
NEWSLETTER/BULLETIN

Formerly the National Newsletter

The Royal Astronomical Society of Canada
La Société Royale d'Astronomie due Canada

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April/avril 1989

ASTRONOMY DAY

May 13, 1989

Celebrated by: Astronomy Clubs
Planetariums
Observatories
Science Centres

and over a dozen amateur and professional groups

Theme: *Celebrating the Voyager Odyssey*

NEWSLETTER/BULLETIN

The *Newsletter/Bulletin*, formerly the *National Newsletter*, is a publication of the Royal Astronomical Society of Canada and is distributed together with the Society's Journal. Inquiries about the Society should be directed to its National Office at 136 Dupont Street, Toronto, Ontario M5R 1V2.

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Deadline for August issue is June 1.

Recherches Canadiennes sur la vie Intelligente Extraterrestre

par Jacques P. Vallée
Section de Radioastronomie
Institut Herzberg d'astrophysique
Conseil national de recherches du Canada
Ottawa, Ontario

1. Pourquoi ces recherches? Anthropomorphisme ou vie dans la galaxie?

Depuis plus de mille ans, l'hypothèse anthropomorphique de la prépondérance idéale de l'homme et de la femme a joué le jeu des entonnoirs d'idées nouvelles, d'expériences nouvelles. Ainsi la prévalence de l'idée que la terre étant le centre du monde impliquait que le soleil tournait autour de la terre a causé le schisme entre Galilée et l'Église catholique romaine, et plusieurs dont Giordano Bruno furent brûlés en son nom. Les astronomes ont finalement montré que c'était la terre qui tournait autour du soleil, mais l'Église n'a pas ressuscité la vie de Giordano Bruno. Puis certains disent que la vie intelligente ne peut exister que sur terre. Encore un relent de l'hypothèse anthropomorphique, servie à la moderne! Ce n'est heureusement qu'une hypothèse, non prouvée. D'où la possibilité d'expériences futures, partant de l'hypothèse inverse que la vie existe ailleurs et se propage présentement dans notre Galaxie.

2. Qui au Canada? Où au Canada?

La première équipe canadienne à faire des recherches sur les êtres intelligents extraterrestres fut créée en 1974. Elle se composait d'Alan Bridle, un Britannique alors à l'emploi de l'université Queen's à Kingston, Ontario, et de Paul Feldman, un Américain à l'emploi de l'Institut Herzberg d'astrophysique à Ottawa, Ontario. Ensemble, ces deux astronomes professionnels ont écouté 70 étoiles pendant un total de 140 heures (de 1974 à 1976), utilisant le grand radiotélescope de 46 mètres de diamètre dans le parc Algonquin, à environ 250 km au nord ouest d'Ottawa, Ontario. Pour traiter l'information issue des observations des étoiles, Bridle et Feldman utilisèrent un spectromètre pour détecter toute émission spectrale à une fréquence fixe près de 23000 MHz.

La deuxième équipe canadienne à oeuvrer dans la recherche des êtres intelligents extraterrestres fut créée en 1982. Elle se composait de Jacques Vallée, un Québécois à l'emploi de l'Institut Herzberg d'astrophysique à Ottawa, et de Martine Simard-Normandin, une Québécoise à l'emploi de Northern Telecom à Ottawa. Ensemble, ces deux astronomes professionnels ont balayé le ciel près du centre de notre Galaxie d'étoiles pendant un total de 2000 heures (de 1982 à 1984), utilisant le grand radiotélescope de 46 mètres du parc Algonquin. Pour traiter l'information reçue du balayage du ciel, Vallée et Simard-Normandin utilisèrent un polarimètre pour détecter toute émission polarisée aux fréquences environnant 1000 MHz.

La troisième "équipe" canadienne à travailler dans cette recherche d'êtres intelligents extraterrestres fut celle de l'astronome amateur Robert Stephens, de 1983 à 1987, utilisant un télescope situé à Hay River dans les Territoires du Nord-ouest. Travaillant seul et isolé, il balaya le ciel plusieurs centaines d'heures lui aussi. Il traite l'information avec un spectromètre pour détecter toute émission spectrale avoisinant la fréquence de 1420 MHz.

