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A Science Service Feature

? WHY THE WEATHER ? Mailed November 21, 1935

PHANTOMS OF THE POLAR AIR

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In the temperate zone the various optical phenomena known to science as "halos" are usually seen in the sky, where they are formed by the action upon light of the ice crystals composing the higher clouds. In the polar regions the same phenomena--including rings around the sun and moon, sundogs and moondogs, and many other varieties--are often visible in the ice-laden atmosphere close to the observer.

A recent press dispatch from Lincoln Ellsworth, now in the Antarctic, tells of cruising through a maze of icebergs. He writes:

"Some of the bergs were a good 150 feet above the water line. A series of curious small cyclonic columnar snowstorms were being driven by a high wind toward the sun, which, at that time, was just rising in the southeast. Each storm blanketed the scene about us, and as each one passed the sun's rays caught the vertical faces of the icebergs and flashed a colored signal.

They appeared like a string of flashing beacons showing us the way."

Evidently the sunlight, reflected by the bergs, passed through a haze of tiny ice crystals; called "diamond dust" by explorers. The light rays were refracted and broken up into the spectral colors seen in the different kinds of halo, with the exception of those due only to reflection, which are colorless.

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