



R E G U L U S

THE NEWSLETTER OF THE

ROYAL ASTRONOMICAL SOCIETY OF CANADA - KINGSTON CENTRE

JULY, AUGUST 1984

International Astronomy Day Marked By Kingston Centre

On Saturday, May 5th, the members of the Kingston Centre enjoyed the most successful Astronomy Day they have ever held since beginning such activities five years ago. The Cataraqui Town Centre, the large new mall on the north-west end of the city, was the setting for the biggest, most ambitious astronomical display ever mounted in the area. Members spent over two hours busily working until almost midnight on Friday setting up their exhibits, and they were back at the displays at nine o'clock in the morning, meeting the public, discussing their favorite projects, and "talking astronomy" until 6:00 p.m. when most participants took a short break before beginning the Star Night that ran from sunset to 11:30 p.m.

The equipment display included the Centre's 10-inch telescope and at least four other telescopes and two pairs of astronomical binoculars. Award-winning photographs, magnificent posters, a constellation-recognition game, a book display, an astronomical trivia game to which many members contributed question cards—all of these attracted a great deal of public interest and comment. A survey comprising a dozen questions drew a greater response than expected when it was completed by twenty-two people. As at all such displays in recent times, there was considerable interest in Halley's Comet, and the Society's bulletin on the comet was welcomed by many people. The publications of our Society were attractively displayed and were a factor in the fact that six individuals joined the Society during the day and a number of others have attended the Centre meeting since then and will probably become members of our active group.

The weather was cooperative at midday when a one-hour solar observing session was organized as David Stokes and Leo set up a telescope near the west entrance to the mall for the safe observation of sunspots.

In the evening the weather again was surprisingly favorable for a good part of the Public Star Night, at least giving everyone who came a chance to see some fine lunar craters through a variety of telescopes, as well as the planets Mars and Saturn, a few double stars, and even a few meteors. There were some clouds in the late evening and a haze in the east for a while, but the seeing was good, and the large turnout of people was far greater than would have been expected when observational astronomy has to compete with Stanley Cup playoffs. The several hundred observers included quite a few youngsters who were heard exclaiming with delight at their first view of the rings of Saturn. Such remarks are the kind of thing that makes the effort so worthwhile.

Special thanks for the occasion go to Mr. and Mrs. VanAsperen for their exhibit on mirror-grinding and for bringing their beautiful Dobsonian telescope, to Martyn for his organizing effort and his telescope display, to Terry and Ruth who provided a welcome meal for a group of hungry astronomers, and to Mark and Sue, and David, and Leo, all of whom made

contributions in many different ways. (To those who completed the public survey, we should also say, "Thank you!" and to all who took part, except perhaps the light-fingered someone who took part - of a beautiful poster display! We hope those magnificent photographs remind him to observe the real thing sometime!)

International Astronomy Day 1984 was indeed a successful experience for the members of the Kingston Centre, and there have been several comments about its being the best one ever organized in the area. Like the concept of the day itself - internationally - our event too, is becoming bigger and better every year.

The 1984 General Assembly

This year's General Assembly of the R.A.S.C., a joint venture of the Hamilton and Niagara Centres, with most events being held on the campus of McMaster University, was another of the distinctive and memorable annual events of our society. It was a gathering of the "Clans Astronomical" that brought together amateurs and professionals from all parts of the country for four days of meetings, lectures, good fellowship, and renewed acquaintances.

All of the events were well-organized and smoothly run - evidence of long and careful planning by the organizers. The food (always a major consideration for hungry astronomers) was excellent and plentiful; in fact, it was the first General Assembly ever to have two major banquets and an additional food-laden, Friday-night festival called "The Barbarian Bash". Even the weather was cooperative, allowing a late-night excursion to the Hamilton Centre's Observatory. Certainly one of the highlights of the event was the interesting talk and slide presentation by one of the Canadian astronauts, Steve McLean, a keen, dedicated young man who impressed his audience with his frank and open discussion of the rigorous, demanding life he has chosen. The Awards Banquet, too, with its recognition for the fine displays that had been assembled and with the presentation of six Service Awards to very deserving members from across the country, was a memorable part of our Canada Day visit to Niagara Falls, a visit that had earlier included tours of the tunnels under the falls and to the heights of the Skyton tower. Being hit by the mist and spray from the waterfalls was a welcome experience on a hot and humid afternoon.

When compared with our attendance at the General Assembly last year in Quebec City, Kingston Centre's participation was perhaps disappointing, but last year's effort was certainly exceptional. Though our numbers were down, it was encouraging that papers were given by two of our members. David Levy's talk was entitled, "A Comet And Meteor Observing Program", and Leo Enright's presentation was "Newly Named Lunar Feature Commemorates Canadian Astronomer", a review of the life of the late Dr. C.S. Beals, former president of the R.A.S.C., and information on the lunar Crater Beals.

