Adjacent to these and directly in the path of flight secondary aerodromes are constructed. These are not necessarily stopping points but they afford a safe landing in case of need. The number of additional intermediate aerodromes considered necessary for safety varies with the type of country. In open, settled, farm lands, where there are no mountains and where the weather is normally fine, they may be dispensed with altogether or spaced at intervals of about 50 miles between the major airports. Owing to the nature of the climate and the difficult physical character of the terrain in the Rocky Mountain region and northern Ontario, where there are absolutely no alternative emergency landing places, the spacing averages about 30 miles. The Trans-Canada airway when finally completed will consist of a chain of airports from 30 to 50 miles apart reaching from Moncton to Vancouver. All important communities in Canada not on the line of the Trans-Canada airway will be connected with it by branches and arrangements for exchange of international traffic with the airway system of the United States at cities near the border are being perfected.

**Construction.**—Natural conditions divide the Trans-Canada airway into four distinct regions—the Mountain region, from the Pacific coast to the foothills in Alberta; the Prairie region, stretching from the foothills to the Ontario boundary; the Laurentian area, extending through western Ontario as far as the Ottawa valley; and the Atlantic section, which takes in the settled areas in the basin of the Great Lakes, the Eastern Townships of Quebec, and the Maritimes.

The Prairie region obviously presented the simplest construction and operating problems. There, precipitation is light, visibility normally good, contour changes are gradual, and aerodrome sites requiring little development were obtainable everywhere. Airway surveys commenced on the prairie section in the summer of 1928, and aerodrome construction and lighting installation followed. By the end of 1929, a chain of lighted aerodromes from Winnipeg to Edmonton *via* Regina and Calgary had been prepared and a contract for the carriage of mails had been let to Canadian airways by the Post Office Department. Actual flying operations started on Mar. 1, 1930, with the operation of a nightly service each way. Five radio-beam stations, constructed in 1931, increased the efficiency of the airway materially. This service continued in regular operation with satisfactory results till Mar. 31, 1932, when, for reasons of economy in all services, it was temporarily suspended. Although the operation of the trans-prairie service was stopped, the airway surveys then in hand in the mountains and in northern Ontario, Quebec, and the Maritime Provinces were continued with a view to the eventual completion of the system from coast to coast.

The necessity for finding useful employment for many single homeless men in all parts of the country led to the establishment of aerodrome construction camps on the Rocky Mountain section, and in northern Ontario, Quebec, and the Maritime Provinces. These resulted in much valuable work being performed, and the system was continued to June 30, 1936, when all labour camps were shut down and the construction work was continued either by contract or by day labour.

An Act creating a national operating company—Trans-Canada Air Lines—for the operation of the Trans-Canada system was passed by Parliament in 1937, and in July and August of that year a joint survey was made by the staff of the operating company and the Department of Transport to decide on the air navigation facilities required to complete the airway. The increase in landing speed and the introduction of night and all-weather flying necessitated larger airports with longer clear approaches and improved surfaces. Facilities which had been adequate five years before no longer sufficed. The construction and installation of the necessary radio-