NEWSLETTER/BULLETIN

The Royal Astronomical Society of Canada
La Societe Royale d'Astronomie du Canada

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The dedication of the Helen Sawyer Hogg Observatory in Ottawa. Dr. Helen Hogg (right) and Mary Grey (left) stand behind the brass plaque honouring Dr. Hogg. The newly-dedicated observatory is in the background. See article in this issue for more details.

NEWSLETTER/BULLETIN

The Newsletter/Bulletin 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 the National Office at 136 Dupont Street, Toronto, Ontario M5R 1V2.

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Deadline for June issue is March 15.

The Society's Centenary

by Peter Broughton

One hundred years ago this month, steps were taken to give the Society legal status. At a regular meeting on Tuesday evening, February 25, 1890, a special committee consisting of A.F. Miller and G.E. Lumsden was appointed to secure incorporation. By the next meeting, just two weeks later, all the steps had been taken. The County Judge had approved the papers, a copy had been filed with the Registrar General of Ontario, and the Astronomical and Physical Society of Toronto had come into official existence. As it evolved into a national organization, the Society's name changed, but its central purpose, to promote and advance astronomy in Canada, has remained constant.

A book is being written to commemorate the Society's century of accomplishments. You can be part of this project by looking through your picture collection for nice, clear photos illustrating the efforts and achievements of individuals or groups, and sending them to Peter Broughton at the RASC National Office, 136 Dupont Street, Toronto M5R 1V2. If your photos are used in the book, your name will appear as a contributor to this permanent record of the RASC's first century. If you want the pictures returned to you, be sure to say so. Also, identify as carefully as you can when and where the pictures were taken and what or who is shown. Think how proud you would be to see your picture in the book, and how disappointed you would feel if there was nothing to illustrate the work of your Centre.

Dedication of the Helen Sawyer Hogg Observatory

by Dr. Tom Bolton
David Dunlap Observatory
University of Toronto

The Helen Sawyer Hogg Observatory on the grounds of the National Museum of Science and Technology in Ottawa was formally dedicated on September 23. Approximately 200 guests attended the ceremonies and braved cold, blustery winds in the wake of tropical depression Hugo to watch Dr. Hogg unveil a brass plaque. The observatory houses the 38 cm refractor from the old Dominion Observatory and the plaque is affixed to a large boulder outside the building.

As guests entered the Museum for the formal ceremonies, they were greeted by a four-by-four video wall showing a continuous video about Dr. Hogg and the Observatory to be named in her honour. The video was arranged to allow at times 16 identical images and at other times a single image spread over all 16 screens. The effect was quite striking, the more so because it showed some outstanding images of Helen.

Mary Grey, the Museum's Senior Curator for Physical Sciences and immediate Past President of the Royal Astronomical Society of Canada presided over the dedication. Dr. Genevieve St. Marie, the Museum Director, opened the ceremonies with a short review of Dr. Hogg's professional accomplishments and contributions to astronomy and public education. She touched on some of the special difficulties Dr. Hogg had to overcome as a woman astronomer.

The next speaker was University of Toronto Vice-Provost Dr. A.H. Melcher, who brought greetings from university president George Connell, who was unable to be present. Dr. Melcher spoke of the pride that the University has in having someone like Dr. Hogg associated with it and described her as not only a role model for women astronomers but also a "role model for other role models".

I was fortunate to represent the David Dunlap Observatory on this happy occasion, since observatory director Ernie Seaquist was observing at Kitt Peak. I spoke about Dr. Hogg's energy, intellectual curiousity and openness to new ideas. Her zest for life is a good example for us all. My fondest memory of Dr. Hogg is the happiness she shared with her late husband, Dr. F.E.L. Priestly. The final speaker was Doug George of the Ottawa Centre RASC who reviewed Dr. Hogg's contributions to the Society and public education, noting especially the annual Hogg lecture and her long term as the astronomy columnist for the Toronto Star newspaper.

Following the speeches, the Museum presented Dr. Hogg's family with a first-edition copy of her book The Stars Belong to Everyone. Her great grand-daughter, Allison MacDonald, accepted the book on behalf of the family along with a bouquet of flowers to present to her great grandmother. The Museum them presented Dr. Hogg with a framed rubbing of the brass plaque mounted outside the Observatory.

Following the speeches and presentations, everyone donned their coats and trooped outside to the Observatory for the unveiling of the plaque, which was appropriately covered with a star map. The Museum had hoped to open the Observatory for viewing after the ceremonies, but since the skies were mostly cloudy and a strong wind was blowing, we were all happy to return to the Museum as quickly as possible.

