the planets, Paul Campbell on how a Poncet mount operates, and Bob Drew concluding with a highly amusing slide presentation of unusual telescope designs. Equally humourous was Bruce McCurdy's account of our ill-fated lunar graze expedition last April 1st. Although a cloud interfered with our observations, several observers felt that they had nevertheless obtained accurate data. After reducing the observations, Bruce discovered that the Moon was a lot bigger than we had thought, boasted a new mountain range, and most surprising of all, had a large hole in it!

After a superb dinner and presentations to speakers and volunteers, we enjoyed a night of clearskies. Bruce McCurdy and Murray Paulson pointed out constellations to beginners, while Bob Drew hosted the Edmonton Centre's 17.5". Objects viewed ranged from M1 to NGC 1 to Maffei 1! We also glimpsed the unusual white spot on Saturn.

On Sunday morning Bryce Heartwell spoke on light pollution, followed by an update on the

Hubble Space Telescope by Dr. Doug Hube, 2nd Vice-President of the National R.A.S.C. and a professional astronomer. John Dobson gave the last talk. He was scheduled to speak on telescope making, but after giving a fine slide presentation on the history of the San Francisco Sidewalk Astronomers, he explained that the reason he brings large telescopes to dark sites for public viewing is to reveal to people the universe around them. John then spoke on the relationship between current cosmological theories and Eastern mysticism and fielded questions from the audience. While we enjoyed a final snack, John Mirtle entertained us with a superb slide show.

In sum, the workshop was highly successful, and on behalf of all the attendees, I'd like to thank Russ and George once again for all the effort that they put into it. One of the workshop's strengths is that it enables observers of all levels to meet and share ideas and information. Other Centres with access to suitable facilities may wish to consider organizing a workshop in conjunction with or as an alternative to a star party. ✪

A Canadian's Pre-War Comet

Philip Mozel
Toronto Centre

On the night of April 15th, 1939, there occurred an event any amateur astronomer dreams of. On that date, Lewis V. Smith of Sedgewick, Alberta was observing the sky when he chanced upon a bright, fuzzy patch of light. Recognizing it as a comet, he contacted J.W. Campbell of the University of Alberta to ask what its name was. Smith didn't realize it at the time, but he was actually one of the first people on Earth to note the comet's presence.

The very first to do so were two Russian amateurs, Achmarof and Jurlof, each of whom independently saw the comet only hours before Smith. The comet, 1939d (later 1939 III) was a brilliant third magnitude object visible low in the south-west and moving south-east through Andromeda. No comet in over a century had been this bright at discovery. A tail was also in evidence, described by Smith as "probably as long as the distance between Betelgeuse and Bellatrix", which amounts to some seven degrees. It is surprising that the comet remained undiscovered as long as it did, but this lack was made up for with new and rapid, independent observations: by Hassel in Norway (April 16); Barlow in England and Buchar in Prague (April 18); Kosik in Russia and Friend in California (April 19) and so on. So many people were now seeing the comet that *The Sky* (a predecessor of *Sky & Telescope*) titled an article on the subject: Comet 1939d, Alias Comet Smith-Jurlof-Achmarof-Hassel-Friend.

Comets may carry no more than three names, of course, and herein lies the tragedy as far as Smith is concerned. When he contacted the university, he wrote a letter which took four days to arrive. Campbell, in turn, seems to have contacted the Harvard College Observatory, again via mail. By this time, others had already been credited with the discovery and the comet had been named. No one, it seems, was about to change the name even when news of Smith's earlier discovery became available. Thus, 1939d became known as Comet Jurlof-Achmarof-Hassel.

What a terrible disappointment this must have been for Smith! And, with his name not appended to the comet, memory of his achievement seems to have been all but lost. Yet Smith's status as a discoverer was not overlooked. In a letter to Campbell, while early reports of the observations were still coming in, Harlow Shapley of Harvard wrote:

Mr. Lewis V. Smith was apparently the discoverer of the comet, and it is likely that we can so arrange the announcements that he will receive due credit as an independent discoverer. Please extend to him my compliments and congratulations and ask him to write me directly the circumstances of his discovery of the comet.

