STARDUST

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From now on, in the little section which is prepared especially to remind beginners of what to look for in the ensuing month, we shall aim at covering the period from the 16th of the current month to the 15th of the next. That should give everyone ample time to receive his copy of STARDUST before the remarks become applicable.

Planetary Spectacle — During the next few weeks there should be good opportunity to see a number of the planets with the naked eye. Venus, still bright in the morning sky, is getting lower in the south-east, while Jupiter, rising 3 or 4 hours before sunrise, is becoming higher and more prominent. If you have a pair of binoculars, you might turn them on him as he rises higher in the sky and see whether you can find his satellites ranged on either side of him like tiny points of light. Note how they change position from one day to another. Saturn is also to be seen in the morning sky, somewhat to the east of Jupiter. Mars rises later, but may be visible although quite low, and perhaps rather difficult to see in the morning twilight.

It is said of Copernicus that he never saw the planet Mercury. Perhaps you can beat him. Look for the planet rather low in the western sky after sunset for a few evenings before and after February 23, when it will be in its best position for viewing.

Two special events, described elsewhere in this issue, are coming up -- a lunar eclipse on Mar. 12-13, and a comet approaching the earth, the path of which is shown on a map prepared by Franklin Loehde.

Observatory Prospects — Earl Milton submits the following report on the Observatory which merits very careful attention by our members: The distressing news that the estimates for the construction of the new University Observatory had been slashed from the 1960 budget reached the Centre this week. In a telephone interview with Dr. Grayson-Smith, head of the Physics Dept., it was revealed that money just could not be found for the building this year. Concern was expressed on behalf of the centre in view of the distressing news.

Dr. Grayson-Smith suggested that a letter be sent from the President of the Centre to Dr. L. Cragg, Vice-President of the University, expressing the concern of the membership over this matter. Dr. Grayson-Smith also felt that a brief from the Observers' Group outlining both past work and future plans for the observatory might be mandatory in procuring an early settlement of the present stalemate. It was also revealed that the present observatory structure probably would not be demolished until next year. Concern was expressed over the condition of disrepair that the University had allowed the building and grounds to fall into, and the officials were urged to repair, re-fence and re-decorate the present property so that its interior will be more pleasant and conducive to high quality observation.

President's Message

Most of us will recollect the "Astronomy Notes" prepared by Dr. J. W. Campbell, and which appeared periodically in the Edmonton Journal. The articles were widely read and kept the public informed on amtters of general interest in Astronomy. We were made aware of any developments in the heavens worthy of observation. At that time the Observatory was operated quite extensively, usually on Saturday evenings; and the articles served as a notice of anticipated observations as well as an invitation to the public to attend. At the same time these articles served as a wonderful medium of advertising for our Centre, and no doubt contributed in no small measure toward its membership.

I would like to see this practice revived - especially upon completion of the Planetarium, and when our observatory is established on a more substantial basis. However there are certain limitations or conditions to consider. The operation should be in the hands of a capable writer - I am sure there are many such persons amoung our membership. The writer should be well informed in the field of Astronomy. The articles should appeal to the general public. The subject matter must therefore be such as will be easily understood. A working arrangement would have to be made with the Edmonton Journal. The articles must appear regularly.

Material and sources may be somewhat as follows: -

1. Short items of interest from books or periodicals dealing with Astronomy.
2. Items from the Handbook for suggested current observations.
3. Observations and phenomena of current interest but which were not anticipated such as spectacular aurora, sunspots, comets.
4. References to meetings of the Centre, or any other activities which may warrant the attention of the general public.

