

A Science Service Feature

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? WHY THE WEATHER ? Mailed April 11, 1927

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HALO COMPLEX

In books on meteorology one is almost sure to find a drawing or diagram of two haloes at once, with tangent arcs or other extras. Yet if you observe the sky faithfully day after day you are very unlikely to see a halo complex. This does not mean that "there ain't no such animal", as the farmer said when he first saw a giraffe, but that to see these rare phenomena one should miss no opportunity while outdoors to glance around the sun's half of the sky for some rings.

The commonest halo is that of about 22 degrees radius, i.e. a "wheel" about two finger lengths out from the sun. This is not uncommonly attended by parhelia, or sun-dogs, level with the sun, but usually just a little farther from it than the halo. A much larger halo of 46 degrees radius occasionally is to be seen more than twice as far from the sun as is the 22-degree halo. If the sun is in the southwest the 46-degree halo will occupy the space from about south to west and high up into the sky. Touching or nearly in contact with the top of this big halo is usually a circumzenithal arc, of great purity of color. In fact, this arc is not so rare as the big halo. A combination of these four was seen in Worcester, Mass., not long ago.

All these phenomena may be caused by a cloud of crystals of the same form but different dimensions. They must be clear, with flat ends perpendicular to their hexagonal sides, and their lengths must range from appreciably shorter than their hexagonal width to at least nearly equal this dimension.

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