3. Pourquoi peut-on réussir là où les plus riches nous concurrencent?

Des astronomes des États-Unis se sont lancés dans ces recherches d'êtres intelligents extraterrestres avec des instruments ultraperformants pouvant écouter à d'innombrables fréquences l'une après l'autre, comme l'a décrit Claude Lafleur dans *Québec Science* de janvier 1988 (p. 16–20). Mais il faut se remémorer que ces instruments n'écoutent pas bien longtemps à une fréquence fixe donnée. Ce qui signifie que ces instruments américains ont un petit bruit de fond instrumental qui cache aisément un signal faible, émettant à une fréquence fixe, même si l'instrument a balayé et écoute brièvement à cette fréquence avant de passer à d'autres fréquences. Il faudrait écouter longtemps à cette fréquence pour diminuer le petit bruit de fond instrumental et ainsi laisser percer le signal faible. C'est un manque de sensibilité américaine pour un signal faible. C'est ici que les contributions canadiennes sont importantes, car à date les équipes canadiennes se sont spécialisées sur des écoutes sur plusieurs centaines d'heures sans jamais

changer de fréquence! L'hypothèse américaine derrière la construction de leurs instruments ultraperformants est que le signal d'une civilisation extraterrestre est assez fort pour être détecté en peu de temps. Ce n'est malheureusement qu'une hypothèse, non prouvée. D'où la possibilité de futures contributions canadiennes et d'autres pays.

4. Ou écouter? Où sont les voyageurs dans la Galaxie?

On connaît une raison impérieuse de voyager dans la Galaxie: la mort de l'étoile-mère. Toutes les étoiles naissent, vieillissent, et meurent, et d'autres étoiles naissent, etc. Notre soleil n'y fait pas exception. À l'heure actuelle, notre soleil consomme en son noyau des atomes d'hydrogène pour créer des atomes d'hélium (4 hydrogène donne 1 hélium plus un rayonnement lumineux). Mais lorsque son noyau ne contiendra plus d'hydrogène, dans 4 à 5 milliards d'années, qu'advient-il? Eh bien, fini la vie du soleil sur la séquence principale, une autre période commencera, avec un accroissement de la taille du soleil. Déjà, on observe aux télescopes optiques des millions d'étoiles gonflées qui en sont déjà arrivées à ce stade de leur vie. Comment gros deviendra le soleil alors? Il se gonflera jusqu'à englober les planètes Mercure, Venus, la Terre, et peut-être Mars! Et la vie intelligente sur Terre, alors? Il n'est pas possible d'avoir une vie sur Terre dans l'enfer brûlant du soleil. Des calculs récents ont montré que la terre voyageant dans le soleil s'approcherait de plus en plus du centre du soleil, là où la température atteint des millions de degrés, et ce en 200 ans seulement.

Alors, avant que le soleil ne devore la terre, les êtres intelligents de la terre doivent s'organiser pour un voyage dans l'espace! Quand? D'après nos observations d'autres étoiles, dans 4 milliards d'années – assez de temps pour s'organiser, non? Si nous voulons que notre vie continue, il va falloir devenir des extraterrestres nous-mêmes! Alors, d'autres extraterrestres doivent sûrement avoir dû partir de leur étoile-mère, déjà!

Finalement, que se passe-t-il lorsqu'on devient des extraterrestres nous-mêmes? D'abord, une colonisation successive des satellites des planètes lointaines du soleil (près de Jupiter, disons). Mais c'est un peu froid là-dessus. D'où la possibilité de rester en permanence dans les habitats de voyage permanent, des stations de l'espace qui s'attacheraient à une étoile jeune ressemblant au soleil, le temps qu'elle brûle son noyau, pour repartir vers une autre étoile jeune. D'où l'idée d'écouter les voyageurs dans la Galaxie en balayant le ciel et l'espace entre les étoiles, et non pas écouter les étoiles une après l'autre.

