No. 63

July 24

A Science Service Feature

? WHY THE WEATHER ?

Dr. Charles F. Brooks,
Secretary, American Meteorological Society,
describes:

SUMMER SOUTHEASTER

Of the summer storms in the eastern United States, the southeaster is wettest and windiest, excepting, of course, the short-lived thunderstorm and the rare hurricane and tornado. It is not so enduring a disturbance as the warm weather northeaster, nor is it characterized by so low a temperature. But usually it gives a heavy rainfall, and may be accompanied by a wind of gale-like proportions.

The southeaster forms in a "low" a short distance inland, when a pronounced "high" lies off over the Atlantic to the east. Warm, moist air from the Gulf Stream flowing slantwise from the "high" to the "low" strikes the barrier formed by a similar flow of the cool air from the east or northeast and rises up over it. In the process the warm air is cooled, mostly by expansion, slightly by mixture, and condensation takes place as rainclouds.

Usually in a southeaster the pressure gradient is a steep one, which is to say that the difference in air pressure between the "high" and the "low" is large. Consequently, the flow of warm air is swift, condensation is very rapid, heavy clouds form quickly, and much rain falls, sometimes as much as 3 inches in 24 hours Vacation sojourners detest the southeaster as a period of driving rain, which blots out the landscape, and, unless they are hardy souls who do not fear a wetting, keeps them cooped up within doors.

(Tomorrow: Beware the Barometer.)

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