From those of us who attended, a hearty "Thank you" should be passed along to Peter Ashenhurst and Charles and Debbie Fassel and all of the Organizing Committee for "G.A. '84". We will remember it as a pleasant, interesting, and lively event.

Report of The Two National Council Meetings of June 1984

Two meetings of the National Council of the R.A.S.C. were held on the occasion of the 1984 General Assembly. The first was on Friday, June 29, and the second was the following day, immediately after the Annual Meeting of the Society. The location was Brandon Hall, Room 112, on the campus of

McMaster University. National President, Mr. Franklin Loehde, presided at the first of the meetings, and after the new slate of officers had been put in place at the Annual Meeting, Dr. Roy Bishop, known for a number of years as our Handbook Editor, and now the new President of the Society, took the chair for the second meeting. At each of the meetings, fifteen of the twenty centres of the Society were; represented.

The agenda items of the first meeting included reports from all of the officers and standing committees of the Society as well as a number of important decisions. A motion was approved to set up a Constitutional Committee whose members would examine a draft proposal of a possible set of By-Laws which had been offered by the Society's solicitor as ones that might be used by Centres - in an effort to streamline the procedure of assuring that By-Laws of Centres were not in conflict with those of the National Constitution. Dr. Percy presented to Council a short document containing a list of dates, month by month, which members of Centre Councils ought to keep in mind in order to meet the various annual deadlines of the Society, and the document is to be sent out to all of the Centres. Council received a report of the awards given for astronomy - related projects at the Canada - Wide Science Fair. Approval was given for the purchase of a subscription to the Dark Skies for Comet Halley Journal which could be useful for members and centres in planning their activities over the next two years. Applications for membership in the Society by thirty-one unattached members and three life members were also approved by Council.

The Treasurer presented a financial statement covering the first four months of 1984 and asked for approval for a Special Projects Grant to assist the Winnipeg Centre in the publication of an astronomy booklet for children; approval was given for a grant of \$200.00 from the Ruth Northcott Fund. The Editor of the Observer's Handbook reported that work was proceeding with the 1985 edition which should be issued by mid-October, and he requested approval of a price schedule which included a slight price increase to \$8.50 per single copy. The schedule was approved and ways were considered to improve sales of the Observer's Handbook. The Astronomy Day Coordinator noted that he was quite pleased with the effort made by many of the Centres to have interesting, sometimes quite ambitious, undertakings for the last Astronomy Day which had been in May. To do as well next year in our centres' efforts at public education, planning should begin as soon as possible for International Astronomy Day 1985 which will be on Saturday April 27th.

Mr. Broughton announced his resignation as chairman of the property committee and reported that some final complications in the purchase of the Society's property on Dupont Street had been resolved. Announcements from the chairmen of both the Historical Committee and the Library Committee stated that some preliminary thought had been given to a possible reorganization of the National Library, with the idea of perhaps making it a resource library for both historical works and works on observational astronomy, but such discussions were at a very preliminary stage and comments were invited from interested members of the Society. The Speakers' Exchange Committee asked for approval by Council of a number of proposals which would make it easier for members of more of the Centres to travel from one city to another under the Speakers' Exchange Program. Approval was given for the proposal, the details of which are in Section 7(i) of the Minutes of the meeting.

At the meeting of Saturday, June 30th, Council appointed its standing Committees for the year 1984-1985. These were the Executive, Editing,

Finance, Property, Library, Historical, Budget, National Newsletter, and Awards Committees. Approval was given to setting up a committee to investigate the use of computers in linking the centres of the Society.

A decision was made to accept the invitation by the Winnipeg Centre to host the General Assembly in 1986 from June 27th to July 1st, at the University of Manitoba.

In order to investigate whether there should be other ways of giving unattached members a representation at National Council, a committee was established and asked to report its findings to the January 1985 Meeting.

There was a discussion of closer cooperation between the Historical Committee and the Heritage Committee of the Canadian Astronomical Society.

For his work in arranging the CPR for the permanent loan of a valuable railway clock, to serve as a reminder of Mr. Malcolm Thompson, Past President of our Society and member of the Dominion Observatory's Time Service, the members of National Council extended a vote of thanks to Mr. Creighton who had given considerable effort toward this project.

Details of the items discussed at both meetings may be found in the minutes of the meetings which were mailed to all Centre Presidents and National Council Representatives. The full reports of the committees referred to above may be found in the appendices to these minutes.

The Minutes of the 1984 Annual Meeting of the Society, held on June 30, 1984 will be published later this year in the Journal of the R.A.S.C.

