MONTHLY WEATHER REVIEW.

VOL. XIII. WASHINGTON CITY, NOVEMBER, 1885. No. 11.

INTRODUCTION.

This REVIEW contains a general summary of the meteorological conditions which prevailed over the United States and Canada during November, 1885, based upon the reports from the regular and voluntary observers of the Signal Service and from co-operating state weather services.

Descriptions of the storms which occurred over the north Atlantic Ocean during the mouth are also given, and their approximate paths shown on chart i.

The paths of the centres of eight areas of low pressure are traced on chart i, this number being four less than the average for November during the last thirteen years. That described as number viii was the severest storm of the month, and on reaching the Atlantic coast caused severe gales from Eastport, Maine, to Wilmington, North Carolina, and unusually high tides on the New Jersey coast.

A prominent feature in connection with the meteorology of the month was the unusually low mean pressure over nearly the whole country, the departures from the normal being greatest on the north Pacific coast, where they ranged from .25 to .35; over the greater part of the country east of the Rocky Mountains the departures ranged from .10 to .22.

The mean temperature was above the normal in all districts, except in the south Atlantic and east Gulf states, where the month was slightly colder than the average November. The greatest departures above the normal temperature occurred in the extreme northwest and in northern and central Rocky Mountain districts, where they generally ranged from 6° to 10°.

The rainfall on the Pacific coast was remarkably heavy, and caused destructive freshets in that region. On the middle Pacific coast the rainfall was about ten inches in excess of the average. The rainfall was also considerably in excess of the average in the middle Atlantic states, while over the interior and southwestern districts there was a general deficiency.

In the preparation of this REVIEW the following data, received up to December 20, 1885, have been used, viz., the regular tri-daily weather-charts, containing data of simultaneous observations taken at one hundred and thirty-three Signal Service stations and eighteen Canadian stations, as telegraphed to this office; one hundred and seventy-one monthly journals and one hundred and sixty-four monthly means from the former, and eighteen monthly means from the latter; two hundred and seventy-two monthly registers from voluntary observers; forty monthly registers from United States Army post surgeons; marine records; international simultaneous observations; marine reports through the co-operation of the "New York Herald Weather Service;" abstracts of ships' logs, furnished by the publishers of "The New York Maritime Register;" monthly weather reports from the New England Meteorological Society, and from the local weather services of Alabama, Indiana, Iowa, Minnesota, Nebraska, Ohio, and Tennessee, and of the Central Pacific Railway Company; trustworthy newspaper extracts, and special reports.

ATMOSPHERIC PRESSURE.

[*Expressed in inches and hundredths.*]

The mean atmospheric pressure for November, 1885, determined from the tri-daily telegraphic observations of the Signal Service, is shown by isobarometric lines on chart ii.

An area of barometric maxima covers the central Rocky Mountain districts, the pressure being greatest over Colorado and Utah, where the monthly mean exceeds 30.2. The mean pressure is least on the north Pacific coast, over which region the barometric means fall to 29.75, or about .50 lower than those at stations in the central Rocky Mountain districts. Over the southern districts to the eastward of the one hundredth meridian the mean pressure ranges from 30.0 to 30.05; while in the northern districts to the eastward of the same meridian there is a gradual decrease from 30.05, in Dakota, to 29.9, in Canadian Maritime Provinces and northern New England.

Compared with the mean pressure for the preceding month, there has been an increase in the extreme northwest and in all southern districts, the difference being greatest in the middle and southern plateau districts, where it varies from .10 to .19. In the middle Atlantic states, upper lake region, and in the upper Mississippi, Missouri, and Ohio Valleys, the pressure has differed but slightly from that for the preceding month. In New England and the Canadian Maritime Provinces, and from central Montana westward to the Pacific coast, a marked decrease has occurred; in the first-named districts the difference ranges from .10 to .17, and in the last-named from .10 to .27.

The departures from the normal pressure at the various Signal Service stations are given in the tables of miscellaneous meteorological data, and on chart iv they are exhibited by lines connecting stations of equal departure. Except over a small area, including portions of Arizona and New Mexico, the mean pressure for November, 1885, has been below the normal throughout the country. The departures are unusually large over the greater part of the country; east of the one hundredth meridian they exceed .10 in nearly all districts, and on the middle Atlantic and southern New England coasts they are above .20. The most marked departures occurred on the north Pacific coast, where they range from .20 to .35. These abnormal departures form the most marked meteorological feature of the month.

BAROMETRIC RANGES.

The monthly barometric ranges at the various Signal Service stations are also given in the tables of miscellaneous data. They were greatest on the north Pacific coast, and over portions of the Missouri Valley and eastern slope; they were least over Florida, Arizona, and southern California.

The following are some of the extreme ranges:

Greatest.	Inches.	Least.	Inches.
Fort Canby, Washington Territory	1.17	Key West, Florida	0.34
Olympia, Washington Territory	1.16	San Diego, California	0.39
Port Angeles, Washington Territory	1.13	Los Angeles, California	0.48
Portland, Oregon	1.12	Pensacola, Florida	0.49
North Platte, Nebraska	1.03	Cedar Keys, Florida	0.50
Omaha, Nebraska	1.03	Sanford, Florida	0.55
Leavenworth, Kansas	1.03	Fort Grant, Arizona	0.56