

Volume...7...Issue...7

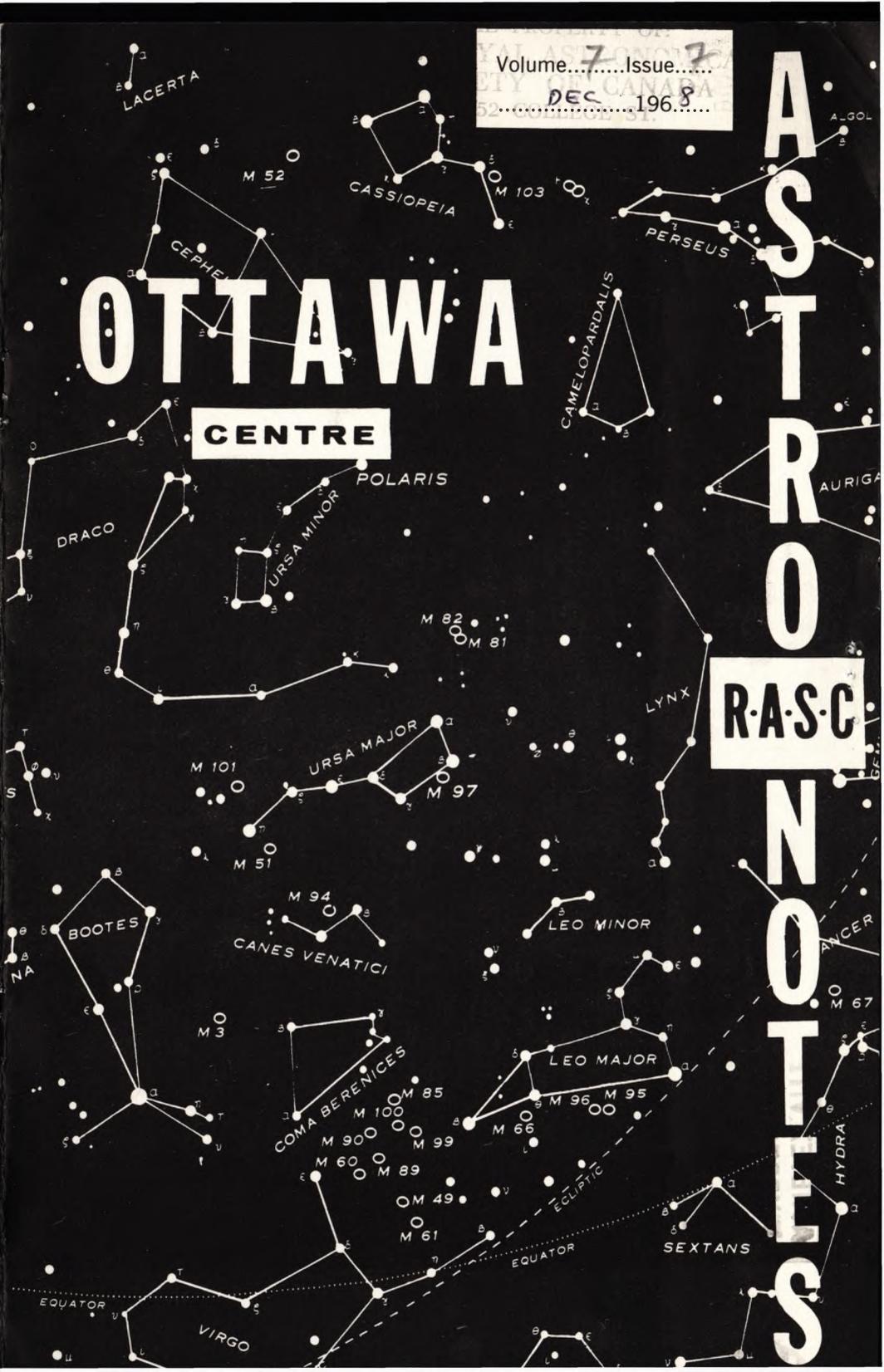
DEC 1968

OTTAWA

CENTRE

R.A.S.C.

