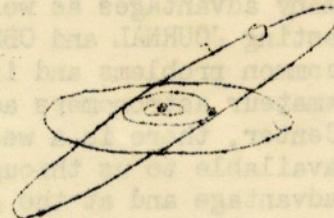


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252 COLLEGE ST.
TORONTO 22



MONTHLY NEWSLETTER

HALIFAX CENTRE

ROYAL ASTRONOMICAL SOCIETY OF CANADA

March 1960

MESSAGE FROM THE PRESIDENT

It is a pleasure to be able to greet all the members of the Halifax Center, R.A.S.C., through our newsletter GALAXY. This is actually the third edition of the 1959-60 Society year but is not the first publication of a newsletter by the Society. That honour must go to those members associated with the Society in 1954. Nevertheless the present Newsletter is a step forward and will, I am sure, contribute in no small way to making you feel that you are part of an organization which is alive and growing. I would like to take this opportunity to personally thank Mr. Bill Take, 1st Vice President, who has done so much to make all of this possible.

The constitution for the Halifax Center was approved on November 19, 1951, and since that date persons interested in astronomy, as their chosen hobby, have found the Society interesting enough to keep it alive and active. Now, I feel, that we are on the threshold of a new era both in club membership and activities which the club will be able to offer its members. With your individual effort this will become a reality and the club will grow to be the organization which you, as a member, want it to be.

- B. W. Allen.

HALIFAX CENTER NEWS

MARCH MEETING NOTICE The March meeting of the Halifax Center of the Royal Astronomical Society of Canada will be held in the Planetarium Room of the Nova Scotia Museum of Science, Spring Garden Road, at 8:00 p.m. on Wednesday March 30th. The planned programme consists of the following: a talk by Mr. J. McGuigan on "How to Observe Meteors" with special attention being given to the Meteor Observing Group formed at the February meeting, a short report by Mr. W. F. Take on the Special Eclipse Observing Group's activities and observations during the March 13th. lunar eclipse, a brief report by Mr. B. W. Allen on the plans of the Aurora Observing Group, and if time permits, a film will then be shown.

- B.W.A.

EDITORIAL

Our association with the Royal Astronomical Society of Canada has many advantages as well as some responsibility. In addition to the interesting JOURNAL and OBSERVER'S HANDBOOK of great practical value, we share common problems and interests with a wide membership of professional and amateur astronomers across the country. As a relatively new and growing Center, there is a wealth of information, advice and practical experience available to us through the R.A.S.C. We may well draw upon this to our advantage and at the same time increase our value and contribution to the other Centers of the Society.

With the above thoughts in mind it has been decided that future issues of GALAXY will carry some information or news of events or activities of other Centers under the heading "R.A.S.C. NEWS". We are very fortunate to have Miss Carolyn Naftel write and edit contributions for this section. Her experience in handling the R.A.S.C. correspondence while serving as the Secretary of the Halifax Center has given her an insight into national R.A.S.C. affairs which few of us have.

- Ed.

NEWSLETTER

NEWS

There was a good response to the call for assistance with the newsletter. Now, in addition to Bert Allen and your Editor, we have been very fortunate to enroll Rev. Fr. Burke-Gaffney as our scientific advisor on astronomy; Harry Roberts as our writer of the Halifax Center News section; Carolyn Naftel as writer of R.A.S.C. News; and Tom Clahane and Kevin Ball as our production team.

INFORMATION

Contributions from the members of the Halifax Center are very welcome. Of course we cannot guarantee to print everything we receive, but all contributions of merit approved by the newsletter committee will be given serious consideration. Contributions can take the form of letters to the Editor (opinions, suggestions, etc.), articles on subjects of general interest, or reports of activities, experiences, or observations.

The schedule for the newsletter production has been settled. GALAXY will be produced and mailed on the 15th of every month. If the 15th falls on a Sunday or Saturday, it will be produced on the 14th or 13th instead. The deadline for all contributions and news copy will be on the 10th of the month concerned.

NEWSLETTER ADDRESS AND HEADQUARTERS

The Editor,
R.A.S.C. Newsletter,
c/o N.S. Museum of Science,
Halifax, Nova Scotia.

HALIFAX CENTER NEWS

MARCH MEETING BUSINESS

It has been suggested that the society hold public observation nights at regular intervals throughout the spring, summer and fall months. Please give this suggestion some thought as it will be discussed at the coming meeting.