5. Utilisation possible de 2 télescopes au Parc Algonquin pour SETI

Concernant le futur proche, il apparaît que 2 radio télescopes au Parc Algonquin pourraient être utilisés pour des recherches sur la vie intelligente extraterrestre (SETI)

Le radio télescope de 18 mètres de diamètre de l'université de Toronto au site 4 de l'Observatoire Radio Algonquin vient d'être remis en état de marche pour des fins de SETI, par Robert Stephens. Celui-ci a rapporté tout son matériel d'observations SETI qu'il utilisait jadis à Hay River, T.N.O. , et il espère commencer bientôt des observations SETI aux longueurs d'onde de 18 cm et de 21 cm.

Le radio télescope de 46 mètres de diamètre du Conseil National de Recherches du Canada au site 3 de l'Observatoire Radio Algonquin est le sujet de grandes discussions avec la NASA des États-Unis concernant sa réouverture et son utilisation à des fins d'observation SETI par la NASA. Ceci pourrait se faire avec une subvention financière important des États-Unis via le programme des sciences de la vie de la NASA. La NASA s'y intéresse à cause de la grandeur (46m) du télescope, de la quietude du Parc Algonquin (pas de bruit radio générés par l'homme), et de sa disponibilité totale (100%). Aussi des fonds financiers américains seraient nécessaires pour faire les modifications pour améliorer ses performances (cablage, software, ordinateur, etc). Si tout marche comme prévu, le telescope de 46 m deviendrait un des plus gros éléments d'une chaine de telescopes SETI à travers le monde, à un cout total de \$90 millions de dollars US. La NASA n'a pas encore reçue ces \$70 millions, et il y a d'autres télescopes disponibles à travers le monde en compétition pour ce projet SETI. À ce moment, la probabilité de l'usage permanent du télescope de 46 metres à des fins SETI par la NASA est 30% à 40%.

The Heavens on Tape

Have you ever been on a camping trip and wished you had an astronomer along to point out the constellations and fill you in on the lore of the sky?

The nonprofit Astronomical Society of the Pacific now has the next best thing for you: the *Tapes of the Night Sky*, two cassette tapes featuring "guided tours" of the heavens for each of the four seasons.

Each half hour tour features basic, easy-to-follow instructions, together with interesting information about the astronomy and mythology of the objects you identify. By relying on the brightest stars as guide posts, the tapes can help stargazers of all ages get to know the sky quickly and enjoyably. The tapes are accompanied by a booklet with the full script, four specially designed star maps, and a beginning observer's reading list.

The full set of tapes, booklet and maps is available for \$19.95 including postage and handling. (California residents must add sales tax). To order, send to: A.S.P., Tapes Department NOA1, 390 Ashton Avenue, San Francisco, CA 94112.

The 1991 RASC Solar Eclipse Expedition

**by Michael Watson
Expedition Leader
RASC 1991 Solar Eclipse Expedition**

Dateline: Los Cabos, Baja, California, July 11, 1991

“Under spectacularly clear skies, 250 Canadians, all members of the RASC and their families, were awed today by the most impressive of natural phenomena, a total eclipse of the sun. The expedition, some three years in the planning, left Toronto, Canada by chartered aircraft yesterday and brought the astronomy enthusiasts and their telescopes, binoculars and cameras direct to Los Cabos. After an afternoon of swimming and relaxation, and an evening of observing under the dark skies of southern Baja, the astronomers boarded buses early today for the one-hour ride to the centre line of the eclipse, some 60km north of Los Cabos. Veteran eclipse observers were amazed by the darkness of the sky during the total phase of the eclipse, which they attributed to the very long length of totality (six minutes 52 seconds) and the large shadow size. First-time observers were enthusiastic about the size and shape of the sun’s corona as well as the planets Jupiter, Mars, Venus, and Mercury, which could all be seen easily during totality to the east of the eclipsed sun.

