

A Science Service Feature

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? WHY THE WEATHER ?

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"SUN COMING BACK" AND GETTING FARTHER AWAY

Last evening, January 2, we were nearer the sun than we will be again during the year - or, as astronomers say, the earth is in perihelion. The sun is now about 91,340,000 miles distant, or 3,000,000 miles nearer than it will be in July, and the earth as a whole is receiving 7 per cent. more heat than in July. Yet the heat now received at the earth's surface in northern latitudes is very much less than in summer, on account of the low elevation of the sun.

In the southern hemisphere, on the other hand, the sun is high in the sky now, when the earth is nearest the sun. From this we might expect that southern hemisphere summers and winters would be more extreme than those in the northern hemisphere. The reverse is generally true, however, and because of the moderating effect of the great oceans of the southern hemisphere, Wyndham, in northwestern Australia, one of the hottest places in the southern hemisphere, is not quite so hot as our Yuma, or Phoenix, Arizona, in summer.

A curious result of the greater nearness of the sun in our winter when the sun is low than in our summer when it is high in the sky, is the nearly uniform intensity of sunshine at noontimes on the clearest days throughout the year. We have all experienced the warmth of brilliant sunshine in winter, which is perceptibly greater than it could be, even with such dry air as occurs in winter, if the sun were then more distant.

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