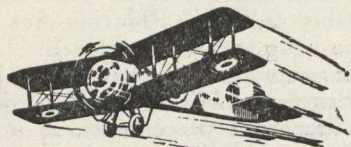


AERONAUTICAL SECTION



A department devoted particularly to the application of aerial methods in forest conservation and generally to the promotion of sane civil aviation in Canada.

A Forest Survey from the Air

Some Details of the Use to which Aerial Photographs Can be Put for Mapping, Estimating and Reconnaissance Work.

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AS FORESTERS generally have shown much interest in the use of aircraft and aerial photography for making forest maps and estimates, reconnaissances and so forth, it is probable that a description of a survey as actually carried out may be of interest.

The area, about which information was wanted, was situated 102 miles in an air line from the air station and about 24 miles from the railroad, 16 over a wagon road, and the remainder by water. A site was selected for

grapher Townsend, Mechanic I. Vachon, and Rigger Hyde. The machine used was a Curtis HS2.L flying boat, No. G-C.A.A.D.

Previous to beginning the work, the chief of party of another survey crew, which was engaged in a survey and estimate of a fifty square mile tract about 45 miles south of the above base, was taken for a flight over the territory on which he was to work. He flew twice over the area with a map on which he made notations of the general lay of the land, the type of timber, and so forth, and this information proved of the greatest value in carrying out his survey.

The plane was moored out in the open during the duration of the survey, and in spite of rain, snow, and hail, suffered no damage and was continually on the job. Trips were made on cloudy and rainy days, and photography was carried on in winds up to fifty miles an hour. The boats used have been in commission for four seasons, and will be used again this year, showing that there is a reasonable life for aircraft.

Reported Forest Fire

One interesting side line of this work was the discovery and reporting of forest fires. On September 1st, a fire was sighted 18 miles away from the plane at 7.30 p.m. and the plane landed at the nearest telephone station and reported it. It is practically certain that the ground patrol would not have discovered the fire at this time of day, and it would probably have assumed quite large proportions before being discovered the next day. Another fire was reported on September 3rd, and on September 8th, a report having been received that a fire had occurred on a certain lake, the plane was sent to investigate, and reported that there was not, and had not been, any fire. On all flights reports were made of fires burning, and areas already burnt were sketched and sent in to headquarters. Sketches made from the air were afterwards checked on the ground, and found to be almost as accurate as to areas as the ground surveys.

The total time spent in photography was 12.8 hours, and the area mapped was 140 square miles. This shows a performance of 10.8 square miles per hour of useful photos. The work was done at, as nearly as possible, an altitude of 5,000 feet, which gave plenty of detail for the interpretative work. In making a mosaic it is necessary



"A Touch of Winter" for the Laurentide Air Cruisers

a base, and an air engineer, a cook, camp equipment and seventeen drums of gasoline were sent in by wagon and boat. Two tents were put up, one for sleeping quarters and the other for a mess tent. This was on the shore of a bay, and the site selected for an anchorage was sheltered from all winds, and the water was deep enough to bring the nose of the plane up on the sand without endangering the hull. The beach was sandy and flat, and by a little easy digging a small channel was formed into which the plane could be drawn so that the engineers could easily get at the rigging and engine, and also re-fuel. The crew consisted of Pilot Maxwell, Forester-Photo-