

THE NEWSLETTER OF THE  
ROYAL ASTRONOMICAL SOCIETY OF CANADA - KINGSTON CENTRE  
APRIL, 1979

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MORE ECLIPSE REPORTS

It happens that enough material has been received for a second issue of our newsletter to be devoted to the February 26th eclipse. The last issue contained a report on where members of our centre were located for viewing the event from various places in Manitoba, and there was an article in which I gave my impressions of a very memorable experience. Reports have now been received from Mike Kennedy and from David Levy. These three reports are all from people who were at different locations.

ECLIPSE '79 REPORT BY MIKE KENNEDY

My location was 10 kilometers south of Lundar, on Highway #6. The weather was 20% cloudy and the temperature was -6°C.

With the sun 70 to 80% covered, we started to notice a change in the color of light - from white to yellow. The snow began to sparkle. The sky changed from blue to blue-black, gradually at first, then increasingly rapidly. I observed excellent Bailey's Beads before totality - about five on each side of the diamond, with the longest lasting about five seconds.

I observed only Venus, everything else being covered by intermittent clouds. A red band went all around the horizon, like a sunset. It got quite cold, but I observed no increase in wind. The corona did not have any streamers visible - it seemed to be of constant radius all the way around. There were four or five strong prominences, the brightest at 7:00 o'clock and 11:00. I did not observe any Bailey's Beads on return. Totality lasted for about 2 minutes and 50 seconds.

Venus was visible for a minute after totality ended. The sky changed very rapidly from black to dark blue, and then more slowly from dark blue to light blue. The same yellowish light returned, with the snow sparkling.

During totality, I felt exhilarated and described it as spectacular. When it was over (how short it seemed!), I felt a deep sense of satisfaction at being privileged to observe such a phenomenon. However, it was only until after the shock wore off some hours later did I feel deeply affected and understand the significance. It seemed to bring into focus the nature of the earth-moon system, and the powerless ability of humans to change and control nature.

THE FEBRUARY 26, 1979 ECLIPSE BY DAVID H. LEVY

I have seen eclipses before, but the experience of the eclipse of the sun of February 26, 1979 had a magic that I do not remember from the other occasions. The photographs I took were generally good, but they do not accurately record the sense of what I actually saw that morning as the shadow of the moon plunged us into the strangest darkness we had ever known.

The entire trip to Winnipeg had a special magic to it, and some of that magic was not so favourable! We got off the plane late Saturday evening. The pilot had explained that the outlook for Monday's eclipse was for "high clouds with low chance for ground-based observations." That was great!! If the clouds were too high, we wouldn't be able to use the plane either! As if to emphasize the point, a light snow began falling the minute we got off the plane.

All day that cloudy Sunday the forecasts were the same: "Mainly cloudy; cloudy with snow;" and later, "chance of breaks in the clouds in extreme southwestern Manitoba." This last forecast added enough tension to our group's night-before-the-eclipse meeting that one member almost threatened to end the life of the tour organizer! What to do? Take a chance on that break in the clouds, or fly above the clouds and try for a few seconds to totality through a small aircraft window? Our tour organizer, Jim Gall, finally broke the tension, and ended the meeting, by reminding us that we were expected at a showing at the Winnipeg Planetarium in fifteen minutes. We left thoroughly depressed.

The planetarium show was excellent. For an engrossing hour we were treated to interesting special effects that explain eclipses. Apparently the stars thought the show was good too, for when we left the planetarium we looked up and saw, to our amazement, a clearing above us!

Our second planning meeting was somewhat more orderly than the first, but our only decision was to meet for, alas, a third time on Monday morning at 6am. Sleep, anyone? We had the television permanently tuned to the weather forecast. It was recording a mysterious high, developing over Winnipeg and spreading through the flight over the Prairie provinces. When I was awakened early Monday morning, my friend said, "It's five:thirty, and look out the window. I think it's clear!" We couldn't believe it.

We drove to our site at Lundar, Manitoba, somewhat north of Winnipeg and almost on the centreline. Some light cirrus cloud was all that threatened our observations, but when first contact came, we had a good view of the sun and we didn't lose it until the end of the day.

The increasing darkness of the penumbra hits you gradually. You start thinking that a light cloud must be covering the sun, but no, through the glass you can see half a sun quite clearly. By the time 80% of the sun was covered, however, the darkness was increasing rapidly and our shadows, though dim, were razor sharp. The breeze stopped; it became much, much colder; and it appeared that the planet was getting ready in a resigned way for the end of the universe. It would be understating my feeling to suggest that I was thrilled to be a fourth body in a cosmic lineup of earth, moon, sun, and observer. Never before had I felt that I was an actual part of such an event, but the emotions that were beginning to surge inside would not deny it. And still the sky got darker; there would be no escaping what was about to happen. Toward; the south I could see the black umbra rushing at us, and before I had a chance to look again at the sun, it had gone.

In its place was a jeweled crown.