ASTRONOMICAL NOTES



Editor: Tom Tothill 22 Delong Dr. Ottawa 9
Circulation: Rick Lavery 1227 Morrison Dr. Ottawa 6

EDITORIAL

Astronotes has been requested, by National Headquarters, to reproduce a brief summary of the important changes to be made in the Constitution of the Society, together with a ballot for members to cut out and return to Headquarters signifying approval or disapproval of the new Constitution.

However we thought it best to take a look at the old (i.e. the current) Constitution before doing so, and we found it to be quite specific on how it may be amended. The amendments in full must reach all members of the Society not less than a month before the Annual Meeting, at which time it may be amended by a two-thirds majority in favour. As these steps have not been taken, we find it necessary to warn anyone who receives the Summary and the Ballot that the procedure is illegal and the ballot invalid.

This is not to say that the proposed Constitution is bad. Our own Malcolm Thomson put in a lot of work on it and the Council of the Ottawa Centre reviewed it in detail early this year. Its main objects are to secure a National Charter for the Society (we only have an Ontario Charter at present), to permit the Society to own property in any Province, to permit it to invest surplus funds and monies entrusted to it, and to permit it to affiliate with other kindred societies outside Canada. Council agreed that the wording is generally clearer than the present Constitution, and the objectives well worth pursuing.

The draft of the proposed Constitution should be published in full in or with the R.A.S.C. Journal, so that all members know what they are getting into before filling in a ballot. This is also a good example of the need for a National News periodical to which members could contribute from all across Canada - a need which we and other Centres have been aware of for some considerable time. Such a periodical could well publish and invite comments on a matter of national interest such as this. Ottawa Council recently adopted a motion that this matter be put on the agenda of the next National Council meeting and we trust that this will result in some speedy action, and maybe provision for it in the new Constitution.

METEOR OBSERVATIONS FROM THE ALGONQUIN
RADIO OBSERVATORY

Peter Ryback

This summer, it was a pleasure for me to have worked at the Algonquin Radio Observatory of the N.R.C. Taking advantage of the excellent sky conditions there, I managed to meteor observe on 8 nights from May through July. The following is a summary of the observations made.

	<u>Date</u>	<u>Ten Min. Periods</u>	<u>Meteors</u>	<u>Shower Meteors</u>
May	15/16	24	46	10 Herculids
	18/19	19	41	15 "
	25/26	26	42	12 "
Jun	13/14	8	10	- -
Jul	17/18	17	26	3 Perseids
	22/23	24	55	17 DltA Aquurds 20 Perseids
	26/27	28	89	29 DltA Aquurds 24 Perseids
	29/30	6	28	10 DltA Aquurds 14 Perseids
TOTALS:				
Nights:	8	152	337	37 Herculids 61 Perseids 56 Aquarids

The final result for the number of Herculids seen is interesting. This shower is listed as a minor shower, yet an analysis of my observations in May shows that at maximum, the hourly rate for the number of meteors seen per person would be 14 meteors/hr on May 21 - (this includes the average 7 sporadic meteors/hr.)

These shower meteors appear white and Perseid fast, but few leave persistent trains. Perhaps one reason why this shower would be relatively unnoticed is the fact that the average observed magnitude of a Herculid meteor was 3.2 (computed from the magnitudes of the 37 Herculids seen at A.R.O).

Apparently the period $\frac{1}{4}$ strength of shower maximum extends from May 13 to May 28. Hence this may be an interesting shower to observe for statistical purposes next year.

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For Sale: 3" Tasco Reflector, Less Mount.

- John Conville, 733-8299

While browsing through a book called Geomagnetism by Chapman and Bartel, I came upon a solar observation that I think is deserving of further attention. It was by the famous solar astronomer R.C.Carrington and is quoted on p. 334 of the book.

