

A Science Service Feature

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? WHY THE WEATHER ? Mailed July 19, 1932

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AURORA MEASUREMENTS

A recent press dispatch from London telling of the plans of a British expedition to make observations of the aurora borealis at Fort Rae, on Great Slave Lake, Canada, failed to indicate that this is not to be an isolated undertaking, but is merely part of a comprehensive program of similar investigations to be carried out at many places during the International Polar Year, which begins next month.

The Polar Year project is a joint enterprise on the part of meteorologists and magneticians. The aurora is a meteorological phenomenon, since it is, like lightning, a manifestation of atmospheric electricity, but it also bears intimate relations to the phenomena of terrestrial and cosmical magnetism. Thus two branches of science are equally concerned in solving its problems.

Because of its height a brilliant auroral display can be seen at a great distance. One visible, for example, over the northern horizon in the northern United States or southern Canada may actually be located more than a thousand miles to the northward.

During the Polar Year a dozen or more stations equipped with cameras especially designed for making photographic measurements of the height and distance of auroral features will be in operation in the circumpolar regions of the northern hemisphere, including, in America, besides the one at Fort Rae, a station established some time ago near Fairbanks, Alaska, and probably a few elsewhere in Alaska and Canada. At many other suitably located stations all auroral displays will be observed, though not photographically measured. Thus, except in so far as clouds, daylight and bright moonlight may interfere, it will be possible, for the first time in the history of science, to map the entire extent of auroral displays too large to be visible in their entirety in any one locality.

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