

A Science Service Feature

Released on receipt
but intended for use
May 8, 1929

? WHY THE WEATHER ?

Mailed May 1, 1929

By Charles Fitzhugh Talman,
Authority on Meteorology.

POLAR MIRAGE

Some of the radio reports from the Byrd Expedition, now in the Antarctic, have described curious effects of atmospheric refraction, or mirage, such as are common in the polar regions. One report mentioned the weirdly distorted shape of the moon close to the horizon. There are many accounts of this phenomenon in polar literature; especially in the records of the "Belgica" expedition, the first to winter in the Antarctic, which include several series of drawings by Henryk Arctowski showing the successive transformations undergone by both the sun and the moon under the effects of abnormal refraction at the time of rising or setting. Members of Shackleton's expedition of 1914-17 once saw the sun set, then rise clear of the horizon, and set again fifteen minutes later. The mirage responsible for this prank was probably due to a stream of warm air rising through a crack in the ice from the unfrozen water below.

The type of mirage known as "looming", which lifts into view objects normally below the horizon has been thought by some authorities to explain the historic mistakes of Commander Wilkes in charting the location of the Antarctic coast. Peary was misled by a similar trick of the atmosphere when, in 1906, he mistook the loom of the Arctic sea ice for a distant mountainous land northwest of Grant Land. He named his supposed discovery "Crocker Land", and it was not until eight years later that it was proved by MacMillan and Green to be nothing but an insubstantial phantom.

(All rights reserved by Science Service, Inc.)

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