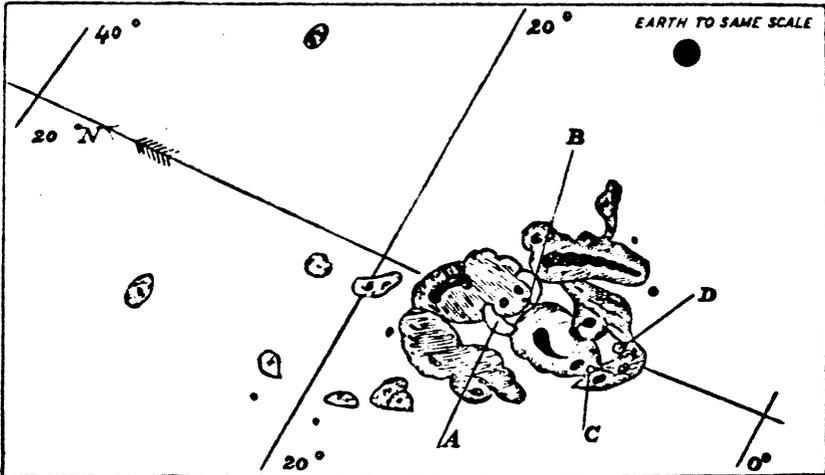


FIG. 36. Solar sketch, September 1, 1859, by R. C. Carrington

"the image of the sun's disk was, as usual with me, projected on to a plate of coated glass ... a picture of about 11 inches. I had secured diagrams of all the groups ... when within the area of the great north group ... , two patches of intensely bright and white light broke out ... My first impression was that by some chance a ray of light had penetrated a hole in the (shading) screen attached to the object-glass, for the brilliancy was fully equal to that of direct sunlight; but ... by causing the image to move I saw I was an unprepared witness of a very different affair. I thereupon noted down the time by the chronometer, and, seeing the outburst to be very rapidly on the increase, and being somewhat flurried by the surprise, I hastily ran to call some one to witness the exhibition with me, and on returning within 60 seconds, was mortified to find that it was already much changed and enfeebled. Very shortly afterwards, at 11h 23m, the last trace was gone... I was certainly surprised, on referring to the sketch finished before the occurrence, at finding myself unable to recognize any change whatever as having taken place. The impression left upon me is, that the phenomenon took place at an elevation considerably above the general surface of the sun, and

accordingly, altogether above and over the great group in which it was seen projected..."

(Fig. 36; A, B eruptions as first seen; C, D last traces.)

The book continues: "On calling at Kew Observatory a day or two afterwards, Carrington learned that at the very moment when he had observed this phenomenon the three magnetic elements at Kew were simultaneously disturbed ... This disturbance occurred as nearly as possible at 11h 15m GMT, on September 1, 1859, affecting all the elements simultaneously, and commencing quite abruptly."

"We should now be inclined to regard this simultaneous disturbance as due to a fleeting excess of ultra-violet light, and the great storm beginning about 18 hours later, at 4:50 a.m., September 2, as the effect of the sun's corpuscular radiation."

"This storm, especially the remarkable coincidence of the solar flare with the beginning of the short bay-disturbance, has often been discussed. Lord Kelvin regarded the evidence as a mere coincidence."

By 1901, Carrington's observation had been dismissed by Ellis as misconception "... for although the Sun, in the ordinary routine of solar work, has since been unremittingly watched, and a continuous photographic magnetic record also maintained, similar conditions have not been again observed ..."

The book concludes: "If the clear relation found in the years 1935 and 1936, between solar eruptions and radio fade-outs had not given additional weight to the coincidence of Carrington's observation with small but significant simultaneous magnetic disturbances, geophysicists would even today maintain the cautious standpoint expressed by Ellis. But Carrington's solar eruption, seen in the total light (not in one spectral line or band), remains a unique observation."

