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A Science Service Feature

? WHY THE WEATHER ?

By Dr. Charles F. Brooks,
of Clark University.

HALOS

"The moon with a circle brings water in her beak."

"When the sun is in his house it will rain soon."

These proverbs of the Zuni Indians show that they rightly recognized the halo, a large ring around the sun or moon, as an indicator of approaching wet weather.

Halos are produced by the refraction and reflection of rays of light by the ice crystals of high thin clouds, such as cirro-stratus. They are either white rings, or when colored, always have the red on the side nearest the luminary. Often two spots of special brightness, called parhelia, or "sun dogs" (sometimes there are "moon dogs") appear on either side of the sun (or moon). Halos are most frequently about 22 degrees or 46 degrees in radius. Other sizes also occur, though rarely.

Since a high thin cloud sheet extends far in advance of an approaching cyclone, halos may indicate the coming of a storm 24 or 48 hours before the rain arrives. To only the extent that the passage of the cyclone affects the weather at the station, is the halo reliable. With knowledge of the condition of the barometer, whether rising or falling, and knowing which direction of the wind most often precedes precipitation, the layman may know what degree of faith to place in the celestial harbingers. For halos may be observed to the side and rear of a storm as well as on its front.

Tomorrow: "Coronas and Iridescent Clouds".

SCIENCE SERVICE,
B and 21st Sts.,
Washington, D.C.
