

The difficulties of the Hudson Bay beaches too have presented special problems. For transport of fuel to several beach sites, miniature Pluto lines -- on the same principle as those used for the Normandy invasion -- might have to be run on the seabed for several miles off shore to tankers; or in other cases fuel lines had to be used that are specially designed to float on the water.

Many Mid-Canada sites have lakes nearby, thus making summer airlift possible. And when these lakes are frozen, ice air strips can be developed for winter supply. A study of lakes adjacent to stations has also had to be made from the point of fresh water supply. Many lakes freeze solid during the long Arctic winter, and such solid freezing would, of course, render them useless as a source of water supply. It becomes, therefore a matter of considerable importance that a deep lake be found near each station to ensure unbroken water supply.

In a project of this magnitude, forward planning is all-important. As the line's sites are being developed, the equipment for them is being tested, perfected and scheduled for delivery when the line is ready to receive it.

The line will consist of dozens of unit detection and warning stations, with a number of main stations. Stations will vary in size, requiring, in the initial period, from two men at unit stations to more than one hundred at main stations.

It has been decided to man the line in large part by civilians under contract. Hundreds will be hired and trained for this important task. While it is proposed that civilians will operate the line, operational control will, of course, remain the responsibility of the RCAF.

An advanced training course for RCAF and civilian personnel was started several months ago. The third of the basic training courses for technicians to install and test the line is now proceeding.

For testing and training purposes, two simulated line sections of the line have been developed; one at Montreal some time ago; and the second in the Ottawa Valley, now nearing completion. The Ottawa Valley test system, in its main and subordinate stations, will provide an excellent training ground for technicians needed on the line.

In addition to the building of the Mid-Canada stations, there is being built along the line a multi-channel communications system. The Mid-Canada line is also being tied into the vast communications network now being thrown across Canada and into the Arctic to link all elements of the warning and interceptor control system for United States and Canadian military and civil defence purposes.