

THE WEATHER IN THE UNITED STATES

GENERAL CONDITIONS

Apart from the catastrophic floods in New England during the early days of November, the month was without important departures from normal conditions. The temperature for the country as a whole was decidedly above the normal, the only exception being in the Dakotas, eastern Montana, and the northern parts of Minnesota and Wisconsin. Rainfall on the whole was deficient except in the flood-stricken part of New England and in parts of Pacific coast States. Snowfall was light and inconsequential.—A. J. H.

THE WEATHER ELEMENTS

By P. C. DAY

PRESSURE AND WINDS

The important features of the weather for November, 1927, were the unusual warmth and general lack of important precipitation in the Southern States, and the excessive precipitation and attending severe flood conditions in portions of New England and near-by areas.

The month as a whole was stormy over the far Northwest and cyclones were rather frequent and gave important precipitation in the area from the Great Lakes eastward.

Among the cyclones causing important precipitation over considerable areas may be mentioned that of the 3d and 4th which developed as a moderate depression over the east Gulf States and moved to New England by the 4th, developing greatly in severity as it moved northward and attended by heavy to excessive rains over the eastern portions of New York and the adjacent areas of New England. Total falls during the period from near sunset of the 3d to sunset of the 4th, the time of heaviest precipitation, ranged up to as much as 8 inches locally in parts of the storm area, and disastrous floods followed in the Connecticut River and some of its tributaries as well as elsewhere in the area of heavy precipitation, the details of which appear elsewhere in this issue.

A second important cyclone moved from western Montana on the 9th to eastern Iowa by the 10th and thence northeastward to beyond the Great Lakes during the following 24 hours. The precipitation was not particularly heavy but it covered a wide area from the Mississippi Valley eastward to the Appalachian Mountains and generally from New York to New England.

Another storm pursuing a similar course was central over eastern Iowa on the morning of the 15th, moving northeastward to beyond the Great Lakes during the following 24 hours. Before the effects of this storm had passed over the upper Mississippi Valley and lake region, another moderate barometric depression formed over the lower Mississippi Valley and moved northeastward over the Atlantic Coast States to New England by the morning of the 18th. This was attended by heavy rains over most of the Central and east Gulf States, Ohio Valley, and Atlantic Coast States. But little important precipitation occurred during the last decade over the central and eastern districts until near the end, when more or less precipitation occurred over most central and northern districts from the Mississippi Valley eastward.

Over the Pacific coast States precipitation was rather general on several dates during the first half, but during the remainder of the month it was confined chiefly to the more northern portions.

The most important anticyclone of the month entered the far Northwest on the morning of the 11th and moved rapidly southeastward to the Ohio Valley by the 13th, from where it drifted northeastward to New England. This brought temperature reductions of 20° to 40° over most districts in its movement eastward, though the line of freezing temperature did not extend as far southward over the central and eastern districts as on the 6th.

The average pressure for the month reduced to sea level was highest and considerably above normal over the southeastern districts, and it was distinctly low in the Rocky Mountain and Plateau regions.

The distribution of the pressure is graphically shown on Chart VI, and the departures from normal values and changes as compared with October are shown by the insets on Charts I and II.

Severe wind storms were rather infrequent for the last month of autumn and were confined largely to the middle period and near the end. A tornado causing important property damage, but without loss of life, occurred in the vicinity of Washington, D. C., on the 17th, the usual details of which appear elsewhere in this issue.

TEMPERATURE

Rather important temperature changes occurred at intervals during the month, but on the whole warm weather was the rule over the greater part of the country and this was especially the case in the more southern sections.

The first week was mainly cool save for the first day or two over most eastern districts which were in numerous localities the warmest of the month. The remainder of the week was distinctly cool from the Rocky Mountains eastward, save over the more southern portions and in the far West, some of the lowest temperatures of the month occurring at the close.

The second week continued warm in the South and averaged warmer than normal over most other districts save from the upper Mississippi Valley westward where the middle and latter portions were distinctly cold, though the first few days were the warmest of the month over the Plains portion of this area.

The third week averaged warmer than normal from the Rocky Mountains westward and in the Northeastern States. Over the interior portions of the country this week was mainly cold and some of the lowest temperatures of the month were observed from the 16th to 18th in the central valleys and northern districts, the period being from 15° to 20° below normal in eastern Montana and the Dakotas.

The last week averaged warm over the entire country, though the first part had some of the coldest weather of the month in the Plateau and near-by districts and at the end it was again cold over the Rocky Mountain area. The average temperature for this week was unusually high over much of the country, and at a number of points in the Central and Eastern States the maximum readings on some of the last few days were the highest of record for so late in the fall.

The mean temperatures for the month were above normal over all parts of the country save in the northern sections from the Rocky Mountains eastward to the upper Mississippi Valley and Lake Superior region and to the northward into Canada, where it was a distinctly cold month.