R E G U L U S

THE NEWSLETTER OF THE
ROYAL ASTRONOMICAL SOCIETY OF CANADA -- KINGSTON CENTRE

MAY, JUNE, 1986

LOOKING BACK ON TWENTY-FIVE YEARS OF ACTIVITY

This is the year our Kingston Centre celebrates its twenty-fifth anniversary. Thanks to the work of Dr. A. Vibert Douglas, the Kingston Centre was formed in 1961 as the sixteenth Centre of the Society. Because of her work and that of a number of others, the Centre has flourished since that time and become one of the very active Centres of the Society.

To remind us of the events of 1961 relating to our organization's establishment, our newsletter, in its last two issues, has reprinted various correspondence and documents from the year 1961, documents obtained from the Society's archives. The first one was the report of the organizational meeting held in January 1961 to explore the possibility of setting up a Centre; with it was the letter subsequently sent to the National Office to report on that meeting. In the last issue, we reprinted a letter of February 1, 1961 from the National President, Dr. Millman, expressing the pleasure of the members of National Council at hearing of the interest in forming a new Centre and extending words of encouragement to the group. A letter of March 10 from Dr. Douglas to the Executive Secretary reported the names of those serving as the first executive of the group. A reply from the National Secretary, J.E. Kennedy, on March 23, 1961 noted that 20 members of the group had been elected to membership and it was anticipated that Centre status would soon be extended to the group (after submission of an official application for such status) and "it would be a wonderful step forward in 1961."

"THE REQUEST FOR CENTRE STATUS FROM THE LEADER OF THE KINGSTON GROUP IN APRIL OF 1961

The Observatory
Queen's University,
Kingston, Ontario.
April 10, 1961.

The President,
Royal Astronomical Society of Canada,
Toronto, Ontario.

Dear Doctor Millman:

This is a formal request for the recognition by the Council of the newly formed Centre - the Kingston Centre.

The proposed Constitution is enclosed. [The deleted phrases had reference to the student club within the Centre which has received campus recognition.]

Mrs. Fidler has the names of the officers and the members to date.

Sincerely yours,
(Signed) A. Vibert Douglas
Honorary President

Three days later (How quickly the mails travelled in the advanced society of those days!!) the National Secretary wrote his reply.

Toronto, Ontario
April 13, 1961.

Dr. A. Vibert Douglas,
Queen's University,
Kingston, Ontario.

Dear Dr. Douglas:

It is a pleasure to acknowledge your letter of April 10, 1961, and to assure you that your request for the formation of a Kingston Centre of the Royal Astronomical Society of Canada will be brought before the National Council at their next meeting, tentatively set for June 2nd.

We are delighted with the progress that you have made during the past winter and would certainly be pleased to see either you or Mr. Turner present at the National Council meeting where this will receive official recognition. I realize that this time is immediately prior to the Royal Society meetings in Montreal and hence might not fit into your schedule conveniently.

The proposed Constitution of your Centre will be gone over by Dr. J.F. Heard of the David Dunlap Observatory and he will correspond with you on any changes or additions that he thinks should be incorporated into this.

With kindest regards,

Yours sincerely,
J. E. Kennedy
National Secretary

The next letter from the National Secretary contains the long awaited news:

Toronto, Ontario,
5 June, 1961.

Dr. A. Vibert Douglas,
Queen's University,
Kingston, Ontario.

Dear Dr. Douglas:

You will be pleased to know that the application of the Kingston Centre of the Royal Astronomical Society of Canada was officially approved by National Council at the meeting on Friday, June 2.

The revised Constitution for your Centre was also approved and you will find enclosed some funds which were voted to the Kingston Centre to assist the expenses of the past year. A cheque for $20. covering one-third of the fees paid to the National Office is attached as well.

With best regards, and hoping that the Kingston Centre will grow and prosper in the years ahead.

Yours sincerely,
(Signed) J. E. Kennedy,
National Secretary

Perhaps we can be proud to say that the National Secretary's final wishes in that letter have come true over the quarter-century since then, thanks to the work of Dr. Douglas and a number of others.

A LETTER FROM OUR PAST-PRESIDENT: AN ARIZONA HOLIDAY

Burnaby, B.C.,
Mar. 28, 1986.

