

FROM

HALIFAX CENTRE R.A.S.C.
1747 SUMMER ST.
HALIFAX, N.S.



May 73

TO

ROYAL ASTRONOMICAL SOCIETY,
252 COLLEGE ST.,
TORONTO, ONTARIO.

NOVA NOTES



44° 38' N
63° 35' W

HALIFAX
CENTRE

NOTICE of MEETING



Halifax Centre

R.A.S.C.

Date: May 18th, 1973

Place: The Theatre
Nova Scotia Museum
1747 Summer St.
Halifax, N.S.

Time: 8:00 P.M. Sharp!

Topic: Apollo XVII; A Film View of an
Awesome Sight!

Speaker: Dr. Roy Bishop
Department of Physics
Acadia University
Wolfville, N.S.

All members and guests are most welcome!

Nova Notes are printed, thanks to the
goodwill of the Nova Scotia Museum.

Editor's Page

Is there something you would like to see in Nova Notes? Perhaps you would like to ask, tell, or suggest something to your editor. Well I've just the ticket for you! A new feature starts this month. It's called "Letters to the Editor". How does that grab you? I would like to know, so write to me.

The Executive has come up with another idea and would like to hear your reaction through Nova Notes. The idea is the Summer Telescope Workshop. Well, what do you think? Sounds great to me!

I would like to repeat something I said several months ago, concerning the printing of Nova Notes. They are printed by a photographic process, thus, "What I see is what you get!" That is to say, if you send in an article that is hand written and on an old piece of paper, that is what will come out, which is unacceptable. So if you follow the rules below, you can't go wrong...

- 1) Decide on an interesting topic.
- 2) RESEARCH your topic.
- 3) Jot down your ideas.
- 4) On one side only of 8½X11½ paper type out your article
- 5) Entitle it and be sure to type your name at the end.
- 6) DO NOT NUMBER YOUR PAGE(S).
- 7) Get it to me before the second last Friday of the month preceding publication by any of the methods that I have described in earlier issues of Nova Notes.

It's not so hard, so why not try it out this month?

Peter Edwards
The Editor

Minutes of Meeting on April 20, 1973

The meeting was opened by Dr. Cunningham, who displayed a portrait of Copernicus which has been presented to the Halifax Centre by the National Office. It was suggested that the portrait be displayed in the Burke-Gaffney Observatory for the time being. Dr. Cunningham then announced that a contest will be held, with a prize offered to the person who locates the most postage stamps with reference to Copernicus. Dr. Cunningham displayed a First Day Issue from the United States, and described several other stamps he had seen.

The question of a Halifax Centre delegate to attend the General Assembly in Ottawa was discussed, with an invitation to members to attend. By the end of the meeting, Mr. Peter Edwards, the Editor of Nova Notes, had been chosen to represent the Halifax Centre. Dr. Roy Bishop of Acadia University may also attend. Mr. Edwards will give a report to the Centre next month.

The speaker for the evening was Dr. Keith Hoyt, from the Physics Department at Dalhousie University. He spoke on "Some Problems of Telescope Design", with reference to the 12-inch telescope with which the Halifax Centre has been associated. Dr. Hoyt described first the optical components which have arrived, and proceeded with some thoughts on the design of the mechanical mounting. He proposed a fixed-telescope design, to be used with a movable flat mirror. Two mirror systems are being considered: a coelostat, or a siderostat. Both designs have the advantage of a fixed eyepiece (i.e. not moving during the night so one could observe while comfortably seated), and solid construction so that heavy instrumentation could be employed with no problems of vibration of the telescope optics. Some disadvantages over an equatorial mount were also discussed. About 32 people were present and the meeting adjourned at 9:45.

April 30, 1973

"Letters to the Editor"

The Editor
Nova Notes
Halifax Centre
Royal Astronomical Society of Canada

Dear Sir:

I wish to communicate to you and your readers the results of an informal survey conducted to tell us what topics the members of the Halifax Centre would most enjoy hearing about.

Of the some 35 paid up members, I received 16 replies. I added up the preferences, with higher weights to first choices, etc. In order of overall preference were the following topics:

showing of The Violent Universe	16 points
questions on Cosmology	14 points
Mariner 9 results	12 points
deep sky objects	12 points
optical pulsar HZ Her	9 points
black holes	8 points
Arp's theory of QSO's	7 points

The remaining 5 topics averaged about 4 points each; the points are weighted for first choice, etc.

