

DETAILS OF THE WEATHER OF THE MONTH IN THE UNITED STATES.

GENERAL CONDITIONS.

By A. J. HENRY. 551.506 (73)

The outstanding feature of the month was some abatement of the heat which had prevailed almost continuously during the two months immediately preceding. Droughty conditions of the previous month appeared to have drifted to the eastward being most pronounced in Atlantic coast States, including Florida and the Gulf States, whereas the Ohio and middle Mississippi valleys had generous rains.

As compared with the previous month, pressure rose, especially in the Gulf and Atlantic Coast States, thus augmenting in a measure the high pressure in Southern districts which has featured the weather of some months past.

CYCLONES AND ANTICYCLONES.

By W. P. DAY, Observer.

Migratory low-pressure areas charted during the month considerably exceeded the average, but were in no case important as storms.

High-pressure areas were typical. The budding off from the North Pacific HIGH became less frequent and migratory HIGHS began to make their appearance from the regions north of Alberta.

Tables showing the number of HIGHS and LOWS by types follow:

LOWS.	Alber-ta.	North Pa-cific.	South Pa-cific.	North Rocky Moun-tain.	Colo-rado.	Tex-as.	East Gulf.	South At-lantic.	Cent-ral.	Tot-al.
August, 1921.....	7.0	1.0	.....	.....	2.0	.....	.....	.....	5.0	15.0
Average num-ber, 1892-1912, inclusive.....	4.2	0.6	0.3	0.	1.0	0.2	(1)	0.1	1.0	8.3

¹ Only one occurrence.

HIGHS.	North Pacific.	South Pacific.	Alber-ta.	Pla-teau and Rocky Moun-tain Re-gion.	Hud-son Bay.	Total.
August, 1921.....	2.0	.....	3.0	1.0	2.0	8.0
Average number, 1892-1912, inclusive.....	1.8	0.2	3.0	0.9	0.8	6.7

THE WEATHER ELEMENTS.

By P. C. DAY, Climatologist and Chief of Division.

PRESSURE AND WINDS.

August, 1921, like the preceding month, was relatively free from important pressure changes, and both cyclonic and anticyclonic areas were poorly defined and showed the usual uncertain movements common to the summer atmospheric circulation. A number of low areas appeared over the middle and southern Plateau regions and crossed the Rocky Mountains in a northeasterly direction and moved eastward along the northern border, but usually without material energy until reaching the Canadian Maritime Provinces, where they developed into storms of some importance. The high-pressure areas were somewhat better defined than the lows. The

most important moved eastward along the northern border during the first half of the third decade, modifying materially the weather over eastern districts during that period.

Pressure for the month, as a whole, was above normal in practically all portions of the United States and Canada, the only material exception being a small area in the northern Rocky Mountains.

Pressure was highest over the southeastern States, diminishing northward and westward. As a result the air movement over the districts east of the Rocky Mountains was mostly from southerly points. This was the case also over portions of the Rocky Mountain and Plateau districts. Over the Pacific Coast States the winds were mostly from the north or northwest.

High winds were confined usually to local small areas, mostly in connection with thunderstorms, but these were widely scattered and on the whole fewer than is usually expected during the last summer month. Details of the more important wind and other storms appear at the end of this section.

TEMPERATURE.

Moderate conditions as to temperature were marked features of the weather during the month. Periods of severe heat were usually of short duration and changes from day to day were of small proportions.

The warmest periods showed much divergency as to time of occurrence in the different portions of the country, ranging from the first day of the month in portions of the East Gulf States, to the last day or two along the northern border from Montana eastward.

Maximum temperatures of 100° or higher were observed in some portions of all the States except in the Lake region and North Atlantic States, where they were a few degrees less. In the middle and southern Great Plains maximum temperatures of 110° were observed locally, and they were 115° and 118°, respectively, at points in Arizona and southern California.

The dates of lowest temperatures were likewise well distributed during the month, ranging from the 3d in New England to the 28th and 29th in portions of the Gulf States and Plateau region. The most extensive cool period occurred from the 5th to 8th, and covered much of the country from the Great Plains southeastward to the Middle Gulf States. The lowest temperature reported, 19°, occurred in the mountains of Colorado, and temperatures below 32° were reported from many of the higher elevations from the Rocky Mountains westward, and at a few points along the northern border from the upper Lakes to Montana.

For the month as a whole the average temperature was again above normal over large portions of the country, though the departures were relatively small. A marked feature of the monthly mean temperatures was the further continuation of the already remarkable period, with monthly means above normal, which has been a persistent factor in the weather of the north-central part of the country for the past 12 months.

Beginning with September, 1920, and for each month since that time, the average temperature has been above normal over the greater part of the area referred to above, and the amounts of these departures have been so great that the average excess for the entire period at some points is more than 5° per day, an accumulation of heat that has not been closely approached in a period of more than 50 years.