## May 29th, 2025 Severe Weather: Welch to Big Spring Supercell

On May 29, 2025, a prolific supercell thunderstorm produced significant severe weather and damage along its path. Initially, multiple thunderstorms developed during the afternoon hours along a stalled cold front to the southwest of Lubbock, near the town of Brownfield, TX. Rapidly, these thunderstorms began to merge and intensify. Very large hail in excess of three inches in diameter was reported near the town of Brownfield. This thunderstorm then began to turn towards the southeast, roughly paralleling Texas State Highway 137 as it approached Dawson County, TX.



Severe thunderstorm seen from Ackerly, TX, looking northwest.

Photo Courtesy of Gage Gibson.

Upon entering Dawson County in the far northern part of the Permian Basin, continued severe weather was apparent. Numerous storm chasers raced to stay ahead of this dangerous thunderstorm as it followed the highway. The community of Welch was the first area impacted. The West Texas Mesonet site in the area measured a maximum wind speed of 77 MPH. The damage survey would later find that continued damaging winds would cause sporadic damage to mainly outbuildings, irrigation pivots, and power infrastructure in this primarily rural area. As the thunderstorm began to approach the town of Lamesa, numerous storm chasers reported significant blowing dust under the thunderstorm. This obscured visibility and made it difficult to discern features under this thunderstorm. It was determined during the damage survey and with photo and video evidence from storm chasers that a brief and dusty tornado occurred near the Highway. This brief tornado would impact a home in the area, causing damage to the roof and nearby trees, resulting in an EF-1 rating with maximum winds up to 100 MPH. A report of large hail over two inches in diameter was also received during this time.



Dusty tornado northwest of Lamesa, TX. Photo courtesy of Nick Stewart.

Damage photos below, courtesy of Julia Stokes.





This thunderstorm would continue southeast, impacting the city of Lamesa. Damage was reported across the city. This included damage to trees, roofs, fences, and power infrastructure in the city. This damage resulted in widespread power outages for several hours in some locations. An additional maximum wind speed of 77 MPH was measured at the West Texas Mesonet site on the south side of the city. The thunderstorm would continue to move southeast, now paralleling US Highway 87. The damage survey confirmed another brief tornado, as irrigation pivots were significantly damaged near the community of Sparenburg. This second tornado was also rated EF-1 with a maximum wind speed of 90 MPH.



The thunderstorm would continue from Dawson County into Howard County as it followed US Highway 87. The community of Knott was next to be impacted. Damaging winds were reported to have caused tree damage and broken several power poles along FM 846 near the community. The thunderstorm would then continue towards the city of Big Spring. While no wind damage was reported in the town, large hail of 2 to 3 inches in diameter was measured by several storm chasers around the city. Additionally, significant flash flooding led to a few water rescues, as vehicles became stuck in high water.



Large hail in/near Big Spring, TX. Photos courtesy of Roger Edwards (left) and Skyler Treadway (right).



The thunderstorm would continue to move southeast, gradually weakening and merging with a growing line of thunderstorms. Sporadic severe weather would continue to be reported as this area of thunderstorms moved through Sterling County, impacting Sterling City, and eventually into Tom Green County, affecting San Angelo.

Overall, this single thunderstorm would travel approximately 100 miles over several hours. Severe weather was reported during a large portion of this duration. In some instances, destructive hail and wind were produced, alongside the two brief tornadoes previously mentioned. One to two inches of rainfall was estimated to have fallen along the path of this thunderstorm. The impact of this one thunderstorm was significant as it roughly followed major highways across multiple counties, impacting several communities.



A considerable amount of blowing dust occurred with this storm, lowing visibility to zero at times. Photo courtesy of James Roderick.

Thank you to Levi Roberts, Lamesa Fire Marshal, for his help in conducting this storm damage survey across Dawson County.