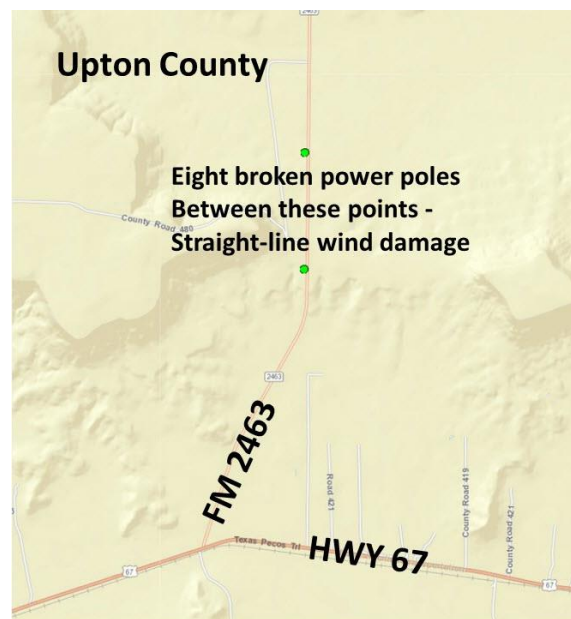


March 28, 2017 Severe Weather Event

During the afternoon and evening hours of Tuesday, March 28, severe thunderstorms developed over a large portion of the Texas Permian Basin. On Wednesday, March 29, two teams from the National Weather Service in Midland surveyed the damage from these storms. The following are the results.

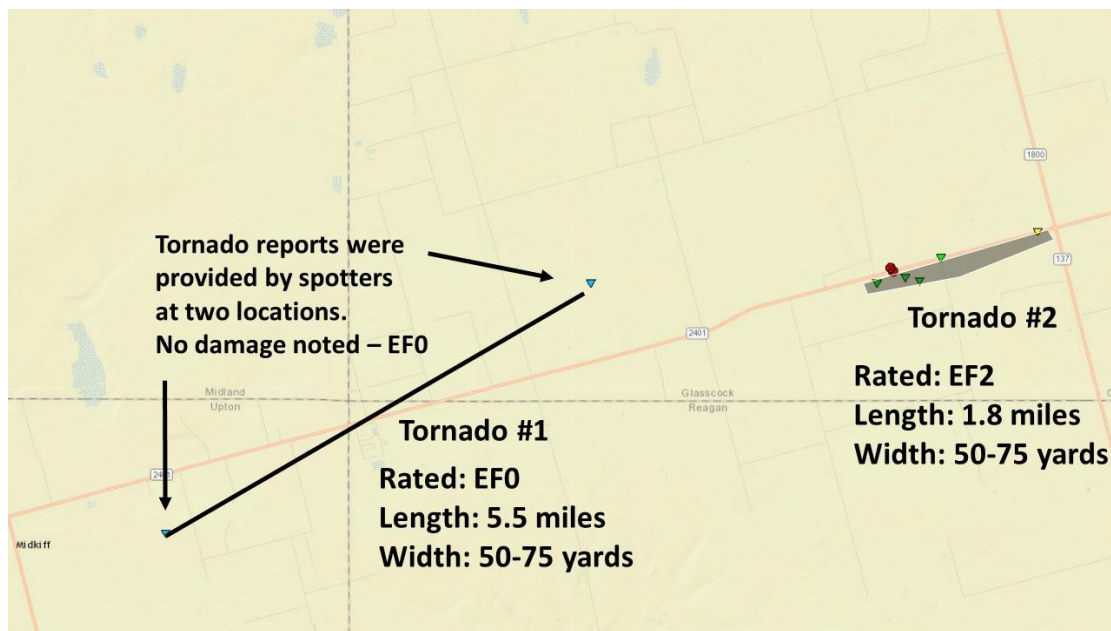
Upton County – King Mountain Road (7:04 pm CDT) – Straight-line winds

Along King Mountain Road (Farm to Market Road 2463), located just northeast of the community of McCamey, 8 power poles were snapped along an eight-tenths of a mile stretch of roadway. Radar data from around 704 pm CDT suggests that while there was a circulation associated with the severe thunderstorm in question, there was also an inflow of stronger winds on the back-side of the thunderstorm that resulted in the damage. Based on power pole damage, such as shown below, winds were estimated at around 80-100 mph at this location.



