

SEVERE LOCAL STORMS, NOVEMBER, 1923.

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A more complete statement will appear in the annual report of the chief of bureau.]

Place.	Date.	Time.	Width of path (yards).	Loss of life.	Value of property destroyed.	Character of storm.	Remarks.	Authority.
Bayou Little Caillou, La. (16 miles south of Houma, La.).	28	9 p. m.	.....	5	.....	Tornado.....	Several dwellings destroyed and also a school building valued at \$25,000; considerable damage to crops; several persons injured.	Official, U. S. Weather Bureau.
New Orleans, La.....	28	10:15 p. m.	.....		\$20,000	Wind.....	1 residence demolished and several others damaged.	Do.
Latham, Ala. (1 mile north of).	29	8 a. m.	.....	1	12,000	Tornado.....	2 persons injured; several buildings demolished and many trees uprooted or twisted off.	Do.

STORMS AND WEATHER WARNINGS.

WASHINGTON FORECAST DISTRICT.

By EDWARD H. BOWIE, Supervising Forecaster.

The month of November gave no wind and weather conditions out of the ordinary for this month in the Washington Forecast District. The number of storms which crossed the eastern half of the country was not in excess of the normal, and few of these were other than disturbances of moderate intensity. There were no cold waves, which is exceptional, for scarcely a November passes without the necessity of displaying cold-wave warnings in some part of the district. Frosts were frequent, however, and occurred in all parts of the district except southern Florida. Perhaps the notable feature of the month was the number of well-developed areas of high barometric pressure which crossed the district, but as these were HIGHS that came eastward from the far West, many coming into the country from the Pacific Ocean, they were not attended by the pronounced and rapid falls in temperature associated with the HIGHS that come down from Canada.

Storm warnings were displayed during the month as follows: Small craft warnings on the 2d and 3d for the Mobile and Pensacola storm warning districts and on the 4th for the Atlantic coast at and between the Virginia Capes and Cape Hatteras, advisory warnings on the 6th for the Middle Atlantic and New England coasts followed by the display of storm warnings on the 7th at and between the Virginia Capes and Eastport, Me.; northeast storm warnings on the 12th at and between Delaware Breakwater and Cape Hatteras and these were continued on the 13th at and between the Virginia Capes and Cape Hatteras; northeast storm warnings were displayed on the 23d along the coast at and north of Delaware Breakwater and these were continued on the 24th at and north of Boston, Mass.; small-craft warnings on the 29th for the Mobile and Pensacola districts; and on the 30th, southeast storm warnings were displayed on the Atlantic coast at and north of Delaware Breakwater. Practically all of these warnings were verified, although in no instance did a storm of marked severity occur. Of the storms that did occur the one on the 6th and 7th, which came northeastward from the east Gulf coast as a moderate disturbance and then after reaching New Jersey increased greatly in intensity, and that of the 24th which developed over the Middle Atlantic States on the night of the 23d, were the most important. In both of these instances, the development of energetic disturbances in the troughs of low pressure between two HIGHS (one to the east or northeast and the other to the west or northwest of the places where these developments took place) were the preliminary pressure situations previ-

ously to the increase in intensity of these two disturbances. The display of warnings on the 12th was in connection with the rapid development and southward movement of an area of high barometric pressure from the New England States at a time when the barometric pressure was low off the Middle Atlantic and South Atlantic coast, a disturbance developing in this region of low air pressure on the 14th and moving east-northeastward, the pressure falling to 29.56 inches at Bermuda on the 15th. The display of warnings on the 30th was in connection with a disturbance which developed over the Gulf of Mexico, moved thence up the Mississippi Valley to the region of the Great Lakes and thence east-northeastward down the St. Lawrence Valley with diminished intensity. In addition to the advices sent to ports, all advices concerning the position, intensity, and the direction of movement of these storms, together with expected winds and weather, were broadcast to ships at sea through naval radio.

CHICAGO FORECAST DISTRICT.

In the Chicago Forecast District November, 1923, was virtually free from atmospheric disturbances of severity. While it was necessary to issue storm warnings for the Great Lakes on several occasions, and a few cold-wave warnings for the northern States of the district, yet in no instance did the ensuing conditions become intense.

Storm warnings.—Northwest storm warnings were issued on the morning of the 7th, for Lakes Huron, Erie, and Ontario, and small-craft warnings for northern Lake Michigan and extreme eastern Lake Superior. At that time a disturbance that had developed off the Middle Atlantic coast during the preceding 24 hours was central over Massachusetts. Within the same period a substantial increase in pressure had taken place over the northwestern upper Lake region with the result that a rather pronounced gradient existed from that section eastward to the storm center. The disturbance moved northeastward on the 7th with a still further development, and strong winds or moderate gales occurred over most of the area where warnings were displayed.

No further storm warnings were needed until the 19th, but in the meantime small-craft warnings were advised on the 10th for the lower Lakes, Lake Huron, and eastern Lake Michigan, on the 16th for Lake Huron, eastern Lake Michigan, and eastern and central Lake Superior, and on the 17th for the same districts as on the 16th, excepting southeastern Lake Michigan, for disturbances of moderate character that were expected to affect the sections in question. On the night of the 19th a disturbance from the Northwest was moving rapidly southeastward over Manitoba with increasing energy and a central pressure of 29.44 inches. Accord-