Not until the next century will the moon’s shadow again fall on North America, and not until the 23rd century will a longer duration eclipse occur.”

If, as we expect, all proceeds according to plan, we may well see an article such as this in Mexican (and possibly Canadian) newspapers on eclipse day in 1991. At its January meeting, the national council of the Society established a Solar Eclipse Committee to coordinate a national RASC expedition to observe the eclipse from Baja, California. The author was appointed Expedition Leader, with Randy Attwood of the Toronto Centre and Steve Dodson of Science North in Sudbury as additional committee members.

Detailed plans of the expedition have been made, and a travel agency has been engaged. We plan to fly 250 observers by chartered jet from Toronto to southern Baja on Wednesday morning, July 10, 1991. Meals and hotel accommodations for the evening are being arranged, and organized observing sessions under the dark Baja skies will be held that night. Buses will take us to the observing site early on eclipse morning, in plenty of time for first contact, which will take place at 10:26am. After the eclipse we will return to the airport, fly out of Los Cabos at about 16:30 local time and return to Toronto by about 23:00 local time on the same evening.

Among the attractive features of this expedition is the low cost, which will be less than \$1000 for all services, including return airfare, hotel accommodation,

meals and ground transportation. Regular airfare to Baja from Toronto alone is well over \$1000. The two-day format is designed to provide a quick trip for those who do not consider Mexico a summer vacation destination of first choice! Because we are chartering our own aircraft, we will be able to take as much observing equipment as we want, including telescopes.

Although the chartered airlines will not give a final commitment to providing the aircraft until about February of 1991, we foresee no difficulty, particularly because the eclipse occurs in the middle of the week. I will be making a comprehensive site preview trip to Los Cabos this summer to make all the necessary local arrangements.

This eclipse is drawing wide interest, and requests for hotel accommodation are flooding into Baja. We will be advertising the expedition exclusively to RASC members for some time, but then plan to open the trip to members of the public through an advertising campaign at some point in the future. We expect all places on the expedition to be reserved quickly.

In order to reserve your place on the expedition, please send a deposit of \$100 to this address:

RASC 1991 Solar Eclipse Expedition
441 Davisville Avenue
Toronto, Ontario M4S 1H7

Please make cheques payable to the RASC. Those who reserve before July 11, 1989 will receive a 10% discount on the final cost. (If the final price is \$950, for example, early registrants will pay only \$855).

If you wish to be on our mailing list, but do not yet want to reserve a place, simply send a letter to the above address and we will keep you informed of our plans.

Never before has the Society mounted a national eclipse expedition, and this promises to be a wonderful experience. Clear skies!

Events Calendar

May6

Spring Banquet of the Niagara Frontier Council of Amateur Astronomical Associations (NFCAAA). Hosted by the Hamilton Centre RASC.

May13

16th Annual International Astronomy Day. Contact Steve Dodson, National Co-ordinator, Science North, Sudbury, Ontario. Phone (705) 522-3701.

May 26–29

Riverside Telescope Makers Conference, Camp Oakes, Big Bear, California.
Contact: Cliff Holmes (714) 689-6893.

May 29–June 4

Texas Star Party. Fort Davis, Texas. Contact: TSP Registrar, P.O. Box 386, Wylie, Texas 75098.

June 16–18

XIV congrès de l'Association des Groupes d'Astronomes Amateurs (AGAA), Laval, Québec. Clubs hôtes: Club d'astronomie MIRA Inc., Club des astronomes amateurs de Laval et Club Espace de Montréal.

June 21–25

Centennial Meeting of the Astronomical Society of the Pacific, Berkeley, California. Phone (415) 337-1100.

June 27–29

Annual conference of the Canadian Astronomical Society, Montreal, Quebec.
Contact Chris Aikman (604) 388-0008.

June 27–30

Biennial conference of the Planetarium Association of Canada, Montreal, Quebec.
Contact Mrs Nicole Patenaude (514) 872-4530.