Dear Leo,

There could not have been a better time than last week for me to go to Arizona. Apparently the week before my arrival (on March 19), it had been cloudy and even rained. The desert was quite green instead of its usual brown. And the day I left (March 23) was hazy again, with very thick fog in Los Angeles, moving towards the interior. But during my stay the sky was so dark and clear that Comet Halley could easily be seen with the naked eye! We got up at about 4 o'clock (Saturday the moon didn't even set until 4:50 or so) and observed until dawn at 5:15. David thought the comet was already getting fainter than it had been the previous week, and after the next New Moon it will be even fainter, and much lower in the sky. How lucky I was! Here are some photos I took, with the information written on the back of each. Halley was quite a sight through David's 16-inch reflector!

One evening we went up to the observatory on Mount Bigelow, which is right beside Mount Lemmon. Lots of snow up there; it was an interesting excursion. By then the moon was really bright already, so we didn't see any deep sky objects at that time. The few days passed quickly, but there was still time for a planetarium show (on comets, of course!), and nice long walks around the campus, or the desert near David's house, as well as just being lazy in the sunshine. Ever since I returned here, it has rained non-stop, but that's O.K. since all the spring flowers are out and it is quite warm. The trees are in blossom and we can hardly remember what those long winters in Ontario and Alberta were like!

The February issue of the Journal and National Newsletter has just arrived and I really like your photo on the cover. It's good to see Dr. Douglas in good health; do you still keep in touch with her?

I still have quite a number of classes (30 of them at Berlitz alone the week before I left); night school ends in the middle of May. Right now I'm not advertising my private classes in the paper, but I keep getting new students anyway. Word-of-mouth really seems to work, especially after 1 1/2 years. This is the ideal way to work. I have never found my teaching more rewarding and I've never seen more rapid progress in language learning than with the adults I teach. Such enthusiasm! I wasn't used to that after those years in high school.

Many greetings to everyone - Bob also says "Hello!" I can't wait to hear about Ruth and Terry's adventures in the southern hemisphere!

All the best!
Agelika.

REPORT OF THE JANUARY 1986 NATIONAL COUNCIL MEETING

The first meeting of 1986 of the National Council took place in the Library at the National Office on Saturday, January 25. Ten Centres of the Society were represented by officers or Council Representatives; one observer was also in attendance. The agenda items included reports from the officers, the standing committees, and four of the ad hoc committees.

The National Treasurer, Dr. Chou, presented the Financial Statement for 1985 along with the proposed budget for the year 1986 - both of which were approved by Council. In view of the fact that there would be a projected deficit of over $7800., the Treasurer proposed a motion to adopt a new fee schedule for the membership year 1987. The schedule which would increase the fees from $20. to $25. for regular members, from $12.50 to $15. for youth members, and from $300 to $500 for life members, was approved by Council. A motion to have the Editing Committee review the cost of the Society's publications and obtain quotes from alternative printers was approved. The Journal editor also proposed an increase in page charges, in the cost of reprints, and in the subscription price for the Journal and this motion, too, was approved. Dr. Bishop, the editor of the Observer's Handbook reported that the press run of 14000 copies of the current issue was almost sold out and the per-page cost of the publication in recent years had remained remarkably stable.

A major new venture of the Society was officially put into action though it had previously been discussed, namely, the passage of a motion establishing a committee to work on a campaign for increasing the Society's Endowment Fund. Council also passed a motion to jointly sponsor with the Canadian Astronomical Society the 1986 Helen Hogg Public Lecture which may take place in Winnipeg at the time of the General Assembly Forty-one requests for unattached membership and seven for unattached life membership in the Society were approved.

The chairman of the Awards Committee reported receiving nominations for the Chant Medal and the Service Award. As a result, Council approved the awarding ot the Chant Medal to Mr. Warren Morrison of our own Centre for his significant discoveries including those of a nova and the outburst of a recurrent nova, as well as thousands of variable star observations over the years. (Please refer the last issue of this newsletter for the full citation for Mr. Morrison.) The Society's Service Award was approved for Mr. Randall Brooks of the Halifax Centre for his long service to astronomy and on behalf of the Society in the Halifax Centre for his long service to astronomy and on behalf of the Society in the Halifax area where he had assisted in the establishment of satellite clubs and vigorously promoted astronomy in the schools and among young people.

