

Progress of Civil Aviation in Canada

By J. R. K. MAIN

CANADIAN Aviation was born when Mr. J. D. W. McCurdy made the first flight in an aeroplane from the ice on the harbour at Baddeck, Nova Scotia, on February 23, 1909. This, incidentally, was the first flight made in the British Empire by a British subject in a heavier than air machine. The credit for much of the experimental work that took place in connection with this flight must, of course, go to Dr. Alexander Graham Bell. Since that time, aviation in Canada has had its ups and downs in a figurative as well as a physical manner of speaking but space will not permit mention of the considerable development that took place prior to and during the war of 1914-18.

In 1919 approximately 14,000 trained pilots returned to Canada. Most of them were intent on following the pursuits of peace, (although an astonishing number of these Old Boys are with the colours again to-day): but a few were incorrigibly addicted to flying and these insisted on prying into every nook and cranny where a living at flying an aeroplane might conceivably be hiding. A few far-sighted men, both in Industry and Civil Services, gave them encouragement; and through the persistence of the pilots themselves and the kindly encouragement of those able to give financial aid, schemes were worked out for Forestry Patrol, Aerial Photography and Mapping, Aerial Exploration and Prospecting. Finally these pioneers began the rather humdrum but vitally important business of transporting passengers and goods to serve the industries they had helped to establish. All in all, they cracked open Northern Canada with the toes of the skis and pontoons of their aeroplanes.

For nearly a decade, so-called 'bush flying' held the stage in Canada. Canada was "gold conscious" at that time; and would-be empire builders joined in the sport of financing prospecting outfits to search for the elusive yellow metal through rock, muskeg and tundra, wherever rumour or geological probability had placed it. Prospecting parties were carried in by air, serviced by air, and returned by air. Whenever a find was made, there was a hurried flight to the nearest mining recorder's office and then more hurried flights with packed aeroplanes carrying blankets, food, rock drills, dynamite, blacksmiths, forges, and even coal, back to the diggings. Whether Canada as a whole has received much net financial benefit from all this activity is perhaps open to question. What is certain is that the development and exploration that took place as a side issue has been of immensely great importance.

As a result of this development scheduled services by air are now operating from Edmonton to White Horse and into all the principal points in Northern British Columbia and the Yukon Territory. Two companies are operating down the Mackenzie from Edmonton to Aklavik, into Great Bear Lake, Yellowknife and even into Coppermine and Hudson Bay. Prince Albert is connected to Goldfields in the Athabaska Lake area. From The Pas and Flin Flon, services radiate north-west, north, and north-east like a third portion of a spider's web. East of Lake Winnipeg the country is criss-crossed with airlines running from Lac du Bonnet to Norway House, God's Lake, Ilford and Sachigo. Kenora, Sioux, Lookout, Red Lake and Pickle Lake are connected in a skein of airways. Northern Quebec has been, and still is,

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a happy hunting ground for prospectors and the pilots who serve them. Regarding the services along the north shore of the St. Lawrence we shall have more to say presently.

The significance of these achievements is difficult to place before those who are not familiar with them, and yet their influence is profound. It cannot be said that Canada, before this time, ever possessed its territories in any real sense. They were ours only to the extent that they did not belong to anybody else. Now they are part of Canada just as much as the Prairies or the farms of Nova Scotia. Canadians know them, they travel in them, live in them, make week-end visits to them, hunt in them, fish in them, prospect in them and love them. For this we have the aeroplane to thank and those who insisted on flying, usually against all sense or reason.

