

was to close the North American approaches to attack by Germany and Japan, but they have now become links in the offensive plans of the Allies. Aircraft fly across northwestern Canada to the Pacific theatre of war and across the northeast to Europe, and in post-war plans the routes hold promise of providing greater freedom for the movement of air traffic in the general scheme of international air transport.

### Development of the Northwest Airways System

**The Northwest Staging Route.**—The northwest staging route is one of the most important in the world, being the main artery for air traffic between the United States and Alaska, and beyond Alaska to northeastern Asia.

The Route is Canadian property, owned and operated by the Canadian Government. It was initially built, developed and put into operation by Canada, and subsequently improved with the co-operation of United States army engineers and workmen. The total cost of the wartime development will be about \$58,500,000 and, in final settlement, will have been borne wholly by the Government of Canada.

The possibilities of an airway connecting with the Trans-Canada system at Edmonton to give access to all parts of northwestern Canada and Alaska had long been realized. Pioneering for such an airway was done by Canadian bush pilots who first operated in seaplanes in that part of the country in the 1920's. In 1935 a survey to determine the best route from Edmonton to Yukon and Alaska was made by the Department of Transport. Detailed engineering work was authorized in 1939 and aerodromes were planned at Grande Prairie, Fort St. John, Fort Nelson, Watson Lake and Whitehorse. Landing strips 3,000 ft. in length by 500 ft. in width with provision for future extension and radio range stations to provide a radio beam were constructed at intervals of 100 miles according to standard airway practice. Thus this initial wartime development of strategic importance—the Northwest Staging Route—was commenced.

The survey parties were still in the field at the outbreak of war, and some consideration was given to the advisability of abandoning the project in favour of more immediately pressing defence needs. It was decided, instead, to expedite completion of the route, a decision that was fully justified by subsequent events. This Canadian decision was fully supported when the Canada-United States Permanent Joint Board on Defence met in November, 1940, reviewed the defence position of the two countries and recommended to the respective Governments that the plans, then being put into effect by the Canadian Government, were satisfactory from the standpoint of both parties as regards the air route from Edmonton to Fairbanks, Alaska. Later on in the light of events, additions to the original plans were made to meet conditions that could not possibly have been foreseen. As regards costs, as explained below, the Canadian Government undertook to bear these for the whole undertaking.

By Sept. 1, 1941, work was so far advanced that the airway from Edmonton, Alta., to Whitehorse, Yukon Territory, was usable by daylight in fine weather, and radio range stations were in operation at 200-mile intervals from Edmonton to the Alaska Boundary by the end of the year. The route thus provided an airway to Alaska which was removed from the Pacific Coast and relatively free from the danger of enemy attack and coastal weather influences. It was equipped with modern navigational aids, and connected with established air and ground communications at Edmonton and Vancouver.