

The Station on Lake Manitoba, at Victoria Beach, has given many examples during the season of the value of quick and easy transportation in undeveloped country. Hitherto the only methods of travel have been by canoe route or motor launch. Fire patrols by these methods are slow and uncertain, and the range of vision in a flat country is limited to the banks of the rivers and lakes traversed. With a flying boat this is all changed. Daily patrols covered the nearer regions where the danger of fire was most to be feared; and once a week throughout the season a machine made a 700-mile flight round the lakes, enabling the forestry officers to see for themselves an area of approximately 35,000 square miles. The route followed was north along the eastern shore of Lake Winnipeg to Norway House; thence south-westerly across the north end of the Lake to Grand Rapids; through Cedar Lake, south, down Lake Winnipegosis, to the town; thence eastward through the head of Lake Manitoba, across Lake St. Martin to Sturgeon Bay; thence southward along the western shore of Lake Winnipeg to the base. Inspection trips were made further afield from Norway House to Le Pas, and on to Cumberland House and the Carrot River Triangle. It is not too much to say that the advent of the flying boat in this district has revolutionized travel during the summer months. Flying was continued to well on in October. The last circuit of the lake was completed on the 10th of the month, some time after navigation by launch and canoe had become impossible. This trip was made under most adverse conditions through a series of blizzards; and it should suffice to show that the flying boat is not wholly a fair weather machine, but that it can meet and overcome climatic conditions which would defeat the craft now in use in these waters. The flying time to October 31st was 170.51 hours, covering a distance flown of 14,000 miles. Equipment, one HS 2L and two F3 Flying Boats.

Serving Ontario.

The mobile unit working from Sioux Lookout and from subsidiary bases at Minaki, Allen Water, and Banning, has been engaged principally in forest survey and intensive timber cruising; though during the season at critical times, its services were called on for the transportation of reinforcements and supplies to fire-fighters. The work there has been done for the Forestry Department of the Government of Ontario, who have expressed their complete satisfaction with the results obtained. The whole country between the National Trans-continental Railway and the English River, Lac Seul and Lake St. Joseph, has been mapped in detail. Lakes and water courses have been sketched, and the different forest types have been shown under their various classifications. Barrens, muskegs and other natural fea-



TYPE OF MACHINE USED BY THE AIR BOARD.
"D.H. 4" Aeroplane—1 Rolls Royce Eagle VIII Engine, 360 H.P., used at High River Alta.

tures have been located, and now, after three months work, complete information is available regarding a stretch of country, 200 miles long and averaging 50 miles wide, regarding which only the most superficial information was previously available. Hours flown, 333.13; distance covered, 24,700 miles. Season, May 20th to October 12th. Equipment, three HS 2L Flying Boats.

The station at Ottawa, established for research and experimental flying, has been fully employed throughout the season. In addition to research in photography, photographic survey, wireless telephones and other experimental work, photography of a practical kind has been undertaken, including a set of mosaics for the International Joint Commission of the St. Lawrence Waterway. To foresters, the operation of the greatest interest undertaken from this station was ten days flying in the Temiskaming region (for the Entomological Branch of the Department of Agriculture) where, over an area of many thousand square miles, an investigation into the spruce bud worm situation was carried out with satisfactory results. Flying time, 268.20 hours; mileage, 19,670, up to October 31st. Equipment, two DH 4 Aeroplanes, one HS 2L Flying Boat, and one Aero Seaplane.

At Roberval, Lake St. John, P.Q., the work of the Station established with the assistance and co-operation of the Province of Quebec, has been continued. The machines have been continually engaged in work for the forestry officers of that Government in the undeveloped territory north of the Lake, as far as Lake Mistassini. Flying time, 182.59 hours; mileage, 13,740. Equipment, three HS 2L Flying Boats.

The Station at Dartmouth, near Halifax, N.S., has been maintained as a repair and maintenance depot. Little flying is done from this Station; but several in-

teresting operations have been carried out on a small scale for various Government Departments. No forestry work has been undertaken. Flying time, 54.25 hours; mileage, 2540; equipment, one F 3 and two HS 2L Flying Boats.

This completes the brief review of the forestry work performed throughout the Dominion during the summer months. Up to October 31st, the total flying time for all civil Stations was 2,160.37 hours, flown in 1,124 separate flights, and covering approximately 180,000 miles. The results obtained are most encouraging and full of promise for the future of Civil Government Aviation in Canada.

Better Machines Needed.

In considering them, it should be borne in mind that, to meet immediate requirements, Stations and material have to a great extent been improvised; and that, without equipment of the latest type, and without the expenditure of money on permanent buildings, the Air Board has succeeded in demonstrating conclusively that civil aviation has its uses in this country. The machines available are all of them war-machines of obsolescent types. Most of the Stations are merely on the banks of rivers or lakes—without hangers, workshop accommodation, or other conveniences. If flying under these conditions can produce such satisfactory results, there is no doubt that when machines especially designed have been obtained, and when permanent structures for their repair and accommodation are available, the results will be beyond all question.

The success of the work undertaken during the past two years is largely due to the spirit of friendly co-operation which has existed between foresters and airmen. Without it, the work cannot succeed; and the enthusiasm with which all engaged have worked together for the good of the public service, is a happy augury for success in the future.