

Man.; Lakehead, Windsor, London, Toronto Island, Toronto (international), Ottawa (international) and North Bay, Ont.; Montreal (international), Cartierville, Quebec, Baie Comeau and Sept Îles, Que.; Moncton, Fredericton and Saint John, N.B.; Halifax (international) and Sydney, N.S.; and Gander (international) and St. John's, Nfld.

*Area Control Service* provides control service to en route flights operating within controlled airspace during weather conditions that prevent a pilot from seeing other aircraft or obstructions and necessitate his reliance on instruments to conduct the flight. Area control centres are located at Vancouver, B.C., Edmonton, Alta., Winnipeg, Man., Toronto, Ont., Montreal, Que., Moncton, N.B., Goose Bay and Gander, Nfld. Each centre is connected with control towers, terminal control units, communications stations and operation offices within its area by means of an extensive system of local and long-line interphone or radio circuits, and through radio communications facilities available at these stations to all aircraft requiring area control service. Area control centres are also capable of communicating directly with most pilots flying within their control areas. Each area control centre is similarly connected with adjacent centres, including centres in the United States, for the purpose of coordinating control of aircraft operating through more than one control area. This communications system permits each centre to maintain a continuous detailed record of all aircraft operating in accordance with the Instrument Flight Rules (IFR) and a general record of aircraft operating in accordance with the Visual Flight Rules within its control area. In addition to providing area control service to aircraft operating within controlled airspace over Newfoundland, the Gander Control Centre provides control service within the airspace over approximately one half of the North Atlantic Ocean. The Vancouver Area Control Centre also provides control service over the Pacific Ocean within the Vancouver Oceanic Control Area.

*Terminal Control Service* consists of the provision of separation to aircraft operating in accordance with IFR in the vicinity of all controlled airports. This service is normally provided by area control centres but separate terminal control units have been established at Calgary, Alta.; Saskatoon and Regina, Sask.; Lakehead, North Bay and Ottawa, Ont.; Quebec, Que.; and Halifax, N.S.

*Northern Area Control Service*, inaugurated Sept. 26, 1963, is provided by the Edmonton, Winnipeg and Goose area control centres for aircraft flying above 23,000 feet, and is available throughout more than 3,000,000 sq. miles of Northern Canada.

*Radar Control Service* is provided extensively in the control of IFR traffic, both in terminal areas and while en route. Terminal service is provided at Vancouver, B.C.; Calgary and Edmonton, Alta.; Regina and Saskatoon, Sask.; Winnipeg, Man.; Lakehead, Toronto, North Bay and Ottawa, Ont.; Montreal and Quebec, Que.; Moncton, N.B.; Halifax, N.S.; and Gander, Nfld. En route service is provided by area control centres and by one radar unit located at Kenora, Ont. Ground Control Approach Service is provided at Gander, Nfld. and Precision Approach Radar Service is provided at St. John's, Nfld.; Montreal, Que.; Toronto, Ont.; Winnipeg, Man.; and Vancouver, B.C.

*Flight Information Service* is provided by all air traffic control units, but particularly by all area control centres. It consists of advice and information useful for the safe and efficient conduct of flight, including weather reports and forecasts, field condition reports, data concerning aids to navigation, traffic information, refueling and transportation facilities, and other data of assistance to the pilot in planning or conducting a flight.

*Alerting Service* ensures that appropriate organizations are notified of aircraft that may be in need of search and rescue aid. This entails the maintenance and constant supervision of a continuous record of active flights to ensure that failure of an aircraft to arrive at the planned destination notified to air traffic control is detected immediately. The service is available to any pilot who files either a flight plan or flight notification with air traffic control.

*Customs Notification Service* facilitates the routine notification of the appropriate customs agency by pilots who plan to cross the Canada-United States boundary at certain designated customs airports. This is achieved through the prompt notification by air traffic control, at a pilot's request, of the customs officer at the destination airport of the intended arrival and of the need for customs clearance.

*Airspace Reservation Service* provides reserved airspace for specified air operations within controlled airspace and information to other pilots concerning these reservations and military activity areas in controlled and uncontrolled airspace. The Airspace Reservation Co-ordination Office, located at Ottawa, is responsible for co-ordinating all airspace reservations in Canada and in the Gander and Vancouver Oceanic Control Areas.

*Aircraft Movement Information Service* is provided by area control centres to assist the Department of National Defence in establishing the identification of all aircraft operating within specified areas.

The total number of aircraft movements at Department of Transport controlled airports in Canada during 1964 was 2,281,958.