



STARDUST

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OUR FEBRUARY MEETING

"Evolution in Stars" will be the subject of our February meeting to be held at the Planetarium on February 9 at 8:15 p.m. The speaker will be Don Macpherson, long an active member of the Observers' Group. We look for a good attendance.

Another Lunar Eclipse

Edmonton will be able (weather permitting) to witness a partial eclipse of the moon in the early morning of March 2. At mid-eclipse some four-fifths of the moon will be observed. Times are as follows:

Moon enters umbra	4:52 M.S.T.
Time of mid-eclipse	6:29 M.S.T.
Leaves umbra	8:05 M.S.T.

As the moon sets at about 7:24, we shall not be able to witness the end of the eclipse. But here is a good chance for our newly-revived Photographic Division to see what it can do.

The Planets

Venus is still a brilliant evening star visible for four hours after sunset. Mars is high in the sky for the greater part of the night. Jupiter and Saturn have become morning stars. They will be quite close to the moon, low in the south-east, on the mornings of February 12 and 13. Moonrise on these days will be 5:46 and 6:38 respectively. Look for them well before sunrise, which is just before 8 o'clock on these days.

Photographic Division-- F. Loshde

Apparently there is a movement afoot to revitalize the defunct Photo Division. There has been considerable interest in photography lately, perhaps spurred on by the Planetarium's need for any and all photographic "captures" of the astronomical world. It would appear that many of our group have talents along this line, even with Brownie Box Cameras. With such talent being presently wasted, Bill Cable, one of our newer members, thought a get-together would be a good idea. He has volunteered his services to act as co-ordinator of the group. At our next meeting (February 9) he wants to corral those with cameras of all shapes and sizes over a cup of coffee, and make plans for such things as the eclipse of the planet Mercury by the moon, and the next Venus-Moon conjunction. Remember, photo-hounds! Turn up on February 9 at the Planetarium.

OBSERVING THE AURORA**PART I

Since January, 1952, members of the Observers' Group of the Edmonton Centre have been doing regular observations of the aurora borealis. Until the beginning of the IGY, all reports were forwarded to the National Geographical Society--Cornell University Survey Centre at Ithaca, New York. However, since June 1957, all reports have gone to the Canadian Visual Aurora Programme which is headed by Dr. Peter M. Millman, National President of the RASC. Our observers have submitted descriptions of 1254 different displays of auroras during the period Jan. 52 to Dec. 60. A total of 18 participants have taken part in the programme, with an average of four observers active at any one time. In 1960, reports of 143 displays were received from four observers, with the average number of observers active in any one month being an all-time low of two. Thus we are in need of a number of new observers.

There are many ways in which you can help our survey. The first is that you can keep regular notes on when you see aurorae and when you don't see any. Just a date, time, and a positive or negative indication is of great help to our survey. Only too often, the only information received from our observers is that there were aurorae on certain nights, with no attention being given to clear nights with no aurorae and cloudy nights. Thus we have many gaps in our survey. Only too often it is not always the number of displays observed that is important, for often being able to report no aurorae, although not as glamorous as seeing a brilliant display, is the most important addition for our records.

As a beginning to a more efficient survey of our night skies, you should make notes on the presence or absence of aurorae whenever you are star-gazing. Even if you're just out on the back porch, it only takes a second or two to glance northward and then only a minute or two to record the results of your glance. If you are really anxious to contribute more, you could estimate the seeing conditions--clear, moonless, hazy, foggy, cloudy, bright clouds, etc., and note in which parts of the sky the aurora is, and how much of the sky it covers.

In the next article we shall discuss the form and color of the aurora and a simplified method of recording it. Then in later articles we shall discuss more completely the visual and photographic recording of aurorae. Should you, in the meantime, wish to begin some form of aurora observations, forms and instructions will be available at the next meeting of the Centre. We need you, so see us!

--Earl Milton.

