

MONTHLY WEATHER REVIEW.

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BOARD OF EDITORS { Mr. Horace E. Smith, Chief Clerk of Weather Bureau,
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Mr. Edward B. Garriott, in charge of Review Room.

INTRODUCTION.

This REVIEW is based on reports for July, 1892, from 2,900 regular and voluntary observers. These reports are classified as follows: 166 reports from Weather Bureau stations; 47 reports from United States Army post surgeons; 1,916 monthly reports from state weather service and voluntary observers; 217 reports through the Central Pacific Railway Company; 523 marine reports through the co-operation of the Hydrographic Office, Navy Department; 31 reports from Canadian stations; marine reports through the "New York Herald Weather Service;" monthly reports from local weather services established in all states and territories; and international simultaneous observations. Trustworthy newspaper extracts and special reports have also been used.

CHARACTERISTICS OF THE WEATHER FOR JULY, 1892.

The period of persistent and exceptionally high temperature during the second and third decades was a notable feature of the month. From the 18th to the 24th the daily maximum temperature in Kansas and Nebraska was 100° or above. In the Atlantic coast and Southern States the period of greatest heat extended from the 24th to the 28th. At Philadelphia, Pa., a maximum temperature of 101° was recorded on the 26th, and 99° was the maximum reading at Baltimore, Md., and Washington, D. C. On the 27th the temperature reached 100° at Lynchburg, Va. These temperatures were the highest ever recorded at the respective stations for the third decade of July. In the east Gulf states excessive rainfall damaged crops, while in parts of New England, the Ohio Valley, and the interior of Texas vegetation was injured by drought.

TEMPERATURE.

The mean temperature was generally below the normal, the most marked deficiency being shown in the south Atlantic and Gulf states, and in Oregon and Washington, where it was more than 3°. In the middle and east Gulf states the month was exceptionally cool, and at points in that section the mean temperature was the lowest ever noted for July. A notable excess in temperature occurred only in the Lake Superior and Gulf of Saint Lawrence districts, where the mean was 2° to 3° above the July average. Light frost damaged vegetation about Carson City, Nev., on the 11th. Frost was reported in the Lehigh Valley, Pa., on the 18th. Vegetation about Havre, Mont., was touched by frost on the 28th.

PRECIPITATION.

More than the usual amount of precipitation was reported in the east Gulf states, along the Virginia and south Atlantic coasts, and in the upper Mississippi and upper Missouri val-

leys. At points in the east Gulf states, the upper Mississippi valley, and North Dakota the monthly precipitation was the greatest ever reported for July. In New England, eastern Nebraska, eastern Kansas, and the Southwest there was a marked deficiency in precipitation. At points in New England, Pennsylvania, and the interior of Texas the monthly precipitation was the least ever noted for July.

STORMS.

The occurrence of local storms was noted most frequently in Michigan and Iowa. The more destructive storms of the month occurred in Ohio, Indiana, Illinois, and Iowa on the 2d, a tornado being reported at Tocsin, Ind., and another near Davenport, Iowa; in Minnesota and North Dakota on the 11th; in Wisconsin on the 12th; in Ohio, Illinois, and North Dakota on the 13th, a tornado occurring at Springfield, Ohio; in South Dakota on the 19th, exceptionally heavy gales being reported, and a tornado occurring at Gettysburg, S. Dak.; in Illinois on the 20th; in North Dakota on the 22d; and in northern Ohio on the 24th.

FLOODS.

The Mississippi River subsided slowly, and at the close of the month was above the danger-line at New Orleans, La., only. In the early part of the month some damage was caused about New Orleans by flood. Streams overflowed their banks in western Illinois. In Mississippi and Alabama high water in the Tombigbee, Warrior, Alabama, Coosa, and Pearl rivers caused considerable loss of property and crops.

AUROSAS.

The widely-observed and exceptionally brilliant auroral display of the 16th was an interesting and unusual feature of the month.

ATMOSPHERIC PRESSURE (expressed in inches and hundredths).

The distribution of mean atmospheric pressure for July, 1892, as determined from observations taken daily at 8 a. m. and 8 p. m. (75th meridian time), is shown on Chart II by isobars.

In July the normal pressure is above 30.05 on the north

Pacific coast and over the east Gulf states and Florida. Over the west part of the southern plateau region the pressure is below 29.85, and along the extreme northern border of the country east of the 110th meridian the normal values are below 29.90. In July there is usually an increase of pressure, except in extreme northeast and northwest parts of the country,