The Computer Use Committee recommended for the National Office the purchase of an IBM-compatible computer made by Compaq along with a suitable word processor and related hardware to a maximum of $7200. The chairman of the Gold Medal Committee reported on the progress that had been made to cosponsor with the Canadian Astronomical Society a new national award for a graduate student in astronomy, and Council approved in principle such a sponsorship.

Among other items considered was a request, which was approved, from the Quebec Centre for a grant amounting to $350.00 for the publication of its Almanach Graphique. Council also approved for mailing to Centres the information package for International Astronomy Day on April 19, and the coordinator informed Council that in 1987, Astronomy Day would be on May 9. Approval was given to an invitation from the Victoria Centre to hold the General Assembly there in 1988 as a joint meeting with the Astronomical Society of the Pacific.

More complete details concerning all of the items discussed and the motions passed at the meeting may be found in the minutes of this meeting which in the possession of our Centre President and our National Council Representative.

INTERNATIONAL ASTRONOMY DAY IN KINGSTON

On Saturday, April 19, 1986, the members of the Kingston Centre enjoyed another of their successful International Astronomy Day celebrations, the eighth since beginning such endeavours in 1979. Once again it was the cooperation of many of our members that made both of our events very successful ones.

For the first of the activities, the mall display, the setting this year was the Frontenac Mall, a site that we had not used for such purposes in several years and this year's display, though not the biggest one ever mounted, had probably the best display of astronomical equipment ever seen in the area. Over a dozen telescopes, including our Centre's 10" Newtonian with its new Dobsonian mount, were on display. The exhibit format - with the telescopes roped of in their own area - was a significant innovation for such events, and in the minds of the telescopes' owners something that meant considerable "peace of mind" - rather than having to be ever on guard to protects expensive instruments from six-year-olds who failed to resist the impulse to do chinning exercises on the upper end of the telescope tubes. (Such did occur on at least one previous occasion.)

It was a long and tiring, but rewarding, day as several members spent many hours meeting the public, discussing our projects, talking about the Society and our activities, and general being "ambassadors for astronomy". Hundreds of pages were distributed free of charge - two sets of pages on the problems of light pollution, information on Halley's Comet and a star map, observing information for the current month, information about the Society and benefits of membership, and on the upcoming meetings of our Centre. The publications of the Society were on display. A display featuring information on observing Halley's Comet was very popular, as was a quiz competition on the same topic, especially since there were prizes to be won for doing well on the quiz - four large Halley Posters donated by Perceptor of Toronto.

The weather was cooperative during the day and allowed for a one-hour solar observing session, thanks to Brad Baker, who used his telescope to project the solar image and allow two large sunspots of the then current group to be easily seen by anyone who cared

to take notice as the shoppers passed near the south entrance of the mall.

The two nationally stressed themes of the day were highlighted. Halley's Comet and the prospects for viewing it over the next couple of months was the most frequently mentioned topic; few people who talked with any of us did not mention it at one time or another. The second theme, the problem of light pollution, received its proper emphasis also (as it will have to over the next decade by all of our Centres); thanks in part to the material prepared by our president, David Stokes, there was a clear, well-written statement about a situation that must be confronted. Putting that information into the hands of the public is a most important part of what astronomers of this decade should be doing more and more.