The corona was bright and almost circular, and there were several prominences. One was gigantic, and another (according to my photos) developed a small curl during the two-and-a-half-minutes we could see it. I finished the photography within 90 seconds as planned, but I was not really conscious of my work. After the business I still had about a minute just to look up. I was transfixed by the spectacle. It wasn't just the sun, either. The sky was very dark. The earth was still as a painting. An hour before noon, nearby street lights were on. And enveloping the whole scene was that unearthly hush.

I looked again through my telescope. The limb of the sun was beginning to brighten just a bit. I looked up as the brightening increased until suddenly a flash of light darted out from behind the moon. First it appeared to point north, then south, but before I could collect my thoughts to photograph it, the light had spread itself out to announce that totality had ended.

Watching the moon depart was not really an anticlimax. We realized that we had been a party to a cosmic coincidence that is probably peculiar to the earth-moon system. Phobos would give a Martian solar eclipse, but the annulus of the sun would be enormous. Ganymede might provide a Jovian solar eclipse, with such a long totality that even the corona would be obliterated. But on earth that Monday, the sun, moon, and weather were just perfect. I was transfixed again as the last speck of moon left the distant sun. Though there surely was no scar of the sun on my retina, the burn deep inside me was strong and permanent.

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#### SOMETHING FOR YOUR COMPENDIUM OF ESOTERIC FACTS

Add these dates to the list of thing you know from memory. Be able to quote for your friends the dates for the year when the Equation of Time is at a minimum, at 0, and at a maximum. Those dates are February 12th (for minimum), April 15th and December 26th (for 0) and November 3rd (for maximum). This means that in February sundial time is behind mean solar time; on April 15th. and December 26th they are the same; and November 3rd the sundial (or apparent), time is furthest ahead of mean solar time.

#### A PHOTO SPANGLED MEETING

Our centre's meeting on April 5th was very interesting because of the large number of "photographic reports". To David, may we say that we hope and trust that everyone who sees your multi-media presentation on the eclipse expedition will enjoy it as much as we did.

#### A NEW PERIODICAL

A new magazine, Star And Sky, has joined the ranks of astronomical periodicals. In many areas its approach is different from that of other astronomical monthlies, and it has a number of unique features. I have seen all four issues that have been published to date and I am quite impressed with the improvement I have seen in such a short time. When such remarkable improvements can be made in a period of four or five months, there is considerable promise for the future.

To the people who work at producing it: I wish the editor and staff of Star and Sky the very best of luck now and in the future. (I hope, also, that you receive our newsletter regularly.)

OBSERVING REPORTS, A CONTEST, REMINDERS AND OTHER ITEMS

1. The Aurora on the night of April 3rd - 4th was a very interesting one. It was an "all-nighter" beginning with evening twilight and it would probably rank among the dozen best displays I have seen. Three outstanding features were:
  - (1) the very well defined arcs, with two and sometimes three appearing at once,
  - (2) the extremely intense patch of Aurora in the north-east at about 10:20 p.m. E.S.T., and
  - (3) the bright red Aurora which appeared periodically in the north-west. I hope that there will be some photographs of the display shown at a future meeting.
2. At the last meeting I showed a photograph of the full moon taken only about five minutes after the end of the penumbral phase of the lunar eclipse of March 13th (which was the second and only other eclipse occurring in the same eclipse season as the February 26th solar eclipse). Is there anyone in the Centre who has a picture of the moon in the penumbra on that date? If so, please bring it to a future meeting.
3. About a year ago or more, I suggested to the Centre, that we choose a name for our newsletter. Others have recently suggested the same thing. As a result there will be a contest in which you may suggest a title for this publications. Here are the rules: (1) Choose as a title the name of a star, planet, constellation, asterism, astronomical object, or instrument - something clearly associated with astronomy - and submit it along with your name and address. (2) Enter before May 30, 1979. (3) Choose one or two names but no more (3). Give me your entry at Centre Meeting or mail it to me. (4) The name will be probably chosen at a meeting whose date will be announced later. (5) Look forward for the results to be announced at the meeting on June 14th and for the winner to receive a small prize.
4. There has been a request for a "write-in" or "letters" section in the newsletter. The answer: "Yes, indeed!" All I need would be the letters. Write to me. ( <<ADDRESS REMOVED>> ) with your ideas or suggestions or questions. (Let me have the right to edit all letters of over nineteen pages in length.)
5. Here is a reminder to those who wish to attend the Annual Assembly in London. The time to send in your registration is drawing near. Is there still anyone who does not have a registration form or a schedule of events?
6. This is a reasonably good time of year for observing meteors. There are a number of meteor showers in the latter part of April including what are known as the "April fireballs" and the Lyrid meteors which extend from about the 18th to the 25 of the month with the peak coming on the 22nd. Why not try to photograph a Lyrid?
7. Please do not forget the meetings on April 19th, May 2nd, 17th and 31st. On April 19th, take advantage of an opportunity to hear our centre's honorary president, Dr. Douglas, talk to us about the work of Sir Arthur Eddington.

Good Observing!





