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May 24, 1930.

A Science Service Feature

? WHY THE WEATHER ?

Mailed May 17, 1930.

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PHOTOGRAPHING AURORAS

In accordance with an international program, action has recently been taken to establish several stations for photographing auroral displays around the border of the north polar region. One station just equipped for such work is located at the Alaska Agricultural College and School of Mines near Fairbanks, Alaska.

The methods used at these stations will be those that have been employed for some years in Norway under the direction of Prof. Carl Stoermer. The principal purpose of taking the pictures is to secure measurements of the auroral arcs, streamers, draperies, etc., and to determine their exact location. These data are secured by taking pictures simultaneously at the two ends of a measured base line, connected by telephone. The cameras are pointed toward some bright star, which will therefore occupy the same position in both pictures, while the auroral features will be differently located in the two pictures with respect to this star, as they are comparatively near and are photographed from different points. The distance, altitude and dimensions of an auroral feature can be obtained from comparative measurements made on two simultaneous pictures.

The camera employed is of special design and is mounted on a tripod. Six pictures are taken successively on each plate, and the exposure generally lasts as long as the aurora remains quiet, the time ranging from half a second to a minute. Generally there are two men at each camera; one to take the pictures and the other to make notes. The photographers wear telephone head-sets and one of them instructs the other as to the direction toward which the camera is to be pointed, the time of each exposure, etc.

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