Various other suggestions were made by individuals; we will try to keep these topics in mind. The Violent Universe will be available in early fall, and we plan to show it at a regular meeting. We have discussed ways of organizing our summer observing sessions, and we plan to distribute finding charts for interesting objects. We hope your ideas will appear as letters to the Editor in future issues.

Sincerely,

Dr. David L. DuPuy

Reply:

Thank you Dr. DuPuy, I'm sure our readers will be interested to here about the poll you have just completed and followed up promptly.

The Editor...

John Cunningham
381 Campbell St.
Summerside, P. E. I.

HAVE YOU VISITED?

I'm sure many of you Halifax members(I live in Prince Edward Island) have been to P.E.I, and have visited S'side(an accepted abbreviation for Summerside).

You may be interested to know that here in our "fair city"(more a town) there is an observatory, a 10 inch telescope, which, atop Athena Regional High School, is never used by the teachers or students, because they don't know how. But from experience I have learned any experienced amatuer can get in and use it if he calls the school and speaks to Mr. James MacNiell, the principal of that school.

Though on the surface there isn't much to do, one can use his time very well planning by day and observing by night the wonders of the sky, shown in a wonderous splendor here in the S'side night sky, which, when clear, seems never to fail to be steady, clear, and beutiful. I recomend a late night, about 1 am to 4 am, though depending on the season as an observing period.

Be sure to call me if you come, perhaps we could arrange a night at the Athena Observatory, a telescope observing session(I own a two inch) or a meteor session. My number is in the book, and we can arrange a meeting of some sort, and I can introduce you to one or two other interested amatuers.

JOHN CUNNINGHAM,
AGE 13, STUDENT MEMBER,
HALIFAX CENTER, RASC

Summer Telescope Workshop!

We wish to announce a workshop that will take place this summer, for the construction of telescopes! We have arranged for an instructor, Mr. John MacNeil, to be available one night a week during the summer, to conduct the workshop. St. Mary's University has offered the use of a room where grinding operations can be left set up. It is hoped that several of you will take advantage of Mr. MacNeil's expertise and experience, and it will be informative and instructive for bystanders to drop in and see several mirrors at different stages. The Halifax Centre's new grinding machine will speed up the grinding of your mirror, and some friendly competition should speed things up too. Friday nights are proposed as a meeting night; contact Dr. DuPuy for more information.

* * * * *

As you saw on page 261 of the April 1973 Sky and Telescope, an occultation of the asteroid Vesta by the moon will be visible in the Atlantic Provinces on the evening of May 5. The importance of observing this event is to determine the diameter of Vesta by timing the ingress, i.e. the time for Vesta to pass from first to second contact. A team of astronomers from the Macdonald Observatory at the University of Texas at Austin will be here in Halifax on May 2, with plans to observe the occultation with the 16-inch telescope of the Burke-Gaffney Observatory. The asteroid should require on 0.66 seconds to disappear, so high-speed photometric equipment is required, and the University of Texas team has considerable experience in this field. Dr. David Evans, who will lead the "expedition", is especially well known for his work in observing occultations.

Dr. David L. DuPuy

~~Sunday~~
Monday, April 1st, 1:45 Universal Time

Report by John Cunningham, 381 Campbell Street, Summerside,
Prince Edward Island Age 13

Tonight, between 12:55 am to 1:20 am six meteors were seen, all of which were around the constellation of Auriga, 4 of which seemed to fall from the zenith in Gemini. Another, very bright, rivalling Saturn, was passing through Auriga seen by my brother, Bob Cunningham. The other one, the only one accurately measured, was a bright yellow in color and lasted, as had the others, for less than a second. It, however, was on an angle and passed parallel to Alpha Orionis and Gamma Orionis, and as the others was heading towards the horizon. It was seen at 12:55 (all times UT orientated) am. Later, at 1:40 Bob again saw a meteor, it having a radiant similar to the just above mentioned one, was bright, lasted $1\frac{1}{2}$ seconds and angled through between Aldebaran (Alpha Taurus) and Saturn. Its magnitude was similar to Saturn's.

The first seen was at 12:55 am UT and was angling parallel to Alpha and Gamma Orionis, though it had a five degree path it stopped just under Lambda Orionis. It lasted about .8 of a second, but reached its maximum, Saturn brightness, magnitude after $\frac{2}{3}$ of the flight and lasted at it for less than one tenth of a second.

The next four, all within eight degrees of Auriga, were faint and hazy. None were brighter than magnitude four.