COUNCIL AND COMMITTEE MEETINGS

A five to ten minute meeting of the Council will be held shortly after the March meeting of the society. A proposal to continue the monthly meetings of the society through the summer months will be discussed.

- The President

A short Program Committee meeting will be held before or after the March meeting.

- The Chairman

A ten minute Newsletter Staff meeting will be held just before the monthly meeting of the society. At this meeting we plan to discuss progress and any problems regarding the April issue of GALAXY. - The Editor

FEBRUARY MEETING REPORT

Considerable business relating to the newsletter, program committee, and several observing groups was transacted in a short time during the business session of the February meeting. Two permanent observing groups were founded. The groups are concerned with meteor and aurora observing and at present are being organized and led by Jim McGuigan and Bert Allen respectively. A special eclipse observing group was also announced and organized by Harry Roberts.

A timely talk on "Lunar Eclipses" by Rev.M.W.Burke-Gaffney was the highlight of the program at the February meeting. Special emphasis was placed on the eclipse which was to take place on March 13th. The speaker reviewed the basic knowledge of lunar eclipses and illustrated the various points with details of the March 13th. eclipse.

- HFR, BWA, WFT.

OBSERVING INACTIVITIES

The cloudy, stormy, and hazy weather experienced during the last five weeks has been a great disappointment to many members of the society who were looking forward to observing Mercury, Aldebaran's occultation, or Sputnik III's descent. Better fortune favoured the eclipse observers who were able to see the eclipse until mid-totality, at which time clouds and snowflurries again covered the scene.

OBSERVING ACTIVITIES

Ten members of the eclipse observing group watched the Lunar Eclipse of March 13 from the roof of the Nova Scotia Museum of Science. A wide variety of telescopes and binoculars were used to enjoy and record the event. Dairrel Aikens, Dr.Aikens, Bert Allen, Robert Allen, Margot Duns-worth, Jim McGuigan, Peter McGuigan, Dr.McGuigan, Jane McNeill, and Bill Take were all present.

HALIFAX CENTER NEWS

The group assembled at 1:30 a.m. at the Museum as scheduled, and had all the equipment set up by 2:00 a.m. This equipment included several small reflectors and refractors, a 16mm. movie camera, and a pair of 10x80 binoculars. A moderate, somewhat raw north-east wind made it necessary to place everything in the lee of the penthouse or the parapet.

Observations of the eclipse were not continuous, but were timed to coincide with the more significant events. Observations were made of the first noticeable penumbral shadow; the umbral contact and umbral border; the initial totality; and the totality near the mid-point. Between these events and activities, the members warmed up in the Museum tearoom where hot refreshments were continuously available or being served. Snowflurries and high diffuse clouds put an end to the night's seeing at 4:30 a.m.

MIRROR GRINDING

The mirror-grinding and telescope-making group got off to a slow but definite start last February 25th., but has been plagued by record snowstorms and conflicting events ever since. Three members have enrolled to date, while several others have expressed their interest in this type of activity.

At the last meeting, Harry Roberts dusted off his 6" mirror kit and then helped Tom Clahane test his inherited, "pre-ground", 4" mirror for the center of curvature. After watching this high-class activity, your editor successfully coveted a broken piece of $\frac{3}{4}$ " plate glass from one of the museum's defunct aquaria, and then began to read how to fashion this piece into a primary mirror. At last report the mirror blank still has a somewhat oversize and irregular border.

- WFT.

CELESTIAL CALENDAR HIGHLIGHTS

LATE MARCH, APRIL, EARLY MAY. COMET 1959k.

This new comet was discovered by Mr. Robert Burnham Jr., on December 30, 1959. It will be at the minimum distance of 47 million miles from the sun on March 20th. At that time the comet will be in Aquarius and so near the sun that it will be invisible to us.

The comet will first appear in the morning twilight at the end of March, and will still be in Aquarius. During April it will move rapidly out of Aquarius, across Pegasus, and across northern Cygnus to the Draco-Ursa Minor boundary. Further motion will carry it through the bowl of the Big Dipper or Ursa Major on May 4th and 5th, after which it will rapidly fade.

Throughout April and early May the comet is expected to be as bright as the third magnitude. It will be seen progressively earlier and earlier in the morning until, on April 25th., it passes into the circumpolar region and becomes visible all night.

