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NORTH ATLANTIC NETWORK

The Government of Canada has agreed to build a \$650,000 "forward scatter" station near Gander Airport in Newfoundland as part of a new-type chain of radio stations which will improve communications for air traffic control and other aviation purposes across the North Atlantic, according to an announcement made at Headquarters of the International Civil Aviation Organization. Canada is also willing to participate with other countries whose aircraft fly across the North Atlantic in the joint financing of stations of the chain in Greenland and Iceland.

The North Atlantic network, which was recommended by a special ICAO Fixed Services Meeting held in Montreal in January, calls for a multiple connection--one direct voice channel and four teletypewriter channels--between Gander, Narssarssuaq in Greenland, Reykjavik in Iceland and Prestwick/Shannon. Canada's acceptance of the ICAO forward scatter proposal was contained in a letter from J.A. Irwin, Canadian Representative to ICAO, to ICAO Secretary-General Carl Ljungberg: "I am glad to state that the Canadian Government is prepared to provide the installations required for the proposed VHF Forward Scatter System on Canadian territory and also to contribute through Joint Financing arrangements to the costs of installations required in Greenland and Iceland. The Canadian Government's agreement to assume these commitments is of course subject to the condition that a complete VHF Forward Scatter or Forward Scatter/Cable

System as envisaged by the Fixed Services Meeting will be installed and that satisfactory arrangements will be made for those parts of the system for which Joint Financing has been requested."

The new forward scatter communications technique, known technically as "forward propagation by ionospheric scatter", uses high-powered transmitters working in the very-high frequency band; signals from specially-designed antennae are scattered by a highly-ionized layer of air about 55 miles (85 kilometres) above the earth, and come back to ground receiving stations a considerable distance away. Because existing high frequency radio-teletype circuits are subject to the frequent radio blackouts characteristic of sub-Arctic altitudes, the new technique is necessary to guarantee the rapid communications between air traffic control centres which are required for effective control of air traffic.

Recommendation of the new forward scatter chain came after the International Civil Aviation Organization's special jet age task force found that "the world's outstanding case of immediate and compelling need for aviation improvement relates to air traffic control and communications in the North Atlantic Region", and predicted that, unless collective action taken by all governments whose airlines fly the Atlantic, development of air traffic in this region will be more and more handicapped as the traffic continues to grow. The task force found that, in the summer of 1956, more

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