

May 24th, 2022 Severe Weather Events



Left: Softball sized hail reported on the Northwest side of Midland near Greentree. Credit: Stacey Wallace. **Right:** Snapped power pole near Garden City, TX from a tornado in Glasscock county. Credit: National Weather Service Midland

Tuesday, May 24th was an impactful day for parts of Southeast New Mexico and West Texas as a plethora of severe thunderstorms impacted many areas during the afternoon and evening hours. A cluster of thunderstorms developed mid-afternoon across the Caprock and high plains of eastern New Mexico, strengthening due to a favorable environment in place across the area. Strong winds and hail were the predominant impacts from the initial thunderstorm development with the first severe hail report located in Nadine, NM located to the south of the town of Hobbs. Quarter to golf ball sized hail was a regular occurrence at the peak of the intensity from the storms located across Southeast New Mexico, but we began to see a more organized area of storms forming across the state line into Texas.

Around 315 PM CDT, a strong thunderstorm was developing across portions of Andrews and Gaines county in West Texas with radar signatures indicating severe wind and hail potential to the west and southwest of the towns of Seminole and Andrews. By 345 PM CDT, a noticeable increase in storm severity became apparent with a better-defined storm structure and accompanying reports of golf ball to near two-inch hail across the northern portions of Andrews county up near Frankel City to the Gaines county line. The storm in question began to shift from easterly movement to the southeast which is a classic indication of a strengthening storm. This would be the precursor of what would impact areas to the southeast such as Midland, Greenwood, and down through Glasscock county.

Thunderstorms would continue to intensify as they moved southeast towards the Midland/Ector county line with severe winds and large hail continuing to be the main threats as the population centers became in-line with the storm motion. The first hail reports came in around 515 PM CDT with quarter to half dollar sized hail north of Loop 250 and TX 191. Not much long after, reports of hail between two and three inches became increasingly more prominent across the northern side of Midland with strong winds near severe levels being indicated at both Midland International and Midland Airpark as the storm moved overhead.

