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ROYAL ASTRONOMICAL SOCIETY OF CANADA

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May, 1960.

OFFICIAL ANNOUNCEMENTS

May Meeting: Mr. Ted Holmes will address the May 12 meeting, at 8:15 in Room 142, on the subject

"RADIO NETWORK: NEW POSSIBILITIES FOR ASTRONOMY"

Make a special effort to be present at the last meeting of our Society Year. Be in at the beginning of a new astronomical adventure -- a world network of astronomical observers.

Special Executive Meeting: Members of the Executive are asked to arrive early at the May meeting - 7:45 p.m. to nominate a committee to assist the city in connection with the operation of the Planetarium.

EARL MILTON, CHANT MEDALLIST

All members of the Society will unite in congratulating Earl Milton on his having been awarded the Chant Medal for outstanding contribution to amateur astronomy. Since his arrival from Montreal in 1952, his unbounded enthusiasm has had a catalytic effect on the observing activities of the Edmonton Centre. Earl has been instrumental in the formation of several observing groups - for sunspots, aurorae, variables, etc., his own special love being the aurorae, and doubtless "the Northern lights have seen strange sights" when Earl and his aides have braved the winter's cold to record arcs, rays, and curtains.

Earl was very active in the projects undertaken during the International Geophysical Year, and has taken part in observations for the Association of Lunar and Planetary Observers, the Association of Variable Star Observers, and has cooperated with the Louisiana State University in keeping records of the flights of migratory birds. He is also chairman of the National Observing Committee of the Royal Astronomical Society of Canada.

Earl is the second member of the Edmonton Centre to receive the Chant Medal. The other was Cyril G. Wates, to whom it was awarded in 1943. The Edmonton Centre feels justifiably proud of this double honor. Our thanks and congratulations, Mr. Milton!

Summer Observations With the lengthening of the days, now is a good time to consider observing the sun for sunspots (never, of course, through a telescope without a proper sun filter). There have been some brilliant aurorae recently, and the more daily reports that can be collected of numbers, size, and position of sun spots at definite times, the easier it will be to correlate their occurrence with that of aurorae, and both with various terrestrial phenomena such as radio interference, storms, and (some say) the size of wheat crops and the quality of wine.

Jupiter and Saturn will be best seen after midnight for another month or so, but after mid-June, Jupiter will be rising around sunset, and Saturn an hour later, so that for three or four months both planets will be prominent in the evening sky. During the same period, Mars will be a morning star. Venus will become visible for a short time after sunset beginning in September.

Among the special phenomena to be watched for during the summer are: the Aquarid meteors from about July 20 to Aug. 8; with their maximum on July 29; the Perseids on August 11 and a day or two before and after; and a total eclipse of the moon on September 5. (The handbook seems to have slipped up by giving us an additional lunar eclipse in August and another shower of Perseids in September.) We should also be able to see a partial eclipse of the sun on September 20 before sunset, provided the weather is clear.

TIME-TABLE FOR LUNAR ECLIPSE, SEPT. 5, 1960

Moon enters umbra	2.36 M.S.T.
Totality begins	3.38 M.S.T.
Totality ends	5.06 M.S.T.
Moon leaves umbra	6.08 M.S.T.

The timing is not quite so convenient as for the March eclipse, falling as it does on a Monday morning, but those who have ever witnessed the beauty of a lunar eclipse might feel well rewarded for rising up for 20 minutes or so to watch the spectacle. People of leisure, of course, should try to see it all.

If, as now seems likely, the planetarium is in operation this summer, we are prepared right now to go out on a limb in predicting a marked increase in Edmonton in interest in observational astronomy. It is none too soon now to consider a planned programme of observation for the fall and winter. We should like to commend to you the suggestion of our President in last month's issue, to the effect that a Chairman of Observers be appointed, whose job it shall be to call together the lieutenants of the various sections and with them organize plans. Incidentally, we have been looking for some of the observatory group leaders to take their own groups along, preferably in daylight at first, for training in manipulating the instruments.

"Edmonton Sun" As some of you have already noticed, the rapidly-
Carries Astronomy Notes: growing "Edmonton Sun", apparently sensing the
ever-increasing interest in astronomy, is now
carrying a bi-weekly column, "Alberts Skies", drawing attention to phenomena
of current interest in the heavens. So far the articles have drawn attention
to Orion, Jupiter, meteorites, and comets. Articles to follow soon will
probably deal with aurorae and sunspots, the Circumpolar Constellations,
observing the moon, the brightest stars, and so forth. We would like to
congratulate Mr. Ken Larsen for taking the initiative in this regard, and
we believe this venture will be of mutual benefit to the Edmonton Sun and to
our society.