The formal ceremonies were followed by an informal reception. During the reception, the Museum showed several short films in their auditorium. These covered subjects ranging from the history of Canadian astronomy in the early 20th century to the news conference

following the Voyager Neptune encounter which were truly fitting for the dedication of the Helen Sawyer Hogg Observatory.

Many of Dr. Hogg's family were present for the dedication. Many present and former staff of the Herzberg Institute of Astrophysics attended, and representatives were present from the Ottawa, Montreal, Toronto, and Saskatoon Centres of the RASC. My wife, Susan, was the official representative of the Toronto Centre Council. I am sure that all who were present would agree the Museum is to be congratulated not only on their decision to name the Observatory after Dr. Hogg but also in organizing the dedication ceremony with just the right level of formality to allow us to pay our respects to Dr. Hogg and enough informality so that everyone could have a good time.

Reprinted from the *David Dunlap Doings*

Across the R.A.S.C.

Across the R. A. S. C. is a regular feature of the Newsletter. Specific contributions are requested from Cçntres to ensure your news is printed. Deadline for the June issue is March 15.

SASKATOON: Welcome to Jeff Phillips who is the new editor of Saskatoon Skies. President Daryl Rybotycki has inaugurated the first annual member's survey to get more information to help in planning Centre activities. A special feature of the Centre's meetings is the availability of the University of Saskatchewan's Observatory with its 15 cm refractor after the main meeting.

MONTREAL: Louie Bernstein reports the autumn visit by Clyde Tombaugh, the discoverer of Pluto, was a success. The newsletter Skyward has a new appearance thanks to Paul Biro and his laser printer beginning with the December issue. President Mario Caluori report in the same newsletter shows Montreal must be one of the most active clubs in Canada. One interesting highlight which other clubs should consider – the telescope rental program earned the club over $200 last year.

VANCOUVER: The Nova newsletter continues to impress. Co-editors Mike Chutter, Hugh Dolden and Tim Novak produced a pictorial November issue featuring some great photos from the Voyager encounter with Neptune.

HALIFAX: Patrick Kelly reports that Centre membership is in good shape with over one hundred paid-up members before the year end. In the November-December Nova Notes, David Lane reports on two computer programs he has written to predict favourable observing periods taking into account the position of the sun and moon and the observer's geographical location.

NIAGARA FALLS: Greg Saxon's make over of the Centre's newsletter Niagara Whirlpool into an almost newspaper format with lots of variety in the layout has made the Whirlpool one of the most interesting produced in the Society. Vince Falco gives a report in the December issue on a lesson he got in the use of the Observer's Handbook when he observed four mutual phenomena of three of Jupiter's moons during one observing session.

REGINA: This is the first appearance of our newest Centre in this column. Actually, the club is one of the oldest astronomy clubs in Canada having formed in 1910 and joining the RASC in that year. Unfortunately, the club had its ups and downs and was mostly inactive, until about 1948 when it formed as the Regina Astronomical Society. We are pleased to welcome the club back into the RASC family. Thus, the year 1990 represents the 80th anniversary of the club's foundation. The November issue of The Regina Astronomer reported on plans to reorganize the club's assets and to make changes to the club's by-laws. Grace Nelson reported that the Centre would have a float in the November Santa Claus parade!

TORONTO: The November/December issue of Scope featured a special article on the Centre's plans for a new observatory written by Randy Attwood. Architect Robert Segarra has drawn up detailed drawings of the proposed structure for an ambitious structure which would provide a classroom, telescope-making workshop and library space. A development committee has been active for over two years now investigating ways to develop a permanent observatory in the rapidly-growing urban sprawl and heavily light-polluted skies of the Toronto region.

LONDON: Steven Sharpe continues his regular Variable Star Report in the December Astronomy London. He reports his lifetime tally of variable star brightness measurements to now stand at 50,278! Steven is a very active member of the American Association of Variable Star Observers (AAVSO). The Centre's 20cm Dobsonian reflector is available for loan to members for one-month periods for a fee of $5.00. The annual banquet will be on March 24 with Dr. Howard Plotkin as guest speaker.

OTTAWA: The Centre's Annual Dinner Meeting was held in November with Stephen James O'Meara of *Sky & Telescope* as guest speaker. At this meeting RoIf Meier succeeded Doug George as Centre President. Congratulations to Paul Comision who won the club's Observer of the Year Award for 1989. The November *Astronotes* reports an accidental observation of an occultation of a star by the moon during last August's lunar eclipse. John Bavington was observing the eclipse in Nepean when he observed a star disappear and reappear three times along the limb of the moon. Later investigation revealed the star was an 8.2 magnitude star. This shows how dark the eclipse was.