June 30–July 3

General Assembly of the Royal Astronomical Society of Canada, Sydney, Nova Scotia. See article in this issue of the *Newsletter*.

July 28–30

19th Annual Syracuse NFCAA Summer Seminar, Syracuse, New York. Hosted by the Syracuse Astronomical Society. Contact Rod McCabe (315) 454-3150.

August 4–5

Stellafane, Springfield, Vermont. Contact: Dennis di Cicco, 60 Victoria Road, Sudbury, Massachusetts 01776.

August 10–13

Alberta Star Party, Waterton Lakes National Park, Alberta. Hosted by the Lethbridge Astronomical Society. Contact: Rick Ponomar (403) 381-1332.

August 16–17

Total eclipse of the Moon visible from all of North America. See 1989 *Observer's Handbook* pp 84–94 for details.

August 25

Voyager 2 flyby of Neptune.

August 25–26

Starfest '89, Mount Forest, Ontario. Hosted by the North York Astronomical Society. Contact: Andreas Gada (416) 761-1798.

August 30–September 3

6th Annual Mount Kobau Star Party, Mount Kobau, British Columbia. Hosted by the Okanagan Astronomical Society. Contact Peter Kuzel (604) 545-1226.

Across the R.A.S.C.

KITCHENER-WATERLOO: Secretary Jonathan Doupe reports that the Centre held its annual Christmas Dinner in December at a local restaurant. Afterwards, several people went to Ray Koenig's house for astronomy videos and computer games. Renovations continue to the telescope at Ayr. A new secondary mirror arrived in late January and the telescope was expected to be operational in early February.

WINDSOR: At the January membership meeting, the centre was quite pleased to welcome Dr. Lloyd Higgs, our National President, and his wife. Secretary Joady Ulrich reports that Dr. Higgs gave a fine lecture on radio astronomy aperture synthesis. There was an excellent attendance of about 50 people. Steve Pellarin, the Centre's new President, moved the Centre meetings to the University of Windsor beginning with the January meeting.

CALGARY: January was a busy month for the Centre. Glenn Hawley reports that David Levy gave a talk on "Comets and Other Stuff" on the 14th in the Pleiades Theatre at the Centennial Planetarium. On the 19th, elections for new officers were held at the Annual General Meeting. This was followed two days later by the banquet and awards night. Five *Bolide* awards were given this year in recognition of service to the Centre. These were presented to: Brian Chapel, Bill Krosney, Ruth Lewis, George Trapp and Erroll Zastre. The *Starseeker* award went to Bob Loblaw and the President's award to Don Hladiuk. Russ Chandler, Bob Loblaw and John Mirtle each won one of the Astrophoto of the Year categories, with John

Mirtle winning the overall title. The centre has decided that the only way to keep John from winning this award every year will be to promote him to judge the entries!

VANCOUVER: The February meeting featured a presentation of the current show *Interstellar Suite* running at the H.R. MacMillan Planetarium. Four days later, the annual dinner was held with Dr. David Vogt of the University of British Columbia speaking on the subject of archaeoastronomy. Ken Hewitt-White has resigned as editor of *Nova* and Tim Novak, Mike Chutter and Hugh Dolden will now share the editorship.

MONTREAL: George Ascroft, a retired chemist, is the new editor of *Skyward*. George Livadaras is the new Centre librarian. President Mario Caluori reports that the Celestron-8 telescope of the recently deceased president Bill Cadloff has been acquired by the Centre and will replace an older telescope of similar design which was stolen. During the winter a telephone survey was conducted of all the membership to determine their interests and the direction the Centre should take.

VICTORIA: Well-known member George Ball has completed work on his new 12-inch Schmidt-Cassegrain optics and will soon be mounting it for use. Jack Newton has ordered a 25-inch mirror for his new telescope. The Victoria Centre is supporting a new astronomy club in Fort St. John. National President Dr. Lloyd Higgs was guest speaker at a centre meeting in March. In the March issue of *Skynews*, Philip Teece described an observing exercise designed to test observational skills and challenged readers to observe a small four degree starfield in Gemini. President Gene Steeves reports that the Centre will have a booth at the Victoria Hobby Show in April.

