

CHATS WITH THE WEATHER MAN.

RELEASE Friday, April 3, 1931.

ANNOUNCEMENT: And now for our chat with the weather man. Every two weeks, you know, our old friend Ob. Server, tells us something about the work of the weather specialists of the United States Weather Bureau and the ever-fascinating subject, the weather-----Well, see what it is now-----Go ahead, Mr. Ob. Server-----

\*\*\*\*\*

Well, let's talk about the beautiful flowers and trees down near the South Pole.

Or rather, let's talk about what takes the place of flowers and trees in the Polar regions.

I guess most of us picture the Antarctic as one vast stretch of cold, barren ice terrible in its awful sameness. And so it might seem, but for the gorgeous colors, and queer circles, and bars, and streamers, and other optical wonders which blossom in the Antarctic sky.

Mr. William C. Haines, of the United States Weather Bureau, who was meteorologist with the Byrd Arctic and Antarctic expeditions, says it was a pity they didn't take a great artist along to paint the Polar scenery with the brilliant sky coloring which so often relieves the monotony of snow and ice which covers the landscape. Photography can not catch the coloring, and the ordinary camera does not have wide-enough lense to take in the curious patterns of light formed around the sun and moon under certain weather conditions.

According to Mr. Haines, the very coldness of the Antarctic plays a big part in producing those gorgeous flowers which do so much to make life endurable for those who go to the ends of the earth for science sake.

The tiny ice particles in the frigid air of the Antarctic often break up the sun light and moon light in such a way as cause many different types of rings.

Sometimes, there will be a pillar of light apparently rising from the sun and branching out at the top. More often there will be a circle or halo around the sun or moon. Occasionally, there will be a cross, or even a cross within a circle and another bigger circle around that. Sometimes these geometric figures in the air will be still more complicated and on the rims of the circle, will be segments of other circles, with streaks of light called sun-dogs on guard on each side of the sun.

Mr. Haines says these curious designs appear most often when there are high fleecy clouds in layers in the sky, with sunlight striking the frost particles in the air.

The reason there is one design at one time, and another at some other time, Mr. Haines explains, is probably largely due to the way most of the crystals of ice in the air are turned toward the light. If the light strikes the greater number of these exceedingly small six-sided prisms of ice at one angle, the light is broken up to form maybe one circle, and when these frost particles present a slightly different face to the light the result may be a double circle or other more intricate design. Just how they are formed, however, is quite a complicated problem in meteorological physics on which our weather men have been working for years.

Often these sky drawings fade away in a few moments like a rainbow after a spring shower. At other times, they may linger for hours.

But in addition to these figures, there are the most gorgeous sky colors in the Antarctic than in any other place in the world. Red, and orange, and yellow, and violet, and green are most often seen. And at the times of the year when the sun is skirting the horizon all day long just before it disappears for the long Polar night, you practically get gorgeous sunsets for twenty-four hours at a stretch and of such brilliance as to make the glory of our western sunsets seem pale by comparison.

Another optical phenomena Mr. Haines saw while at the Byrd expedition weather station in Little America, was that kind of phenomenon known as looming, which is often also noted at sea.

Due to difference in density of the air, he says, light rays are so bent that it is possible to see objects which are actually below the horizon and ordinarily completely out of sight.

Once while with a party at several miles from the base station, and at a point where the radio towers were normally hidden from view, Mr. Haines declares he saw the towers in plain view in the sky. At another time, other objects in low places and hidden behind intervening hills of ice were brought fully into view through this well-known and curious phenomena.

But those things were seen in the summer day of the Antarctic. Now, at the time we are just entering our spring time, the long Polar night is just descending on the vast stretches of Antarctica.

From the latter part of March to the last of November, our South Polar region is going through its winter. The sun has disappeared. But, Mr. Haines says, don't imagine that the Antarctic is without its "flowers" even during the Polar Night, for the famous electro-magnetic phenomena, Aurora Australis may be seen shimmering in the sky most any time the weather is clear.

The Aurora Australis is the Southern counterpart of the well-known Northern Lights. Mr. Haines says, he does not know which are the more brilliant of the two.

These lights are seen sometimes as streamers, and sometimes as wavy curtains of vari-colored light, sometimes as arches or bands of light, and at others as streamers running from the horizon up to the zenith.

The color is usually white or greenish white but occasionally brilliant hues of green and pink and red and violet made their appearance.

Sometimes the lights appear steady and at others the colors are changing all the time in a pulsing movement.

Nor are these displays of shimmering colored lights a rare thing. Mr. Haines' records show that all through the Polar darkness from April to October, the Aurora was visible on 90 per cent of clear nights or twenty-four hour periods.

ANNOUNCEMENT: You have just heard a description of the "flowers" of the Polar regions by Mr. William C. Haines, of the United States Weather Bureau. This chat with the weather man is presented by Station \_\_\_\_\_ in cooperation with the United States Department of Agriculture of which the Weather Bureau is a part.

\*\*\*\*\*

# **National Oceanic and Atmospheric Administration**

## **ERRATA NOTICE**

One or more conditions of the original document may affect the quality of the image, such as:

Discolored pages  
Faded or light ink  
Binding intrudes into the text

This has been a co-operative project between the NOAA Central Library and the Climate Database Modernization Program, National Climate Data Center (NCDC). To view the original document, please contact the NOAA Central Library in Silver Spring, MD at (301) 713-2607 x124 or [Library.Reference@noaa.gov](mailto:Library.Reference@noaa.gov)

HOV Services  
Imaging Contractor  
12200 Kiln Court  
Beltsville, MD 20704-1387  
July 23, 2010