

Military Aviation.—Military aviation is divided into two parts:—(1) civil operations for other Departments of the Dominion Government and for Provincial Governments; (2) Air Force training—both being carried out by the Royal Canadian Air Force.

Civil operations include forest fire patrol and sketch mapping, aerial surveys, fishery protection and transportation in the remoter parts of the country. For this work there are operational stations at Vancouver, B.C., High River, Alta., Winnipeg, Man. and Dartmouth, N.S.

Air Force training is carried out at Camp Borden, Ont., and experimental work at Ottawa, Ont.

Details of the organization of the Royal Canadian Air Force and amounts called for in the estimates will be found in the Administration section of this Year Book.

VIII.—CANALS.

Before the period of extensive railway construction which commenced for Canada in the 1850's, the water routes, more especially the St. Lawrence, the Great Lakes and the Ottawa, were the chief avenues of transportation. These routes were interrupted at certain points, necessitating portages. The canals of Canada were constructed to eliminate the toil of unloading, transporting and reloading at the portages.

The earliest mention of canals in Canada is in connection with the Lachine canal, begun by early French settlers in 1700, but only after the conquest of Canada by the British were improvements of the main water routes made, and in the early part of the 19th century increased internal and foreign trade and the introduction of steam navigation resulted in more attention being given to this work. Although the canals were constructed primarily for military purposes, they soon became essential to the commercial life of the country.

1.—Canal Systems.

There are in Canada six canal systems under the control of the Dominion Government in connection with navigable lakes and rivers. They consist of the canals (1) between Port Arthur or Port William and Montreal; (2) from Montreal to the international boundary near lake Champlain; (3) from Montreal to Ottawa; (4) from Ottawa to Kingston and Perth; (5) from Trenton, lake Ontario, to lake Huron (not completed); and (6) from the Atlantic ocean to Bras d'Or lakes, Cape Breton. The total length of the waterways comprised within these systems is about 1,594 statute miles, the actual mileage of canals constructed being 117.2.

St. Lawrence Canals.

The St. Lawrence River group, part of the Montreal to Port Arthur system, comprises six separate canals at different points between Montreal and Prescott, not including the so-called "submerged canal" or channel dredged through shallow parts of the river between Montreal and Quebec.

Lachine Canal.—The first attempts at surmounting the Lachine rapids by means of a canal were made by Sulpician monks in the early years of the 18th century. The first canal, lying along the same route, was constructed between the years 1818 and 1825 and opened for traffic in 1824. It had seven locks and accommodated vessels of 4½ feet draft. In 1843 an enlargement was commenced which, completed in 1848, provided locks with 9 feet of water. In 1885 the present canal with five locks, 270 feet by 45 feet, and having 14 feet of water on lock sills, was opened for traffic.