THE ROYAL ASTRONOMICAL SOCIETY OF CANADA - LONDON CENTRE  
PROGRAM FOR THE 1979 GENERAL ASSEMBLY - May 18th to May 21st  
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University of Western Ontario. Accomodation - Delaware Hall  
\$12.50 per person per night Double occupancy  
\$16.50 per person per night Single " "  
both include breakfast

Transportation provided to and from London Airport and CN Station.  
Registration and Display Room- Delaware Hall, U.W.O.  
Registratation form available from: G.A. '79

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or February issue NATIONAL NEWSLETTER, R.A.S.C.  
By phone contact Peter Jedicke (000) 000-0000 for any further info.

Friday May 18

1200 hrs Registration commences- Delaware Hall (Perth Dr. and University)  
1303 hrs Astronomical Films shown  
1430 hrs NATIONAL COUNCIL MEETING  
1900 hrs Wine and Cheese Social Gathering- Delaware Hall  
2000 hrs M147 Session. Film and Slide presentations by RASC members-  
Medical Sci. Bldg. Followed by tour of Hume Cronyn Memorial  
Observatory.

Saturday May 19

0900 hrs Special Invited Paper- Dr. William Wehlau, UWO, "C.F.H.T."  
1030 hrs Break  
1045 hrs PAPERS I. 8 papers. Engineering Bldg.  
1230 hrs Society Group Photo.  
1300 hrs Lunch. Delegates may wish to visit Canada Wide Science Fair  
at this time. Some transportation will be provided.  
1600 hrs Buses depart for Elginfield Observatory Tour.  
1630 hrs Outdoor Dinner- Weidon Park, Arva Ontario. Observing, etc.  
Trip to some local observatories.  
0000 hrs Judging of the G.A. Song Contest- Delaware Hall. Pub Night.

Sunday May 20

0900 hrs PAPERS II. 13 papers. Middlesex College Theatre.  
1400 hrs ANNUAL MEETING R.A.S.C. - Middlesex Theatre. Followed by  
National Council Meeting, same room.  
1830 hrs Cocktail Hour. Great Hall, U.W.O.  
1930 hrs SOCIETY DINNER. The Ruth Northcott Lecture.  
Address by Dr. Gerard K. O'Neill, Princeton University.  
Awards of Society and G.A. Competition. Informal discussions  
continue back at residence.

Monday May 21

0845 hrs Bus departs for tour of Bruce Nuclear Power Development  
and Douglas Point Power Station. 7 hr trip.  
Lunch provided on route.  
1600 hrs Arrival in London. Shuttle service provided to all  
departure points.

Basic registration \$10. Saturday Dinner \$9. Society Dinner \$3.  
Bruce Trip \$10. Photo \$1.

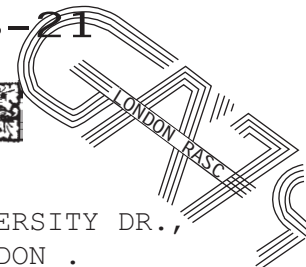
GENERAL ASSEMBLY OF

THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

SOCIÉTÉ ROYALE D'ASTRONOMIE DU CANADA



HOSTED BY THE LONDON CENTRE -- MAY 18-21



RESIDENCE AND REGISTRATION : DELAWARE HALL , PERTH DR. AND UNIVERSITY DR., UNIVERSITY OF WESTERN ONTARIO , LONDON .

PLEASE FILL OUT THIS FORM AND MAIL WITH YOUR CHEQUE OR MONEY ORDER, BEFORE APRIL 21st, 1979, PAYABLE TO : ROYAL ASTRONOMICAL SOCIETY OF CANADA, LONDON CENTRE, ADDRESSED TO :

G.A.' 79
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THE BASIC REGISTRATION FEE COVERS ALL ASSEMBLY ACTIVITIES EXCEPT TOURS, MEALS AND THE SOCIETY GROUP PHOTO ( cost \$1.00 payable at the G.A..) ALL MONIES ARE REFUNDABLE ON CANCELLATION BEFORE MAY 1st WITHOUT PENALTY .

Please Print.

Mr. Ms.
NAME(S): Miss Mrs.

ADDRESS:

CENTRE OR AFFILIATION

MODE OF TRANSPORTATION: DATE AND TIME: Do you wish to be met?

## REGISTRATION PERSON(S) @\$10.00 each

## SATURDAY DINNER PERSON(S) @\$ 9.00 each

## SOCIETY DINNER PERSON(S) @\$ 3.00 each

## BRUCE NUCLEAR TRIP PERSON(S) @\$10.00 each

## U.W.O. RESIDENCE DOUBLE OCCUPANCY \$ 12.50 per night, per person; SINGLE OCCUPANCY \$ 16.50 per night. Breakfast Included.

(1) NIGHT(S): MAY TO MAY, FOR (2) PERSON(S)

Double /Single (mark one only) ROOMATE AT \$ (3) EACH PER NIGHT ( see above )

TOTAL ACCOMODATION (1) x (2) x (3) \$

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(PLEASE REMIT TO ABOVE ADDRESS ONLY
\* REGISTRATION FEE INCREASES TO \$ 12. AFTER APRIL 21st.

##TOTAL FEE \$

THANK YOU