

NATIONAL NEWSLETTER

North Mountain Observatory Well and Truly Opened

On October 22–23, 1971, there occurred one of the more significant events in the history of amateur astronomy in Canada, for on that date, the Ottawa Centre officially opened the North Mountain Observatory. Here, in the unmistakable words of Tom Tothill (editor of "Astronotes," the newsletter of the Ottawa Centre) is a description of what happened.

The Department of Environmental Atmospheric was planning a fine night, as usual, for the indoor ceremonies on Friday. And rain, of course, for Saturday's outdoor events. But our Swami got on the 'vertical hot line' with his customary persuasive effect. The inscrutable smile slid to the other side of Krishna's face and the wind went round – to the Far East (where else?). And Saturday became beautiful, day and night.

The Friday ceremonies in Camsell Hall were presided over by Dr. Lloyd Higgs. Dr. Lossing gave a review of the project, from the rumour planted by Rick Lavery three years ago that we had the talent and enthusiasm to build a sixteen-inch telescope, to its completion with site and clubhouse, far from city lights. As Chairman of the Observatory Committee, Dr. Lossing then presented Gordy Grummett with an eyepiece and a Barlow lens in recognition of his outstanding work on the telescope mount.

Guest of honour Walter Scott Houston was then invited to unveil a plaque to be installed at the Observatory, recognising some of the major contributions.

Mr. Houston's address was on "Amateur Methods of Solar Observing" and illustrated with slides and the amusing anecdotes deriving from a lifetime of intelligent participation in amateur astronomy of all kinds. His radio receivers, for example, operate on the edge of breakdown "like most marriages" and his solar observatory is cunningly left unfinished at the back because Connecticut taxes can only be levied, by law, on "finished buildings".

As the clouds rolled back on Saturday, Mr. Houston was shown over the new Solar Observatory at the Quiet Site by Dr. Gaizauskas and got a fine view of the current large spot groups and the granulation. He also toured our amateur complex at the Site and "logged in" in the book.

Meanwhile, down at North Mountain, Rick Lavery and several others were busy stringing lights and otherwise getting ready for the 8 p.m. ribbon-cutting. Specially notable was Mrs. Jean Knapp's contribution of a new table for the clubhouse made by her husband and painted by herself. She also brought a beautiful cake for the occasion, with the Observatory depicted in the icing. By the time the official party arrived it was dark and the site was festive with coloured lights and people under a stary sky. About half a dozen members had brought their telescopes and set them up to shorten the queue at the Sixteen Inch, and it was a pleasure to see many old friends and some new ones – particularly the Allens who have the adjacent farm.

True to amateur form there was a last-minute panic over the disappearing scissors and the defective light socket, but all was resolved before too long. Walter Scott Houston

presaged his 'snip' with some well chosen remarks contrasting our "highway to a billion light years" with some of the less desirable of modern public road works.

Then began a wonderful night of observing, with pauses now and then for coffee, cake, doughnuts, talk and laughter. All systems on the telescope were 'go' though some were only hours old like John Conville's light-emitting diodes on the peep sights. To the purists the whole idea of dialing the coordinates and finding your object without search was utterly revolting, so we let them do it the hard way now and again. But if you don't know where to look in the first place it sure saves time, and teaches you where to look too.

Now, who is going to be the first to discover something new and significant with this fine instrument? The winter is likely to provide more opportunities for uncrowded observation than any other time.

International Union of Amateur Astronomers

The second triennial Congress of the International Union of Amateur Astronomers will be held from July 31 to August 5, 1972 in Malmo, Sweden, in the Lararhogskolan Teachers' College. In addition to the conducting of the business of the Union there will be ample time for scientific colloquia and lectures. Since 1972 is the 400th anniversary of the discovery of Tycho's Nova in Cassiopeia, a tour to the remains of Tycho's old observatory in nearby Hven is being planned, as well as to Copenhagen and the Round Tower where Ole Roemer worked. Members and non-members are invited to participate in the Congress. Interested parties should contact K. E. Chilton, 93 Currie St., Hamilton 57, Ont.

K. E. CHILTON
Hamilton

From The Library

Anyone who heard Professor J. E. Kennedy, our Past President, speak at last May's General Assembly will realize that there may be a wealth of historical material lurking in dusty corners of our libraries and institutions across the country – even in unlikely places. When I visited the home of millionaire Cyrus Eaton this summer, I was surprised to find a picture of his famous uncle Simon Newcomb, whose birthplace, it turned out, was only a few miles away.