The underlining above is mine. It emphasises the rarity of the phenomenon we of the Solar Group observed on Feb 26 (see Astronotes, April). It closely paralleled Carrington's in brevity, brightness, location in a large sunspot, and phase of the solar cycle. We had a radio fade-out but there was too much "noise" to discern a magnetic disturbance.

SOLAR PATROL

Steve Craig

The duties of a co-ordinator are to encourage interest in his field of astronomy, co-ordinate the activities of observers in the group, and to process observations received. In the month of November these duties became very hard to perform. Up to the 22nd we have had only eight days clear enough to permit observation and I doubt if the weather will change drastically before the end of the month.

This fact made it impossible to co-ordinate any programs and there are very few observations to process. The most difficult factor however is the hopeless job of keeping interest up in a sun that hasn't shown its face in weeks. This is where I need the assistance of every member of the Observers Group; the fact that the sun hasn't shown its face in two and a half weeks is no reason to suppose that it never will. We need more observers who are prepared to go out and observe the sun whenever it breaks through that almost impenetrable layer of cloud. You don't need to have a large expensive telescope to produce useful information. Any instrument can be used, whether it be Reflector, Refractor, six inch, two inch, spotting scope or binoculars.

Anyone who is interested in the sun but never thought that their observations would be useful should contact me. I would be happy to help them set up for solar observing. They could telephone me or better still write a letter describing their telescope and observing conditions.

I am also interested in getting past observations by any member of the group. If anyone has any old observations no matter how ancient they may be they should send them in to me. I would be very happy to receive them.

My address is:

345 Third Avenue
Ottawa 1, Ontario.

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DEEP SKY

Ken Hewitt-White

It has been quite a while since this corner was last published and during that period which has extended from May through November a lot has happened in the deep sky field. Mr. Tothill reviewed a few of these items in his editorial last month and perhaps it is worth elaborating on them a little further along with introducing some new projects for the benefit of those that missed the last

Observers Group meeting. One such project includes a Deep Sky "Draw-In" and along with this I'll talk of some personal programmes started in the summer that are still going strong with some observers.

Firstly, though, all should know of the Messier race winner, Les MacDonald, who completed the 110-object list in mid-July. I came a reasonably close second, completing later that month, and Dan Brunton was left third by his failure to snatch his last object out of the increasing June twilight. Incidentally, Dan is still ahead of all others in the Messier race. Those who have only a few Fall M-objects to go and who feel they can beat him had better hurry.

Meanwhile, there are many personal projects in progress. Steve Craig continues his naked eye conquest of deep sky objects. He saw several of the Milky Way clusters in the summer and still has not found anyone who can better his count of twelve naked eye stars in the Pleiades. I have seen ten and I am sure there are others just as close - perhaps a few of us should challenge Steve's famous eyes. Those who do should make an accurate drawing of what they see and send it to me. I will check it out with a large scale map and will let you know of your eyes' success. The average observer should see seven or eight Pleiades stars, good eyes may perceive nine or ten, and the best might make out twelve or thirteen. Those with a good imagination might see more but only a bleary-eyed meteor observer could get as many as fifteen or sixteen!

Personally, I am now engaged in an extensive review of the Herschel objects. There are over 2,500 nebulae and clusters in his old catalogue and, needless to say, I have my work cut out for me.

The Deep Sky "Draw-In" mentioned earlier is still in its developing stages. As I mentioned at the last meeting, it simply entails the sketching of deep sky material by various observers with different-sized telescopes and comparing the drawings with each other. The better drawings I hope to have published in Astronotes in the months to come.

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LAST MONTH'S BOOB was to say that Regina is 300 miles from Calgary. John Howell reminds me it is more like 480 and they covered 1000 on the round trip. John does lunar graze profiles for Canada, Australia, and New Zealand too. -Ed.

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RASC

