

R E G U L U S
THE NEWSLETTER OF THE
ROYAL ASTRONOMICAL SOCIETY OF CANADA - KINGSTON CENTRE
JULY, 1979

Some Unusual Educational Activities
Of The Kingston Centre

(The following article has been contributed by David Levy, who was largely responsible for the work associated with the three educational undertakings here described. The centre greatly appreciates David's work in the projects.)

The Kingston Centre has recently been involved in three educational projects, including an astronomy presentation at Millhaven Penitentiary, a course in observational astronomy for the Kingston public, and a role in the Astronomy Day of the Kingston and District Science Council.

The most unusual of these projects involved the inmates at the Millhaven maximum security institution. For some time I have felt that an astronomy presentation might be well received at that institution, but the logistics of gaining entry were formidable. When I first asked to present an astronomy programme there, the application was transferred to the prison chaplain on the premise that both he and I "have to do with the heavens". After some months the application was finally approved, and with some hesitation I entered Millhaven on the evening of Friday, May 11, 1979, with our Centre's slide show about the recent solar eclipse.

About twenty inmates were gathered in -- of course -- the prison chapel for the presentation. The odds were against success, for on the same programme that evening would be a film about rock music. No guard was present, so that the dialogue could proceed unheeded between the inmates and me.

And it did! I began by describing why people enjoy and study the night sky. Then I explained the mechanics of solar eclipses, and it was at this point that I realized that I had underestimated the sophistication of this audience. They wanted to know precisely how often eclipses occur, how they can be predicted, and how dark the sky around a totally eclipsed sun can become.

The presentation of the slideshow itself was also unusual. The men did not wait until the end to ask their questions. "How long did totality last?" "How long did the entire eclipse last?" were common queries, as were questions about the filtering system I had used on my telescope. Some of them remembered that the clouded sky over Kingston did not darken significantly at eclipse time.

The interest that the slides generated seemed genuine, as some inmates continued to ask me questions about astronomy during the rock music presentation.

Our second project was a course in observational astronomy that was first conceived to raise funds for our telescope. What was unusual about the course was that it emphasized observing, and the techniques an amateur might use in watching the heavens. To accommodate this emphasis I taught the course from a suburb of Kingston where the night sky is quite dark, and where the eight participants could get plenty of telescope practice by choosing from a collection of over twenty operational instruments ranging from an eighteenth century Gregorian to a modern refractor, and including samples of reflectors and catadioptrics as well.

A course in observational astronomy should not rely on the ancient technique of queuing up at the telescope while an experienced operator finds the object to be viewed. We did some of that during the early sessions, but what seemed to be most effective was the "sink-or-swim" approach that I tried after the students had been exposed to a basic introduction of where the stars and constellations were. Each student had both a telescope and the freedom to find with it a choice of celestial objects. Quite often a student would have difficulty in finding something, for example, M13. The first attempt would be crowned by success only after up to a quarter hour of vigorous searching. I would then point the instrument to a completely different area of the sky, as far from M13 as possible, and, to the student's astonishment, would say, "There! Find it again." Of course, the second try would be much faster than the first and the student would leave with more confidence.

The course also tried to confront the serious problem of first-look disappointment that new observers get. They are familiar with textbook photographs of planets and deep sky objects, but when they first see these objects with the limited objectives of an amateur telescope they can be so disappointed that they might consider observational astronomy a fraud and never use a telescope again. Once more, the large collection of telescopes helped to solve this problem, for both the planets and the distant nebulae appeared different in each telescope that was used to view them. With the nebulae, the larger aperture reflectors worked best. With the planets, however, the students were delighted with the four-inch refractor whose simple and carefully made optics provided depth and contrast to the images of Jupiter and Saturn.

In the third project, the Kingston Centre's role was that of assisting, for this was an "Astronomy Day" that was sponsored by the Kingston and District Science Council under the enthusiastic direction of Dr. James Allen and the Physics Department of Queen's University. On Thursday, February 22, we assembled at Queen's with as many telescopes, cameras, and binoculars as our limited transportation space would permit, and once again we aimed for variety in ages and types of observational equipment. The morning session involved several hundred pre-teen children, most of whom had just been filled with overdoses of warnings about "the dangerous rays that appear during eclipses". The morning began with a short "keynote speech" during which I tried to fill their young minds with enthusiasm for a friendly universe. This included eclipses, and we offered a reasoned and informed approach to their danger. A fear-induced approach could have repercussions that would extend to a child's appreciation of all nature, and we found that by explaining the mechanics of eclipses, most of the children left with mature views of how eclipses happen and of how they might be dangerous.

During the course of the morning, the children were divided into several groups so that they might learn more about the aspects of astronomy in which they were most interested. The afternoon session followed the same procedure, but the children were from senior levels of high school. Each child had to choose three areas of interest from a list that included such topics as eclipses, telescopes, radio astronomy, navigation, and galaxies.

