

A Science Service Feature

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? WHY THE WEATHER ?

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A PERMANENT AURORA

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The polar aurora --- which includes the aurora borealis of the northern hemisphere and the aurora australis of the southern --- occurs chiefly in high latitudes and at irregular intervals. Its appearance generally coincides with disturbances in the earth's magnetism --- so-called "magnetic storms" and also with intermittent out-breaks in the sun.

On the other hand, it has been known for many years that a faint green light is constantly emitted from the night sky in all parts of the world. The intensity of this light is now regularly measured according to a uniform plan at a number of places in different countries. The light shows marked variations but they do not appear to be related to those of the polar aurora or to magnetic disturbances.

The spectrum of this permanent illumination of the sky has frequently been photographed. Its characteristic and perhaps its only feature is the well-known yellow-green "auroral line", which is the most conspicuous feature in the spectrum of the polar aurora. Hence, the light in question is regarded as a species of aurora, though it may be quite different in origin from the polar aurora. Lord Rayleigh, who has devoted much attention to it recently, calls it the "non-polar" aurora.

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