



EDITORIAL

The Toronto Centre

One of the sure signs of spring at the Observatory is the return of the Saturday evening visits. At this time of year, we are reminded that one of the functions of the Observatory is concerned with public education. We are reminded also of the activities of the Toronto Centre of the R.A.S.C., whose members have for many years assisted us in our Saturday evening programs, and in other aspects of public education.

The Toronto Centre traces its origins to the Toronto Astronomical Club, founded in 1868. The Club grew slowly, eventually became the R.A.S.C., and sprouted branches in several centres in Canada. The outstanding figure in the history of the Society was Professor C.A. Chant, who for nearly 65 years supported and guided the Society, edited the publications of the Society, and established their international reputation. Other members of the Observatory staff - most recently Professors Heard, Hogg and Northcott - have followed in his footsteps by serving actively as officers and advisers to the Society. At present, Professor Hogg is Honorary President of the Toronto Centre, Professors Percy, Racine and Seaquist are members of the Council of the Centre, and Professor Heard serves as a Trustee of the Society.

Among the more obvious activities of the Toronto Centre are its fortnightly lecture meetings at the Planetarium, its public education program, its instrument-making and observing programs.

Astronomy is unique among the sciences in that amateurs can make substantial contributions. This is especially true for instance, in the field of variable star observing in which amateurs using visual (and photoelectric) techniques have accumulated millions of valuable observations. There is sufficient talent among the members of the Toronto Centre so that, with guidance, a good observing site, and a modest instrument, valuable observing programs could be carried out perhaps in co-operation with Observatory staff.

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The other area in which amateurs can make substantial contributions is public education. For many years, amateurs have assisted the Observatory staff on Saturday evenings. They have also conducted a program of star nights in parks around Metro Toronto. They have provided talks, displays and instructions to groups of interested people both young and old. A newly-formed Study Group meets at the Planetarium to introduce beginners to the fundamentals of astronomy.

The Toronto Centre is a focal point for astronomically-minded people from all walks of life, from elementary school students to corporation presidents. Many younger members (and some older ones too) eventually take up careers in astronomy or related sciences. Some members have generously provided financial support for the Observatory; David Dunlap, Walter Helm and Carl Reinhart were all members of the Centre. However, the benefits which accrue to the Observatory from the Toronto Centre go far beyond the occasional generous bequest. In the membership of the Toronto Centre, we have a willing audience, staunch supporters, and fervent missionaries of the astronomical cause.

J.R.P.

INSTRUMENTATION

Dr. Bolton will be handling the scheduling of the 74-inch telescope for the month of June. All requests for that month should be directed to him, and not to Dr. Garrison.

The 16-inch telescope was partially overhauled by the D.D.O. technical staff, in preparation for the spring observing season.

Dr. Percy and Dr. Racine have submitted a proposal to the Erindale College Council for a College Observatory. The observatory, to be equipped with a 24-inch telescope, will be used for teaching, research and school and community liaison. The proposal has been approved by the Erindale College Research Committee, whose report has been accepted by the College Council.

Dr. Racine and Jim Gillespie have designed a step-scale ("fly-spanker") astrophotometer, and have supervised its construction in the Erindale College workshops. This instrument, capable of handling plates up to 14" x 14" (Palomar Schmidt) will allow rapid and convenient visual estimate (5 to 10 estimates/minute, ± 0.1 mag.) of stellar magnitudes on photographic plates. Intended specially as a survey-type machine, the "fly-spanker" will be used to tackle photometric problems which cannot effectively be handled with iris photometers, e.g. crowded fields, steep background gradients, etc.

COMINGS AND GOINGS

Dr. Coutts attended the meetings of the A.A.S. at Baton Rouge, and presented a paper on "Periods and Period Changes for Variables in NGC 6171", prepared by herself and Dr. Hogg. On the way home, she spent a day at the Dyer Observatory, Vanderbilt University, Nashville, Tennessee.

Dr. Fernie gave a colloquium at the Warner and Swasey Observatory in Cleveland on April 16, and on the same evening gave a talk to the Cleveland Astronomical Society.