Gift from At our April meeting, members of the Society were delighted
Mrs. Campbell to receive from Mrs. Ruby Campbell a beautiful copy of the
great Larousse Encyclopedia of Astronomy. In thanking Mrs.
Campbell, Dr. Crosby drew attention to the exceptionally fine illustrations
throughout the book, for which there is already a good waiting list of
would-be borrowers. Mrs. Campbell is presenting the book as a memorial to
her husband, the late Dr. J. W. Campbell, founder of the Edmonton Centre.
We feel it will be a worthy memorial to a great pioneer of astronomy in
Edmonton.

Aurorae Report An increase in aurorae activity has been detected by the
Dave Marven aurorae observers. March and April have shown a distinct
increase in displays as compared with January and February. Usually spring
and fall maxima are noticed in Edmonton, and some of our best displays occur
during these periods. March had 11 displays; some reds and fast motion was
observed in a few of them. Robert Allin led the group with the most reports.
April had 13 displays, of which a few were very good, bright violet and red
colors being prominent in several displays. Franklin Loehde led with 19
reports.

Starting in the fall, a major aurora form will be discussed each month.
Members are reminded that a big drive for recruits will take place at this
time.

President's Message There has always been considerable speculation as to the
existence of life on other planets, and it is generally
felt that it would be a selfish thought to assume that our Earth is the only
heavenly body blessed with life. This is in view of the millions of Galaxies
in existence, each containing perhaps billion of stars. Should there not be by
chance a certain proportion of these stars having planetary systems similar to
our own. In fact I have heard of a recent estimate claiming the possibilities
to be as great as one star in ten having planets which could support life.

However, life on other heavenly bodies would no doubt be different in form
from any on earth and would survive under widely different conditions. When
we realize the differences in life in Australia as compared to that in Canada,
we should certainly allow for vastly greater differences between one planet
and another. The various forms of life survive only within very narrow limits
of the environment as it exists on earth. The differences between one heaven-
ly body and another would exhibit a far wider variation. It would be a

coincidence to find another planet with atmospheric conditions identical with our own, having similar composition, density and temperature ranges so necessary to life as it exists on earth.

Apart from aspects of life on other heavenly bodies, I am of the opinion that other planetary systems could be much more complex. They would exhibit a pattern far different from that of our solar system. The center of the system may be different. There may be one star, its prospective size ranging from many times larger to a fraction that of our own sun, with similar temperature ranges. There may be a binary system composed of a companion star revolving about a centre inside the major star or of two stars similar in size revolving about a common centre located somewhere between them. Or could there be one primary star and two or more companions, or perhaps two pair of binary stars?

And other stars, especially those larger than our sun may be accompanied by planets that would dwarf Jupiter in comparison. Their orbits and period of revolution may be within that of Mercury or beyond that of Pluto. Binary stars could have an especially complex planetary system. To what extent would each star have its own system of planets, or what limitations would determine when planets would revolve about the common centre of gravity of the binary system? Nor are there any limitations as to the number of planets that may exist.

The same complications may apply to satellites, with variations in size and number. At what point would a satellite cease to be considered as such and be classified as a companion planet instead? And would it not be possible for a satellite (especially larger ones) to support life; or perhaps have a system of satellites of its own. Perhaps there would be more evidence of retrograd motion among them.

And to what extent would beings on other planets be influenced by, or be witness of, phenomena as known in our solar system. What eclipses, would they see? What aurora would grace their Polar skies? What comet tails and meteor trails to add to the splendor of a starry night? And would they see even stranger and more perplexing sights than Lunar craters, the canals on Mars, or Saturn's rings.

James Harrington.