The ALPO Comets and Meteor Sections

by

David H. Levy

As some of you may know, I was invited last summer to become the Recorder for the new Meteor Section that the Association of Lunar and Planetary Observers (ALPO) had created. The aim of the section would be to stimulate amateurs to observe meteors on a regular basis and to reduce their data so that it would be easily useful and available to professional astronomers. We have made some progress in organizing the section, but basic work still needs to be done in getting a staff together to work out the details of data reduction and analysis. Also, work has begun on a meteor handbook.

More recently, I have been asked to head the Comets section as well, and with excitement building for Halley's return, I consider the Comets section to be quite important. As with meteors, we are building a staff to handle reductions and analysis, but unlike meteors, the purpose of the comets section still remains to be defined. Capable organizations like the International Comets Quarterly and the International Halley Watch have been dealing with comet data for some time, and it will be the goal of an expanding ALPO comets section to work with these groups and complement the work they are already doing. Our work will be challenging, and I do suspect that once our observing procedures are set, the amateur community will have a unified way to communicate with their professional colleagues.

To serve the needs of both ALPO sections, I have established a newsletter called, somewhat facetiously but perhaps appropriately, "Tails and Trails." It will attempt to serve the scientific and social needs of members of these sections. If you wish to receive it, you should do two things: first, join the Association of Lunar and Planetary Observers,

and second, send me a request to receive Trails and Tails, with a supply of stamps. I will try to publish T&T "every now and then and sometimes of oftener"

Of all the bodies in the solar system, the smaller ones, represented by comets and meteors, have always fascinated me. I am glad that the ALPO is committing itself to serious work in this direction, especially since comets and meteors are two areas that still offer fruitful work of scientific value that competent amateurs can accomplish.

For Your Compenium of Esoteric Facts

For our esoteric fact this month we ask the question: "Do you know what led one of the great 'asteroiders' of the modern world to his interest in the subject of asteroids or minor planets?" Before stating the answer I should make it clear that the well-known "asteroider" is Dr. J.U. Gunter of Durham, North Carolina who has been interested in the subject since 1968 and publishes a regular bulletin, Tonight's Asteroids, which he mails free of charge to interested amateur astronomers around the world. In fact, to recognize his contribution to the study of asteroids, the International Astronomical Union in 1980 named one of the asteroids after this man and his publication, calling the asteroid JUGTA; it is asteroid number 2136. Dr. Gunter's interest in the subject began in 1968 when he received a copy of the book called The Observer's Handbook - 1968 (yes, published by the Royal Astronomical Society of Canada). In it were finder charts for the Big Four Asteroids; he used them to find Ceres and follow it for several nights. He shared his interest with others who were in an astronomy course at that time and his enthusiasm for asteroids has never ended.

Reports And Other Items

1. The premier observing report received over the past few months was that contained in a letter from Gus Johnson that arrived on July 12th. Mr. Johnson reports that on June 15th using a 6-inch and on June 19th and 26th using an 8-inch telescope he saw a faint glimmer along one side of the spiral galaxy, M100. The object was of magnitude 14.8 and Mr. Johnson suspects it might be a supernova. To my knowledge, this "supernova suspect" has not yet been confirmed and the Coma Cluster of galaxies of which M100 is a member is quickly slipping down into the western twilight at sunset, a fact that may make confirmation of the sighting impossible for several months.

Anyone who might doubt the importance of this "suspected discovery" should be reminded that it was Mr. Johnson who made the discovery of a supernova in 1979, AND IN THE SAME GALAXY, M100. Visual discoveries of supernoval are very rare; for one person to claim two would be astounding; for it to be two in the same galaxy - well, the odds against it would be astronomical! As David Levy has said to me, "Mr. Johnson knows that galaxy very well." I hasten to reply, "That's an understatement, and it applies to many areas of the sky." I thank Mr. Johnson for the detailed drawing of the galaxy which I received from him and I hope the sighting can be confirmed before too long.

Mr. Johnson also reported seeing SS Cygni at magnitude 8.3 on June 26th a rise in brightness of the famous variable that led to his reporting the event A.A.V.S.O. headquarters, where reports

of the next rise were being awaited because the star was going to be under observation by both the IUE and Voyager satellites. Earlier he had reported a lunar observation made with his 6-inch telescope at 220 - power, seeing eleven small craters inside the Crater Ptolemaeus.

2. Observing the solar eclipse of May 30th was a "mixed-bag" for many of our observers. Mr. VanAsperen, who travelled south to Virginia, was clouded out. Martyn McConnell reported an extended period of clear skies for photographing the event. Terence Dickinson, also, had more than an hour of completely unclouded weather. Further north, your editor, however, managed a dozen or more glimpses of the phenomenon and found photographing it extremely difficult when the breaks in the thick clouds lasted only a few seconds each. Of all the eclipse reports received the most interesting one was from the Toronto Centre members who managed to place themselves in the path of annularity in the southern U.S. and reported being able to see the solar corona, not when viewing with the naked eye, but when looking through the view finders of their cameras. There were also reports of the shadow bands having been seen.