The Kingston Centre would like to thank the officials and inmates of Millhaven Penitentiary for their cooperation in our programme there. We also owe much appreciation to Dr. James Allen, whose assistance and inspiration helped make our role in Astronomy Day a successful one.

Hospitality In The Gatineau Hills

The hair-pin turns came at me one after the other. The road snaked, and dipped, and shot up and down. Sometimes I had a good view of the hood of the car as the road dropped off out of sight at the top of a hill or skittered to the right or left around a big tree. The road seemed to be a snakes dream. It was like that for miles and miles. Was this a European Alpine road rally? I did not even have a navigator - just some directions scratched on a piece of paper and one part of them was wrong. However, I kept going, and luckily, before the gas guage said "Empty", I saw something that told me I was just about where I wanted to be. I had spied an orange van parked beside a large brown cottage.

The ventures on that incredible, narrow road were all worthwhile. I was about to sample the hospitality offered to me and a good number of others by David Levy at his cottage in the Gatineaus of Quebec. The place has a setting of great beauty. The cottage with its fine fireplace and spacious deck, with room for telescopes, overlooks a secluded, calm and incredibly peaceful lake, and it is all miles and glorious miles away from neon, mercury-vapour and other types of urban light pollution.

It was June 23rd and this was the second weekend of the summer that David had invited members of our centre to come and spend some time and do some stargazing at his Gatineau hideaway. Others had gone there for the other weekend but I had decided to go for a short while during the solstice weekend. After all it was our Centre's third Solstice Celebration and on the previous two I did not have to travel nearly as far. (It may be noted in passing that other centres are taking up our tradition. The names appear to vary slightly but they seem to be along this line: "The Summer Solstice Celebration (With Optional (of course) Debauchery and Sacrifice!).

The weather was not completely cooperative for the last weekend in June but a group of amateur astronomers could do what they love to do - talk about their interests, look at telescopes, and ramble on with astronomical gossip and speculation.

It was my first opportunity to meet the Carl Jorgensen family. Carl has ^{been} a newsletter editor and associated with the Montreal Centre for a long time. Peter and Dianne were there all the way from London. Enrico, Sheila, David and I (for a short while) represented the Kingston Centre.

Among the more interesting things that were done was making contact with still another centre. Spurred by the strong influence of an overpowering fit of whimsy, we phoned Al Dyer in Edmonton and gossiped with him for a while. (Don't say that a conference call involving ten centres won't someday be a part of the Solstice Celebration.)

We hope that Peter was not too offended by all the "kidding" that took place. It is not often at meetings of any kind that Kingston Centre members outnumber those from the other centres present and we seem to take advantage of it. Anyway it was good to see Peter and Dianne again, even if in canoeing on Lac Levy they paddled at cross-purposes. Those pancakes, also, must have been of acceptable quality for the latest rumor has it that P. J. and D. V. K. and others from London may find their way up to the cottage some weekend about mid-August.

I am sure that those who came to the cottage from Montreal, London, and Kingston would all like to thank David for the hospitality he offered at that beautiful Gatineau lake.

The 1979 Holleford Outing

A second outing of the summer, a trip by some members of our centre to Holleford Crater, was also a chance to explore a very interesting locale. It took place on Sunday, July 8th, and in some ways was similar to our first trip to our nearest confirmed meteorite crater, the one taken by some members of our centre in 1977. This time it was a chance for Mike Lyte, and David to explore the crater for the first time.

Photographs were taken at the new plaque, at drill hole number one, and number two, at the mid-point, and at various other places. It is pleasant to see that the plaque, at one time sadly vandalized, has been replaced by a beautiful historical plaque near the crest of the rim at the south-west edge of the crater.

Once again we are reminded that our centre has in its "backyard" the second oldest of the continent's recognized meteorite craters something that we could well display to visitors from other centres, since few such sites are so accessible and easily visited or explored.

For Your Compendium of Esoteric Facts

Here is another fact to add to your list of esoteric information. Do not forget to utilize it at an appropriate moment at an upcoming cocktail party.

The question to ask is: "Do you know when Stellafane is held each year?" Here is your fact. Stellafane has traditionally been held each year on the first weekend in the dark of the moon after the Green Mountain corn is ripe.

For the sake of new members who have not heard of Stellafane, I will give this brief explanation. It is perhaps the most famous of all gatherings of amateur telescope makers, though it is attended by amateur astronomers with many interests. This year the 44th annual Stellafane takes place on July 28th. It is held each year at Springfield, Vermont, and was founded by Russell W. Porter, and it offers prizes in several categories for telescope construction. The word Stellafane, incidentally comes from two Latin words which can be translated "star-shrine".

Reports and Other Items

1. Within the past month, David who has done many things in astronomy, was engaged one evening in doing the kind of thing that many of us could and should be doing because it gives us practice doing what we enjoy - stargazing. On that evening David and Terence Dickinson were engaged in a friendly telescope competition using David's 4" Meade refractor and Terence's Quantum 4". Though I was not present for the occasion (although I was invited that evening) David tells me that his instrument performed very well and upheld its reputation, especially on the planets. Both were very fine instruments.

