

CHATS WITH THE WEATHER MAN.

Friday, November 29, 1929

ANNOUNCEMENT: Every other Friday, our old friend Ob. Server, has been chatting with us about his chats with the scientists at the United States Weather Bureau. Now that winter is right at hand maybe he can give us some warm facts on that cold subject. At least, he might tell us a warm place to land for the winter. -----Well, Mr. Ob Server?

\*\*\*\*\*

In this country, we usually think about going South for warm weather and North for cold weather; especially at this time of the year. But you'd be surprised at the contradictions you run into when you try to measure degrees of temperature strictly according to degrees of latitude. At least, I was when Dr. W. J. Humphreys, meteorological physicist at the U. S. Weather Bureau, pointed out to me a few of the high spots in temperature and geography.

We ordinarily think of Alaska as cold and the Tropics as hot. They both are all of that. Yet, the interior of Alaska has more days during the year with a temperature of 90 degrees or over than Panama has.

Before I could quite make that out, Dr. Humphreys declared. "We ordinarily think of St. Louis, Missouri, as being fairly warm; but the average temperature of St. Louis in January is the same as that of southern Iceland. That is not that St. Louis is so frigid; but that southern Iceland is not such a bad place as a winter resort as some people might think.

"The Scilly Islands off the coast of England," Dr. Humphreys went on, "are covered with tropical vegetation which would be killed by the slightest frost. Yet those islands are in the same latitude as northern Newfoundland, where it gets quite cold, and Medicine Hat, Saskatchewan, famous for its low temperatures and the place from which our cold waves come.

"Or take Rome," he suggested. "We usually think of Rome as pleasant and balmy, yet it is in the same latitude as Chicago and Council Bluffs which have acquired quite a reputation for being blustry and cold.

Then Dr. Humphreys switched to another viewpoint on our temperatures. "In southern California," he said, "within a few miles of where they have the highest temperature ever recorded in America, and next to the highest ever recorded anywhere, 134 degrees in the shade, the snow never melts.

"In that region, we have snows thirty feet deep, the deepest snows on the North American continent. Yet just a few miles away is the place which has been known to go for a whole year with no snow and not a drop of rain."

Of course, that one was easy. That snow is in the mountains. Those differences of temperature just illustrated what we get when we take in a

third dimension, and figure this thing from the standpoint of altitude.

As Dr. Humphreys said, these apparent paradoxes in temperatures are not any mysterious freaks, but are easily explained when you stop to think. When he mentioned that the average winter temperature of Sitka, Alaska, is practically the same as that of Washington, D. C., I began to see why some of these northern places have comparatively warm weather. In the case of Sitka, the winds from the Pacific ocean and its warm Japanese current account for it being comparatively warm along southwest Alaskan coast. And our Gulf Stream which swings north and east in the Atlantic ocean and warms those Scilly Isles off the coast of England. In fact, these surprisingly high temperatures in ~~what~~ we ordinarily think of as cold latitudes are in marine climates. Rome is warmed by winds from the Mediterranean Sea.

On the other hand, such places as Washington, D. C. and St. Louis, Missouri, get their winter winds from the north, from the high latitudes. As Dr. Humphreys put it, in the case of the seas, the colder water sinks, and the warmer water rises; but land can't sink. It just gets colder and colder.

Most of our big cold waves come to us over land from the McKenzie Valley, in northern Canada, and sweep down the Mississippi Valley. Any modifying effects from the oceans are blocked off by the mountains. For that reason, the interior of our country is colder than many other countries in higher latitudes, but so situated as to give access to the winds modified by blowing over stretches of water.

On the other hand, the prevailing on shore winds tend to modify our climate somewhat along the Atlantic Coast.

But water not only tends to stay warmer than the land, but in summer and in low latitudes it tends to keep cooler. Ocean water can't get very warm; for the very simple reason that it evaporates. And, as Dr. Humphreys says, land can't evaporate. It just gets hotter and hotter.

That is what happens in the interior of Alaska in the summer when the ice is gone, the surface gets hot and hotter. Then when you figure that the sun shines nearly the whole 24 hours in Alaska whereas in Panama the sun never shines much over 12 hours, you begin to see why it is the interior of Alaska averages more days during the year with a temperature over 90 than does the marine climate of Panama.

But it doesn't take an ocean full of water to modify temperatures enough to have considerable practical effect. For instance, peaches and other fruit may be more successfully grown on the eastern shore of Lake Michigan than on the western shore. The winds crossing the water from the west are slightly warmed and made more humid.

Some of these surprising differences in temperature in different places suggested to me to ask Dr. Humphreys about the differences in winters, and whether our climate is changing. I had my own views about it, but I just wanted to get word from some recognized authority on such things. Some of the older fellows in our neighborhood insist that we

R-C.W.M. 11/29

don't have winters like we used to have.

Dr. Humphreys didn't seem to think there was much to such notions. Of course, he said, there are no two years alike. We may have a period of two, three, or four years of mild winters. Or we may have periods of severe winters. We may have a difference of five or six degrees between one winter and another. That is a big difference in the way we feel about it. However, if we take any period of twenty consecutive years, Dr. Humphreys says, and compare it with any other period of twenty consecutive years, we will find that the average temperature is just about the same. Changes in our climate are mostly in the minds of the folks who say we don't have winters like we used to have. The records offer them little support.

\*\*\*

ANNOUNCEMENT: Every other Friday Station \_\_\_\_\_ presents these Chats with the Weather Man. Friday after next, our Ob Server will bring us more weather facts from his talks with scientists of the U.S. Weather Bureau.

# **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