

A Science Service Feature

Released on receipt  
but intended for use  
February 5, 1929

? WHY THE WEATHER ? Mailed January 29, 1929

By Charles Fitzhugh Talman,  
Authority on Meteorology

HALOS

Not every luminous circle seen around the sun or moon is described by meteorologists as a "halo". The circular band of relatively small angular diameter, of which reddish brown is the prevailing color, formed by fleecy clouds is a "corona". This is due to the diffraction of light by water drops. The halo results from the presence of ice crystals in the atmosphere, and it occurs in a great variety of forms. Some halos are circles around the source of light, while others assume other shapes and positions.

The commonest halo is a circle of 22 degrees radius, with the sun or moon at its center. It is very common whenever a veil of cirro-stratus cloud covers the sky. Though it is colored, the colors are faint when the moon is the source of light, so that the casual observer is likely to describe it as white. When it surrounds the sun a reddish inner border and traces of other spectral colors are generally visible, but in order to see this halo readily one should look through dark glass, or else stand in such a position that the sun is behind the corner of a building or some other object.

Circular halos of other angular dimensions surrounding the luminary are much rarer, though several varieties are known to science. Colored sundogs and moon-dogs (parhelia and paraselenae), also known as mock suns and mock moons, are not uncommon. Neither is the beautiful rainbow-tinted circumzenithal arc, nor the white parhelic circle; the former seen near the zenith, and the latter passing through the sun and paralleling the horizon.

Many other varieties of halo have been classified and named. Several varieties are sometimes seen at once; especially in the polar regions. A magnificent display of halos of many kinds was seen in the eastern and central United States November 1 and 2, 1913.

(All rights reserved by Science Service, Inc.)

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