

Amateur Astronomers

THE RICH VARIETY OF CANADIAN ASTRONOMY

OBSERVING in Ontario, laboratory work in Quebec, telescope making in Nova Scotia, traveling telescopes in British Columbia, and a traveling planetarium in Alberta were all described when the Royal Astronomical Society of Canada (RASC) met in Edmonton, Alberta, May 19-22. About 150 delegates enjoyed perfect weather as they saw superb astrophotographs, refinements in telescope making, and a record number of prizes awarded in the observing and display competition.

The Ottawa Centre demonstrated again that it is among the finest astronomy clubs in the world. With its 40-cm f/5 reflector, member Rolf Meier had discovered Comet 1978f a few weeks before. Although he could not attend the meeting, he sent a description of how he searches for comets. To increase his chances of making a discovery, he hunts in sky regions within 100' of the sun, making nonoverlapping sweeps using a wide-field ocular. Since the telescope has good setting circles and atlases are kept right there, he was quickly able to verify that his find was indeed a comet.

Many other projects are conducted at the Centre's Indian River Observatory, recently moved from North Mountain to this 'darker site west of the city. Doug Welch told about his visual observations of rapidly varying dwarf Cepheids such as CY Aquarii. Meier displayed some detailed photographs of Jupiter. Welch and Rob Dick won a set of Meade research-grade eyepieces for their Ebert spectroscope and high-dispersion atlas of the solar spectrum. Mary Grey gave a fine historical account of a 1905 solar eclipse expedition to Labrador. In addition, the Centre is building a radio telescope. For all these accomplishments, the entire Ottawa Centre was given the "Judges' Choice" award, an Astroscan.

PROJECTS COAST TO COAST

An amateur multi-mirror telescope is under construction by Larry Coldwell of Avonport, Nova Scotia. Four 108-mm Pyrex blanks were ground together on a rigid base, using a subdiameter tool. Tilting the blanks toward the center reduced the amount of glass to be removed, greatly speeding the rough grinding. Coldwell is interested in splitting the four mirrors into pairs for binocular use.

Polar alignment of telescopes is a major concern at the Saskatoon Centre,

where much critical astrophotography is done. Doug Beck described a quantitative method to reduce tracking error in declination to less than a prescribed tolerance. Gordon Patterson showed the Centre's portable pier, which has a fast azimuth adjustment for the equatorial head. Largely for its astrophotography and public activities, Saskatoon won the Centre display category

Guiding methods were described in a slide talk sent by Jack Newton, a well-known Toronto astrophotographer. He was given the RASC's Ken Chilton award for his recent book, *Deep Sky Objects*.

Continuing his prizewinning research in gas sensitizing films for astrophotography, described in SKY and TELESCOPE for May, page 401, Mario Lapointe of Quebec has turned to nitrogen. A mixture of 95 percent nitrogen and five percent hydrogen produces greater improvement in film speed for some emulsions than he obtained with pure hydrogen last year.

With a professional 40-cm telescope and cold camera on Mount Kobau, British Columbia, Vancouver's Craig McCaw took several exquisite color photographs of deep-sky objects. He taped a narrative of the pictures, and accompanied it with music of his own composition.

In Canada's two westernmost provinces, traveling shows are attracting increasing attention as a means of bringing astronomy to outlying areas. British Columbia has two units administered by MacMillan Planetarium, which present telescope observing and slide programs throughout the province. In Alberta, an entire transportable planetarium is set up in towns around the province for a month at a time to give shows for schools during the day and for members of the general public at night.

Solar retinopathy is the technical name for damage to the eye from sun gazing; eclipse retinopathy, for eye damage while watching a partial solar eclipse. These problems were researched by B. Ralph Chou, secretary of the Toronto Centre and a student of optometry at Ontario's University of Waterloo. For the public's protection, he commends publicity in all areas where a partial phase of the 1979 eclipse will be visible, to promote safe viewing by projection.

Much of Canada's electricity is generated by water power. New plans call for harnessing the world's highest tides, in the Bay of Fundy. Roy L. Bishop of Nova Scotia's Acadia University described some proposals to extract this energy that is

released by the gravitational interaction of the earth, moon, and sun. One entry in the "atmospheric phenomena" category of the observing contest was particularly striking. Using a lens of 52 mm focal length, Bob Worthingham of Edmonton photographed a tornado funnel cloud as it developed on August 7, 1976.

In his fifth and final frame, the funnel occupies almost the entire view. One judge, impressed as much by Worthingham's courage as by the sharpness of the photos, commented that he himself would long before have sought shelter; "I have left are no desire to win an award posthumously."

RASC PROGRESS

Dr. Alan Batten, the retiring RASC president, cited publications and the as its greatest strengths. A new centre is joining in Moncton, , New Brunswick ,leaving Prince Edward Island as the only province without an RASC centre. The circulation of the RASC's Observer's Handbook is approaching 15,000.

From the proceeds of the sale of the former headquarters in Toronto, \$35,000 has been set aside. Interest from that amount funds special projects of the centres; for example, \$500 was granted to the Quebec Centre to help buy an observing site. Inflation is forcing the dues up to \$16.00 for regular membership and \$10.00 for students, effective this October; life membership will be increased to \$200.00.

The 1979 General Assembly will be held at the University of Western Ontario in London, and for 1980 the professional Canadian Astronomical Society has invited RASC to a joint meeting in Halifax, Nova Scotia.

Dr. John Percy, editor of the Handbook, succeeds Batten as president. Ottawa's Dr. Ian Halliday is the first vice-president, and Edmonton's Franklin Loehde the second. Norman Green of Hamilton begins a new term as national secretary. The Service Award medal was presented to Marie Fidler Litchinsky, former executive secretary and now a member of the Calgary Centre.

The Alberta Mobile Planetarium was open for viewing on the University of Alberta campus during most of the meeting. Queen Elizabeth Planetarium. Canada's oldest public planetarium, presented shows on cratering of the planets, and on the Cosmos 954 incident, for which Edmonton was the staging area

Tours took delegates to 30 and 50 cm telescopes of the university; Elk Island National Park with its herd of bison; the site of this August's Commonwealth Games; and the re-creation of Fort Edmonton as it stood in 1846. Edmonton is the

oil capital of Canada, so there was also a tour of the refineries, and samples of Athabasca tar sands were handed out as souvenirs.

Photo Captions:

1. Royal Astronomical Society of Canada delegates set up telescopes near Queens Elizabeth Planetarium in Coronation Park.
2. Lloyd Higgs is an astronomer at Ottawa's Herzberg Institute of Astrophysics and is editor of the Journal of the RASC.
3. One of British Columbia's two roving telescope and astronomy shows is run by Ken Hewitt-White of MacMillan Planetarium.
4. Helen Sawyer Hogg, a well-know astronomer from David Dunlap Observatory, writes a weekly column for a Toronto newspaper. Arthur Covington is an astronomer in Ottawa.
5. Frank Shin, former director of Winnipeg's museum planetarium, now edits RASC's National Newsletter.
6. The retiring RASC officers presided over the annual business meeting. From left are Harlan Creighton, recorder; Alan Batten, president; Norman Green, secretary; and Rosemary Freeman, executive secretary.

Article by Norman Sperling

All photos are by Normal Sperling

This article is from the collection of Arthur Covington (now held at the Starlight Cascade Observatory outside Yarker, Ontario), believed to be published in the August 1978 issue of Sky and Telescope magazine.

*Transcribed by Kevin Kell (RASC Webmaster, member of the Kingston Centre) 2004 October 12.
None of the photos were legible in the article copy*