

## Storm Data and Unusual Weather Phenomena - January 2021

| Location | Date/Time | Deaths & Injuries | Property & Crop Dmg | Event Type and Details |
|----------|-----------|-------------------|---------------------|------------------------|
|----------|-----------|-------------------|---------------------|------------------------|

### ALABAMA, Central

(AL-Z011) MARION, (AL-Z012) LAMAR, (AL-Z013) FAYETTE, (AL-Z014) WINSTON, (AL-Z015) WALKER, (AL-Z022) PICKENS

|                    |   |            |
|--------------------|---|------------|
| 01/11/21 04:00 CST | 0 | Heavy Snow |
| 01/11/21 11:00 CST | 0 |            |

A cold front arrived several days ahead of the snow event and along widespread cloud cover, aided in keeping daytime temperatures cold in the days leading up to the event. A weak surface low developed along the Texas Gulf Coast on January 10th and began to produce widespread rain and snow from Central Texas through Louisiana. As the area of low pressure tracked northeast, widespread precipitation, consisting of rain and snow, moved across Central Alabama on January 11th. Due to the track of the surface low, an influx of warmer air moved in from the south and established itself over a majority of Central Alabama, leaving just the northwestern part of Alabama within an axis of deeper and colder (sub-freezing) air. Reported snow totals were generally in the 1 to 2 inch range, with isolated amounts of up to 3 inches. Most of snow accumulated on grassy and raised surfaces, with minimal impacts to travel.

JEFFERSON COUNTY --- 1.1 W PALOS [33.65, -87.07]

|                    |   |                |
|--------------------|---|----------------|
| 01/25/21 22:15 CST | 0 | Hail (0.88 in) |
| 01/25/21 22:16 CST | 0 | Source: Public |

Dime to nickel size hail reported near the Miller Steam Plant.

JEFFERSON COUNTY --- 0.4 SE WALKER CHAPEL [33.60, -86.83], 1.2 WNW CHALKVILLE [33.66, -86.67]

|                    |    |   |  |
|--------------------|----|---|--|
| 01/25/21 22:40 CST | 1  | 0 | Tornado (EF3, L: 10.40 mi , W: 900 yd) |
| 01/25/21 22:55 CST | 30 | 0 | Source: NWS Storm Survey               |

National Weather Service meteorologists surveyed damage in northern Jefferson County and determined that it was consistent with an EF3 tornado, with maximum winds near 150 mph. The tornado began along Chapel Hills Parkway, where minor shingle damage occurred. The tornado tracked northeastward across Ellard Road and directly over the Walker Chapel Road overpass on Interstate 65. It was at this interstate exit where the tornado began to intensify rapidly, snapping numerous power poles and causing substantial damage to a hotel. The tornado continued northeastward, crossing Highway 31, causing mostly tree damage along the highway. As the tornado moved into residential areas along Fulton Drive and Lykes Boulevard, substantial damage occurred with several homes being destroyed with at least one being swept off the foundation. There was also significant tree damage in the neighborhood. Several homes along Georgetown Lane suffered significant damage as wind breached garage doors, aiding in complete roof loss in some cases. Other damage included destroyed fences, sheds, and lofting of a hot tub. Numerous trees were uprooted or snapped.

As the tornado continued toward the northeast, it paralleled Carson Road and caused substantial damage to homes along Meida Circle, Darlene Drive, and New Castle Road. Buildings in an industrial area along Carson Road were damaged, including a fleet of vehicles at Hurst Towing. The damage along New Castle Road was widespread with a few trees debarked or snapped half way down the trunk, and debris from homes thrown considerable distances. The tornado began to weaken somewhat after crossing North Pine Hill Road, but still caused minor damage to the Fultondale High School and a wooded area to the east. As it continued eastward crossing Indian Valley Road, several trees were uprooted and a few homes received minor damage. Along Highway 79, dozens of mobile homes were damaged by falling trees in the Rusk Mobile Home Park. The tornado then crossed Highway 75 in Center Point, where trees and power lines were downed near the Jefferson County Multi-Services Facility. The tornado began to weaken further at this point, but still produced a narrow discernable track of EF0 damage just east of Center Point Lake, where trees were uprooted and minor roof and structural damage occurred. Nearing the end of its life cycle, the tornado turned northward before dissipating near Country View Court in the Arrowhead subdivision of Center Point.

Direct Fatalities: M14PH

A unusually warm and humid airmass was present across Central Alabama the night of January 25th due to persistent and deep south to southwest low level flow. Surface dew points were in the low to mid 60s and surface-based instability reached 1000-1200 J/kg. Strong shear over a deep layer was also in place and combined with the instability, favored a risk for severe storms.

The storm that produced the tornado over Jefferson County developed over Central Mississippi. As the storm moved across Mississippi and into West Alabama, it exhibited episodes of mid level rotation, but not strong enough to produce a tornado. As the storm entered Jefferson County, its structure underwent organization. A rotational signature quickly matured, with an associated BWER signature on KBMX radar. A strong tornado formed just north of the city of Birmingham.

### ALABAMA, North

(AL-Z001) LAUDERDALE, (AL-Z002) COLBERT, (AL-Z003) FRANKLIN, (AL-Z004) LAWRENCE, (AL-Z005) LIMESTONE, (AL-Z006) MADISON, (AL-Z007) MORGAN

|                    |   |                |
|--------------------|---|----------------|
| 01/11/21 05:00 CST | 0 | Winter Weather |
| 01/11/21 17:00 CST | 0 |                |

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A storm system produced areas of light snow during the early morning through midday hours before tapering to flurries. The snow mixed with or changed to rain in northeast Alabama. Snow accumulations of 0.5 to 1.0 inches occurred in northwest through north central Alabama, mainly along and west of the I-65 corridor. A few spots received 1.5 to 2.0 inches in Franklin, Lawrence, Colbert and Lauderdale Counties. Fortunately, since air temperatures remained at or just above freezing, most of the snow accumulation was on grassy or elevated surfaces. A few slick spots developed on bridges and overpasses early in the event before temperatures warmed a few degrees above freezing.