



Pencil in foreground illustrates the scale of two detectors used with the infrared scanner. The detecting head at left is cooled by mounting it on a closed cycle cryogenic cooler. The head at right is cooled by mounting it on a liquid nitrogen Dewar Flask.

Le crayon au premier plan donne l'échelle des deux détecteurs qu'emploie ce dispositif. La partie supérieure du détecteur à gauche est refroidie au moyen d'un appareil cryogénique. Celle du dispositif à droite utilise un vase de Dewar contenant de l'azote liquide.

and Forests Department. The department hopes this method will replace the use of human spotters in low flying aircraft to obtain animal censuses. Another project involved detecting the source of nutrient-rich sewage flowing into the Okanagan Lakes in British Columbia. This type of sewage causes rapid growth of aquatic plant life and damages the area for recreational purposes.

Remote sensing – of which infrared scanning is just one part – is still in its infancy, according to E. A. Godby, of NAE's Flight Research Section. "We plan to take this instrument and use it as a starting point. By modifying it for our own purposes we hope to build up a facility that one day will provide leadership in certain areas of remote sensing" he said.

The scanner is booked ahead for 12 months, according to Dr. Neil de Villiers, who is in charge of the infrared work. This summer the North Star will fly flight lines over Ward Hunt Island in the high Arctic. The Defence Research Board wants to study the various types and forms of ice found in and around the island. The scanner will also be used over the Mackenzie River Delta this summer. NRC's Division of Building Research and the Federal Department of Fisheries and Forestry want infrared scanning trials over permafrost areas. Other permafrost scanning will be done near Thomson, Man., and over the Mer Bleu, a bog near Ottawa with typical northern bog features.

This fall tentative plans call for overflights of Nova Scotia's coal fields. The Nova Scotia Department of Mines hope the scanner may uncover underground coal fires such as occur in abandoned coal galleries and in coal tips. Various problems of drainage of fresh water from Prince Edward Island into the ocean and incursion of salt water will also be studied on behalf of the Inland Waters Branch. Other ground water discharge studies are slated for the Portage La Prairie area in Manitoba and around Medicine Hat, Alta.

The Geological Survey of Canada expects to benefit this summer from additional information on the location of ancient volcanoes and hot springs in the Whitehorse, Yukon, area and in northern British Columbia. The Survey has also requested investigation of the possibility of the existence of