In 1940 the importance of Smith's observations was confirmed by the Astronomical Society of the Pacific. Each year it presented its Donahoe Medal to those individuals discovering a comet. Normally no more than three medals per comet were bestowed. Yet in the case of 1939d, four awards were made. They went to Jurlof, Achmarof, Hassel and (confirming that discovery is more important than nomenclature) Canada's Lewis Smith. ✪

T.W. Webb's Classic Text

J.E. Kennedy
Saskatoon Centre

The weekend on November 24th-25th, 1990, part of National Astronomy Week in the United Kingdom, was designated to commemorate the life and work of the Reverend Thomas William Webb, author of *Celestial Objects for Common Telescopes*. Celebrations were held in Hardwick, Herefordshire, where Webb served for nearly thirty years as vicar and prebendary of Hereford.

As clearly pointed out in the introduction to his text, Webb stressed that:

The intention of the following treatise is to furnish the possessors of ordinary telescopes with plain directions for their use, and a list of objects for their advantageous employment.

The first edition of his book appeared in 1859. In the brief account of Webb given in the Concise Dictionary of National Biography, he is described as 'an excellent observer, studying particularly lunar phenomena". Hence, it is not surprising to find the coverage given in his text to the Moon is almost equal in length to that given to the Sun and the known planets.

In the section entitled "The Mode of Observation", the reader will discover a concise list "of negative rather than positive directions, pointing out rather what should be avoided than what should be done" when using an ordinary telescope. A high percentage of the members in the twenty-two Centres of the Royal Astronomical Society of Canada developed their initial interest in astronomy by constructing, acquiring or viewing the sky with a common telescope. Examination of an edition of Webb's text should prove useful and inspiring for these individuals.

A survey of the holdings in Canadian libraries of the numerous editions of Celestial Objects for Common Telescopes shows that members in at least seventy percent of the Centres should have reasonable access to this book. For those in other Centres, there is a possibility that the text could be obtained through inter-library loan.

It appears that C.I.S.T.I. holds the only copy in Canada of the 1st edition (1859). No copy of the 2nd edition (1868) has been located. A copy of the 3rd edition (1873) is in my personal collection. Later editions are held by C.I.S.T.I., the David Dunlap Observatory and the Universities of Manitoba, McGill, Queen's and Waterloo. The Metro Toronto Reference Library has a copy of the 4th edition (1881). A reprint of the 5th edition is held by the University of Toronto. The Hamilton Public Library, C.I.S.T.I., the Dominion Astrophysical Observatory and the Dominion Radio Astrophysical Observatory each hold a copy of the Dover reprint (1962), a revised and enlarged republication of the 6th edition. This was edited and revised by Margaret W. Mayall, a name well known to variable star observers.

The author of this article would appreciate receipt of information as to the location of editions of Webb's book, not included above, which are held in libraries or personal collections across Canada. Libraries located in the U.S. have a plethora of copies among their holdings. ✪

Binary Star Observer's Group Formed

Ronald C. Tanguay
North Shore Amateur Astronomy Club

The amateur astronomer who possesses a filar micrometer or a diffraction grating micrometer is in the unique position to make significant contributions to the measurement of visual binary stars. However, serious double star work is very much neglected at present by amateurs. This need not be the case since the diffraction grating micrometer can be made for around $30 or less, and does not require a telescope with a clock drive to be used effectively. A filar micrometer, on the other hand, can cost from $700 to $2000, and requires a very accurate drive and electric slow motion controls.

The lack of amateur interest in the measurement of double stars is due primarily to the absence of an organization devoted solely to double star work, where the amateur could receive guidance and information. Because there are so few professional astronomers currently engaged in measuring visual double stars, the observations of serious amateurs with a disposition toward scientific work can be of great value. The wider pairs (those > 5.0" separation) are not very frequently observed, if at all, by the professionals. For the most part, they observe only the close (those < 5.0") and fast moving binaries, as these will yield quick results.

This article announces the formation of the Association of Binary Star Observers, an organization devoted to the accurate and careful measurement of visual binary stars. The purpose of the Association of Binary Star Observers is to: (1) provide amateurs with information on filar micrometers and diffraction grating micrometers; (2) provide the opportunity to communicate with other amateur double star observers; (3) collate the measurements of members and forward them to the appropriate organizations and professional astronomers; and (4) keep members informed through a monthly newsletter, which includes measurements made by members, articles contributed by members, double star lists and ephemerides.

