

OFFICIAL OPENING OF THE DOMINION RADIO ASTRO-
PHYSICAL OBSERVATORY, WHITE LAKE, PENTICTON, B.C.,
JUNE 20, 1960

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ON the afternoon of Monday, June 20th, in fine weather, but with a stiff breeze troubling the speakers a little, the Hon. Paul Comtois, Minister, Department of Mines and Technical Surveys, formally opened the Department's new Observatory, to be known as the Dominion Radio Astrophysical Observatory, before an audience of over 150 scientists and other guests from both Canada and abroad. The Minister emphasized the importance with which the Government regards fundamental scientific research and contrasted the unprejudiced and international manner of science with the unsatisfactory nature of mankind's achievements in the more general fields of international relations and mutual tolerance. The Dominion Astronomer, C. S. Beals, traced the history of astronomical research in Canada, and showed how the need for a large radio telescope developed from the general galactic researches already pursued and showed the continuity of this new effort with instrumental developments in the past. The President of the National Research Council, E. W. R. Steacie, speaking as a chemist, gently rebuked his astronomical colleagues for their ill-concealed pride in the very large and costly apparatus they require, with the advent of space explorations becoming costlier than ever, and in their ability to choose beautiful sites for their studies. He referred to the fact that science and politics are now inextricably connected, giving rise to many very difficult decisions but also leading to a great increase in governmental scientific effort. The officer-in-charge of the new Observatory, J. L. Locke, described the search for a suitable site and enlarged on the eminently satisfactory qualities of the valley in which we found ourselves, both aesthetically and for the purposes of radio astronomy. The problems of the structure and motion of gas-clouds in the galaxy, and the existence of large-scale magnetic fields would be vigorously pursued with the new telescope, one of the finest such instruments in operation, he stated.

Not to be forgotten was the comment of his Worship, Mayor Oliver of Penticton, "what a tourist attraction"!

The 84-foot telescope was seen in action immediately after the opening addresses, being set in motion after M. Comtois pressed the appropriate button. As it slowly traversed the strong radio source Cassiopeia A the



FIG. 1—Dominion Radio Astrophysical Observatory, White Lake, Penticton, B.C., showing the 84-foot radio telescope and the office building on opening day, June 20, 1960. (Photo by *Penticton Herald*.)

signal was broadcast over the public address system to be clearly heard by everyone.

A tour of the office building and grounds followed and the staff-members explained the operation of the control panel of the telescope and the intricacies of the receivers being used with it. In the evening a

very enjoyable reception was given at the home of Dr. and Mrs. Locke on the shores of Skaha Lake; a feature of this evening was a short concert of French-Canadian songs conducted by M. Comtois, and ably assisted by Maarten Schmidt—from Leiden by way of Pasadena.

Under the joint sponsorship of the National Committees for Canada of the International Astronomical Union and the International Union of Radio Science a symposium on the objectives of radio astronomy was held on Tuesday and Wednesday, June 21 and 22. In the first paper P. E. Argyle of the D.R.A.O. staff discussed his design of a proposed 100-channel receiver at 21-cm. wave-length suitable for use with the radio-telescope and later C. H. Costain gave an account of work at Cambridge on low frequency antennas and described a large (about a mile across) "T" antenna which is to be built at White Lake. In the afternoon David Hogg summarized our knowledge of the radiation from thermal sources in the galaxy, while the paper by Donald A. MacRae (read in his absence) discussed other galactic radiation. G. A. Harrower followed with a talk on the distant radio sources and their importance to cosmological theories.

After the dinner on Tuesday evening at the Prince Charles Hotel, Penticton, Dr. Beals read various congratulatory messages to the new Observatory including a long and eloquent address in Latin from Cambridge. The principal speaker, Maarten Schmidt of the California Institute of Technology, then gave a thorough account of our present knowledge of galactic structure obtained from both optical and radio observations (this talk will be published in a forthcoming issue of the *JOURNAL*).

On Wednesday morning his long continued and well-known work on the sun was discussed by A. E. Covington, and P. M. Millman gave an interesting account of what might be called "radar-astronomy", namely the direct radio contact of meteors and planets. In the open session in the afternoon this subject was much amplified and proposals were made for the use of the Prince Albert (Sask.) 84-foot radar. With the prospect of more powerful transmitters in the near future radar contacts with the nearer planets becomes a useful means of interplanetary investigations. D. S. Heeschen and Schmidt gave accounts of current work at Green Bank, West Virginia, and at Owens Valley, California, and Dr. Schmidt re-emphasized the need for more precise galactic surveys than now exist and which could be undertaken at the D.R.A.O.

Various events of a semi-sporting nature took place during lunch hours during these meetings. Several well-known astronomers showed their ability to climb ladders to great heights, and many of the delegates had

a ride to the telescope focus some 50 feet above ground level in the hoist "Girette".

Dr. Locke and the staff are to be congratulated on their fine achievement in bringing this powerful research instrument into operation so quickly.

