

## 40.—Statistical Summary of Civil Aviation in Canada, 1929-34—concluded.

Item.	1929.	1930.	1931.	1932.	1933.	1934.
<b>Licensed Civil Air Harbours.</b>	No.	No.	No.	No.	No.	No.
Total air harbours (all types).....	77	77	83	83	90	101
<b>Licensed Civil Aircraft.<sup>1</sup></b>						
Aeroplanes (single-engined).....	400	499	466	416	331	-
Aeroplanes (twin-engined).....	-	-	-	-	1	-
Aeroplanes (triple-engined).....	2	2	1	1	-	-
Float seaplanes (single-engined).....	400	499	466	416	331	-
Boat seaplanes (single-engined).....	37	21	23	26	12	-
Amphibians (single-engined).....	6	5	5	2	1	-
Total aircraft (all types).....	445	527	495	445	345	368
<b>Licensed Civil Air Personnel.</b>						
Pilots only (flying machines).....	349	408	658	775	878	684
Pilot-air engineers.....	96	131	138	133	133	148
Air engineers only (flying machines)....	212	241	208	208	281	313
Total licensed personnel.....	657	780	866	983	1,159	997
Unlicensed air mechanics employed.....	150	164	140	52	60	61

<sup>1</sup>These figures show duplication, since practically all aeroplanes are convertible to float seaplanes.

## PART 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, and to eliminate the toil of unloading, transporting and reloading at the portages the canals of Canada were constructed.

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.

## Section 1.—Canal Systems.

There are in Canada seven 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 Fort 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); (6) from the Atlantic ocean to Bras d'Or lakes, Cape Breton; and (7) from Winnipeg to lake Winnipeg. By means of these canals a total waterway of 1,846 miles has been opened to navigation, the actual mileage of canals being 509.40.

\*Revised by G. S. Wrong, B.Sc., Chief of the Transportation and Public Utilities Branch of the Dominion Bureau of Statistics. This Branch publishes an annual report on "Canal Statistics".