# MONTHLY WEATHER REVIEW,

## AUGUST, 1877.

**WAR DEPARTMENT,**

**Office of the Chief Signal Officer,**

DIVISION OF

**TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.**

## INTRODUCTION.

The present REVIEW for the month of August depends upon all data received up to the 14th of September from the Canadian Meteorological Service, the United States Navy, the Army Post Surgeons, Voluntary Observers and the United States Signal Service. The most interesting features have been: First, the unusually low barometric pressure over the Atlantic and Gulf States. Second, the general excess in temperature. Third, the large number of heavy local rains. Fourth, the general deficiency of rain in the Middle States, and consequent droughts.

## BAROMETRIC PRESSURE.

*In General.*—The general distribution of barometric pressure for the month is shown by the isobars on Chart II, from which it will be seen that the highest pressure has been off the South Atlantic coast, a small portion of which is included in the isobar of 30.00. The pressure has diminished very regularly from the coast in a northwest direction to Dakota, where the lowest average for the month is found. There has been a general deficiency in pressure, which is the most decided in the South Atlantic and Gulf States, where the mean barometer is the lowest it has been since the organization of the meteorological division of the Signal Service. The pressure in the Rocky Mountains and on the Pacific coast has been nearly normal.

*Barometric Range.*—The greatest range of the barometer over the whole country east of the Rocky Mountains, was about 1.09 inches, as may be seen from the following table, which gives the maximum and minimum pressures that occur on the tri-daily maps near the centres of the respective areas of high and low barometer:

| LOW AREAS. | | | | HIGH AREAS. | | | |
|---|---|---|---|---|---|---|---|
| No. | Location. | Date. | Minimum Pressure. | No. | Location. | Date. | Maximum Pressure. |
| I | Fort Garry | Aug. 1st, 7:35 a. m. | 29.67 | I | Father Point | Aug. 1st, 7:35 a. m. | 30.32 |
| II | Chatham | Aug. 4th, 4:35 p. m. | 28.54 | II | Breckenridge | Aug. 2nd, 7:35 a. m. | 30.22 |
| III | Bismarck | Aug. 4th, 4:35 p. m. | 29.44 | III | Augusta | Aug. 12th, 7:35 a. m. | 30.13 |
| IV | Bismarck | Aug. 8th, 4:35 p. m. / Aug. 10th, 4:35 p. m. | 29.62 | IV | Sydney | Aug. 26th, 11 p. m. | 30.38 |
| V | Bismarck | Aug. 15th, 4:35 p. m. | 29.69 | V | Breckenridge | Aug. 31st, 11 p. m. | 30.25 |
| VI | Omaha | Aug. 17th, 4:35 p. m. | 29.71 | | | | |
| VII | Bismarck | Aug. 19th, 11 p. m. / Aug. 20th, 7:35 a. m. | 29.29 | | | | |
| VIII | Bismarck | Aug. 23rd, 4:35 p. m. | 29.40 | | | | |
| IX | Bismarck | Aug. 25th, 11 p. m. | 29.39 | | | | |
| X | Bismarck | Aug. 30th, 4:35 p. m. | 29.56 | | | | |

*The greatest local barometric ranges* have been, as follows: 0.84 at Pembina, 0.72 at Breckinridge and Fort Dodge, 0.68 at North Platte, 0.70 at Eastport.

*The least local barometric ranges* have been as follows: 0.16 at Los Angeles, 0.17 at San Diego; 0.18 at Yuma; 0.19 at Key West; 0.32 at Galveston; 0.34 at Indianola; 0.37 at St Marks and San Antonio; 0.38 at Jacksonville, New Orleans, Corsicana and Fort Gibson; 0.39 at Shreveport and Jacksboro. An examination of the foregoing table shows that during August the least ranges have, in general, been near the coast, and the greatest in the plateau east of the Rocky Mountains.