I. feel this matter is worthy of thought on the part of our members.

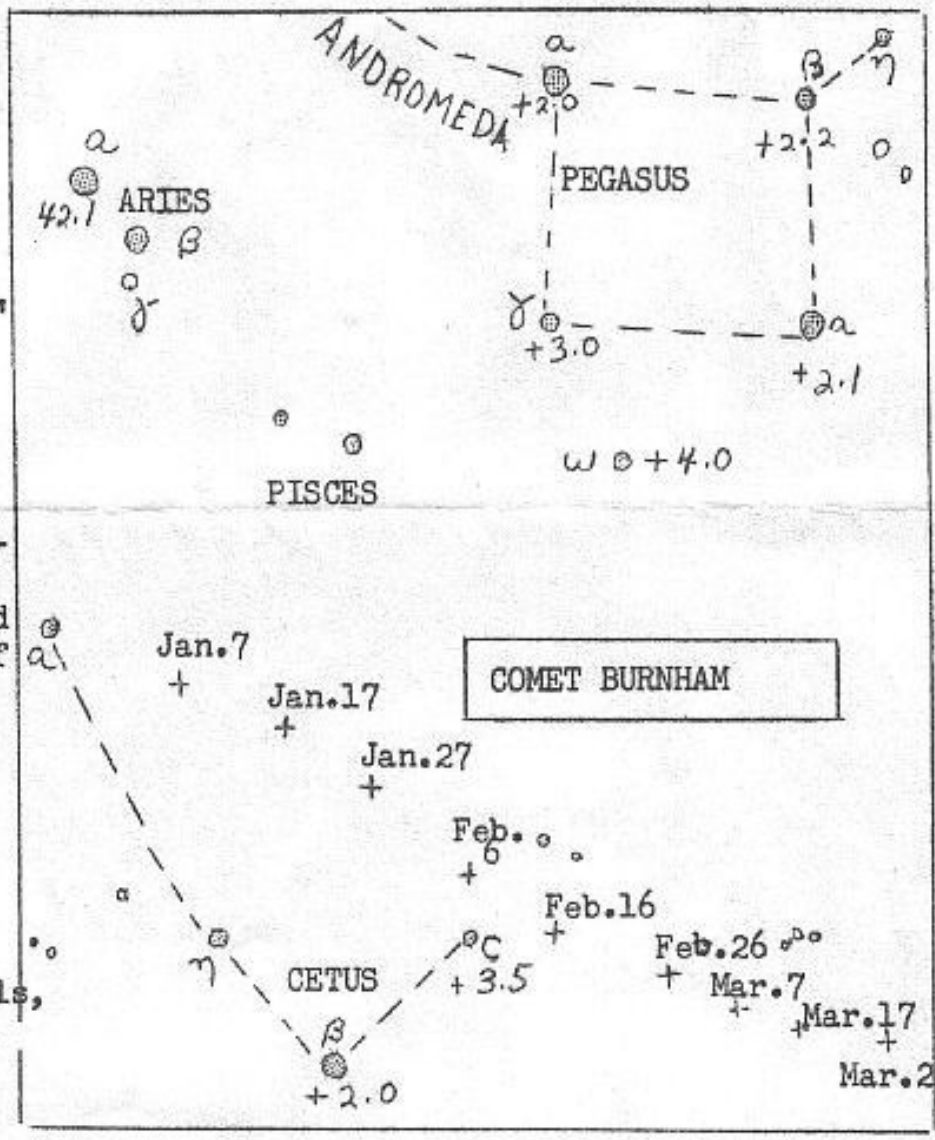
James Harrington, President.

February Speaker

We regret we are not able to announce the topic for our February meeting. Dr. J. W. McGregor, who will speak to us on the 11th, was left the choice of his own topic, but as he is presently in Toronto, we were unable to get it either from him or from his home. However, we are sure it will be good, and hope that we shall again have a good turnout of members.

Celestial Visitor

To lure latent Astronomers from the snug, and mainly warm, confines of their abodes, comes Comet Burnham from the starry depths of our newly- opened solar system. Needlessto say, some of our own "latent" astronomers felt the pull to the great outdoors despite the negative temperatures present. Under clear skies and in a snow-bound wheat-field our crusaders, Don Mac-pherson, Robert Allin, and Franklin Loehde, were huddled up with a weird assortment of astronmical instruments. The majesty of cosmos spread out before them, and the stillness of the night was broken only by the chatter of teeth. Some forty-five minutes, new sounds were heard - unfortunately un-printable. As history recalls, even the best-laid plans run amuck and those of Sat-urday, Jan 23, were no ex-ception. Despite a gallant effort by the frost-bitten three, no comet was forth-coming. However, they still don't believe that a celestial kidnapping has occurred, and encourage any and everyone to scour the heavens with whatever is available. To facilitate an easy "find" this hady map has been prepared to show the comet's progress across our western skies. While as yet not dazzling to the eye, Comet Burnham is expected to be readily visible to the naked eye by the end of March, but following its progress is always fascinating. So here's your chance for everlasting glory. Be the first to report your finding to the Editor of Stardust. Why wait for spring? Do it now! - Franklin Loehde.