VICTORIA: The Annual General Meeting – Banquet was held at the Faculty Club of the University of Victoria in November with Don Hladiuk of the Calgary Centre as guest speaker. Roger Williams reports in the November *Skynews* on possible future directions for the clubs Observers' Group. The possible formation of a Messier Club and a variable star group are under consideration.

WINDSOR: Centre Secretary Joady Ulrich reports on several successful meetings held recently. In November, Michael Watson from Toronto spoke to the centre and gave two excellent audiovisual presentations *South of Capricorn* and *Moonshadow over Mindano*. In December, Joady gave talks to the Warren Astronomical Society and the Lowbrow Astronomers of Ann Arbor, Michigan. By February, a speaker exchange will be completed between the centre and the Detroit Astronomical Society with Jack Brisbin, President of the latter group, speaking at our meeting that month. Tom Sharron and Al Des Rosiers have almost completed restoration of the Centre's antique refractors and are now revitalizing the Gus Nyborg 20cm reflector for the Centre.

EDMONTON: President Michael Noble reports the Astronomy Workshop '89 organized by George Moores and Russ Sampson in October was a great success with more than 70 people in attendance. Near the end of the Workshop a meeting was held of representatives of the Edmonton and Calgary Centres and the Lethbridge Astronomical Society on plans for the 1990 Alberta Star Party. One proposal is to establish a permanent site for this annual event. Well-known Centre member and Program Director for the Edmonton Space Sciences Centre, Alan Dyer, has taken up the position of Associate Editor of *Astronomy* magazine. His valuable contributions to the Centre will be missed. At a special meeting in November with National President Lloyd Higgs as guest speaker, Alan was presented with a plaque recognizing his extensive service to the astronomical community.

Comet Skorichenko-George (1989e$_1$)

The year past was a record year for the observation of comets with a total of 34 recovered or discovered during the year. The previous record had been set in 1987 with 33 comets observed. The active search programs carried out by Carolyn and Eugene Shoemaker and Eleanor Helm using the 0.46 m telescope at Palomar accounted for eight of the comets observed. As well, the Earth-orbiting Solar Maximum Mission satellite observed three Kreutz sungrazing comets before the satellite re-entered the atmosphere late in the year.

Amateurs continued to contribute to this important work. William Bradfield of Australia discovered his 14th comet in January and Canadian-born David Levy shared his fifth comet discovery in August with Michael Rudenko of Massachusetts and Kiyomi Okazaki of Japan.

On the evening of December 17, Doug George of the Ottawa Centre discovered his first comet while searching the sky in the constellation of Cygnus with the Centre's 40cm telescope. As quoted in the Ottawa Citizen,

"I almost ignored this nebulous object that looked almost like a cloud. But I checked my chart and saw nothing was supposed to be there. Then my heart started to pump fast."

After observing the comet for about 45 minutes Doug went home and reported his discovery to the Central Bureau for Astronomical Telegrams in Cambridge, Massachusetts. It was confirmed the next evening that this was a new disccovery. Subsequently, the report of an independent discovery of the comet by Boris Skorichenko of the Soviet Union meant the credit for the new discovery would be shared by two observers.

Doug now shares with Rolf Meier, also of the Ottawa Centre and with four comets to his credit, the distinction of being the only Canadians to discover comets from Canadian locations. All other Canadian discoveries have been made by Canadians observing outside of the country.

Congratulations Doug on your discovery!

Comet Austin (1989c$_1$)

Among the many comets discovered in 1989 one holds special promise for this year. On December 6, New Zealand amateur Rodney Austin discovered an 11th-magnitude object in the southern constellation of Tucana. As observations accumulated and an orbit was calculated, it became apparent this new comet might be very bright in the spring of 1990. Already the comet is being compared favourably with Comet West which was a bright 2nd-magnitude object in Canadian skies in March 1976.

In the weeks before closest approach to the Sun on April 9 the comet will be extremely low on the western horizon after sunset and probably a binocular object at best.

Perihelion coincides with April's Full Moon but by late April the comet should be an easy to find naked-eye object in the north-east before sunrise. Comet Austin will make its closest approach to Earth on May 25 when it is about 40 million kilometres away. From mid-April to late May the brightness of the comet should change very little and we may have the brightest comet in our skies in 14 years.

Assistant Editor Wanted

The RASC Newsletter/Bulletin has an immediate opening for an Assistant Editor. The 5-year term of office of the Editor expires this year and the successful candidate for Assistant Editor must be prepared to take over the duties of Editor.

Responsibilities:

1. to edit material submitted to the Newsletter and prepare it for printing by the University of Toronto Press.
2. to collect and prepare national news stories and feature articles for publication.
3. to proofread copy prepared by the University of Toronto Press and approve it for final printing.

