

Technically the mid-Canada line consists of a series of unit detection and warning stations with main stations at appropriate intervals extending from the Labrador Coast westward.

The unit detection stations will use equipment originally devised by a research team sponsored jointly by the Defence Research Board and McGill University -- hence the term sometimes used to describe it -- "McGill fence". This equipment is of an advanced type and in addition to its demonstrated performance, requires a minimum of attention and is much less expensive than previously known types.

A typical main station will consist of an administrative and operation building, personnel accommodation buildings, supply buildings, boiler and power plants, provision for inflammable stores, a garage and a hangar. All stations will have landing facilities for helicopters. Main stations will have special functions in relation to adjacent sections of the line, both as regards personnel and maintenance.

Throughout the full extent of the line a multi-channel communications network is being built and appropriate air-ground-air communications facilities are being provided.

The planning and organization of the construction of the vast undertaking known as the mid-Canada line has been, I think, a marvel of co-operation on the part of government departments and government and civilian agencies. It is, in fact, something of which the Canadian people should feel very proud. All these departments and agencies started from scratch, with very little knowledge or experience in this particular field to organize and develop an entirely new project in virtually unknown territory and under little known conditions. They are succeeding extremely well and the teamwork has been excellent.

The initial responsibility for planning and for development the overall requirements to bring the line to an operational state was given to the Royal Canadian Air Force. To take over the planning from the stage where the Canada-United States team left off, a special section was set up in the R.C.A.F. known as the Systems Engineering Group. This section assumed the responsibility for supervising the surveys and siting and for drawing up specifications in collaboration with the Defence Research Board, to enable work to be commenced.

Aircraft of the R.C.A.F.'s No. 408 Photographic Squadron with some assistance from civilian operators carried out nearly 8,000 miles of aerial photography and the photographing and mapping facilities of the R.C.A.F. and the Canadian Army Survey Branch were extensively used in planning the basic route of the line.

While all this was going on, the Department of Defence Production was studying the best means of constructing the line speedily and efficiently. In view of the nature of the project it was decided to utilize the resources of the Trans-Canada Telephone System to manage all phases of the construction operation. Trans-Canada designated the Bell Telephone Company of Canada to act as management contractor for them and a "special project division" of Bell was formed to actually carry out the task.