Let's see if we can add a new kind of enthusiasm to observing programs at our centre, by imitating this sort of friendly competition. Can you imagine the number of things that we could do? For example, we could have contests: (1) to get the sharpest images on a planet, (2) to find the most Messier objects in a five minute interval, (3) to be the first to find an asteroid or faint star when given its position, or when given its position on a star map.

There are many, many types of contests and games we could invent for ourselves when we get together with a couple of telescopes, or even when there is only one telescope if there is a person who can act as the stop-watch. Besides being interesting, such activities, if done properly, can increase our skill and efficiency at the telescope.

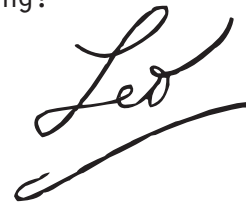
2. At the meeting on June 28th Denis surprised us by announcing his intention to resign. We thank him for all that he has done as President. As a result of his resignation there will be an election at the meeting of September 6th. Nominations may be made before that time; already one - that of Angelika - has been made.
3. A committee made up of Denis, Doug, and Mike has been appointed to deal with the question of a constitution for our centre. We hope to have a full report in September.
4. Record the meeting dates for September and October as follows: Sept. 6th, Sept. 20th, Oct. 4th, Oct. 18th.
5. There have been a few small errors in our newsletter recently. One of them was in the postal code of our new address given last month. Here it is again, with the correction. Remember, as stated last month, any correspondence to be sent to the secretary of the centre or to other members of the executive can be sure to reach its destination if addressed as follows:

Kingston Centre - R. A. S. C.
Box 141, Station A
Collins Bay, Ontario
K7M 6R1

6. While we were at the General Assembly in London, we became acquainted with a representative of an active group of astronomers that operate not too far from our own area. We learned about the Syracuse Astronomical Society through Sue Rugelis who was chairman of the annual Summer Seminar which the group had organized in June. Although David and I were invited to attend the seminar, we did not do so, but we hope that in the future we can arrange some kind of exchange or share some kind of astronomical activities, with a group whose activities may be similar to ours.
7. I hope that as many centre members as possible read the coverage given to our centre by the report in Kingston Whig-Standard on Saturday, June 30th. The pictures were good and coverage of recent activities was well done. Extra photographs are probably still available from the Whig-Standard.
8. Saturday August 4th, 1979 may be a very important date for our centre. It has tentatively been set aside as the date for a shopping mall display - at the Kingston shopping Centre. Weather permitting, we may hold a public star night the same night in Lake Ontario Park. Please be prepared to help out with both of these activities. } See #16 below
9. Did you see the interesting Jupiter-Mercury configuration low in the western sky in the early part of this month? I hope there will be some reports on it at the next meeting. I saw Mercury easily on the evening of July 3rd and with binoculars on July 5th.
10. We wish David "Good Luck" with his presentation at Stellafane on July 28th. This must surely be a first for Kingston - having an entry at Stellafane.
11. This newsletter has previously carried information about the Seventeenth General Assembly of the International Astronomical Union, to take place in Montreal this summer between August 15th and August 22nd. I now have more specific information that may be of interest to some of our members. Three of the Invited Discourses, which are open to the public, are to be given in the Queen Elizabeth Hotel at 8:30 p.m. on August 15th, 17th and 21st. They will be given by Chandrasekhar, Herzberg, and Paczynski.

12. It is pleasant for me to report that David Levy of our centre has been asked to give his presentation on teaching astronomy to children at a special one-day program organized by the I.A.U.'s Commission 46 - the Commission on the Teaching of Astronomy. This special program will be at the Université de Montréal on August 13th. It is an honour to be asked to make such a presentation.
13. We also wish David the best of luck on his move to the realm of the dry, clear skies of Tuscon, Arizona. We now have centre members spread far and wide. We hope to hear from David frequently and perhaps to receive some astro-photography of the Arizona skies.
14. Look forward to our knowledge of the planet Jupiter and its moons increasing by leaps and bounds this month as Voyager 2 swings close to the Giant Planet and its inner satellites (and extremely close to Ganymede and Europa). Indications at the moment are that things are going very well and it has already added more to what we learned in March from Voyager 1.
15. In the area of planetary exploration this has been an enormously important year, and it is not over yet. It is only about two months until Pioneer 11 is scheduled to pass very close to the planet Saturn. This may add to our knowledge of that planet and also prepare the way for the approach of the Voyager craft by providing information for its course when in the vicinity of the Great Ringed Planet.
16. It has now been confirmed that our Centre's display will be at the Kingston Shopping Centre on August 4th and Mike and I ask that all members make a contribution to it and if possible to the Star Night the same night - in one of the city parks.
17. We congratulate Leslie Roberts for being the first member of our centre to photograph the recently discovered supernova in M100.
18. We also recognize David Levy for being asked to lead the Messier Group of the Montreal Centre while he is there this summer.

Good Observing!

A handwritten signature in cursive script, appearing to read "Leo", with a long horizontal flourish underneath.