

No. 713

A Science Service Feature

Aug. 24

? WHY THE WEATHER ?

By Dr. Charles F. Brooks  
of Clark University.

FEW HURRICANES

Tropical cyclones originate on the oceans in the doldrums, that calm rainy belt which lies near the equator, between the trade winds of the two hemispheres.

The ocean water is very warm, the air above warm and moist. When the air becomes heated and expanded over a large region, undisturbed by wind, convectional currents start on a great scale and the pressure is lowered. An overflow aloft is compensated by an inflow below. But when the doldrums are away from the equator the winds do not flow directly into the center; they tend to develop into a whirl instead. Perhaps the more or less opposing trade winds serve to give an initial twist and the deflection due to the earth's rotation does the rest. Tropical cyclones develop best from 10 to 20 degrees of latitude away from the equator, and never less than 5 or 6 degrees distant. At the equator there is no deflective action. The doldrums move north with the sun in our summer, away from the geographical equator. In late summer, then, the stage is set for hurricanes in the West Indies region.

1923 was marked by very few hurricanes, as the tropical cyclones of the West Indies region are called. In 1924, the season started late, but the storms were fairly numerous. Up to the second week in August, 1925, none had appeared. Years when water temperatures are somewhat below normal and pressure high in the tropical North Atlantic seem adverse to hurricane formation.

-----  
(Tomorrow: Hurricane Season)

All rights reserved by Science Service

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