

The extreme eastern and extreme western portions of Massachusetts and the western interior of Connecticut suffered relatively little.

THE INUNDATION

Damage to property along the coast was largely due to the storm wave. At Sandy Hook the tide was 8.2 feet above mean low water; at the Battery, New York City, it was 6.44 feet above mean sea level. Along the coast of Connecticut, Rhode Island, and on the shores of Narragansett and Buzzards Bays, the highest tide ranged from 12 to 25 feet above mean low water, being highest on the southern shores of Massachusetts, where the maximum stage occurred about 5 or 6 p. m. At Point Judith Coast Guard Station the water rose 18 feet above mean low water; at Fairhaven it was estimated at 25 feet; at Pocasset, 20 feet; at the Nobska Point Light Station, 15 feet. At Fall River it was reported that "the water came up rapidly in a great surge," the crest being estimated at "18 feet above normal."

The storm tide, combined with the hurricane winds, raised havoc with small craft and was very destructive to harbor, resort, and beach property.

DAMAGE AND LOSS OF LIFE

The American Red Cross reported on October 27 that 488 lives were lost in the hurricane, 100 persons were missing, 1,754 were injured more or less severely and 93,122 families had suffered more or less serious economic losses. The number of summer dwellings destroyed was placed at 6,933, and other dwellings at 1,991. Boats destroyed numbered 2,605, barns 2,369, and other buildings 7,438.

NOTES AND REVIEWS

W. KÖPPEN und R. GEIGER. *Handbuch der Klimatologie*. Band IV. Teil T: G. SCHOTT, Klimakunde der Südsee-Inseln. Teil U: W. MEINARDUS, Klimakunde der Antarktis. Berlin; Borntraeger, 1938.

This volume is a further addition to the Köppen-Geiger series on climatology and the climates of the world. The complete work will comprise 5 large volumes in 26 parts. The authors are 35 climatologists of various nationalities; the editors W. Köppen and R. Geiger. Parts which have previously come from the press in the last 10 years treat the climates of North, Central and South America, the West Indies, Europe, Australia, New Zealand, the East Indies, and parts of Africa; there has also appeared a volume on general climatology (Band I).

Part T, like others of the series which previously have come from the press, contains a general description of the area treated and a broad view of its climate. This is followed by a detailed presentation of the climates of

Estimates of the total economic losses, in all the areas affected, ranged from \$250,000,000 to \$330,000,000.

WARNINGS

The first advisory warning was issued from the forecast center at Jacksonville at 9:30 p. m. of September 17, when the hurricane was about 500 miles northeast of the Leeward Islands. Advisory messages were issued at 6-hour intervals thereafter. By 9:30 a. m. of September 19, the hurricane had approached within 650 miles of the southern Florida coast and was moving west-northwestward at a rate of about 25 miles an hour; northeast storm warnings were then ordered from Key West to Jacksonville. Later in the day it became evident that the hurricane had turned more to the northward, hence hurricane warnings were not ordered for the Florida coast. At 9:30 a. m. of September 20, storm warnings were ordered displayed on the coast south of Hatteras to Wilmington. At that time the Washington forecaster ordered storm warnings south of the Virginia Capes to Hatteras.

At 9:30 p. m. of September 20, when the hurricane was centered about 400 miles east of Jacksonville, storm warnings were ordered by the Washington forecaster for the area from the Virginia Capes to Atlantic City; and on the morning of September 21, with the center 75 miles east of Hatteras, warnings were extended from Atlantic City to Eastport, Maine. At 10 a. m. storm warnings were changed to whole-gale warnings from the Virginia Capes to Sandy Hook, and at 2 p. m. the last warning was issued, stating that the storm would likely pass over Long Island and Connecticut in the late afternoon or early night.

A further report on the meteorological aspects of this storm will appear in a later issue of the REVIEW.

several zones: I. The Hawaiian Islands; II. The moist equatorial zone; III. The dry equatorial zone; IV. Islands in the southeast trades; V. Islands in the border zone between the southeast trades and prevailing westerlies. The entire region extends from 30° N. to 30° S., and from 105° W. to 135° E.

The tables, occupying 22 pages, give data for 91 stations on Pacific Islands.

Part U presents a description of the Antarctic, a statement regarding the sources of observations, and a discussion of the climatic elements and their distribution, including temperature, pressure and wind, cloudiness, and precipitation; also individual treatments of conditions in selected areas. There is also a large amount of data in tables, based principally, of course, on short records of various expeditions.

Both parts, T and U, contain numerous references to the literature on climatology of the regions discussed.—*I. R. Tannehill.*