

SEVERE LOCAL HAIL AND WIND STORMS, DECEMBER, 1924

[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
Iowa, Nebraska, Kansas, southern Wisconsin, northern Illinois and lower Michigan.	3-5				\$2,000,000	Ice and sleet	Damage principally to light, power, telephone and telegraph lines. Traffic demoralized. Iowa and Nebraska sustain heaviest losses.	Telegraph Herald (Dubuque) Iowa. Wichita Beacon (Kans.). Official, U. S. Weather Bureau.
Bay Springs, Miss.	4	9 p. m.			10,000	Tornadoic wind	Character of damage not reported. Two persons seriously injured.	Do.
Trigg, Christian, and Todd Counties, Ky.	7				25,000	Wind	Extensive damage to farm buildings.	Do.
Beebeville, Ark.	7		150	3		Tornado	Several houses and barns destroyed; woodland laid waste for a distance of 1½ miles. One person injured.	Do.
Pine Bluff, Ark.	7				6,000	Electrical	Large barn burned, destroying about 2,000 tons of hay.	Do.
Eureka Springs, Ark. (9 miles west of).	7	Noon to 12.40 p. m.				Moderate hail	Slight damage.	Do.
Helena, Ark.	7	2.30 p. m.				Rain, wind and hail	Minor damage.	Do.
Morrilton, Ark.	7	3.20 p. m.				do.	Several thousand dollars damage reported.	Do.
Granmi, Ark.	7	3.30 p. m.				Heavy hail	Slight damage.	Do.
Hot Springs, Ark.	7	3.30 p. m.				Rain, wind and hail	Considerable damage.	Do.
Searcy, Ark.	7	4 p. m.			12,000	do.	Property damage considerable.	Do.
Danville, Ark.	7	4.30 p. m.				Heavy hail	Slight damage.	Do.
Stuttgart, Ark.	7					Wind and hail	do.	Do.
Benton, Ark.	7					Wind, rain, and hail	Fences, telephone and telegraph poles, and trees damaged.	Do.
Perry, Ark.	7					Hail	Minor damage reported.	Do.
Beebe, Ark.	7				2,500	Straight wind	Character of damage not reported.	Do.
Tennessee (northwestern counties of).	7			2	250,000	Strong winds	Heavy property damage including the destruction of tobacco barns and contents in Dickinson, Montgomery, and Stewart Counties. 15 persons injured.	Do.
Montana (north and west-central part of).	12	Midnight to 8 a. m.				High wind	Property damage can not be estimated. Windows broken, garages and other light structures demolished, poles blown down, and hay stacks blown away.	Do.
Grand Haven, Mich.	13					Gale	Local steamers kept in port. Minor damage about the city.	Do.
Lincoln and Flathead counties, Mont.	15					High wind and blizzard	500 forest trees blown down; long-distance wires out of commission; light and water systems crippled. Great suffering in many localities.	Do.
Middle and west-central States.	16-19					Ice and sleet	Extremely heavy damage, principally to overhead wire systems. Many branches broken; traffic demoralized; numerous accidents due to slippery streets and sidewalks. Damage estimated at more than \$5,000,000 in Illinois alone.	Do.
Oklahoma	17-18				500,000	Sleet and snow	Railway and street traffic badly crippled; much damage to overhead wire stems.	Do.
New York (central part of)	18					Ice	Amount of damage not reported.	Do.
Fort Smith, Ark.	18	2.48 p. m.				Thunderstorm	Steam turbine at power plant damaged by lightning, causing lights to be extinguished.	Do.
Fort Worth, Tex. (and vicinity).	19	A. m.				Sleet and snow	Traffic impeded; telegraph service crippled; several accidents due to condition of thoroughfares.	Do.
Corpus Christi, Tex., and surrounding counties.	19-21					Ice and sleet	Trees, flowers, and citrus fruit trees killed; wires broken; cattle suffer severely; many being killed by the intense cold.	Do.
Red Bluff, Calif.	20-21					Snow	Considerable damage to overhead wires; limbs of citrus and evergreen trees broken.	Do.
California (southern part of)	24					High winds	Citrus fruits injured. Small shipping harassed at San Pedro.	Official, U. S. Weather Bureau. Tribune (Pocatello, Idaho).
Brownsville, Tex.	25-26					Ice	No damage reported.	Official, U. S. Weather Bureau.
Grand Haven, Mich.	26					Wind, ice and heavy seas.	Car ferry No. 10 driven ashore. No other damage reported.	Do.
Boise, Idaho	29-30					Ice	Limbs and wires broken by weight of ice; sidewalks and streets dangerous.	Do.

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STORMS AND WEATHER WARNINGS

WASHINGTON FORECAST DISTRICT

Storm warnings.—Storm warnings were issued during the month in connection with seven storms and were almost entirely for the region from Cape Hatteras northward. Warnings were displayed at all stations from Delaware Breakwater to Eastport, Me., for six of the seven storms, the only exception being that of the 20th-21st, when warnings were ordered for the coast south of Cape Hatteras as far as Jacksonville, Fla. The only warnings issued for the east Gulf coast were those of the 20th, for the Mississippi, Alabama, and northwest Florida coasts.

There were really no severe storms along the Atlantic seaboard during December, although the barometer fell to 29.16 inches at Boston and 28.98 inches at Montreal on the 13th. The maximum wind velocity reported during this storm was 60 miles an hour from the northwest at New York City. This velocity is quite moderate

for a depression of such intensity. A much higher wind would undoubtedly have occurred if there had been an area of high pressure of considerable strength either in front of or behind this storm. This not being the case, the pressure gradient resulting from the disturbance itself was insufficient to cause winds of greater velocity.

In addition to the storm warnings there were four dates during the month on which small craft warnings were issued for a part of the Atlantic or the east Gulf coast.

Cold-wave warnings.—There were two widespread cold waves in the Washington forecast district during the latter half of the month. The first reached the lower Ohio and lower Mississippi Valleys on the 19th and the Atlantic coast on the 20th; and the second overspread the lower Lake region, the Ohio Valley, western Tennessee, the interior of the east Gulf States, and the North Atlantic States during the 27th-28th. The change to colder weather did not reach the proportions of a cold wave in the Atlantic States south of eastern Pennsylvania. Cold-wave warnings were issued in advance of