

A Science Service Feature

Released on receipt
but intended for use
January 18, 1927

? WHY THE WEATHER ?

Mailed January 11, 1927

By Dr. Charles F. Brooks
of Clark University

BUFFALO'S BLIZZARDS

Now and then when there is a cold west wind we read that Buffalo suffered a howling blizzard and semi-darkness all day, while the outskirts of the city had little or no snowfall. Likewise, we learn of great snows locally on the south-east shore of Lake Erie, or of extraordinary depths that fall at times near the east shores of Lake Michigan, Lake Huron, and especially near the western end of Lake Ontario. While clear weather may prevail in the interior snow may be falling continuously over a 5 or 10 mile belt along the lake shore. Winter weather maps appear incomplete without the "S" symbol and the shaded smudge for snow along the easterly shores of the Great Lakes. These regions are very poor ones for the local weather sharps who know how to interpret cirrus clouds in terms of coming storms, for the snow on the rear of one low scarcely stops before that of the next begins. Cloudiness is almost continual.

Why should these places have private snowstorms? In a word, it is these shores that are struck by the damp air from the Lakes when chilled by the prevailing cold northwesterly winds. At this time of year the lakes are still open, at least in their larger stretches, and present to the passing air a surface having a temperature not lower than the freezing point. This surface both warms and humidifies the colder winds from the land. New cold air tends to displace and force the warmer upward, thereby cooling it and starting precipitation. On reaching the eastern shore friction with the land and ascent up its slope greatly accentuates this expansional cooling and causes heavy snowfall. Back from the shore the rate of ascent becomes very much less and the air drier, so the snowstorm does not extend far.

(All rights reserved by Science Service, Inc.)

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