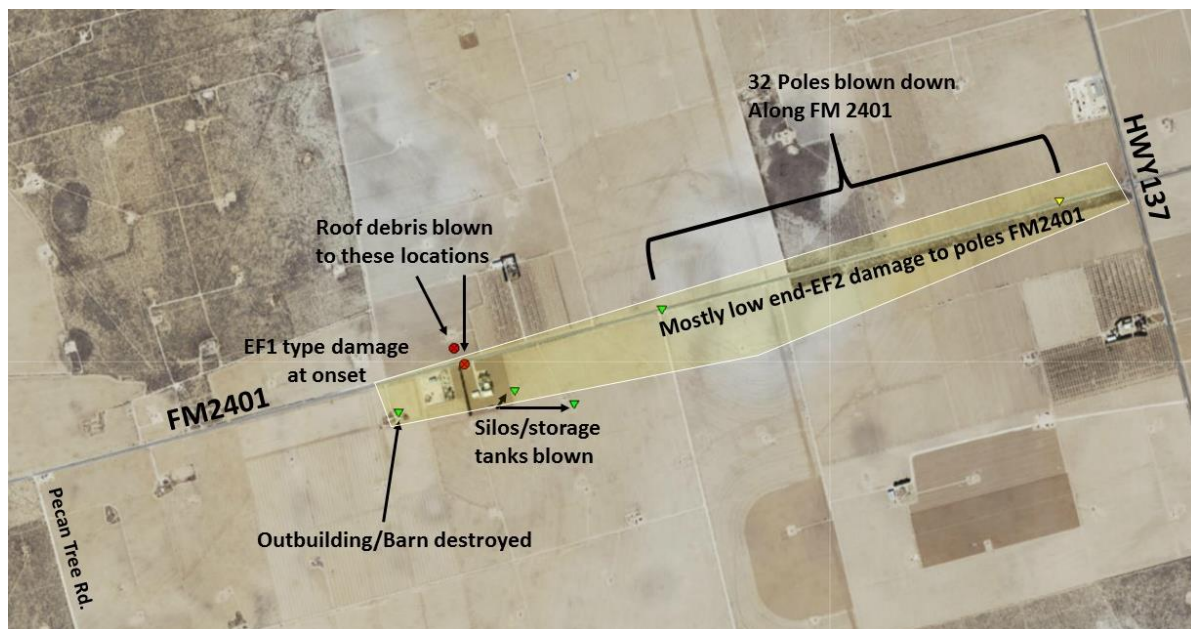
Tornado #1 – EF0 NE Upton County to SW Glasscock County (7:21-7:25 pm CDT)

Trained spotters viewed and took images of a tornado that developed 2 miles east of the community of Midkiff along Farm to Market Road 2401 and continued northeastward into open fields in extreme southwest portions of Glasscock County. The tornado was narrow, perhaps 50-75 yards in width. No damage was found with this tornado, which travelled along a path for approximately 5 ½ miles.



Tornado #2 – EF2 SW Glasscock County along FM 2401 (7:28-7:34 pm CDT)

The track of Tornado #2 can be seen in the image above, with a more detailed image seen below. Shortly after Tornado #1 dissipated, another Tornado #2 formed just slightly to the east of Tornado #1 along Farm to Market Road 2401. The team deliberated regarding several different scenarios that could have produced the damage seen along the 1.8 mile path. However, the mostly scenario is that a relatively narrow tornado (50-75 yards wide) moved almost parallel and just south of FM 2401 during a 1.8 mile stretch, before finally weakening somewhere near Highway 137.



A small barn or outbuilding was destroyed by the tornado at approximately 7:28 pm. In the image below, one wall of the structure remains. This type of damage is indicative of EF1 damage with winds of approximately 100-110 mph. Pieces of the metal roof were blown northeastward across FM 2401 into an open field.



Similar winds speeds likely resulted in two silos/storage tanks being displaced from their original locations.



The most significant damage seen by the survey team was a stretch of 32 power poles that were snapped off with a few feet of the ground which is indicative of low-end EF2 damage. Wind speeds necessary to produce this type of damage are estimated at around 120 mph.

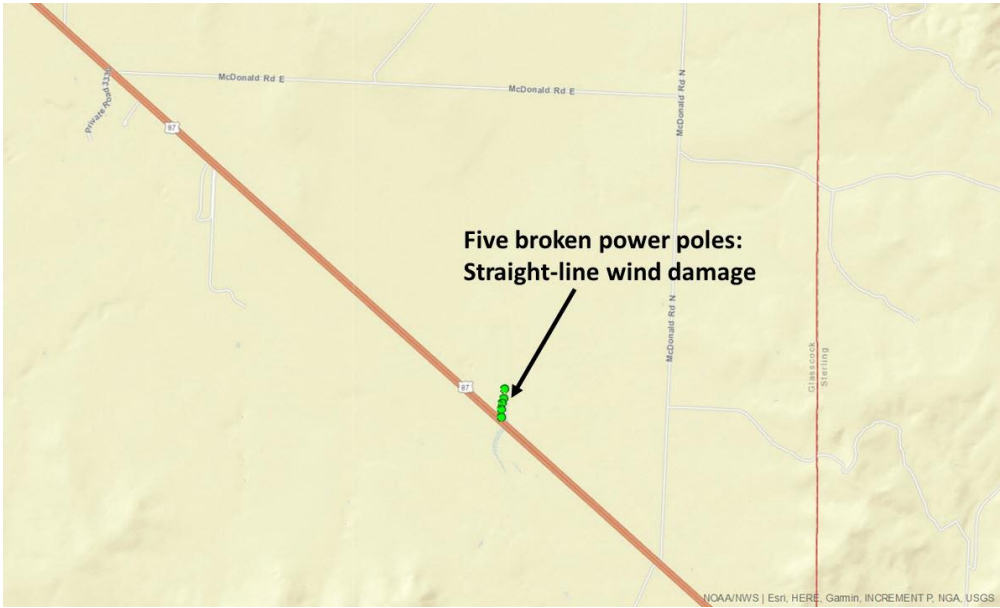
Northwest of Garden City – Farm to Market Road 415 – Straight line winds (7:58 pm CDT)