During the month of June I managed to observe and photograph sunspots on 23 consecutive days beginning on June 2nd. The photographs provide a good way of observing solar rotation and the day-to-day growth or decrease in size and number of the spots.

On the night of June 16-17 I had the chance to observe with the Tamworth Boy Scouts and Cubs at their campsite. The enthusiasm of Scouts and their leaders, on seeing Saturn, Albireo, or M13 for the first time in a 4-inch telescope, is very interesting.

3. We extend our thanks to Terence Dickinson for coming to our centre meeting on June 22nd and presenting a slide show of his recent trip to the CFHT in Hawaii. He gave us an insider's view of the Canadian astronomers who work on Manna Kea, and the photographs were excellent.
4. Our trips to the Holleford Crater this summer include one on Sunday July 22nd with some members of the Syracuse Astronomical Society and on Saturday July 28th with a few of the members of the Toronto Centre.
5. For those who are able to do some travelling this summer, I pass along a reminder of the fiftieth anniversary of Stellafane, the Convention of Amateur Telescope Makers on Breezy Hill in Springfield, Vermont on July 28th and also the Syracuse Summer Seminar on August 24th and 25th at Darling Hill Observatory in Vesper, New York.
6. Here is a list of events to consider observing in the next two months:
 - (1) Although the full moon in August occurs at the time of the peak of the Perseid Meteor Shower, and it may be a problem for observing on August 11th and 12th, the shower is spread over a good number of days and careful Perseid observers may see meteors a week or more before or after the peak of the event. Last year I saw members of the shower two weeks or more before or after the event and the same may be expected this year.

- (2) The increasingly rapid movement of Mars bears watching as it swings through Libra, Scorpius, southern Ophiuchus, and into Sagittarius over the next few months.
- (3) The libration of the Moon in the first few days of both September and October provide us with the best occasions of the year for trying to observe or photograph the newly named Crater Beals which has been called after a distinguished Canadian astronomer who was National President of our Society in the 1950's. Please contact me by writing or by seeing me at one of our meetings if you want details about how to find this crater.
- (4) Try to see how many of the planets you can see during the last few days of July and the first part of August. I have read that this current "Congregation of the Planets" within 110° of sky from Venus and Mercury in the west to Jupiter in the east makes it possible for all of them to be seen. That is in "theory"; in practice, it will likely be impossible to see Venus which is still too low in the western evening sky. Mercury, too, will be almost impossible to see unless all the circumstances are unusually good, even though it is at greatest elongation from the sun on August 1st.
- (5) Just as in February it was possible to see the Zodiacal Light in the west after sunset, so in late August and September it is possible to see it in the east from two hours to one hour before sunrise. See if you can see what many years ago the poet Omar Khayyam called the "false dawn".
- (6) Among the interesting lunar and planetary conjunctions to watch are two that should be particularly spectacular. In the early night of August 3-4, the crescent moon passes less than half a degree south of Saturn. At about 3:00 a.m. on the night of September 1-2, the crescent moon passes less than two degrees north of Mars.

7. Here is our calendar of upcoming meetings with the proposed list of speakers and topics for some of the dates:

Aug. 10	David Levy	<u>A.L.P.O.'s Meteor and Comet Sections</u>
Aug. 24		<u>Observing Session</u> (weather permitting)
Sept. 14	Leo Enright	<u>Sunspot Photographs</u>
Sept. 28		To Be Announced
Oct. 12	Mark Sorensen	<u>The Shape of The Universe</u>
Oct. 26	Leo Enright	<u>Amateur Planning To Observe Comet Halley</u>
Nov. 9	Sue Sorensen	<u>Outstanding Women Astronomers</u>
Nov. 23		Annual Dinner and Annual Meeting

Dec. 14.

To Be Announced

The meetings begin at 8:00 p.m. and are held in Room 222 in Ellis Hall on University Avenue.

8. We are always glad to hear from our readers. Our address is:

R.A.S.C. - Kingston Centre,
P.O. Box 1793,
Kingston, Ontario.
K7L 536

Clear skies!
Good observing!

Leo Enright

A REMINDER FROM THE TREASURER

Another year is almost gone. The membership fees for the upcoming year (1985) are due from the months of September through December. Thank-you for your support of the RASC Kingston Centre through the past years. Hope to hear from you soon.

Membership levels are: adult; \$25.00
youth; \$15.50
associate; \$ 6.00

Better skies for 1985 (can they get any better in Arizona?)

