

# MONTHLY WEATHER REVIEW,

APRIL, 1881.

(General Weather Service of the United States.)

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WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

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## INTRODUCTION.

In preparing this REVIEW the following data, received up to May 20th, have been used, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at 136 Signal Service stations and 15 Canadian stations, as telegraphed to this office; 183 monthly journals and 177 monthly means from the former, and 15 monthly means from the latter; reports from 5 Sunset stations; 220 monthly registers from Voluntary Observers; 64 monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly reports from the local Weather Services of Iowa, Nebraska and Missouri, and of the Central Pacific Railway Co.; reliable newspaper extracts; special reports.

## BAROMETRIC PRESSURE.

The distribution of mean atmospheric pressure over the United States and Canada for the month of April, 1881, is shown by isobaric lines (in black) upon chart No. II. The region of lowest pressure remains about stationary over New England and the Maritime Provinces, but with barometric readings somewhat lower over the latter section than for any previous April since 1874. The regions of highest pressure occupy the Eastern Gulf coast and the Northern Pacific coast region. Compared with April, 1880, the distribution of pressure is about the same, except that the area of high is less marked and the area of low more confined. The latter, extending westward to the Missouri valley in April, 1880, is entirely superseded in the present month by an increase in the extreme of  $+0.2$  inch, and over the Lake region of  $+0.12$  inch.

*Departures from the Normal Values for the Month.*—Throughout the interior of the country the pressure is everywhere above the normal, being most marked in the Upper Mississippi and Missouri valleys and in the Middle Slope, where the departure varies from  $+0.06$  at St. Louis, La Crosse, St. Paul and Dodge City to  $+0.1$  at Bismarck and  $+0.12$  at Yankton. The deficiency of pressure for the north coincides with the regions of greatest departure from the normal, viz.: in the Middle Atlantic and New England States and particularly along their coasts. Departures vary in the interior from  $-0.03$  at Lynchburg and Washington to  $-0.07$  at Burlington, Vt., and  $-0.08$  at Philadelphia; from  $-0.04$  at Cape Henry and Cape May to  $-0.14$  at Portland and on summit of Mt. Washington, and  $-0.17$  at Eastport. Throughout the Pacific States the pressure is below the normal, ranging from  $-0.04$  at Portland to  $-0.07$  at San Diego and  $-0.12$  at San Francisco. On summit of Pike's Peak the departure is  $-0.11$ . The line of no change is not continuous, only three stations in extreme parts of the country, viz: Punta Rassa, Jacksonville and St. Vincent, reporting a normal condition.

*Barometric Ranges.*—The range of pressure during the month has varied in the extremes from 0.25 inch at San Diego to 1.37 inches at Eastport, and 1.38 inches at Ft. Buford. Ranges of 1.00 and above were reported from the following stations: New York City and Albany, 1.00; Ft. Sill, 1.01; Henrietta, Tex., and Burlington, Vt., 1.02; North Platte, 1.03; Springfield, Mass., and Moorhead, Minn., 1.05; New London, 1.06; Ft. Gibson, 1.07; Kittyhawk and Yankton, 1.08;