The second event, the star night at Fort Henry, was far more successful than would have been expected at its outset. In the early evening, thick horizon haze and scattered cloud made the whole event seem "ify". Those who did not lose faith in the situation were eventually rewarded, some with views they would never forget. There were seemingly endless lineups at the telescopes even if the objects were "only" Alcor and Mizar or relatively bright stars, which, because of the conditions, were the only objects seen in the early evening. Thanks to the fact that "The Comet" had been easily visible the two previous evenings, I spotted it, with binoculars, again at 10:10 p.m., and from that moment on there was absolutely no question what was the object that everyone wanted to see. Until 11:00 p.m. the skies were less than ideally transparent (1) in the southern part of the constellation Hydra, as our 10" Newtonian and other instruments sought their quarry, but dozens and dozens of eager individuals were not prepared to go home without a good view. As midnight approached the southern sky suddenly became much clearer, and thanks to the fact that Larry Manuel and Mark Sorensen were there to assist, we showed "The Comet" to the "endless lineup". One of the most memorable moments of the day occurred at a few minutes before midnight when a car sped into the parking lot and over to our observing site; an eager driver bounced out, saying, "I want to see Halley's Comet again. The last time I saw it, I was seven years old and living in Dublin, Ireland." Standing at the eyepiece of the 10", I said, "Right this way, sir. Here it is." In two seconds, he was looking at something he hadn't seen in seventy years, though he had been a planetary observer over the years, as I later learned, since he stayed around for another half-hour to observe Saturn and several of its moons. At 12:30 the happy gentleman bounced into his car and it sped off, and out to the highway. It was not the first time that I have met a most interesting person and heard an entertaining story on Astronomy Day! The exclamation of delight, whether at seeing Saturn for the first time, "splitting Mizar" as never before, or viewing Halley for the first time (or the first time since Dublin in 1910) - these are all rewards we experienced that evening. A fitting conclusion to International Astronomy Day, 1986 - the year of Halley's Comet.

A special thanks must go to all those who helped to organize and participated in the events by bringing equipment and displays, to Brad, Hein, Jean, Marty, David, Leo, Larry, Mark, Donna, Eric, and others. Such cooperation makes possible a real sense of accomplishment.

LETTER FROM OUR BUSY OBSERVER IN MARYLAND, U.S.A.

[EDITOR'S NOTE: Once again I am pleased to print part of a letter from Mr. Gus Johnson, one of several received since the a previous one was printed. Perhaps at a future time, with his permission, I shall also print some of his articles entitled "The Little Lens" which describe deep sky objects of various kinds to be seen in a number of constellations and all of them observable with a small instrument. His most recent articles are about objects in the constellations Leo and Leo Minor.]

Swanton, Maryland,
April 27, 1986.

Dear Mr. Enright,

The Comet is putting on rather a good show now that it has departed the far southern climes and is appearing at hours when we are still awake. Last night I felt it was the best I had seen it so far, showing a tail of 3 - 3 1/2 degrees. I took several photos using my altazimuth method. Still, many claim people claim not to have seen it yet. I

invited some, but they find the allure of the empty vistas of the TV screen more to their liking. I can't understand it. As a teacher it is often frustrating to try to impart a desire to learn, but now I see that as the parents are ,so are the children. If they don't want to share the riches, why force them?

I think I wrote you about my Comet Watch at Canaan Valley State Park, in West Virginia, in March. From the copies enclosed you can read about the recent one in which I took part, having three programs each of the two nights. [See the article below. Ed.] The comet was so far down that viewing there was very poor, but everyone seemed to be happy. It was nice to be with people enthusiastic to observe, for a change.

Friday April 18 offered three meeting at the same time, one at the Pittsburg club, another being a comet watch near my hometown, and the last the regular meeting of the Cumberland, Maryland, club, this time held at the Frostburg planetarium, followed by a comet watch, using their 17 1/2" Odyssey (and my 2.4" refractor at 25X). With the moon so bright, little was seen of the comet: a fuzzy ball, but binoculars could pick it out. After all had seen the comet, I found M65 and M66 in the 17 1/2", but could not find them in my 2.4". The viewing area was surrounded with mercury lights effectively shielding us from muggers and the night sky. The big telescope was turned to the moon, and the Straight Wall was seen. I could pick out the little rill close to Birt. The following night, at home, the seeing was better than normal; so at 196X, my 6" could see two landslips inside Birt.

The weather this April has been very warm and dry to cold and snowy. I saw snow lying on the ground on the 21st. The moonless nights have often been clear; so I could observe effectively getting down to mag. 14 with my 6". Even wiht a 16 1/2-day moon just above the horizon last night I was seeing to mag. 13 with the 6" reflector.

I am enclosing a copy of the latest constellation study: Leo. I am surprised how many objects can be seen even in a 7 X 50, usually overlooked in binocular guide books.

A private comet party is planned for May 2 near Pittsburg. The comet should be nicely visible the following weekend, but I am keeping that one open. I know the Pittsburge parks would like a public viewing, but May 10 also is the night of a performance of "Rigaletto" in Pittsburg, which I'd like to attend. It seems that neither the comet or the opera favour the next weekend, when the moon is at first quarter.

