

No. 783

A Science Service Feature

Nov. 13

? WHY THE WEATHER ?

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SUN DOGS AND SUN PILLARS

When the sun or moon is low in the sky you may notice a bright spot on either side of it, in a circle of about 22 degrees radius of which the sun or moon is the center. Such spots are known as "sun dogs" or "moon dogs" and are caused by the refraction and reflection of light from the ice crystals of high sheet clouds, called cirro-stratus. Reflection from crystal surfaces will sometimes produce a faint ring of white light through the sun parallel to the horizon. At the same time there may be a halo encircling the sun caused by refraction or bending of light in passing through the crystals. Halos most frequently have a radius of about 22 degrees. About where the halo and the white ring parallel to the horizon intersect, the bright spots, or sun dogs occur. These spots may be observed when the rings are not noticed.

Occasionally "sun pillars" are seen, vertical columns of light extending above and below the sun. They are caused by the reflection of sunlight from the horizontal surfaces of thin flat crystals which are settling gradually through the air. At sunset, a red sun pillar is especially striking.

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(Tomorrow: Snowfalls and Green Cheese)

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