Lunar Eclipse

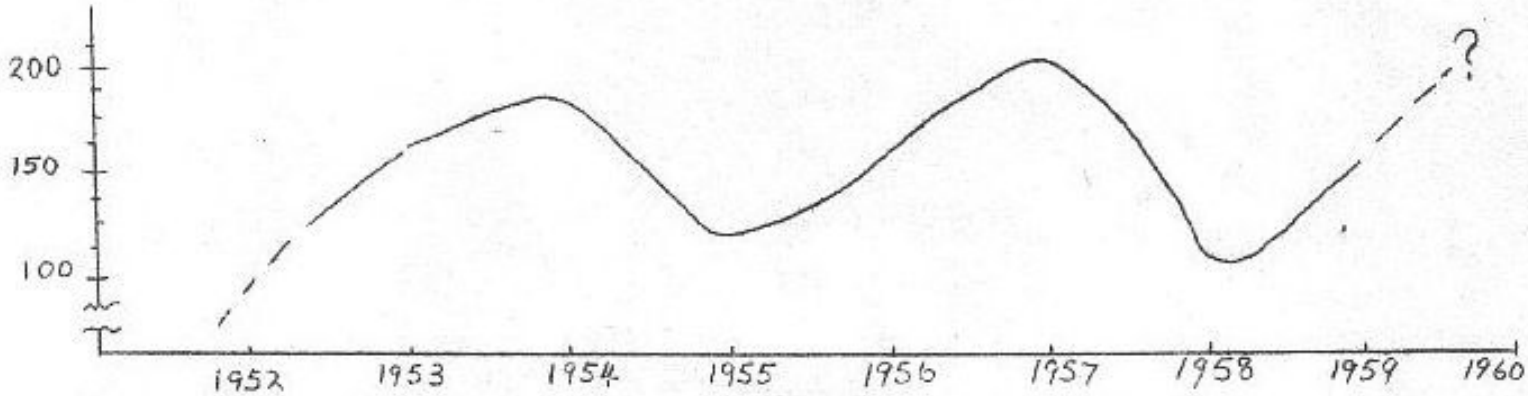
The night of March 12-13 will, weather permitting, afford even naked-eye observers the opportunity of witnessing a most beautiful sight - a total eclipse of the moon. Dimming slightly as it passes through the perumbra, or half-shadow, the moon will enter the umbra at 11:38 M.S.T., and full totality will begin at 0.41 A.M. on March 13, lasting until 2:16. The moon will finally leave the umbra at 3:15.

Apart from the intrinsic beauty of the sight, certain features may well be observed even by beginners. Note particularly the shape of the earth's shadow

as it is seen on the moon before and after totality. It is definitely round, although softened somewhat by the earth's atmosphere, and thus affords us one evidence of the earth's sphericity. The other thing to observe is the color of the moon at total eclipse. It is by no means blacked out, but glows with a coppery-red color. This is the result of sunlight being refracted in passing through the earth's atmosphere. A noted French astronomer, A. Danjon, as a result of many observations, suggests that the intensity of this color is related to solar activity. As the 11-year cycle passes from one minimun to another, he observes that the glow is barely visible for the first two years after a minimum, but gradually increases in brightness and color, until in the four years preceding the next minimum it glows with an orange-yellow color, while at its brightest there is a luminous outer zone of bluish tint. If his observations are verified, it is obvious that the solar cycle has some effect on the earth's atmosphere beyond those already determined.

Aurora Division: E. Milton

Results of the Edmonton auroral study covering theyears 1952-1959 are being processed for publication. An interesting result is the shape of the curve for the yearly display totals.



We do not know if this cyclic nature is characteristic of Edmonton aurorae or Edmonton observers, but we do think that we can predict a big year in 1960 for aurora's. We have only 3 regular visual observers, but we hope to boost this number in the coming months. David Marven, chairman of the aurora division, is currently on the prowl for new recruits. Earl Milton is busy graphing past results for a paper to be read at the Montreal Annual Meeting of the R.A.S.C. He hopes this paper will inspire other centres to inaugrate similar programmes to ours for studying the aurorae. Ian McLennan is attempting to make arrangements for Operation FARS (Flying Auroral Reconnaissance Survey) - a study which we hope will provide us with some parallactic photographs of local aurorae.

While we are on this subject, we may state that Edmontonobservers submitted 321 auroral displays in 1959. Two hundred and eleven negative reports of clear sky with no aurorae were submitted. Estimates of nights lost through overcast skies were of the order of 125. Individual totals show Earl Milton leading with 102 displays, 121 positive reports and 108 negative reports. Robert Allin follows with 66 displays, 80 positives and 34 negatives. Arthur Dalton, Franklin Loehde, Brian Miles, Bruce Bohannas, and Chris Rosenfield also

contributed to the coverage. Brian Miles contributed the greatest number of reports per display, having 52 reports of 16 displays. Bruce Bohannas contributed 5 of his 17 displays since moving to Calgary. We hope he finds helpers down in Calgary soon!

To all observers, keep looking! Your work is important.

Did You Lose It? Yes, we mean that Questionnaire, of course. We gather from the Secretary that only a few copies have so far been returned. If you have mislaid the original form, just write on a piece of paper your name and address, what instruments you possess, and your chief interests in (a) observing (b) astronomy in general. Mail it promptly to Dr. D. R. Crosby, 7821 Saskatchewan Drive, Edmonton.

Reporters are reminded that all contributions should be in the Editor's hands a full two weeks before the next meeting. This is necessary since, after being received, the material must be edited, mailed to the printer, re-typed on stencils, printed, stapled, addressed, and mailed to members in good time to announce the next meeting. Address all contributions to S. Frank Page, Editor, STARDUST, 8444 -- 117 Street, Edmonton, Alberta.