It is so good to see spring return, to have lawns show new green, and a few wildflowers emerge, in spite of occasional lashings by wind and snow as winter reluctantly departs.

Clear skies,
(signed) Gus

THE HALLEY'S COMET FESTIVAL AT BLACKWATER FALLS STATE PARK, W. VA.

What a busy and delightful weekend was April 11_13, 1986, as I helped W. Va. with their "Halley's Comet Festival", rather like the Comet Weekend at Canaan Valley State Park in March, but this time at Blackwater Falls State Park. Many more activities were planned. I was to provide a slide show about stars, wildflowers, and birds, an evening star party, and at midnight a comet watch on each of the two nights. On the 12th Senator Jennings Randolph joined us and was guest-of-honour for the "Two-Times Banquet", honouring those who had seen the comet in 1910, of whom Senator Randolph was one. Later in the afternoon, Captain Jon McBride arrived by helicopter, signed many autographs, and later gave a slide program after mine. He also joined us the following day as we collected material for a time capsule to be opened when Halley returns in the next century. There were Halley T-shirts, artifacts of our culture, letters to our children and children-not-born, and even some hair from the astronaut. He, a W. Va. man, had a W. Va. cowlick; so, it was snipped off and put in an envelope. Then after lunch, the captain sailed off into the skies. Our comet watches started about midnight, and took place at an ovelook across the canyon from the lodge where we could look back far into the southern sky. On the first night both Omega Centauri and Halley were visible, but murk made the views poor. No tail was visible. Omega was the larger of the two objects! On the following night only one of the two was visible, and I think it was Omega. I had my short 2.4" Unitron and 1.6" Unitron and a 4 1/4" f/7 made by former member of the AAAP, Bill Herdman, of 3 B Optical of Gibsonia. Most of the forty to sixty attendees had binoculars. Everyone was glad to see something but the sky could have been much better. On the earlier of the two nights the sky did clear up nicely about 1:30 a.m. and I got nice views of some of the brighter galaxies, like M65 and M66

and M51 with the 2.4". The 4 1/4" was added the second night. There were not enough to staff the instruments on the earlier night. So many crowded around the telescope, running into it, tripping over the legs, knocking the 'scope off the object that one scope per operator was the only feasible modus operandi. An amateur astronomer from Cassaway, W. Va. assisted me at the 4 1/4" on the latter night. He was Randy James, who also had a C-8, but it was too massive to lug all the way from the parking lot to the overlook; besides the very low position of Halley was better served with a more portable wide-field instrument, but the C-8 did give some nice galaxy views at the Saturday night star party in the lodge's parking lot. I had hoped to take some photos of Halley, but neither night was of adequate clarity.

For all the publicity Halley received, April was not a good time for festivals for us who live in the mid-latitudes. We should not neglect early May. We hope the nasty weather will be far behind us. The comet will be more comfortably positioned and at a more convenient hour of the evening; so, many more could get a chance to see it. Many have been glad to see it, but many more have been lead to expect much more than the meagre views usually obtained. We could give Halley a decent farewell. ...Gus

---

CONGRATULATIONS FOR HALLEY PHOTOGRAPHS

Most of us have to be contend to view and photograph Halley's Comet with modest amateur equipment. Not so our Vice-President David Levy, who has recently been using the University of Arizona's 61-inch telescope to view and record detailed images of this famous visitor from the outer solar system. Working with Stephen Larson and employed by the University's Lunar and Planetary Lab, he has succeeded in obtaining stunning photographs actually showing a sharp jets of material spurting far out from the nucleus of the comet - over 200,000 kilometers in length. These jets have assisted in confirming the rotation period of the nucleus of the comet at a little more than two days.

Examples of these photographs may be seen on page 241 of the March issue of Sky and Telescope and page 84 of the April issue of Astronomy.

Congratulation from every member of our centre goes to David on this ourstanding photographic achievement. It is a very significant accomplishment in astronomy to have photographed the nuclear jets of a comet.

While mentioning this matter we should also congratulate our friend and former Centre member, Rick Hill, for his superb Halley photograph which appears on page 320 of the March issue of Sky and Telescope and page 83 of the April issue of Astronomy. This photo shows amazing detail in the tail of the comet including a prominent knot which seems to have broken away from the main part of the tail.