Observers' Group: It is with the greatest pleasure (fanfare) that we welcome to the illustrious observing fraternity the following keen-eyed personages:

- F. Leinde
- Walter Nacuk--seeker of the shimmering lights of the north, i.e., aurora borealis:
- Walter Sheuerman--he's directing a double-barreled attack on both aurora and sunspots
- Gurt Goselwitsch
- Ricky Salmon

These two want to solve all the mysteries of astronomy.

Centre We were glad to receive the other day a copy of the Bulletin
français mensuel of the Centre français de Montreal. There is evidence
that the Centre is a very active one. Groups have been formed
for the observation of each of the following: moon, planets, nebulae, novae,
meteors and artificial satellites, and for the recognition of the constellations.
There is also a special programme having as its object the purpose of correlating
observations made of solar activity, aurorae, short-wave radio reception, and
precipitation. Graphs will be drawn up in order to study these relationships.

Here is one statement which we hope we may soon be able to print
regarding our own centre: "Since the last meeting the list of library books in
our possession has been distributed to our members." Merci bien, Montreal!!

"And now --to the BBC in general, and CFRN-TV in particular. Why are
a word" we not getting "The Nature of Things" on our local television
programme? Here is an excellent science presentation that
Medicine Hat, Lloydminster, and points east, are getting, but which for some
reason is denied to Calgary, Red Deer, and Edmonton. Surely this would be
preferable to much of the tripe which is being dished out to us with a "science"
tag attached! We hope that any of our members having connections with TV will say
a word or two where it will do some good.

Observatory Yes, we still lack one. However, not all the news is bad.
F. Loehde For example, our lovely 4" refractor is being moved over to the
planetarium for ours and public use. We hope the city
will build a proper tripod for the telescope in the near future, so, before
long--The Wonders of the Universe!--first-hand.

The Care of The following editorial, which we re-print from the Halifax
Telescopes "Galaxy" (with their kind permission, we trust) seems to us
"to be so useful that we thought it well worth while passing on
to our members. What follows is directly quoted:

Only the hardier ones try to carry on an observing programme
during the winter months unless adequate facilities for protection from
the piercing wind and near zero temperature is available. Thus with
time on our hands I am sure you will agree that a wonderful opportunity
exists to check over your telescope and clean your mirror. This does not
mean that good care should not be given to your telescope at all times
and under such conditions a mirror should not need cleaning for years.

Good care for a mirror consists of taking it along with the
telescope tube, if a portable, into the house when not in use. Here the
tube should be placed in a closet either upside down or with proper
plastic end covers to prevent the accumulation of dust. In very damp
climates unless the mirror is quartz-silicon coated over the aluminizing
each microscopic particle of dust or grit may catalyse the moisture
observing in a breeze, carrying dust, gently dust off the mirror's surface
session of observing.

If you have previously attempted to clean your mirror look at its surface in the sunlight, and if you notice tiny scratches on its surface, your method of cleaning is probably wrong - too much pressure. Clean with a gently rotary motion and remember microscopic dust particles in the form of silica are present on most new cleaning cloths.

An Often washed fuzzy bath towel or face cloth, which has its silica whashed out, can be safely used to wash your mirror. Use a mild solution of Dreft or any detergent, and, without sensible pressure on the mirror, gently swab it with a rotary motion holding the mirror on edge while doing so. Then rinse off the solution with distilled water since ordinary tap water often has so much mineral matter in it that it will cloud up the mirror. After rinsing off the soapy water solution with distilled water, you may notice tiny water droplets on the mirror's surface. Take a dry piece of fuzzy nap cloth, and without sensible pressure wipe off these drops of distilled water with a rotary motion. Replace mirror in cell and collimate by your favourite method.

The meetings of the Edmonton Centre, Royal Astronomical Society of Canada, are held in the Queen Elizabeth Planetarium, Coronation Park, on the second Thursday of each month from October to May inclusive. Visitors are welcome.

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