In dynamic wind situations like this, it is very common to see widespread power pole damage. Many locations across the Permian Basin experienced wind speeds between 60-80 mph, with higher gusts, on Tuesday evening. The image below shows damage that was likely seen in several locations across the area. This particular example is from just northwest of the community of Garden City along Farm to Market Road 415.



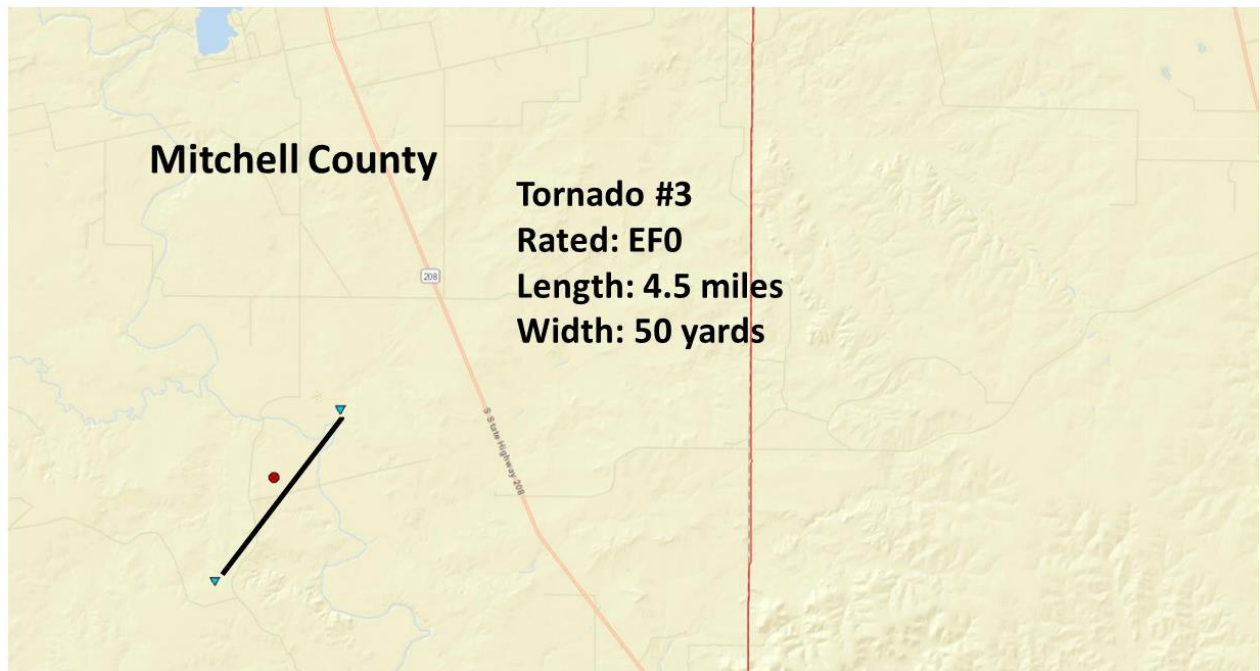
Northeast Glasscock County south of Forsan – Highway 87 - Straight line winds. (8:07 pm CDT)

Along Highway 87 in northeast portions of Glasscock County, straight-line wind damage was noted. Inspection of radar data also confirmed this. The team counted five power poles down at this location, although others may have been worked on at this location. The pole damage was of varying degrees with wind speeds estimated in the 80-100 mph range.



Tornado #3 – EF0 Southeast Mitchell County – approximately 20 miles southeast of Colorado City. (8:50-8:56 pm CDT)

While a damage survey team could not locate any damage, trained spotters did provide reliable reports of the existence of a low-end tornado located just west of Highway 208. Based on radar data, the image below gives a best guess of the life cycle for that tornado.



In addition to the tornadoes and straight line winds across the region, there were several sightings of gustnadoes across Odessa and Midland as the storms moved through. The gustnadoes were very photogenic due to the amount of dust they generated. These typically form within an outflow along the leading edge of a line of thunderstorms, as was the case on March 28th. Gustnadoes are short lived and typically do not cause serious damage.

Photo by Megan Rico