The history of astronomy in Canada has, until recently, been given scant attention. Surely the time has come when we, as a Society, must make a conscious effort to record what materials are available, or better still, to retrieve these documents and store them in an archive. Publications, correspondence, photographs and instruments should all be included in the scope of this search. Here is an endeavour which should foster our national pride, boost confidence in the value of the R.A.S.C. and provide a project in which amateurs and professionals can unite.

At the time of writing, Dr. A. V. Douglas in Kingston and Professor J. E. Kennedy in Saskatoon have agreed to serve with me as a committee dedicated to searching out material of interest in the development of astronomy in Canada. It will then be stored,

or at least catalogued, in our National Headquarters. I am sure that our work will be largely in vain without the whole-hearted support of the membership generally.

To do your part, look through old files for letters and photographs, interview others who may recall interesting developments, take note of what is available and where it is, and contact any one of the committee members. We already have a great source of valuable material in the publications of the various observatories and of course of our own Society, but there is much more that can and should be done.

R. PETER BROUGHTON
Toronto

The R Coronae Borealis Stars

Many people don't know what they *R*
So, this article is fact to the *Cor*
I hope that you don't find it a *Bor*
And so will start to watch these *Stars*

The prototype of this class of variable stars is, as the name might suggest, R Coronae Borealis. This star was discovered by Piggott in 1795 and is the brightest known star of its class in the northern sky. Its designation is 154428a (R.A. $15^{\text{h}}44^{\text{m}}$, Dec. $+28^{\circ}$), indicating that it is well placed for observers at our latitudes. This along with the fact that its normal magnitude is a bright six, means that it should be on everyone's observing program.

Although the star is relatively constant when at maximum, it will fade by as much as nine magnitudes at times which seem to be quite irregular and unpredictable. Glasby, in his book *Variable Stars*, points out that R Cor Bor has been observed (I assume by very patient people) to be at maximum for as long as nine years without fading, but at other times has not quite recovered from one fading before commencing the next.

The cause of the dramatic light changes of these stars is not well understood. Glasby suggests that the formation of "clouds of carbon particles" which are very opaque to light may be caused by small temperature changes in the upper layers of the atmospheres of the R Cor Bor stars. Spectroscopic evidence shows that these stars are giants which are for some reason very rich in carbon and which have temperatures in the outer layers near the critical temperature for the formation of tiny particles of solid carbon. Although many factors are as yet unexplained, more details are provided in Glasby's book, which also provides interesting reading about other types of variable stars.

So far, 1971 has been a very interesting year for variations in this class of star. In the spring SU Tauri (054319) plunged from its usual 9.5 to about the fourteenth magnitude. Shortly after fading, it was too close to the sun for observation, but in October, I saw it back at its normal maximum brightness. RY Sgr also faded, but at 191033 it is a rather southerly object for northern observers, even though it is sixth magnitude when at maximum. Even though these stars have a very large range of brightness, the changes in light occur in a very short period, often in only a few days or less. It is possible to observe this type of star at maximum one night and then not be able to see it at all the next! Of course, if a person with a small telescope notices that one of these stars has faded, he should let someone with a larger telescope know of the fading – RIGHT

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AWAY – as catching an R Cor Bor star while fading provides a valuable opportunity for research on these extremely puzzling objects.

The three stars mentioned above are recommended as additions to the observing programs of anyone with a two- to six-inch telescope. Other stars are available for observers with larger telescopes. Charts for most such variables are available at 15¢ each from the American Association of Variable Star Observers, whose address is in the *Observer's Handbook*.

MARTIN G. CONNORS
London, Ontario

Attention Members of the Society

INDEX TO THE R.A.S.C. JOURNAL: You will remember this was a project of our late Editor, Miss Ruth J. Northcott; Dr. Hogg was kind enough to complete the preparation and at last the Index is off the press.

It contains 171 pages and covers the issues of the JOURNAL from 1932 to 1966 inclusive. Copies to institutions are priced at \$8.00 but Council agreed that members could purchase the Index for \$5.00 (plus 25¢ postage).

Just snip off the order form below and send to 252 College Street, Toronto 130.

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