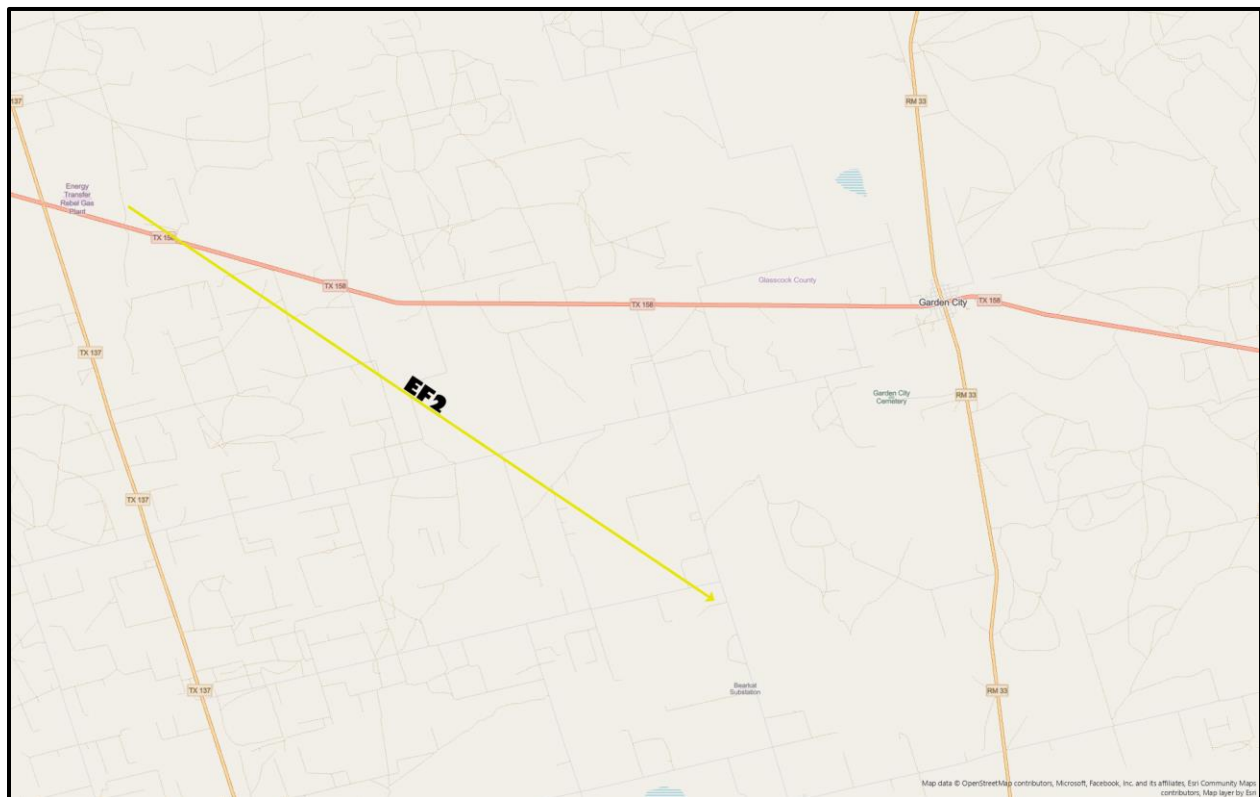


Left: Large hail between golf ball and tea cup size in Midland. Credit: Larry Lee Fuentes. **Right:** A large hailstone in North Midland. Credit: Franny Zollinger

The severe thunderstorm would continue to drop large hail across the northeastern side of Midland as it moved to the southeast into the eastern half of Midland county, eventually turning into adjacent Glasscock county. A noticeable radar signature of rotation became apparent as it moved out of the city of Midland towards the Northwest areas of Glasscock county. Multiple reports of large hail the size of tennis balls and baseballs ended up impacting the Garden City area and surrounding locales after 6 PM CDT with the sheriff's office reporting a possible tornado to the west of town between Hwy's 158 and 137. Significant power pole, tree, siding and roof damage were reported across Garden City giving an indication of how strong and widespread the impacts were felt from the storm as it moved through the region. After a survey of the damage, the National Weather Service in

Midland confirmed two separate areas of damage. The first area was within the confines of Garden City where extensive damage was found across the town and surrounding locales. Wind damage was found to be around the threshold of 85 mph where large cottonwood trees and branches were broken within the vicinity of the town proper. Trees that were uprooted were also found to lie in a similar direction, which coincides with a straight-line wind damage pattern.

The second area of damage was confirmed to be from a tornado as picture and video evidence also aided in the decision. The rating of the tornado was found to be an EF-2 with wind estimates around 120 mph and a path length of 11 miles. The tornado likely cycled a few times during its lifespan as the video evidence shows a pattern of touching ground and lifting within the time frame of interest. There were no injuries or fatalities associated with the tornado and repairs to the power structures were already underway after the area southwest of Garden City was impacted.



Path of the tornado confirmed by the National Weather Service in Midland. The tornado started just of the north of Hwy 158 (10 miles west of Garden City) and continued 11 miles to the southeast. The tornado finally dissipated after 16 minutes.

Despite the worst thunderstorm impacts vacating the area after 645 PM CDT, a continuation of strong winds was being felt for all of Southeast New Mexico and the Permian Basin thanks to a powerful spring cold front that moved in quickly from the north. The pressure gradient behind the front was stout with sustained winds and gusts over 45-50 mph became widespread over the aforementioned area. Some reports of over 60 mph were confirmed via local observation stations across the region, along with the presence of a wall of dust and dirt that came in from the north. The high winds behind the cold front continued to surge south, advancing through the southern half of the Permian Basin and eventually the Stockton Plateau as areas behind the cold front remained very windy through the first portion of the evening. Just due to the strong winds behind the front, some damage occurred over the towns of Hobbs, Pecos, and Fort Stockton with reports of uprooted trees and roof damage. Visibility areawide fell below two miles thanks to the wall of dust and dirt that moved over the region, rounding out quite an eventful period of impactful weather for much of the forecast area. The total number of reports from wind, hail, and tornadoes stretched 145 miles from north to south, leading to likely one of the most impactful events likely for the year.



Severe thunderstorm over Southeast Reagan county with dust storm produced underneath. Credit: Mark Skaggs