Qualifications:

1. willingness to make a committment to a five-year term as Editor as soon as training is complete
2. have about 20-30 free hours available every two months to devote to the production of the Newsletter
3. be bilingual in English and French, or have an excellent working knowledge of one language and a good reading ability in the other language
4. a demonstrated ability to write articles
5. a working knowledge of astronomy and the related sciences
6. membership in the Royal Astronomical Society of Canada for at least three years
7. a fascination with astronomy and the universe in general
8. a strong desire to create a publication of interest to the broad astronomical community

Remuneration:

This is a volunteer position.

Access to a computer and experience with desk-top publishing are important assets.

Applicants for the Assistant Editor position should send their application to the Editor at the address on the masthead.

The RASC Newsletter/Bulletin is intended to be a popular level publication covering the broad range of amateur interests in astronomy.

Observer's Cage

by David H. Levy

Have you ever seen...

Sometimes the odd, or the unusual, is what makes observing the exciting activity that it is. We see fifth magnitude stars routinely on a good night, sixth magnitude under a dark sky and, under fine conditions, some of us can see magnitude 6.5. It is those rare moments when we see those extra few tenths of a magnitude, or that special event, that makes our avocation so inviting and so important. Let's try a few "have-you-ever-seen" to see where some spice might be.

• Seventh magnitude stars with the unaided eye? My personal record is 7.2 on one night at the rim of the Grand Canyon. Others have see even fainter. Actually, magnitude 6.0 is a rather arbitrary figure for faintest star visible with the unaided eye under a dark country sky. With experience and moderately good eyes, you should be able to see much fainter.

• Noctilucent clouds? These very high clouds are not unusual in far northern (or southern) summer nights. As clouds lit by the sun long after sunset, they add a stunning new dimension to a picturesque summer sky.

• Bolides? It is a funny thing but many amateurs have never seen an exploding meteor. These events can happen any night of the year and they are not necessarily associated with meteor showers. However, the first half of November is filled with an abnormally high rate of these things as part of the Taurid meteor stream. Last year I saw one that exploded and disappeared but left a train that lasted for 15 minutes!

• A re-entering satellite? In 1965 we were observing from Plattsburgh, New York when we saw what first appeared to be a meteor. However, it was quite slow and seemed to go on and on, crossing almost half the sky before it finally disappeared after a 30 second display. Quite possibly the event was a re-entering satellite, or at least a meteor closely matching the earth's speed and orbit. In either case, it was quite memorable.

• A UFO? I hate that question, and usually answer "no" emphatically just to get off the subject. However, the strict definition is an object the observer cannot identify, and one night I did see two quickly moving lights crossing the sky. Now I think these were advertising searchlights reflecting off atmospheric haze, although technically, I do not know.

• A nova? Or at least a nova you did not know about? Seeing a strange new star in a familiar sky has got to be one of observing's greatest joys.

This list of questions can go on and on. Each of us has a special list of things seen and things we want to see. Whenever we go out and take that first look, we hope that the sky will offer something special. In its own way, the sky always does.

Nouvelles du Quebec

par Marc A. Gélinas

NOUVELLES DE LA SOCIÉTÉ D'ASTRONOMIE DE MONTRÉAL:

En novembre dernier, la Société d'astronomie de Montréal a tenu son assemblée générale annuelle. Ce fut l'occasion d'élire un nouveau conseil d'administration pour 1990. Suite à l'élection le conseil se compose comme suit: président Jean-Pierre Urbain, à sa seconde année de mandat; vice-président Gilbert Ouellette, à sa première expérience; secrétaire, Marc A. Gélinas; trésorier, Gilles Smith; administrateur délégué, Marcel Legris; conseillers, Roger Lebrun, Huberte Palardy et Jacques Lamy sont de retour, Pierre-André Guibord, Georges Pichette et Roland Guilbault sont les nouvelles recrues.

Ii faut noter aussi des changements à certains postes d'officiers, ainsi Pierre Lalongé, bibliotécaire depuis six ans laisse la place à Pierre Paquette. Le rédacteur en chef de *l'Annuaire Astronomique* change également, Patrice Gérin-Roze quitte le poste. Son remplaçant n'est pas encore désign, mais pour l'instant c'est Jean-Pierre Urbain qui pilote le dossier.

La S.A.M. a accueilli deux conférenciers de marque a la fin de 1989; d'abord en novembre Pierre Lacombe, directeur du planétarium de Montréal, est venu parler de l'astronomie science multidisiplinaire; puis en décembre François Wessemaël de l'Université de Montréal est venu parler des sites astronomiques et des raisons de leur choix.