It was the most natural thing on earth that the fastest means of transportation should compete with the slowest in the carriage of His Majesty's Mails: that the aeroplane should displace the dog team and the canoe. One of the worst headaches of the Post Office Department lay along the North Shore of the St. Lawrence. It was a long and persistent headache, extending from Quebec City to Labrador; and the prospect of carrying winter mail by air promised more relief than a barrel of aspirin. As events turned out the aspirin was needed too. The first experimental flight took place on December 25, 1927. It was a weekly service so arranged that bags of mail were dropped at intermediate points along the North Shore between Quebec and Seven Islands. The inhabitants were delighted. On mail day, the whole population of each settlement would string out through the bush to spot the mail bags as they fell. The pilots responded to the spirit of the game by giving them something to hunt for. Indeed they won out on several occasions, which is another way of saying that they dropped the bags so wide of the mark that even the news-hungry villagers were unable to find them. Many complaints! The

pilots took up the challenge and dropped some of the mail bags with such beautiful precision that one went through the door, or rather the transom, of a country post office. To be more exact, it took the transom with it. More complaints! But the first airmail service in Canada had been established and was a grand success.

Meantime, the city folks had not been idle. The Flying Club movement was started in the United Kingdom in 1928 and Canadians quickly copied the idea. Clubs were started at twenty-three points in all, of which twenty-two are still functioning and doing yeoman work in the training of Air Force pilots to-day. These clubs served a multitude of purposes. They were instrumental in establishing airports at most of the principal centres of population throughout Canada. They trained pilots and mechanics to take up employment in commercial flying during the years of its greatest expansion. Most important, perhaps, they kept in front of the Canadian public the fact that the aeroplane had come to our civilization to stay. Such a statement in the year 1942 may sound a little trite: but the sad fact is that between 1930 and 1940 the average Indian or Eskimo knew more about the quirks and tricks and potentialities of aeroplanes than the average city dweller in Canada.

The long distance across the Western Prairies called for a faster means of transportation between the Prairie cities. The first airmail service was established between Winnipeg, Calgary and Edmonton in 1929. The planes were slow and the airports were small—or so they seem from this distance, but at that time it was a splendid start. And then the depression smote us! The blight struck the airmail service almost before the other industries were aware of it. For people in that long bygone age looked upon the aeroplane as a freak and as an unnecessary and even, alas, an unwelcome intruder. But the fields were kept open, and even the gophers and badgers learned to shun those enticing level stretches from which their brethren somehow never

returned. The radio equipment was kept oiled up; and the lighting circuits remained more or less intact. And when Canada caught her breath again in 1936, there was a ground work of airports and aids-to-navigation which induced Mr. Howe, then Minister of Transport, to go ahead with the construction of a trans-continental airways system.

Mr. Howe is known as a man of action; and things began to happen with speed and decision. Airports were constructed, (we called them modern airports then, though they have since been enlarged and improved several times), at approximately one hundred mile intervals, starting in Western Canada and spreading eastward to Ontario, Quebec, and finally to the Eastern Maritime Provinces. Most of the principal cities had airports of sorts, and the Government granted them assistance to improve these so that they would fit into the new trans-continental system. All the important airports were equipped with hard surface runways and lights. Radio ranges were installed every hundred miles so that a pilot could fly across Canada from ocean to ocean, day or night, rain or shine, with confidence and in security.

Trans-Canada Air Lines, the company organized to fly this route, opened its first service between Winnipeg and Lethbridge in the summer of 1937. Since then it has grown like a healthy and vigorous youth eager to serve the needs of the people of Canada. Twice a day its planes cross the continent, both ways, from Halifax to Vancouver. Two trips daily are made between Toronto and New York, and two more from Lethbridge to Edmonton. Subsidiary services connect Vancouver to Victoria and Moncton to Charlottetown and Summerside.

