No. 117
Sept. 25

A Science Service Feature

? WHY THE WEATHER ?

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

HURRICANE RAINFALLS

The weight of water vapor drawn into a West Indian hurricane is prodigious, and the amounts precipitated by the expansional cooling are almost unbelievable. The very centrifugal tendency of the millions of tons of drops of water whirling about the center of the hurricane is thought to be an important cause of the lowness of the atmospheric pressure at the central eye. In fact, the latent heat of condensation of the water vapor that makes the rainfall is the principal source of the energy that drives the great atmospheric heat engine that is the hurricane.

Perhaps the heaviest rainfall in a single 24-hour period ever measured was 46 inches, at Baguio, the summer capital of the Philippine Islands, July 14-15, 1911. An additional 42 inches fell there during the same storm, making 88 inches in four days. But Silver Hill, Jamaica, had 96.5 inches in four days; and Funkiko, Formosa, had 81.5 inches in three days, July 18-20, 1913. According to data compiled by Dr. S.S. Visher, there were more than 400 days in 25 years on which the rainfall somewhere in tropical Australia exceeded 10 inches. For three days the record in Australia is 63 inches, on Mt. Molloy, Queensland.

These figures exceed records for any part of continental United States, where our best in one 24-hour period has been 22.22 inches, at Altapass, North Carolina, July 14-15, 1916 in a West Indian hurricane. The flood which resulted from the rains of this hurricane was the greatest ever known in the southern Appalachians.

(Tomorrow: Waterspouts)

All rights reserved by Science Service.

Science Service,
1115 Conn. Ave.,
Washington, D. C.