La formulaire d'adhésion a la S.A.M. comportait un sondage faculatif. Près d'une centaine de personnes ont répondues et cela permet des constations intéressantes. La majorité des membres ont un telescope, dans 50% des cas c'est un telescope newton, 33% du temps c'est un Schmidt-Cassegrain et dans 17% des cas une lunette. Quant à ceux qui projettent de s'en procurer un, 33% veullent acheter et 66% construire.

La moitié des membres possèdent un ordinateur personnel et dans 57% des cas c'est une machine de type IBM. La moitié pèine des possesseurs d'un micro-ordinateur l'utilise pour l'astronomie.

Ce que les gens souhaitent obtenir auprès de la Société, c'est dans 38% des cas, de l'information théorique, et dans 31%, de l'expérience pratique, la promotion de l'astronomie en général atire la faveur de 18% des répondants. Ce contexte explique pourquoi ce sont les publications qui sont le service le plus apprécié par les membres, soit 60% de leur intérêt principal, les recontres et conférences viennent au second rang avec 18% de l'intérêt. Le 22% qui reste se réparti assez également entre le comptoir de vente, la bibliothèque et l'observatoire.

Ce sondage n'a rien de scientifique mais il permettra au nouveau conseil d'administration de planifier les actions a venir en tenant compte des intérêts manifesté par les membres. Un membre type de la S.A.M. est un homme, il est dans la trentaine, et a un peu d'expérience de l'astronomie. Il recherche de l'information théorique avant tout et aussi un peu connaissances pratiques. Il habite souvent trop loin pour venir aux reunions et compte sur les publications pour trouver son information. Il aime l'astronomie et accepte facilement que sa cotisation serve à sa promouvoir dans le public. Il possède un petit télescope et observe en dilettante de chez lui. Souvent il rêve de construire un telescope mais attend l'occasion.

NOUVELLES DE L'A.G.A.A.

Un changement important est survenu au sein de l'Association des Groupes d'Astronomes Amateurs (A.G.A.A.) en novembre dernier, Maurice Provencher, directeur

administratif de l'organisme depuis 5 ans a demande, et obtenu, un congé sans solde d'un an. Il a été remplacé par M. Pierre Sicotte du club MIRA à qui on souhaite bonne chance dans ses nouvelles fonctions.

Du coté du *Québec-Astronomique,* Pedro Rodrigue, le rédacteur en chef, a continué de mettre du plus en plus une touche personnelle dans la revue. Pour cela il s'est procurer un micr-ordinateur et le premier numréro conçu sur cette machine fut celui de novembre-décembre 89. Evidemment une nouvelle procédure nécessite toujours des ajustements et c'est ce qui explique que la revue ne fut disponible qu'au début décembre.

LES SPECTACLES ET L'ASTRONOMIE:

Le planetarium de Montréal présente jusqu'en avril le spectacle, *Les coléres du Soleil.* Ce spectacle est conçu par Roger Gagnon, membre de longue date de la S. A. M. et conférencier au planetarium. Inutile de rappeler que nous vivons une période d'activité solaire intense, et ce spectacle est une bonne façon de faire le point sur nos connaissances. Alors si l'occasion se présente, allez faire un tour au planétarium. compter de mai un nouveau spectacle prendra l'affiche, *Attention, planéte en peril*.

Dans le monde du théâtre, l'astronomie fait rarement le sujet d'une pièce, mais il y a eu une exception l'automne dernier. Le Théâtre du Nouveau Monde de Montréal a monté *La vie de Galilée* de Bertold Brecht.

Quant à la pièce elle-même, c'était excellent. Les acteurs et la mise en scène faisaient que, même durant trois heures, la pièce n'avait pas de lenteur. Le dispositif scénique a lui seul valait de déplacement. Une machine énorme de bois, cables et poulies qui remplissait la scène et se trandformait au gré des tableaux en divers décors, tantôt le toit où Galilée observe, tantôt le palais d'un prince, cette mcanique était digne du génie de Galilee.

Letters to the Editor

Projects for Amateur Radio Astronomers

The Newsletter for August arrived on 89-11-06. I was pleased and flattered by comments about me on page 51. There are still a variety of simple projects amateur astronomers can do. One is to monitor the period of pulsars. These objects change period in an unexpected and unknown manner. As of this date I am familiar with only one actual observation of this change of period. There are several assorted theories to explain this but only one observation. Plenty of pulsars are available to allow each observer to have one as his or her own. A 10 metre diameter wire mesh is probably adequate. I suggest interested observers write for details to: Professor PA. Hamilton, Physics Department, University of Tasmania, G.P.O. Box 252-C, Hobart, Tasmania Australia 7001.