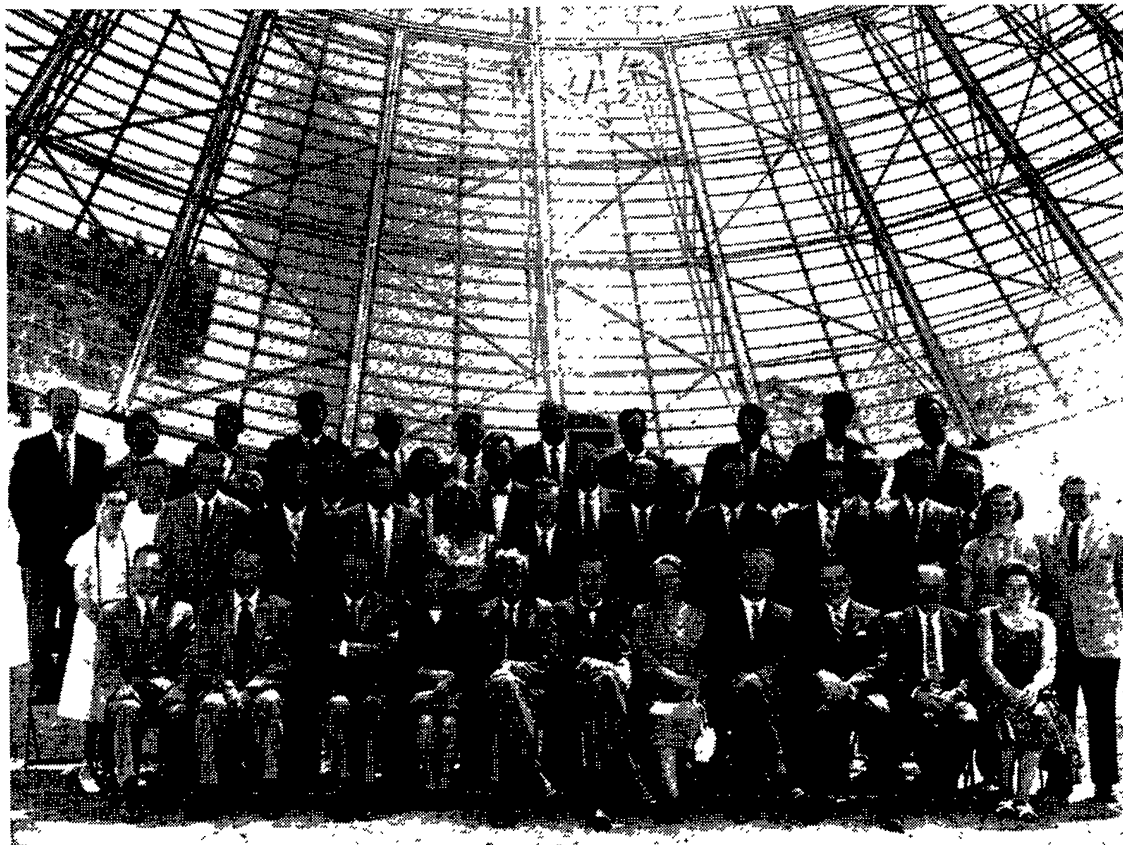


FIG. 2—*Front row:* Peter M. Millman, N.R.C., Ottawa; A. E. Covington, N.R.C., Ottawa; R. M. Petrie, D.A.O., Victoria; Mrs. Petrie; J. L. Locke, D.R.A.O., Penticton; M. Schmidt, Cal. Tech., Pasadena; Helen S. Hogg, D.D.O., Toronto; C. S. Beals, D.O., Ottawa; G. A. Harrower, Queen's U., Kingston; Mrs. Noyes. *Second row:* Miriam Burland, D.O., Ottawa; C. H. Costain, D.R.A.O., Penticton; B. W. Currie, U. of Sask., Saskatoon; P. E. Argyle, D.R.A.O., Penticton; Ruth J. Northcott, D.D.O., Toronto; H. P. Gush, U. of T., Toronto; W. Wehlau, U. of Western Ont., London; J. B. Oke, Mt. W. and Palomar Obs., Pasadena; David E. Hogg, D.D.O., Toronto; J. C. Noyes, Boeing Sc. Res. Labs., Seattle; Jean Stilwell; Walter H. Stilwell, U. of Alberta, Calgary. *Third row:* M. Pruesse, D.R.A.O., Penticton; A. R. Hamilton, D.R.A.O., Penticton; D. S. Heeschen, N.R.A.O., Green Bank; J. H. Meek, D.R.B., Ottawa; D. R. Hansen, Prince Albert Radio Lab., Prince Albert; D. W. R. McKinley, N.R.C., Ottawa; D. C. Rose, N.R.C., Ottawa; R. Grenzeback, D. S. Kennedy and Co., Cohasset; J. W. Warren, U.B.C. and D.R.A.O., Penticton; R. M. Chisholm, Queen's U., Kingston. *Back row:* T. R. Hartz, D.R.B., Ottawa; J. L. Yen, U. of T., Toronto; M. M. Thomson, D.O., Ottawa; G. J. Odgers, D.A.O., Victoria; W. J. Medd, N.R.C., Ottawa; J. A. Galt, D.R.A.O., Penticton; F. Park, N.R.C., Ottawa; N. Broten, N.R.C., Ottawa; Jack Grant, Meanook Meteor Obs., Athabaska; R. W. Tanner, D.O., Ottawa; K. O. Wright, D.A.O., Victoria. *Absent when picture was taken:* B. L. White, U.B.C., Vancouver; H. L. Welsh, U. of T., Toronto; J. M. Lansinger, Boeing Sc. Res. Labs., Seattle; H. Penfield, Ewen Knight Corp., East Natick; S. H. Neddermeyer, U. of Wash., Seattle. (Photo by Redivo.)

