# *develop infrared scanner for canadian uses*

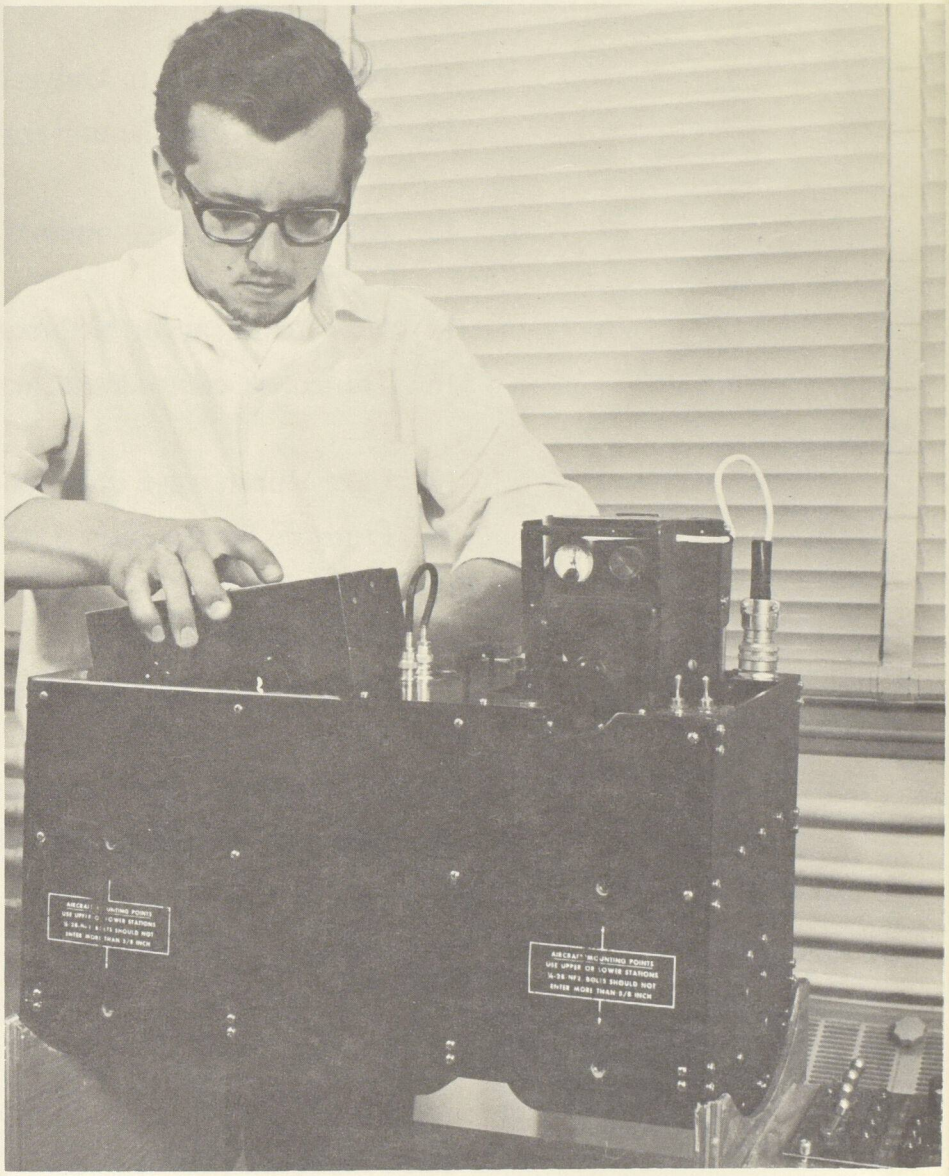
**Government scientists are using the instrument for a wide variety of studies ranging from the counting of wild animals in Ontario to the detection of pollution in British Columbia**

A new remote sensing facility has been made available to Canadian government and university scientists as the result of the collaborative efforts of four federal agencies.

The Defence Research Board, the Geological Survey of Canada and the Inland Waters Branch of the Department of Energy, Mines and Resources have shared in the cost of acquiring a $100,000 singer infrared scanner. This is a recently declassified military heat sensing instrument which, by detecting electromagnetic radiation in the thermal infrared region of the spectrum, can provide additional information to that obtained by aerial survey photographic techniques.

The scanner, capable of providing an image of the fire from a charcoal briquette less than a cubic inch in size at a distance of more than 5,000 feet, is mounted in the belly of a National Research Council of Canada North Star aircraft. The four-engine aircraft and a scanner operating crew are provided by the Flight Research Section of NRC's National Aeronautical Establishment as the latter's contribution to a joint program to evaluate and develop the instrument's uses in Canada.

Since its acquisition in the spring of 1968, the scanner has had no shortage of test projects. One of its first tasks was an inland waters study to provide a thermal map of the west end of Lake Ontario showing water temperature variations. This has been very successful and will be continued on a regular basis. Another involved flying flight lines over the Gulf of St. Lawrence and its estuary in an ice reconnaissance operation to determine the potential of infrared as a means of identifying types and thickness of ice. A third was a study of the ice-water mixing in Lake Erie in winter, and a fourth was a study involving the counting of animals for the Ontario Lands



*E. A. Stewart of the Flight Research Section inserts the recording film magazine into the infrared line scanner.*

*Monsieur E. A. Stewart de la Section de recherches sur le vol met en place le chargeur de l'appareil photographique.*