Grote Reber
General Delivery
Bothwell, Tasmania
Australia 7030

Wanted: Back Issues of the *Observer's Handbook*

During the past 30 years I have purchased and used each year the RASC's Observer's Handbook to plan and aid my pursuit of amateur astronomy. I wish to obtain well-preserved, complete, and unmarked copies of the Handbook for the years 1950 through 1959. These were the beginning years of my astronomical interest for which I have no Handbooks to collaborate my observations and memories. Anyone will to part with these issues could write to me. I am willing to purchase a larger group of Handbooks provided they include those I seek.

Nicholas Hallett
3537 S. Lagoon Point Road
Greenbank, WA 98253
USA /

Events Calendar

March 24
Annual Banquet of the London Centre RASC at the Marienbad Restaurant. Contact Eric Clinton (519) 453-3198 for details.

April 21-29
International Astronomy Week. This year's event in Canada is being co-ordinated by Steve Dodson of Science North on the theme Canadians Exploring the Cosmos – A Century of Discovery. (See article in the October 1989 *Newsletter/Bulletin*).

May 12 to 15
Annual Meeting of the Canadian Science Writers' Association, Quebec City, Quebec. For information write to: CSWA c/o Ontario Science Centre, 770 Don Mills Road, Don Mills, Ontario M3C 1T3.

June 29 to July 3
RASC General Assembly, Ottawa, Ontario. Hosted by the Ottawa Centre RASC. For information see elsewhere in this issue.

July 13 to 18
The Astronomical Society of the Pacific will hold its first east-coast meeting in its 101-year history at Boston University, Boston, Massachusetts. For information write to: ASP., Meeting Information, 390 Ashton Avenue, San Francisco, CA 94112 USA.

July 16 24
Spaceweek '90. Annual event in the United States celebrating the anniversary of the Apollo 11 moon landing. This year's theme is "The Moon, Mars and Beyond: A Journey Into

Tomorrow". Write to: Spaceweek National Headquarters, 1110 Nasa Road One, Suite 100, Houston, Texas, USA 77058.

July 16-August 6
26th International Astronomical Youth Camp. Crnhi vri, Yugoslavia. For details see this issue.

1990 General Assembly
June 29 to July 3, 1990

The Ottawa Centre wishes to invite all RASC members and other astronomy enthusiasts to attend the 1990 General Assembly, to be held at Ottawa's Carleton University over the July 1 Canada Day long weekend. The organizing committee is planning an entertaining and informative weekend including, tentatively, the following activities:

Friday East vs. West softball game
Informal Slide Show (bring your best ... or worst!)

Saturday "You and the Universe" public symposium (see below)
Helen Hogg Lecture

Sunday Paper Sessions
Canada Day activities

Monday Tour – National Museum of Civilization/Cineplus Theatre
Annual Meeting
Banquet

Tuesday Tour – National Research Council's Ottawa River Solar Observatory

Some rearrangement of activities on the Monday and Tuesday may be necessary. The program should be finalized by the time you read this.

Accommodation will be provided on campus at a rate of approximately $35.00 per night (including meals). Alternative accommodation will be available at area hotels.

Callfor Papers: Delegates are invited to present papers on any astronomically related topic. Abstracts (approved by your Centre Council) should be sent to the address noted below by May 18. Members not attached to a Centre should forward their abstract directly to the GA Organizing Committee. We ask that speakers plan to limit their presentations to 10 minutes.

Informal Slide Show: Those who wish to give a presentation in a somewhat more relaxed setting may wish to participate in the Friday evening session. Bring your slides (good or bad), sing a song, talk about an astronomical trip, or anything else you can think of. There may be prizes!

Display Competition: Prizes will be awarded for winning displays in the following categories:

1. Solar System Observations (solar, lunar, planets, comets, asteroids, meteors, etc.)

2. Beyond the Solar System Observations (deep sky, variable stars, double stars, etc.)

3. Non-observational (history, public education, light pollution prevention, etc.)

4. Instrumentation

In addition, a youth prize will be awarded to the best entry by a member under the age of 16. Further information, including competition rules and an entry form, will be included in the registration package.

General Assembly information, including registration forms will be available from each Centre Secretary in March, or can be obtained by writing to: 1990 RASC General Assembly, 191 Wilshire Avenue, Ottawa, Ontario K2C 0E6.

"You and the Universe"
A Public Symposium for Everyone

For one hundred years, our Society has been publicizing the satisfaction and joy an interest in astronomy provides. This year there is an added opportunity to use the General Assembly in Ottawa to introduce non-members to these pleasures.

A symposium open to the public on Saturday, June 30 1990 in the Alumni Hall of Carleton University will feature five well-known speakers sharing their knowledge and insight on topics of popular interest.

