

A Science Service Feature

Released upon receipt
but intended for use
April 25, 1934

? WHY THE WEATHER ? Mailed April 18, 1934

AN ANTARCTIC SPECTACLE

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Authority on Meteorology.

In the temperate and torrid zones the "green flash," at sunrise and sunset, when it can be seen at all, is truly a flash, as it lasts but an instant. In the polar regions it often belies its name by lasting for many minutes. This is because, in high latitudes, the sun, instead of passing rapidly below or above the horizon, moves in a direction not very far from horizontal. It thus seems to roll along the horizon, and if it is so low that only a tiny fraction of the disk is visible, this fraction assumes, under suitable atmospheric conditions, a brilliant green color.

A prolonged green flash was observed by members of the Byrd expedition at Little America on the evening of October 16, 1929. At that time the sun was skirting the southern horizon, its disk disappearing at intervals, only to appear again a few moments later. This fluctuation was caused by the unevenness of the Barrier surface, which formed the line of the horizon. The irregularities of the snow surface permitted the upper edge of the sun to appear in one or more star-like points of light from adjacent notches. These points sometimes had a greenish color on their appearance or disappearance. W.C. Haines, the meteorologist of the expedition, has described this spectacle.

"The length of time during which the green flare was visible," he says, "varied from a fraction of a second to several seconds, and at times it was possible to keep it in view or to make it reappear by raising or lowering the head. Occasionally green, orange and red could be seen simultaneously at different points, giving one the impression of traffic lights."

The whole display lasted more than half an hour.

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