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A Science Service Feature

? WHY THE WEATHER ?

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WATCH FOR AURORAS

If history repeats itself, we shall be treated to some fine displays of "northern lights" within the next few months. One of them may come on any clear and moonless night, though of course they are not visible so early in the evening in summer as in winter, on account of the longer period of daylight.

Nature generally stages the most spectacular of these manifestations at a time when spots are numerous on the sun. We are now approaching the "sunspot maximum," which is due on an average every eleven years. For a long time it has been known that there is a connection between auroras and solar activity. The sun is supposed to send out into space an enormous quantity of electrified particles, some of which enter the earth's atmosphere. Whenever this solar bombardment becomes especially intense the highly rarefied gases of the upper atmosphere are set aglow by the passage of electric discharges, and the visible aurora is thus produced.

The aurora tends to be concentrated in two belts, surrounding the Arctic and the Antarctic regions. Far within the Arctic Circle auroral displays are seen to the southward. In the United States we see them mostly to the northward, but occasionally one spreads so far to the south that it fills the whole heavens in our latitudes. This happened in the case of the magnificent display of March, 1920.

Thousands of photographs of the aurora have been taken in recent years in Norway. By means of photographs taken simultaneously from two or more places some miles apart, the distance and dimensions of any feature of a display can be determined. Some auroral streamers have thus been traced to a height of more than 450 miles above the earth.

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