New Photoelectric Magnitudes by Roques and Cragg, April 2, 1960
185213 Nova Her 1960
See AAVSO Preliminary Chart

B.D.	1855	Coord.	Magnitude		B.D.	1855	Coord.	Magnitude	
			P.E.	Prelim.				P.E.	Prelim.
13 ^o 3841	18 ^h 52.4	+13 26	5.40	5.4	13 ^o 3827	18 ^h 50.6	+13 5	8.89	7.6
13 3838	52.1	+13 43	5.89	5.9	13 3832	51.4	+13 16	9.02	8.9
14 3709	48.9	+14 12	6.58	6.5	13 3850	53.1	+13 4	9.48	9.1
13 3826	50.5	+13 11	7.20	6.9	13 3828	50.9	+13 32	9.89	9.7

Nova Her is 2° north of 8.89

A. A. V. S. O.
Nova Search Division
653 Weller Road
Elyria, Ohio

HARVARD COLLEGE OBSERVATORY
ANNOUNCEMENT CARD 1473

NOVA. - Dr. J. Vinter Hansen at Copenhagen has cabled that Dr. S. Rosseland reported the discovery by Hassel of a nova as follows:

Ut $4^h 30^m$ March 7, 1960 Mag. 5

a - $18^h 57^m$ (1855) d - $-13^\circ 00'$

March 9

Fred L. Whipple

The above is all we know so far. Congratulations to Hassel, sorry the congratulations couldn't have been to you, dear reader and (?) observer. If not an observer in our Nova Search Division of the A.A.V.S.O., just drop me a line. If you claim you ARE an observer, just drop us the observations at the end of the month. Thanks. In the meantime remember there will be more so-----

Keep Looking,
George Diedrich,
Chairman.

National Meetings: It was indeed a great pleasure to be able to represent the Centre as its official deligate to the Annual Meetings of the Society held in Montreal in April 8 and 9th.

On the way to Montreal, I was able to stop off at both Toronto and Ottawa. While in Toronto I was fortunate enough to visit the National Headquarters of the Society and meet Mrs. Fidler. She was of great help in helping me to solve the mysteries of navigating (terrestially) through Toronto. The next day, I was also able to visit the David Dunlap Observatory. The members of the staff there, were most hospitable to me during my afternoon stay at the observatory. I was able to renew my acquaintanceship with Dr. Bogg and she asked to be remembered to all her friends in Edmonton. I was conducted about the observatory by the director, Dr. Heard. After my visit to the observatory, I was entertained for "pot-luck" supper by Miss Northcott, who then guided me towards the

general direction of Dick Henry's house. Dick, as many of you will remember, was an active observing member of our Centre during his stay in Edmonton a few years ago. We both had much to talk about and he expressed the wish to be remembered to all in the Centre. I have been hinting to him that he should try to start an auroral programme, similar to ours, in the environs of Toronto.

After an all too short visit to Toronto (the good), I left for the nation's capital, Ottawa. Here I spent most of the day with Dr. Millman at the Aurora and Meteor Centres, which are located on the Montreal Road site of the National Research Council. Both Dr. Millman and Dr. McNamarra were very kind in showing me all of the facilities for processing the amateur data received by these centres. Dr. Millman and his staff were most appreciative of the contributions made by the Edmonton Centre observers over the I.G.Y. period.

In Montreal, I renewed many astronomical acquaintanceships during my twelve day stay. I was able to attend an impromptu "work party" at the observatory of the Montreal Centre and was treated to a special mop with my name on it, and a session at window washing using cloth and Windex. The evening showed me that not too much difference exists between the Edmonton and Montreal styles of observing groups. I felt right at home.

All too soon the two day meeting was upon us and on Friday morning we were all busy setting up the exhibits for the observing display. The general standard of this first exhibit was high and subsequent displays will have to be very good to live up to this first observing exhibit. The two Alberta Centres accounted for a little over one-third of the total exhibit space and were received well by all those present. The main portion of the meetings were taken up with the National Meeting, the Papers Session, and the Observing Discussions. All three of these events were recorded on magnetic tape for the use of the members of our Centre. The Presidential Address, given by Dr. McKellar, was the same lecture that members of the Edmonton and Calgary Centre's heard two weeks prior to the meeting.

The next day several good amateur observing papers were presented at the Papers Session. In general they showed a high grade of amateur achievement in observing astronomy. The session was most enjoyable. In the afternoon a conflict prevented me from attending the Observing Discussions since I was obliged to attend the National Council Meeting for the Centre.

Several social meetings occurred over the two day interval, at which time I managed to make several contacts with observers in other Centres. I hope that these contacts may help foster a quicker achievement of our ideas for a National Observing Play.

The meetings ended all too soon, and I left for home refreshed that there were other astronomers from coast to coast with the same goals and aspirations as those of the Edmonton Centre members.

*Edmonton, Alberta
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Mrs. F. Focke*