

# MONTHLY WEATHER REVIEW.

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## INTRODUCTION.

The REVIEW for January, 1895, is based on reports from 3,046 stations occupied by regular and voluntary observers. These reports are classified as follows: 149 reports from Weather Bureau stations; 36 reports from U. S. Army post surgeons; 2,205 monthly reports from State Weather Service and voluntary observers; 31 reports from Canadian stations; 283 reports through the Southern Pacific Railway Company; 525 marine reports through the cooperation of the Hydrographic Office, Navy Department, and "New York Herald Weather Service;" monthly reports from 17 U. S.

Life-Saving stations; monthly reports from local services established in all States and Territories; and international simultaneous observations. Trustworthy newspaper extracts and special reports have also been used.

The WEATHER REVIEW is prepared under the general editorial supervision of Prof. Cleveland Abbe, but for the present month and unless otherwise specifically noted, the text and the statistical tables are furnished by the Division of Records and Meteorological Data, in charge of Mr. A. J. Henry, acting chief of that division.

## CHARACTERISTICS OF THE WEATHER FOR JANUARY, 1895.

No specially marked features were noted during the month. There was an absence of high winds and destructive gales on the Atlantic coast, but the Lake region was visited by severe gales on two occasions.

The month was generally cold and stormy in the interior,

and the cold was also rather more severe in the Southern States than usual.

Further details for each State and Territory will be found under the head of general weather conditions as reported by State Weather Services.

## ATMOSPHERIC PRESSURE.

[In inches and hundredths.]

The distribution of mean atmospheric pressure reduced to sea level, as shown by mercurial barometers not reduced to standard gravity and as determined from observations taken daily at 8 a. m. and 8 p. m. (seventy-fifth meridian time), during January, 1895, is shown by isobars on Chart II. That portion of the reduction to standard gravity that depends on latitude is shown by the numbers printed on the right-hand border. This Chart also gives the so-called resultant wind directions for this month, based on the data given in Table IX of this REVIEW.

Numerical values of pressure are given in Tables I and V, from which the details heretofore published under this section may be drawn.

### HIGH AREAS.

Ten areas of high pressure are platted on Chart IV. In general these originated in the British Possessions north of Montana, and entered the United States at some point on our northern boundary between W. 97° and W. 115°.

But two areas of high pressure passed below the thirty-fifth parallel during the month, the general course being southeastward until about the fortieth parallel, thence north-eastward to the Canadian Maritime Provinces. The usual details of the individual paths are given below.

I.—Was central in the west Gulf States on December 31, 1894. On the morning of the 1st it appeared over the east

Gulf States and Tennessee, and moved thence northeasterly and practically disappeared on the evening of the 3d. Temperatures below freezing were reported throughout Mississippi, Alabama, Georgia, and northern Florida on the morning of the 1st.

II.—On the a. m. map of the 2d pressure had risen quite rapidly in Alberta, with a corresponding fall in temperature. By the morning of the 3d the area of high pressure had pushed south and eastward, overspreading Montana and the Dakotas. The area of temperature fall, however, was not coincident with or in advance of the front of the high, but rather in the rear of it, and we also note the rather unusual phenomenon of an extensive area of warm air to the southwest, extending from the Pacific Ocean to the eastern slope of the Rocky Mountains, and covering the plains to the southeast of Colorado as far as Amarillo. We have also here an excellent example of a true foehn wind, confined to the region of central Colorado on the eastern slope of the Rocky Mountains. Eastward on the plains of western Kansas and Nebraska the chilling effect of the high is manifest and the farther advance of the warm air from the Pacific is effectually barred. The movement south and filling up of a North Pacific low is well illustrated in the present case.

By the evening of the 3d the high extended in the shape of an elongated oval from Assiniboia to Kansas and the central Mississippi Valley. The region of greatest temperature