Also of interest to members of our Centre will be the article about "Award Winning Amateurs" on page 505 of the May issue of Sky and Telescope. It includes photographs of David and Rolf Meier receiving the Tuthill Award for their comet discoveries.

Congratulations, David! Important achievements!

FOR YOUR COMPENDIUM OF ESOTERIC FACTS

Even with all the stars at the dense central region of our Milky Way Galaxy, it is estimatie that stars collide only once every one thousand years. At that rate and comparing with the number of automobiles that have existed since their invention and are likely to exist in the future, we could say that if they were to collide at the rate that those stars collide, there would still not have been one single automobile collision and we would still have to wait TWO MILLION YEARS for the first automobile collilision!

REPORTS AND OTHER ITEMS

1. Amid the bad weather of April, there were several brief periods of very good viewing for those interested in seeing Halley as it swung up through the constellations

Centaurus, Hydra, and Crater. Among them were the evenings of April 26, 27, and 28. On the latter of these nights the transparency was superb and I was able to see fully 4 1/2 degrees of the comet's tail in binoculars. The Zodiacal Light was excellent and it was even possible to see the so-called "light bridge" extending from the edge of the Zodiacal Light in the west through the northern part of the constellation Leo and to the Gegenschein in the northern part of the constellation Virgo and Libra. If only such amazing transparency could be enjoyed more often.

On the night of May 2-3, your editor saw a very bright band Aurora, such as he has seen on two other occasions. It was observed from 2:20 to 2:40 UT stretching from the western to eastern horizon and 5 to 10 degrees in width, crossing the sky south of the zenith and through the northern part of the constellation Leo and in Leo Minor. For about two minutes there were very bright bars or "steps" in the band in the area of the constellation Leo.

2. Unfortunately (or fortunately), there have been no entries received in the Spot The Errors In The Handbook Competion - at least not before the deadline, and not even up to the present time, and so, your editor will be making no prize presentations in this matter this year. "Maybe next year!" "But keep looking!" Perhaps it means that the Handbook is getting close and close to perfection.

3. We welcome Dr. Chestnut, of the Mathematics and Statistics Department at Queen's to membership in our Society. We hope he has many enjoyable years with our group.

4. We all extend a very special "Thank you!" to Larry Manuel for the hours of planning and work he put in, in order to change the Centre's telescope mount to a compact Dobsonian. Its performance on Astronomy Day showed this writer that it was well done, and he expects that we should have many years of happy viewing with a very good telescope. It remains only to purchase a good 2-inch eyepiece to turn it into a top-notch instrument.

5. Several objects are well worth observing over the next two months (i) the planets Mars, Saturn, Uranus, and Neptune are well placed for early night observing. Jupiter is soon to move into a similar position in the sky. Pluto has just passed opposition and is well placed for those who have a larger telescope. Of course, Venus, too, has been very obvious in the western evening sky. In other words, all the planets, except Mercury, are in favourable positions in the sky. By late June, even Mercury will be in a good location for observation, in the western sky after sunset, especially about June 26 when it is close to Venus and Castor and Pollux and forms a string evening object near them. (ii) Continue to try to observe Halley for as long as possible as the sun moves closer to its region of the sky. (iii) It might be a good time to renew your plans for observing your own small section of the sky, as arranged in our Sky Sector Project of a couple of years ago. (iv) Though reaching their maximum on May 22 and shortly before full moon, the Lyrid Meteor Shower should not be totally neglected.

6. Here is our calendar for upcoming meeting dates, with the guest speaker and proposed topic listed where these are known:

May 9	Murray Anderson	Mars
May 23	Peter Jedicke	Kingston-London Centres' Exchange Lecture
June 13	OPEN	
June 27	Doug George	Kingston-Ottawa Centres' Exchange Lecture TOPIC: Deep Sky Observing Techniques
July 11		General Assembly Reports
July 25	OPEN	
Aug. 8		Stellafane Reports
Aug. 22	OPEN	
Sept 12	OPEN	
Sept.26	OPEN	

7. Your editor would like to hear from the readers of these pages more often. Our address is:

R.A.S.C. - Kingston Centre,
Box 1793,
Kingston, Ont.
K7L 5J6