Trans-Canada Air Lines is fulfilling an immensely important place in the national life of Canada to-day. The very fact that we have in Canada a system of airports, aids-to-navigation and weather reporting facilities which makes it possible for a pilot to strike out from, say, Halifax, in the middle of

winter in an aircraft equipped with wheels, knowing that he has at his disposal servicing facilities and incredibly accurate weather reports, over the whole 3,200 miles of farm land, muskeg, prairie and mountain, constitutes a military asset of vital importance. So important, that the defence of the country would be very severely hampered without it. These airports, of course, and the facilities attached to them, are owned or operated by the Dominion Government, since all municipal airports were taken over shortly after the outbreak of war. But Trans-Canada Air Lines is doing vital work in transporting key men, strategic materials, and essential plans and documents from city to city and from head office to factory, thereby assisting the war effort of Canada in a manner that would not otherwise be possible.

Trans-Canada Air Lines is not a large company as airline companies go on the North American continent. It has eighteen aircraft in operation as against approximately one hundred and fifty of American Airlines Incorporated. Nevertheless, it is one of the most complete and certainly one of the most efficient airline units in the world to-day. This completeness consists in a uniformity of equipment, airport facilities and aids-to-navigation, weather reporting, and the system of training its pilots, engineers, and administrative staff. All the airports, for example, have been built by the Department of Transport to one pattern. The pattern itself has changed frequently and sometimes drastically as requirements have changed: but all the airports have been brought to a uniform standard and maintained at that standard. There are forty-two radio ranges in operation between the two oceans, and extending from Lethbridge to Edmonton and White Horse. They are all of one pattern; and the system of operation throughout is completely integrated. A pilot trained to operate on one section of the route can fly with complete confidence over any other section because of this uniformity of system.

All the large stations are connected up

by teletype; and weather sequences rattle across them four times a day and on any special occasion. Uniform systems of communication by radio between ground and air are established at every large airport. Air traffic rules much more rigid than those pertaining to our highways, are established and enforced. Planes are spaced apart in distance, altitude and time, so that the risk of collision is negligible. Airport control has been established at all the large airports so that the arrival of several aircraft at one point, at one time, causes no danger or embarrassment since the operator in charge of the control tower can bring them into the airport with as much assurance as a railway despatcher brings trains into a terminal.

In the operating end, the efficiency of the company stands high on this continent. The percentage of seats occupied during the first ten months of 1941 was 69 as compared to 69.7 by the nearest U. S. competitor. The percentage of schedule miles flown was 98.1 for the same period, which is high above the American average.

To-day the company is flying 19,000 miles a day as against 15,000 a year ago. In January, 1941, it carried 4,190 passengers. Six months later the number had doubled.¹ The company reports that seventy-five per cent of these passengers were travelling on business directly connected with the war effort.

The latest monthly figures show a mail load of nearly 140,000 pounds; in January, 1941, it was 83,460 pounds. Air express has trebled from slightly better than 2,000 pounds a month at the beginning of last year to 6,680 in the last monthly figures.

This is indirect war work but the company is making a direct contribution also. From the beginning of the war it has been overhauling and calibrating aircraft instruments for the Royal Canadian Air Force. Recently it has undertaken to overhaul aircraft engines and accessories under contract to the Department of Munitions and Supply. That Department is erecting a building and installing plant on the Winnipeg Airport next to the T.C.A. shop where this work can be carried out under the direct supervision of the splendid aircraft engineering services established and developed by T.C.A.

In less than four years this organization has fitted itself into the life of Canada in a way and to a degree that is comparable to that of any of our great transportation systems. It is owned by the Canadian people and established to render service to them and this it is doing with enthusiasm and self-sacrifice on the part of every member of its staff, from the president, directing policy, to the latest apprentice, cleaning engine parts in the repair shop.

1. See the chart on the cover of this issue.

A Library for Our Fighting Forces

By NORA BATESON

ANY library for service men has two obvious functions. The first is to provide them with the information necessary for what is often a new kind of job. The other is to keep them in touch with what is being done and thought today and to

supply them with such stimulus and satisfaction to thought and imagination and curiosity as the printed word can offer.

It is such a programme on a rather modest scale that the Nova Scotia Regional Libraries Commission had in mind when it agreed to cooperate with the Canadian Legion War Services in

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