REPORTING FOREST FIRE LOCATIONS BY THE USE OF PHOTOGRAPHS AND GRIDS

By N. C. SPARKS

THE National Parks Branch of the Department of the Interior having noted the successful results obtained by the Topographical Survey of this Department in using oblique aerial photographs for their surveys, decided to try out a series of these photographs to assist in reporting forest fires in the Parks. Through the co-operation of the Topographical Survey and the Photographic Section of the Civil Aviation Branch of the Department of National Defence, a set of stereoscopic oblique photographs covering four of the principal valleys in Banff Park, Alberta, were taken. In the operation the planes flew at an average height of twelve thousand (12,000) feet, taking a continuous set of three hundred overlapping pictures, first of one side and then of the other of the Bow, Cascade and Spray River valleys, and of the Lake Minnewanka valley, comprising altogether some one hundred and ten miles in length. The photographs are standard seven by nine inch size, and are very clear, giving details of the terrain that show up very distinctly under a strong glass. For fire reports three sets of the pictures were made. One complete set was retained at Ottawa, another sent to Banff, and the third divided among the wardens so as to cover the area which each individual patrols. Each office and warden is also supplied with a celluloid grid the size of the photograph and divided into inch squares, which are numbered along the top and lettered down the sides. As each photograph is individually numbered and the corresponding numbers shown on a contour map of the Park, a warden locating a fire can state the position in a few words, giving the photograph number and the cross reading of the grid. Further particulars as to the water supplies, good fighting points, probable means of approach for supply parties, camp grounds, etc., can be referred to, using the grid. At Headquarters a study of the picture will give a very complete idea as to the surroundings, general needs, and possibilities of the situation. Progress of the fire can be reported as quickly and completely to Headquarters or Ottawa in a minimum of words.

By use of a stereoscope developed by the Topographical Survey, the changes of elevations can be studied and even the difference in tree types may be noted. Old burns, windfalls and heavy or light forest areas are distinguishable under this instrument, all of which helps the fire fighter to make suitable plans to meet emergencies as they arise.

A specimen photograph used in mountain protection work and described by
N. C. Sparks in the accompanying article.

The photographs are also expected to be of assistance in the general administration of the Park and for the location of trails, roads, telephone lines, cabins and other purposes.