THE OBSERVATION OF A SOLAR EVENT IN WHITE LIGHT FROM RESOLUTE N.W.T. ON AUGUST 30, 1957

BY L. R. McNARRY

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WHILE operating an Auroral Radar at Resolute (74.9°N., 94.9°W.) for the National Research Council during the I.G.Y. my interest in solar flares and associated terrestrial events was aroused by the observation that solar radio noise emissions were recorded by the radar receiving system at a frequency of 48 mc./s. An Esterline Angus recorder was connected to the receiver system to record solar noise storms and outbursts. Routine observations of the sun, using a small 6× binocular,

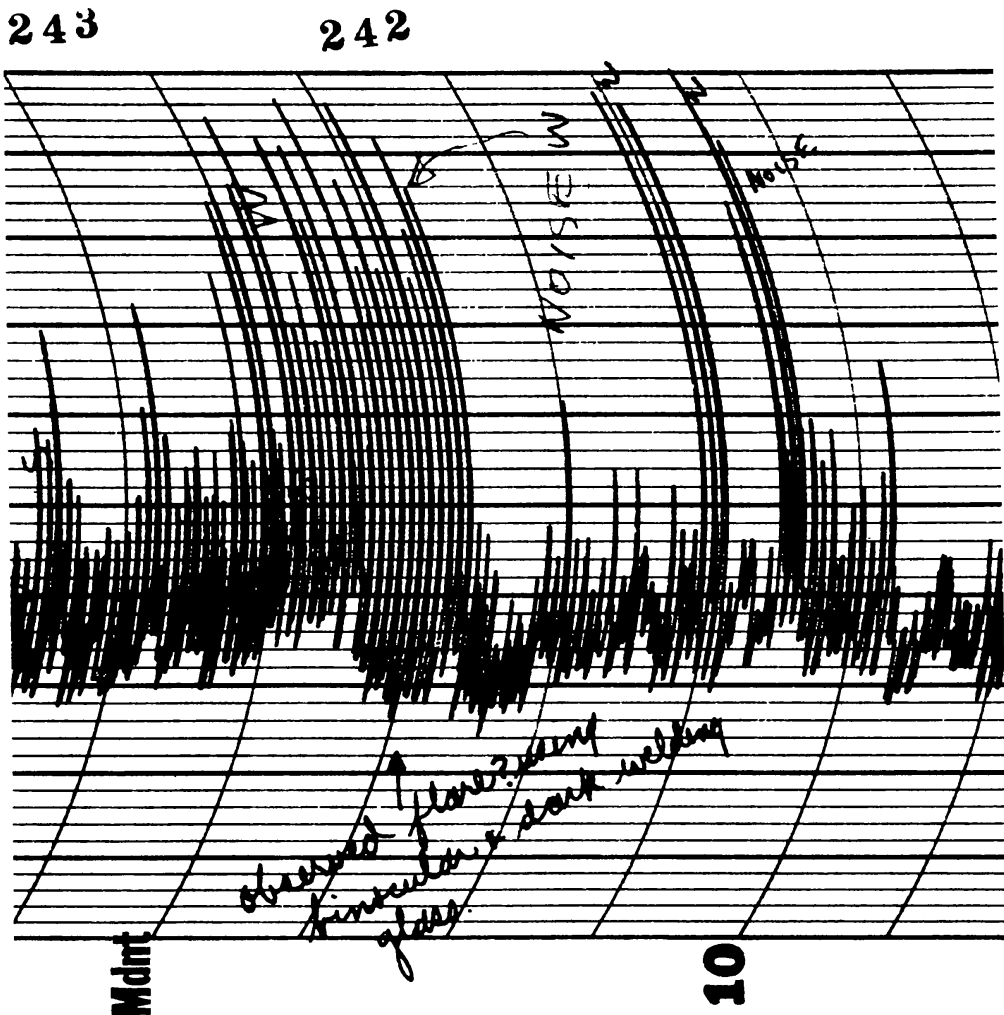


FIG. 1—Resolute Auroral radar noise record for period 22:00–24:00 hours U.T. August 30, 1957.