

# MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

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## INTRODUCTION.

The MONTHLY WEATHER REVIEW for May, 1898, is based on 2,945 reports from stations occupied by regular and voluntary observers, classified as follows: 147 from Weather Bureau stations; numerous special river stations; 32 from post surgeons, received through the Surgeon General, United States Army; 2,583 from voluntary observers; 96 received through the Southern Pacific Railway Company; 29 from Life-Saving stations, received through the Superintendent United States Life-Saving Service; 31 from Canadian stations; 20 from Mexican stations; 7 from Jamaica, W. I. International simultaneous observations are received from a few stations and used, together with trustworthy newspaper extracts and special reports.

Special acknowledgment is made of the hearty cooperation of Prof. R. F. Stupart, Director of the Meteorological Service of the Dominion of Canada; Mr. Curtis J. Lyons, Meteorologist to the Hawaiian Government Survey, Honolulu; Dr. Mariano Bárcena, Director of the Central Meteorological and Magnetic Observatory of Mexico; Mr. Maxwell Hall, Government Meteorologist, Kingston, Jamaica; Capt. S. I. Kim-

ball, Superintendent of the United States Life-Saving Service; and Commander J. E. Craig, Hydrographer, United States Navy.

The REVIEW is prepared under the general editorial supervision of Prof. Cleveland Abbe.

Attention is called to the fact that the clocks and self-registers at regular Weather Bureau stations are all set to seventy-fifth meridian or eastern standard time, which is exactly five hours behind Greenwich time; as far as practicable, only this standard of time is used in the text of the REVIEW, since all Weather Bureau observations are required to be taken and recorded by it. The standards used by the public in the United States and Canada and by the voluntary observers are believed to generally conform to the modern international system of standard meridians, one hour apart, beginning with Greenwich. Records of miscellaneous phenomena that are reported occasionally in other standards of time by voluntary observers or newspaper correspondents are sometimes corrected to agree with the eastern standard; otherwise, the local meridian is mentioned.

## FORECASTS AND WARNINGS.

By PARK MORRILL, Forecast Official and Chief of Forecast Division.

There were few marked departures from normal conditions during the month of May. Only one storm of any severity visited the Atlantic coast, that of the 5-8th, a more detailed account of which appears below, prepared by Mr. J. H. Harmon of this Division. Severe thunderstorms occurred in the upper Mississippi Valley on the 17th and 18th, as reported by Prof. E. B. Garriott, in charge of the Chicago Forecast District. Frosts continued at frequent intervals in the Northwest during the first half of the month, but during the latter part occurred only in the elevated districts of the Rocky Mountains. On the 6th the low temperatures in the upper Mississippi Valley and the Lake regions indicated the probability of frosts in the Ohio Valley, and a warning of their probable occurrence was issued; they occurred only at more exposed points. The river forecasts on the Pacific coast are of special value at this season for reasons explained in the report of Mr. B. S. Pague, in charge of the North Pacific Forecast District. The various areas of high and low pressure which appeared on our weather maps during the month are discussed below by Prof. H. A. Hazen. A résumé of the condition of the various rivers is given as prepared by Mr. F. W. Krichelt of this Division, and is accompanied by a table of river stages.

### WIND SIGNALS.

On May 5 a trough of low pressure extended from Texas northeastward to New Jersey and the Atlantic coast, and

during the day a storm of moderate intensity developed over Tennessee and western North Carolina. On the 6th the center remained stationary on the North Carolina coast, and during the 7th the storm increased slightly in severity, dominating the weather from Cape Hatteras to Boston until the 9th. In advance of this storm information signals were hoisted from Wilmington to Nantucket and on the 6th, as the wind increased, the signals were changed to southwest storm from Morehead, N. C., to Baltimore, Md., and to northeast storm along the northern coast to Nantucket. On the 8th, as the storm developed a slow easterly movement and gained in energy, northeast storm signals were displayed from Delaware Breakwater to Boston section, and information signals farther south to Hatteras.

During the progress of the storm the following maximum velocities were reported:

Memphis, 40; Cairo, 36; Louisville, 30; Nashville, 36; Knoxville, 48; Augusta, 38; Atlanta, 34; Chattanooga, 32; Atlantic City, 42; Cape May, 30; Philadelphia, 42; New York City, 38; Block Island, 72; Nantucket, 40; Boston, 36; New Haven, 45; Sandy Hook, 56; Cape Henry, 38; Hatteras, 36.

### THUNDERSTORM FORECASTS.

The severest storms of the month in the Chicago forecasting district occurred in Nebraska on the afternoon of the 17th, and in eastern Iowa, northern Illinois, and Wisconsin on the after-