HALIFAX: Joe Yurchesyn has succeeded Darrin Parker as Centre President. The executive committee has been expanded in size with the addition of several councillor positions because of the work load involved. In 1988, the Centre sold almost 200 copies of the Observer's Handbook! This brought in almost \$600 of revenue to the Centre. Patrick Kelly reports in the March-April issue of *Nova Notes* that there are plans to build a Discovery Center in Halifax and the Centre has formed a Planetarium Committee to encourage the idea of a planetarium being a part of the new facility.

KINGSTON: Congratulations to Denise Sabatini who was elected to be the new president of the Centre. Mark Kaye has succeeded Leo Enright as editor of *Regulus*.

OTTAWA: Frank Roy reports that six Star Parties are planned for 1989, six at the

Indian River Observatory and two public programs in Ottawa itself. The annual Swap Table is planned for the March Observers' Group meeting.

SASKATOON: *Saskatoon Skies* editor Daryl Rybotycki reports that local radio stations CJWW and television station CFQC have been promoting the Centre's activities and cable TV station CITY 13 has offered to air information about the R.A.S.C. as part of their schedule. Since late 1987, Centre President Jim Young has been a regular guest on the program *Two For The Show*. RASC member Carol Blenkin is a co-host for the show. A 10-page Planetary Supplement for 1989 has been prepared for all Centre members.

WINNIPEG: Chris Rutkowski has proposed a new format for MASCON (the Manitoba Astronomy Conference) in 1989. Other astronomy clubs in Manitoba as well as the general public would be invited to participate in a true celebration of Manitoba astronomy.

NIAGARA: Greg Saxon is the new editor of *Niagara Whirlpool*. A first in the Centre's history took place at the January Annual Meeting when an actual election of officers took place because there were more candidates than positions available. The Centre continues to average about three Observers' Group nights per month. Six public nights are also scheduled for 1989.

LONDON: The Annual Banquet was held on March 18 with Dr. P.J. Mann of the University of Western Ontario as the guest speaker. The February issue of *Astronomy London* announces a very formidable number of meetings, star parties, and special events, the members or the centre will be involved in through to December.

HAMILTON: The Centre mourned the death after a lengthy illness of Ian Stuart in December. An extremely active member of the Hamilton Centre and active promoter of the Society, Ian was a regular at the annual General Assemblies and will be missed by many across Canada.

EDMONTON: The Centre has been granted a casino license to help raise money for a desktop publishing system. However, the casino cannot be held before 1990. Alan Dyer presented a detailed comparison of *Astronomy* and *Sky & Telescope* magazines in the February issue of *Stardust*. Mike Noble has succeeded Peter Ceravolo as Centre president.

Across the R.A.S.C. is a regular feature of the *Newsletter*. Centre editors or secretaries should send reports of their centre activities and upcoming events directly to the Editor. Deadline for the August issue is July 1.

Sydney General Assembly

June 30–July 3, 1989

The Unattached Members of the Royal Astronomical Society of Canada extend an invitation to the members of the Society and other interested parties to attend the 1989 General Assembly. The Assembly will be held at the Canadian Coast Guard College in Sydney, Nova Scotia.

Each year, a different Centre of the Society hosts the General Assembly. This year, for the first time in decades, the General Assembly will be hosted by members unattached to any Centre. The General Assembly is more than just the business meeting of the Society. Paper sessions, display competitions, banquets, local tours, and the opportunity to meet members from across Canada and elsewhere provide a varied and exciting program. For the Sydney General Assembly, special events will include a visit and tour of the prestigious 18th century Fortress of Louisburg, a lobster feast in the quaint fishing village of Main-à-Dieu, a visit to the Alexander Graham Bell Museum in Baddeck, a demonstration of the Coast Guard College's planetarium, observing sessions (weather permitting), as well as *ceud mile iongantas* (100,000 surprises). Accommodations will be available on campus.