The next was seen by my brother Bob, and he didn't know what was necessary to complete a meteor report, but he remembered it was passing through Auriga.

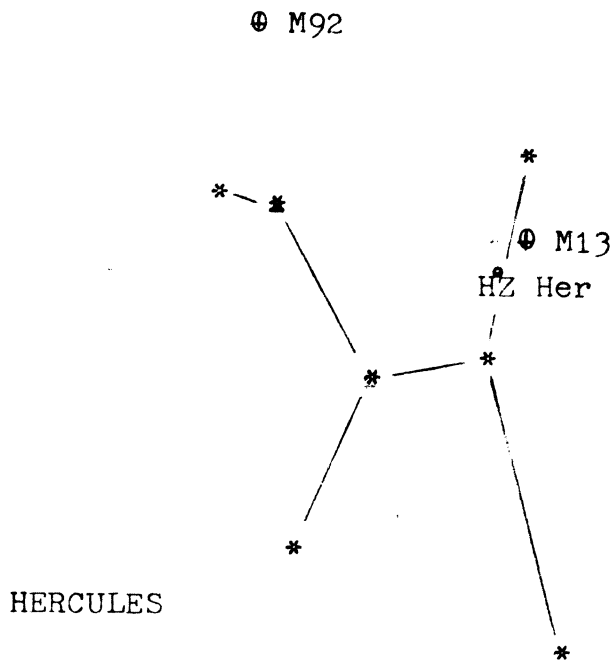
The last meteor was again, as was the previous seen by Bob, as bright as Saturn as a guide. It passed angularly through Taurus, half-way between Saturn and Alpha Taurus, and it lasted for almost 1.5 seconds.

This report is intended to draw your attention to a sudden burst of meteoric activity, as seen by Bob and John Cunningham, April 1st, 12:55 am to 1:40 am UT.

* * * * *

Featured Constellation for May

Hercules is approaching the zenith by late evening this month. In this constellation are M 13, M92, which are both beautiful globular clusters and also the new optical pulsar, HZ Her.



THE GREAT ASTRONOMICAL PHILATELIC CONTEST !

In order to further celebrate the re-emergence of the idea that the earth rotates around the sun (heliocentric) and to further the memory of Nicolas Copernicus (b. 1473) it is proposed to have a contest in The Halifax Centre of displays of the stamps of the world that have been printed to commemorate this event.

All may enter.

Executive and families may not win prizes.

Judging will be by the Philatelic Club at the N.S. Museum.



Points will be for artistry and completeness.

Prize winning sheets should be displayed with our new

portrait of Copernicus.

GOOD LUCK

CONTEST ENDS AT THE SEPTEMBER MEETING.

DR. M. CLINE
RADIO TELETYPE
VICTORIA GENERAL HOSPITAL
HALIFAX, CANADA
DEPT. OF HEALTH
POST OFFICE
VICTORIA
BRITISH COLUMBIA
CANADA

OH MY ! BUT HAVE YOU READ !!

There are two priceless articles in current periodicals that are a "must" for the serious amateur. Possibly the second one would be for the senior student.

SCIENTIFIC AMERICAN, APRIL 1973 Page 28

The Brightest Infrared Sources. You know what the sky looks like. The "big eye" on mount Palomar sees much the same thing only more of it ! If however you were to see at a longer wave length say, 2 microns, the brightest objects would be quite different. Betelgeuse would be the brightest because it is a relatively cool super giant. This is interesting but as expected. If however you could "see" at a wavelength of 20 microns the whole picture changes and none of our familiar objects are seen. Eta Carinae becomes the brightest and the great nebula in Orion is no. 3. But here is the exciting thing. No. 7 in brightness is the centre of our galaxy ! With that taste you should see what the galaxy centre looks like at 100 microns and 3.8 cm. One at last feels that we are really in a galaxy !

TRANSACTION OF THE NEW YORK ACADEMY OF SCIENCES MARCH 1973

Neutron Stars and Black Holes in Our Galaxy by Remo Ruffini

This is a long essay and it was accorded the Cressy Morrison Award in Natural Science. It is superbly written and can be struggled through with increasing excitement. It begins with the anomalous precession of perihelion of Mercury and goes on by gradual steps in relativity through the classical tests of relativity to the Super Novae and collapsed objects. From there it proceeds inexorably to neutron stars and black holes. Not content with that, we are given a glimpse of the possibilities of observing gravitational waves. I will leave my copy with our library. 97 references !

Murray Cunningham