9:15 Introductory Remarks

9:30 *Topic:* Planet Earth as a Life Support System

Speaker: Lydia Dotto, raised in Alberta, is a distinguished journalism graduate of Carleton University. In addition to her accomplishments as an award-winning author of articles in newspapers and magazines as well as books, she is a highly respected speaker on such topics as women in science, the environment, and the space program.

11:00 *Topic:* Naturalists of the Night: The Amateur Astronomers

Speaker: Terence Dickinson's name is synonymous with popular astronomy in Canada. He is a frequent commentator on CBC's *Quirks and Quarks*, an author of many books and hundreds of magazine articles, and the astronomy columnist for the Toronto Star for the past eight years. His love of astronomy shines through his writing. His talent as a communicator has been widely recognized through several awards.

13:30 *Topic:* The Value of Astronomy for a Civilized Society

Speaker: Richard Jarrell is a professor of Natural Science at Atkinson College, York University. Several years ago, he began to take an interest in the history of Canadian astronomy when few considered it important, and since has established an association and

journal to further these studies. Those who have heard him speak or have read his *Cold Light of Dawn* know Dr. Jarrell as an expert with an engaging style.

15:00 *Topic:* Astronomical Research: Pain and Bliss

Speaker: Rene Racine, a native of Quebec City, was educated at the Universities of Laval and Toronto and is presently Professor of Astronomy at the Université of Montréal. Having a wide range of professional interests, and with the unique experience of having directed two of Canada's major observatories, he is ideally suited to give his impressions of the present and future state of astronomy.

19:30 **The Helen Hogg Lecture**

This lecture is given annually in recognition of Helen Sawyer Hogg's lifelong contributions to astronomy. It is sponsored jointly by the Royal Astronomical Society of Canada and the Canadian Astronomical Society.

Topic: Exploration of the Solar System: Voyager and Beyond

Speaker: Joseph Veverka is a graduate of Queen's University, Kingston and hold a Ph.D. from Harvard. At present Professor Veverka teaches astronomy and planetary science at Cornell University, is a member of the University's Centre for Radiophysics and Space Research, and directs the Spacecraft and Planetary Imaging Facility. He is an authority on the evolution of planets and satellites and has been involved in their investigation using spacecraft imaging data since the early 1970's.

Mount Kobau 1989

by David Clyburn
Edmonton Centre

Editor: The sixth annual Mount Kobau Star Party was hosted by the Okanagan Astronomical Society August 30 to September 3 on Mount Kobau, British Columbia.

In a world that seems all to full of television game shows and politicians, it is rather refreshing to join several hundred like-minded people on a secluded mountain for a week of planetary and deep sky observing.

In order to secure my favourite spot – one out of the wind and offering a clear southern horizon, I made a point of going early, reaching Mount Kobau on the Saturday prior to the weekend of the event. Along the way I joined Bryce Heartwell and when we reached the top, we were not surprised to find more than a dozen telescopes already there including a beautiful 13-inch Dobsonian built by Dan Lazar of Calgary. The night was clear and I quickly found Polarissima Borealis, a 13.6 magnitude galaxy that is extremely difficult to observe in my 10-inch when observing near Edmonton. The steady air also made small planetary nebulae such as the Egg Nebula and Footprint Nebula easy at high power.

One of the pleasures of the trip was renewing friendships with people I had met last year. On Sunday, Gerry Knight, the president of the Vancouver Centre, arrived with his wife and he immediately began cursing Bryce and me for beating him for two years in a row to what had been his favourite spot. Sorry Gerry! You may have to leave two weeks early next year!

On Tuesday, Paul Campbell and Bob Drew arrived with the Edmonton Centre's new 17.5-inch telescope. That evening, the telescope offered good views of the Swan, Lagoon

and Triffid Nebulae with the dark lanes in the latter being especially memorable. Bob carried on with his current project – observing the Messier objects with the telescope. Bob's new "Stealth" telescope may have to be a 36-inch for him to get comparable views of the top 400 Herschel objects.

That same day Bryce had called his wife and received a message from Alister Ling that David Levy, a guest speaker at the Star Party, had just discovered a new comet (Comet Okazaki-Levy-Rudenko) that was visible in Bootes at about 10th magnitude. In the morning sky, Comet Brorsen-Metcalf was spectacular in Bryce's 14-inch telescope. It was not diffuse but had a condensed coma and sported a long, thin icy-blue tail split into two divisions. Murray Paulson's photographs, taken with a 135mm lens and 3200 ASA film with an exposure time of five minutes showed about five degrees of tail. Meanwhile, Paul Campbell was putting Randy Pakan's new 12.5-inch telescope to good use and his sketchbook began to fill with drawings.

