

June 2nd 2023 Widespread Severe Weather

On June 2nd, 2023 a potent weather system brought numerous severe thunderstorms to a large portion of the region. This was one of the most active severe weather days of the 2023 severe weather season with hail up to 3" in diameter, wind damage due to severe wind gusts up to 118 mph, and several EF-Unknown tornadoes with one EF-1 tornado.

Eastern Lea County to Permian Basin Severe Thunderstorms

A few thunderstorms developed in far eastern Lea County, rapidly intensifying as they moved east into far western portions of the Permian Basin. One of these thunderstorms developed a funnel cloud that was reported by spotters east of Nadine, very near the Texas/New Mexico state line. Video evidence from storm chasers indicated that a brief tornado formed over rural portions of western Gaines County. No damage was reported and the tornado was rated EF-Unknown. As the tornado dissipated, strong rear-flank downdraft winds caused damage in the area. A shed was tipped over and leaning against a home along County Road 337, a power pole was snapped along County Road 335, and an irrigation pivot was overturned in a field along County Road 331. This damage was caused by winds estimated to be between 60 to 83 mph.

Other thunderstorms developed in the immediate area, producing 62 mph and 58 mph wind gusts at the Seminole and Andrews Mesonets respectively as the line moved east. A supercell thunderstorm produced large hail up to 2" in diameter southwest of Andrews and ping-pong size hail in Gardendale. This thunderstorm continued to produce large hail as it entered Midland city limits on the northwest side of town. Hail was observed across the city and in the community of Greenwood. A localized dust storm was reported along a portion of this line, briefly reducing visibility to near zero in locations and a 60 mph wind gust was reported at the Snyder Mesonet before this area of thunderstorms exited our area to the east.

Pecos and Terrell County Large Hail and Tornadoes

During the same period as the Permian Basin thunderstorms, a separate area of thunderstorms developed over the Davis Mountains and along the Stockton Plateau. One thunderstorm quickly intensified into a supercell north of I-10 near Fort Stockton, moving southeast. Downed power poles and golf ball-size hail were reported along State Highway 18 north of Fort Stockton. Video and photo evidence by spotters showed a brief, partially rain-wrapped tornado northeast of Fort Stockton. This tornado tracked over mostly open terrain and did not cause any reported damage therefore the tornado was rated EF-Unknown. The thunderstorm would quickly cycle as it neared I-10, and a flood of reports of a tornado forming south of I-10 near the US Highway 67 interchange came in shortly after. This tornado lasted several minutes as it tracked southeast. A survey team found damage along the tornadoes path that included snapped and uprooted trees and a PVC water pipe moved several feet. This tornado was estimated to have winds of 104 mph, earning the tornado a rating of EF-1 with a peak width of 860 yards. The tornado would dissipate as it approached a mesa south of the interstate. This thunderstorm would go on to produce intense rear-flank downdraft winds as it crossed FM 2023. These winds snapped several power poles along the road with winds estimated to be 118 mph. Numerous supercells would continue to track southeastward into rural portions of eastern Pecos and northern Terrell County where 3" hail was reported. One tornado was observed in its dissipating stage as it neared FM 2886. This tornado did not produce any observed damage and was rated EF-Unknown.

A separate supercell quickly organized along US Highway 90 east of Sanderson, producing hail up to 2.25" in diameter. This supercell would continue tracking southeast to the south of US Highway 90. Numerous chasers and spotters were positioned along the highway as this supercell formed a cone tornado. This tornado quickly grew in size and become partially rain-wrapped. The tornado would continue to be recorded on video and photographed for at least 45 minutes as it moved over this remote region before likely crossing the US/Mexico border, continuing into northern portions of Mexico. No damage was reported or observed and the tornado was rated as EF-Unknown. In total at least 4 tornadoes were reported across portions of Pecos and Terrell Counties with these thunderstorms. It is possible other tornadoes did occur but the complex terrain and remote nature of this area made it impossible for spotters and the survey team to access certain areas.



Plotted is the expected track of the EF-Unknown northeast of Fort Stockton, TX based on spotter reports as well as radar analysis. Also shown is the tornado that occurred near I-10, showing width, length, and EF rating. Included is a zoomed in scale of the tornado to showcase better details.



Tornado in progress south of I-10 near Fort Stockton with lightning strike in the foreground. Photo courtesy of Sam Dienst.



Two additional EF-Unknown tornadoes in Terrell County, TX. Torando track was estimated based on radar and reports from spotters.

Special thanks to Pecos County EMC, Jessie Dominguez, for assisting with this damage survey.



Photo of a large stovepipe tornado south of US Highway 90 near Dryden. Photo Courtesy of Charles Peek.



Photo of 3" diameter hailstone southwest of Sheffield. Photo courtesy of Chad Casey.



Photo of large cone tornado and parent supercell thunderstorm over rural portions of Terrell County near the US/Mexico Border. Photo courtesy of Mike Olbinski.

Thanks to all the spotters, chasers, and local emergency personnel for sending in your reports and photos. This greatly aides in warning operations and post-storm surveys.