I believe it would be opportune at this time to give you a brief synopsis of my background. I have been an amateur astronomer for thirty-two years, and have been a member of various astronomy clubs from Denver to Boston. In 1989 I founded the North Shore Amateur Astronomy Club, which holds weekly observing sessions at the Ipswich River Wildlife Sanctuary in Topsfield, Massachusetts. My current activities in astronomy involve the measuring of visual double stars with a filar micrometer of my own design and construction. So far the results have been quite gratifying, with accuracies in the 2%-3% range of the mean average values found in various double star catalogues. I also have a fairly extensive astronomical library, and a very thorough collection of published double star measurements from the major astronomical journals from 1928-1990.

Members of the R.A.S.C. who are interested in joining the Association of Binary Star Observers should forward a check or money order for $10 ($12 Canadian) payable to the Association of Binary Star Observers, 306 Reynolds Drive, Sangus, Massachusetts 01906, U.S.A. It would assist me greatly if you could also send me information on the size and type of telescope(s) and auxiliary equipment (drive, drive corrector, slow motion controls, etc.) used, and what type of micrometer you own or would like to build. At the present time I project that the cost of postage, envelopes, paper, and copying should be covered by the annual dues.

If you are a serious and dedicated amateur astronomer, and would like to make a scientific contribution to the study of visual binary stars, then we would encourage you to join the Association of Binary Star Observers. Thank you for your cooperation, and I look forward to hearing from you soon. ✪

My First Editorial

(continued from page 1)

smooth "transition of power" and all the help that they have given me in learning my new duties.

In addition to the larger format, there are several other changes that I have made that are worth explaining. I had always felt that *National Newsletter* and *Newsletter/Bulletin* were rather awkward names for a publication. As a result, I have shortened it to Bulletin which is both short and concise as well as being bilingual. As Ian had found that the changes he had made in 1989 justified starting with a new Volume One, I have followed suit. Thus this is Volume 1, Number 1 of the Bulletin. Hopefully, the new numbering scheme will last a bit longer this time! Also, because of the possibility of a future "double mailing" I have decided to stop indicating which volume of the *Journal* each issue is supposed to be a supplement to. (Also, I have received letters where the writer referred to a previous article using the volume number of the wrong publication!)

I have also started a new column on the front cover. A while ago I received an article from Alister Ling that he wanted me to consider for a future issue. In later correspondence, he suggested that a regular column, similar to "Focal Point" in *Sky & Telescope* might be an interesting idea. I liked the idea (along with one of the names that he had suggested) and decided to use his article for the first one. I would welcome articles of this type from all members.

Another major change will result from a decision made at the September National Council meeting. Having corresponded with Peter Broughton (who chairs the Society's Publications Committee) we decided to ask Council to replace the Society's Annual Report with a special April issue of the *Bulletin*. Thus, the next issue you receive will contain a limited amount of articles, etc. but will contain what will hopefully be, a much more readable Annual Report and also a cost saving to the Society.

In terms of editorial content, I would hope that I will receive enough articles to keep each issue full. I will also follow the tradition of reprinting noteworthy articles from other centres' newsletters. I also feel that most activities are more enjoyable with a bit of humour added and I hope to have enough room to add the odd humourous article from time to time.

The switch to a computer based newsletter should result in a shorter lead time (allowing articles and reports to be a bit more timely) for two reasons. The first is that in the past, the typesetting was done at U. of T. Press and the editor received two proof copies. By eliminating this step, it should be possible to cut at least two weeks off of the lead time. In addition, composing time at my end can be shortened considerable if articles, etc. are submitted electronically. The formats that I can readily accept are (in order of decreasing preference):

- ASCII (or Word) file on a Macintosh disk (800k or 1 .4M)
- ASCII file on an IBM 3.5" disk
- ASCII file by electronic mail (see masthead for E-mail address)
- ASCII (or WordPerfect) file on an IBM 360k 5.25" disk
- Hardcopy made on a laserwriter or electric typewriter (I have access to a text scanner but it requires dark, crisp originals; dot matrix printers with fresh ribbons usually work as well)
- anything else

Photographs to complement articles are welcome! Black and white prints are best but colour prints or slides usually reproduce well. All disks etc. will be returned! If anyone has any ideas, comments, criticisms, etc. please feel free to let me know. Remember, it's **your** newsletter, not mine! ✪