Throughout the week, more Edmontonians arrived: Bob and Kathy Breckenridge with their 6-inch f/17 refractor which attracted a lot of attention; Alan Dyer; David Beal; Don Brown; and Randy and Bruce McCurdy.

Thursday afternoon was promising but as had often happened clouds rolled in. During the evening David Levy joined our group for an informal colloquium on his favourite topic – comets. After vainly waiting for the skies to clear, Bruce Heartwell caught a ride down to his motel in Osoyoos. The last thing he wanted to hear the next day was that the sky had cleared late and that there had been very steady air for Jupiter. With the South Equatorial Belt gone, the Great Red Spot floated in isolation across the planet's disc, followed by a small dark spot.

Friday evening was a disaster. In the evening an intense lightning storm approached from the south. We had about an hour to prepare for it. As the lightning neared we wondered whether david Beal, who was camped next to a high radio tower would remain firm in his conviction that it was a perfectly safe place to be. During the storm lightning hit the tower twice and the rain was intense. The same storm produced a record rainfall in Penticton fora 24-hour period. David Beal did survive by the way. Indeed the next day he looked quite invigorated, recharged perhaps by the St. Elmo's Fire that had crackled on the tower.

It rained again Saturday morning and our spirits were low. Bryce Heartwell packed up but decided to wait for some improvement. Randy McCurdy, who had been able to do little observing and have even less sleep announced he would not return to Mount Kobau. Fortunately, the sun finally appeared.

The Edmonton Centre did well in the telescope-making competition. The Centre's 17.5-inch telescope won first prize for "Mechanical Excellence", a fortunate category since it was the only telescope in its class. Randy McCurdy won first prize for best Dobsonian against some stiff competition and Bob Breckenridge' s refractor took top honours for first telescope. As well, Murray Paulson won third prize in the astrophotography contest.

Thankfully, Saturday night was clear except for small bits of patchy cloud. As was the case in 1988, the heavy artillery was present in the form of a 36-inch Dobsonian and two 20-inch telescopes. Views of M42 and Comet Brorsen-Metcaif were said to be stunning.

In summary the poor weather this year constrained the event somewhat – on many evenings the telescopes were under plastic tarps instead of the star. Of the eight nights! was there, though, more than half were clear. And even an average night at Mount Kobau is better than a very good one near Edmonton. I was awed by the splendour of the Milky Way stretching in an continuous band from Sagittarius to Orion. Memories of glimpsing fine detail on Jupiter and in Hind's Variable Nebula will remain long after the rain has been forgotten.

Reprinted from Edmonton Centre's *Stardust*

Noctilucent Clouds in Edmonton Skies

by Mark Zalcik
Edmonton Centre

Edmonton watchers of noctilucent clouds (NLC) had to wait almost until June to see their first display of these eerie twilight clouds. However, a late surge of storms in July made 1989 a decent year for observing the clouds.

A small blotch of the blue-white mesospheric clouds permeated the northern sky early on the morning of June 20. Harder to miss was an extensive show starting just after nightfall on the evening of June 22 when an oblique cone of NLC billows eased out of the north in striking fashion. This display was a biggie and was visible as far east as Winnipeg by Todd Lohvinenko.

NLC activity reached maximum right at the start of July last year and for awhile it seemed 1989 would be a repeat. More storms were observed on the evenings of July 1/2, 2/3 and 3/4 with the last two storms being very conspicuous by morning twilight. The July 3/4 display was wild with two or three long bands high in the north at around 03:30 MDT showing signs of localized turbulence which served to break up the linear structure of the cirrus-like formations.

In 1988 more NLC displays had showed up during the entire first week or so of July than this year but we had to wait nearly two more weeks for the next exhibition in 1989. What did materialize was a late period of activity that rivalled 1988's early July binge. This time, noctilucent clouds were visible on the eveings of July 16/17 to 19/20 and on July 22/23. Some of the storms were very impressive. On July 16/17 a handful of thick whirls shot up towards the zenith making an attractive spectacle despite some lowly "normal" clouds partially blocking them.

A giant display on July 22/23 was the year's best and was observed by many observers including Don Thacker in Vegreville and Peter Brown in Ft. McMurray. Even in Jasper where my wife and I were camping some isolated billows peeked over one of Signal Mountain's obstructive flanks to delight this observer on the banks of the moonlit Athabasca River.

A late show on July 29/30 rounded out 1989's crop of noctilucent clouds displays as seen from Edmonton. The total of ten or so was an average catch. Many waited until what could be termed "late season" but we will take them any way we can, early late, bright, faint. Anyway, hope you saw some!

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