CELESTIAL CALENDAR HIGHLIGHTS

APRIL 21/22, LYRID METEOR SHOWER.

At certain times of the year the Earth encounters large numbers of meteoroids moving together in a stream along the same orbit. On such occasions a greater than average number of meteors can be seen, and all those belonging to the stream will appear to radiate out from one point of the sky.

The Earth will intersect the Lyrid stream of meteoroids on April 21, and the greatest number of Lyrid meteors will be seen on that date. The Earth passes through the borders of the stream for two or three days before and after April 21, and a smaller number of Lyrid meteors should be seen under favourable conditions during April 18-20 and April 22-24. A few figures of the number of meteors expected to be observed per hour per observer under favourable conditions are listed below:-

<u>DATE</u>	<u>LYRID METEORS</u>	<u>OTHER METEORS</u>	<u>TOTAL</u>
April 18	2 / hour	7 / hour	9 / hour
April 21	8 / hour	7 / hour	15 / hour
April 24	2 / hour	7 / hour	9 / hour

The Lyrid meteor shower was given its name because it appears to radiate out from Lyre; a constellation best known for its bright star Vega. At sunset this constellation, and therefore the radiant point of the meteor shower, will be on the horizon to the north-east. Nine hours later, at 4 a.m., it will be high up on the meridian and just south of the Zenith.

Interfering light conditions on April 21st may be summarized as follows:-

Sunset	-	7:06 p.m. A.S.T.
Astronomical Twilight ends	-	8:57 p.m. A.S.T.
Moonrise	-	3:10 a.m. A.S.T.
Astronomical Twilight begins	-	3:31 a.m. A.S.T.
Sunrise	-	5:21 a.m. A.S.T.

Not too much interference is expected from the Moon which will be three days past last quarter on the 21st. There will be some however.

Although the maximum hourly rate of meteors per observer occurs at 7:00 p.m. A.S.T., the very unfavourable observing conditions at that time will prevent us from observing the maximum rate. Under local conditions during the night of April 21/22, the best observing period should fall between 12:00 p.m. and 4:00 a.m. The best single hour will probably come between 2:00 and 3:00 a.m.

- BWA, WFT.

CELESTIAL CALENDAR HIGHLIGHTS

GENERAL NEWS

LECTURES IN ASTRONOMY OVER RADIO STATION CJCH.

Radio Station CJCH Halifax is broadcasting a series of lectures on Astronomy which began on March 20th between 10:15 p.m. and 10:45 p.m. These lectures are by Professor A.C.B.Lovell, F.R.S., Professor of Radio Astronomy, University of Manchester, and Director of Jodrell Bank Experimental Station. Titles and dates are as follows:

- March 20th. Astronomy Breaks Free.
- March 27th. The Origin of the Solar System.
- April 3rd. The New Astronomy.
- April 10th. Astronomy and the State.
- April 17th. The Origin of the Universe.- Part I.
- April 24th. " " Part II.

-BWA.

DATE	TIME	LENGTH	OTHER NOTES
April 18	8 / hour	2	
April 21	8 / hour	8	
April 24	8 / hour	2	

The April meteor shower was given its name because it appears to radiate out from Iota, a constellation best known for its bright star Vega. At present this constellation, and therefore the radiant point of the meteor shower, will be on the horizon to the north-east. Nine hours later at 1 a.m. it will be high up on the meridian and just south of the Zenith.

Interesting light conditions on April 21st may be summarized as follows:-

- 7:00 p.m. A.S.T. - Sunset
- 8:27 p.m. A.S.T. - Astronomical twilight ends
- 9:10 a.m. A.S.T. - Sunrise
- 9:31 a.m. A.S.T. - Astronomical twilight begins
- 9:51 a.m. A.S.T. - Sunrise

Not too much to be expected as regards the Moon which will be three days past last quarter on the 21st. There will be one however.

Although the maximum hourly rate of meteors per observer occurs at 7:00 p.m. A.S.T., the very unfavourable observing conditions at that time will prevent us from observing the maximum rate. Under local conditions during the night of April 21st, the best observing period should fall between 12:00 p.m. and 1:00 a.m. The best single hour will probably come between 2:00 and 3:00 a.m.

- BWA WPT.