Paper Sessions: We welcome 10 minute presentations from amateur and professional astronomers. Abstracts of 150 words should be approved by your own Centre Council before being sent to the Papers Committee at the address below no later than May 26.

Display Competition: Prizes will be awarded to winning entries in a number of different categories. Applications to enter exhibits can be obtained from Mr. Raymond Auclair of the Organizing Committee.

For more information on any aspect of the General Assembly write to:

Sydney General Assembly – R.A.S.C.
Canadian Coast Guard College
P.O. Box 4500
Sydney, Nova Scotia
B1P 6L1
Telephone (902) 564-3660 X120 or 175

Assemblée Générale à Sydney

Du 30 juin au 3 juillet 1989

Les membres indépendants de la Société royale d'astronomie du Canada sont heureux d'inviter les membres de la Société, ainsi que les autres personnes intéressées, à l'assemblée générale de 1989 qui se tiendra au Collège de la Garde côtière canadienne à Sydney (Nouvelle-Écosse).

Chaque année, un centre différent reçoit les participants à l'assemblée générale. Pour la première fois depuis longtemps, cette assemblée sera organisée par les membres indépendants.

Il s'agit de bien plus qu'une rencontre pour décider des affaires de la Société. Communications, concours d'expositions, banquets, visites guidées tout ceci compose un programme varié et intéressant, sans oublier l'occasion de rencontrer d'autres membres du Canada ou d'ailleurs. À Sydney, figureront parmi les activités spéciales: une visite guidée de la prestigieuse forteresse de Louisbourg, un dîner au homard dans ce charmant village de pêche qu'est Main-à-Dieu, une visite du musée Alexandre Graham Bell à Baddeck, une présentation du planétarium du Collège, des observations (selon le temps qu'il fera) de même que *ceud mile iongantas* ("cent mille surprises"). Le logement sera disponible sur le campus.

Communications: nous encourageons ceux qui le désirent, tant astronomes amateurs que professionnels, à offrir des présentations de dix minutes environ. Un résumé de 150 mots devrait être soumis au conseil de votre centre respectif et envoyé au comité des communications à l'adresse ci-dessous avant le 26 mai.

Concours d'expositions: des prix seront attribués par catégorie. Pour obtenir une demande de participation, adressez-vous à Raymond Auclair, du comité organisateur.

Pour toute demande d'information sur l'assemblée générale, écrivez-nous ou téléphonez-nous.

Assemblée générale de Sydney – R.A.S.C.
 Collège de la Garde côtière canadienne
 C.P. 4500
 Sydney, Nouvelle Écosse
 B1P6L1
 Tél.: (902) 564-3660, poste 120 ou 175

Staff Writers Wanted

The RASC *Newsletter* has immediate openings for staff writers.

Responsibilities:

1. to prepare national news stories, product announcements and feature stories under the direction of the editor
2. to originate story ideas
3. to occasionally collect and research information for feature articles

Qualifications:

1. an excellent knowledge of the English language
2. a demonstrated ability in writing articles
3. a working knowledge of astronomy and related sciences
4. membership in the Royal Astronomical Society of Canada for at least three years
5. a fascination with astronomy and the universe in general
6. a strong desire to create work of interest to the broad astronomical community

Access to an IBM compatible computer and Wordperfect software and/or experience with practical amateur astronomy are assets.

Remuneration:

As with the Editor's position and all positions in the Society this is a volunteer position.

Applicants for a Staff Writer position should send their application to the Editor at the address on the masthead.

The RASC *Newsletter* is intended to be a popular level publication covering the broad range of amateur interests in astronomy. The work and activities of Canadian amateurs and clubs is of special interest. Material written on a personal level should be of wide interest to the astronomical community.

A major format change in the *Newsletter* will be taking place in February 1990 and this will require an increase in the size of the staff.