Dr. Garrison visited the University of Virginia to act as an outside appraiser at the doctoral thesis examination. He left for Chile on April 21 for two observing runs on the 36-inch telescope at Cerro Tololo, April 24 - May 1 and May 8 - May 20. In the interval between he will visit Las Campanas to inspect our telescope installation.

Dr. Gregory visited the Communications Research Centre in Ottawa on April 5-6, to discuss a research proposal on magnetospheric radio noise, which he is submitting to N.A.S.A. for financial support.

Dr. Heard reports that he has been working at "the enormous radial velocity department" at Marseille, measuring plates and observing with the 60-inch telescope. He and Mrs. Heard have visited with many of their colleagues and friends in England and on the continent.

Dr. Hogg attended the Symposium and dinner at Harvard University, April 8-9, in honour of the 70th birthday of Dr. Donald H. Menzel.

Dr. Kronberg and Mr. Faubert spent a week observing at the National Radio Astronomy Observatory during the latter part of June.

Dr. MacRae was in Houston on April 1-3, attending meetings of the Universities Space Research Association. On April 23 he addressed the Physics Department of the University of Guelph on the topic of "What We Can Expect from our New Telescope in Chile".

Dr. Seaquist was at the Algonquin Radio Observatory April 22-29, obtaining further observations of Maffei 2.

Dr. van den Bergh observed at Cerro Tololo April 14-25.

Several staff and students will be attending meetings in connection with the N.R.C. Associate Committee on Astronomy, in Victoria on May 12-15.

Dr. Roeder plans to spend the 1971-1972 academic year as a guest astronomer at Kitt Peak National Observatory, working with Dr. Lynds on the problem of the interpretation of Q.S.O. spectra.

SEMINARS

April seminars were as announced; Dr. Hiltner's title was
 "Recent Developments in X-Ray Astronomy"

MAY

- Tues. 4th
 D.D.O. 4 p.m. Dr. Christine Coutts - "Period Changes in
 NGC 6171"
- Tues. 11th
 D.D.O. 4 p.m. Dr. P.A. Feldman, Queen's University
 "A Possible New Type of Cosmic X-Ray Source"
- Tues. 25th
 D.D.O. 4 p.m. Mr. David Hanes "UBV Photometry of Globular
 Clusters in M87"

PAPERS SUBMITTED IN APRIL

- J.D. Fernie and
 Vicki Watt Sherwood "A Photometric Study of Selected R CrB Variables"
- J.D. Fernie and
 Joan O. Hube "On the Existence of Stable Stars in the
 Cepheid Instability Strip"
- P. C. Gregory "Satellite Observations of Magnetospheric Radio Noise
 I. Emission Between the Plasma and Upper Hybrid
 Resonance Frequencies"

TALKS

Dr. MacRae addressed the University of Toronto Senate on April 16
 on the subject of the David Dunlap Observatory and Las Campanas.

Dr. Percy was a guest lecturer at the College of Education,
 University of Toronto, on Friday, March 19.

Dr. Seaquist addressed the Toronto Centre, R.A.S.C., on April 16,
 on the subject of "Radio Emission from Quasars".

CANADIAN STAMP

The Post Office has issued a new stamp honouring Lord Rutherford,
 nuclear physicist and Nobel Laureate. The stamp, issued on the first
 day, can be seen in the book case for rare books in the library.

HONOURS

The Canadian long baseline interferometer group has been awarded the Rumford Medal of the American Academy of Arts and Sciences, jointly with two American groups working in the same field. The Canadian group, of which Dr. Yen is a member, carried out the first successful observations of this type.

ALUMNI

Fred Hickok (M.Sc., 1969) and Helen (Blanchard) Hickok visited the Department on April 14-16.

Greg Fahlman (Ph.D., 1970) visited the Department on April 26-27 and gave an informal talk on "Radiation from Circumstellar Dust Clouds".

Inge Sackmann (Ph.D., 1968) has been awarded a Research Fellowship in Physics at Cal. Tech. where she will be working with W.A. Fowler.

A daughter, Sonya Victoria, was born to David (Ph.D., 1967) and Heather Crampton on April 10.