Observer's Cage

by David H. Levy

What do we get from the Journal?

In recent months I have been asked why all of the Society's members receive the *Journal*, a publication whose professional articles tend to flow at a level above what we amateurs can understand. After all, most of us get *Sky and Telescope* or *Astronomy* magazines, which together with centre newsletters and the Society's *Newsletter* really provide us with a good summary of what is going on.

The *Journal* does something none of these publications can provide. It is a door to the world of professional astronomy. We may not understand all the words and formulae, but its pages force us to examine the style and content of a professional contribution to science. We cannot get that out of the other publications.

Some people have suggested that we go the route of the Astronomical Society of the Pacific, whose professional journal is available to its members only if they pay more. This sounds like a good idea, until you realize that very few of their members benefit from their journal. In our case, we all get the chance to see the results of a research paper that has been accepted and edited through the process of peer review. This means that the results of a research project have been criticized by astronomers familiar with that field of study, and that (supposedly) the author has produced a more thorough piece of work.

When I was in high school, the RASC Journal helped me out in two ways. Even though we were taught how to write a science report, I found the Journal articles helpful in showing how a formal scientific paper is constructed. Also, by translating all the articles that appeared in French, I became more familiar with the language, and learned how scientific French differs from the spoken version. Thus, my membership in the Society resulted in a higher French grade!

The Royal Astronomical Society of Canada is one of the few societies in the world that offers a resource such as this to all of its members. With Centre affiliations and newsletters, General Assemblies, the Society's *Newsletter*, the *Observer's Handbook*, and the *Journal*, the RASC gives its members a rich and varied harvest.

A Tour of Soviet Astronomy, and Hospitals?

by Raymond Auclair
Canadian Coast Guard College
Sydney, Nova Scotia

In September 1988, nine amateur astronomers representing the Société d'Astronomie de Montréal and RASC travelled to the Soviet Union to visit several of their observatories. First, we saw the RATAN-600 radio telescope and the six-metre telescope of the Special Observatory in the Caucaus mountains. Then we

enjoyed the summer weather of Yalta in the Crimea before touring the ten telescopes at the Crimean Astronomical Observatory. The details of the tour will be presented at the 1989 General Assembly in Cape Breton.

Before we left Yalta for Kiev I began to feel strange and when we arrived in Kiev, I called for a doctor. It was acute appendicitis! An immediate operation was needed. I was rushed to Kiev's Emergency Hospital where the appendectomy was performed in the middle of the night.

The rest of the group continued with the tour to Leningrad and Moscow where they also made loads of new friends. Helene and I stayed in the Ukraine, she at a hotel and I the hospital. We really learned what the "language barrier" means. Nevertheless, I was well cared for and have recovered from the experience. I have returned home with so many memories and stories of my visit to the Soviet Union that when you visit me in Sydney for the 1989 General Assembly "I will keep you in stitches".

Letters to the Editor

Old *Observer's Handbooks* Wanted

I am looking for some some old copies of the *Observer's Handbook*, specifically two (2) copies of the 1965 issue and one each from 1966 to 1969 inclusively. If anyone can help me out please let me know.

Patrick Wiggins
Education Department
Hansen Planetarium
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Is Your Computer Sleeping?

Members of the Winnipeg Centre are in need of an IBM-PC compatible computer to reduce the photometric data they are collecting. At present, none of the available computers can be moved to the Centre's observatory. Data must be transferred by hand from photometer to computer which creates errors and delays. The photometric equipment being used is capable of interfacing with an IBM-PC.

If you have an unused or underused IBM-PC compatible that you are willing to lend or donate to this project please contact us. Write to: Chris Brown, RASC Winnipeg Centre, Room 110, St. Paul's College, 430 Dysart Road, University of Manitoba, Winnipeg, Manitoba R3T 2M6. The Winnipeg Centre has been very successful in making photometric observations and will happily share with other centres its methods, knowledge, and any photometric software it develops.

Chris Brown
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